ALL INDIA INSTITUTE OF MEDICAL SCIENCES

DIAMOND JUBILEE CELEBRATIONS (e-NEWSLETTER)

शिक्षा EDUCATION

अनुसंधान RESEARCH

हीरक जयंती 1956-2016 DIAMOND JUBILEE

स्वास्थ्य सेवा PATIENT CARE

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शरीरमाद्यं खलु धर्मसाधनम्

The slogan taken from **"Kumar Sambhahv"** (5.33) written by **Great Poet Kalidas**, is one marvels at the depth of expression contained only in five words.

Śarīram ādyaṃ khalu dharm sādhanam

1.The first word **Shareerm** (शरीरम्) the body is not the physical structure but a body mind complex - combining thought, speech and action (विचार वचन कर्म).

2.The second word **Adyam** (आद्यम्) means first, foremost

3.The third word **Khalu** (खलु) means here is "only"

4.The fourth words **Dharm** (धर्म) Religion is a poor and clumsy translation of the word Dharma. Dharma is doing one's assigned functions.

5.The fifth word **Sadhanam**, (साधनम्) means instrument.

Śarīram ādyaṃ khalu dharma sādhanam means

'reader-friendly' features

"This body is only the foremost instrument of doing (good) deeds"

Body is an instrument, a tool of what *Sanatan Dharm* calls as पुरुषार्थ चतुस्टय (धर्म, अर्थ, काम, मोक्ष). We achieve these objectives with the help of body; healthy strong and active.

- Understanding and discharging ones assigned duties (धर्म).
- Earning money by honest means (अर्थ)
- Satisfying sensual pleasures only for procreation (काम) unopposed to dharma; what the *Gita* calls as: धर्म अविरुद्ध भूतेषु कामोस्मि
- Seeking *Moksha* (मोक्ष), which has two meanings. One meaning is getting established in *Brahma* (ब्रह्म). The second meaning is overcoming and eradicating negative behaviours, like greed, fear, envy, lust, pride etc.

We must feel proud that in 5 words a sea of knowledge has been put on the palm of hand.

- This body is a means, a tool, an instrument to achieve power and position.
- This body is an instrument for achieving prosperity and progress.
- This body is a means to achieve outer affluence and inner power.
- This body is a means to develop outer and inner resources.

This motto must make us proud of our ancient wisdom and will make all workers of AIIMS to serve the diseased and the needy with a smiling face.

शरीरमाद्यं खलु धर्मसाधनम्

महान कवि कालिदास द्वारा रचित **कुमारसंभव** ग्रंथ के श्लोक (5.33) के पांच शब्दों का यह विशिष्ट वाक्य, अभिव्यक्ति की गहराई का परिचय कराता है और जीवन के सत्य को दर्शाता है।

1. प्रथम शब्द **"शरीरम"** केवल भौतिक संरचना ही नहीं अपितु मस्तिष्क और शरीर के विचार, वचन और कर्म का संयुक्त रूप है।
2. दूसरा शब्द **"आद्यम्"** अर्थात् आदि यानी सबसे पहले
3. तीसरा शब्द **"खलु"** अर्थात् ही, केवल
4. चौथा शब्द **"धर्म"** हैं, यहां धर्म का अर्थ हिन्दू, मुसलमान, ईसाई आदि नहीं है अपितु धर्म अच्छे कर्मों की तय सूची है
5. पाँचवा शब्द "**साधनम्"** अर्थात् यंत्र

शरीरमाद्यं खलु धर्मसाधनम् का अर्थ हुआ **"शारीर ही सबसे पहले धर्म (अच्छे कर्मो) को साधने का साधन है"**

शरीर को सनातन धर्म में एक यंत्र कहा गया है। **पुरूषार्थ चतुस्टय, धर्म, अर्थ, काम, मोक्ष** जिन्हें हमने एक मजबूत, स्वस्थ और सक्रिय शरीर की सहायता से ही प्राप्त किया है।

- **धर्म** द्वारा निर्धारित किये गये कर्मों को समझना और उनका निष्पादन करना।
- **अर्थ**, धन को निष्कपट माध्यम से प्राप्त करना।
- **काम**, भागवत गीता में कहा गया है – **"धर्म अविरूदोध भूतेषु कामौस्मि"** अर्थात् काम इच्छा की पूर्ति धर्म के अनुसार संतानोत्पति के लिए ही होनी चाहिए, अन्य कार्यों के लिए नहीं।
- **मोक्ष** के दो अर्थ हैं - एक ब्रह्म में लीन हो जाना तथा दूसरा नकारात्मक व्यवहार जैसे लालच, डर, दुश्मनी, लालसा, घमंड आदि पर काबू रखना या उसे पूरी तरह खत्म करना।

इन 5 शब्दों की संरचना, जिसमें ज्ञान का समुद्र हमारी हथेली पर रख दिया गया है, पर हमें गर्व होना चाहिए।

- हमारा शरीर एक माध्यम है समाज में शक्ति और स्थान पाने का।
- हमारा शरीर माध्यम है सम्पन्नता और सफलता पाने का।
- हमारा शरीर एक माध्यम है समृद्धि और आतंरिक शक्ति पाने का।
- हमारा शरीर एक माध्यम है बाहरी और आतंरिक संसाधनों के विकास का।

हमारे प्राचीन ज्ञान का यह सिद्धांत हमें गर्वान्वित करता है और एम्स के सभी कर्मचारियों को सद्भावना एवं मुस्कान के साथ मरीजों और जरूरतमदों की सेवा के लिए प्रेरित करता है।

शरीरमाद्यं खलु धर्मसाधनम्

मंगलाचरण

रागादिरोगान् सततानुषक्तान्
अशेषकायप्रभृतान अशेषान्
औत्सुक्यमोहारतिदाञ्जघान
योपूर्ववैधाय नमोस्तु तस्मै

(वाग्भट, सूत्रस्थान)

न कामयेहम गतिमीश्वरात् पराम्
अष्टध्दियुक्ताम् अपुनर्भवम् वा
आर्तीम् प्रपधेखिलदेहभाजाम्
अन्त स्थितो येन भवन्त्यदू खा

(भागवत् नवमस्कन्ध)

शरीरमाधम् खलु धर्मसाधनम्

(कालिदासकृत कुमारसम्भवम्)

THE ALL INDIA INSTITUTE OF MEDICAL SCIENCES ACT, 1956 NO. 25 OF 1956, 2nd June 1956

An Act to provide for the establishment of an All India Institute of Medical Sciences.

Be it enacted by parliament in the Seventh Year of the Republic of India, as follows:

1. Short title & commencement

a) This Act may be called the All India Institute of Medical Sciences Act, 1956

b) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

2. Definitions

In this Act, unless the context otherwise requires-

a) ' Funds' means the fund of the Institute referred to in section 16;

b) ' Governing Body' means the Governing Body of the institute;

c) ' Institute ' means the All India Institute of Medical Sciences establishment under Section 3;

d) ' Member' means a member of the Institute;

e) ' Regulation' means a regulation made by the Institute;

f) ' Rule' means a rule made by the Central Government.

3. Establishment and incorporated of the Institute.

a) With effect from such date as the Central Government may, by notification in the Official Gazette, appoint in this behalf, there shall be established for the purposes of this Act an institution to be called the All India Institute of Medical Sciences.

b) The Institute shall be a body corporate by the name aforesaid having perpetual succession and a common seal, with power to acquire, hold and dispose of property, both movable and immovable, and to contract, and shall by the said name sue and be sued.

4. Composition of the Institute

a) The Institute shall consist of the following members, namely: -

b) The Vice-Chancellor of the Delhi University, ex-officio;

c) The Director -General of Health Services, Government of India, ex-officio;

d) The Director of the Institute, ex-officio;

e) Two representatives of the Central Government to be nominated by the government, one from the Ministry of Finance and one from the Ministry of education;

f) Five persons of whom one shall be non-medical scientist, representing the Indian Science Congress Association, to be nominated by the Central Government.

g) Four representatives of the medical faculties of Indian Universities to be nominated by the Central Government in the manner prescribed by rules; and

h) Three members of Parliament of whom two shall be elected from among themselves by the members of the House of the People and one from among themselves by the members of the Council of States.

5. Declaration of the Institute as an Institution of National Importance

It is hereby declared that the institute shall be an institution of national importance.

6. Term of office of, and vacancies among members

a) Save as otherwise provided in the section, the term of office of a member shall be five years from the date of his nomination or elections;

b) Provided that the term of office of a member elected under clause (g) of Section 4 shall come to an end as soon as he ceases to be a member of the House from which he was elected.

c) The term of office of an ex-officio member shall continue so long as he holds the office by virtue of which he is such a member.

d) The term of office of a member nominated or elected to fill a casual vacancy shall continue for the remainder of the term of the member in whose place he is nominated or elected.

e) An out-going member shall, unless the Central Government otherwise directs, continue in office until another person is nominated or elected as a member in his place.

f) An out-going member shall be eligible for re-nomination or re-election.

g) A member may resign his office by writing under his hand addressed to the Central Government but he shall continue in office until his resignation is accepted by the Government.

h) The manner of filling vacancies among members shall be such as may be prescribed by rules.

7. President of the Institute

There shall be a President of the Institute who shall be nominated by the Central Government from among the members other than the Director of the Institute.

8. Allowance of President and Members

The President and members shall receive such allowances, if any, from the institute as any be prescribed by rules.

9. Meeting of the Institute

The Institute shall hold its first meeting at such time and place as may be appointed by the Central Government and shall observe such rules of procedure in regard to the transaction of business at the first meeting as may be laid down by that Government; and thereafter the Institute shall meet at such times and places and observe such rules of procedure in regard to the transaction of business at its meetings as may be prescribed by regulations.

10. Governing Body and other Committees of the Institute

a) There shall be a Governing Body of the Institute which shall be constituted by the Institute from among its members in such manner as may be prescribed by regulations.

b) The Governing Body shall be executive committee of the Institute and shall exercise such powers and discharge such foundations as the Institute may, by regulations made in this behalf, confer or impose upon it.

c) The President of the Institute shall be the Chairman of the Governing Body and as Chairman thereof shall exercise such powers and discharge such functions as may be prescribed by regulations.

d) The procedure to be followed in the exercise of its powers and discharge of its functions by the Governing Body, and the term of office of, and the manner of filling vacancies among the members of the Governing Body shall be such as may be prescribed by regulations.

e) Subject to such control and restrictions as may be prescribed by rules, the Institute may constitute as many Standing Committees and as many ad hoc committees as it thinks fit for exercising any power or discharging any function of the Institute or for inquiring into, or reporting or advising upon, any matter which the Institute may refer to them.

f) A Standing Committee shall consist exclusively of members of the Institute; but an ad hoc committee may include persons who are not members of the Institute but the number of such persons shall not exceed one-half of its total membership.

g) The Chairman and members of the Governing Body and the Chairman and members of a standing committee or an ad hoc committee shall receive such allownaces, if any, as may be prescribed by regulations.

11. Staff of the Institute

a) There shall be a chief executive officer of the Institute who shall be designated as the Director of the Institute and shall, subject to such rules as may be made by the Central Government in this behalf, be appointed by the Institute; Provided that the first Director of the Institute shall be appointed by the Central Government.

b) The Director shall act as the Secretary to the Institute as well as the Governing Body.

c) The Director shall exercise such powers and discharge such functions as may be prescribed by regulations or as may be delegated to him by the Institute or the President of the institute or by the Governing Body or the Chairman of the Governing Body.

d) Subject to such rules as may be made by the Central Government in this behalf, the Institute may appoint such number of other officers and employees as may be necessary for the exercise of its powers and discharge of its functions and may determine the designations and grades of such officers and employees.

e) The Director and other officers and employees of the Institute shall be entitled to such salary and allowances and shall be governed by such conditions of service in respect of leave, pension, provident fund and other matters as may be prescribed by regulations made in this behalf.

12. Location of the Institute

The Institute shall be located in New Delhi.

13. Objects of the Institute

a) To develop patterns of teaching in undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India;

b) To bring together in one place educational facilities of the highest order for the training of personnel in all important branches of health activity; and

c) To attain self-sufficiency in postgraduate medical education.

14. Functions of the Institute

With a view to the promotion of the objects specified under section 13, the institute may-

a) Provide for undergraduate and postgraduate teaching in the science of modern medicine and other allied sciences, including physical and biological sciences;

b) Provide facilities for research in the various branches of such sciences;

c) Provide for the teaching of humanities in the undergraduate courses;

d) Conduct experiments in new methods of medical education, both undergraduate and postgraduate, in order to arrive at satisfactory standards of such education;

e) Prescribe courses and curricula for both undergraduate and postgraduate studies;

f) Notwithstanding anything contained in any other law for the time being in force, establish and maintain-

i. One or more medical colleges with different departments including a department of preventive and social medicine sufficiently staffed and equipped to undertake not only undergraduate medical education but also postgraduate medical education in different subjects;

ii. One or more well-equipped hospitals;

iii. A dental college with such institutional facilities for the practice of dentistry and for the practical training of students as may be necessary;

iv. A nursing college sufficiently staffed and equipped for the training of nurses;

v. Rural and urban health organisations which will form centers for the field training of the medical, dental and nursing students of the Institute as well as for research into community health problems; and

vi. Other Institutions for the training of different types of health workers, such as phyiotherapists, occupational therapists and medical technicians of various kinds;

g) Train teachers for the different medical colleges in India.

h) Hold examinations and grant such degrees, diplomas and other academic distinctions and titles in undergraduate and postgraduate medical education as may be laid down in regulations;

i) Institute, and appoint persons to professorships, readerships, lecturer ships and post of any description in accordance with regulations;

j) Receive grants from the Government and gifts donations, benefications, bequests and transfers of properties, both movable and immovable from donors, benefactors, testators or transferors as the case may be,

k) Deal with any property belonging to, or vested in , the Institute in any manner which is considered necessary for promoting the objects specified in Section 13;

l) Demand and receive such fees and other charges as may be prescribed by regulations;

m) Construct quarters for its staff and allot such quarters to the staff in accordance with such regulation as may be made in this behalf;

n) Borrow money, with the prior approval of the Central Government , on the security of the property of the Institute;

o) Do all such other acts and things as may be necessary to further the objects specified in Section 13.

15. Payment to the Institute

The Central Government may under appropriation made by Parliament by law in this behalf, pay to the Institute in each financial year such sums of money and in such manner as may be considered necessary by that Government for the exercise of its power and discharge of its functions under this Act.

16. Fund of the Institute

a) The Institute shall maintain a Fund to which shall be credited-

i. all money provided by the Central Government;

ii. all fees and other charges received by the Institute;

iii. all moneys received by the Institute by way of grants, gifts, donations, benefactions, bequests or transfers; and

iv. all moneys received by the institute in any other manner or from any other source.

b) All moneys credited to the Fund shall be deposited in such banks or invested in such manner as the Institute may, with the approval of the Central Government, decide.

c) The Fund shall be applied towards meeting the expenses of the institute including expenses incurred in the exercise of its powers and discharge of its functions under Section14.

17. Budget of the Institute

The Institute shall prepare in such form and at such time every year as may be prescribed by rules a budget in respect of the financial year next ensuing showing the estimated receipts and expenditure of the Institute and shall forward to the Central Government such number of copies thereof as may be prescribed by rules.

18. Accounts and Audit

a) The Institute shall maintain proper accounts and other relevant records and prepare an annual statement of accounts including the balance- sheet in such form as the Central may by rules prescribe in consultation with the Comptroller and Auditor-General of India.

b) The accounts of the Institute shall be audited by the Comptroller and Auditor- General of India and any expenditure incurred by him in connection with such audit shall be payable by the Institute to the Comptroller and Auditor-General of India.

c) The Comptroller and Auditor-General of India and any person appointed by him in connection with the audit of the accounts of the Institute shall have the same rights, privileges and authority in connection with such audit as the Comptroller and Auditor-General of India has in connection with the audit of the Government accounts and in particular, shall have the rights to demand the production of books, accounts , connected vouchers and other documents and papers and to inspect the offices of the Institute as well as of the Institutions established and maintained by it.

d) The accounts of the Institute as certified by the Comptroller and Auditor-General of India or any other person appointed by him in his behalf together with the audit report thereon shall be forwarded annually to the Central Government and the Government shall cause the same to be laid before both Houses of Parliament.

19. Annual Report

The Institute shall prepare for every year a report of its activities during that year and submit the report to the Central Government in such form and on or before such date as may be prescribed by rules and a copy of this report shall be laid before both Houses of Parliament within one month of its receipt.

20. Pension & Provident Fund

a) The Institute shall constitute for the benefit of its officers, teachers and other employees in such manner and subjects to such conditions as may be prescribed by regulations , such pension and provident funds as it may deem it.

b) Where any such pension or provident fund has been constituted, the Central Government may declare that the provisions of that Provident funds Act, 1925, shall apply to such fund as if it were a Government provident fund.

21. Authentication of the orders and instruments of the Institute

All orders and decisions of the Institute shall be authenticated by the signature of the President or any other member authorised by the Institute in this behalf and all other instruments shall be authenticated by the signature of the Director or any other officer of the Institute authorised in like manner in this behalf.

22. Acts and proceedings not be invalidated by vacancies etc.

No act done or proceeding taken by the Institute Governing Body or any standing or ad hoc committee under this Act shall be questioned on the ground merely of the existence of any vacancy in, or defect in the constitution of the Institute Governing Body or such standing or ad hoc committee.

23. Recognition of medical qualifications granted by the Institute

Notwithstanding anything contained in the Indian Medical Council Act, 1933, the medical degrees and diplomas granted by the Institute under this Act shall be recognised medical qualifications for the purposes of that Act and shall be deemed to be included in the first Scheduled to that Act.

24. Grant of medical degrees, diploma etc. by the Institute

Notwithstanding anything contained in any other **law for the time being in force, the Institute shall have powers to grant medical degrees, diplomas and other academic distinctions and titles under this Act.**

25. Controlled by Central Government

The Institute shall carry out such directions as may be issued to it from time to time by the Central Government for the efficient administration of this Act.

26. Disputes between the Institute and the Central Government

If in, or in connection with, the exercise of its powers and discharge of its functions by the Institute under this Act, any disputes arises between the Institute and the Central Government, the decision of the Central Government on such dispute shall be final.

27. Returns and Information

The Institute shall furnish to the Central Government such reports, returns and other information as that Government may require from the Institute.

28. Power to make Rules

a) The Central Government after consultation with the Institute, may, by notification in the official Gazette, make rules to carry out the purposes of this Act:

b) Provided that consultation with the Institute shall not be necessary on the first occasion of the making of rules under this section, but the Central Government shall take into consideration any suggestions which the Institute may make in relation to the amendment of such rules after they are made.

i. In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:

ii. the manner of nomination of members under clause (f) of Section 4;

iii. the control and restrictions in relation to the constitution of standing and ad hoc committees under sub- section (5) of Section 10;

iv. the conditions of service of, the procedure to be followed by, and the manner of filling vacancies among , members of the Institute;

v. the power and functions to be exercised and discharged by the President of the Institute.

vi. the allowances, if any, to be paid to the President and members of the Institute;

vii. the number of officers and employees that may be appointed by the Institute and the manner of such appointment;

viii. the form in which and the time at which the budget and reports shall be prepared by the Institute and the numbers of copies thereof to be forwarded to the Central Government.

ix. the form and manner in which returns and information are to be furnished by the Institute to the Central Government;

x. any other matter which has to be or may be prescribed by rules.

c) Every rule made under this section shall be laid, as soon as may be after it is made, before each House of Parliament, which it is in session, for a total period of thirty days which may be comprised in one session, or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modifications in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification of annulment shall be without prejudice to the validity of anything previously done under that rule.

29. (1) The Institute, with the previous approval of the Central Government may by notification in the Official Gazette make regulations consistent with this Act and the rules made thereunder to carry out the purposes of this Act, and without prejudice to the generality of this power, such regulations may provide for:

a) the summoning and holding of meetings other than the first meeting of the Institute, the time and place where such meetings are to be held, the conduct of business at such meetings and the number of members necessary to form a quorum;

b) the manner of constituting the Governing Body and standing and ad hoc committees, the term of office of, and the manner of filling vacancies among, the members of the Governing Body and standing and ad hoc committees;

c) the powers and functions to be exercised and discharged by the President of the Institute and the Chairman of the Governing Body;

d) the allowances, if any, to be paid to the Chairman and the members of the Governing Body and of standing and ad hoc committees; ;

e) the procedure to be followed by the Governing Body and standing and ad hoc committees in the conduct of their business, exercise of their powers and discharge of their functions;

f) the tenure of office, salaries and allowances and other conditions of services of the Director and other officers and employees of the Institute;

g) the powers and duties of the Chairman of the Governing Body;

h) the powers and duties of the Director and other officers and employees of the Institute;

i) the management of the properties of the Institute;

j) the degrees, diplomas and other academic distinctions and titles which may be granted by the Institute;

k) the professorships, readerships, lectureships and other posts which may be instituted and persons who may be appointed to such professorships, readerships, lectureships and other posts;

l) the fees and other charges which may be demanded and received by the institute;

m) the manner in which, and the conditions subject to which, pension and provident funds may be constituted for the benefit of officers, teachers and other employees of the Institute;

n) any other matter for which under the Act provisions may be made by regulations.

(2) Until the Institute is established under this Act, any regulations which may be made under sub-section (I) may be made by the Central Government; and any regulation so made may be altered or rescinded by the Institute in exercise of its powers under sub-section (1)

(3) Every regulation made under this section shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session for a total period of thirty days, which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the sessions immediately following the sessions or the successive sessions aforesaid, both Houses agree in making any modification in the regulation or both Houses agree that the regulation should not be made, the regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that regulation.

AIIMS at a Glance

Faculty and staff

Faculty/Staff	Numbers
Faculty members	632
Group "A"	416
Group "B"	5186
Group "C" & "D"	4180

Plan and Non Plan Grants

Year	Plan	Non Plan
2011-12	412.35	650.00
2012-13	470.00	788.70
2013-14	485.00	870.00
2014-15	621.00	1001.00
2015-16	700.00	1120.00

*Rs in Crores

Bed Strength

Hospital / Centre	General	Private	Total
AIIMS Hospital	867	176	1043
Cardiothoracic & Neurosciences Centre	421	62	483
Dr. R.P. Centre for Ophthalmic Sciences	279	21	300
Dr.B.R. Ambedkar Institute Rotary Cancer Hospital	107	15	122
Comprehensive Rural Health Services Project, Ballabgarh	60	Nil	60
N.D.D.T.C., Ghaziabad	50	Nil	50
Jai Prakash Narain Apex Trauma Centre	186	Nil	186
Centre for Dental Education & Research	100	Nil	100
Grand Total	2150	274	2424

Institutional Facilities	Year Constructed
Nursing Home	1957
PC Block	1961-62
OPD Block	1961-64
Wards Block	1967-68
Central Animal House	1964-65
Private Wards	1968
Central workshop	1967
Medical store	1968
RP Centre for Ophthalmic Sciences	1964-65
Auditorium	1970
Administration Block	1973-75
Dr. R P Centre Wards	1978-85
Cardio Neuro Centre	1985-86
Dr. BRAIRCH	1985-86/ 1999-2002
NDDC, Ghaziabad	2003
JPN Trauma Centre	2006
Dental centre	2008
Convergence Block	2015

AIIMS Main Hospital and Centers

AIIMS Hospital

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

Cardiothoracic Sciences Centre

Neurosciences Centre

Dr. B. R. Ambedkar Institute Rotary Cancer Hospital

Centre for Dental Education and Research

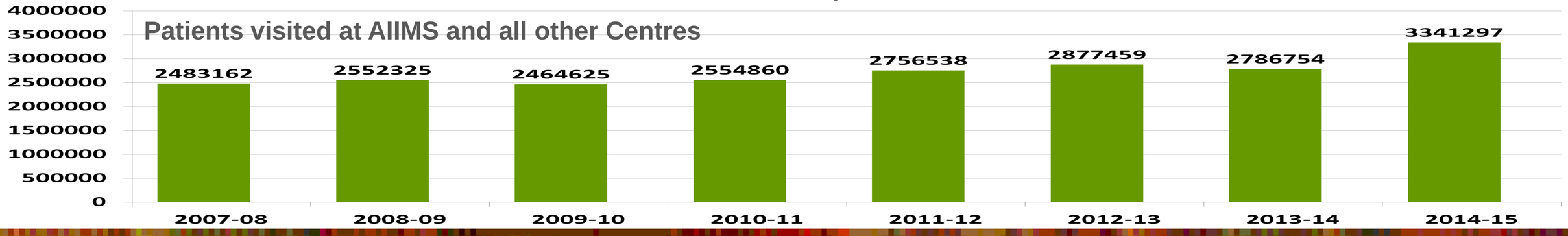
Comprehensive Rural Health Service Project, Ballabgarh

Jai Prakash Narayan Apex Trauma Centre, Raj Nagar

AIIMS Rotary Hospital, Trilokpuri

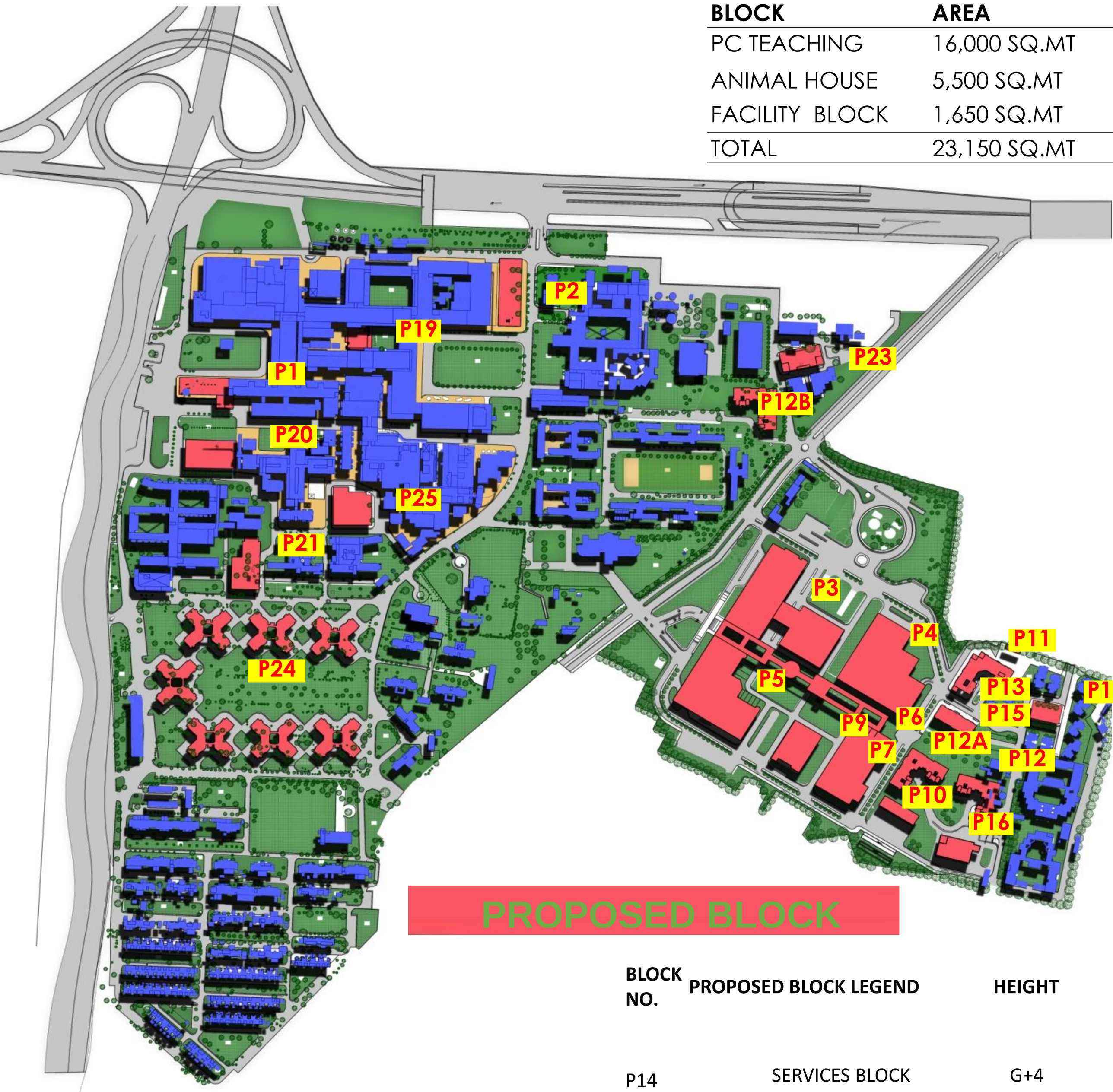
National Drug Dependence Treatment Centre, Ghaziabad

OPD at Jajjhar , Haryana



AIIMS Expansion Plan

BLOCK	AREA
PC TEACHING	16,000 SQ.MT
ANIMAL HOUSE	5,500 SQ.MT
FACILITY BLOCK	1,650 SQ.MT
TOTAL	23,150 SQ.MT



BLOCK NO.	PROPOSED BLOCK LEGEND	HEIGHT
P1	NEW WARD BLOCK	G+7
P2	PC TEACHING BLOCK	G+9
P3	OPD BLOCK	G+8
P4	HOSPITAL BLOCK	G+4
P5	MOTHER AND CHILD BLOCK	G+8
P6	SERVICIES BLOCK	G+4
P7	DIGNOSTIC BLOCK	G+4
P9	SURGICAL BLOCK	G+8
P10	BSES PLOT	PLOT
P11	HOSTEL BLOCK -1	G+5
P12	HOSTEL BLOCK -2	G+5
P12A	HOSTEL BLOCK -2	G+5
P12B	HOSTEL BLOCK -2	G+5
P13	HOSTEL BLOCK -3	G+5

BLOCK NO.	PROPOSED BLOCK LEGEND	HEIGHT
P14	SERVICES BLOCK	G+4
P15	BASEMENT PARKING UNDER HOSTEL-3	G+
P16	PARKING & DINING BLOCK FOR HOSTEL	G+2
P18	BASEMENT PARKING	G
P19	CAFETERIA BLOCK	G+2
P20	NEW OPD AND OFFICES	G+4
P21	PRIVATE AND VVIP WARD BLOCK	G+7
P22	MULTILEVEL BASEMENT PARKING	G
P23	ANIMAL HOUSE	G+3
P24	OFFICERS RESIDENCES	G+8
P25	NEW NURSES COLLEGE BLOCK	G+8
51	ORBO BLOCK	G+3
130	VERTICAL EXPANSION -GUEST HOUSE	G+1
106	VERTICAL EXPANSION -GYMKHANA	G+1

AIIMS Expansion Plan

COMPLETED/ADVANCE STAGE OF COMPLETION

•Renovation of RAK OPD & Laundry Block
•Rs.18.00 crores, Completed & functioning

•Outacreh OPD Jhajjar
•Rs.12.50 crores, Completed & functioning

•Underground Parking
•Rs.50.95 crores, Completed & functioning

•Convergence Block
•Rs.50.85 crores, Completed

•Dining Block
•Rs.12.00 crores. Completed

•New Hostels Block
•Rs.72.85 crores, Advance stage of completion

•Renovation of CCU
•Rs.3.75 crores, Completed.

WORKS UNDER CONSTRUCTION

•Surgical Block
•Rs.51.00 crore, Work substantially completed

•Mother & Child Block
•Rs 170.00 crore , Work is in progress. 40% completed

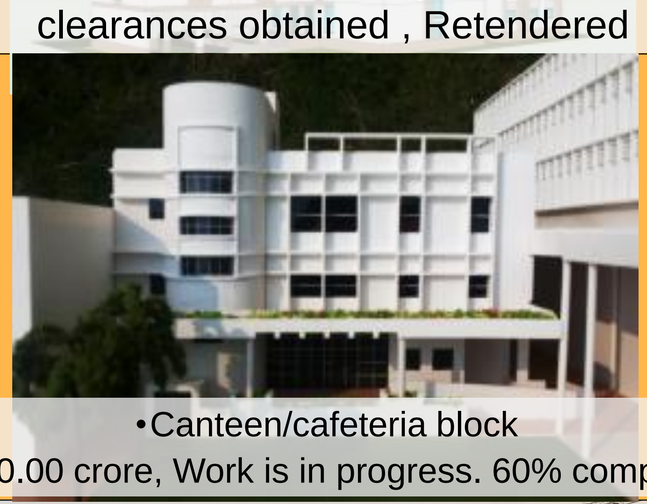
•New OPD Block
•Rs. 514.00 crore, Work awarded and construction work is in progress.

•Expansion of Trauma Centre
•Rs.35.00 crore
•Work is in progress, 78% completed.

•National Cancer Institute
•Rs.2080.00 crore, Construction works is in progress.

•.

•VVIP BLOCK
•Rs. 100.00 crore , All required statutory clearances obtained , Retendered



•Canteen/cafeteria block
•Rs.10.00 crore, Work is in progress. 60% completed.

STILL ON PAPER

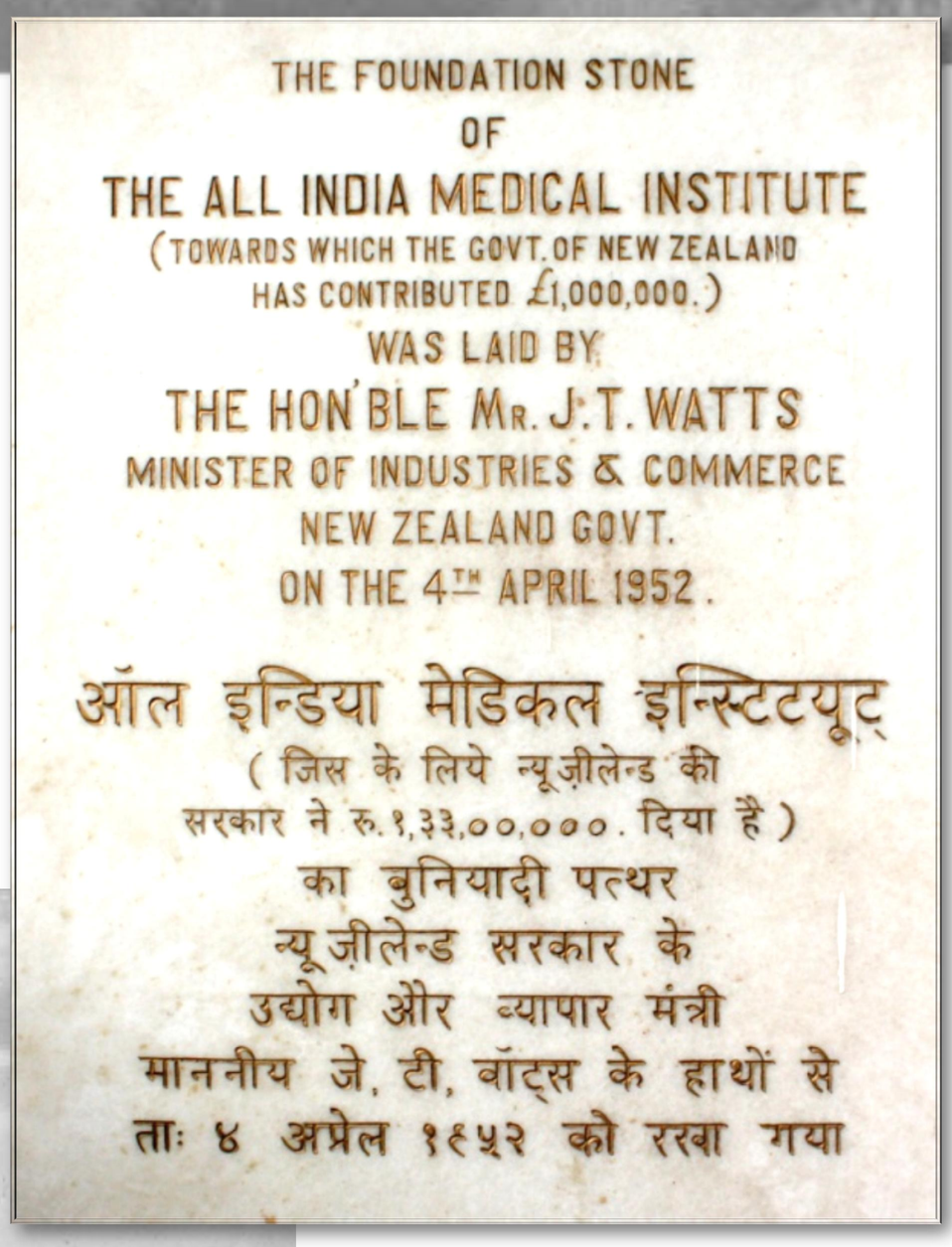
•Reconstruction of Old Pvt. Ward
•Rs.90.00 crore , Project deferred in G.B. dated 16.10.11. New proposal of same facilities at another location proposed

•Night shelter at trauma centre
•Rs 29 crore , Work is in progress. 90 % completed

•Emergency block
•Rs1000.00 crore , Concept approved

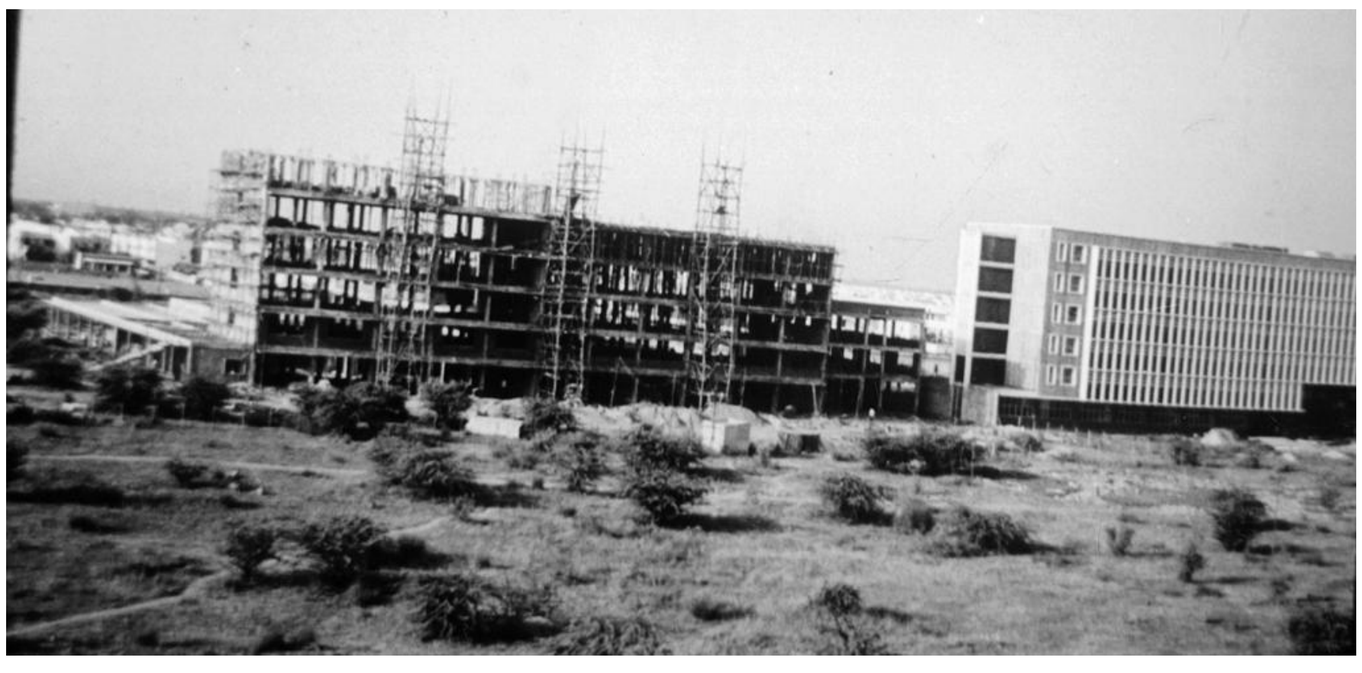
•Geriatrics block
•Rs100 crore, Concept approved

While Under Construction



THE FOUNDATION STONE
OF
THE ALL INDIA MEDICAL INSTITUTE
(TOWARDS WHICH THE GOVT. OF NEW ZEALAND
HAS CONTRIBUTED £1,000,000.)
WAS LAID BY
THE HON'BLE MR. J. T. WATTS
MINISTER OF INDUSTRIES & COMMERCE
NEW ZEALAND GOVT.
ON THE 4TH APRIL 1952.

ऑल इन्डिया मेडिकल इन्स्टिटयूट्
(जिस के लिये न्यूज़ीलेन्ड की
सरकार ने रु. १,३३,००,०००. दिया है)
का बुनियादी पत्थर
न्यूज़ीलेन्ड सरकार के
उद्योग और व्यापार मंत्री
माननीय जे. टी. वॉट्स के हाथों से
ताः ४ अप्रेल १९५२ को रखा गया



Six Decades of AIIMS

AIIMS Classics: seminal research papers (1956-2000)

The research work portrayed in these papers dramatically improved our understanding of specific diseases, and impacted clinical care and public health in India and around the world.

The Journal of Physiology

1960 Jul; 152(2): 250–270. Citation count: 367

FUNCTIONAL ANALYSIS OF GROUP III AFFERENT FIBRES OF MAMMALIAN MUSCLES

By A. S. PAINTAL*

From the Department of Physiology, Medical School, University of Utah, Salt Lake City, Utah, U.S.A., and The Department of Physiology, All-India Institute of Medical Sciences, New Delhi-16, India

(*Received* 4 *January* 1960)

It is generally accepted that the myelinated afferent fibres of some muscle nerves fall into three groups according to the diameter of their nerve fibres (Lloyd, 1943; Lloyd & Chang, 1948; Rexed & Therman, 1948; Hagbarth & Wohlfart, 1952), a grouping also borne out by electrophysiological studies (Hunt, 1954). The fibres of Group I (12–20 μ) arise from muscle spindles and Golgi tendon organs (Hunt & Kuffler, 1951; Hunt, 1954). Those of Group II (4–12 μ) also arise from muscle spindles (Merton, 1953; Hunt, 1954) but not from tendon organs (Hunt, 1954). Further, recent evidence indicates that the Group II fibres probably arise from the secondary endings of the muscle spindle (Cooper, 1959).

So far nothing is known about the endings of Group III afferent fibres (1–4 μ), although there is considerable information about the distribution of fibre diameters within this group in different muscle nerves (Lloyd & Chang, 1948; Rexed & Therman, 1948; Hagbarth & Wohlfart, 1952). As will become clear from the present paper, this gap in our knowledge of the sensory innervation of muscles was apparently due to the difficulty in stimulating some of the Group III endings and also to certain experimental procedures followed by previous workers. The experiments to be described in this paper were therefore, at first, specifically designed to elucidate the behaviour of these Group III endings, the basic procedure being to isolate a Group III afferent fibre, i.e. one with a conduction velocity below 24 m/sec, and then to determine how its ending could be stimulated. The results of this procedure have revealed that most Group III afferent fibres end in pressure receptors, i.e. receptors that are stimulated by local pressure but not by stretching the muscle or by asphyxia. Hitherto little attention has been paid to these receptors owing to the general belief that there are few of them in muscles (Hagbarth & Wohlfart, 1952). However, the recent

* Present address: Physiology Department, All-India Institute of Medical Sciences, Ansari Nagar, New Delhi-16.

This classical experimental study for the first time documented the role of pressure receptors in the muscle.

Science AAAS

1961 Vol. 138 (3540), 597-598 Citation count: 92

B. K. Anand, G. S. Chhina, Baldev Singh

Effect of Glucose on the activity of hypothermic "Feeding Centers"

Effect of Glucose on the Activity of Hypothalamic "Feeding Centers"

Abstract. The unit activity of the neurons in the hypothalamic "satiety" and "feeding" centers and adjacent control regions was recorded before and after intravenous injection of glucose. Increase in blood glucose and arteriovenous glucose difference (glucose utilization) increases the activity of satiety center neurons and slightly decreases the activity of feeding center neurons, without producing any significant change in the activity of control regions.

There is enough experimental evidence available to demonstrate the presence of a dual mechanism in the hypothalamus for the regulation of food intake—a "feeding center" in the lateral hypothalamus and a "satiety center" in the medial hypothalamus (*1*). These centers provide the facilitatory and the inhibitory mechanisms respectively for feeding reflexes. The activity of the feeding center determines the state of "hunger." The satiety center is activated as a result of feeding, thus bringing about the state of "satiety." These mechanisms are further influenced in an integrative manner from the higher nervous levels.

It has been suggested that certain changes produced in the body as a result of taking a meal influence the activity of the satiety center, and when these changes disappear either in the form of stored energy, heat, or work, the satiety center is no longer stimulated (*2*). Various suggestions have been put forward regarding the nature of these changes, important ones being availability and utilization of glucose, concentration of circulating metabolites, concentration of serum amino acids, specific dynamic action of food, shifts of water among the compartments of the body, and sensory impulses from the alimentary tract.

Glucostatic regulation was proposed by Mayer (*3*), who suggested the presence of glucoreceptors in the hypothalamus which are sensitive to blood glucose in the measure that they can utilize it. He and his colleagues presented some evidence for the presence of this mechanism. This laboratory (*4*) has reported experimental evidence (obtained by recording the activity of hypothalamic centers electroencephalographically through implanted electrodes) that by changes in the blood glucose content and the arteriovenous glucose difference, produced either by intravenous injections or in the states of hunger and

Simultaneously, [illegible] the feeding center has [illegible] effect, though not a marked one.

Studies have now been conducted to observe the effects of changes in blood glucose and glucose utilization on the "unit" activity of the single neurons of the hypothalamic centers and other regions. Steel microelectrodes with tips of 1 to 2 μ have been used for recording (*5*) and the unit activity (extracellular) has been recorded from neurons in the satiety center, feeding center, and adjacent hypothalamic regions, as well as the cerebral cortex, the two latter sites acting as controls. Dogs have been used for these acute experiments, carried out under Dial anesthesia. The skull was opened on one side, the temporal lobe was sucked out, the base of the brain was slightly lifted after cutting the third cranial nerve, and the microelectrode was guided visually with a micromanipulator to the appropriate sites. The activity picked up by the microelectrodes was fed into a Grass preamplifier through a cathode follower input probe and then recorded on a Dumont oscilloscope. After getting a stable unit, we gave an intravenous infusion of glucose.

Samples of arterial and venous blood were taken for estimation of glucose, once before glucose infusion and two or three times in the first hour after glucose infusion. During this period the unit activity was photographically recorded at frequent intervals. The arteriovenous glucose difference was calculated to provide a measure of glucose utilization. To determine the exact site of the electrode, at the end of the experiment current was passed through the electrode to make a small iron deposit, and the dog was killed by infusion of Formalin containing ferrocyanide, which would stain the iron deposit.

Successful experiments have been conducted so far in 41 animals. Twenty-two recordings have been taken from the satiety center, nine from the feeding center, and ten from the control

Table 1. The frequencies of unit activity of all the recordings during 15-minute periods (after intravenous administration of glucose) have been pooled to work out the mean change in frequency per second as compared with the mean frequency before giving glucose. The increase in the frequency of the satiety center and the decrease in the frequency of the feeding center are statistically significant, while no statistically significant change takes place in the activity of the control regions of the hypothalamus.

Time (min)	Change in frequency	t	p
	Satiety center		
15	+2.67	1.98	<.10 >.05
30	+3.37	2.84	<.02* >.01
45	+1.25	3.2	<.01† >.001
60	−0.785	1.509	<.20 >.10
	Feeding center		
15	−0.908	2.63	<.05* >.02
30	−1.053	3.05	<.05* >.02
45	−1.21	3.1	<.05* >.02
60	−1.36	3.1	<.05* >.02
	Control		
15	−0.442	0.832	<.40 >.30
30	−0.202	0.339	<.80 >.70
45	−0.534	0.58	<.60 >.30
60	+0.417	0.77	<.60 >.50

* Significant. † Highly significant.

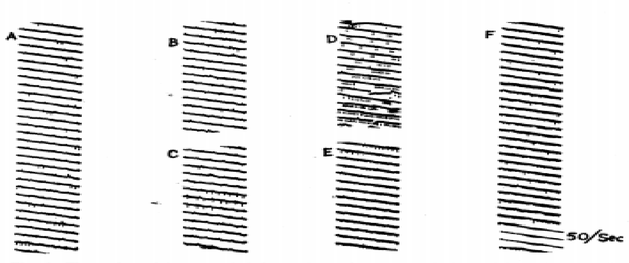


Fig. 1. The unit activity recorded from the satiety center before giving glucose (*A*),

Downloaded from http://science.sciencemag.org/ on September 15, 2016

This study provided evidence for effect of glucose on the function of satiety center in the hypothalamus discovered originally by Dr. B.K. Anand

American Physiological Society

1961 Vol. 138 (3540), 597-598 Citation count: 431

Activity of single neurons in the hypothalamic feeding centers: effect of glucose

B. K. Anand, G. S. Chhina, K. N. Sharma, S. Dua, Baldev Singh

Abstract

Unit activity from neurons of hypothalamic feeding and satiety mechanisms, and from adjacent hypothalamic regions was recorded in anesthetized dogs with surgically exposed hypothalamus, and in Flaxedil-immobilized cats in which a stereotaxic approach was made. Intravenous glucose or insulin, or combinations of both, were given and the changes in spike activity observed. Glucose estimations were done on blood samples taken from femoral artery and vein. In starved animals the unit activity in satiety center neurons was slower than that obtained from feeding center neurons. Frequency of spikes recorded from satiety center neurons increased and that of feeding center neurons decreased significantly after glucose was given intravenously, while spike activity from these centers showed a reverse pattern of response after intravenous insulin. No significant changes were observed from other hypothalamic and cortical neurons. Activity of neurons of the satiety center did not show a significant correlation with blood glucose level per se, but a better correlation was found between unit activity and the A-V glucose difference. It is suggested that the satiety center is activated by increased glucose utilization in the body.

This highly cited study elucidated the functioning of the satiety centre

blood — Leading the way in experimental and clinical research in hematology

1965 26:421-432 Citation count: 58

Anemia in Experimental Protein Deficiency in the Rhesus Monkey with Special Reference to Iron Metabolism

By S. K. Sood, M. G. Deo and V. Ramalingaswami

ANEMIA is an important manifestation of Kwashiorkor,[1-5] a syndrome of protein malnutrition. Woodruff,[5] on the basis of his studies in Africa, emphasized the difficulty of assessing the role of protein malnutrition per se in the genesis of anemia in Kwashiorkor, since the human syndrome was associated with multiple nutritional deficiencies and often complicated by intercurrent infections and parasitic infestations. This anemia responds slowly to high protein therapy alone unless the diet is supplemented with specific hematinics such as iron[6] and folic acid.[7] However, recently some workers have reported a good response of the anemia of Kwashiorkor to a high protein diet without other hematinics.[8]

The importance of dietary protein in the synthesis of hemoglobin was recognized several years ago by Whipple and Hooper[9] and Jenks.[10] These workers demonstrated that regeneration of hemoglobin in laboratory animals made anemic through phlebotomy is enhanced if the diet is supplemented with protein. Rats kept on a protein-deficient diet consistently develop anemia which is microcytic and hypochromic.[11]

The reports on the morphologic type of anemia in Kwashiorkor are variable. Normocytic normochromic anemia is reported most commonly,[3,7,12,13] but hypochromic[5] and megaloblastic types are also reported.[7-14] Disturbances in iron absorption, and a fall in serum iron and iron binding capacity have been found in human[15,16] and experimental protein malnutrition.[17,18] Changes in serum folic acid and vitamin B_{12} have been also observed.[19,20] The role of these changes in the pathogenesis of anemia in protein malnutrition is not known.

We have been able to induce in rhesus monkeys a syndrome very similar to human Kwashiorkor by tube-feeding them a diet deficient only in protein but adequate in all other nutrients and calories.[21-23] Using this experimental primate model, we attempted to elucidate the role of protein deficiency per se in the pathogenesis of anemia. In this communication we present the results of this study with special reference to the disturbances in iron metabolism.

This study elucidated the role of protein deficiency in the pathogenesis of anemia in rhesus monkey, model of Kwashiorkor originally developed by Dr. V. Ramalingaswami .

British Heart Journal now published as Heart

1969 Jan; 31(1): 52–58 Citation count: 84

Haemodynamic Studies in High Altitude Pulmonary Oedema

SUJOY B. ROY*, J. S. GULERIA, P. K. KHANNA, S. C. MANCHANDA, J. N. PANDE, AND P. S. SUBBA

From All India Institute of Medical Sciences and Directorate General, Armed Forces Medical Services, New Delhi, India

The clinical and pathological features of acute pulmonary oedema of high altitudes have been the subject of several recent reports (Houston, 1960; Hultgren *et al.*, 1961; Peñaloza, 1962; Arias-Stella and Kruger, 1963; Nayak, Roy, and Narayanan, 1964; Menon, 1965; Singh *et al.*, 1965), but the haemodynamic effects of the illness are not well delineated (Fred *et al.*, 1962; Hultgren *et al.*, 1964). The purpose of this communication is to present data on the circulatory and respiratory parameters observed in (1) 6 subjects with high altitude pulmonary oedema studied at 3658 metres within 24 hours of the onset of the illness, and (2) 3 subjects restudied 5 times after recovery.

SUBJECTS AND METHODS

Clinical History. Cases 1, 2, and 3 (Table I) are residents of Nepal (altitude 1524–2438 m.). They reached a post at 4267 m. between March and June 1967, and acclimatized successfully. On September 25, they had to move up to 5182 m., and after some army exercises (digging trenches, pitching tents) developed acute pulmonary oedema on September 27. Case 4, a plainsman, climbed to 3658 m. in late September 1967, went on up to 4572 m. within the next 24 hours, and on exertion developed acute pulmonary oedema on September 28. Case 5 is a native of Tibet, born and brought up at altitudes of over 4267 m. He came to India in 1965, where he was stationed at a height of 2103 m. In May 1967, he went to 3658 m. where he developed acute pulmonary oedema and was taken to a lower altitude. He returned to 3658 m. on September 19, when within 48 hours he developed acute pulmonary oedema for the second time. Case 6 is a plainsman who had an attack of high altitude pulmonary oedma at 4267 m. in July 1967, for which he was flown to sea-level. He returned to 3658 m. on September 27, and developed pulmonary oedema on September 30.

All initial studies were performed within 24 hours of the onset of the illness at an army general hospital at 3658 m. Because of their previous history of pulmonary oedema, Cases 5 and 6, on arrival at 3658 m.,

Received May 8, 1968.

* Visiting Professor, Dalhousie University, Halifax, Nova Scotia, Canada (for reprints).

TABLE
CIRCULATORY PARAMETERS IN HIGH

Case No.	Age (yr.)	Body surface area (m.²)	Heart rate/min.	Cardiac output index (l./min./m.²)	Stroke volume index (ml./beat/m.²)	Blood volume (ml./m.²)		
						Total	Central	Pulmonary
1	22	1·60	125	2·4	19	3900	467	206
2	23	1·72	75	4·5	60	4700	865	410
3	38	1·80	75	3·2	43	3600	880	349
4	28	1·70	96	3·4	35	2590	648	176
5	20	1·58	110	3·0	27	2900	440	155
6	26	1·70	140	3·5	25	4200	518	224

52

This study provided the seminal description of the pathophysiological high altitude pulmonary oedema as a clinical entity

The American Journal of Medicine — AJM

1971 Aug;51(2):160-9. Citation count: 154

Noncirrhotic portal fibrosis

S.K. Sama, M.D. [1], S. Bhargava, M.D., D.M.R.D. [1], N.Gopi Nath, M.S. [1], J.R. Talwar, M.S. [1], N.C. Nayak, M.D. [1], B.N. Tandon, M.D. [1], K.L. Wig, F.R.C.P. [1]

Abstract

In India noncirrhotic portal fibrosis (portal hypertension without demonstrable intrahepatic or extrahepatic obstruction) accounted for seventy-five (25 per cent) of 300 cases of portal hypertension studied by us. The majority of patients presented with marked splenomegaly of long duration and recurrent hemorrhage from esophageal varices (usually well tolerated), with minimal features of hepatocellular failure. There was an increase of alpha$_2$ globulin, beta globulins and immunoglobulin G (IgG). Hemodynamically, two significant findings were a marked gradient between the splenic pressure and wedged hepatic vein pressure, and a normal hepatic blood flow; in some patients wedged hepatic vein pressure was high. Roentgenologically, there was dilatation and tortuosity of the portal and splenic veins, with massive varices and hepatofugal collaterals. The intrahepatic vascular pattern was not much distorted, in contrast to cirrhosis. At shunt surgery the gross appearance of the liver varied from near normal to irregular nodularity resembling cirrhosis. There was at times shrinkage of the left lobe and hypertrophy of the right lobe. A needle biopsy specimen of the liver showed nonspecific changes, i.e., small focal areas of necrosis and regeneration, focal infiltrates, Kupffer cell hyperplasia and portal scars of varying size. Wedge biopsy and autopsy specimens revealed focal occlusive changes in the medium-sized radicals of the portal vein, changes considered specific for this disease. Electron microscopy revealed widening and collagenization of the space of Disse, with laying down of large collagen bundles in and around the sinusoids.

Shunt surgery was performed in twenty-six patients. The operative mortality was 10.7 per cent. Splenorenal shunt was better tolerated than portocaval shunt but was associated with postoperative bleeding in 18.75 per cent of the cases.

This paper describes a new clinical entity namely Non Cirrhotic Portal Fibrosis for the first time.

Six Decades of AIIMS

AIIMS Classics: seminal research papers (1956-2000)

The research work portrayed in these papers dramatically improved our understanding of specific diseases, and impacted clinical care and public health in India and around the world.

Clinical & Experimental Immunology
The Journal of Translational Immunology
British Society for immunology

1972 Oct; 12(2): 205–213 Citation count: 60

INFLUENCE OF CHEMOTHERAPY AND SERUM FACTORS ON THE MITOGENIC RESPONSE OF PERIPHERAL LEUCOCYTES OF LEPROSY PATIENTS TO PHYTOHAEMAGGLUTININ

V. L. MEHRA, G. P. TALWAR, K. BALAKRISHNAN AND L. K. BHUTANI

Department of Biochemistry, All India Institute of Medical Sciences, New Delhi, India

(*Received 29 March 1972*)

SUMMARY

Mitogenic response to phytohaemagglutinin (PHA) of peripheral leucocytes from patients with polar forms of leprosy namely lepromatous leprosy (LL) and tuberculoid leprosy (TT) has been evaluated. No defect in blast transformation as assessed by the incorporation of ^{3}H-thymidine into DNA was observed in tuberculoid leprosy patients. In lepromatous leprosy patients, the response varied with the status of the patient. Leucocytes from untreated cases of lepromatous leprosy showed a depressed response to PHA, whereas the leucocytes from patients treated with diaminodiphenylsulphone (DDS) gave an enhanced response. While the functional deficit was manifest in cells, the plasma factors were found to be contributory agents to the type of response elicited. Factors influencing the transformation of peripheral leucocytes have also been studied.

INTRODUCTION

Mitogenic response of peripheral lymphocytes to phytohaemagglutinin (PHA) *in vitro* has been used to assess the functional capacity of thymus-derived (T) cells in various diseases such as Hodgkins disease (Hersh & Oppenheim, 1965), ataxiatelangiectasia (McFarlin & Oppenheim, 1969) and cancerous states (Garrioch, Good & Gatti, 1970). Defective lymphocyte transformation has also been noted in chronic lymphocytic leukaemia (Oppenheim, Whang & Frei, 1965) and 'acquired' agammaglobulinaemia (Tormey, Kamin & Fudenberg, 1967). Olson, South & Good (1967) have described depressed lymphocyte transformation to PHA in four infants with congenital rubella. In leprosy patients this test has, however, given widely variable indices. Dierks & Shepard (1968) observed diminished blast transformation of peripheral leucocytes in response to PHA from most patients with lepromatous leprosy. Sheagren *et al.* (1969) failed to obtain any significant depression with

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This study provided classical description of immunology of leprosy

Gut

1972;**13**:260-269 Citation count: 230

Pathology of intestinal tuberculosis and its distinction from Crohn's disease

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SUMMARY Intestinal lesions of 212 cases presenting with symptoms of intestinal obstruction were studied. Of these, 159 cases were diagnosed as tuberculosis and 10 as Crohn's disease. Forty-three cases could not be classified into any of these entities and are excluded from this account. The amount of chemotherapeutic drugs received by each patient preoperatively was recorded. Cases proved as tuberculosis at the first operation were put on antituberculosis chemotherapy. Thirteen of these cases were operated on a second time, and tissue reactions under the influence of chemotherapy were studied. Fresh diseased tissue was studied for acid-fast organisms by culture and animal inoculation.

Morphological features of the tuberculosis group are described in detail. Although the cases were broadly classified into the ulcerative and ulcerohypertrophic varieties, a distinction was not always sharp and the two types of lesions were at times found to coexist. The macroscopic features presented a very wide range, and at times distinction from Crohn's disease, especially in the ulcerohypertrophic variety, was difficult. Microscopically, however, they could be distinguished without much difficulty. Caseation, although a characteristic feature of tuberculous granulomas may, albeit rarely, be absent. Granulomas which are characteristically confluent may be present only in the mesenteric lymph nodes. Acid-fast organisms are not grown consistently from diseased tissues; where grown, they are of human type. Reparative changes during chemotherapy are described in detail; these follow a non-specific pattern.

In the group of Crohn's disease, transmural cracks and fissures were consistently observed in all cases. Distinguishing features between the two diseases are discussed in detail.

After the classical description by Crohn, Ginzburg, and Oppenheimer (1932) of regional enteritis the term 'hypertrophic ileocaecal tuberculosis' was all but discarded (Taylor, 1945; Anand, 1956; Bruce, 1959; Rhoades, Klein, and Welsh, 1960; Chandra and Basu, 1967), and its authenticity began to be doubted (Paustian and Brockus, 1959). In its over-enthusiastic acceptance, even workers in countries where tuberculosis is still prevalent claimed that cicatrizing lesions in the ileocaecal region were in fact Crohn's disease (Mangalik and Misra, 1952; Gupta, Chatterjee, Roy, and Ghosh, 1962). Figures for the incidence of the two diseases from the same country show a wide variation (Tribedi and Gupta, 1941; Anguli and Menon, 1950; Banerjee, 1950; Mangalik and Misra, 1952; Anand, 1956). This is perhaps due to relatively inadequate studies made on small series of one to 15 cases (Ashken and Baron, 1962; Amerson and Martin, 1964; Howell and Knapton, 1964; Lee and Roy, 1964; Winter and Goldman, 1966) and difficulty in distinguishing the morphological features of tuberculosis and Crohn's disease (Taylor, 1945; Cattell and Mosely, 1946; Warren and Sommers, 1948; Hoon, Dockerty, and Pemberton, 1950; Anand, 1956; Brenner, Annes, and Parker, 1970).

Perhaps the most detailed account of the pathology of ileocaecal tuberculosis has been given in the often quoted paper by Hoon *et al* (1950). Among the 58 cases studied by them, they described the entity of 'non-caseating tuberculated enterocolitis' which resembled tuberculosis, but neither showed caseation

This study provided a classical description of intestinal tuberculosis.

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Prevention of endemic goitre with iodized salt*

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The paper describes a study, carried out over 16 years, of the use of iodized salt for the control of endemic goitre in a valley of the Himalayan foothills. From 1956, salt was fortified with either potassium iodide or potassium iodate to provide an estimated daily intake of 200 µg per head. There was a progressive and significant decline in goitre prevalence, together with a return of the pattern of iodine metabolism to within normal limits. It is concluded that endemic goitre can be successfully controlled by iodization of domestic salt.

Endemic goitre is a worldwide disease and the number of persons afflicted with it has been estimated at 200 000 000 (Clements et al., 1960). Although the essential role of iodine deficiency in the etiology of goitre is well established, the possible role of other goitrogenic factors of dietary origin is raised from time to time (Delange & Ermans, 1971). Much progress has been achieved in its control in different parts of the world through iodine prophylaxis, and injectable iodized oil has been used with success in recent years (Hetzel, 1970). However, there are still large parts of Asia, Latin America, and Africa where goitre persists in a highly endemic form, and the relationship of the disease to other coexisting public health problems is not clear (PAHO Scientific Group on Research in Endemic Goitre, 1969; Ramalingaswami, 1973). The experience obtained in this study of continuous prophylaxis with iodized salt in a Himalayan valley may be applicable in other parts of the world. This disease is widespread and endemic in the Himalayas (Ramalingaswami, 1953). The Indian goitre belt extends over a distance of 2 400 km along the southern slopes of the Himalayas and the adjoining plains. McCarrison's pioneer work on the etiology of goitre in the early part of this century indicated that it was of complex derivation and related to infection with intestinal organisms and to faulty and unbalanced diets (McCarrison & Madhava, 1932). Later, the possibility that fluoride and an excessive intake of calcium salts through drinking hard water might be implicated in the genesis of endemic goitre in the Himalayan foothills was investigated (Stott et al., 1931; Wilson, 1941). Recent studies by our group, with radioactive iodine and more refined methods of assay of stable iodine and of its organic compounds in tissue fluids, revealed that the pattern of iodine metabolism observed in persons with endemic goitre in the Himalayas was consistent with the hypothesis that iodine deficiency was probably the primary etiological factor (Ramalingaswami et al., 1961; Ramalingaswami, 1964). Similar thyroid responses suggesting that iodine deficiency was the primary etiological factor were observed more recently in our studies of endemic goitre in Nepal (Ramalingaswami et al., unpublished report, 1970) which is contiguous with the Indian goitre belt, and in Sri Lanka (Ramalingaswami, unpublished report, 1970; Deo & Subramanian 1971).

BACKGROUND TO THE STUDY

The Government of India, in collaboration with the State Government of Punjab and the Indian Council of Medical Research, decided in 1954 to set up a prospective study to evaluate the effectiveness for preventing goitre of small physiological doses of iodine added to the common salt habitually consumed in the endemic areas. The study was to include a comparison of the effectiveness of potassium iodide and potassium iodate in amounts supplying equal quantities of iodine.

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[6] Professor of Pathology and Director.

This study formed the basis of salt iodization as a public health strategy to prevent endemic goitre in India and worldwide

THE LANCET

1973 May 12;1(7811):1021-4. Citation count: 87

Pituitary-thyroid axis in Himalayan endemic goitre.

Kochupillai N, Karmarkar MG, Weightman D, Hall R, Deo MG, McKendrick M, Evered DC, Ramalingaswami V.

Abstract

26 patients from the Himalayan endemic-goitre area were studied. Circulating levels of thyroid hormone were assessed by measuring serum-thyroxine (T4) by the ' Thyopac-4' method, and the effective-thyroxine ratio (E.T.R.), and serum-triiodothyronine (T3) by radioimmunoassay. Serum-thyroid-stimulating-hormone (T.S.H.) levels were measured by radioimmunoassay, and pituitary T.S.H. reserve was determined by the T.S.H. response to thyrotrophin-releasing hormone (T.R.H.). Basal T.S.H. levels and peak T.S.H. in response to T.R.H. were greater in the patients than in the controls and were related to goitre size. Serum T4 and E.T.R. values fell with increasing goitre size, whereas serum-T3 levels, although higher than in controls, bore no relation to goitre size. There was a significant direct relation between basal T.S.H. and peak T.S.H. and an inverse relation between basal T.S.H. and T4, peak T.S.H. and T4, and peak T.S.H. and E.T.R. There was no relation between basal or peak T.S.H. and T3. Although none of the patients was clinically hypothyroid, 20 had increased basal T.S.H. levels and could therefore be classified as having subclinical hypothyroidism.

This study provided the first authentic pathophysiological basis of endemic goitre.

Archives of Disease in Childhood

1975;50:626-630 Citation count:65

Nephrotic syndrome in Indian children

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Srivastava, R. N., Mayekar, G., Anand, R., Choudhry, V. P., Ghai, O. P., and Tandon, H. D. (1975). *Archives of Disease in Childhood*, **50**, 626. **Nephrotic syndrome in Indian children.** A clinicopathological study of 206 Indian children with the nephrotic syndrome showed a primary renal cause in 195 (96%), of which 77% were boys. In 126 children (96 boys, 30 girls) onset of the disorder occurred before the age of 5 years. Renal biopsy showed minimal lesions in 150 patients (77%); in 85 of these biopsy was done 3 months to 16 years after onset of the nephrotic syndrome. Significant renal histological abnormalities in 45 cases were labelled as mesangiocapillary 8, mesangioproliferative 4, proliferative with extensive crescents 2, membranous 3, focal segmental glomerulosclerosis 9, focal global glomerulosclerosis 2, advanced nonspecific 8, and mild proliferative 9. Nephritic manifestations were mainly associated with significant renal lesions, which were more frequently encountered when the onset of disease was after the age of 5 years. Clearance of proteinuria with corticosteroid therapy was practically confined to patients with minimal or mild renal histological changes.

Our findings suggest that the pattern of idiopathic nephrotic syndrome in Indian children is similar to that reported from Western countries.

Heavy proteinuria, clinically manifesting as the nephrotic syndrome, is almost always due to primary renal involvement in childhood. Studies from different parts of the world (Drummond *et al.*, 1966; Tsao, Chan, and Gibson, 1969; White, Glasgow, and Mills, 1970; Habib and Kleinknecht, 1971) have shown a fair degree of homogeneity regarding the clinicopathological picture and therapeutic response. Reports from West Africa (Hendrickse and Gilles, 1963; Edington and Mainwaring, 1966), where quartan malaria accounts for a large number of cases, are an exception.

This study concerns clinicopathological observations and acute response to corticosteroid therapy in children with the nephrotic syndrome in Northern India.

Patients and methods

Over a 5-year period (1969–1973) we studied the renal histology in 206 children with the nephrotic syndrome. These patients comprised a homogeneous racial group representing the Northern Indian population and included, proportionately, patients from different socioeconomic groups. Most of them had been treated earlier by other physicians and attended the All India Institute of Medical Sciences for expert care. Renal biopsy was not performed in 2 patients found to have unilateral renal agenesis. In 6 cases adequate renal tissue could not be obtained and in another 4 permission for biopsy was not given.

Age of onset was taken as that when oedema was first noticed. In all cases heavy proteinuria, hypoalbuminaemia (serum albumin <2·5 g/100 ml), and oedema were present. Hypertension was considered to be present when diastolic pressure of >90 mmHg was found in children over 6 years and >80 mmHg in younger children. Haematuria was indicated by the presence of more than 2–3 red cells/high power field in urinary sediment. Standard techniques were used for urine analyses and biochemical tests.

Renal biopsy tissue was fixed in 10% buffered formalin. Sections were cut at 3 µm thickness and stained with H. & E., P.A.S., periodic-acid silver methenamine, and Masson's trichrome. The slides were examined by two of us (R.N.S. and H.D.T.), the latter without the knowledge of clinical data. Interpretation and histological classification were done in accord with recent studies on this subject (Churg, Habib, and White, 1970; White *et al.*, 1970; Habib and Kleinknecht, 1971; White, 1971; Arneil, 1971;

Received 17 January 1975.

First such study to provide the seminal description on nephrotic syndrome among children in India

THE LANCET

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AN EPIDEMIC OF VENO-OCCLUSIVE DISEASE OF LIVER IN CENTRAL INDIA

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Summary An outbreak of veno-occlusive disease which was probably caused by consumption of cereals mixed with seeds of a plant (*Crotalaria* sp.) containing pyrrolizidine alkaloids occurred in the Sarguja district of India in November-December 1975. 42% of the 67 recorded cases died.

Introduction

VENO-OCCLUSIVE disease of liver is endemic in Jamaica[1] and reports of cases have come from other countries.[2-8] There was a large epidemic of this disease in 1974 in Afghanistan.[9,10] Another small epidemic of this disease was investigated jointly by teams from the National Institute of Communicable Diseases and the All-India Institute of Medical Sciences (A.I.I.M.S.) in two villages of the Sarguja district in a state in North India in 1973.[11,12] Recrudescence of this disease in an epidemic form was noted again in a few villages in the same district in November-December, 1975. We report on this new epidemic.

This literature is the first authentic description of hepatic veno- occulusive disease in India.

Six Decades of AIIMS

AIIMS Classics: seminal research papers (1956-2000)

The research work portrayed in these papers dramatically improved our understanding of specific diseases, and impacted clinical care and public health in India and around the world.

PNAS
Proceedings of the National Academy of Sciences of the United States of America www.pnas.org

1976 Jan;73(1):218-22. Citation count: 192

Isoimmunization against human chorionic gonadotropin with conjugates of processed β-subunit of the hormone and tetanus toxoid

(kinetics of immune response/immunoreactivity of antibodies/mammals/sub-human primates/neutralization of hormonal biological activity *in vitro* and *in vivo*)

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Communicated by V. Ramalingaswami and Roy Hertz, July 14, 1975

ABSTRACT The immunogenicity of the conjugate prepared from "processed" β-subunit of human chorionic gonadotropin (choriogonadotropin, HCG) and tetanus toxoid has been studied in animals and a human subject. The conjugate elicited the formation of high-affinity ($K_a = 10^9$–10^{11} M^{-1}) anti-HCG and anti-tetanus antibodies. On primary immunization, the antibody response lasted for several months. Repeat injection of the conjugate in the declining phase of antibody titers produced a booster response without a lag period. The antibodies reacted with the β-subunit of HCG and the complete HCG molecule but were devoid of significant crossreactivity with human growth hormone, placental lactogen, follicle-stimulating hormone, thyroid-stimulating hormone, and luteinizing hormone at tonic and surge levels. The antibodies were competent for neutralizing the biological activity of HCG in the mouse uterine weight gain assay, the ventral prostate weight gain assay, and the radioligand assay for binding of ^{125}I-labeled HCG to receptors on corpus luteum. HCG (5000 international units) administered to an immunized subject was completely bound by circulating antibodies. Administration of HCG (in contrast to conjugate) was without booster effect on anti-HCG titers.

Human chorionic gonadotropin (choriogonadotropin) (HCG) is a product of trophoblasts and is synthesized at a very early stage of pregnancy, i.e., within 6–8 days of the fertilization of the egg (1). It provides a critical support to the corpus luteum, which decays in its absence, resulting in menstruation. The hormone has a crucial role in establishment and maintenance of pregnancy. HCG is not normally produced by nonpregnant females; the only exceptions are patients with choriocarcinomas (2), hydatidiform mole (3), and patients with cancers that ectopically synthesize the hormone (4, 5). Its early appearance and obligatory role in pregnancy make it a suitable target for control of fertility. Since HCG has to travel through the blood stream to reach the ovarian corpus luteum it is susceptible to inactivation by circulating antibodies.

Active immunization against HCG in humans poses, however, two major problems. First is its expected crossreactivity with other hormones (6) since the α-subunit of HCG is nearly identical to the α-subunits of thyroid-stimulating hormone (thyrotropin), follicle-stimulating hormone (follitropin), and luteinizing hormone (lutropin) (7, 9). The hor-

neutralize the biological activity of HCG. This consideration is important since the antiserum against a tryptic COOH-terminal fragment of HCG, although reacting immunologically with HCG, is not able to form biologically inactive complexes with HCG (10).

HCG, being a "self" protein, would have to be either tagged with haptenic groups or conjugated with immunogenic carriers to be rendered antigenic in humans. The characteristics of the sulfanilic acid derivative of HCG (11) and dinitrophenyl (Dnp) derivatives of β-HCG have been described (12). We report here observations on the immunological properties and biological potential of a conjugate of β-HCG and tetanus toxoid. Some aspects of this work have been presented elsewhere (13–15).

MATERIALS AND METHODS

The Antigen. We purified and "processed" β-HCG by a procedure described elsewhere (16) to obtain a product with minimal crossreactivity with human luteinizing and other hormones. The processed β-HCG (Pr-β-HCG) was conjugated with purified tetanus toxoid (TT) (>1500 limit flocculation units/mg of protein nitrogen) in discrete molecular proportions. The conjugate, Pr-β-HCG-TT, was extensively dialyzed and passed through a Millipore filter (pore size 0.22 μm). The lack of microbial contamination and pyrogens was tested as described (17).

Antibodies. Anti-HCG titers were determined by radioimmunoassays (18) and anti-TT, by passive hemagglutination as described (19). The ability of the antibodies to neutralize the biological activity was determined by the mouse uterine weight gain assay, the ventral prostate weight gain assay, and the radioligand assay for binding of ^{125}I-labeled HCG to receptors on corpus luteum (20).

RESULTS

Antibody Response to Pr-β-HCG-TT. This conjugate was found to be antigenic in mice, rabbits, a goat, and monkeys. Fig. 1 shows the results of a representative experiment in a

This study formed the basis of anti HCG vaccination as an approach for birth control.

nature International weekly journal of science
letters to nature
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Citation count: 131

Down's syndrome and related abnormalities in an area of high background radiation in coastal Kerala

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BOTH point mutations and structural aberrations of chromosomes are induced by ionising radiations, causing genetic variation and abnormalities in man and other organisms. The mutagenic effects are dose dependent and in *Drosophila* a linear relationship between dose and mutation rate has been shown for doses up to 5 R (ref. 1). Although man accumulates approximately 5 R of radiation from the environment in 30 yr of reproductive life, it is not known whether this is of any radio-biological consequence[2]. Nor is it known whether in man there is a threshold phenomenon at low doses (several hundred or thousand mr. per year), although there is greater repair of mutational or pre-mutational damage after low-dose irradiation[3]. In a coastal area of Kerala, South India, the background radiation is 1,500–3,000 mr. Yr^{-1} due to the presence of thorium-containing monazite mineral in the soil[4–7] (Fig.1). A survey of the rat population in this area with respect to several measurable and non-measurable traits and of humans with regard to dermatoglyphics and demographic data such as fertility index, sex ratio and infant mortality rate revealed no mutational effects[4,7,8]. During an epidemiological study of nodular lesions of the thyroid in this area[9], we noticed an apparently high prevalence of Down's syndrome and other forms of severe mental retardation[10]. We therefore made a house-to-house survey of developmental abnormalities in this area and in a comparable control area without high background radiation[7] (Fig. 1). We also determined the frequency of chromosome aberrations in a sample of the normal population living in the study and control areas. The observations we report here support the view that radiation-induced genetic anomalies occur with above average frequency in the population living in the area with high background radiation. The area surveyed was the southernmost one-fifth of the Chavara-Neendakara strip (Fig. 1). In the thatched huts which constitute 75% of all households, the exposure risk is 1,500–3,000 mr. Yr^{-1}, and personal exposure, as measured by calcium fluoride dosimeters, closely parallels the exposure risk in the households. The control area consisted of the Purakkade–Punnapura villages, with a background radiation of approximately 100 mr. yr^{-1} (ref. 7). Households were visited repeatedly to ensure examination of all members. Only gross abnormalities evident on clinical examination were recorded. Cytogenetic abnormalities were scored blind on slides prepared from 64-h micro-blood cultures[11].

One of the first studies on impact of environment on genetics.

BJR
BRACHYTHERAPY DOSIMETRY SPECIAL FEATURE ARTICLE
AN INTERNATIONAL JOURNAL OF RADIOLOGY, RADIATION ONCOLOGY AND ALL RELATED SCIENCES

1982 Mar;55(651):189-96. Citation count: 213

Tuberculous meningitis--a CT study.

Bhargava S, Gupta AK, Tandon PN.

Abstract

This study comprises 60 cases of tuberculous meningitis including both adults and children. Only three cases showed a normal scan. Severe hydrocephalus was present in 87.09% children and only 12.09% adults. The incidence of hydrocephalus increased with the duration of the illness and decreased with age. Exudates in the basal cisterns were graded from mild to severe, the latter being seen only in children. Visible infarcts were shown in 28.33% of cases, 10% showed associated parenchymal tuberculomas. Serial follow-up scans indicate that patients with non-enhancing exudates have a good prognosis when medically treated, whereas in those cases with enhancing exudates the prognosis is poor in spite of medical treatment and surgical shunting; they either succumb to their illness or are left with irreversible sequelae. CT has proved sensitive in both the diagnosis and prognosis in clinically suspected tuberculous meningitis.

The detailed radiological study added significantly to our understanding of key diagnostic and prognostic features of tuberculous meningitis

The Journal of Infectious Diseases
1989;159(6):1061-4 Citation count: 330

Enteroaggregative Escherichia coli associated with persistent diarrhea in a cohort of rural children in India.

Bhan MK[1], Rai P. Levine MM. Kaper JB. Bhandari N.
Srivastava R. Kumar R. Sazawal S.

Abstract

A cohort of 452 rural children was followed longitudinally for 13 mo to ascertain the role of HEp-2 cell adherent Escherichia coli and other pathogens in causing acute (less than or equal to 14 d) and persistent (greater than 14 d) diarrhea. Aeromonas, Campylobacter jejuni, E coli manifesting localized adherence to HEp-2 cells and enterotoxigenic E. coli were significantly associated with acute diarrhea. E. coli strains that exhibit aggregative adherence, so-called enteroaggregative E coli. a newly-described category of diarrheagenic E. coli distinct from enterotoxigenic, enteroinvasive, enterohemorrhagic. and enteropathogenic E. coli, were found significantly more often in patients with persistent diarrhea (29.5%) than with acute diarrhea (12.8%) (P = .0052) or controls (9.9%) (P = .0006).

This study described a new strain of E. coli causing persistent diarrhea for the first time in the world literature

IJC International Journal of Cancer
uicc global cancer control

1977 Nov 15;20(5):643-54. Citation count: 192

Human Cancer

Association of human hepatocellular carcinoma and cirrhosis with hepatitis b virus surface and core antigens in the liver

N. C. Nayak, Asha Dhar, Rajeev Sachdeva, Asha Mittal, H. N. Seth, Doss Sudarsanam, B. Reddy, U. L. Wagholikar, C. R. R. M. Reddy

First published: 15 November 1977 Full publication history
DOI: 10.1002/ijc.2910200502 View/save citation
Cited by: 49 articles Citation tools

View issue TOC
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15 November 1977
Pages 643–654

Abstract

Paraffin sections of livers obtained at autopsy from 50 cases of hepatocellular carcinoma (HCC), 58 cases of cirrhosis and 54 cases of other miscellaneous liver disorders (controls) were stained for both surface (HBsAg) and core (HBcAg) components of hepatitis B virus (HBV) by immunoperoxidase and immunofluorescence techniques and rigidly controlled for antigen specificity, and in addition stained by orcein for HBsAg. The material was collected from different regions of India and adequate amounts of tissue were examined in most specimens to overcome possible sampling error caused by random distributions of the antigens in liver. HBsAg was detected in 94% of HCC, 71% of cirrhosis and only 2% of control livers, while HBcAg was found in 22%, 31% and none respectively. Antigen positivity seems to be directly related to the amount of tissue examined. Peroxidase staining detected smaller amounts of HBcAg than fluorescence and was also much more convenient for identifying the antigen. Both antigens were present in 9 of 41 HCC cases, 12 of 39 cirrhosis and none of 25 controls. Most of these livers contained 1+ HBsAg and 1+ to 2+ HBcAg, an antigen expression pattern suggestive of a carrier state or, rarely, of mild chronic liver disease. Among all livers tested, HBsAg alone was present in 48, both antigens were found in 21, and HBcAg alone in none. HBsAg was seen inside tumour cells in four cases, but no tumour showed HBcAg. Most HCC was associated with cirrhosis (92%) and antigen-positive cirrhosis had a higher chance of harbouring HCC than antigen-negative disease. HBsAg was detected in all four non-cirrhotic livers associated with HCC, while two of these also had HBcAg. Active cirrhosis was very frequently associated with

This classical study convincingly linked viral hepatitis B with hepatocellular carcinoma

THE LANCET
1991 ;337(8732):5-7. Citation count: 323

Rapid diagnosis of tuberculous meningitis by polymerase chain reaction

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Abstract

The polymerase chain reaction (PCR) in cerebrospinal fluid was compared with conventional bacteriology and an enzyme-linked immunosorbent assay (ELISA) for cerebrospinal fluid antibodies in the diagnosis of tuberculous meningitis (TBM). PCR was the most sensitive technique; it detected 15 (75%) of 20 cases of highly probable TBM (based on clinical features), 4 (57%) of 7 probable cases, and 3 (43%) of 7 possible cases. ELISA detected 11 (55%) of the highly probable cases and 2 each of the probable and possible cases. Culture was positive in only 4 of the highly probable cases. Among the controls (14 pyogenic meningitis, 3 aseptic meningitis, 34 other neurological disorders), 6 subjects tested early in the study (2 pyogenic meningitis, 4 other disorders) were PCR positive. Second DNA preparations from their stored cerebrospinal fluid samples were all PCR negative, suggesting that the false-positive results were due to cross-contamination. 18 PCR-positive TBM samples retested were all still PCR positive. The antibody ELISA was positive in 3 controls despite the use of a high cutoff value.

A novel approach to molecular diagnosis of tuberculous meningitis by PCR was elucidated in this study for the first time.

Six Decades of AIIMS

AIIMS Classics: seminal research papers (1956-2000)

The research work portrayed in these papers dramatically improved our understanding of specific diseases, and impacted clinical care and public health in India and around the world.

International Journal of Radiation Oncology biology • physics
Official Journal of the American Society for Radiation Oncology
1996 Apr 1;35(1):103-11

Citation count: 186

Improving cancer radiotherapy with 2-deoxy-d-glucose: phase I/II clinical trials on human cerebral gliomas

Bidhu K. Mohanti, M.D., Goura K. Rath, M.D., Naranappa Anantha, M.D., V. Kannan, M.D., Bhabani S. Das, M.Ch., Bangalore A.R. Chandramouli, M.Ch., Ajit K. Banerjee, M.Ch., Sarala Das, M.D., Amarnath Jena, M.B. B.S. D.R.M. D.N.B., Ramamurthy Ravichandran, Ph.D., Uday P. Sahi, M.D., Rajinder Kumar, M.Sc., Neeru Kapoor, Ph.D., Vijay K. Kalia, Ph.D., Bilikere S. Dwarakanath, Ph.D., Viney Jain, Dr. phil. Nat.

Abstract

Purpose: Evaluation of tolerance, toxicity, and feasibility of combining large fraction (5 Gy) radiotherapy with 2-deoxy-d-glucose (2DG), an inhibitor of glucose transport and glycolysis, which has been shown to differentially inhibit repair of radiation damage in cancer cells.

Methods and Material: Twenty patients with supratentorial glioma (Grade34), following surgery were treated with four weekly fractions of oral 2DG (200 mg/kg body weight) followed by whole brain irradiation (5 Gy). Two weeks later, supplement focal radiation to the tumor site (14 Gy/7 fractions) was given. Routine clinical evaluation, x-ray computerized tomography (CT), and magnetic resonance (MR) imaging were carried out to study the acute and late radiation effects.

Result: All the 20 patients completed the treatment without any interruption. The vital parameters were within normal limits during the treatment. None reported headache during the treatment. Mild to moderate nausea and vomiting were observed during the days of combined therapy (2DG + RT) in 10 patients. No significant deterioration of the neurological status was observed during the treatment period. Seven patients were alive at 63, 43, 36, 28, 27, 19, and 18 months of follow-up. In these patients, the clinical and MR imaging studies did not reveal any late radiation effects.

Conclusion: Feasibility of administering the treatment (2DG + 5 Gy) is demonstrated by the excellent tolerance observed in all 20 patients. Further, the clinical and MR studies also show the absence of any brain parenchymal damage.

This study demonstrated exemplary approach to treating cancer

Thorax
AN INTERNATIONAL JOURNAL OF RESPIRATORY MEDICINE
BMJ|Journals
1996 Feb;51(2):132-6.

Citation count: 222

Risk factors for hepatotoxicity from antituberculosis drugs: a case-control study

J N Pande, S P N Singh, G C Khilnani, S Khilnani, R K Tandon

Abstract

Background **– Several risk factors for the development of hepatotoxicity during short course antituberculosis therapy have been suggested. A case-control study was undertaken to assess the role of age, sex, disease extent, nutritional status, past history of liver disease, infection with hepatitis viruses, acetylator status, and high alcohol intake as risk factors in the development of hepatotoxicity in patients with pulmonary tuberculosis receiving antituberculosis treatment.**

Methods **– The cases comprised 86 consecutive patients who were diagnosed as having hepatitis induced by antituberculosis drugs and who were negative for any of the hepatitis markers (HAV-IgM, HBsAg, HBc-IgM, and anti-HCV). The control group comprised 406 consecutive patients attending the chest clinic who completed antituberculosis treatment without developing hepatitis. The variables analysed were age, sex, body mass index (BMI), history of high alcohol intake, radiological extent of the disease,** risk factors that may predispose to its development are still not clearly understood. Wide variations have been found in the reported incidence of hepatotoxic reactions during short course chemotherapy. Studies from India[3–6] have reported a much higher risk of hepatotoxicity than reports from the west[7–9] using similar regimens. From an analysis of the pooled data from four prospective Indian studies[3–6] we calculated the risk of hepatitis to be 11·5% (95% confidence interval (CI) 9·51 to 13·51), whereas a meta-analysis[10] of 14 published studies from the west found the risk to be 4·28% (95% CI 3·38 to 5·28). The reasons for this higher incidence of hepatotoxic reactions in India are not clear. It has been suggested that an apparently higher incidence of hepatitis in patients receiving antituberculosis therapy in India may be due to viral hepatitis which is particularly prevalent in developing countries.[3 11] Furthermore, several risk factors for hepatotoxicity have been suggested such as advanced age,[12] sex,[13] poor nutritional status,[14] liver disease,[15] inappropriate use of drugs, chronic infections, hepatitis B virus (HBV) carrier status,[16] acetylator

This study led to the development of low toxicity regimens for the treatment of tuberculosis.

HEPATOLOGY
JOURNAL OF THE AMERICAN ASSOCIATION FOR THE STUDY OF LIVER DISEASES
1996 Jun;23(6):1448-55

Citation count: 245

Fulminant hepatitis in a tropical population: clinical course, cause, and early predictors of outcome.

Acharya SK[1], Dasarathy S, Kumer TL, Sushma S, Prasanna KS, Tandon A, Sreenivas V, Nijhawan S, Panda SK, Nanda SK, Irshad M, Joshi YK, Duttagupta S, Tandon RK, Tandon BN.

Abstract

The profiles of patients with fulminant hepatic failure (FHF) from developing countries have not been reported earlier. The current study was conducted prospectively, at a single tertiary care center in India, to document the demographic and clinical characteristics, natural course, and causative profile of patients with FHF as well as to define simple prognostic markers in these patients. Four hundred twenty-three consecutive patients with FHF admitted from January 1987 to June 1993 were included in the study. Each patient's serum was tested for various hepatotropic viruses. Univariate Cox's regression for 28 variables, multivariate Cox's proportional hazard regression, stepwise logistic regression, and Kaplan-Meier survival analysis were done to identify independent predictors of outcome at admission. All patients presented with encephalopathy within 4 weeks of onset of symptoms. Hepatotropic viruses were the likely cause in most of these patients. Hepatitis A (HAV), hepatitis B (HBV), hepatitis D (HDV) viruses, and antitubercular drugs could be implicated as the cause of FHF in 1.7% (n= 7), 28% (n= 117), 3.8% (n= 16), and 4.5% (n= 19) patients, respectively. In the remaining 62% (n= 264) of patients the serological evidence of HAV, HBV, or HDV infection was lacking, and none of them had ingested hepatotoxins. FHF was presumed to be caused by non-A, non-B virus(es) infection. Sera of 50 patients from the latter group were tested for hepatitis E virus (HEV) RNA and HCV RNA. In 31 (62%), HEV could be implicated as the causative agent, and isolated HCV RNA could be detected in 7 (19%). Two hundred eighty eight (66%) patients died. Approximately 75% of those who died did so within 72 hours of hospitalisation. One quarter of the female patients with FHF were pregnant. Mortality among pregnant females, nonpregnant females, and male patients with FHF was similar (P > .1). Univariate analysis showed that age, size of the liver assessed by percussion, grade of coma, presence of clinical features of cerebral edema, presence of infection, serum bilirubin, and prothrombin time prolongation over controls at admission were related to survival (P < .01). The rapidity of onset of encephalopathy and cause of FHF did not influence the outcome. Cox's proportional hazard regression showed age > or = 40 years, presence of cerebral edema, serum bilirubin > or = 15 mg/dL, and prothrombin time prolongation of 25 seconds or more over controls were independent predictors of outcome. Ninety-three percent of the patients with three or more of the above prognostic markers died. The sensitivity, specificity, positive predictive value, and the negative predictive value of the presence of three or more of these prognostic factors for mortality was 93%, 80%, 86%, and 89.5%, respectively, with a diagnostic accuracy of 87.3%. We conclude that most of our patients with FHF might have been caused by hepatotropic viral infection, and non-A, non-B virus(es) seems to be the dominant hepatotropic viral infection among these patients. They presented with encephalopathy within 4 weeks of the onset of symptoms. Pregnancy, cause, and rapidity of onset of encephalopathy did not influence survival. The prognostic model developed in the current study is simple and can be performed at admission.

This large-scale controlled study elucidated predictors of outcome in fulminant hepatitis that ultimately changed management of this life-threatening condition

THE LANCET
1999;354(9180):734-7.

Citation count: 337

Typhoid fever in children aged less than 5 years.

Sinha A[1], Sazawal S, Kumar R, Sood S, Reddaiah VP, Singh B, Rao M, Naficy A, Clemens JD, Bhan MK.

Abstract

BACKGROUND:
Calculation of the incidence of typhoid fever during preschool years is important to define the optimum age of immunisation and the choice of vaccines for public-health programmes in developing countries. Hospital-based studies have suggested that children younger than 5 years do not need vaccination against typhoid fever, but this view needs to be re-examined in community-based longitudinal studies. We undertook a prospective follow-up study of residents of a low-income urban area of Delhi, India, with active surveillance for case detection.

METHODS:
A baseline census was undertaken in 1995. Between Nov 1, 1995, and Oct 31, 1996, we visited 8172 residents of 1820 households in Kalkaji, Delhi, twice weekly to detect febrile cases. Blood samples were obtained from febrile patients, and those who tested positive for Salmonella typhi were treated with ciprofloxacin.

FINDINGS:
63 culture-positive typhoid fever cases were detected. Of these, 28 (44%) were in children aged under 5 years. The incidence rate of typhoid per 1000 person-years was 27.3 at age under 5 years, 11.7 at 5-19 years, and 1.1 between 19 and 40 years. The difference in the incidence of typhoid fever between those under 5 years and those aged 5-19 years (15.6 per 1000 person-years [95% CI 4.7-26.5]), and those aged 19-40 years (26.2 [16.0-36.3]) was significant (p<0.001 for both). The difference between the incidence of typhoid at 5-19 years and the incidence at 19-40 years was also significant (10.6 [6.3-14.8], p<0.001). Morbidity in those under 5 and in older people was similar in terms of duration of fever, signs and symptoms, and need for hospital admission.

INTERPRETATION:
Our findings challenge the common view that typhoid fever is a disorder of school-age children and of adults. Typhoid is a common and significant cause of morbidity between 1 and 5 years of age. The optimum age of typhoid immunisation and the choice of vaccines needs to be reassessed.

This is the first comprehensive description of pediatric typhoid fever; it formed basis for development of typhoid vaccines targeted to young children

ATS Journals
Vol. 115, No. 2 (1977), pp. 207-212

Citation count: 114

Spectrum of Immune Response Abnormalities in Different Clinical Forms of Tuberculosis[1, 2]

Rajni Bhatnagar, **A. N. Malaviya**, **S. Narayanan**, **Premavathi Rajgopalan**, **R. Kumar**, and **O. P. Bharadwaj**

Abstract

In an attempt to explain the reasons for the development of different clinical forms of tuberculosis in different persons, their immunologic status was compared to their clinical patterns. The spectrum of immunologic abnormalities correlated with the clinical forms. Also, an inverse relationship between cell-mediated and humoral immune responses was observed. Immunologic abnormalities reverted to normal concomitant with clinical improvement on chemotherapy, suggesting that the abnormalities were the result of the illness rather than its cause. Malnutrition could have been the underlying factor for the immunologic deficiencies seen in some patients.

This paper is among the earliest publications on immunology of tuberculosis

CORNEA
The Journal of Cornea and External Disease
1999 Mar;18(2):172-5.

Citation count:189

Deep lamellar keratoplasty versus penetrating keratoplasty for corneal lesions.

Panda A[1], Bageshwar LM, Ray M, Singh JP, Kumar A.

Abstract

PURPOSE:
To compare the effectiveness of deep lamellar keratoplasty (DLK) with that of penetrating keratoplasty (PKP) in cases of corneal lesions not involving the endothelium.

METHODS:
Forty-eight eyes with leukomatous corneal opacity (n = 33), keratoconus with apical scarring (n = 6), granular corneal dystrophy (n = 5), lattice corneal dystrophy (n = 2), and multiple corneal foreign bodies (n = 2) in an age group varying from 16 to 53 years underwent DLK (n = 24) and PKP (n = 24) by utilizing B and (B+ and A) grade M-K preserved donor tissue, respectively. The patients were followed up closely, and the graft clarity, visual achievement, astigmatism and endothelial cell count were evaluated at repeated occasions up to 1 year.

RESULTS:
Astigmatism of <3 diopters (D) and > or = 5D was obtained in 19 eyes and one eye, respectively, after DLK at 6 months, whereas six eyes of the PKP group had astigmatism <3D, and 12 eyes had > or = 5D at the end of 6 months. The same at 1 year was observed in 20 and one eye in the DLK and eight and five eyes of the PKP group. Astigmatism of > or = 5D at the end of 6 months in both the groups showed highly significant changes (p < 0.001). Best corrected visual acuity of 6/18 or more was achieved in 18 and 12 eyes at 6 months after DLK and PKP, respectively, which were statistically highly significant (p < 0.001), whereas at 1 year, it was seen in 17 and 15 eyes of the DLK and PKP groups, respectively, which was nonsignificant. The mean endothelial cell count was 2,233.3+/-64.453 cells/mm2 and 2,219.6+/-102.48 cells/mm2 at 6 months and I year, respectively, after DLK, which was nonsignificant. The mean cell count of the donor eyes used for PKP was 2,191+/-52.164 cells/mm2, 1,902.8+/-70.346 cells/mm2 at 6 months, and 1,579.0+/-80.24 cells/mm2 at 1 year. All the values showed highly significant changes (p < 0.001). Further, the graft clarity of > or = 3+ was achieved in 20 and 18 eyes at 6 months postoperatively in the DLK and PKP groups, whereas the same was observed in 19 and 13 eyes of both the groups, respectively, at 1-year follow-up.

CONCLUSION:
DLK is a promising procedure and should be practiced more frequently for corneal pathology not involving the endothelium.

This is a highly cited paper on deep lamellar keratoplasty as a preferred mode of treatment for cornea.

Convocations in Recent Times

32nd 2003

34th 2005

36th Jan, 2009

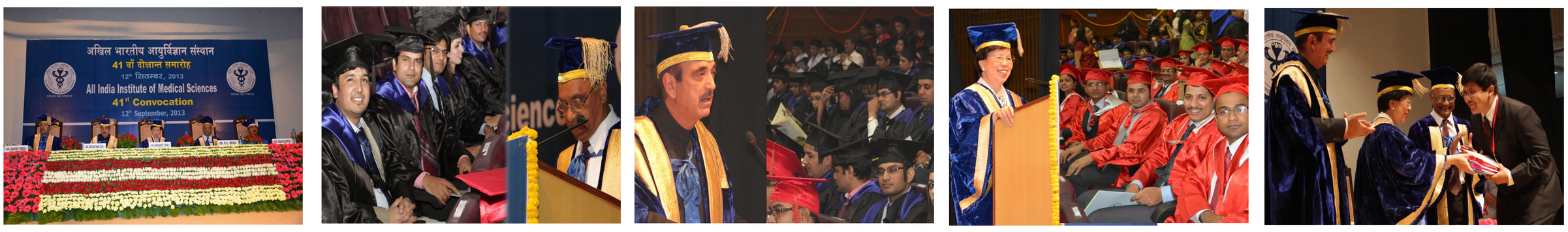
37th 2009

38th 2010

39th 2011

40th 2012

41st 2013



42nd 2014

43th 2015

Education

Trinity of Mission

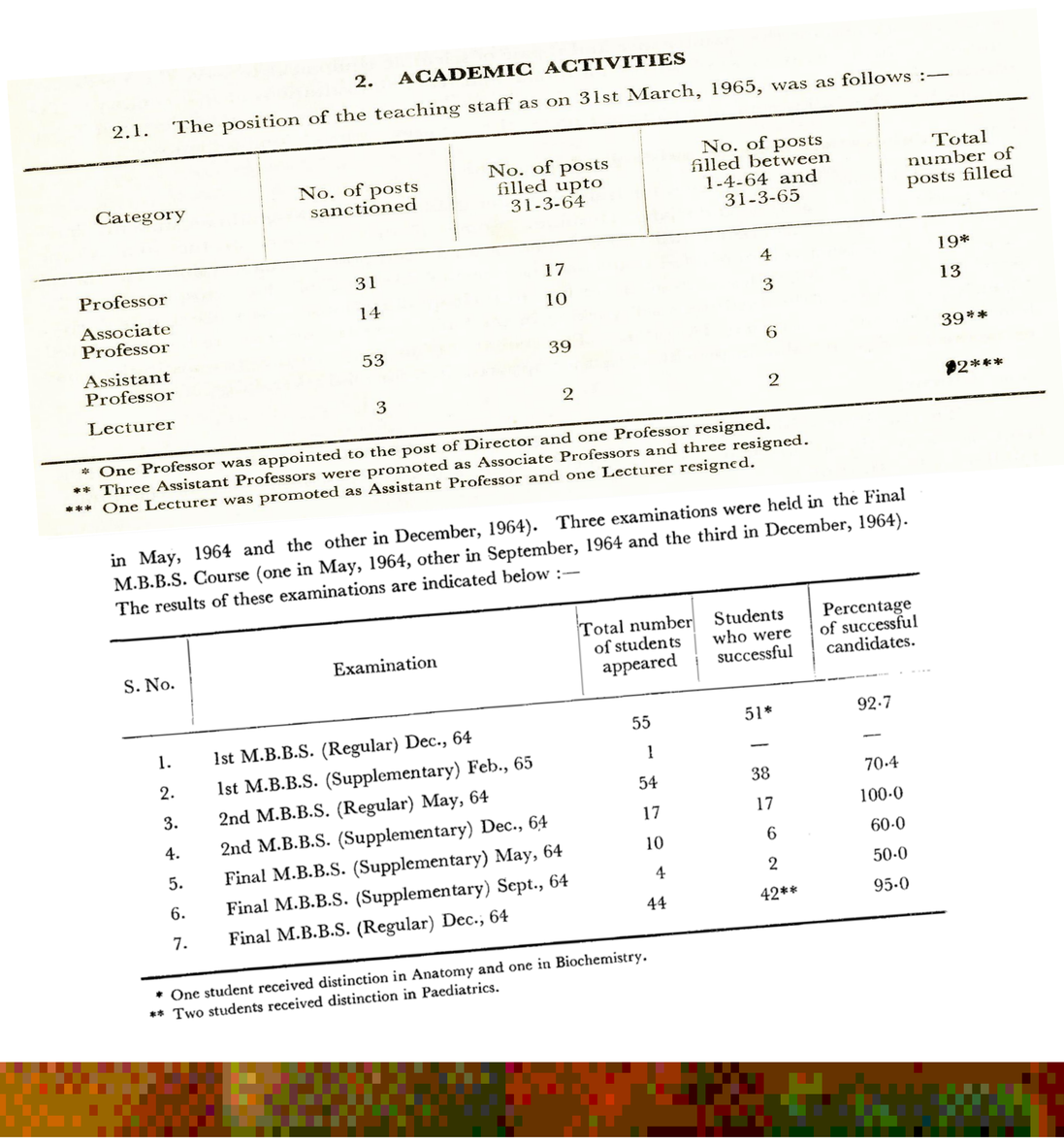
55 Total Teaching Departments & Centres

2427 Total Students/ Residents /PhD Scholars

Course	Duration	Annual Intake	Current strength	Degree awarded 1956-2015
MBBS	4.5 years + 1 year internship	77	282	**2818**
B.Sc. (Hons) Nursing	4.0 years	77	308	**1740**
B.Sc. Nursing (Post Certificate)	2.0 years	23	44	**636**
B.Sc. (Hons)	3.0 years	28	87	**815**

Course	Duration	Disciplines	Intake per year	Total	Total awardees 1956-2015
PhD	5 years [maximum]	61	84	391	**1222**
DM/MCh/MD /MS / MHA/MDS [Super specialty : Academic Senior Residents/Junior Residents]	3 years	67	241	957	**8465**
MSc/MSc (Nursing)/ M Biotech	2 years	13	42	144	**907**

Excerpts from the Annual Report of 1964



2. ACADEMIC ACTIVITIES

2.1. The position of the teaching staff as on 31st March, 1965, was as follows :—

Category	No. of posts sanctioned	No. of posts filled upto 31-3-64	No. of posts filled between 1-4-64 and 31-3-65	Total number of posts filled
Professor	31	17	4	19*
Associate Professor	14	10	3	13
Assistant Professor	53	39	6	39**
Lecturer	3	2	2	2***

* One Professor was appointed to the post of Director and one Professor resigned.
** Three Assistant Professors were promoted as Associate Professors and three resigned.
*** One Lecturer was promoted as Assistant Professor and one Lecturer resigned.

in May, 1964 and the other in December, 1964). Three examinations were held in the Final M.B.B.S. Course (one in May, 1964, other in September, 1964 and the third in December, 1964). The results of these examinations are indicated below :—

S. No.	Examination	Total number of students appeared	Students who were successful	Percentage of successful candidates.
1.	1st M.B.B.S. (Regular) Dec., 64	55	51*	92·7
2.	1st M.B.B.S. (Supplementary) Feb., 65	1	—	—
3.	2nd M.B.B.S. (Regular) May, 64	54	38	70·4
4.	2nd M.B.B.S. (Supplementary) Dec., 64	17	17	100·0
5.	Final M.B.B.S. (Supplementary) May, 64	10	6	60·0
6.	Final M.B.B.S. (Supplementary) Sept., 64	4	2	50·0
7.	Final M.B.B.S. (Regular) Dec., 64	44	42**	95·0

* One student received distinction in Anatomy and one in Biochemistry.
** Two students received distinction in Paediatrics.

Trend Setter in Medical Education

- First to introduce pre, para-clinical phase of 1.5 years and 1 year internship
- First to introduce 1 year Pre-clinical phase, now accepted by Medical Council of India
- First to launch 3 months rural posting (residential) during internship
- Integrated seminars across UG curriculum
- Problem Based Learning
- Clinical Grand Round, CCR and CPCs.
- Objectivized assessment strategy
- First to launch 3 years PG program
- First to start super-speciality courses (DM,M.Ch)
- Research exposure to UGs: summer fellowships
- Evaluation of Faculty by students
- Consortium of medical institutions for the reform of medical education
- Biostatistics and Research Methodology course for all Post Graduates

Long-Term / Short-Term Training for defense personnel, those sponsored by government institutions, Indian nationals and those from overseas

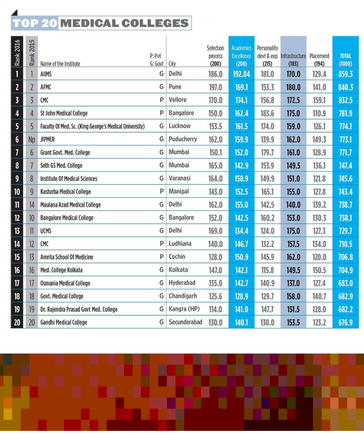
Elective training for foreign undergraduates from countries such as UK, USA, New Zealand, Australia, Sweden, Singapore, Germany, Canada, France, Netherlands, Malaysia, UAE, Sri Lanka, Ireland.

Continuing Medical Education, symposia, workshops, fellowships and lectures

The Torch Bearer Since Decades

AIIMS Ranking on Themes	Rank
Reputation	1
Quality of Academic Input	1
Student Care	1
Infrastructure	1
Job Prospects	1
Perceptual Rank	1
Factual Rank	2

2015-16

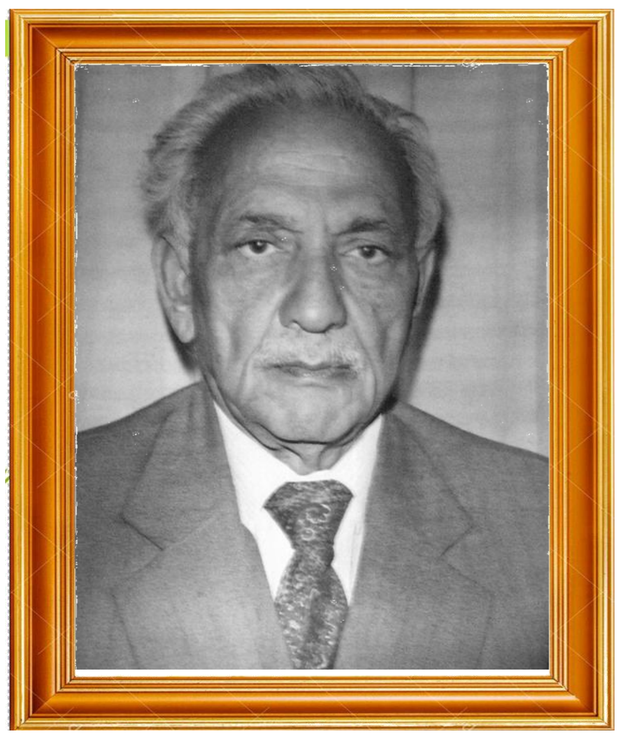


Directors, AIIMS

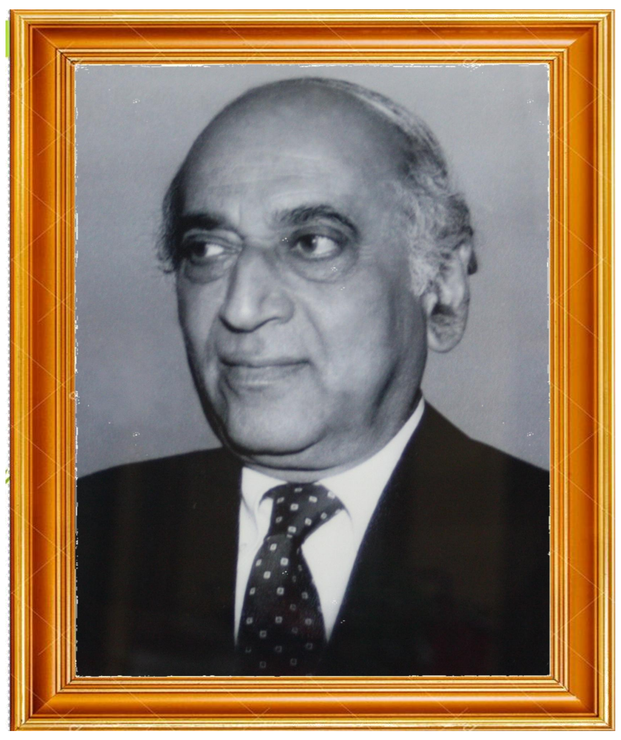
Dr. B.B. Dikshit
1956-1964

Dr. K.L Wig
1964-1969

Dr. V. Ramalingaswami
1969-1979



Dr. L.P. Aggrwal
1979-1980

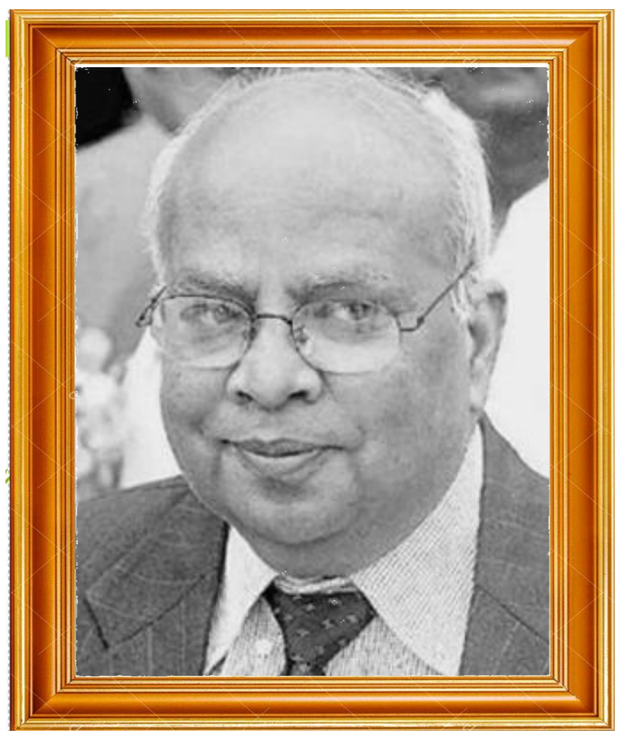


Dr. H.D. Tandon
1980-1984

Dr. S. Bhargava
1984-1990

Dr. Kackar
1990-1995

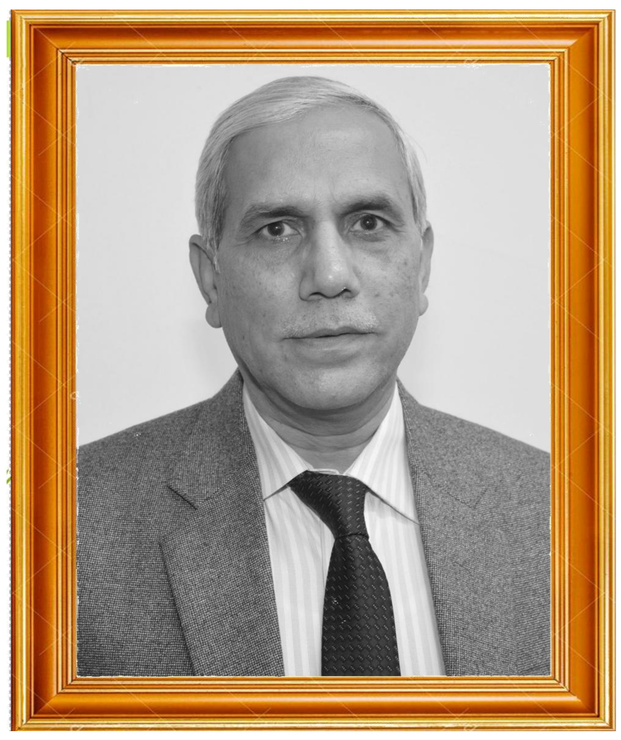
Dr. P.K. Dave
1996-2003



Dr. P. Venugopal
2003-2008

Dr. T.D. Dogra
2008-2009

Dr. R. K. Deka
2009-2013



Dr. M.C. Misra
2013- Present

शरीरमाद्यं खलु धर्मसाधनम्

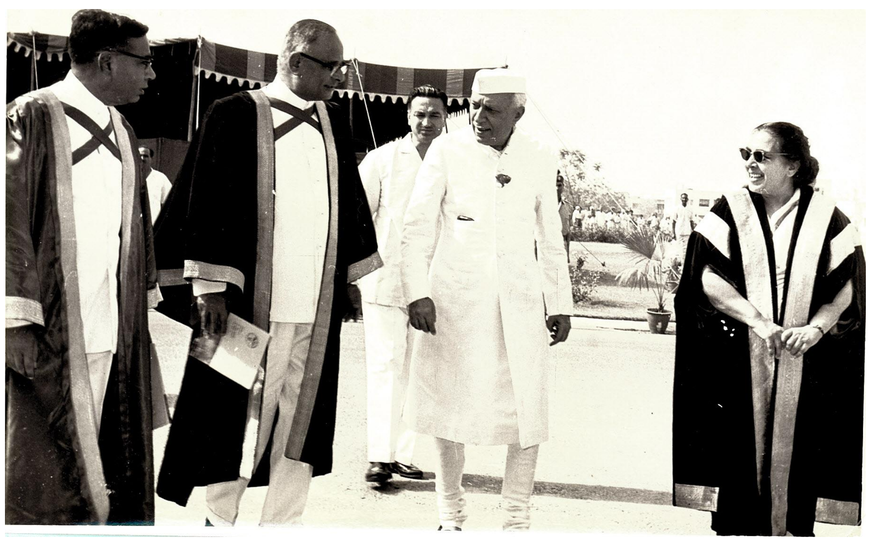
AIIMS MBBS: 1st Batch, 1956

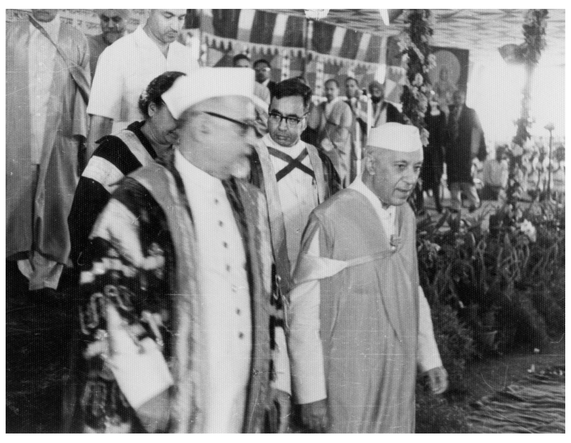
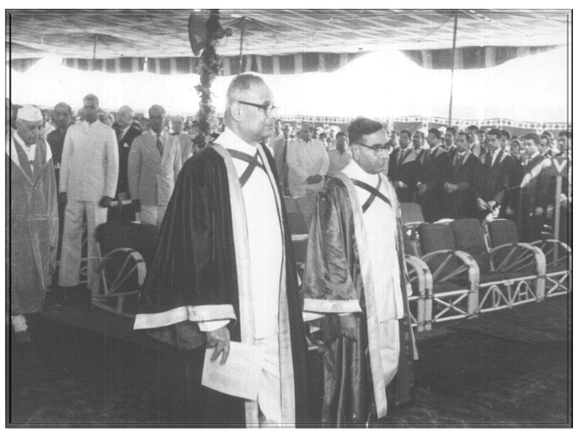
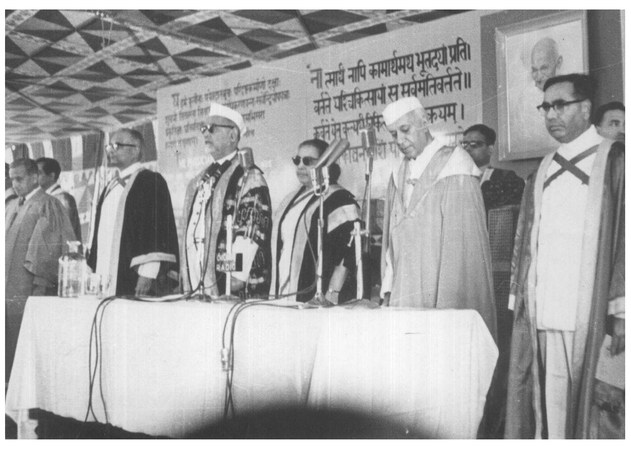
AIIMS MBBS: 2nd Batch, 1957

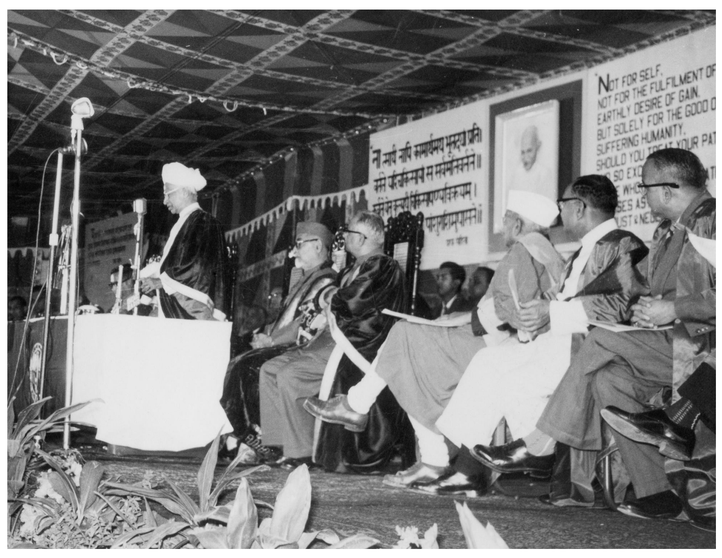
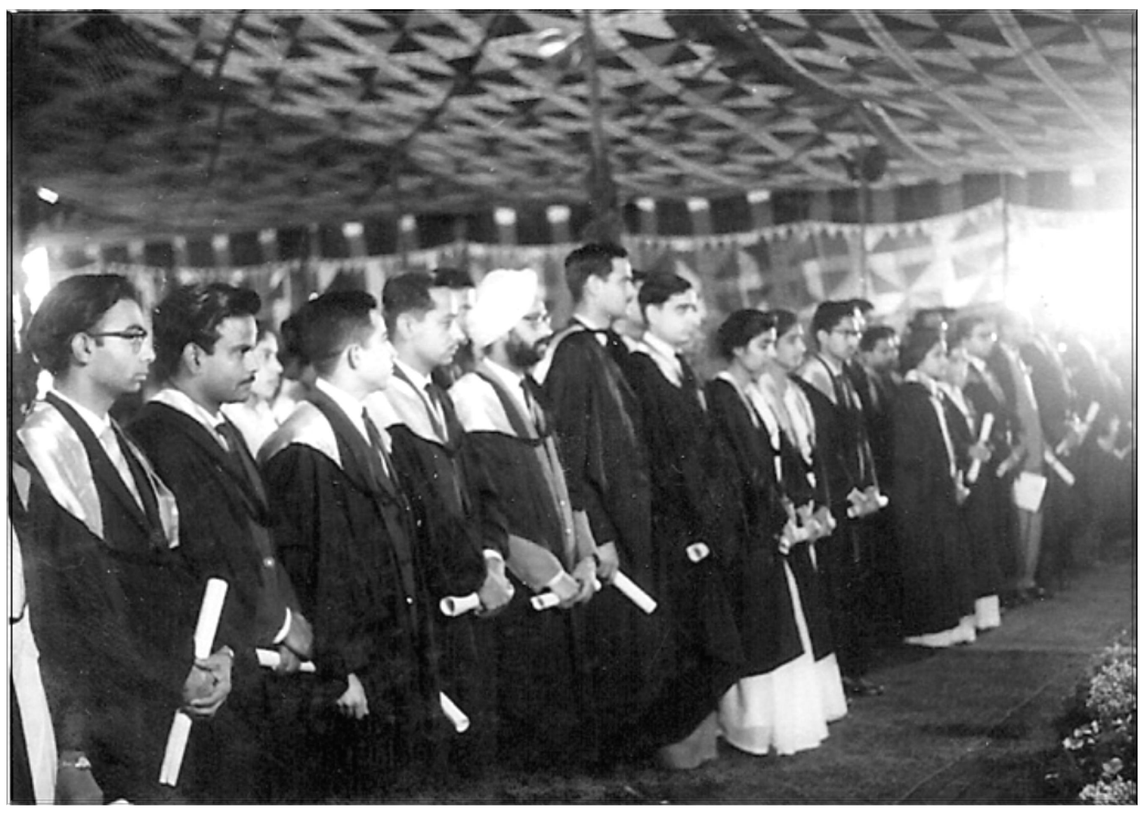
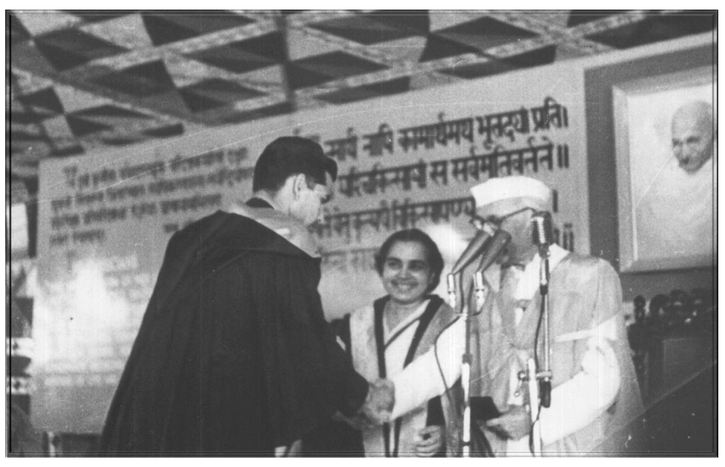
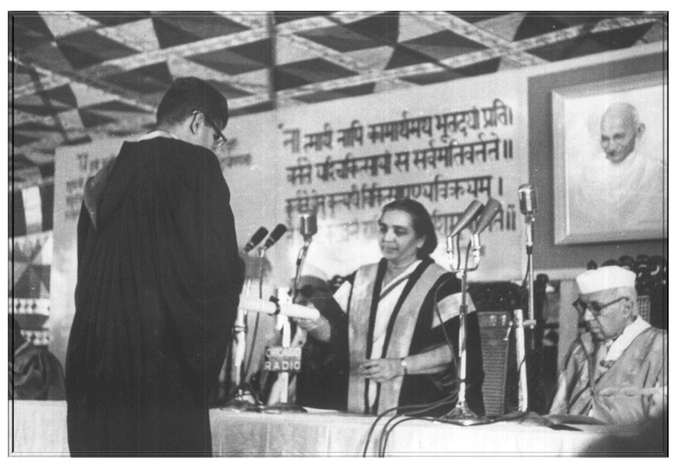
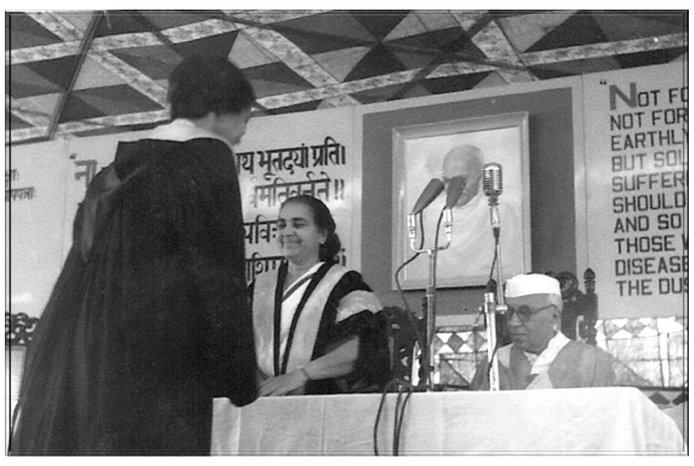
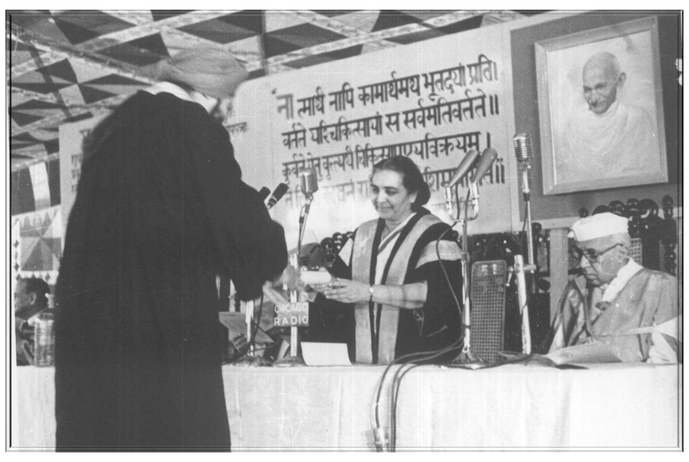
Six Decades of AIIMS

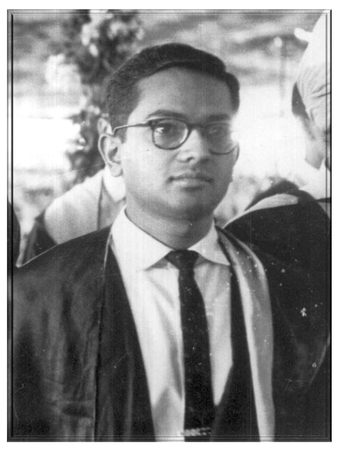
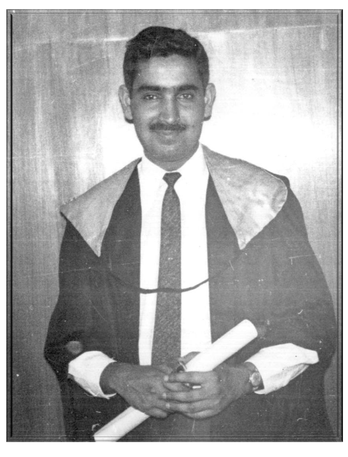
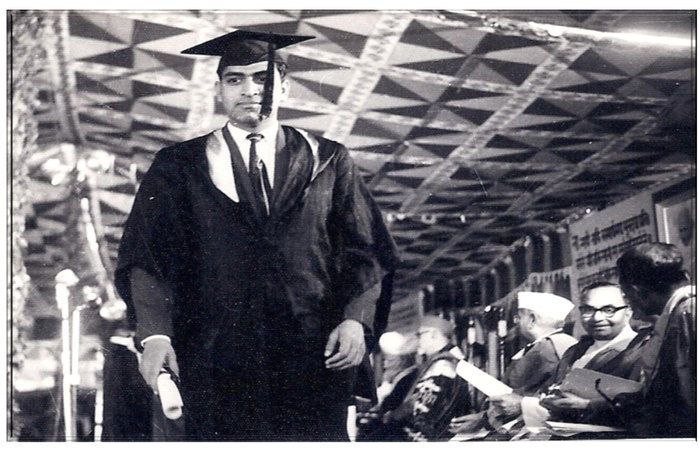
Glimpses of the first convocation…..

1963



Padma Shri Awardees From AIIMS

Dr. B. K. Anand (1969)

Dr. Samiran Nundy (1985)

Dr. S. K. Kackar (1986)

Dr. V. Shriniwas (1990)

Dr. Sneh Bhargava (1991)

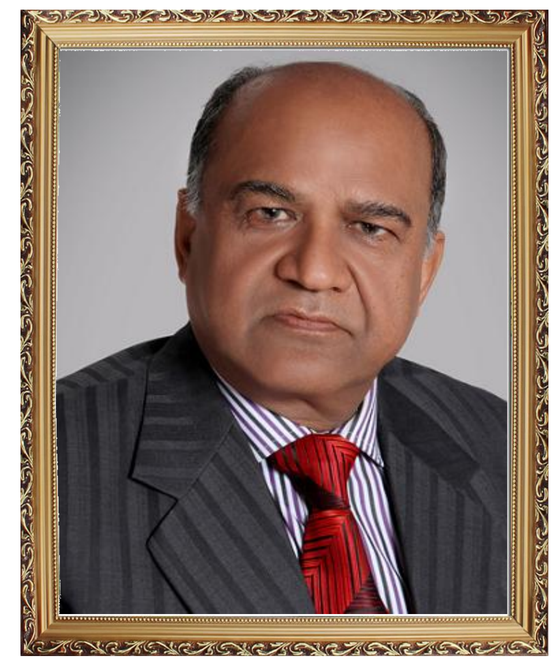
Dr. Kameshwer Prashad (1992)

Dr. P. K. Dave (2000)

Dr. J. S. Guleria (2003)

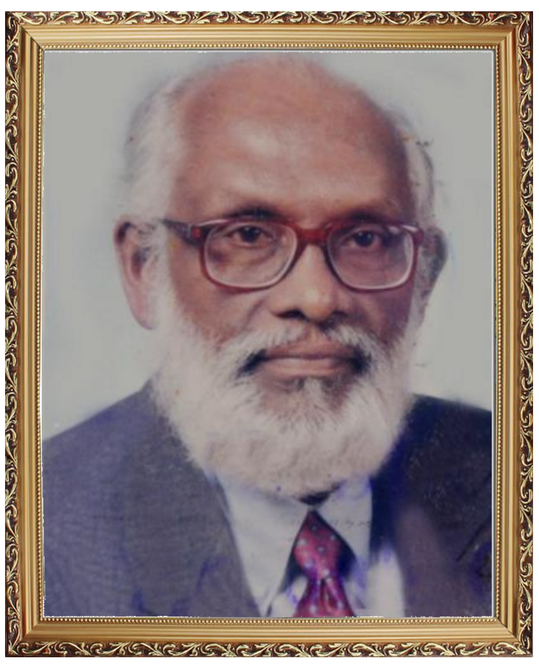
Dr. S. C. Manchanda (2004)

Dr. V.S. Mehta (2005)



Dr. N. P. Gupta (2005)

Dr. A.K. Hemal (2005)



Dr. N .P. Kochupillai (2003)

Dr. Atul Kumar (2007)

Dr. Anup Mishra (2007)

Dr. D. K. Bhargava (2008)

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Padma Shri Awardees From AIIMS

Dr. P. K. Julka
(2013)

Dr. S.K. Acharya
(2014)

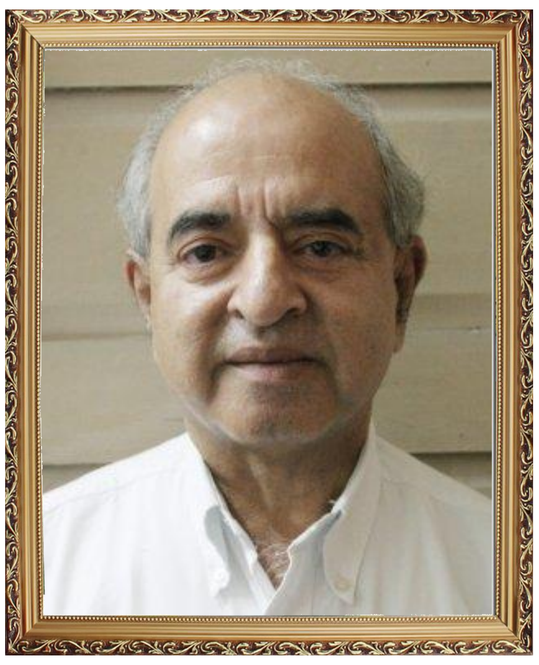
Dr. Balram Bhargava
(2014)

Dr. Lalit Kumar
(2014)

Dr. J.S. Titiyal
(2014)

Dr. Nitish Naik
(2014)

Dr. Randeep Guleria
(2015)



Dr. Yog Raj Sharma
(2015)

Dr. Nikhil Tandon
(2015)

Dr. Alka Kirplani
(2015)

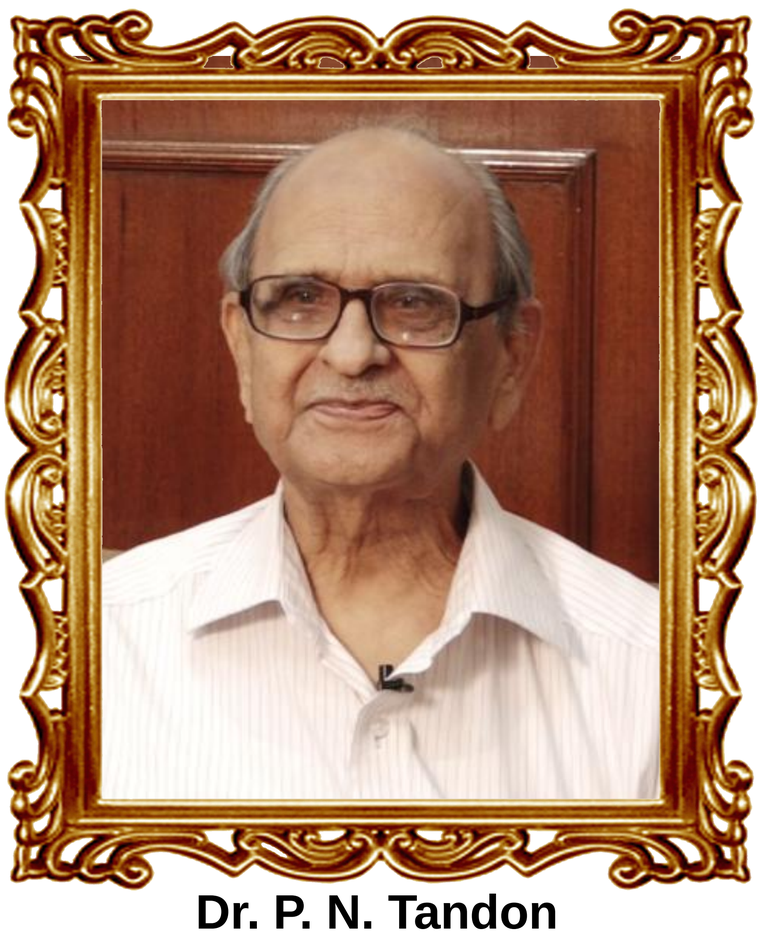
Dr. M. V. Padma
(2015)

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Padma Awards from AIIMS

Padma Vibhushan

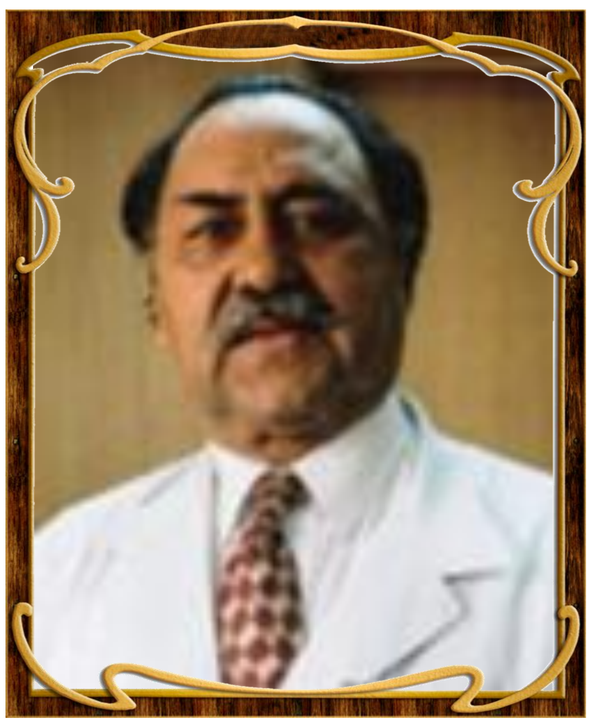
Dr. V. Ramalingaswami
Padma Shri 1969
Padma Bhushan 1971



Dr. P. N. Tandon
Padma Shri 1973, Padma Bhushan 1991
Padma Vibhushan 2006

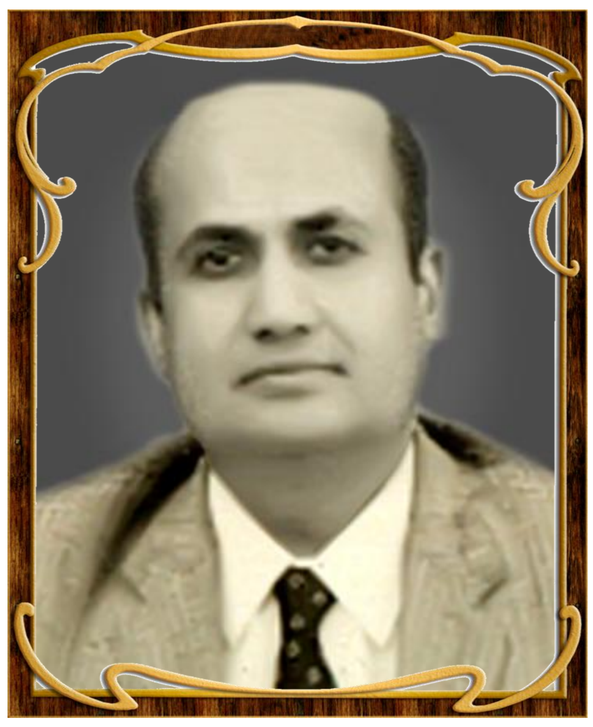
Dr. J. S. Bajaj
Padma Shri 1981, Padma Bhushan 1982
Padma Vibhushan 2009

Padma Bhushan



Dr. H. S. Wasir
Padma Shri 1987
Padma Bhushan 2000

Dr S. B. Roy
(1972)



Dr. Atm Parkash
(1982)

Dr. B. N. Tandon
(1986)

Dr. G. P. Talwar
(1992)

Dr. P. Venugopal
(1998)

Dr. K. Srinath Reddy
(2005)

Dr. K. K. Talwar
(2006)

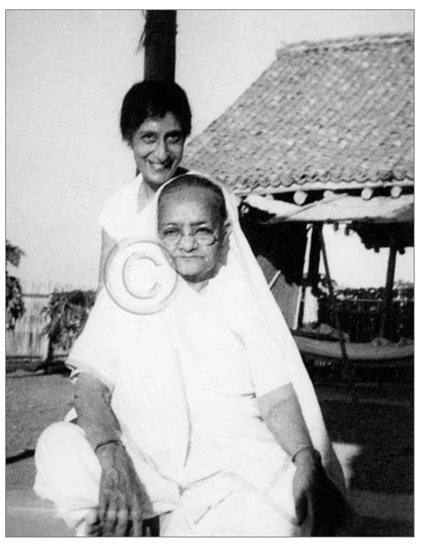
Dr. M. K. Bhan
(2013)

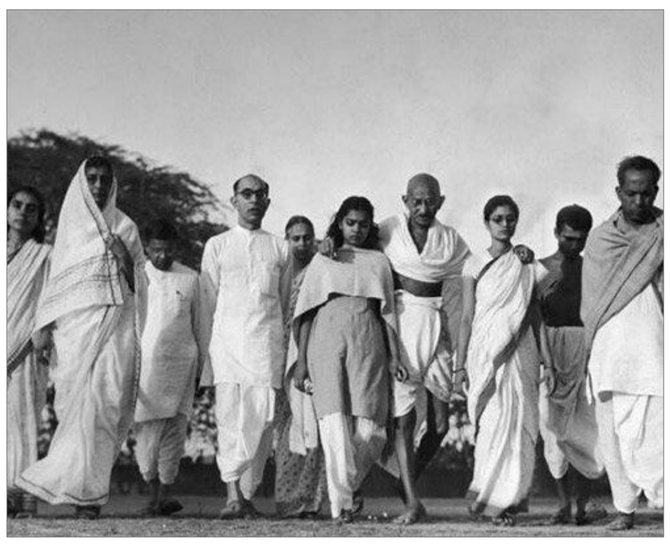
Six Decades of AIIMS

2.2.1889 – 6.2.1964

Rajkumari Amrit Kaur

Founder of the All India Institute of Medical Sciences



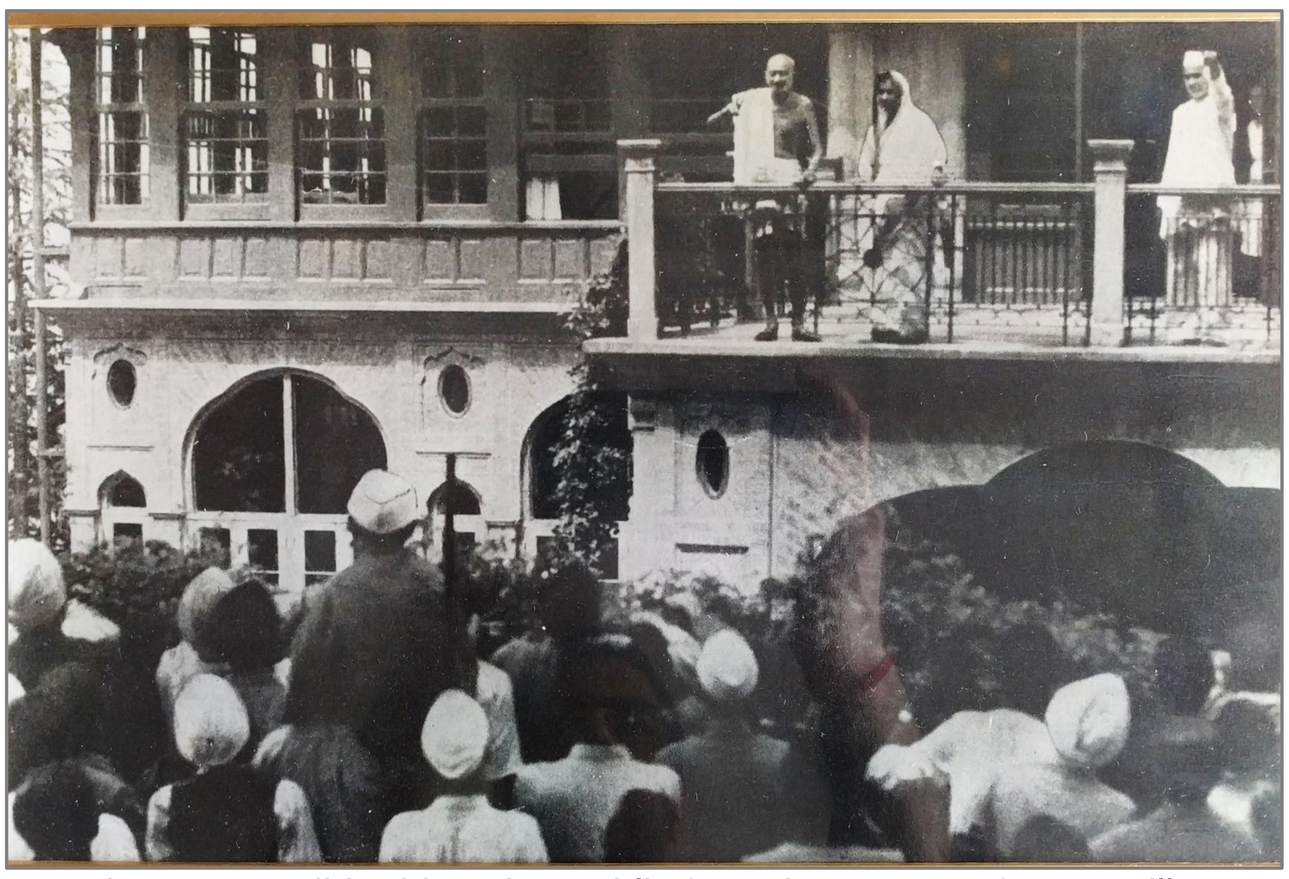


After meeting Mahatma Gandhi in 1919, Rajkumar Ji felt drawn to his philosophy, mission and vision for the country. She participated in the Dandi March in 1930 for which the British Raj authorities imprisoned her. Rajkumari Ji went to live at Mahatma Gandhi's Sevagram ashram in Wardha in 1934, and took up an austere life there despite her aristocratic background. Rajkumari Amrit Kaur served as a personal secretary of Mahatma Gandhi for sixteen historic years preceding 1947. In 1942, she participated in the Quit India Movement, and the Raj authorities imprisoned her again.

Manorville was the royal ancestral mansion of Rajkumari Amrit Kaur in Summer Hill, Shimla, the summer capital of India, built in late 19th century. Manorville's drawing room hosted a plethora of meetings of national leaders in the thick of negotiations with the British on India's independence.

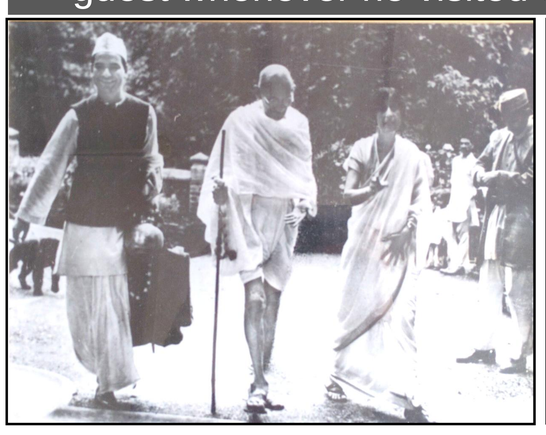
Rajkumari Amrit Kaur Ji was born on 2nd February 1889 to Rājā Harnam Singh, a member of the princely family of Kapurthalā. After completing her education at Oxford, England, she returned to India and got involved in the freedom struggle.

Rajkumari worked to reduce illiteracy, and eradicate the custom of child marriages and the purdah system for women.



Mahatma Gandhi addressing public from the terrace of Manorville , May 1946. Also seen is Rajkumari Amrit Kaur

Mahatma Gandhi lived at Manorville many times as Rajkumari's guest whenever he visited Shimla between 1935 and 1946.



The real Architects of the AIIMS: Prime Minister Pandit Nehru, Health Minister Rajkumari Amrit Kaur and Dr BB Dikshit, the first Director of the AIIMS

After independence, Rajkumari Ji became a part of Pandit Jawaharlal Nehru's first Cabinet as the Health Minister (1947-57). In 1950, she was elected the president of World Health Organization, becoming the first woman and the first Asian to hold that post.

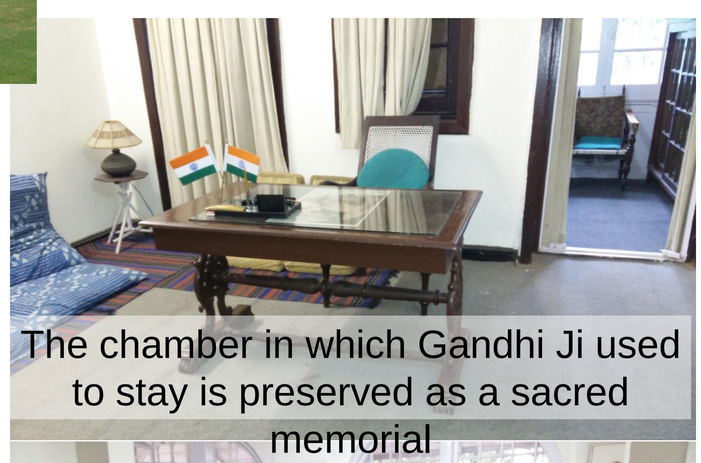
"It has been one of my cherished dreams that for post-graduate study and for the maintenance of high standards of medical education in our country, we should have an Institute of this nature in India which would enable our young men and women to have their post-graduate education in their own country".

-RAJKUMARI AMRIT KAUR

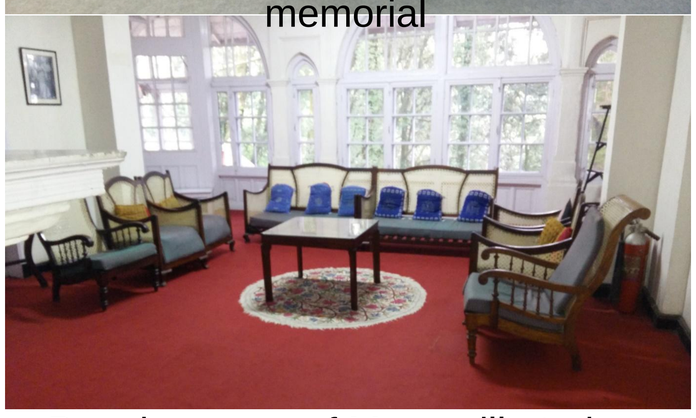
Entrance to Manorville, now called the Rajkumari Amrit Kaur Bhawan

The All India Institute of Medical Sciences was the brainchild of Rajkumari Amrit Kaur. She piloted the AIIMS Bill in the Parliament with a visionary zeal; she envisioned the trinity of mission of AIIMS, namely, Education, Service and Research; she leveraged funds for its magnificent buildings and, she hand-picked eminent academicians, from India and abroad, as its founding faculty. She became the first president of the Institute in 1957.

Out her deep sentiments for the Institute, Rajkumari Ji donated her ancestral mansion in Shimla, named Manorville, to serve as a holiday home for the doctors, nurses and staff of AIIMS.



The chamber in which Gandhi Ji used to stay is preserved as a sacred memorial



Drawing room of Manorville today

Rajkumari Ji remained a member of the Rajya Sabha and the President of AIIMS tlll her demise on 6th February 1964. On the Diamond Jubilee of the Institute, we salute Rajkumari Amrit Kaur Ji, our founder and a great Indian.

Rajkumari Amrit Kaur

Founder of the All India Institute of Medical Sciences

The speech in the Parliament on 18th February 1956 while moving the AIIMS Bill

"I think all the Members of the Lok Sabh are aware of the scheme to bring into being the All-India Institute of Medical Sciences. The money for this has been allocated in our budget for the last 3 or 4 years. It was actually owing to the generous donation from the New Zealand Government under the Colombo .Plan of $ 1,250,000,000 that the Government of India was enabled to begin to bring this Institute into being.

It has been one of my cherished dreams that for post-graduate study and for the maintenance of high standard of medical education in our country, we should have an Institute of this nature in India which would enabled our young men and women to have their post-graduate education in their own country, in their background with the necessary experience that we would like to give to them to do research in the various spheres of medical education.

Medical education, in its theory as well as in its practice, is based on the utilization of the contributions from the other physical and biological sciences. With the continued progress that has been taking place in both these fields; modern medicine has made and is making enormous strides towards increasing efficiency in regard to diagnosis and in regard to treatment and prevention of disease, as well as promotion of positive health. Therefore, the task of medical education, by and large, is to utilize as far as possible this; new knowledge in training the doctor of the future.

Medical education must, above all, take into account the special needs of the country from the point of view of affording health protection to the people. For instance, in our own country, and in Asian countries in general the continued prevalence of various forms of preventable causes of sickness and suffering necessitates special emphases, if I am so put it, on the preventive aspect of medical care. Further, the extent to which he develops a community outlook and a desire to serve the people.

Medical education, moreover, is receiving considerable attention in all the progressive countries of the world. I have had the privilege recently to see what is being done in the U.S.A. in the USSR, in Scandinavia and even in the U.K. and the various steps that are being pursued to bring it more and more into consonance with present day needs and to promote an increasing realization of the object of equipping the future doctor to give of his best to the community. India cannot afford to keep apart from this broad and steady programme of development that is taking place in other parts of the world. The idea of the establishment of this All India Institute is to fulfill the purposes which I have mentioned.

I need not go into the details about how the Institute will function. It is first going to start with a medical training centre which provides under-graduate study to only a very very limited few. The major emphasis will be on post-graduate study and specialization, because one reason for our inability to fulfill the desire of so many States today to have medical colleges is the lack of personnel. One of the main duties of this Medical Institute will be to prepare personnel for medical colleges which it is becoming increasingly hard for us to get. I may inform the Members that when the States ask for medical colleges to be stared, nearly always they have to go to retried personnel to carry on. How long we go on relying on retired personnel? It is absolutely essential that we create young men and women of the highest caliber who will be able to man our educational institutions, in particular. This demand, as I have said, is increasing.

I would now like to mention one or two special features of this Institute. The systems that prevails of private practice being permitted to doctors in medical colleges has, in my opinion, I know I have many people differ from me; especially members of the medical profession-had a deleterious effect on the development of both, sound teaching and active research in colleges. And therefore, in order to prohibit in his Institute, which is the first of its kind in our country and the first of its kind in Asia, private practice of every form and to pay the doctors reasonably high salaries to compensate them for the loss of private practice, is going to be a special feature. The doctors, if they are paid enough, will then be able to live contentedly and to devote their whole time to the promotion not only of teaching, not only of serving the patients who come to the hospitals, but also to what is very important, namely research. Then, all the staff and students are going to be housed in the campus of the Institute. The campus of the Institute is proceeding ahead fairly rapidly and I shall welcome any Members of this House who would like, to come and have a look at the campus to see for themselves how thing are going on. It is in Delhi just beyond the Safdarjung aerodrome.

Also I feel that by housing the staff and students on the campus, we shall be reverting to and taking advantage of what I believe has been one of the traditional good things in our country, that is the *Guru-Shishya* relationship which has, in my opinion, not been given that attention that it should be given. Further, I want every student whether under-graduate or post-graduate to have ample opportunities to participate in the both urban and rural health work, in rural centers as well as in the cities. I want the student even during his student days to participate and take some responsibility for the health of those who will later on be committed to his career a community outlook and also promote powers of initiative and observation and of drawing conclusion from them.

When I was in America year before last, one thing struck me greatly. I was listening in to a fourth year student who not yet qualified giving a complete history of the case which has been put in this charge. In America much more responsibility is being laid on students once they get towards the last year of their stay in a collage.

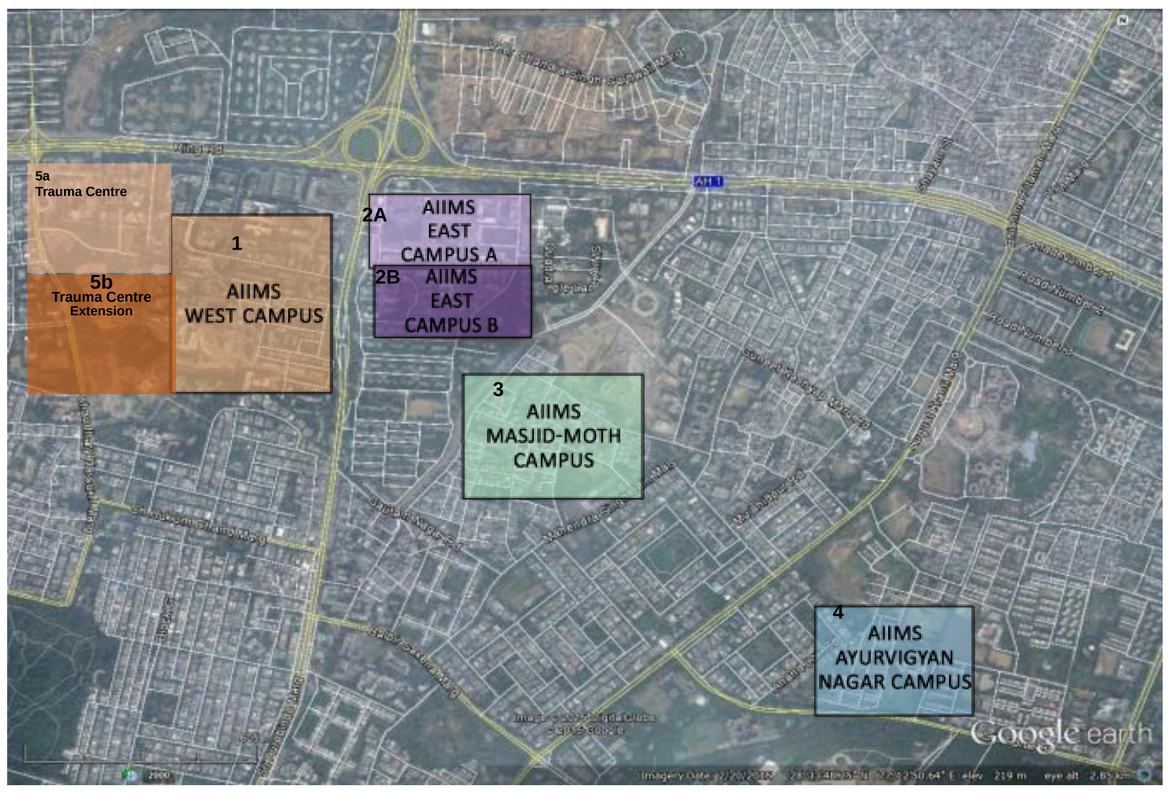
Then, of course, this Institute will be given the power and functions of a University because it will probably make revolutionary changes, as I hope, in curriculum as well as in modes of teaching, and therefore I feel that in the first instance, at any rate, the University status given to this Institute will permit it to give diplomas to all the students who pass out of its portals. Of course, they will be recognized qualification and they will have to be put down in the Indian Medical Council Act, an amendment to which I hope very soon to introduce in this House.

Subject to such minimum control as the Government of India may exercise through its rule-making powers, the Institute will enjoy a large measure of autonomy in order that it may fulfill the objective. I humbly claim that they are very fine objective-which I have tried to set forth in this brief survey. The Government of India will, of course, make itself responsible for providing adequate funds for the maintenance of the Institute but I hope that philanthropy also will come to the aid, as it so often does, of such institutions because, after all, serving the cause of sick and suffering humanity is always something that appeals to those who would like to give.

The future of the Institute will lie ultimately in this hands of the Director, the Professors and other members of the teaching staff and students, and I believe it will be their devotion to duty, their desire to promote their work and the spirit of altruism that will actuate them to subordinate personal considerations, as I believe the noble profession of medicine should do, to the fulfillment of the objectives to be achieved that will eventually create and maintain the atmosphere which is necessary for an Institute like this. I therefore do hope that in presenting this Bill for acceptance by Parliament today, the legal structure that is created may facilitate the medial education in this Institute and that, through the influence it exerts, the standard of different forms of professional training in the field of health throughout the country will be raised.

With these few word I commend this measure to the acceptance of this House."

PROPOSED RE-DEVELOPMENT OF RESIDENTIAL CAMPUSES, AIIMS

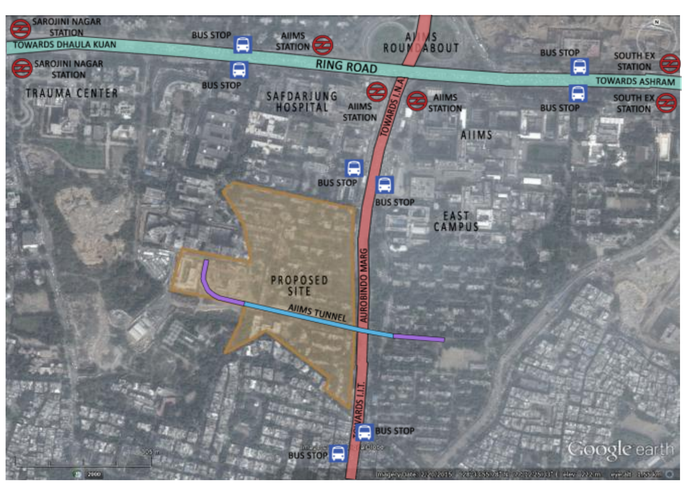


Role of NBCC

- NBCC will do **Project Management Consultancy** of the project right from inception to completion.
- NBCC will invest **initial Seed money** on development of the project if required.
- NBCC will also take **maintenance of the complex** for next 30 years.
- All the proceeds from the sale of Built up areas will be deposited in a **Escrow account.**
- **Escrow Account will be managed by** a committee headed by **AIIMS with L&DO, NBCC as member.**
- The Project will be **monitored by a Empowered Committee** headed by Director AIIMS with officials of AIIMS & NBCC will be members.
- A **separate Construction account** shall be opened by NBCC & all the **interest accrued** shall be **credited to Project**.

WAY FORWARD

- Phase 1 construction of 90 type V and 56 Type VI units at 4 acre plot plus commercial area and 550 to 600 units of Type II & III at AV Nagar vacant Land to facilitate relocation.
- Phase 2 Demolition and construction of balance area.
- Firm up the housing requirements- Already Finalised by AIIMS.
- Submission of EFC Note- Submitted By NBCC to AIIMS
- No objection certificate by the land owning agency- Already applied to L&DO by AIIMS.
- Change of land use for 4 Acres from Sports to Residential- Already applied to L&DO by AIIMS..
- Call of tenders for appointment of consultants- Already in process by NBCC.



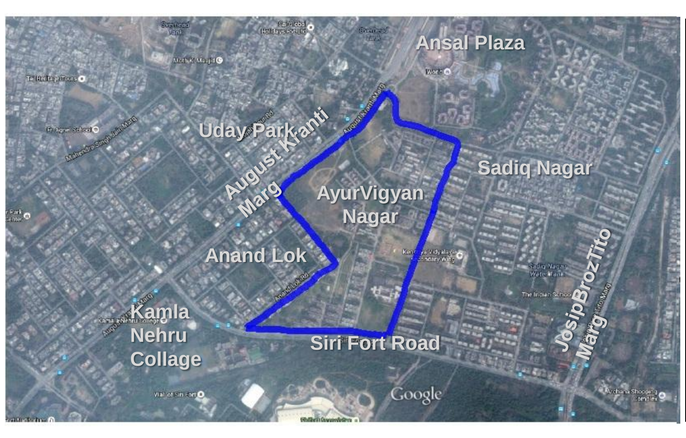
Site Areas - West Campus

Sr. No.	DESCRIPTION	AREAS (SQ.M.)
1	TOTAL SITE AREA (39 ACRES+10 ACRES GREEN BELT)	158059.00
2	TOTAL FAR (2.25)	355632.00
3	EXISTING TRANSIT HOSTEL-4000 SqM	4000.00
4	COMMERCIAL	60000.00
5	HOUSING & COMMUNITY FACILITIES Etc	291000.00
	BASEMENT (2 LEVELS) (Free of FAR)	1,90,000.00
NOTE: The above areas are subject to approval of Local Authorities		

Cost & Revenue-West Campus

S. NO	DESCRIPTION	AMOUNT (RS IN CRORES)
A	LIKELY CONSTRUCTION COST	
1	CONSTRUCTION COST FOR RESIDENTIAL & SOCIAL I/C BASEMENT & DEVELOPMENT ETC.-1.96 LACS SQM @ RS 70,000/-	1372.00
2	MAINTENANCE COST – ONE-TIME CORPUS @ 15% FOR 30 YEARS	200.00
3.	CONSTRUCTION COST FOR COMMERCIAL I/C BASEMENT ETC.-0.30LACS SQM @ RS 70,000/-	210.00
5	TOTAL	1782.00
B	LIKELY REVENUE	
	SALE OF BUA- 30000 SQM @ RS 4.50 LACS PER SQM	1350.00

SHOPPING AREAS UNDER SOCIAL INFRA WILL ALSO BE COMMERCIALLY EXPLOITED TO GENERATE REVENUE OTHER THAN MOTHER DAIRY/SAFAL & KENDRIYA BHANDAR



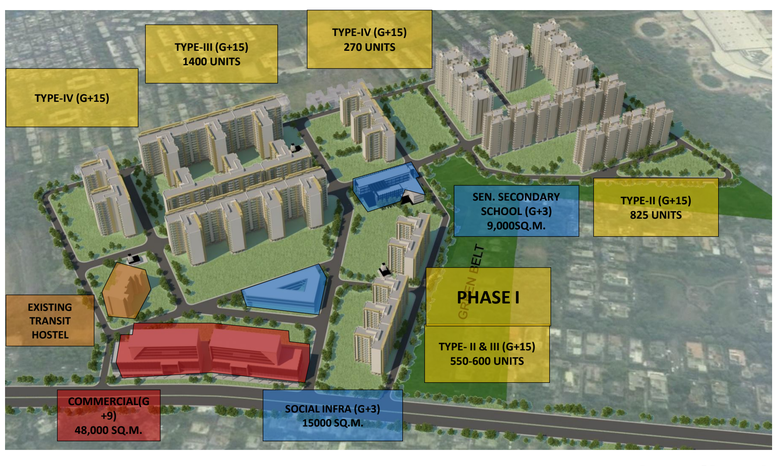
Site Areas – A.V.Nagar

Sr. No.	DESCRIPTION	AREAS (SQ.M.)
1	TOTAL SITE AREA (28.03 ACRES)	1,13,410.00
2	TOTAL FAR (2.00)	226620.00
3	HOUSING & COMMUNITY FACILITIES	156000.00
4	COMMERCIAL	30000.00
5	DHARAMSHALA (G+10) FOR 1800 PERSONS	40000.00
6	BASEMENT (2 LEVELS) (Free of FAR)	1,20,000.00
NOTE: The above areas are subject to approval of Local Authorities.		

Cost & Revenue-A.V.Nagar

S. NO	DESCRIPTION	AMOUNT (RS IN CRORES)
A	LIKELY CONSTRUCTION COST	
1	CONSTRUCTION COST FOR RESIDENTIAL & SOCIAL I/C BASEMENT & DEVELOPMENT ETC.-2.91 LACS SQM @ RS 70,000/-	2037.00
2	MAINTENANCE COST – ONE-TIME CORPUS @ 15% FOR 30 YEARS	305.00
3	CONSTRUCTION COST FOR COMMERCIAL I/C BASEMENT ETC.-60000 SQM @ RS 70,000/-	420.00
4	TOTAL CONSTRUCTION COST	2762.00
B	LIKELY REVENUE	
	SALE OF BUA- 60000 SQM @ RS 4.50 LACS PER SQM SALE OF SHOPS IN LSC- 7500 SQM @ RS 4.0 LACS PER SQM	2700.00 300.00

SHOPPING AREAS UNDER SOCIAL INFRA WILL ALSO BE COMMERCIALLY EXPLOITED TO GENERATE REVENUE OTHER THAN MOTHER DAIRY/SAFAL & KENDRIYA BHANDAR



Satisfaction Comparison

	Type	Eligibility	Total Existing Units	Present satisfaction Level	Existing Retained	Proposed	Total Units (Proposed & Existing)	Proposed satisfaction Level
1	Type I	1271	592		232		232	
2	Type II	2681	496		160	1170	1330	
	Total Type I&II	**3952**	**1088**	**27.53%**	**392**	**1170**	**1562**	**40%**
3	Type III	4379	636	**14.52%**	0	1620	1620	**37%**
4	Type IV	1183	144	**6.14%**	60	858	918	**78%**
5	Type V	301	88	**29.24%**	60	168	228	**76%**
6	Type VI	356	65	**18.26%**	65	112	177	**50%**
	Overall	**10171**	**2021**	**17.83%**	**969**	**3928**	**4505**	**44%**

UNITS PROPOSED ARE TENTATIVE , SUBJECTED TO STATUARY APPROVAL

3D- Visualization -West Campus

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

एन बी सी सी
NBCC
A Navratna CPSE

Theater, Games, Picnic, Dostana
Old Memories

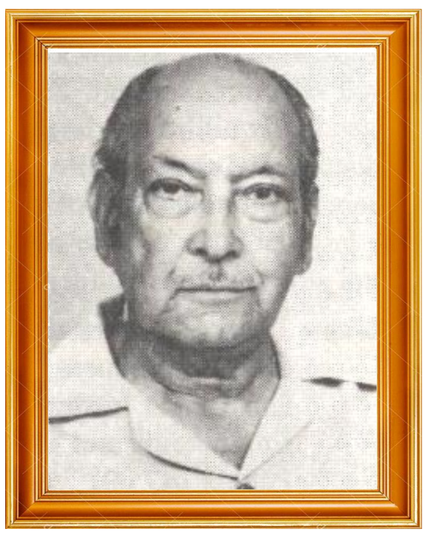
Golden Jubilee Reunion of 1st & 2nd Batch
17th-18th Nov, 2012

Shanti Swarup Award

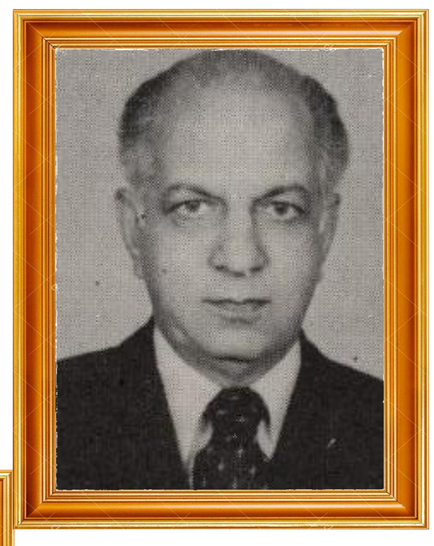
Six Decades of AIIMS

- 'Shanti Swarup Bhatnagar Prize for Science and Technology' is named after the founder Director of the Council of Scientific & Industrial Research (CSIR), the late Dr (Sir) Shanti Swarup Bhatnagar.
- The Prize is given each year for outstanding contributions to science and technology.
- SSB Prizes, each of the value of Rs 5,00,000 (Rupees five lakh only), are awarded annually for notable and outstanding research, applied or fundamental, in the following disciplines: (1) Biological, (2) Chemical, (3) Earth, Atmosphere, Ocean and Planetary, (4) Engineering, (5) Mathematical, (6) Medical, and (7) Physical Sciences.
- Any citizen of India engaged in research in any field of science and technology up to the age of 45 years as reckoned on 31st December of the year preceding the year of the Prize. Overseas citizen of India (OCI) and Persons of Indian Origin (PIO) working in India are also eligible.
- The Prize is awarded on the basis of contributions made through work done primarily in India during the five years preceding the year of the Prize.
- The Prize is bestowed on a person who, in the opinion of CSIR, has made conspicuously important and outstanding contributions to human knowledge and progress – fundamental and applied – in the particular field of endeavour, which is his/her specialization.

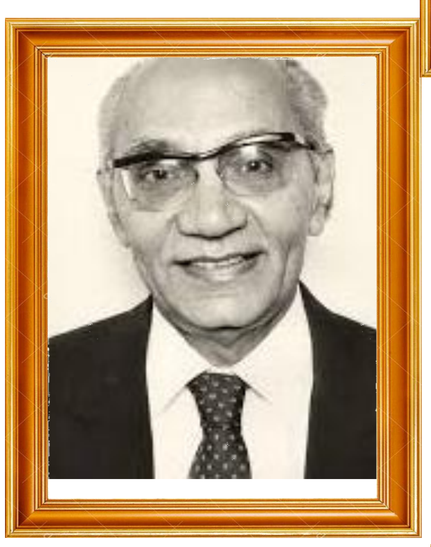
Recipients of Shanti Swarup Bhatnagar Prize at AIIMS 1956-2016



DR. R. B. ARORA (1961)
has been conducting and guiding research in various fields of biological and medical sciences, with special reference to cardiovascular pharmacotherapeutics



DR. B. K. ANAND (1963)
has made significant contribution in the field of physiology, especially neurophysiology. One of his main interests has been the study of nervous regulatory mechanisms for various internal activities of the body which enable it to maintain homeostatic conditions. He has been instrumental in the discovery of 'feeding centre' in the hypothalamus.



DR. V. RAMALINGASWAMI (1965)
is well known for his work on protein malnutrition in India. He was one of the first investigators who discovered and described the syndrome of Kwashiorkor or protein malnutrition in the young growing Indian children and reproduced it successfully in experimental animals.

Dr. J. R. TALWAR (1970)
has done extensive work on the experimental production of various types of cold injury and on evaluation of the efficacy of various drugs and physiologically active substances in the management of cold injuries. His work has led to some practical ameliorative measures for the prevention and treatment of cold injury.

DR. T.C.ANAND KUMAR (1977)
has to his credit major contribution in the area of neuro-endocrinology of primate reproduction. He has demonstrated the presence of gonadal hormones in the cerebro-spinal fluid (csf) and their transport to the brain. His work on fertility regulation, especially the administration of contraceptive steroids through the nasal route which results in their preferential transfer into the csf, is of distinct advantage in developing newer approaches to contraception.

Dr. Indra Nath (1983)
has studied the immunological mechanisms involved in various types of leprosy and contributed to basic understanding of the cellular mechanisms regulating natural immunity in human form of the disease. Development of a new in vitro radiometric assay using macrophages has provided a rapid method for screening anti-leprosy drugs, drug resistance and immunologically- mediated microbiocidal activity

DR. PRADEEP SETH (1986)
has done notable work aimed at gaining an understanding of the role of herpes simplex virus infection in etiopathogenesis of cancer of uterine cervix which is the dominant cancer in Indian women.

DR. M. K. BHAN (1990)
Dr Bhan's main areas of activity have been aetiology, pathophysiology and treatment of persistent intestinal injury in children. His work has led to the identification of the aggregative Escherichia coli as a major causative organism of diarrhoeal disease in India. He has developed starch-based oral rehydration solutions for control of diarrhoea.

DR. SHASHI WADHWA (1991)
has made outstanding contribution in the area of human development neurobiology. Her work is responsible for a description of the chronology of proliferation, migration, synaptogenesis and organisation of neurons as well as of the neurotransmitter profiles of GABA and substance P in the lateral geniculate body in the visual pathway.

DR. N. K. MEHRA (1992)
has made significant contribution in the subject of 'histocompatibility and immunogenetics' and has identified the role of HLA-linked genes in the important diseases of India. He has shown that susceptibility to leprosy and tuberculosis is associated with a subtype of HLA-DR2 carried on a unique class II haplotype. He has further Shown that Indian patients show a pattern of DR and DQ association in rheumatoid arthritis and insulin dependent diabetes mellitus quite distinct from that of the Western Caucasian patients.

DR. Y.D. SHARMA (1994)
has made outstanding contribution to molecular biology of malaria. He has constructed a genomic library of a noncultivable parasite - P. vivax - which is an important pathogen for India. He has isolated and characterized immunologically relevant recombinant antigens of P.vivax and P.falciparum which are important for the understanding of host-parasite interaction and for the development of immunotherapeutic reagents.

DR. S. K. PANDA (1995)
has made outstanding contribution in the field of viral hepatitis. In particular, he has demonstrated the transmission of Hepatitis E virus in Rhesus monkeys and its association with severe liver disease and protracted viremia.

Dr Ravinder Goswami (2008)
is recognized for his significant contribution in the field of clinical endocrinology with particular reference to hypocalcemic disorders. His research work has documented the prevalence, significance and causes of vitamin D deficiency in apparently healthy individuals for the first time in India. His work on sporadic idiopathic hypoparathyroidism has provided valuable information on the etiopathogenesis and clinical feature of this disorder as seen in our country.

Six Decades of AIIMS

अखिल भारतीय आयुर्विज्ञान संस्थान

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

शरीरमाद्यं खलु धर्मसाधनम्

अखिल भारतीय आयुर्विज्ञान संस्थान

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

1956-2005

शिक्षा, उपचार एवं शोध में उत्कृष्टता

EXCELLENCE IN EDUCATION, PATIENT CARE & RESEARCH

शिक्षा EDUCATION

अनुसंधान RESEARCH

हीरक जयंती 1956-2016 DIAMOND JUBILEE

स्वास्थ्य सेवा PATIENT CARE

WHO Collaborating Centers

World Health Organization

WHO COLLABORATING CENTER FOR HUMAN REPRODUCTION

Department of Obstetrics and Gynaecology

Department of Obstretics and Gynecology, All India Institute Of Medical Sciences, was designated as the WHO collaborating centre for human reproduction in 1972. It has been doing exemplary work in collaborating with WHO, and coordinate as required, the promotion and conduct of research in sexual and reproductive health, including multicentre studies on therapeutic interventions, diagnostics, and fertility regulation methods, strengthening capacity in sexual and reproductive health research, within India and in the WHO South East Asian region, through formal training, continuing medical education programmes and other means, such as workshops and seminars, generating and collating evidence needed to be able to advocate for expanding safe abortion services in India and the WHO South East Asian region; promotion of preconception care; and prevention of reproductive health-related outcomes among women tobacco use and among women and children of second-hand tobacco smoke and promoting & supporting inter-institutional/inter-country collaboration and networking within the Special Programme on Research, Development and Research Training in Human Reproduction and within the network of collaborating centre for reproductive, maternal and newborn health.

WHO COLLABORATING CENTRE ON SUBSTANCE ABUSE

National Drug Dependence Treatment Centre

National Drug Dependence Treatment Centre, All India Institute of Medical Sciences, New Delhi, was designated as the WHO Collaborating Centre on substance abuse in 2012. The Centre aims to explore the epidemiology of substance use and substance use disorders, identify and manage substance use and substance use disorders, improve coverage and quality of treatment for substance use disorders and generate new research data for contributing to WHO global and regional information systems on alcohol and drugs

WHO Collaborating Centre for Capacity Building and Research in Community Based Non-Communicable Diseases Prevention and Control

Centre for Community Medicine

Centre for Community Medicine, All India Institute of Medical Sciences, New Delhi, was designated as the WHO Collaborating Centre for Capacity Building and Research in Community Based Non-Communicable Diseases Prevention and Control in 2010. The Centre aims to support WHO in strengthening capacity in Member States for development of Multi-sectorial National NCD Prevention and Control Action Plans, to assist WHO in strengthening capacity for NCD Surveillance among Member States and linking them to national prevention and control efforts and to support WHO in promoting Research for NCD Prevention and Control including on community-based strategies .

WHO COLLABORATING CENTRE FOR TRAINING AND RESEARCH IN TUBERCULOSIS

Department of Internal Medicine

Department of Internal Medicine was designated as the WHO-Collaborating Centre for training and research in tuberculosis in 2015. The Centre aims to provide technical support on extrapulmonary tuberculosis, co-morbidities associated with tuberculosis and drug resistant tuberculosis when requested by WHO

WHO COLLABORATING CENTRE FOR TRAINING IN CLINICAL & LABORATORY GENETICS IN DEVELOPING COUNTRIES

Department of Pediatrics

The Division of Genetics of Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, was designated as the WHO Collaborating Centre for Training and Laboratory Genetics in Developing Countries in 1992 . The Division actively contributes to the preventive and therapeutic aspects of various genetic disorders through advancements in genetic testing using state of art technology, with a goal of enhancing patient care for a large number of patients referred from India and neighbouring countries

WHO COLLABORATING CENTRE FOR TRAINING AND RESEARCH IN NEW BORN CARE

Department of Pediatrics

The Neonatal Division at the Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, was designated as the WHO Collaborating Centre for Training and Research in 1997. It has been doing outstanding work in serving as a resource and catalyst for quality improvement initiatives to improve newborn healthcare in facilities in member countries of the South East Asia Region (SEAR) , supporting strengthening of the capacity for newborn nursing in the Region, developing e-Learning courses for health care providers involved in the care of sick newborns in the Region , providing in-service training on newborn care for WHO fellows from countries of the Region, providing technical support to WHO SEARO and other WHO-CC in the ongoing 'Birth Defects Surveillance' program and 'SEAR NBBD' database and developing a framework for facility based follow up of high risk neonates with focus on providing a holistic post discharge care at health facilities in member countries of South East Asia Region (SEAR)

WHO COLLABORATING CENTRE FOR ORAL HEALTH PROMOTION

Centre for Dental Education and Research

Centre for Dental Education and Research was designated as the WHO-CC for Oral Health Promotion in 2014. It is the only WHO-CC in the entire South East Asia Region on Oral Health and one of the 14 Collaborating Centres on Oral Health in the world. The Centre aims to assist WHO in training of public health professionals involved with oral health promotion and integrated disease prevention, to promote Oral Health with focus on behavior change including use of common risk factor approach on request of WHO, to assist WHO in adapting Global Oral Health Tools to the SEA Regional Context.

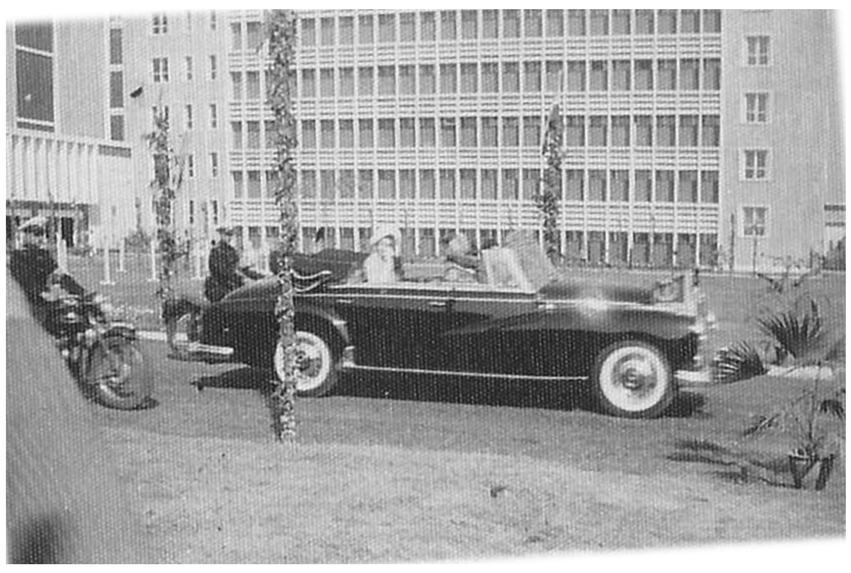
WHO COLLABORATING CENTRE FOR PREVENTION OF BLINDNESS

Dr Rajendra Prasad Centre for Ophthalmic Sciences

Dr Rajendra Prasad Centre for Ophthalmic Sciences
All India Institute Of Medical Sciences, was designated as the WHO collaborating centre for prevention of blindness in 2016. The centre has been doing outstanding work and aims to generate new evidence by conducting basic and applied field research in epidemiology, management and operational aspects of avoidable blindness and prevention of blindness, to support development, implementation and evaluation of strategies for prevention of blindness in countries in south-east Asia and to support training of eye-care personal for management of various eye disorders including in the school health/ community care settings in countries of the region.

*Source- http://apps.who.int/whocc

THE ALL INDIA INSTITUTE OF MEDICAL SCIENCES WERE OPENED BY HER MAJESTY QUEEN ELIZABETH THE SECOND ON JANUARY 27, 1961



The National Medical Journal of India

On the frontline of Indian medicine

Webpage

History

- Idea conceived in 1986
- February 1988
- Workshop on *'Better Medical Writing in India'* at All India Institute of Medical Sciences
- Conducted by team from the *British Medical Journal* led by Dr Stephen Lock, then Editor of the BMJ
- Emphasized need for a good general medical journal from India
- 1988 : First issue published

Aims

- To inform, educate and entertain through its myriad columns including

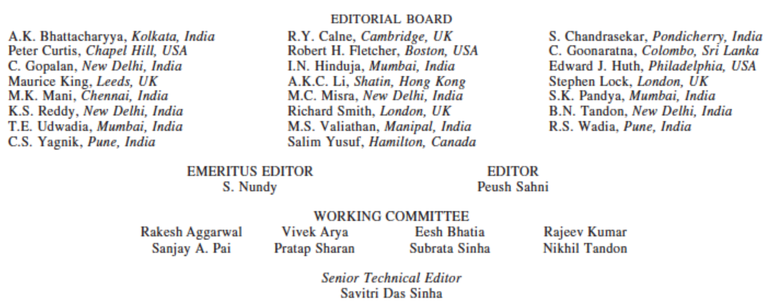
  'Editorials, Selected summaries, Review articles, Original articles, Letters on healthcare from different cities, countries and continents, Book reviews, Clinico-pathological conferences, Everyday practice, Masala, and News from Here and There'
- To provide for analysis and advocacy of issues relevant to health policy and health provider training through

  'Medicine and society' and 'Medical education'
- To give opportunity for expression of individual opinions on healthcare through

  'Speaking for myself'

About the Journal

- International editorial board
- National working committee



- Past editors: Samiran Nundy (present Emeritus Editor)
  K. Srinath Reddy (present Member, Editorial Board)
- Editorial process
  - Each article scrutinized in house
  - Selected articles are sent to 2 reviewers
  - Reviewers selected from database of over 1500 experts in various fields, inputs from members of working committee and editorial board, and by scanning the published world literature
  - Aim to complete the review process in 12 weeks
  - In the process of setting up an online manuscript submission and peer review system, expected to be live by October 2016
- Abstracted and indexed in
  - Current Contents—Clinical Medicine
  - Science Citation Index
  - MEDLINE
  - Excerpta Medica, Scopus
- Print and electronic versions available
- All issues archived and available free from the website
- No publication charges

International Associations

- Samiran Nundy, the first editor
  - Invited to International Committee of Medical Journal Editors meeting in 1992
  - Participant at the first Bellagio meeting which led to the formation of the World Association of Medical Editors (WAME)
- Peush Sahni, current editor
  - Former President, World Association of Medical Editors, 2004-2005
  - Represents WAME on the International Committee of Medical Journal Editors
  - President, Indian Association of Medical Journal Editors

Journal contents

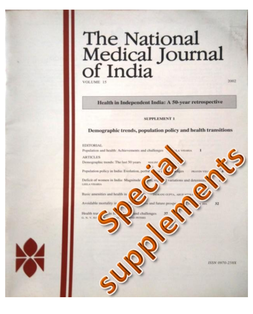
Publishes healthcare research in the form of articles and thematic series

Articles

- Both solicited and unsolicited
- Other columns:
- Short Reports, Case reports, How to do it, Medical Ethics, Correspondence
- History of Medicine, Indian Medical Colleges, Classics in Indian Medicine
- Book Reviews and Obituaries

Thematic series

- Clinical Research Methods
- An Eye on the Web
- Communicable diseases
- Bench to Bedside
- The World: A different view



Special supplement on health in independent India

- Demographic trends, population policy and health transitions
- Women and child health

Books published

- Journal Title: **The National Medical Journal of India**
- Website: ***www.nmji.in***
- Publisher: **All India Institute of Medical Sciences, New Delhi**
- Year founded: **1988**
- Editor: **Peush Sahni**
- Number of full-time staff: **3**
- Primary audience: **Health care personnel**
- Primary topics: **Healthcare research, all disciplines**
- Type of content: **Original research, Reviews, Commentaries, Letters, Editorials**
- Required reporting guidelines: **ICMJE, CONSORT, STARD, PRISMA, MOOSE**
- Annual budget: **INR 800,000 (approximately US$ 12,000)**
- Frequency of publication: **Bi-monthly**
- Copies printed per issue: **1500**
- Access model: **Open access**
- Copyright policy: **Author transfers copyright to publisher**
- Business model: **Subscription, Advertising, Institution-supported**
- Indexed by: **Current Contents-Clinical Medicine, Science Citation Index, MEDLINE, Excerpta Medica, Scopus**

Anaesthesiology, Pain Medicine & Critical Care

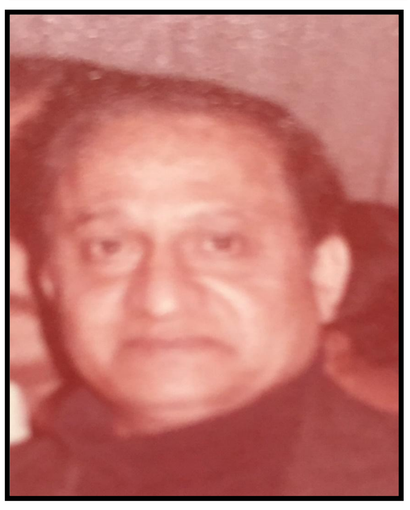
Year of Establishment- 1956

"The Doyens of the Department – *Clinicians, Researchers and Teachers par Excellence*"

"The Beginner & 1st Medical Supt. of AIIMS"

Lt Col (Prof) G C Tandon

"The Versatile – Researcher & Teacher"



Prof G R Gode

"The Teacher, Clinician & Mentor"

Dr V A Punnoose

"Prof Cool – Perfectionist & All-rounder"

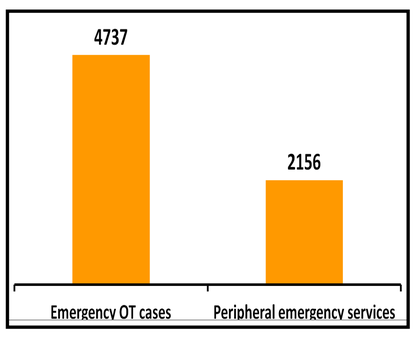
Prof H L Kaul

"We Take Care, When you are Asleep"

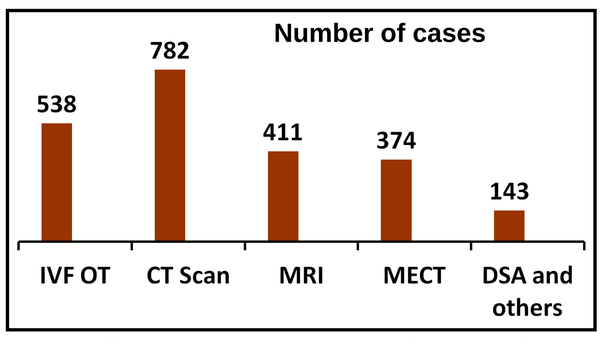
Operating Room Anaesthesia Services for different Surgical Disciplines

Peripheral Anaesthesia Services
(CT scan, MRI, Endoscopy, MECT, IVF OT, USG Resuscitation & Peripheral Calls)

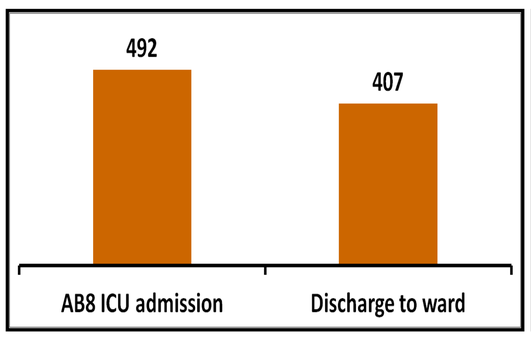
Annual Statistics 2015-16



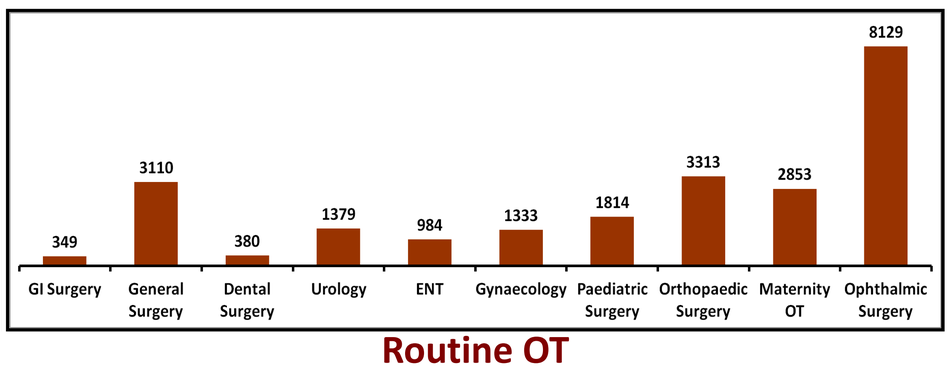
Emergency services



Peripheral Anaesthesia Services



AB8 ICU



Routine OT

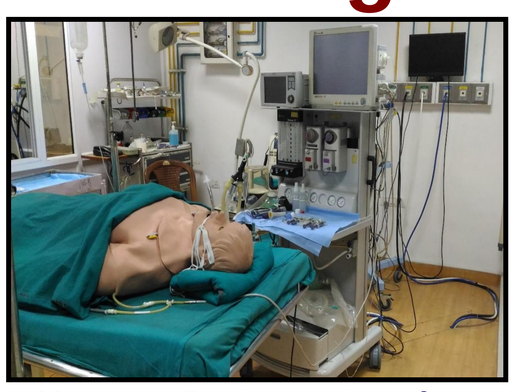
AB8 Intensive Care Unit

Anaesthesia Services: Clinical, Research and Teaching

Pain Clinic

Pre Anaesthesia Clinic

AB8 Post Anaesthesia Care Unit



Human Patient Simulator

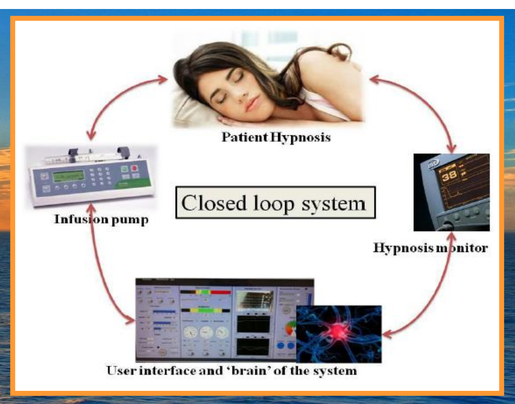
Anaesthesia in Train
(Lifeline Express)

Anaesthesia in
Project Rainbow & Smile

Anaesthesia at
CRHS Ballabhgarh

The Future..

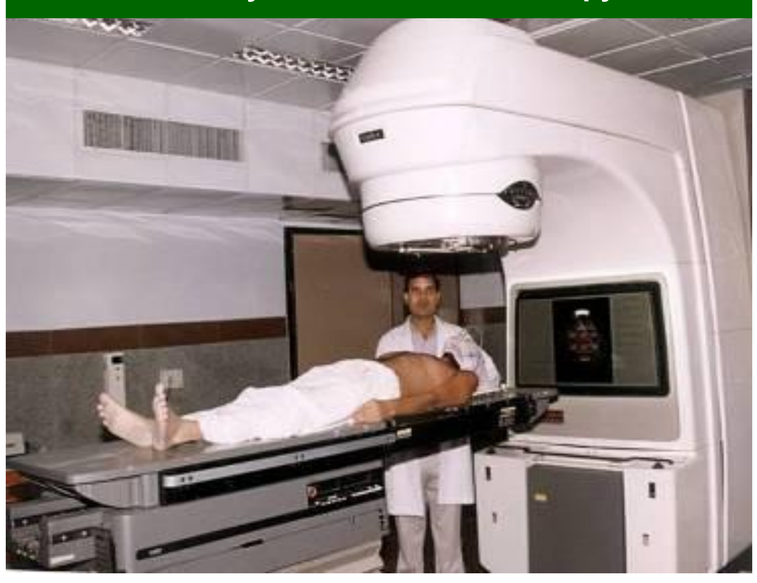
Robotic Intubation



Ultrasound In Anaesthesia

Advance Patient Care Facilities in AIIMS

Intensity Modulated Radiotherapy



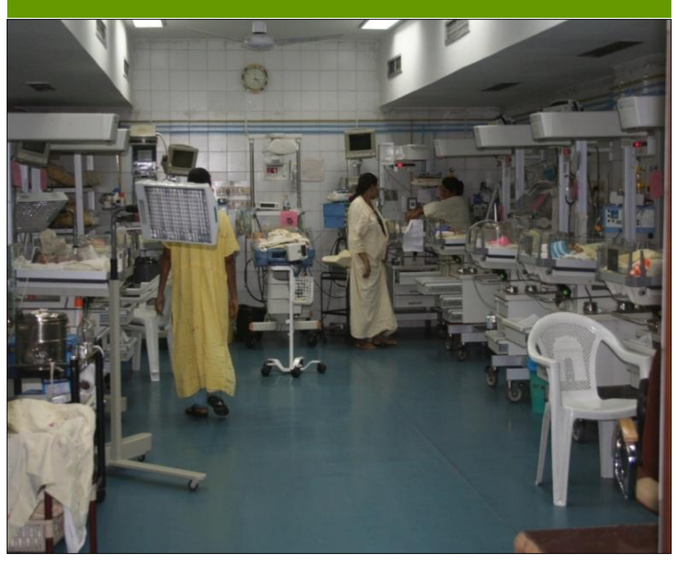
3D Conformal Radiotherapy

Intra-operative Brachytherapy

Bone Marrow & Stem cell Transplantation

Apheresis Facility

State of Art ICUs

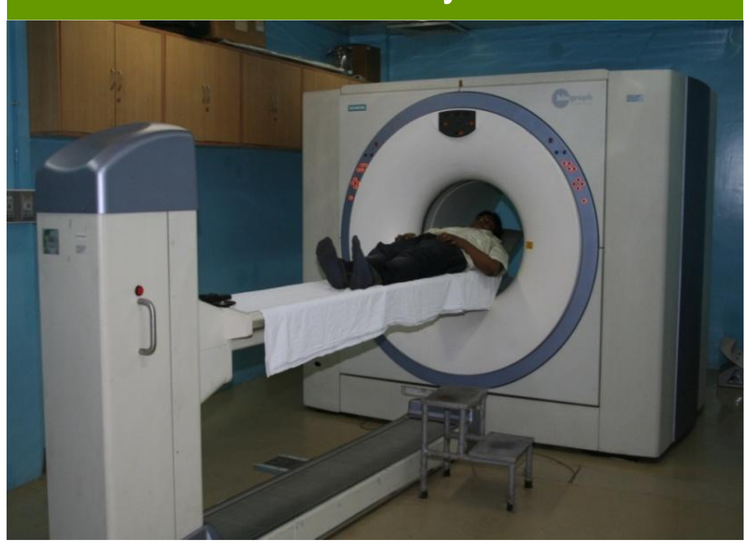


Da Vinci Robotic Surgical Console

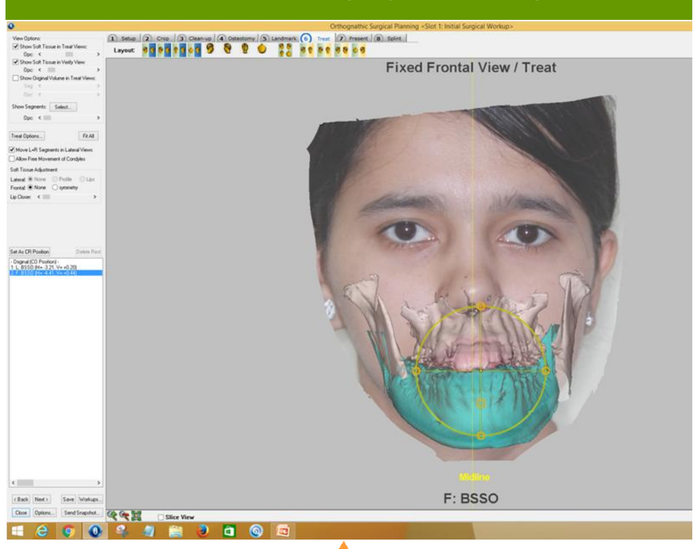
Gama Knife

Heart Laser

PET Facility



3D virtual surgery: Planning



Operating Microscope

शिक्षा EDUCATION

अनुसंधान RESEARCH

हीरक जयंती 1956-2016 DIAMOND JUBILEE

स्वास्थ्य सेवा PATIENT CARE

Anatomy

Year of Establishment- 1956

Founder Members

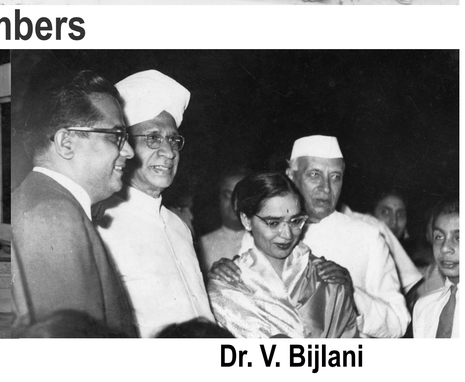
Dr. L. W. Chacko

Dr. N. H. Keswani

Memorable Moments

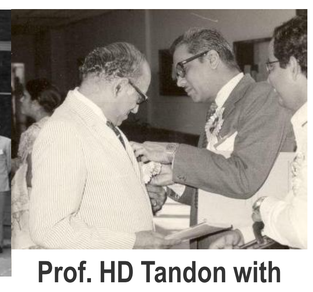
Pioneering Faculty Members

2nd International IBRO Meet, Oct 1964

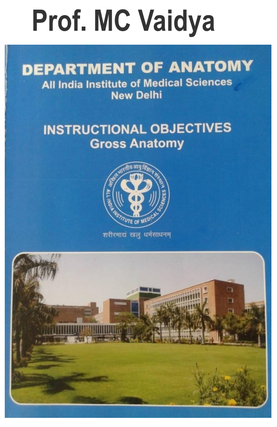


Dr. V. Bijlani

XVII Annual Conference of ASI, Dec 1968



Prof. HD Tandon with Prof. MC Vaidya



This document is the collective effort of the Junior and Senior residents as well as the Faculty of the Department of Anatomy over a number of years. It was their consistent drive, which has helped refine this document to the present state. The contribution made by each one of them is invaluable. The meticulous typing of the innumerable drafts by the secretarial staff involved in this work is gratefully acknowledged.

Significant Achievements

- Rated as the best Anatomy Department in India in several national surveys
- Formulated the pre-clinical one-year curriculum, subsequently incorporated in MCI guidelines and adopted nation-wide
- Established India's first Neural Transplantation laboratory in 1986
- Shanti Swaroop Bhatnagar award: 2 recipients
- Gross Anatomy Manual of 'Instructional Objectives': a departmental publication

The **vision** of the founder members of the Anatomy Department was to develop a pattern of teaching and research in undergraduate and postgraduate curricula, encompassing all branches of Morphology, Neuroscience, Genetics, Developmental and Molecular Biology, so as to achieve the highest standard of Medical Education in the country.

Major Facilities

- Whole Body Donation Facility has the largest number of registered donors in India.
- Embalming Facility is the largest of its kind in the country offering round-the-clock services
- Sophisticated Analytical Instrumentation Facility has been recognized by the Department of Science & Technology (DST) as the best user facility in biological electron microscopy in India
- e-learning Facility is a unique, indigenous intra-departmental Learning Management System for sharing learning resources
- Lab. for Molecular Reproduction & Genetics is the only lab in India doing sperm DNA Fragmentation Index (DFI) and seminal ROS levels; offers diagnostic & counseling services
- Fluorosis Diagnostic & Research Laboratory
- Plastination Laboratory
- Digital Microanatomy Laboratory offers state-of-the-art infra- structure for interactive teaching/learning and assessment
- Digital Gross Anatomy Laboratory offers facilities for hands-on Cadaveric workshops for various surgical specialties (Neurosurgery /ENT/Orthopedics/Anesthesia) as well as state-of-the-art infra-structure & learning resources for UG & PG students of Anatomy

Vision for the Future

The department aims to retain its pinnacle position in the forefront of medical education & research in India, while aspiring for international standards through augmentation of human resources, infrastructure and e-learning technologies as well as innovations in curriculum planning, delivery, assessment & revision.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Six Decades of AIIMS

BIOCHEMISTRY

Year of Establishment- 1956

Founder :
Professor G P Talwar

Professor GP Talwar is a medical researcher working in the area of vaccines and immunocontraception and headed the Biochemistry department at AIIMS for almost 27 years. Dr. G P Talwar was the Head, ICMR-WHO Research and Training Centre in Immunology for India and South East Asia (1972-91). Dr. G P Talwar was conferred Officier de la Legion d'Honneur by President of France

HIGHLIGHTS

- Globally recognized for its high quality teaching of undergraduate and postgraduate students, medical research, patient care, training and PhD programme.
- In undergraduate teaching, employ innovative teaching techniques such as Problem Based Learning.
- The faculty is involved extensively in research activities related to basic, clinical and translational biomedical research. The funding for research is obtained from research grants from intramural sources and National as well as International funding agencies.
- Some of the faculty actively participate as Facilitators in workshops (In house and National) on Medical Education

HEADS OF THE DEPARTMENT DURING THE SIX DECADES

Name of HOD's	Period
Prof. G. P. Talwar	09.08.56 – 30.10.83
Prof. B.S. Narang	01.11.83 – 22.01.86
Prof. Shail K. Sharma	25.01.86 – 31.05.95
Prof. L. M. Srivastava	01.06.95 – 30.06.98
Prof. Chandana Das	01.07.98 – 31.07.03
Prof. Subrata Sinha	28.06.10 – 27.06.10 (On deputation)
Prof. Neeta Singh	28.07.10 – 30.11.14
Prof. D N Rao	01.12.14 – 31.01.16
Prof. S. S. Chauhan	01.02.16 – till date

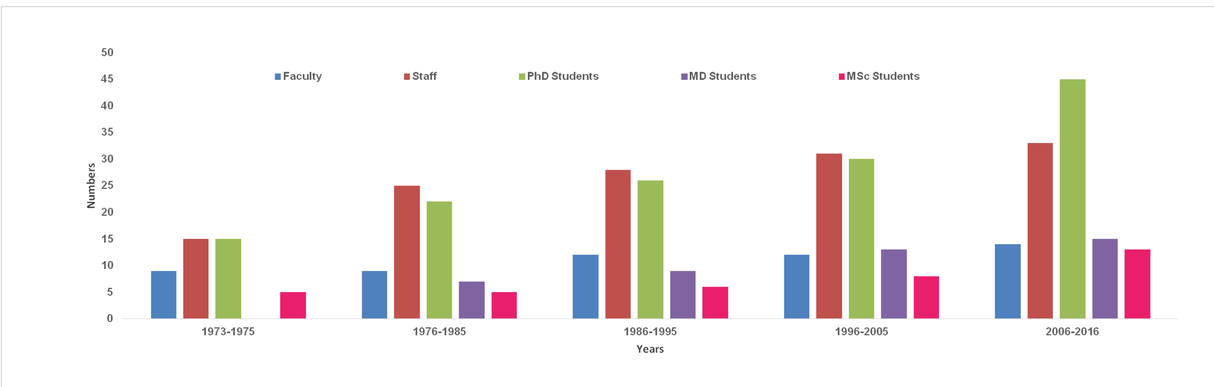
CURRENT FACULTY 2016

Left to right: Bottom Row: Prof. K Chosdol, Prof. P P Chattopadhyay, Prof. S S Chauhan (HOD), Prof. K Luthra, Prof. A Sharma
Top Row: Dr. J Kumar, Dr. A Sharma, Dr. P Acharya, Dr. A Singh-I, Dr. S Karmakar
Faculty not in the picture: Prof. M R Rajeswari, Dr. S Sen, Dr. A Singh-II

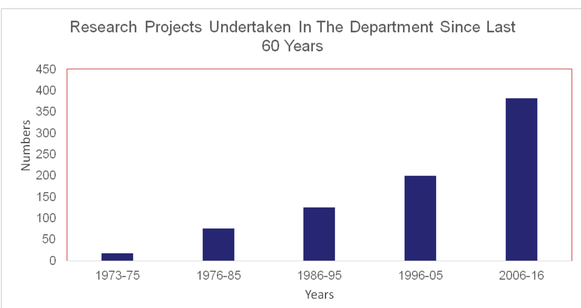
VISION

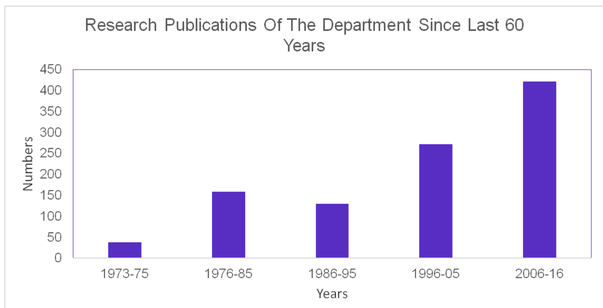
- The strength of the faculty in the Department of Biochemistry is the diverse expertise ranging from basic to translational research.
- The department is working towards understanding the genesis of various diseases.
- To identify novel biomarkers, use of antigens and nanotechnology for cancer therapy and developing new generation vaccines and strategies for Hepatitis B, HIV-1 and tuberculosis.

Increase in Faculty, staff and student strength over the past six decades



RESEARCH PROJECTS & PUBLICATIONS

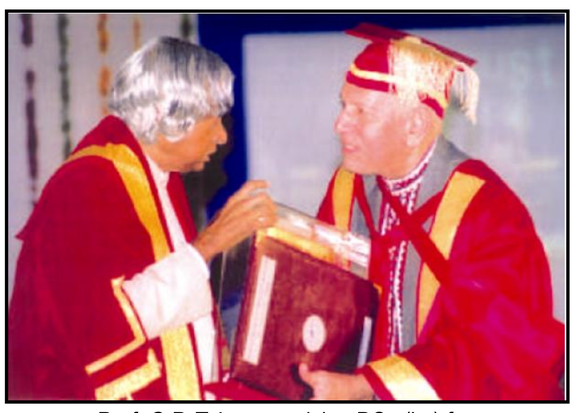




1. The Department provides research training to Institute undergraduate students in form of short term summer training as well as project work for KVPY and Short Term studentship (STS) fellowships awarded to UG students by ICMR.
2. Training is also imparted to Fellows sponsored by WHO as well as SAARC countries.

NATIONAL AWARDS

- Prof. G. P. Talwar was conferred Padma Bhushan by President of India (1992)
- National Award in Bio-Medicine, Basanti Devi Amirchand Prize of ICMR, JC Bose Award Life Sciences, FICCI Award, Rameshwardas Birla National Award.
- Prof. L M Srivastava was conferred Dr. B.C. Roy National Award of Medical Council of India for development of Specialties of Biochemistry (1996)
- Prof. Subrata Sinha: Awarded the Swarnajayanti Fellowship of the department of Science and Technology, New Delhi (1998).
- Prof. D N Rao: Hari Om Ashram Alembic Research Award-2000 by Medical Council of India.
- Prof. Kalpana Luthra: awarded the Shakuntala Amir Chand Prize by ICMR for the year 2003



Prof. G.P. Talwar receiving DSc (hc) from Dr A P J Abdul Kalam, President of India (2004).

Prof. L M Srivastava receiving Dr. B.C. Roy National Award from Dr. Shankar Dayal Sharma, President of India (1996)

Prof. Subrata Sinha: Awarded the Swarnajayanti Fellowship of the department of Science and Technology, New Delhi (1998).

ACHIEVEMENTS

Patents

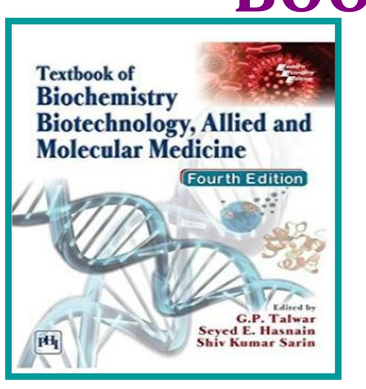
1. **Establishment of cell line from Betel and Tobacco associated Human Oral Squamous cell carcinoma to develop an experimental model for tobacco induced oral tumorigenesis. Ralhan et al. May 2004 . Patent no. 6,730,514**
2. **A novel small interfering RNA (siRNA) targeting the Human Papilloma Virus – 16 enhancer region leading to down regulation of the expression of viral oncogenic mRNA's E6 & E7 in a human Pailloma Virus – 16 (HPV-16) positive cerrical carcinoma cell line, and its novel genomic target. (Patent No. 263597 dt 5/11/14; Indian Patent Application No. 2746/Del/2008 dt. 4/12/2008, DBT and AIIMS) J Palanichamy, S Sinha, P Chattopadhyay.**
3. **"A novel small interfering RNA (siRNA) directed against ME lal binding region in the P2 promoter of proto-oncogene c-myc results in its transcriptional gene silencing. M Mehndiratta, S. Sinha. P Chattopadhyay. (Patent No, 263225 dt 15/10/14; Indian Patent Application No, 2747/Del/2008 dt 4/12/2008, DBT and AIIMS)."**
4. **A humanized high Affinity Recombinant antibody against Hepatitis B surface antigen. Ashutoash Tiwari, Navin Khanna, S K Acharya and Subrata Sinha. For India:Publication number: IN2008DE190, Filing Date: Jan 23, 2008, Original published format: IN DE01902008, International Application No: PCT/IN2008/000796, International Filing Date: Dec 2, 2008.**
5. **A recombinant mouse-human Chimaeric Fab against Hepatitis B surface antigen. Biplab Bose, Navin Khanna, S K Acharya and Subrata Sinha. (PCT filed, national phase granted in South Africa No 2009/04338 on 26 May 2010, Indian Patent No 251904 (2704/DEL/2006) Dated 18/12/2006, granted on 16/04/2012 .**
6. **Use of FAT1 gene and its products including RNA, protein and the derivatives of the same, as suitable molecules for either inflammation or cancer and the associated phenotype and the processes linking the same and also as a biomarker for the above processes. Kunzang Chosdol, Bhawana Dikshit and Subrata Sinha (PCT/IB2013/ 050086). Proposed claims for the US national stage application from PCT/IB/050086 "FAT1 gene in cancer and inflammation (Publication no WO2013102878A2).**
7. **Neutralizing human anti-V3 monoclonal antibody generated from HIV-1 Clade C infected Indian patient. Kalpana Luthra, Raiees Andrabi, Naveet Wig, Ashutosh Biswas, Patent Application No: 1882/DEL/2012. The above patent was advertised and granted on 26 February 2014 (Patent number: ZA Patent No. 2013/04490).**
8. **Placental Like Alkaline Phosphatase Promoter (PLAP) Mediated Cell Targeting. Subrata Sinha, Imran Khan, Khalid Ahmad, Kunzang Chosdol and P. Chattopadhyay. Indian Patent Application No. 1400/DEL/2013 dated May 10 2013 Reference number 35311N01. "PCT and US Patent filed, PCT/IB2014/061350 dated May 10, 2014, US Patent Application No.: 14/722,361 filed on September 03, 2015 (jointly by DBT, AIIMS and NBRC)."**

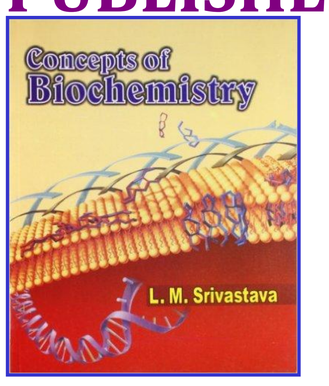
PATIENT CARE

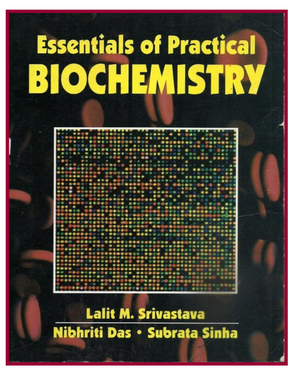
The following metabolic parameters and tumor markers are evaluated in the department:

- T3, T4, TSH, FSH, B12, Ferritin, Testosterone, Folate
- hCG, PSA , CA-125, CEA, CA 15.3, CA 19.9, Alpha Feto Protein (AFP)

BOOKS PUBLISHED







Towards Excellence in Basic and Translational Research

Biomedical Engineering

Year of Establishment-1971

Founder: Prof. S.K Guha

The **vision** is to contribute to the society via education, research and technology by delivering affordable diagnostics and therapeutics.Department of Biomedical Engineering (DBME) was established in 1971 as a Joint programme between All India Institute of Medical Sciences (AIIMS), Delhi and Indian Institute of Technology Delhi, to establish the knowledge transfer between engineering and medical institute. The department has been largely successful in imparting education to doctoral /M.Tech/ B.Tech students in all these years.

Achievements

Research & Education

- Department has graduated more than 86 PhDs till date
- Department has a track record 600+ publications, 800+ abstracts and 50+ patents.
- The department is well known for development of Injectable Contraceptive for male in India (RISUG) which is in its Phase 3 clinical Trials now.
- The Department was a National centre for Evaluation of Intra uterine devices (IUDs) & Copper-T for one decade from year 1988 to 1998. This was a United Nations FDP funded project to make India self-sufficient in IUD and contraceptives.
- Department has contributed to multiple technology transfers that include
  - TrueHb-meter for societal cause.
  - Iontophoretic Transdermal Device for delivery of Declofenac
  - A Surgical Stapler
  - Contra Lateral Limb Controlled Prosthetic Knee Joint
  - Polymeric nanoparticles for delivery of drug/ peptide based anticancer agents
  - Artificial Skin for burn Wound

Laboratory Facilities for Education and Research

a. Laboratories
   i. Biomaterials Laboratory
   ii. Biomaterials Instrumentation Laboratory
   iii. Nanomaterial Synthesis Laboratory
   iv. Drug Delivery Laboratory
   v. Tissue Engineering Laboratory
   vi. Animal Cell and Microbial Cell Culture Facility
   vii. Experimental Biology Laboratory
   viii. Lab-on-a-chip & Biosensors Laboratory
   ix. Bioelectronics Laboratory
   x. Biomedical Instrumentation Laboratory
   xi. Medical Image Processing Laboratory
   xii. Biomechanics and Fabrication Laboratory

b. Equipment:
   i. Spectrophotometers (UV-VIS, FTIR, fluorimeters, luminometer, Fiber optic CCD Array)
   ii. Laser Confocal Microscope
   iii. Raman spectrophotometer
   iv. UV-Ozone Cleaner
   v. Microscopes (inverted, fluorescence, phase contrast)
   vi. Particle size analyzer
   vii. HPLCs (analytical & preparative)
   viii. GPC
   ix. Fiber Laser machine
   x. Milling center
   xi. UTM
   xii. Probe station
   xiii. Others: Rheometer; Centrifuges; Thermal Cycler; Cryostat; ELISA; Deep Freezers; CO2 incubator; Multi-channel potentiostat

Awards

Prof. Sneh Anand has been associated with Department of Biomedical Engineering for more than 40 years. She has received the following distinguished awards for her scientific contribution in the area of biomedical engineering:

a. American Institute for Medical and Biological Engineering Fellowship – 2016
b. Shri Om Prakash Bhasin Award – 2015
c. Alunmi Award Thapar University – 2012
d. IEEE Lifetime Achievement Award – 2004
e. Institution of Electronics and Telecommunication Engineers Hari Ramji Toshniwal Gold Medal – 1998
f. Kshanika Oration Award of the Indian Council of Medical Research for Applied Research in Technology in Health Care – 1994
g. National Invention Award of the Ministry of Welfare for Universal Graphical and Braille Classroom Teaching Aid for the Blind – 1993
h. National Invention Award of the Ministry of Welfare for Communication AidFor the Spastics – 1992
i. National Best Invention Award of the Ministry of Welfare for Braille Communication System – 1990
j. World Intellectual Property Organisation (United Nations) Silver Medal for work leading to blind working on machines – 1989
k. National Research Development Corporation Invention Republic Day Award for Centre Lathe Operation by the Blind – 1989
l. Ministry of Welfare, National Technology Invention Award On Aids for the Disabled (Blind) – 1988

Prof. Sneh Anand is elected as the Fellow of American Institute of Medical and Biological Engineering (AIMBE) 2016. She is also awarded by AIMBE the certificate as the India's first women biomedical engineer. Prof. Sneh Anand also received the Shri Om Prakash Bhasin Award 2015 and many other awards for her contribution to engineering sciences and technology.

TrueHb is the indigenously designed Hemoglobinometer by Prof. Veena Koul at Centre for Biomedical Engineering, IIT Delhi and All India Institute of Medical Sciences, New Delhi. It is currently available in market by the name TrueHb.

International Conference on Biomaterials, Biodiagnostics, Tissue Engineering, Drug Delivery and Regenerative Medicine (BiTERM 2016) was organized and hosted by Center for Biomedical Engineering, this year at Indian Institute of Technology (IIT) Delhi at New Delhi during April 15-17 2016. The International conference was attended by about 500 participants across the globe. The pictures are from 1) the inauguration ceremony, the chief guest was Prof. D. Salunke, Director-ICGEB and 2) Group picture with participants. (Many faculty from AIIMS had participated)

MedImg, workshop on Medical Imaging and Image Processing; Organized by Centre for Biomedical Engineering (Dr. Amit Mehndiratta & Dr. Anup Singh) in March 2016. The workshop was attended by more than 100 participants from more than 10 state in India. Images presenting the core organizing team members and the participants .

Prof. S.K Guha has been awarded for his outstanding contribution towards Biomedical Engineering

Any other information

a. International conferences Organized by Department:
   a. Scientific Validation and Technical Evaluation of Ancient Medical System 2006, Oct IIT Delhi
   b. BITERM 2016 (15th April 2016 to 17th April, 2016) International Conference in Biomaterials, Tissue Engg& Drug Delivery , IIT Delhi
b. Workshops Organized:
   a. Medical Imaging: Techniques and Clinical Application; Organised by: Dr. Amit Mehndiratta & Dr. Anup Singh; TEQIP-II & CEP workshop; 3rd – 4th April 2015; IIT Delhi
   b. Workshop on Design of Medical Devices; Organized by Dr. Dinesh Kalyanasundaram; TEQIP-II & CEP Workshop; 9th to 10th May 2015; IIT Delhi.
   c. Workshop on Lasers: Technology and application in engineering and medicine; Organized by Dr. Dinesh Kalyanasundaram; TEQIP-II & CEP Workshop; 11 to 13th September 2015; IIT Delhi.
   d. Medical Imaging: Techniques and Image Processing Workshop; Organised by: Dr. Amit Mehndiratta & Dr. Anup Singh; TEQIP-II & CEP workshop; 25th – 27th March 2016; IIT Delhi
   e. Current Good Manufacturing Practices for Medical device industries from 1990-2000.
c. Stanford-IndiaBiodesignProgramme since 2008- contn.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Biophysics

Year of Establishment: 18 February 1963

Founder Members and history: Professor R.K. Mishra was the first member of the faculty who was appointed as an Associate (Additional in new nomenclature) Professor. This was the time when modern biology and medicine have witnessed the most spectacular developments in molecular biology. The first time, structures of DNA and proteins were discovered that had transformed the concepts in biology and medicine. The new direction in these neede new approaches to understand the living systems. At that time, several eminent scientists including 12 Nobel Laureates in the fields of modern biology including W L Bragg (Bragg's law of diffraction), Linus Pauling (Protein structure-α-helix), Max Perutz (Structure of haemoglobin), John Kendrew (Structure of Myglobin). Francis Crick (Structure of DNA-double helix), James Watson (Structure of DNA), Aaron Klug (Electron microscopy), Fredric Sanger (Protein Sequencing), G N Ramachandran (Structure of Collagen) wrote to the then Director of All India Institute of Medical Sciences that a Department of Biophysics which will be dealing with the topics of modern biology including structures of proteins and DNA, X-ray crystallography, electron microscopy, protein science and drug discovery must be established at the premier institute.

Vision Statement

The success of drug discovery is based on the rational approach of structure based drug design which requires the knowledge of the structures of target proteins (Fig. 1,2). It is a major goal of the department to determine the structures of all the required drug target proteins and use them for the design of new drugs. Similarly, it is envisaged to determine the structures of the proteins from the innate immune system for exploiting them as therapeutic proteins.

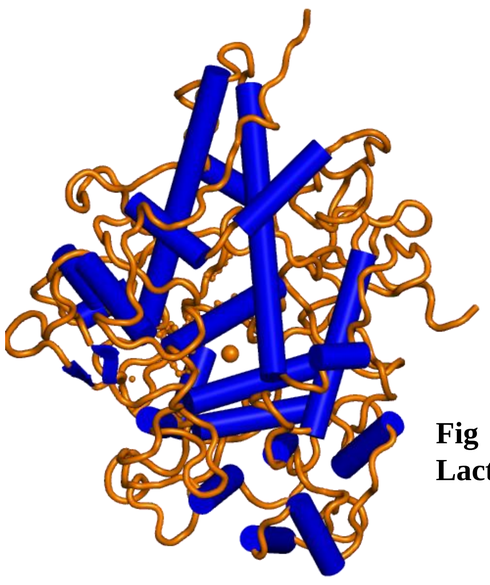


Fig 1 : Three dimensional structure of Lactoperoxidase, an antibacterial protein

Fig 2 : Three dimensional structure of SPX-40, a signaling protein which is over expressed in breast cancer

Achievements

The largest number of protein structures in India have been determined in the Department of Biophysics

The model-free theory of cancer was proposed by the department

As part of the molecular design, the design rules of peptide structures with alpha-beta-dehydro-residues were given by this department

Development of protein markers for different cancer, infertility and age related disease like Alzheimer's Disease, Parkinson's Disease and frailty

Design and synthesis of anti-microbial peptides

Significant facilities in patient care /education/research/others: The department has set up several major national facilities including electron microscopy, data collection facilities for small molecules and protein molecules, N-terminal protein sequencing, synthesis and design of peptides, measurements of biomolecular interactions with surface plasmon resonance, mass spectrometry, computational molecular modeling and crystallization of proteins.

Dr. Sharmistha Dey receiving the 'AIIMS Excellence Award'

Prof. Sujata Sharma receiving the 'National Bioscientist Award for Career Development' (DBT) from Shri Jaipal Reddy, the Minister of Science and Technology

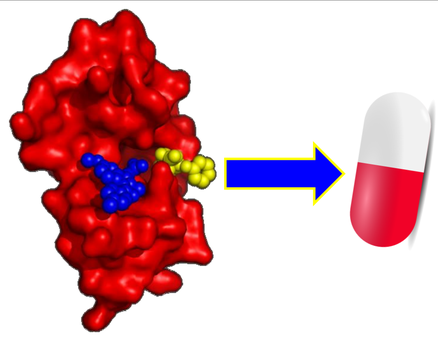
Prof. Sujata Sharma receiving the 'National Woman Bioscientist Award' (DBT) from the then President of India, Smt. Pratibha Patil

Prof. Savita Yadav receiving the 'AIIMS Excellence Award'

Prof. Savita Yadav receiving the 'GP Talwar Award for Middle Career Scientist'

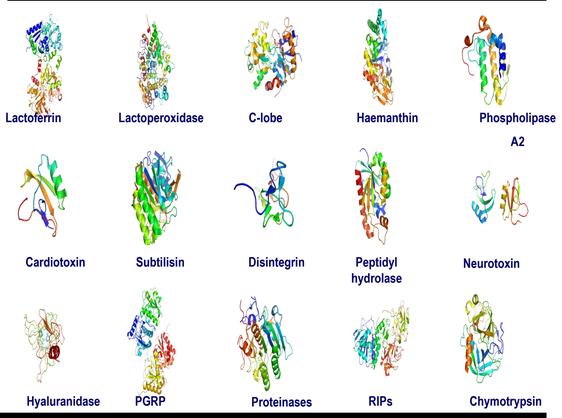
FOCUS OF THE DEPARTMENT OF BIOPHYSICS

RATIONAL STRUCTURE BASED DRUG DESIGN



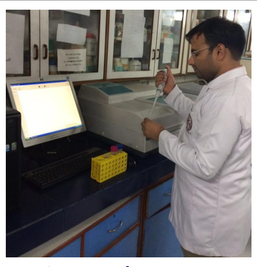
THREE-DIMENSIONAL STRUCTURE OF A DRUG TARGET IS USED TO GUIDE DRUG DISCOVERY

PROTEIN TARGETS BEING WORKED UPON



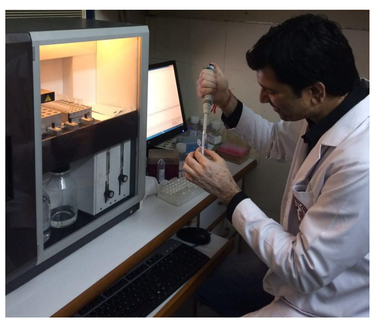
INSTRUMENTS

Proteins using Imaging plate scanner



Spectrophotometer

Crystallization of proteins using Vapour Diffusion method



Real Time Analysis of Biomolecular Interactions

Ligand and Protein binding asaay using fluorescence spectrophotometer

Gel filtration chromatography

Peptide Synthesizer

Future Vision:

The department is at the forefront of research in Structural Biology. It is visualized that to be Centre of excellence in translational medical research The ultimate goals of the research in the department is to understand the biological process in both physiological and diseased states at molecular and structural level and produce an array of biomarkers and develop new potent drug molecules.

Any other information: The Department has been sanctioned the grant under DST-FIST Level II. It has facilities for protein structure determination, protein sequencing, peptide synthesis, biomolecular interaction analysis and bio-medical informatics.

Biostatistics

Year of Establishment- 1973

Prof. K Ramachandran
Founder Head

- The content and character of the discipline of Biostatistics has undergone a radical change during the last few decades. From being a passive and descriptive discipline, Biostatistics has emerged as a vigorous, dynamic and constructive instrument of decision making in the area of health and medical care.
- Powerful and sophisticated statistical techniques of planning and analysis of biological experiments and investigations, development of probabilistic models in epidemiology and application of operations research techniques in health care delivery have opened up new dimensions and capabilities in medical and health research.
- In this context, a medical persons' training, particularly that of a medical research worker, would be considered incomplete today without a reasonable acquaintance with the potentialities of applications of bio-statistical techniques to enable him/her to plan his/her research studies with scientifically and statistically valid designs and to arrive at valid and meaningful conclusions applying appropriate statistical methods.
- At AIIMS, Biostatistics was a part of the then Department of Preventive and Social Medicine till 1973. In October 1973, an independent Biostatistics Unit was carved out from the Department of Preventive and Social Medicine. In 1986, the "Unit" was renamed as the "Department of Biostatistics" fulfilling a long felt need for such a department. As an independent department, it caters to the needs of all the Faculty, Scientific staff and students in the Institute in teaching and research.

Manpower

- Number of faculty members : Four (04)
- Number of Scientists : One (01)

Teaching Activities

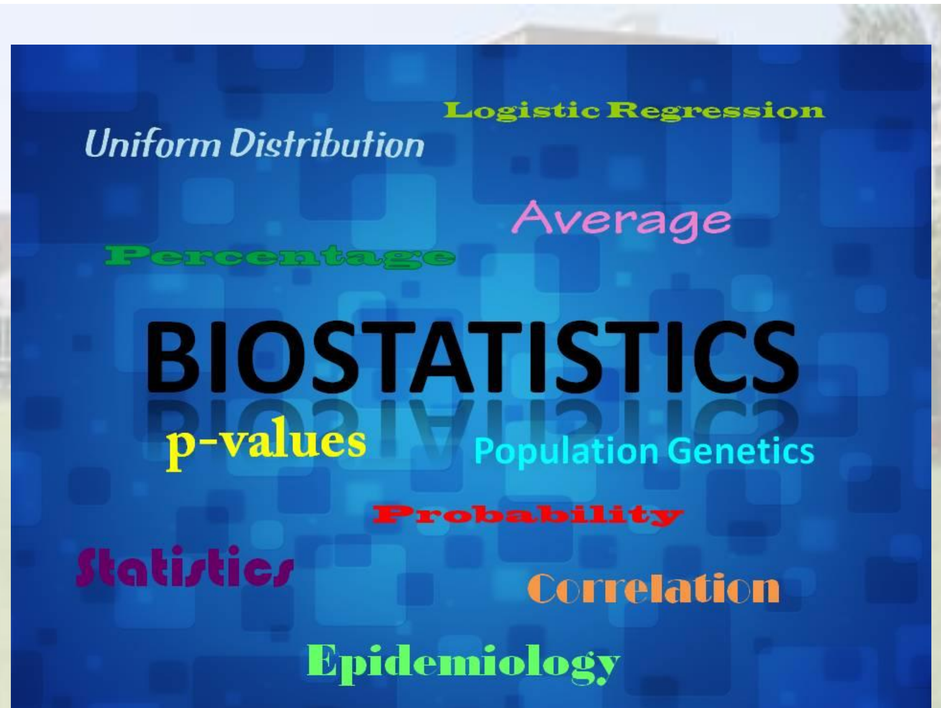
- The department undertakes teaching activity for the following courses:
- B.Sc. (Nursing/Radio-technology and radiography);
- M.B.B.S.
- M.Sc. (Nursing/Biotechnology)
- M.D. (Community Medicine)
- Essentials of Research Methodology, writing and communication for MD/MS/DM/MCH/MHA/MDS residents (about 450 in a year)

Research Activities During

- Departmental Research
  - Six Ph.D. students
  - Faculty members have their individual research projects
- Collaborative Research 2015-16:
  - Completed : 48
  - Ongoing : 104
- Research Publications 2015-16: 110

Others

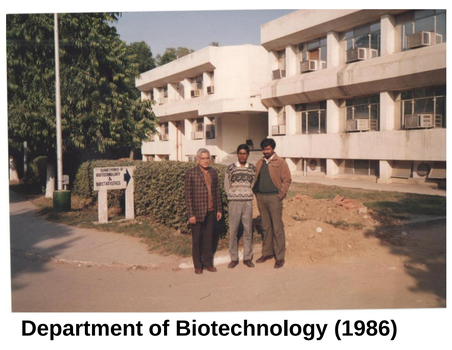
- Faculty members are invited Experts for Project Review Committees and Members of Selection Committee at ICMR, DBT, DST, AYUSH. Faculty members are also invited to deliver talks Research Methods and Biostatistics all over the country; and, act as a Member on the Data Safety and Monitoring Boards (DSMB) for various clinical trials.

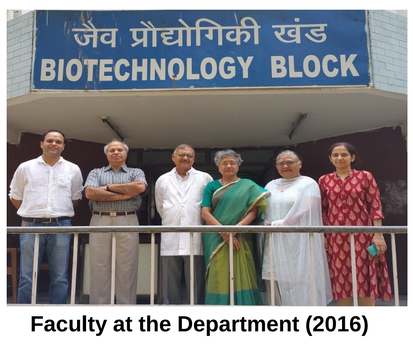


Biotechnology

Year of Establishment- 1986

Prof. Indira Nath


Department of Biotechnology (1986)



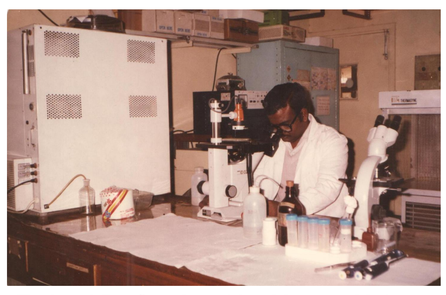
Faculty at the Department (2016)

Founded By Prof . Indira Nath

Leading in Research , Teaching and Innovation since 1986

Prof Indira Nath in her Lab running Gel Elctrophorsis

Founder Faculties at there work bench


Trained Professional looking at M. leprae Slides

DNA sequencing in early 90's

Leading Cutting edge Research & Training on Topics of National Interest

Awards	No.
Padma Shri , India	01
Shanti Swarup Bhatnagar, India	02
Chevalier of the National Order of Merite, France	01
JC Bose fellowship	01
Docteur Honoris Causa, France.	01

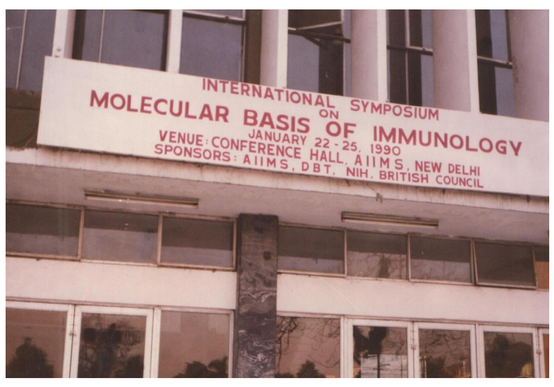
National and International Accolades Since 1986

M.Biotechnology	PhD.
273	56

Number of students since 1986

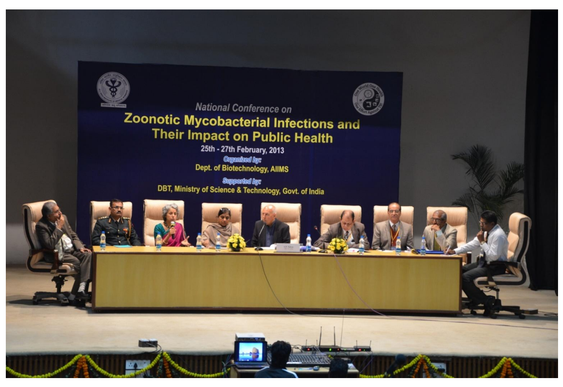
Research Article	Patents
343	16

Research output Since 1986



International Symposium on Molecular Basis of Immunology January 22-25 , 1990.

International symposium & CME on "Modern Trends in Malaria" 13 February 2003



National Conference on Zoonotic Mycobacterial infections and Their Impact on Public Health , 25-27 February, 2013

Master's Teaching Programme at Department of Biotechnology (Rated "A" by Govt. of India)

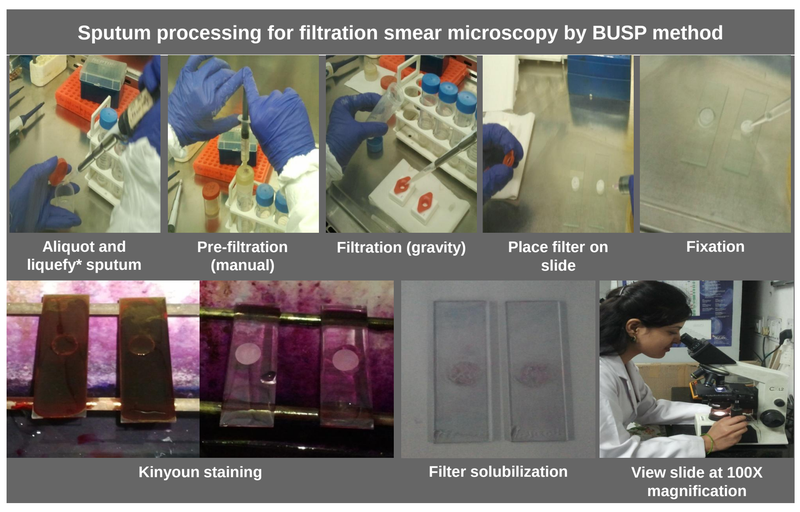
First M Biotechnology Batch (1984-1986)

Master Training in Well Equipped Labs

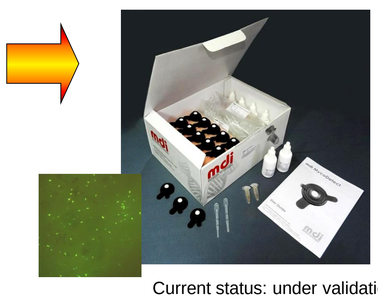
Hand On training in State oi art labs

BTIS net facility for Bioinformatics

Innovation



Myco-Detect Kit


Current status: under validation

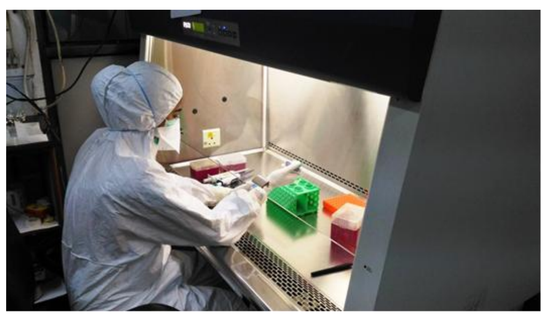
Kit for bacterial concentration and DNA extraction

Current status: under validation

Development of robust In house molecular beacon based assay for Detection of M tuberculosis Infection in Pulmonary and Extra pulmonary patient samples

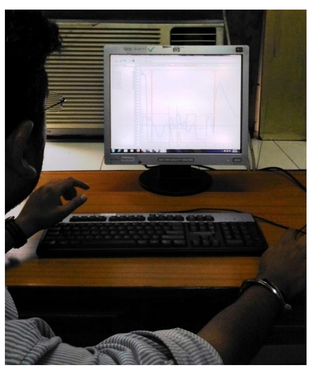
State of Art Tissue Culture Rooms

State of Art BSL3 pathogen Lab
Real Time PCR based Robust TB diagnosis



Flow Cytometry Platform

Recombinant Protein Purification Facility



Gene Sequencing Platform

Taking Research from Bench to Bedside

EXAMINATION SECTION

The Examination Section of the All India Institute of Medical Sciences, was initially an Examination Cell within the Academic Section. The function of this cell was to conduct all academic examinations ensuring fairness and integrity and also to facilitate the appointments of examiners for these examinations. On 8th April 1992, the Examination Cell became a separate Examination Section to make the functioning more effective given the increasing load of examinations.

अखिल भारतीय आयुर्विज्ञान संस्थान
नई दिल्ली
परीक्षा अनुभाग

परिकल्पना

विश्वसनीय प्राधिकारों के साथ विभिन्न परीक्षाओं एवं उनके मूल्यांकन को उच्च विश्वसनीयता एवं वैधता के साथ प्रदान करना ।

लक्ष्य

अखिल भारतीय आयुर्विज्ञान संस्थान के उच्चतम शिक्षा मानकों, गुणवत्ता और क्षमता को सुरक्षित रखते हुए विभिन्न परीक्षाएँ एवं उनका मूल्यांकन कराना ।

मूल्य

अखंडता
हम कार्यों में उच्चतम स्तर की गोपनीयता, ईमानदारी, बिना भय एवं पक्षपात के साथ अखंडता बनाए रखते हैं ।

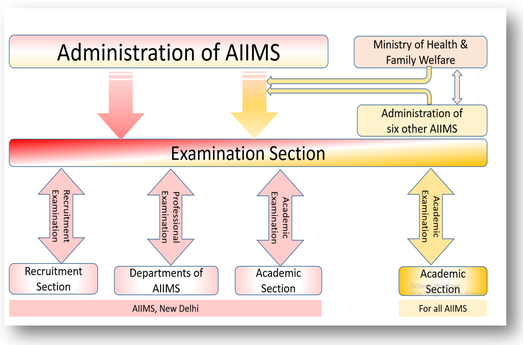
व्यवसायिकता
हम सभी संस्था के योग्य आकलन के अनुरुप लगातार नवीनतम तकनीकों को सम्मिलित करते हुए परीक्षाओं एवं उनके मूल्यांकन में उच्चतम मानकों एवं गुणवत्ता को स्व-जिम्मेदारी के साथ अपनाते हुए प्रदान करते हैं ।

निष्पक्षता
हम पूर्वाग्रह और पक्षपात के बिना सभी परीक्षार्थियों और हितधारको के लिए स्पष्टता, निष्पक्षता और समानता सुनिश्चित करने के लिए समर्पित हैं ।

प्रतिबद्धता
हम संस्था के गौरव के लिए परीक्षर्थियों एवं हितधारकों में विश्वास और भरोसे को सुनिश्चित करते हुए समयबद्ध और त्रुटिरहित गुणवत्तापूर्ण परीक्षा एवं उसके मूल्यांकन के लिए प्रतिबद्ध हैं ।

एकजुटता
हम समझते हैं कि किसी भी कार्य को तभी सबसे अच्छा अंजाम दिया जा सकता है जब हम न केवल अनुभाग के भीतरी अपितु संस्था में और संस्था के बाहर अन्य व्यक्तियों के साथ एकजुट होकर रहेंगे ।

सम्मान
हम न केवल नियमों एवं विनियमों का ही सम्मान करते हैं अपितु अपने सहयोगियों, सभी व्यक्तियों और हितधारकों का भी मान और सम्मान करते हैं क्योंकि हमारा मानना है कि प्रत्येक व्यक्ति कार्य को सकुशल पूर्ण करने में महत्वपूर्ण योगदान दे सकता है ।



The Examination Cell was under the Academic Section. For many years the cell functioned from the Academic Section under the guidance of the Dean, Sub-Dean and the Registrar.

On 8th April 1992 the Examination Section was formed. The first Professor-in-Charge was Prof A.K.Susheela, Professor of Anatomy. She headed the Examination Section for over three years from 8th April 1992 to 28th November 1995.

The Professor-in-Charge was assisted by the Sub-Dean at that time.

Dr. P.S.N. Menon was appointed the first Sub-Dean (Examinations) on 23December 1992 and continued till 15 July 1997.

For the first time a Dean (Examinations) was appointed in 2003. Dr. T.P Singh, Professor & Head of Biophysics was the first Dean (Examinations) from 28 July 2003 to 31 August 2006. He was succeeded by Prof .T.D. Dogra, Prof & Head of Forensic Medicine.

Dean (Examinations)
Dr. T.P Singh
Dr. T.D. Dogra
Dr. S. Datta Gupta

Professor-in-Charge (Examinations)
Dr. A.K. Susheela
Dr. R.K. Pandhi
Dr. Y.K.Gupta
Dr. K.K. Deepak
Dr. K. K. Verma
Dr. S. Datta Gupta

Sub-Dean (Examinations)
Dr. P.S.N. Menon
Dr. Y.K. Gupta
Dr. K.K. Deepak
Dr. A.K. Dinda
Dr. Nand Kumar
Dr. Ashok Kumar Jaryal

Associate Dean (Examinations)
Dr. Ashok Kumar Jaryal

Assistant Controller (Examinations)
Sh. B.S. Bhatia
Sh. B.N. Maini
Sh. M.L. Sharma
Sh. U. D. Bhargava
Sh. Rajesh Bharadwaj
Sh. B.K. Joshi
Sh. A.K. Gigoo
Dr. O.P. Sharma

When the Examination Section was formed, Mr. B.S. Bhatia was appointed the Assistant Registrar (Examinations). The first time an Assistant Controller (Examinations) was appointed was in 1993. Mr B.N. Maini was the first Assistant Controller (Examinations).

The section was then located in the Teaching Block near the present Computer Facility and where the Academic Section II has shifted . The Examination Section shifted to its new location in the Convergence Block nearly a year ago.

The growth and development of the Examination Section has been possible due to the immense and selfless contribution by successive Deans, Professor-in-Charge, Sub-Deans , Assistant Controllers and numerous staff who have been part of this unique journey. The Directors, Deans, Faculty and every member of this great institution have not merely extended their co-operation and support but have contributed substantially in the development and working of this section.

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
New Delhi
EXAMINATION SECTION

VISION

To be a trusted authority delivering examinations and assessments with high reliability and validity

MISSION

Conduct examinations and assessments of the All India Institute of Medical Sciences with precision, upholding the highest standards of education, quality and competence

VALUES

Integrity
We ensure the highest levels of integrity by working honestly without fear or favors and maintain strict confidentiality

Professionalism
We continuously strive to achieve the best, with responsibility, incorporating latest technologies and improving ourselves to deliver the best quality and highest standards of examinations and assessments

Fairness
We are dedicated to ensure fairness, impartiality and equality to all examinees and stakeholders without bias and prejudice

Commitment
We are committed to deliver high quality examinations and assessments in time and without any errors so as to ensure trust and confidence amongst candidates and stakeholders and make our institution proud

Teamwork
We recognize that we can achieve our best only if we work as team not only within the section but also with all other individuals within and outside the institution

Respect
We respect not only rules and regulations but also respect and care for our colleagues, and all individuals and stakeholders with whom we deal since we believe that every individual can make a significant contribution to our working

TIME LINE OF THE EXAMINATION PROCESS AT AIIMS

PG ENTRANCE

1956 — **PG Course:** PhD; DM Cardio; MD (13 sub.); MS (5 sub.)

1971 — **In 1971 ,Postgraduates given option to choose (on experimental basis):** Intensive clinical training with exam at end of 2nd year and thesis in 3rd year **OR** Clinical and thesis work with exams at 3rd year

1974 — **Jan 1974 Government of India introduces Residency Scheme (JR /SR)** PhD named as SRF and MSc as JRFs

1986 — **DM Endocrinol & MSc Biotech started in 1986**

1988 — **All India Postgraduate Medical and Dental Entrance Exams according to Supreme Court directive, Sep 1987 conducted for first time by AIIMS in Jan 1988 in 15 cities**

1992 — **Examination Section started on 8 April 1992**

1992 — **Jan 1992 Foreign nationals to appear in entrance test. No longer admitted on MBBS marks**

MBBS ENTRANCE PATTERN

1964 — MBBS Entrance 5 Centres: Bombay, Calcutta, Delhi, Hyderabad, Madras

1966 — **Written Test followed by Interview for 90 to select 45 each year**

1971 — **MBBS Entrance based only on Exams: 10 SAQs** Physics, Chemistry Biology **Equal weightage** ISc marks

1972 — MBBS Entrance 5 Centres: Bombay, Delhi, Hyderabad, Madras, Nagpur , Patna

1972 — **MBBS Entrance Paper I (3 hrs)** Objective Type *Part A:* Chemistry (90) *Part B:* Biology (90) **Paper II (2 hrs)** Objective Type Physics (90) Gen Knowledge (30)

1973 — MBBS Entrance 5 Centres: Bombay, Delhi, Hyderabad, Madras, Nagpur , Patna, Varanasi

1973 — **MBBS Entrance** ***Same pattern as previous year*** Along with AIIMS Entrance exam conducted also for IMS, BHU, Varanasi and MGIMS, Wardha

1974 — MBBS Entrance 5 centres: Bombay, Calcutta, Delhi, Hyderabad, Madras

1974 — ***MBBS Entrance*** *Reverted to old pattern*: **One paper: 3.5 hrs 10 SAQs in 4 Sections** Physics, Chemistry Biology, General Knowledge

1980 — **MBBS Entrance One paper 3 .5 hrs 200 MCQs** Physics, Chemistry Biology, General Knowledge *Same pattern followed even today!*

1990 — **All Examinations) except Professional Exams conducted by AIIMS now are Computer Based Tests (Online mode**

1990 — **Professional Exams •Online payment of fees •E-admit card •Thumb Impression during exams**

1990 — **Pictures / Visuals introduced in PG Exams**

1990 — **MBBS Entrance for AIIMS New Delhi & 6 other AIIMS first in country held in 2 shifts in completely online (CBT) mode in 167 cities in 29 states**

1992 — **Examination Section started on 8 April 1992**

1992 — **New Price of Prospectus Rs 25/-** (old Rs10/-) & **Exam Fees Rs 100/-** (old Rs 60/-)

1992 — **MBBS Entrance** 8 Centres: Bombay, Calcutta, Delhi, Hyderabad, Madras + 3 more added : **Bangalore, Lucknow Ahmedabad**

1993 — **Admit Card introduced for Professional Exams Admit Cards categorized into: Regularized /Provisional / Rejected**

1993 — **Entrance Exams conducted for 3 universities other than AIIMS**

1994 — **Entrance Exams conducted for 4 universities and one SAARC Country**

1996 — **Jan 1996 Counseling for MD/MS introduced**

1997 — **BSc (Hons) Nursing Entrance in Delhi & Trivandrum (new)**

1997 — **1997 AIIMS MD/MS Entrance results uploaded on the internet**

1997 — **MBBS Entrance** 9 centres: Bombay, Calcutta, Delhi, Hyderabad, Chennai, Bangalore, Lucknow, Ahmedabad, **Guwahati (new)**

2002 — **MBBS Entrance:** Examination on trunks kept in banks for safe custody for first time

2003 — **For the first time Photographs and thumb impression captured during MBBS Entrance 1 June 2003**

2003 — **Entrance Examination for MBBS Course of VMMC on 27 Jul 2003**

2004 — **Entrance Exam conducted for BSc (Speech & Hearing) of All India Institute of Speech & Hearing , Mysore for the first time**

2005 — **Skill Test for PS, Steno, Workshop Attendant**

2005 — **Entrance for SR /SD July 2005 batch by Exam Section first time**

2005 — **AIIMS PG Entrance conducted in 4 metros: Delhi, Mumbai, Kolkata, Chennai**

2006 — **Recruitment Examinations** *including that of Sister Grade II*

2006 — **M Biotech Exam separated from MSc**

2006 — **AIPGME Exam: •Ball Pens provided to candidates •Frisking of candidates**

2006 — **DD and Bankers Cheque used for booking /payment of centres to reduce cash handling**

2006 — **On directions of the Supreme Court, Entrance Examination for KM Shah Dental College conducted**

2006 — **MBBS Entrance 10 Centres Jammu (new)**

2007 — **AIIMS PG Entrance only in Delhi (instead of 4 metros)**

2008 — **Ball Pens provided to candidates and invigilators in ALL EXAMS**

2009 — **AIIMS PG Entrance back to 4 metros: Delhi, Mumbai, Kolkata, Chennai**

2009 — **Entrance Exams for NEIGIHMS, Shillong**

2010 — **Online Application Forms from Jan 2010**

2010 — **PG Entrance Exams for NEIGIHMS, Shillong**

2010 — **Pre-Med Entrance Exams for RUHS, Jaipur**

2011 — **Integrated Payment for Registration : Debit /Credit Cards, Online Banking**

2011 — **OMR Sheet modified with declaration of unattempted questions**

2012 — **SR /SD Entrance on 6 Jan 2013 completely Computer Based Test (CBT / online mode) Use of Biometric capture before exams**

2012 — **NEET PG Exams conducted for the first time on 13 Jan 2013 in 5 cities**

2012 — **MBBS Entrance for AIIMS New Delhi & 6 other AIIMS held on 1st June 2013 in 18 cities**

2013 — **Support provided for Faculty Interviews through in-house software developed by Sr Programmer**

2013 — **CBT (online mode) exams started : All BSc, MSc and M Biotech, PG Medical (Banks)**

2013 — **AIPG Dental Exams held on 25 Jan 2014**

2013 — **BSc (Hons) Nursing Entrance for AIIMS, New Delhi & 6 other AIIMS**

2013 — **Percentile scores in AIIMS PG Exams**

2013 — **MBBS Entrance for AIIMS New Delhi & 6 other AIIMS held on 1st June 2014 in both offline and online (CBT) mode**

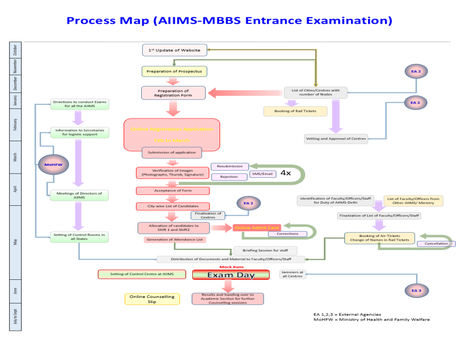
2014 — **Examination Section shifts to Convergence Block in Sept 2015**

2014 — **DM / MCh Entrance held in 4 metros**

2015 — **Director dedicates the Examination Section in its new premises to the institute on 3rd March 2016**

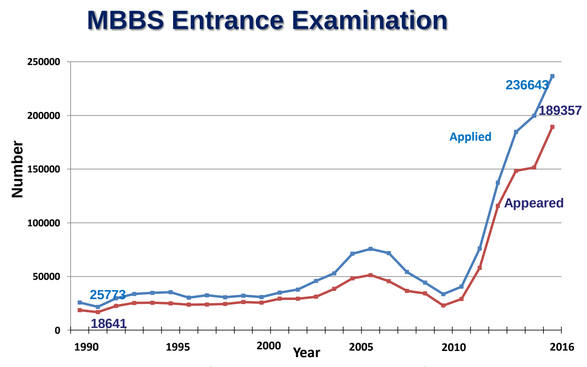
2015 — **Introduction of Thumb impression capture after bio-breaks**

2016 — **Bilingual Paper for BSc (Hons) Nursing Entrance for AIIMS, New Delhi & 6 other AIIMS**

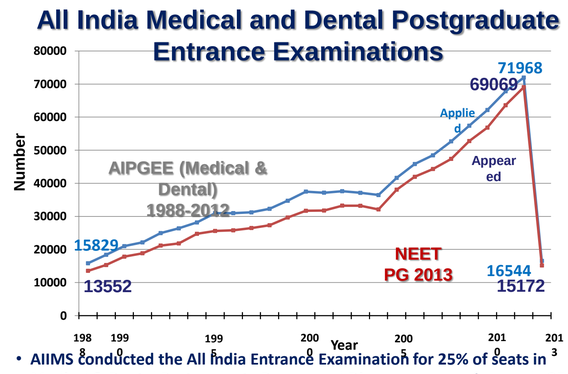


BSc (Hons) Nursing Entrance Examination

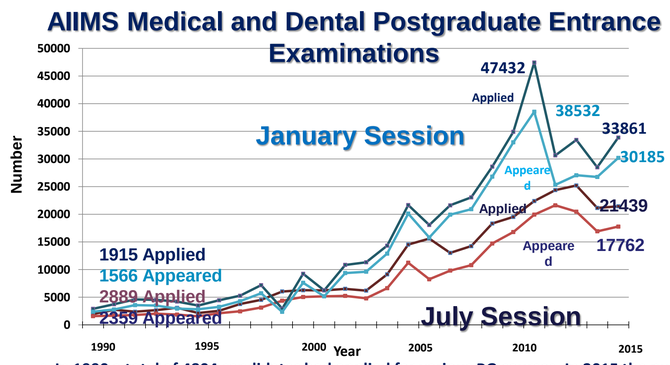
- The number of candidates who registered for the entrance examination in 2016 was 5159 compared to 1133 in 1992
- The entrance examination was earlier held only in Delhi. Trivandrum centre was introduced in 1997 and currently the examination is held in 11 cities across the country
- This was one of the earliest entrance examinations to be held entirely as Computer Based Test (online mode) in 2014
- Since 2014 the Entrance Examination is for AIIMS and six other AIIMS. This year the the results were also utilised for admission to the Bhopal Memorial Hospital and Research Centre (BMHRC), Bhopal.
- A bilingual paper (English and Hindi) was introduced in 2016



- There is nearly a ten fold increase in the number of applicants in last 15 years
- Examination is Computer Based Test (online mode) in two shifts, the largest Computer Based Test (online examination) in the entire country for undergraduate medical entrance
- Both English and Hindi version of the paper is available to every candidate
- Initially the examination was held in 5 cities . Today the examination is held in 429 centres in 167 cities across 29 states



- AIIMS conducted the All India Entrance Examination for 25% of seats in Medical & Dental Postgraduate Degree and Diploma courses for nearly 25 years
- The National Eligibility Entrance Test (NEET) was conducted for the first time in 2013.
- The All India Entrance Examination for Postgraduate Dental Courses was continued for two years in 2014 and 2015 by AIIMS



- In 1990 a total of 4804 candidates had applied for various PG courses. In 2015 the number was 55300, over 11 fold increase
- Since the past 10 years the number of applicants and seats are more in the January than in the July session
- Currently the examination is a Computer Based Test (online mode)
- A Percentile score was introduced in 2014
- Earlier the examination was held only in Delhi. Currently it is conducted in 29 cities

Logistics over 3 days
Exam Centres = 429 centres, 167 cities, 29 States/UT
Manpower = 429 Faculty/officer, 575 Staff, Travel = 684 Air tickets, 1030 rail tickets, 82 vehicles

हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE
शिक्षा EDUCATION
अनुसंधान RESEARCH

Transfusion Medicine

Year of Establishment- 1996

Founder members

Dr Usha Gupta

Dr Ambika Nanu

Dr Kabita Chatterjee

Dr Poonam Coshic

Vision

Blood Security for ALL

- Transfusion Medicine is a vital part of the health care system and is associated with the rational use of blood and blood components. Our aim is to provide the right blood to the right patient at the right time.
- Universal precautions are strictly adhered to, and the guidelines of Good Manufacturing Practices (GMPs) are followed in donor selection, screening procedure in the donation room and in the processing of blood, and also while performing serological procedures for blood grouping, typing and screening for transfusion transmitted infections.

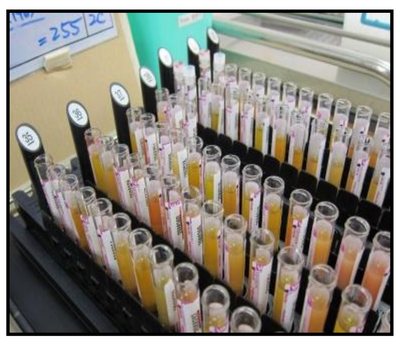
Achievements

- Initiated successful regular, blood donation camps in rural setups in association with the Dept. of CCM,: A step forward towards blood security to people in rural areas.

- Blood storage centre at CRHSP Ballabgarh has been initiated and will soon be functional and will provide safe blood to its patients without delay.

- Serological testing for TTI is now being done by "Chemiluminescence technology", also facilitating same day plateletpheresis procedures.

- Started "Centralised ID-NAT testing laboratory" for screening of transfusion transmitted infection for blood collected from all 3 blood banks at AIIMS (testing > 85000 units per annum).



- First to establish the 'ID-NAT' testing for screening of transfusion transmitted infection in Govt. setup in India.

Research

- A pilot study for evaluation of Mirasol pathogen reduction system by artificially contaminating platelet concentrates with Staphylococcus epidermidis.
- Five years of experience with ID-NAT at a tertiary care centre in North India: An interdictory step in preventing the TTI.

- Comparison of Procleix Ultrio Elite and Procleix Ultrio NAT Assays for Screening of Transfusion Transmitted Infections among Blood Donors in India
- Red cell panel for antibody detection and identification
- Lecuo-depleted platelet concentrate pooling (Buffy-coat Pooled Platelet)
- Leuco-reduction of the blood components to curb the incidence of alloimmunisation to HLA antigens, Platelet refractoriness, Febrile Non-Hemolytic Transfusion Reactions (FNHTRs), CMV transmission to peri-transplant patients, Transfusion Related Immunomodulation (TRIM), Transfusion Related Acute Lung Injury (TRALI), Transfusion Related Acute Gut Injury (TRAGI) in pre-mature LBW babies.

Patient Care

- AIIMS Blood Bank is providing the blood transfusion services to all patients round the clock from
  - All emergencies
  - Haematology, Oncology
  - Multiple Transfused cases (Thalassemia, Haemophilia)
  - As RBTC caters to requests from other hospitals of South Delhi

- Centralised Plateletpheresis Facility for all the patients of AIIMS
- Newer modalities of therapeutic apheresis hav been successfully implemented viz. LDL-Apheresi and Double filtration Plasmapheresis (DFPP) fc improved patient care services.

- Standardisation of antibody screening an Plasmapheresis procedures(DFPP and Immunoadsorption) for ABO Incompatible Kidney Transplant (ABOiKT).
- Strengthening of 'Biometric registration proc for donor screening which has helped the b bank
  - In averting professional donors;
  - Interfacing of all the technologies helpe in minimising the human error; and
  - Look back to all our procedures;

thus, improving the quality of ou transfusion services.

Education

- Short term training for D.M. Students from Dept. of Hematology.
- Short term training for Postgraduates Residents from Dept. of Pathology & Lab Medicine.
- Short term training for limited no. of Technicians/Doctors from Hospitals all over India in various aspects of Blood Banking
- Beginning of M.D. (Transfusion Medicine) course from January 2017 session.

Message

- There is a need to develop communication strategies to reduce fear, to increase awareness about timely access to safe blood and blood products and to motivate donation of blood.
- In addition, there is a need to develop a philosophy of care based on humanization to increase recruitment of voluntary blood donors by encouraging people to care for one another and promote community cohesion.

Future Vision

- Bioengineering and production of red cells, platelets and granulocytes are currently only feasible on a bench-scale. Although promising, there is probably still a long way to go and will not, therefore, alleviate the predicted net shortfall in blood component supply in the coming years.
- Development and production of novel cellular therapeutics are promising and challenging tasks for modern transfusion medicine.
- Although "zero risk" in cellular and gene therapy or haemotherapy is not possible, society strives for this and must, therefore, be willing to fund and support attempts to achieve it.

शिक्षा EDUCATION
अनुसंधान RESEARCH
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स्वास्थ्य सेवा PATIENT CARE

Cardiac Anaesthesia

Year of Establishment- 1986

Founder Members and History

The following faculty of the mainstream Department of Anaesthesia and Intensive Care were the founder members of the Department of Cardiac Anaesthesia when it was established in the Cardiothoracic Sciences Centre in 1986

Prof. V.A. Punnoose

Prof. Nita Saxena

Prof. Usha Kiran

Prof. Shaileja Kale

Vision

To set up a department of excellence, the very first in the country, in the super speciality of cardiac anaesthesiology, dedicated to patient care during heart surgery and provide special care for newborns, infants and children born with congenital heart defects. It also envisaged to teach and train anaesthesia specialists and intensive care specialists in India and SAARC nations.

Achievements

Research

- Research facilities available for heart operations in the field of anesthetic agents, haemostatic drugs, anticoagulants, intravenous fluids, biomarkers, monitoring, echocardiography and relaxation therapies like yoga and meditation.
- 32 national and international conferences and workshops on cardiac anaesthesia, TEE, ECMO and simulation in medicine.

- Publication of > 60 research papers in National and International journals annually.
- The faculty have held important posts, in the past and present, of president, secretary, treasurer, executive committee members in the 'Indian Association of Cardiovascular and Thoracic Anaesthesiologists' and editor of its official journal 'Annals of Cardiac Anaesthesia' and various other journals.

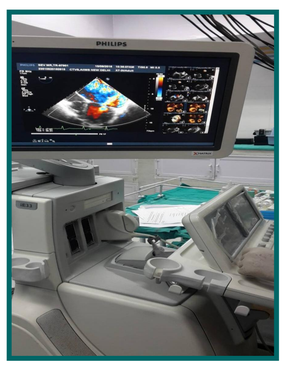
Message

The speciality of cardiac anaesthesia is concerned with safe and pain free care of heart surgery patients, as well as neonates, children and adolescents born with congenital heart disease. It also provides resuscitative and ventilatory care to critical cardiac patients in CCU & ICU. The speciality is dedicated to the field of extracorporeal membrane oxygenation which maintains oxygenation when all other methods of ventilation fail. It is striving to become a role model in the fields of research, training & education.

Patient care

- Anaesthesia and perioperative care of cardiac surgical patients.

- Continuous monitoring of the heart throughout the surgery using echocardiography machine in adult, paediatric and neonatal patients.



- Advanced haemodynamic and neurological monitoring available for patients undergoing cardiovascular surgery.

- Monitored anaesthesia care for cardiac catheterization laboratory and cardio-radiological procedures.
- Initiation of extracorporeal membrane oxygenation (ECMO) programme in 2000 and integrated ECMO in 2007.

- The first to start Yoga meditation for stress management and cardiac rehabilitation in cardiac surgical patients and their care givers.

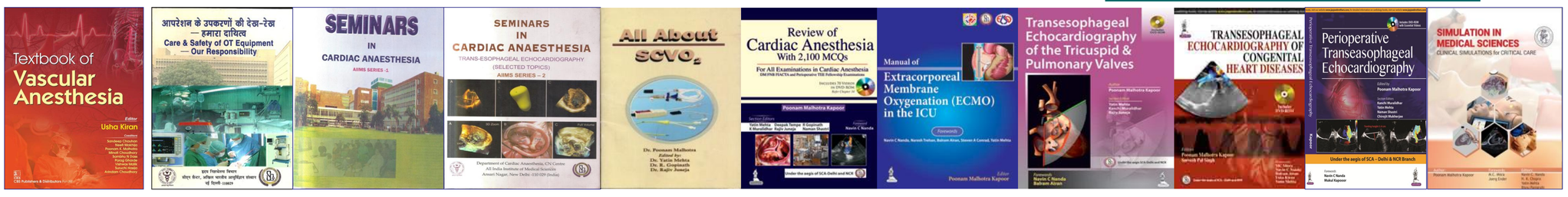
Education

- The first to commence D.M. Cardiac Anaesthesia course in 2002 in the world.
- Commencement of postgraduate and postdoctoral courses in perfusion technology.

- Training in transesophageal echocardiography (TEE).

- Establishment of the 'Indian College of Cardiac Anaesthesiologists', 'Society of Cardiac Anaesthesiologists' and 'The Simulation Society'.

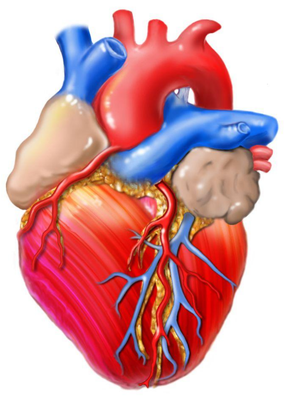
- 75 articles on "Web of Science" in the last two years
- The department has published textbooks on various aspects of cardiac anaesthesiology and perioperative echocardiography.



हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE
शिक्षा EDUCATION
अनुसंधान RESEARCH

CARDIOLOGY

Prof. Dr. Sujoy B. Roy



Year of establishment -1958

AIIMS Cardiothoracic Center has remained at the forefront of development of cardiovascular therapies across the country.
The department of Cardiology was established in 1958 as a Specialty of Medicine.
Initially the department was functional inside the main building of AIIMS
In the late 60s, the department became Super-Specialty and started training specialists in Cardiology
In the year 1978, the Expenditure Finance Committee approved a proposal for the development of a Centre for Cardiothoracic and Vascular Surgical problems. A separate building was constructed within the AIIMS campus to use the Cardio Thoracic and Neuro Sciences Centre.
In 1982 the first phase of this construction was completed and the ground floor out-patients department was formally inaugurated.
The Cardiac Catheterization lab became operational with the two separate rooms for Angiography. In the year 1988 the General wards for cardiac surgical patients were occupied in the 4th & 5th floors of the building. In 1990 the 6th floor block of private rooms was inaugurated.
A department that led the development of Cardiology in the country
Implantation of permanent pacemaker was first done in 1964. First PTMC was performed in 1985, and first PCI was done in 1985. These were among the few first. Institutes to start these procedures. The first ICD in India was also performed at our institute.
In research, we are in the forefront of cardiovascular research in the country.
The first description of juvenile mitral stenosis was from our department.
We led the research in balloon valvuloplasty, rheumatic heart disease, high altitude research, prosthetic heart valve thrombosis and pediatric cardiology among other fileds.

Achievements

- The department is primarily a referral Centre for Cardiovascular Diseases from all over India as well as from the neighboring countries like Nepal, Bangladesh, Pakistan, Bhutan, Afghanistan and Mauritius etc. The department itself caters to nearly 1,50,000 patient-visits every year.
- Most notably, the department is running a free program for primary PCI (emergency angioplasty following heart attack), free pacemaker implantation in patient with complete heart block and patients in need of mitral balloon valvoplasty.
- The Centre at present is providing all the state of the art diagnostic, and interventional procedures from neonatal age group to geriatric population.
- The department also attained National and International recognition. The department has trained nearly 250 Cardiologists till now and many of whom have acquired leadership positions across various centers in India and also in various foreign countries. They have been instrumental in establishing cardiac centers across the country to boost our healthcare infrastructure.
- Cardiology department of AIIMS also boosts several firsts to its credit. It was one of the earliest to establish cardiac catheterization facilities, angioplasties and balloon valavoplasties in the country. The first implantable defibrillator in India was installed at AIIMS. AIIMS also has pioneered in stem cell therapy in both ischemic and non-ischemic cardiomyopathy.

Significant facilities in patient care/education/research

- The department boasts among many facilities, 5 state of the art cath labs including a biplane lab, a CT merge lab, State of the art echocardiography machines with capabilities for 3D echo, strain imaging, 3 dimensional navigation systems for electrophysiology and radiofrequency ablation, state of the art coronary critical care unit and a separate pediatric cardiology ward. The department has facilities for ambulatory BP monitoring, portable bedside echocardiography machines and external and implantable loop recorders to monitor arrhythmias. The department has the capability to perform almost any procedure in interventional cardiology.

Awards & legendary faculty

Sujoy B Roy	A legend of cardiology and established the department. A visionary and was at the forefront of development of cardiac catheterization and hemodynamic studies in India
J.S Guleria	He was associated with the Health For All (HFA) initiative of the World Health Organization Padma Shri in 2003
ML Bhatia	A great educator and a mentor to many senior cardiologists Dr. B.C. Roy Award and other prestigious awards
Raj Tandon	First to establish pediatric cardiology; He is considered the father of pediatric cardiology in the country
HS Wasir	Great administrator and department made great progress under him He was a recipient of Dr. B. C. Roy Award, the highest Indian award in the medical category. The Government of India awarded him the fourth highest civilian honour of Padma Shri in 1987 and followed it up with the third highest honour of Padma Bhushan in 2000.
Savitri Shrivastava	Started pediatric cardiac interventions
M. Khalilullah	Padma Shri in 1984; Dr. B.C. Roy National Award in 1984 Two National Awards from President of India for the development of first indigenous Cardiac Pacemaker and monitoring system.
SC Manchanda	A stalwart of cardiology and prevention PADMA SHRI Awardee - 2004
KK Talwar	Padma Bhushan, became director of PGI and head of MCI
Upendra Kaul	Dr. B. C. Roy Award, in 1999 Padma Shri, in 2006
KS Reddy	Padma Bhushan, PHFI founder, Internationally known for prevention
R R Kasliwal	Dr. R. R. Kasliwal is a Dr. B. C. Roy National Awardee and Chairman of Clinical & Preventive Cardiology, Community Outreach and Education at the Medanta-The Medicity
VK Bahl	Current HOD and received Amrit Modi ICMR Award.
Balram Bhargava	Padma shri
Nitish Naik	Padma shri

Outpatient Care

- The Cardiology out patients had one room for examining patients from 1968 onwards. The steady stream of patients increased gradually over the years and by the year 1976 the out patient registration in the cardiac clinic reached 40,000 patients. In 1982 the ground floor of new cardiac Centre housing of the out patient clinic was inaugurated. By this time the total number of patients registered in the cardiac clinics had reached 75,000. From 1982 to 1990 another 75,000 new patients have registered in the cardiac clinics in the new Centre. The department has attracted patients from all states in India – particularly from the northern states.
- Recently, the number of patients obtaining care at our center has exponentially increased. We have catered to nearly 1,50,000 OPD patient visits in the last year.

In Patient Care

- The number of patients treated as in patients has also grown exponentially. This increase is accommodated largely without any increase in the number of available bed strength and number of Faculty. This is achieved by following World – standard discharge practices and increasing the number of day care procedures.
- The outcome of the in-patient care has also improved and is considered world class. This is achieved at very low-cost to per patient treated. The charges applicable are the lowest in India and among the least in the World for the given quality of care.

Cardiology services

- With the exponential increase in the number of in-door and out-door patients, the diagnostic and interventional procedures performed at the department of cardiology has also steadily grown over the years. The number of echocardiograms performed has almost doubled in every five years. The number of echocardiograms done in a year has crossed over 35,000/year. All the diagnostic procedures done including electrocardiogram, Treadmill test, and Holter analysis have also shown such exponential increase.

Cardiac Care Unit

Echocardiography Lab

Paediatrics Cardiac Care

Cardiac catheterisation lab

Diagnostic and Interventional Catheterization Procedures

- The number of diagnostic cardiac catheterization procedures has increased significantly over the years. This despite the fact that many patients with valvular heart disease and congenital heart disease are operated nowadays without cardiac catheterization. The results and the number of complications match those reported from World's leading centers for cardiology.

Teaching

- Total number of DM cardiology trained till now - 221

Major Conferences organized

- We have organized almost all major conferences of India including National CSI (Cardiological society of India) meetings, India Live, National interventional council meetings, PCSI meetings, APPCS meeting, CSI Delhi branch meetings among others

Research

- Total number of publications in indexed journal -2029
- Many of our faulty have served as editor in chief of major National and International journals including Indian heart journal, Annals of Pediatric cardiology, Heart Asia, and BMJ innovation.
- We have published many books including Cardiology updates, book on Acute rheumatic fever

Future Vision

To be among the world's leading centers for cardiology in patient care, education and India-centric research.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
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Cochrane Oral Health Group GLOBAL ALLIANCE

Centre for Dental Education & Research,

All India Institute of Medical Sciences, New Delhi

declared as Cochrane Oral Health's Global Alliance Partner Organization in Asian Continent

Roles of CDER, AIIMS as COH's Global Alliance partner

- Centre for conduction of Cochrane methodology training & dissemination of best quality research available to help people (patients, clinicians, researchers and policy makers) make better informed decisions about oral healthcare choices.
- Conduction of high quality randomized controlled trials in Dentistry
- Formulation of high quality systematic reviews & meta-analyses
- Nomination of expert panel members for assisting in identification of priority reviews
- As AGM representatives to engage with Cochrane OH's strategic decision-making processes
- As peer referees for ensuring clinical relevance & utility of gold-standard research

Activities conducted as COH's Global Alliance partner

In COH's Global Alliance partner oragnizations meeting held on 5th September 2016 via teleconferencing, Prof. O.P. Kharbanda, Chief, CDER, AIIMS, has put forth the proposal of making CDER, AIIMS as a COH's training & knowledge dissemination centre in South East Asia by holding proposal writing, protocol development & review completion workshops/symposium annually at CDER by inviting COH's Editorial group to train South East Asian dentists. Additionally, list of Cochrane review topics from CDER to be considered for priority Cochrane reviews for 2017 were also submitted.

Six Decades of AIIMS

Centre for Community Medicine

Year of Establishment : 1956

History of the Department

Since the inception of the Institute, the Centre for Community Medicine (CCM) has been a key Department at AIIMS. Dr. Holmes Junior was founder member and first Head of the Department.

Comprehensive Rural Health Services Project (CRHSP) Ballabgarh, Haryana

- 1952 Foundation stone of Ballabgarh Hospital
- 1960 Rural posting for interns started
- 1965 CRHSP started
- 1967 Health and Demographic Surveillance started

Urban Health Programme (UHP)

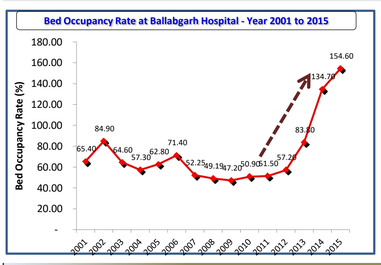
- 1956 UHP started in AIIMS Campus
- 1977 Mobile Health Clinic started at Dhaula Kuan
- 2002 Mobile Health Clinic Shifted to Dakshinpuri Extension
- 2013 Basti Vikas Kendra at Dakshinpuri started

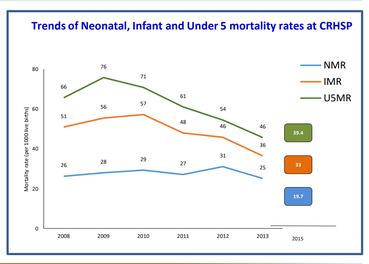
Vision Statement:

"To establish and maintain rural and urban health organizations which will form centres for the field training of the medical, dental and nursing students of the Institute as well as for the research into community health problems". This is in consonance with the stated function of AIIMS, Section 14, f(v)of AIIMS Act, 1956.

Significant Achievements

- Successfully demonstrated development of both urban and rural field practice area for public health education for undergraduate, interns and postgraduates training in Community Medicine in India.
- Continued and sustained Demographic and Health Surveillance of almost 100 thousand population since 1967.
- Computerized Health Management Information System at CRHSP Ballabgarh since year 1991.
- Developed model of rural health care delivery at primary and secondary levels in India.
- Successfully demonstrated translation of community based research to policy to program in fields of Polio, Iodine Deficiency Disorders, HIV/AIDS, Non-Communicable Diseases in India.





Significant Honors

- **Prof. L M Nath** served as **Dean (1993-1996) and Director** of AIIMS. He was nominated to the Indian delegation to the World Health Assembly **(1992-93).**
- **Prof. Chandrakant S Pandav (2000)** and **Prof. Anand Krishnan (2008)** has been awarded with **Dr. M.K. Seshadri Prize** & Gold Medal by ICMR for their outstanding contributions to the field of Community Medicine.
- **Prof. Chandrakant S Pandav** is nominated member of Institute Body of PGIMER, Chandigarh **(Since 2015)**.
- **Prof. Shashi Kant** is the member of Core Committee for estimating HIV Prevalence in India.

International collaborations

WHO Collaborating Centre for Capacity Building and Research in Community-based Non-communicable Disease Prevention and Control.

IODINE global network — Regional Office South Asia

CDC Centers for Disease Control and Prevention — Regional Level (South Asia) Laboratory under EQUIP program for Urine and Salt Iodine estimation

INDEPTH Network — Better Health Information for Better Health Policy — CRHSP, Ballabgarh is HDSS site

CDC Centers for Disease Control and Prevention — Cooperative agreement for ARI Surveillance including Influenza

unicef

World Health Organization Country Office for India

National Collaborations for research, training and health programs

NACO — Regional Institute for HSS for Four northern state

Government of India
Ministry of Health and Family Welfare
Ministry of Women and Child Development
Ministry of Science and Technology

Indian Council of Medical Research — New Delhi

Indian Public Health Association — Service to Humanity

I.A.P.S.M. — Indian Association of Preventive & Social Medicine

Rashtriya Sewa Yojana — National Service Scheme

AIDS Education & Training Cell — Together We Can Prevent AIDS!

All India Institute of Medical Sciences — DPORC

CCM journey over the years . . .

Significant facilities at Primary Care level

- Primary health care services, through the doctors trained at the Institute, to the rural population in Haryana and urban population in South-East Delhi
- Outreach specialty clinics and 24x7 delivery facilities at the PHCs

Significant facilities at Secondary Care level

	OPD	Surgery	In patient
Patient care (2015 – 16)	3,90, 487	3208	11,470

Education

Training programme of Undergraduate, Nursing and Post-graduate students in Community Medicine

- Rural Health Care delivery system at CRHSP Ballabgarh, Haryana (Residential)
- Urban Heath Care delivery at Dakshinpuri Extension, South-East Delhi

	Undergraduate (MBBS)	Postgraduate	Ph.D.
Teaching (till date)	Approximately 4000	226	07 (completed) 2 (enrolled)

Other teaching activities: BSc Nursing (65 students), Basic Nursing Post Certificate Training (20 Students), Guest Lectures (57), Public Lectures (9)

Research

- Research paper till date : Around 1000
- Research paper (Year 2015–16) : 48
- Total Books : 15

Significant books

Advocacy booklets

Current Human Resource

Faculty	16	Staff Nurse	38
Junior Resident	23	Public Health Nurse	2
Senior Resident	8	Technical Staff – Delhi	6
Medical Social Service Officer (MSSO)	2	Technical Staff – CRHSP Ballabgarh	6

Other Staff- Secretarial Staff, Health Assistants, Office Attendants & Sanitation Attendant

Famous Alumni

Future Vision

"To respond to the evolving national public health needs in keeping with global standards of teaching, research and service by creating a professional workforce to translate knowledge to action and thereby contribute towards Health for All"

Centre for Community Medicine A.I.I.M.S.

शिक्षा EDUCATION · अनुसंधान RESEARCH · हीरक जयंती 1956-2016 DIAMOND JUBILEE · स्वास्थ्य सेवा PATIENT CARE

Centre for Integrative Medicine and Research

Year of Establishment : 2016

Introduction

The Centre for Integrative Medicine and Research (CIMR) is a pioneering initiative by AIIMS, New Delhi in the quest for convergence of contemporary medicine with India's ancient and traditional medical practices.

The Centre was inaugurated on the *22nd of June 2016* by Shri J.P Nadda, honourable Union Minister for Health and Family Welfare and president AIIMS, in the presence of Prof M.C. Mishra, Director, AIIMS, New Delhi and Dr H.R. Nagendra, Chancellor, Swami Vivekananda Yoga Anusandhana Samsthana, Banglore.

It is dedicated to research, documentation and delivery of holistic healthcare. It has been envisioned as a "state of the art" research centre where top experts from various disciplines of contemporary medicine will collaborate with Yoga and Ayurveda specialists, both for disease treatment, and for preventive healthcare.

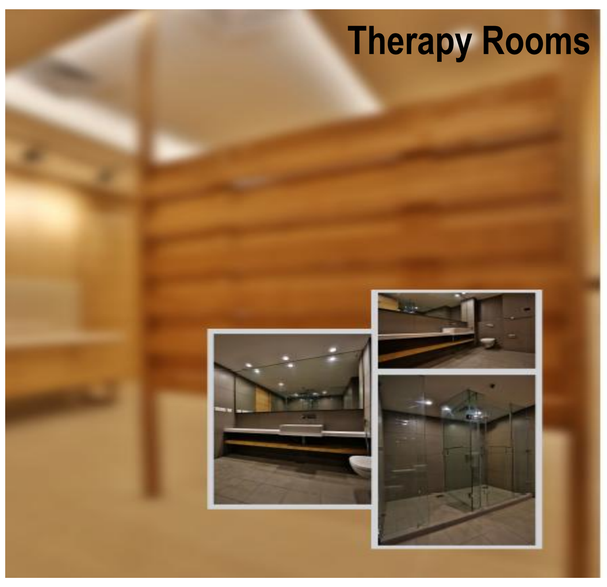
Inauguration of the centre on 22/06/2016

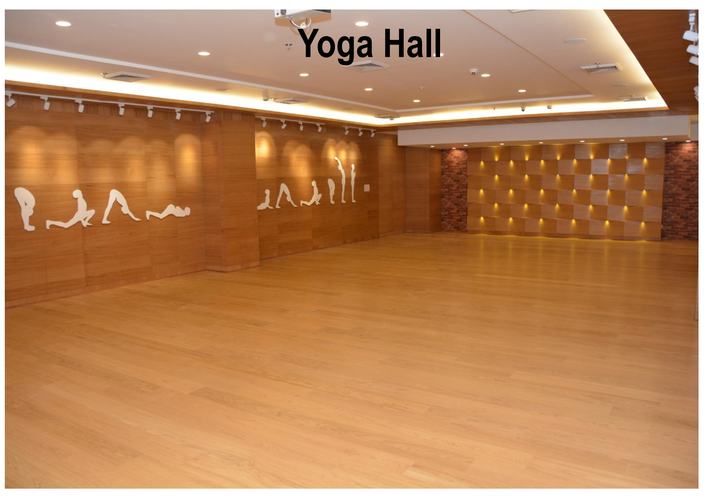
Events

Visit by cabinet secretary

International yoga day celebration at CIMR on 21/06/2016

Facilities





Future Vision

- To inculcate holistic management of disease/disorders into the present practice of health care delivery for better health care to the fellow citizens
- Develop scientifically valid and customized yoga practices for ailments
- To understand the feasibility and applicability of making yoga a cost effective and mass health care means
- To make extensive collaboration with clinical and research department in AIIMS in order to produce acceptable scientific evidence for our traditional medicine and health care system
- To develop transformational research in health care that aims to achieve international acceptability in the field of yoga and traditional medical therapy
- Link existing research network with prominent national and international research department in the field of yoga and traditional medical therapy

Activities

- Yoga workshop
- Public Lecture
- Yoga Session
- On going projects (in coordination with different Departments of AIIMS) =9

and young faculty to promote evidence based practice

mmunity so that it serves as points of interaction among different system of medicine

Yoga is the journey of the self to the self through the self

- Bhagavad Gita

Six Decades of AIIMS

Clean & Green AIIMS

शिक्षा EDUCATION
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स्वास्थ्य सेवा PATIENT CARE

स्वच्छ भारत
एक कदम स्वच्छता की ओर

HIGHLIGHTS OF THE CAMPAIGN

- Clean and Green AIIMS guidelines launched by Hon'ble HFM at AIIMS on 15th July 2015.
- Manpower Augmentation
- Detailed training schedule for house-keeping staff
- Increased mechanisation of house-keeping
- Green initiatives for 40% energy conservation.
- Revision of the Infection Control manual
- Quality Initiatives in housekeeping Checklists.
- Preparedness for the Bio Medical Waste Management Rules -2016
- Intensive poster campaign for hygiene promotion

Launch of Logo & poster series

Shram Daan..:Leading by example

Clean & Green AIIMS booklet being launched by the Hon'ble HFM

Skit on Biomedical Waste Management

Mechanized cleaning

Clean Operating area

Increased Mechanisation

Washroom checklist

Swatchh Sammellan

TO DOWNLOAD KAYA KALP CLEAN AND GREEN AIIMS GUIDELINES BOOKLET 2015 SCAN THE QR CODE

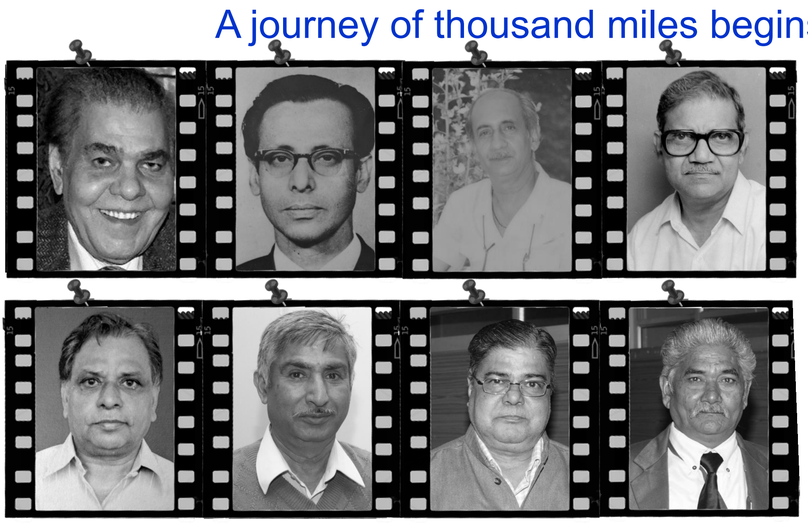
DOWNLOAD

Six Decades of AIIMS

K L Wig Centre for Medical Education, Technology & Innovation

From Medical Illustration Unit to K L Wig CMET

A journey of thousand miles begins with one step. *Lao Tzu*

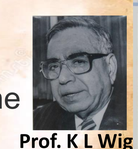


1977- Proposal mooted for establishing CMET

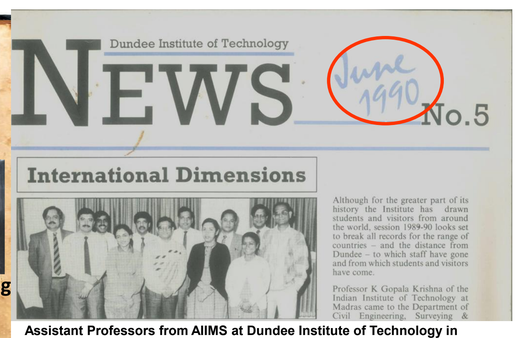
1989-Government approved Tripartite Agreement (Between AIIMS, Overseas Development Agencies, Govt of United Kingdom and Govt of New Zealand)

1990- AIIMS Faculty sent to Dundee Institute of Technology, UK for training

1990- Started functioning and the Centre has been named after late Prof. KL Wig, the second Director of AIIMS



Prof. K L Wig



Dundee Institute of Technology

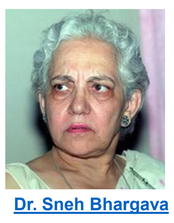
NEWS June 1990 No.5

International Dimensions

Assistant Professors from AIIMS at Dundee Institute of Technology in 1990

Mentors

Dr. Alistair Stewart



Dr. Sneh Bhargava

Dr. Usha Nayyar

Formally inaugurated by Shri K.R.Narayanan, Ex- Vice President of India (1993)

Objectives

- Faculty development
- Educational technology
- Research in medical education
- Instructional courses for certification
- Learning resource materials

Memory... is the diary that we all carry about with us

- Oscar Wilde

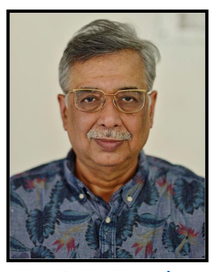
Leadership

Dr Usha Nayyar
Prof. In-charge
1990-30.08.96

Dr Kusum Verma
Prof. In-charge
1.09.96-17.09.05

Dr Rita Sood
Prof. In-charge
18.09.2005-03.02.09

Dr. S Dutta Gupta
Prof. In-charge
04.02.2009-04.05.10

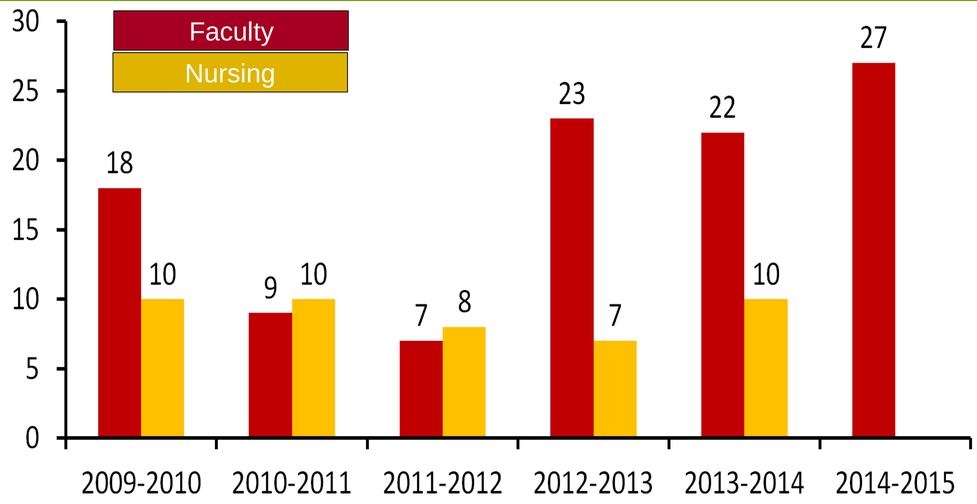


Dr. S.K. Panda
Prof. In-charge
05.05.2010-09.03.11

Dr K.K. Deepak
Prof. In-charge
10.03.2011-08.01.14

Dr O.P. Kharbanda
Chief
09.01.2014- till date

From Faculty Development to Development of Health Professionals



2011-2012	
Training Programme for Group D employees	31
2012-2013	
Intern Orientation	2
Training Programme for Group D employees	2
2013-2014	
Staff Development Programme	38
2014-2015	
Nursing Induction Programme	20
Laboratory Technician Induction Programme	6
Staff Development Programme	1

Spectrum of Services

- Handmade poster
- Reprography work
- Biopsy form printing
- Manual printing
- Offset Printing Machine
- AIIMS/RPC/CNC Stamp printing

Medical Photography
Designing onscreen presentations
Designing of Booklets/Brochures/Pamphlets
Designing and Printing of posters for conferences
Institute day Exhibition
Video recording and editing
Video conversion
Social Photography

Major contributions during 2014-2015

Clinical Photography	26084
X-Ray , Specimen , Gel etc	9130
Designing printing of large format posters	1645
Video recording, editing	509

New Chapters

AIIMS International Training Centre (AIIMS ITC)

AIIMS is an International Training Centre (ITC) for Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) provider & instructor courses on Cardio Pulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC). The BLS and ACLS courses enhance the life support skills while provide training in effective team dynamics and basic drug therapy. The main goal of this exercise is to improve patient outcomes by sustaining life and reduce the mortality and disability rates from cardiovascular diseases and stroke.

Fellowship Programme in Clinical Research Methodology and EBM

A one year Fellowship in Clinical Research and Evidence based Medicine has been started which is being jointly conducted by the Clinical Epidemiology Unit and CMET AIIMS. The course is focused on training on research methodology through newer developments in study designs, data collection methods and analytical techniques. Several Departments are involved in conducting the course.

Dr. Kameshwar Prasad
Professor of Neurology

Clinical Skills Lab

It is being set up by CMET at Convergence Block with the state of the art facility for hands on training on clinical, medical and surgical skills for UG and PG students

Dr Anurag Srivastava
Professor of Surgery

College of Nursing, AIIMS

Year of Establishment- 1968

THE DEPARTMENT AT A GLANCE

The founder Principal

Dr. Madhavi Devi Sharma
Principal (1981- 1992)

Current Faculties

Dr. Manju Vatsa
Principal (1992- till date)

Lecturers	**17**
Senior Tutor	**1**
Tutors	**12**

Courses & Current Intake of Students

Course	Duration	No. of Seats
BSc (H) Nursing	4 years	77 + 5 foreign national
BSc (Post Basic/ PC)	2 years	24 + 1 foreign national
MSc Nursing	2 years	22 + 1 foreign national
PhD	3- 5years	02

No. of students graduated from the Institute till 2015

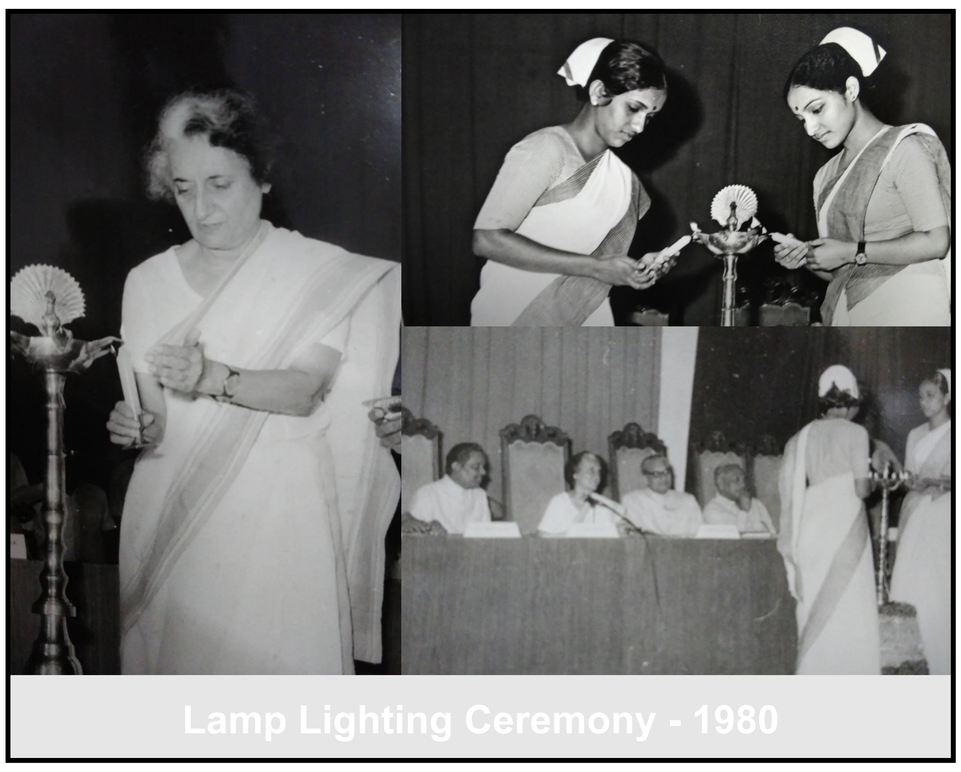
Course	No. of Graduates
BSc (H) Nursing	1808
BSc (Post Basic/PC)	505
MSc Nursing	108

HISTORY

Evolution of College of Nursing

- **1968** – Department of Nursing Education (BSc (Post Certificate) course)
- **1979** – Renamed as College of Nursing (BSc (Hons) Nursing Course)
- **2004** – MSc Nursing course (Cardiology, Neurosciences, Oncology, Critical care, Nephrology, Pediatrics, Psychiatry,)
- **2016** – PhD in Nursing

MEMORABLE MOMENTS

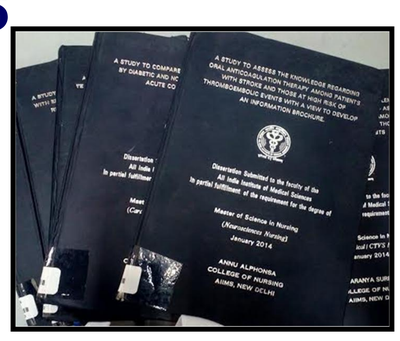


Lamp Lighting Ceremony - 1980

During the occasion of College Annual Day- 2016

ACHIEVEMENTS

- Preparing quality nursing force competent to work in the hospital and the community.
- Preparing quality nurse educators or managers.
- Active involvement in rendering direct patient care services.
- Active involvement in rendering community health care services via awareness generation, BCC activities etc.



INTERNATIONAL COLLABORATION

- Multicountry World Health Organization, WHO study on “Collaboration between Nursing Services and Nursing Education”

FACILITIES

Front view of the College

Class room facility

Lab facility

Clinicals

Community

CORE VALUES

We strive for

- Excellence in clinically oriented nursing education culminating in quality of nursing care and education.
- Developing scientific attitude and inculcate the evidence based approach to education and practice.
- Integrity and accountability : A commitment to the mission of the college with honesty, discipline , hard work, and transparency.
- Team work : Commitment to team work and inter and intra discipline collaborations.
- Respect for all : Treat each individual with respect, dignity and empathy.

FUTURE VISION

Vision 2020

- Our mission is to improve the quality of nursing care through evidence based interventions and use of innovations in educational technology.

We strive for

- Developing nursing faculty for achieving excellence in Nursing Education.
- Setting highest standards for teaching at undergraduate and post graduate nursing education.
- Strengthening capacity of nursing faculty and provide conducive environment and resource for research.
- Expand the scope of postgraduate nursing education to other important disciplines of nursing.

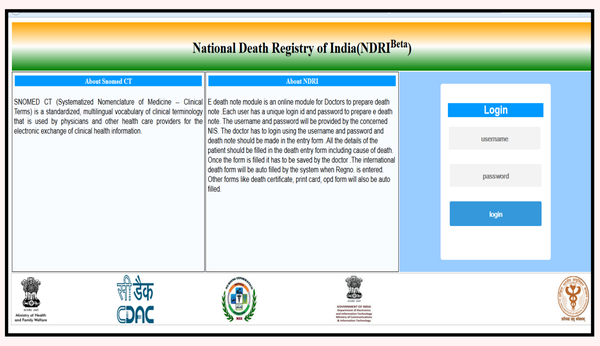
“Quality is not an act, It is a Habit and we make it a Habit”

Six Decades of AIIMS

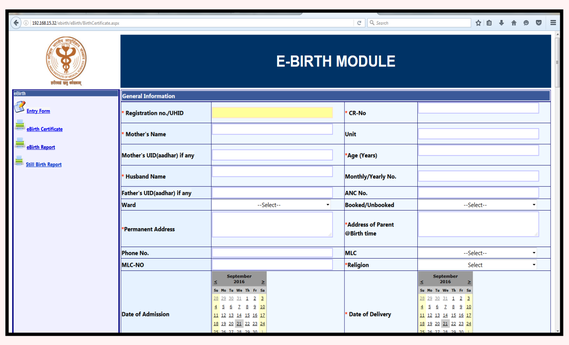
Hospital Information System (HIS)-AIIMS Model

(All modules developed in AIIMS)

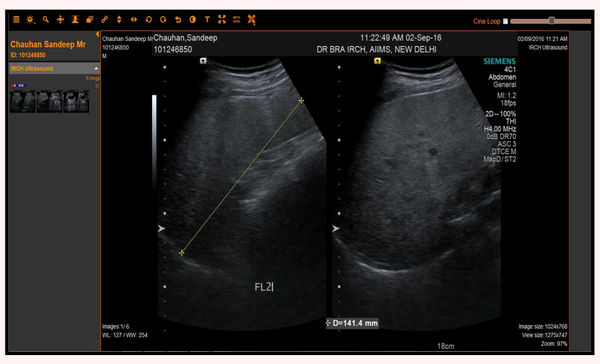
Electronic Health Records



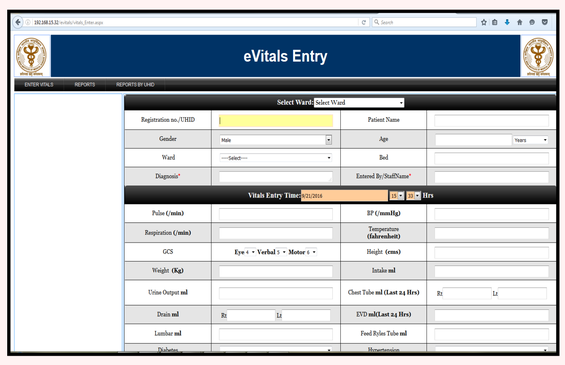
SNOMED CT integrated e death registry (Compliance-100%) - 192.168.15.32



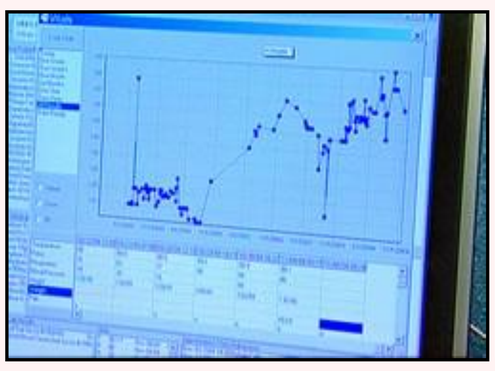
Replaced manual birth note for easy data analysis and data mining (Compliance -100%)- http://192.168.15.32

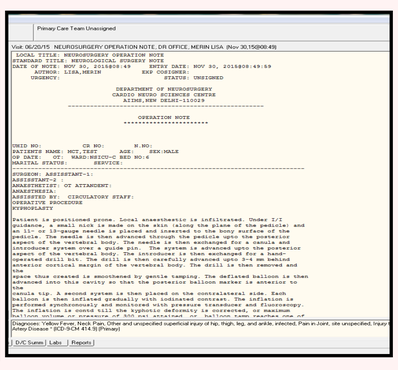


PACS - Real time visualization of images (Compliance-100%). Available all across AIIMS 192.168.15.23:8080/oviyam2



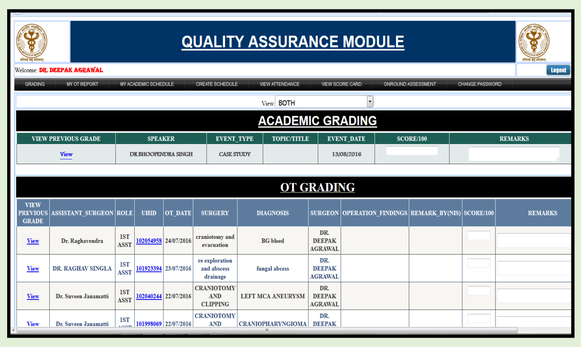
For online recording of vital signs of patients 192.168.15.32

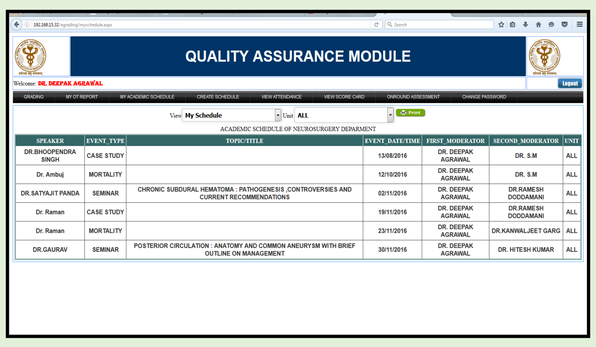




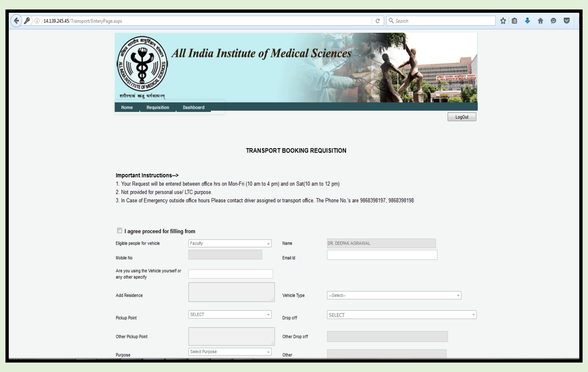
CPRS for making Admission notes, Transfer notes, Discharge notes, Consultation notes, OT notes. Compliance -100% in Obstetrics and Gynaecology, Neurosurgery, Orthopaedics, ENT, Cardiology, CTVS Paediatrics and Paediatric Surgery

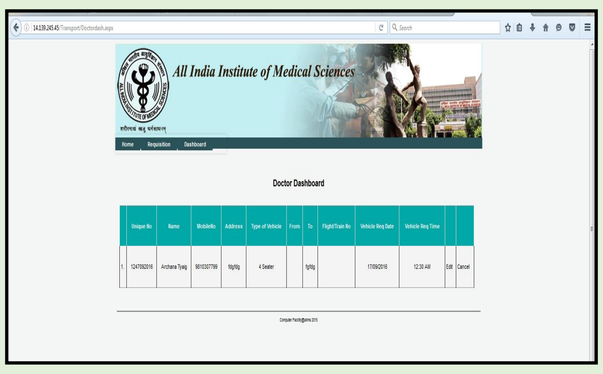
Modules for Doctors



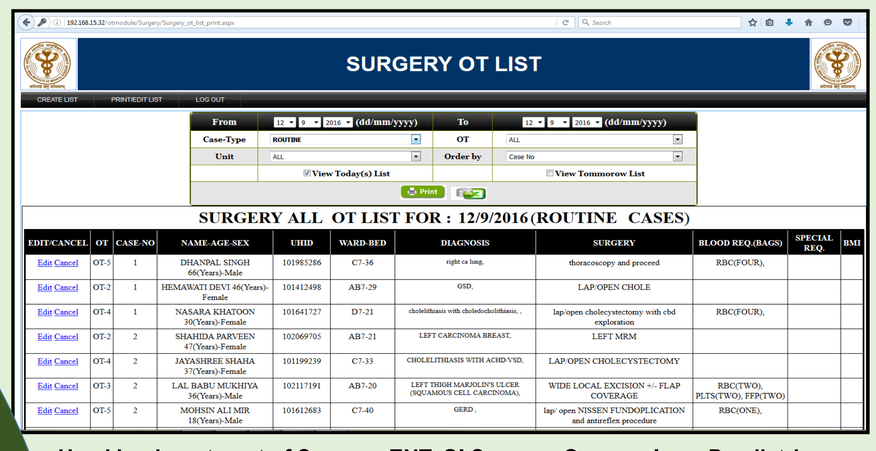


Online resident evaluation system (Replaced log book of residents).100% compliance in Neurosurgery. Integrated with biometric punching for different academic activities, OT grading etc. 192.168.15.32





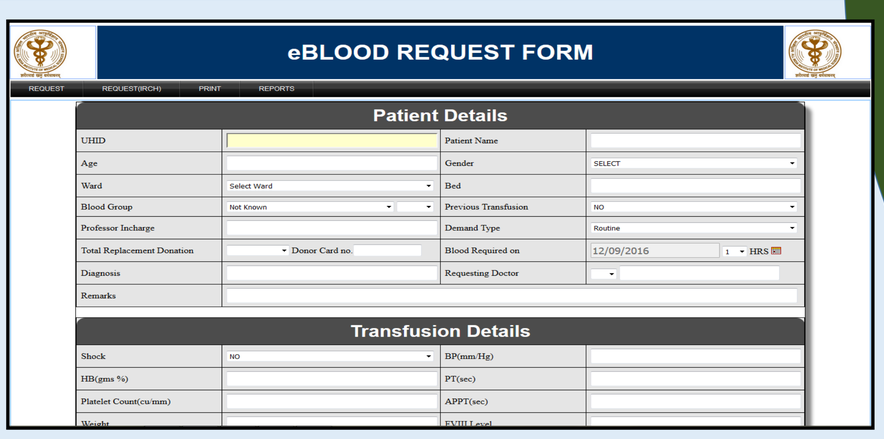
Online vehicle booking facility for faculty accessible from www.aiims.edu



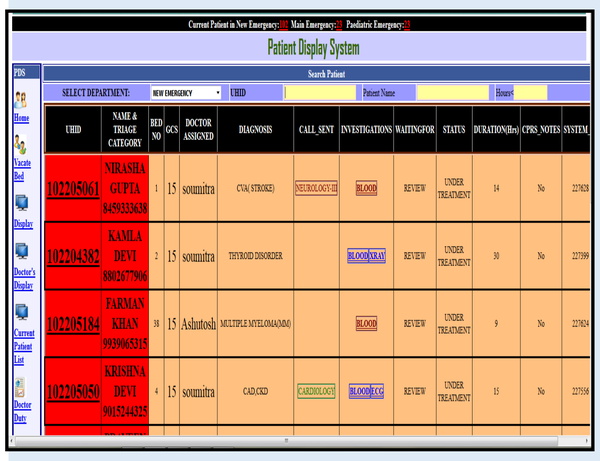
Used by department of Surgery, ENT, GI Surgery, Gynaecology, Peadiatrics Surgery, Urology, Orthopaedics, Neurosurgery, Ophthalmology, CTVS etc. 192.168.15.32

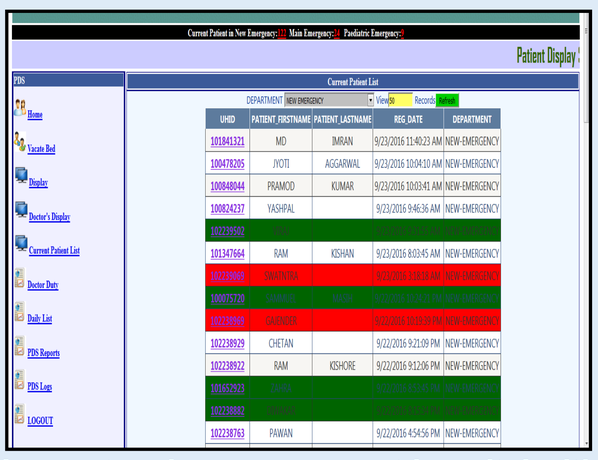
AIIMS Hospital Information System

Modules for Patients



Online blood request form for blood and blood products all over AIIMS. (Compliance -100%) -192.168.15.32

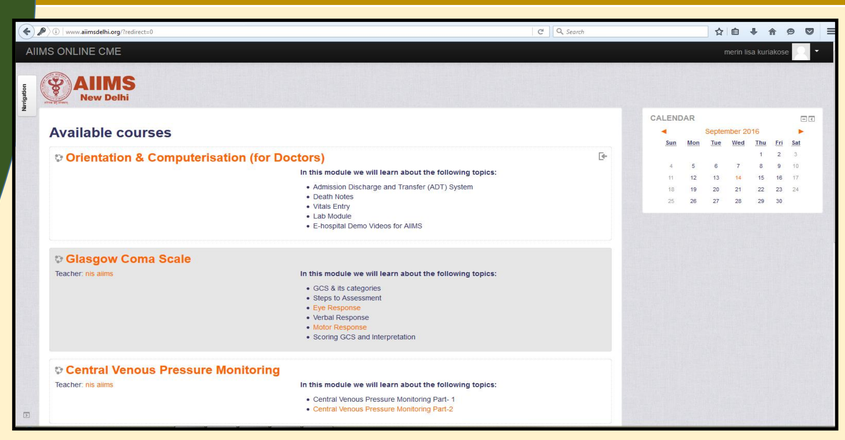




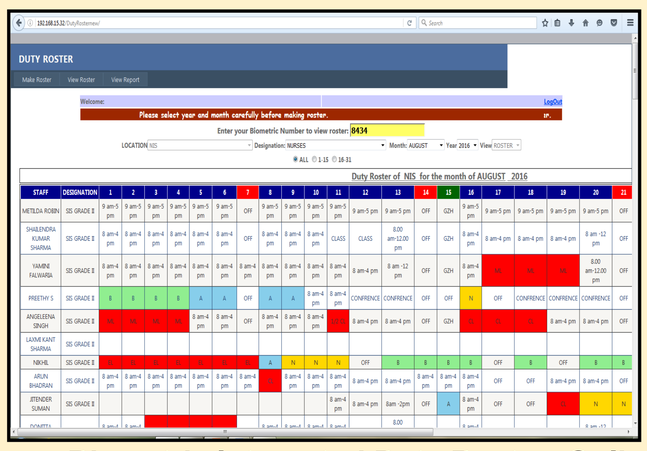
Patient Display System: First ever display system in a government hospital with updated information of patients admitted in Emergency Department- 192.168.15.32

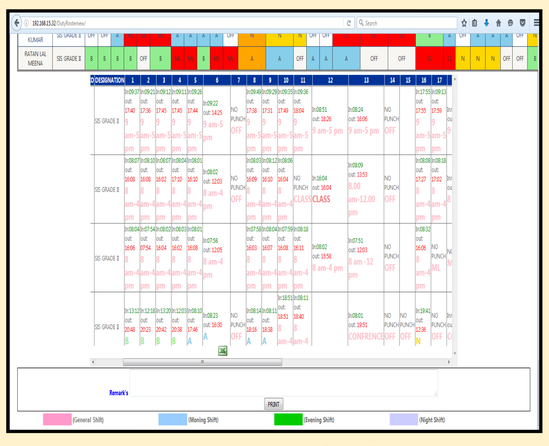
e MLC: First ever display system in a government hospital with updated information of patients admitted in Emergency Department- 192.168.15.32

Modules for staff

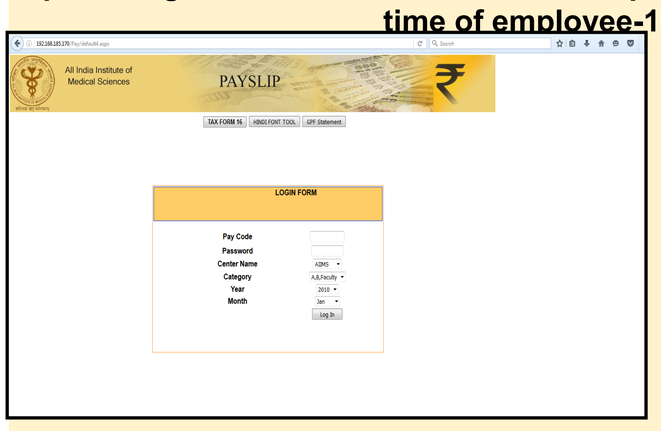


Online training program for doctors and nurses accessible at www.aiimsdelhi.org. Modules available include GCS, CVP Monitoring, Computerisation, Critical Care

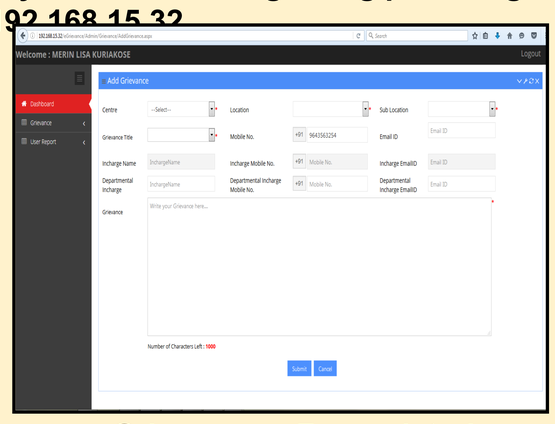




Biometric Integrated Duty Roster: Online Leave Management. SMS on no punching. Notification for employees and HOD regarding punching time of employee-192.168.15.32



Accessible to all employees of AIIMS through intranet and internet (Compliance-100%)-192.168.185.170/Pay/default4.aspx



e Grievances- For registering complaints by employees of AIIMS- 192.168.185.170/Pay/default4.aspx

AWARDS

CERTIFICATE OF APPRECIATION FOR AIIMS PATIENT DISPLAY SYSTEM 2014

elets- eINDIA 2014

SKOTCH ORDER OF MERIT

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

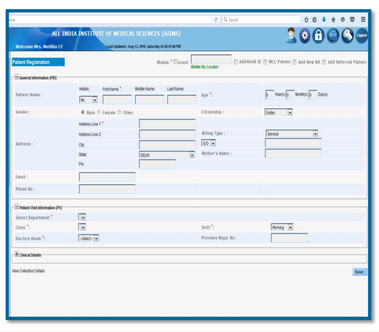
ACCOLADES

GOLDEN PEACOCK AWARD 2014

Winner of Healthcare Leaders Forum Awards 2015

Dr. Deepak Agrawal ,Chairman Computerization receiving the Skotch Award on December 2015.

IT Implementation at AIIMS



Before October 2013

No IT Implementation at AIIMS

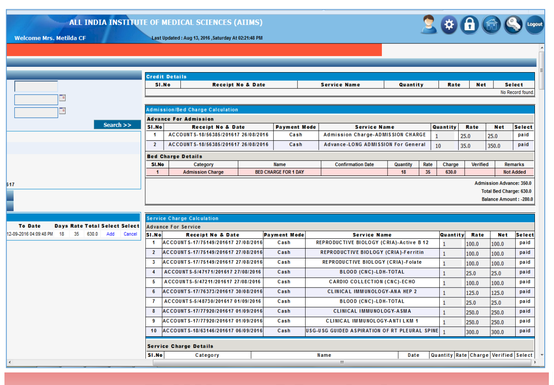
October 2013

Prof.M.C Misra takes over as Director, AIIMS

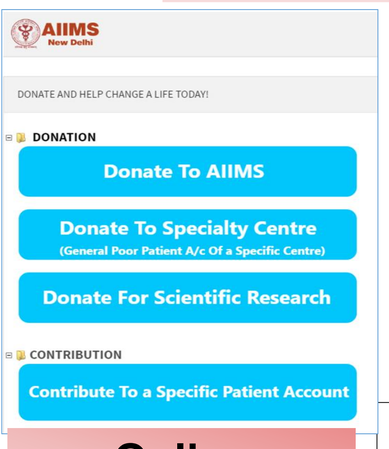
Milestones of Computerisation at AIIMS

Lab Module

Kiosk Application



Billing Module

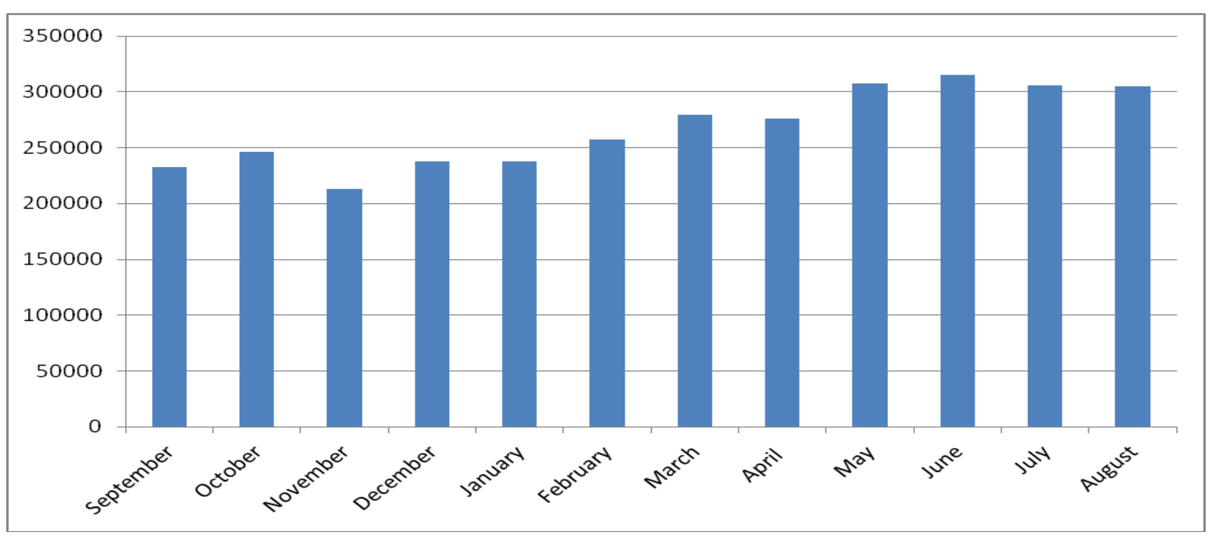


Online Donation

- **November 23, 2013** Computerization of Admission discharge and transfer all over AIIMS.
- **December 1 ,2013** Online store module from online indenting to utilization made live across AIIMS .
- **December 6, 2013** Laboratory Information System in e-Hospital implemented across AIIMS
- **January 6, 2014** Electronic Death Note, OT Scheduling, Duty roster made live across AIIMS .
- **April 16, 2014** PDS(Patient Display System) in Emergency Department made live across AIIMS
- **March 1, 2014** CPRS (Computerized Patient Record System) for all notes (eg: Discharge note)live across AIIMS
- **Aug 1, 2014** All registration counters to act as 'single window' counters for all appointment and bill payment.
- **Aug 15, 2014** Emergency Nurse Coordinator for improving the workflow of Emergency Department (Ph:9868398636)
- **Oct 1, 2014** e-MLC implemented in Emergency Department with photo and thumb impression of the patient
- **Nov 1, 2014** Online Employees Health Scheme for faculties which is accessible from inside and outside AIIMS
- **Dec 1, 2014** e Birth registry for online birth record maintenance which help in easy retrieval of data
- **Jan 1, 2015** Quality assurance module (QAM) for online evaluation of resident doctors (replaced log book)
- **Jan 10, 2015** e exemption form for MSSO which helped in maintaining transparency and accountability in the system
- **Jan 23, 2015** Patient Portal on website for online booking of appointment and lab result viewing available at aiims.edu
- **April 7, 2015** Aadhar integration with UHID for online payment and generation of e -OPD card
- **May 20, 2015** EXIT Counters in Medicine and Peadiatrics OPD for taking future appointments for visit and all procedures
- **April 11, 2015** e Blood Request for blood and blood products from all over AIIMS facilitating easy tracking of system
- **Aug 1st 2015** Biometric attendance integrated with e duty roster along with SMS notification for employees all over AIIMS
- **Aug 1st 2015** Patient Reception Centre,for Booking and confirmation of appointment through fast track and current booking counter
- **April 15,2016** e Billing Module – Online payment possible from anywhere in AIIMS for payment for procedures and admission

AIIMS Appointment System – Jewel in the crown

(Adopted under Digital India Initiative by Government of India)



Month wise Statistics of appointment taken online for the year 2015-16

Cracking the code - Nursing Informatics Specialists (NIS) Team

- A new cadre of nurses, designated as NIS was created with effect from February 2011.
- The vision behind this initiative is implementation of IT initiatives all over AIIMS.
- NIS is deployed in every floor of hospital for providing training to the users.
- They act as a bridge between the programmer and end user for hassle free implementation of modules.

- NIS played a major role in successful implementation of Lab Module, ADT Module, Billing Module, Store Module etc.
- CNEs are organized on routine basis by NIS for providing training regarding Computerization activities at AIIMS.
- Overall NIS has played in pivotal role in successful implementation of IT at AIIMS

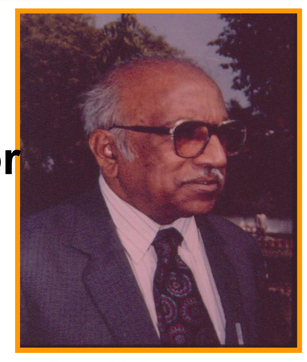
Cardiothoracic and Vascular Surgery

Year of Establishment- 1964

Founder Member and History

Prof. N.Gopinath joins AIIMS and established the Department of CTVS

- Cheerleader, Coach, Confidant, Counselor
- Developer of Talent
- Guardian, Guru
- Inspirational Master, Opener of Doors
- Patron, Role Model, Pioneer
- Seminal Source, Successful Teacher



Prof N Gopinath
Our Mentor
1964-1982

The Command

Prof P Venugopal
1982-2007

Prof A Sampath Kumar
2007-2009

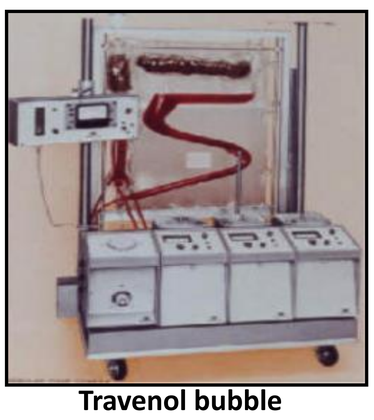
Prof Balram Airan
2009- Present

Achievements

Cardiac Surgery at AIIMS in 60s

- Initially there was a Bennet PR-2 ventilator.
- In, 1968-69 Bird Mark 7 and Mark 8 ventilators were procured
- There was no piped Oxygen. Only big Oxygen cylinders were there for running the ventilator. The big cylinders lasted about 6-8 hours. If running a ventilator, those needed to be changed round the clock.

Cardiopulmonary bypass at AIIMS: Early 70s

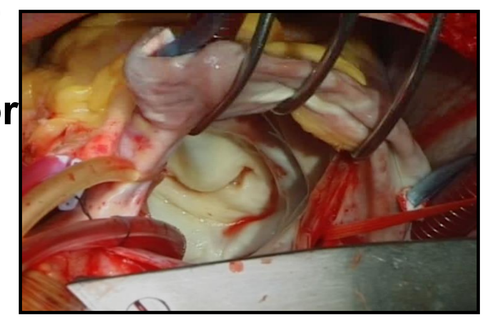


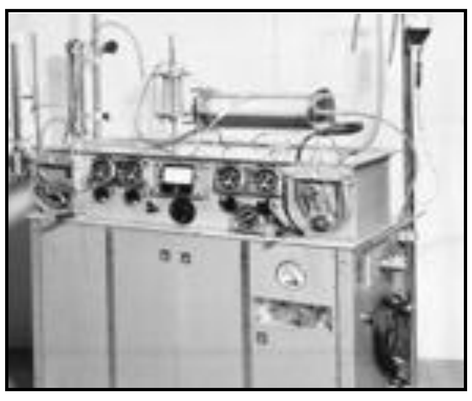
Travenol bubble oxygenator

Ryg Polystan bag oxygenator

1964 Open Heart Surgery Program started

- In 1964, operations used to be in the Old OT Block. There were four Operating Rooms for the entire hospital except Orthopedics. Cardiac surgeons were operating in O.T.1 and sharing with neurosurgeons on alternate days.
- There was no ICU. There were four postoperative beds on one side and neurosurgery had four beds in the same room.





Pemco pump with Kay Cross Disc Oxygenator

Cardiopulmonary bypass at AIIMS: Late 70s

- Switch from Polystan bag to Shiley Bubble Oxygenator
- Introduction of Disposable cannuale and tubing
- Immediate improvement in Results

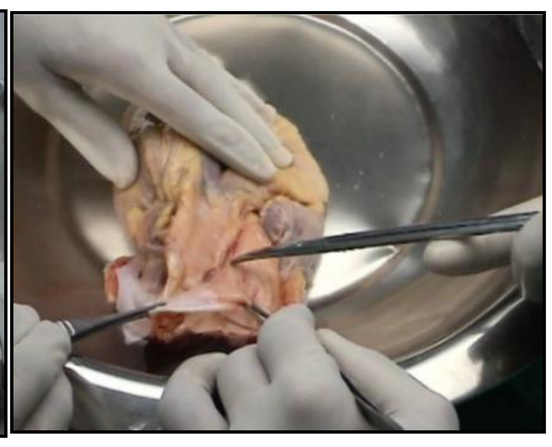
Shiley Bubble Oxygenator

Cardiac Surgery at AIIMS : 1975 to 1980

- Protocols of Perfusion, De-airing
- Selective Coronary Perfusion
- Improvement of results of Valve Replacements
- Safer technique of AVR
- Surgery of Congenital Heart Defects in older Children
- No cardioplegia

1986: New Era Begins

3rd August 1994: India's First Ever Successful Heart Transplantation at AIIMS



CN Centre becomes Operational

1994: First Cryopreserved Valve Bank in India

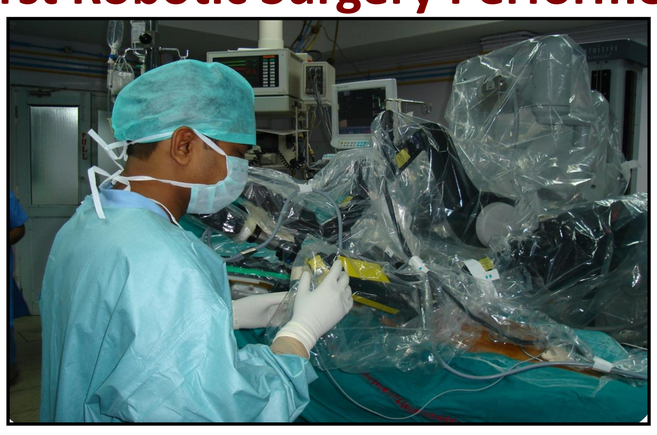
1996: First paracorporeal VAD (Thoratec) implant in India

2002: Organ Retrieval banking Organisation Established

2003: Stem Cell Chapter Begins

- 2003: First Clinical/Research Cardiac application
- 2005: Dedicated Facility for stem cell research
- 2008: Centre for Excellence for Stem Cell Research
- Encouragement of organ donation
- Fair and equitable distribution of human organs
- Optimum utilization of human organs

2003: First Robotic Surgery Performed in India



2012: Neonatal Intensive Care Unit (NICU) started

Dietetics

Year of Establishment : 1959

Mrs. Pratima Kaushik
Head of Department
(1959 to 1986)

Mrs. Saroj Bala Chadha
Head of Department
(1970-2003)

Mrs. Rekha Sharma
Chief Dietician
(1978-2006)

Introduction

- The Department of Dietetics was established in the year 1959.
- Initially, it started as a facility to take care of indoor patients only. With years it has diversified extensively into three distinct categories.
  - Administration & Dietary Services
  - Medical Nutrition Therapy
  - Teaching ,Training & Research
- Department has been actively involved as an integral part of patient care services
- Complete Digitization of Dietary Services in 2016

Vision

- The Department of Dietetics strives in providing exemplary hospital food services and medical nutrition therapy for patients

"To provide healthy, hygienic, therapeutic diet to help patients for early recovery"
स्वस्थ, स्वच्छ, चिकित्सकीय आहार द्वारा रोगियों को जल्दी ठीक करने के लिए मदद करना"

1·Administrative & Dietary Services

- Pre packed food is being provided to indoor patients eg. Bread, curd, desserts, Biscuits, butter, jam for better hygiene.
- Continuous modification in Diet Menus

Dietary Services at AIIMS

↓

Combination of Centralized & Decentralized Food Service

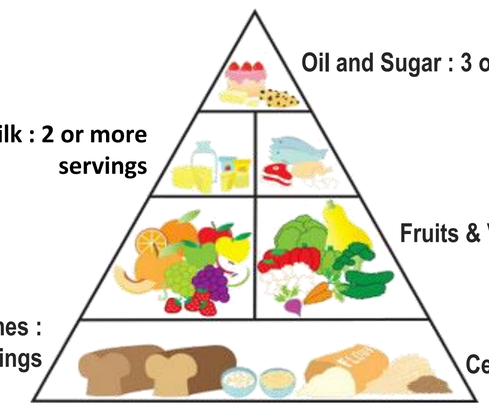
- General Wards: Normal Diet to indoor patients is served on daily basis.
- Private Wards: Individual layout of trays for each patient is done in each floor pantry.
- Modified Diets: Therapeutic Diets are served in disposable compartmental trays with cover, based on the dietary guidelines.
- Enteral Feed: Like Naso gastric, Jejonostomy, PEG feeds are prepared and sent in labeled sterilized bottles.
- Normal Meal-Consist of Bed Tea, Breakfast, Lunch, Evening Tea & dinner.

Staff Strength

- Total no of Dieticians- 19
- Senior Steward- 2, Steward- 8
- UDC & LDC-2
- Head cook- 3, Head Bearer- 8, Cooks- 41
- M. Bearer- 78
- Outsourced Staff- 90

Composition of Normal Diet at AIIMS

(Minimum no. of Food Groups & no. of Servings served daily)



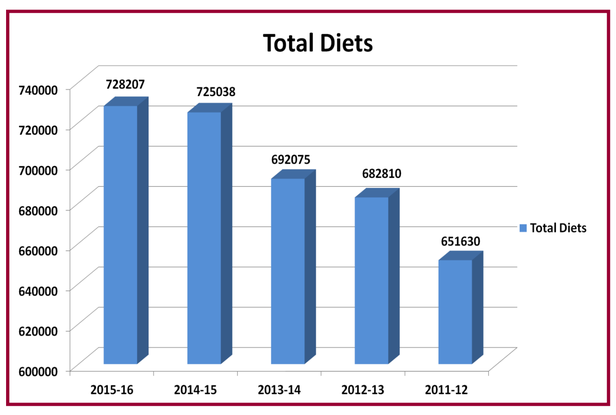
Calories & protein of Normal Diet

- General Ward: approx. 2000Kcal and 70 gm protein
- Private Ward: approx. 2800Kcal and 90 gm protein.

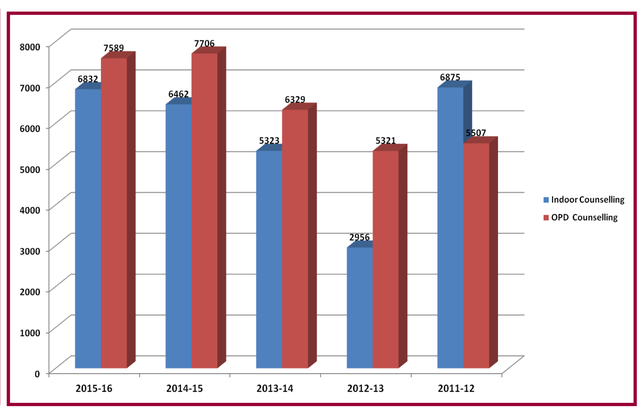
Types of Diets

- General Normal Diet
- Private ward diet-
- Therapeutic diets
- Therapeutic Feeds

Statistical Data



Total number of Diets served in last five years



Total number of Indoor and Outdoor counseling done in last five years

State of the Art Equipment

Automatic vegetable cutting machine

Cold storage

Automatic chapati making machine

2· Medical Nutrition Therapy

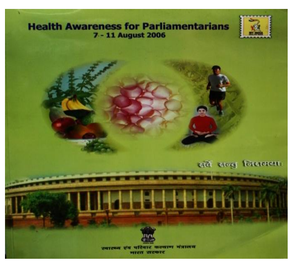
- Dieticians are active members of specific clinics like Renal, Geriatric, Bariatric surgery, Pediatric, Gastro etc.

3· Teaching, Training &Research

- Since nutrition is an integral part in treatment, prevention, and management of any disease, it has been a prime area of research.
- Existing
  - Participation in the development of teaching program and educational material regarding diet and nutrition of students, patients, families and community at large.
  - Deliver lectures and teaching sessions for student Medical, Paramedics and Nursing etc.
  - Participation in research studies at AIIMS / Institutions (Govt/ Psu) / Organizations.
  - Research guides in M.Sc, MD & DM thesis.
  - Published approx 20 research articles in National and International Journals.

Public Health Lecture

- High Blood Pressure and Heart attack
- Diabetes:- A Sweet Killer
- Kidney Failure + kidney Transplant
- Workshop-Milk day
- Health awareness and parliamentarians
- Nutrition information though TV / AIR



Awards

- Mrs Pratima Kaushik -Life time achievement award by Indian Dietetic Association
- Mrs Saroj Bala Chadha - Life time achievement award at the International Multidisciplinary conference A
- Mrs Rekha Sharma - Life time achievement awards to at the International Multidisciplinary conference and by Food & Nutrition Alumini, Lady Irwin College
- Dr Alka Mohan Chutani -Contribution in the field of Nutrition Award at the International Multidisciplinary conference, AIIMS
- Dr. Parmeet Kaur
  - I. Vashisth Samman by Himachal Social Bodies Federation, Delhi in 2014
  - II. Most Efficient Group A Officer by Dr RPC, AIIMS - 2013-2014
  - III. Ambassador of Humanity Award by Lions Club International – 2013-2014
  - IV. Distinguished Service Award by Geriatric Society of India in 2011

Booklets

- Diet & Diabetes; by Mrs Kaushik & Dr JS Bajaj
- Diet & diabetes; by Mrs Rekha Sharma
- 99 Recipes; by Mrs Mrs Saroj Bala Chadha
- Diet & Renal Failure; A guide to healthy eating; Diet & heart transplant; by Dr Alka Mohan Chutani
- Diet & Nutrition in Parkinsons Disease (2001) by Dr Parmeet Kaur
- Functional Foods- Beyond Basic Nutrition (Monograph) 2012 by Dr Parmeet Kaur
- Booklet entitled "Guide to Healthy Eating for adolescents" in 2009 by Dr Parmeet Kaur

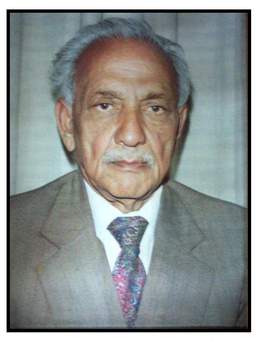
Mission

- To provide individualized medical nutrition therapy in a multidisciplinary approach as a means to optimize patient care services.
- To provide effective nutrition education in a variety of patient care settings
- To develop food and nutrition programs to prevent or treat illness and promote general health

Dr. Rajendra Prasad Centre for Ophthalmic Sciences

Year of Establishment : 1967

Founder Member and History


Prof. L.P. Agarwal

- Established in 1967, as a National Centre for Ophthalmic Sciences, the apex of the pyramid of ophthalmic care in India.
- Prof. L.P. Agarwal, Founder and first Chief of Dr. R.P. Centre was instrumental in making India the first country in the world to have a National programme for prevention of visual impairment and control of blindness.

Introduction

- The Centre provides technical inputs at national and international forums that deliberate on policy planning and programme implementation.
- The Centre introduced the concept of ophthalmic super specialties in India.
- There are 14 clinical sub-specialties of ophthalmology, complemented by departments of community ophthalmology, ocular pathology, ocular biochemistry, ocular pharmacology and ocular microbiology.
- It is a 302 bedded hospital with state-of-the-art diagnostic and surgical facilities available in all sub-specialties of ophthalmology, at highly subsidized rates, and often free to the very poor, coming from all parts of the country.
- Over 150 international and national collaborative research projects have been completed or ongoing and there are over 100 peer reviewed indexed publications from the Centre in the last one year alone.
- There is a well-developed community eye health service running surveys, regular peripheral outpatient services in urban slums and rural areas, screening camps and a 'Reach-in' programme for cataract surgery.
- The Centre has the largest ophthalmic residency training programme in the world, with over 150 residents in training at any one time.
- Continuing medical education programmes for practicing ophthalmologists under the auspices of WHO, ICMR and Ministry of Health are conducted and short and long term training is provided in all sub-specialties of ophthalmology.
- Over 800 illustrious alumni head or work in important positions at most of the ophthalmic centres of excellence in India and abroad.

Our Emblem

Golden Jubilee Year
(1967-2017)

- Embodies the essence of ophthalmic service
- The Sun - According to Ancient Indians, and Iranians the Sun illuminates the best image of the Divine and it is not only the source of all physical light but it also signifies the principles of awakening and intellectual animation. The sun is the pervading spirit of sight, which enables the eye to see forms and objects.
- The Veena - represents the spirit of learning, and a blessing is involved upon all students actively engaged in the pursuit of knowledge and the search for truth by such a symbolic representation.
- The Lotus and the Eye - This symbol exhorts our staff to have purity of vision and thought, and help allay the suffering brought about by eye diseases, restoring clarity of vision and the beauty of a patient's eye.

Our Motto

"From Darkness to Light"

तमसो मा ज्योतिर्गमय
सर्वे भद्राणि पश्यन्तु
तमसो मा

- Holds a meaning for all those people involved in ophthalmic care.
- To the patient it is the hope that dedicated workers at the Centre will lead them "From Darkness to Light" – physically mentally, ethically and spiritually, without distinction of caste, class or creed.

New Achievements

- Dedicated high dependency unit for infants / preterm babies
- Plaque brachytherapy facility
- National ophthalmic surgical skill developmen
- Femto laser cataract surgery centre
- WHO collaborating centre for prevention of bli

World Health Organization Collaborating Centre

Significant Facilities in Patient Care Education / Research / Others

- Retina Lab, Cornea and Ultrasound lab, Glaucoma facility, Electrophysiological lab, Laser section, Contact lens, National surgical skill development centre, Optometry section, Low vision cum rehabilitation facility, Clinical investigative lab, Clinical biochemistry lab, Ocular pharmacy and dispensary, Operation theatre.
- Clinical Services i.e. Unit-I: Vitreo-Retina, Uveitis, ROP, Lens, Refractive & Cornea Services; Unit-II: Vitreo-Retina, ROP & Uveitis services; Unit-III: Cornea, Cataract, Refractive surgery & Contact lens services; Unit-IV: Glaucoma & Cataract services; Unit-V: Strabismus, Neuro-ophthalmology, Pediatric ophthalmology, Oculoplasty & Oncology services; Unit-VI: Cornea, Cataract, Refractive surgery, Ocular Surface, Squint, Neuro-ophthalmology, Ocular Oncology & Low Vision Rehabilitation services; Emergency services; Eye Bank services.
- Para-Clinical services i.e. Ocular Biochemistry; Ocular Pathology; Ocular Microbiology; Ocular Pharmacology & Pharmacy; Ophthalmic Radiology; a; Community Ophtha

Vision Statement

- Continue to excel in providing eye care comparable to the best in the world to all patients. This includes all superspecialities of Ophthalmology.
- Make National Eye Bank the nodal centre for providing services and training personnel from all over India.
- Develop a state-of-the-art National Centre for Low Vision Aid services and training for visually challenged.
- To create an academic and work culture with all Faculty, Residents, Nurses, Optometrists and Staff to achieve the best for the Centre and encourage and share individual excellence.
- R.P. Centre is the Apex Eye Centre in the country and continues to fulfill the designation in letter and spirit to utmost of our capabilities.

Statistical Data

1.) Number of faculty and Residents (2015-2016)

Faculty	Junior Residents	Senior Residents
41	105	53

2.) Patient care (2015-2016)

I. OPD

	Year 2015-2016	New Cases	Old Cases	Total
1.	General OPD	152455	99349	251804
2.	Emergency	8799	-	8799
3.	Specialty Clinics	36697	127431	164128
	Total Cases	197951	226780	424731

II. Surgery

	Year 2015-2016	No. of Cases
1.	Major	17499
2.	Day Care	10323
3.	Minor	13416
	Total Cases	41238

III. In patient

	Year 2015-2016	No. of Cases
1.	General Admissions	16030
2.	Casualty Admissions	2775
3.	Private Admissions	1178
4.	Short Admissions	8435
5.	Day Care Admissions	10362
	Total	38780

IV. Others

		Year 2015-2016
1.	Average Bed Occupancy Ratio	86%
2.	Average length of stay	7 Days
3.	Average OPD Attendance per working day	1434
4.	Average No. of Indoor Admission per day	105
5.	Average No. of Surgeries per day	113

	Eye Bank	Year 2015-2016
1.	Total Eyes/Corneas Collected	1463
2.	Total Transplanted	953

	Investigations, Preparations & Services	Year 2015-2016
1.	Investigative Laboratories	400556
2.	Ocular Pathology	96988
3.	Ocular Biochemistry	7940
4.	Ocular Microbiology	18841
5.	Ocular Pharmacology	123514
6.	Radiology	7740
7.	Community Services	230225

Teaching

	Year 2015-2016	
	MBBS	72
	Postgraduate (JR & SR)	158
	Ph.D	23
	Bachelor of Optometry	76

Research

	Year 2015-2016	
	Books	05
	Papers	141
	Articles	
	Chapters	15

Future Vision

Our mission is to improve society's well-being through excellence in the best eye care, education and research, we endeavor to:

- Develop outstanding teachers and surgeons for supporting excellence of medical education and patient services comparable to the best in the world to set the highest standards of teaching at under-graduate and postgraduate levels and excel in the medical education.
- Bring together in one place, highly talented clinical and research facility and make state of the art contributions in Ophthalmology Vision Sciences.
- Provide best eye care to all strata of patients presenting for treatment at this Centre.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Emergency Medicine

Year of Establishment- 2011

Vision: To be a Centre of Excellence for providing world class emergency care , high quality education and research in Emergency Medicine

Founder Members

- Department of Emergency Medicine has been established because of extreme hard work and vision to provide holistic emergency care by the following honorable founding members:

Dr. Praveen Aggarwal

Dr. L R Murmu

Dr. Sanjeev Bhoi

Achievements

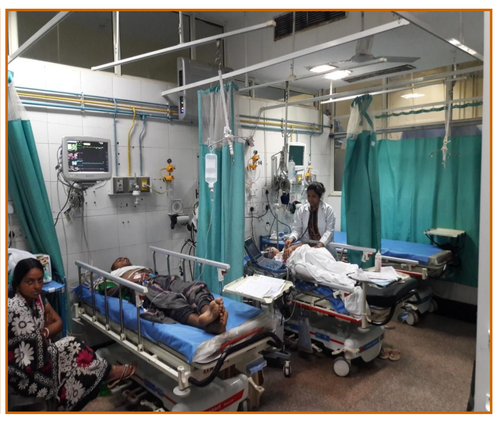
1. The post graduate programme (MD in Emergency Medicine) started in 2012
2. Framed national policies with regard to Emergency Care including National Emergency Life Support Course and several other policy decisions taken by Ministry of Health & Family Welfare
3. Collaboration with University of South Florida, Tampa, USA, SUNY Downstate New York, Philadelphia, USA and several other Universities across USA to strengthen the teaching and training of faculty and residents in this recently introduced specialty.
4. Training of both Indian and International faculty and residents in Emergency Sonography.
5. Training of residents and paramedics in disaster management and life support measures.

Significant facilities

Triage area

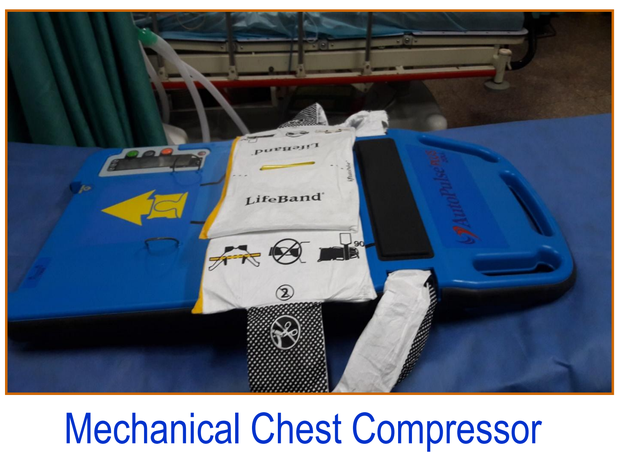
Pediatric Emergency

Surgical Emergency



Medical Emergency

- Observation Area for further evaluation , management and early discharge without indoor admission
- High Dependency Units with a total capacity of 25 beds
- Life-saving equipments and drugs



Mechanical Chest Compressor

Defibrillator

Ventilator

Emergency Drugs

Crash Cart

'Point-of-care' laboratory for immediate analysis for cardiac biomarkers, blood gas analysis, procalcitonin, toxicological analysis and complete blood counts

High-fidelity simulator for training purposes

Patient care

- Advanced point of care laboratory
- Round-the-clock faculty coverage
- Availability of all emergency drugs
- Facility for thrombolysis
- Advanced mechanical chest compressor
- Bedside emergency Ultrasound facility
- e-MLC facility for tamper-proof record of MLC cases

Education

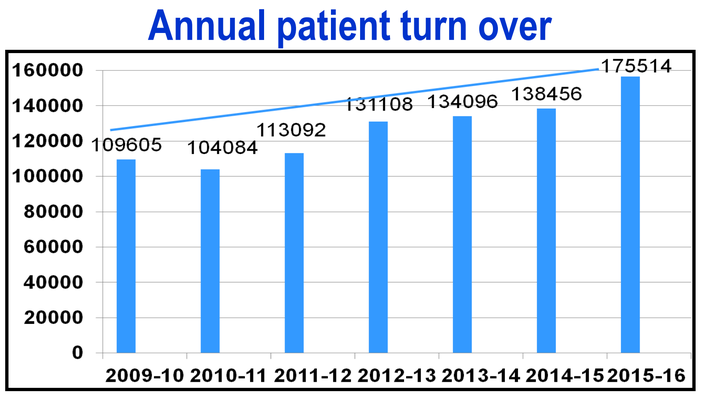
- MD programme in Emergency Medicine
- PhD programme in Emergency Medicine
- Residents from other department posted for emergency training
- Emergency Ultrasound, BLS & ACLS courses
- High-fidelity Simulator as a teaching module for PG students
- Training of students from foreign universities

Research

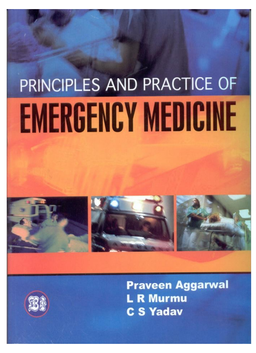
- Both translational and clinical researches being conducted
- On-going research on biomarkers in sepsis, acute kidney injury and acute coronary syndrome, toxicology, hemorrhagic shock, etc.

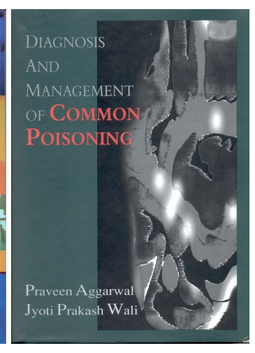
Statistical Data

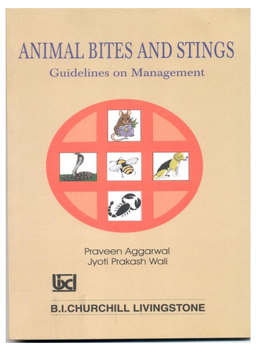
Annual patient turn over

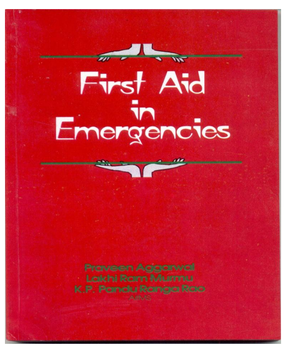


Research and publications	
Publications	Total Number
Books	6
Articles	235
Chapters	51
Research Projects	23









Future Vision

- Establishing state of the art Emergency block with all infrastructure for diagnosis and treatment for all type of emergencies under one roof.
- Fellowship programme in Emergency Toxicology and Emergency Ultrasound
- Creating division of Disaster Medicine, HAZMAT Medicine, and Altitude Medicine, and Preventive Emergency Medicine

Otorhinolaryngology and Head & Neck Surgery

Year of Establishment- 1959

Prof. Achyuta Nand Sinha was our 1st Head of Department

ACHIEVEMENTS

- Among the pioneers in Head and Neck Cancer and Skull Base Surgery in Indian subcontinent.
- Robotics in head and neck surgery (1st trans oral robotic surgery in India)
- Cochlear implant programme (1st bilateral cochlear implant in India)
- 1st active middle ear implant in Indian Govt. sector

Robotic Surgery

Education

- Started **MCh** in *Head and Neck Surgery & Oncology* and **fellowship** course in Skull Base Surgery
- Conducted Public Lectures for public awareness for ENT related issues, Head & Neck cancer, Tobacco related illnesses
- Routinely conduct conferences/ CME/ Workshops
- Hands on temporal bone workshops thrice in a year

Temporal bone workshop for budding surgeons conducted quarterly

Research

- Largest epidemiological study in our country on prevalence and causes of hearing loss.
- Global impact research contributions in areas of
  - Otology
    - Ototoxic drugs
    - Tullio Phenomenon
    - Stapes surgery
    - Implantation otology and cochlear implant
  - Head & Neck cancer
    - Biochemical basis
    - Tumor markers
    - Translational research
  - Skull base surgeries

Others

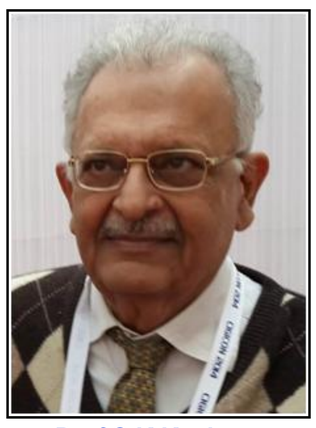
- Primary health : Giving primary health services in rural areas including Ballabhgarh and Jhajhar. Annual surgical camp in Leh (Ladhakh)

Awards

- Prof S K Kacker received Padma Shree award in 1986 by Govt of India.
- Dr. R.A.F. Cooper Award to Prof Sudhir Bahadur and Prof R C Deka
- Shakuntala Amir Chand ICMR investigator award to Prof Alok Thakar

Prof S K Kacker receiving Padma Shree award in 1986

Two members of our faculties have risen to be director of our institute



Prof S K Kacker

Prof R C Deka

SIGNIFICANT FACILITIES IN PATIENT CARE :

Speciality Clinic (2015-16)

S. No	Clinic	New Cases	Old cases	Total
1	Vertigo	165	123	288
2	Audiology and Skull Base	176	56	232
3	Cochlear Implant	181	71	252
4	Voice	377	105	482
5	Rhinology	200	54	254
6	Head and Neck Cancer	955	4488	5443
7	Radiology Conference	623	-	623

Renovated OPD inaugurated on 15th Nov, 2015

Number of faculty - 11

Residents - 28

Technical staff - 8

Patient care (annual)

(data from 1 April 2015 till 31 march 2016)

a. OPD – new -40714; old -54855

b. Surgery - 4238

c. In patient - 1677 (in ENT ward) ; 5060 (Total ENT admissions)

d. Other minor OT -18843

Teaching (Till Date)

a. Postgraduate -204

b. PhD - 1

c. Other teaching activities –BSC speech and hearing, (discontinued after 2005) - 49

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स्वास्थ्य सेवा PATIENT CARE
शिक्षा EDUCATION
अनुसंधान RESEARCH

Strive for Excellence in Patient Care, Research and Education

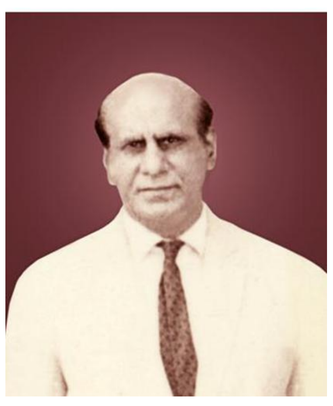
Endocrine , Metabolism and Diabetes

Year of Establishment: 1986

Founder Members and History:

Endocrinology started at AIIMS in 1964 under the leadership of Prof. MMS Ahuja as a subspecialty of internal medicine. It acquired the status of a department in 1986 with Dr Ahuja, Dr Kochupillai and Dr AC Ammini as its three Faculty members. The department has excellent facilities for patient care education and research. It has done pioneering work in the field of diabetes, thyroid, metabolic bone disease, paediatric and adolescent endocrinology.

Dr. Kochupillai



Dr. M.M.S.Ahuja

Dr. A.C.Ammini

Vision Statement

For establishing a state-of-the-art facility for patients affected with hormone disorders.

To train large number of clinical specialists from different parts of India to enable them to treat people with endocrine disorders in their home states.

To promote growth of sub-specialties of Endocrinology such as diabetology, reproductive endocrinology, bone and mineral disorders, pituitary and adrenal disease and paediatric endocrine disease.

To develop research facilities covering unique aspects of endocrine disorders in India, their epidemiology, pathophysiology and molecular mechanisms, along with delineating, assessing and implementing strategies at the level of the health care professional, clinic and health system to ensure optimal care delivery.

To help train paramedical staff such as Diabetic educators, Endocrine nurses, podiatrists and other paramedical personnel who can assist with the management of patients with endocrine disease.

Achievements

Characterization and epidemiology of unique types of youth onset diabetes in North India - Prof MMS Ahuja.

Iodine deficiency disorders and formulation of a successful national salt iodization program- Dr N Kochupillai.

Clinical protocols in the management of disorders of adrenal gland and inter sex - Prof AC Ammini.

Clinical intervention protocols in diabetes - Prof Nikhil Tandon.

Hypocalcemic disorders including etiopathogenesis of idiopathic hypoparathyroidism in India - Prof R Goswami.

Total Papers

Dr Nikhil Tandon = 359, Dr Nandita Gupta = 112, Dr R Goswami = 84, Dr Rajesh Khadgawat = 79, Dr Viveka Jyotsana = 51, Dr Yashdeep Gupta = 95

Papers in 2015-16

Dr Nikhil Tandon = 33, Dr Nandita Gupta = 12, Dr R Goswami = 3, Dr Rajesh Khadgawat = 14, Dr Viveka Jyotsana =17, Dr Yashdeep Gupta = 05.

Significant facilities in patient care/education/research:

Patient care

Comprehensive management of all adult and paediatric endocrine disorders supported by requisite advanced hormonal and metabolic investigations carried within the Department.

Managing the largest cohort of patients with Type 1 diabetes in North India in the diabetes of young clinic.

Dedicated Paediatric and Adolescent Endocrine Clinic

Maintaining largest cohort of patients with Idiopathic hypoparathyroidism in the world

Education:

Established super speciality training program for DM endocrinology since 1986 and trained 78 DM students. Simultaneously, basic Endocrinology training was imparted to several students leading to the award of PhD to 16 candidates. Short and long term clinical endocrinology training provided to 50 candidates from across the country. In addition, National and International Physicians trained in the Department under WHO fellowship program.

Research:

Department has contributed both at National and International level in several domains of Endocrinology including phenotypic characterization and epidemiology of diabetes in India, epidemiology of iodine deficiency disorders, vitamin D deficiency and other hypocalcemic states, disorders of sexual differentiation and Cushing syndrome

Future vision

To provide high quality evidence based comprehensive care to the adult and paediatric patient with endocrine and metabolic disorders along with contextually relevant research to understand the pathophysiology of the disease and support its management

Gastroenterology and Human Nutrition

Year of Establishment- 1971

Founder members and History

- Department of Gastroenterology was established in 1971
- Founded by Professor BN Tandon
- Over 4 decades, the department has grown both in terms of number of faculty members and infrastructure
- Department has made significant efforts in the advancement in patient care, training, research, and capacity building

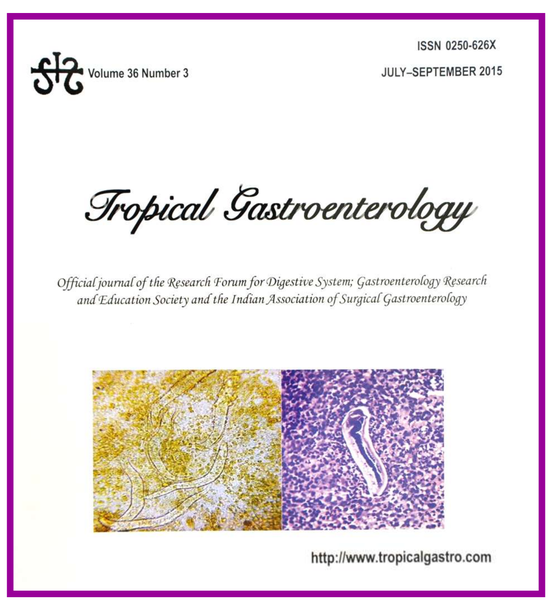
Vision Statement

Gastrointestinal and liver diseases account for huge morbidity and significant mortality in our country.

- Patient Care: To provide comprehensive care for all kinds of complicated gastrointestinal and liver diseases using modern diagnostic and therapeutic tools
- Research: Continued efforts in enhancing state-of-the-art facility for research in GI and liver diseases and develop capabilities to explore not only the country specific needs but in areas having global value
- Capacity building: Excellence in training and creating well trained specialists and researchers
- Leadership: Continue to provide leadership to various national institutions and establish a successful model for others to emulate

Achievements

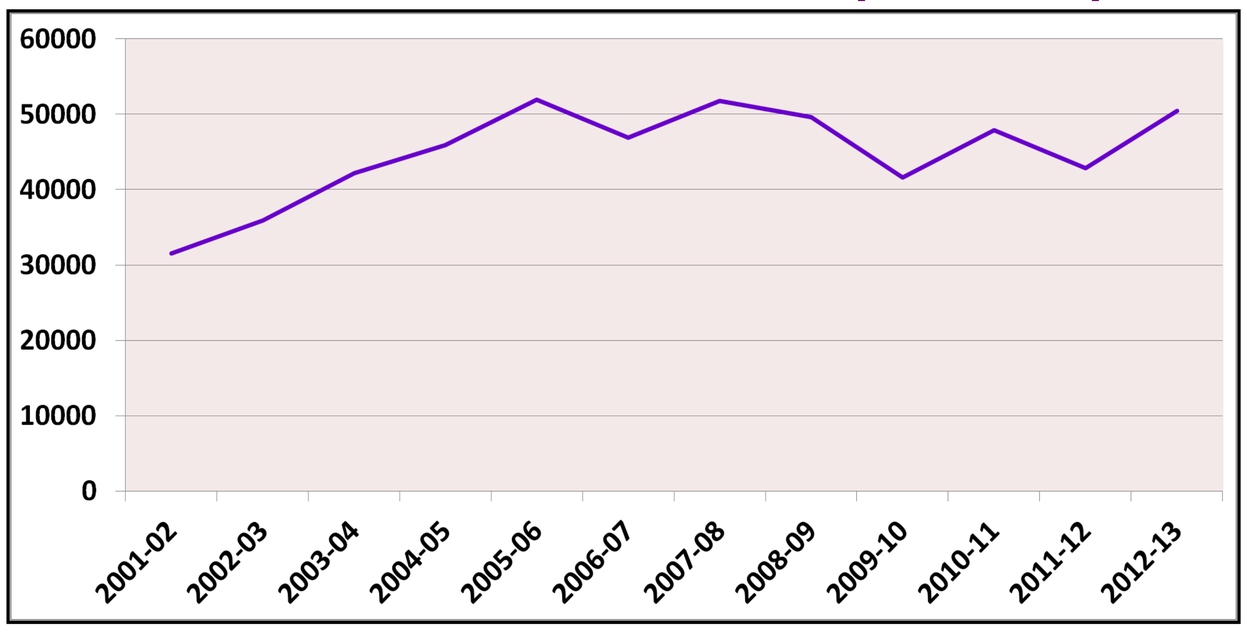
- Established and managed Integrated Child Health Scheme (ICDS) for the Government of India
- Faculty members are at the forefront in patient care, education and research
- Excellent alumni and are placed in top Institutions of the country
- Conducted country relevant research and defined new entities
- Adjudged as the Best Department of Gastroenterology in India by multiple organizations/Media survey
- Publishes a science journal "Tropical Gastroenterology"



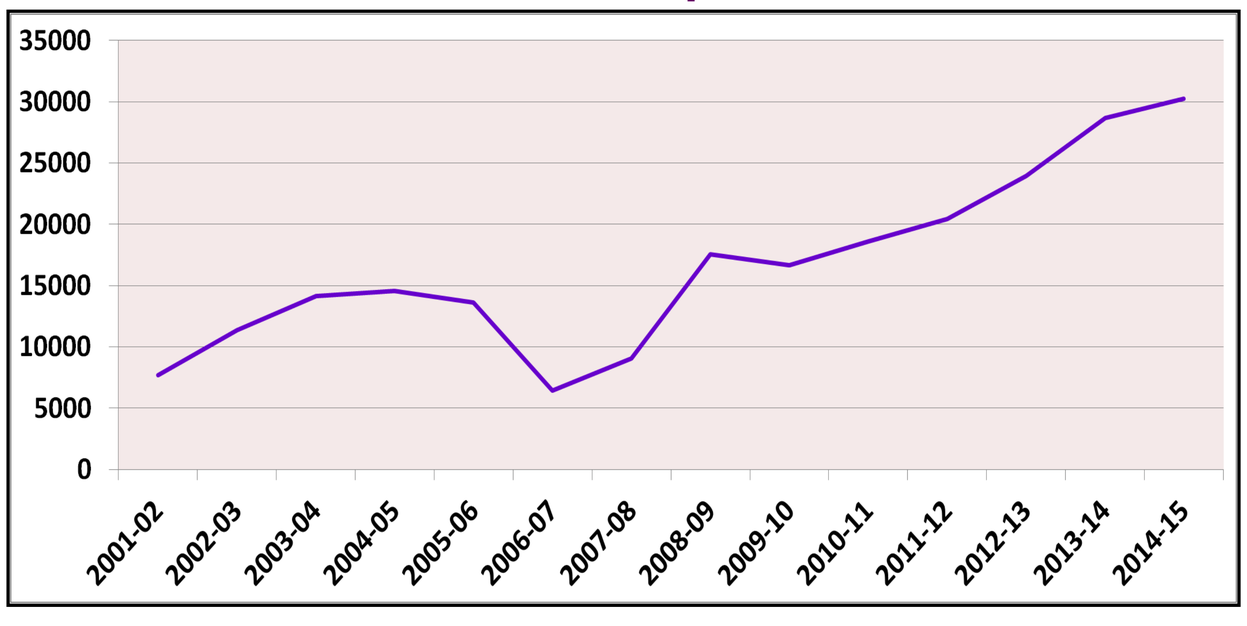
Significant facilities in patient care/ education/ research

- Comprehensive care of patients with gastro-intestinal, liver and pancreato-biliary diseases
- Diagnostic support through integrated molecular biology and biochemical laboratory in the department
- Specialized clinics for liver diseases, pancreatic diseases, inflammatory bowel disease and celiac disease

Total No of Patients Visited (OPD+IPD)



Total No of Endoscopies Performed



Training (till date)

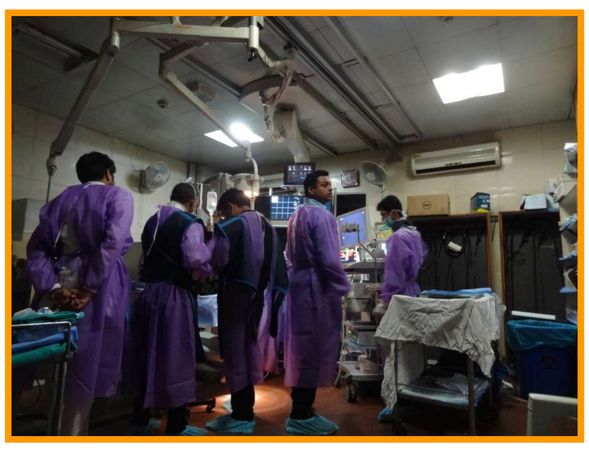
- Trained fellows in Gastroenterology (DM) : 127
- Trained research scholars for PhD : 18
- Short-term and long-term teaching for Doctors sponsored by the Govt. Medical Colleges/Institutions: 2-5 trainees per year

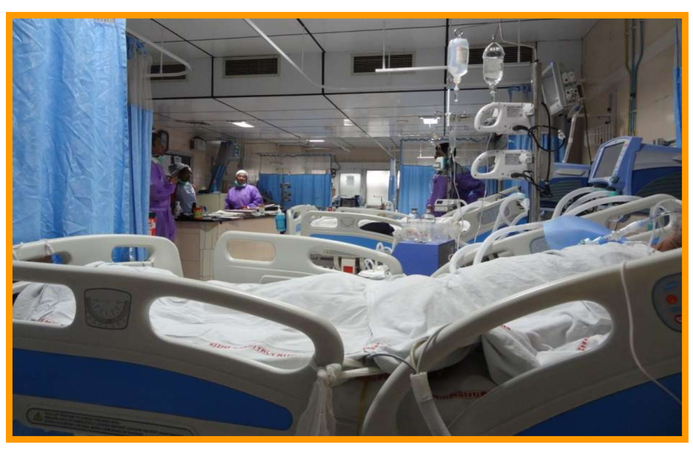
Research Publications/ Books

- Books: 15
- Scientific papers in international and national journals: 1334

Famous Alumni

- R K Tandon
- Dinesh Bhargava
- MP Sharma
- SK Sarin
- SK Acharya
- YK Chawla





Future Vision

1. To create a center of excellence 'Digestive Disease Centre' for the care of patients with digestive, liver and pancreato-biliary diseases
2. Continue to create trained human resources
3. Conduct of research relevant to the needs of our country

Thrive for Excellence in Patient Care and Research

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General Wards and Intensive Care Units at AIIMS

General Wards

AB-1 Orthopedics
AB-2 GE & HNU
AB-3 Obst & Gynae
AB-4 Dialysis/Nephrology
AB-5 Paediatric Surgery
AB-6 Endocrinology/EHS
AB-7 Kidney Transplant
AB-7 ICU (GIS)
AB-7 KTP Unit
AB-7 Pre-Anaesth,Room
C-1 Psychiatry
C-2 Hematology & Medicine
C-3 Labour Room
C-3 Maternity Room
C-3 Nursery (Neo-Natal)

C-5 Paediatrics. (ORU)
C-6 Emergency
C-7 Dental Surgery & Surgery
C-7 Surgery
D-1 Dermatology, PMR & RT
D-2 Medicine
D-3 Maternity. Gynae
D-4 ENT
D-5 Paed. Surgery
D-5 Paed. Surgery, ICU
D-6 Emergency
D-7 Surgery D-7 HDU
Pulmonary Medicine
Maternal Child Unit (MCU)
Kangaroo Mother Care (KMC)

Intensive Care Units

AB-2 ICU (G.E)
C-2 ICU (Medicine)
C-3 NICU (Nursery)
NICU B
AB-4 Haemodialysis Unit
AB-5 ICU (Paed. Surg.)
D-5 ICU (Paed.))
D-6 ICU (G.I Surgery)
D-7 HDU (Surgery)
AB-7 KTP Unit
AB-8 ICU (Main ICU)
AB-8 Recovery Room
Pulmonary Medicine ICU

Geriatric Medicine

Year of Establishment: 2012

The All India Institute of Medical Sciences responded to population ageing in India by starting a weekly clinical facility in 1993 focusing on service, training, education, research and development. The weekly outpatient service was transformed to a daily service in 2010 and an academic department in 2012. The strength of the department has been research and innovation in clinical care, health and disease states of older people, operational research, community research, training and education. The evidence generated through this service has contributed to development of the National Programme for Health Care of the Elderly of the Ministry of Health and Family Welfare, Government of India. The Department of Geriatric Medicine was created at AIIMS in January 2012 under the leadership of Prof. A. B. Dey as a sub specialty of Medicine

Vision Statement

Core Values

- Being compassionate towards senior citizens regardless of the situation or exigency.
- Always staying ahead of the kerb by adopting the cutting edge in modern healthcare technology.
- Having a contemporary approach towards treatment and patient care.

Purpose

- To aid the elderly in living a dignified life
- Envisioned Future

Big Hairy Audacious Goal

- Become the best provider of health services for the elderly in India by 2015 and one of the best in the world by 2020

Vivid Description

- We will be the pioneers of evidence based care for the aged.
- We will create a corps of enlightened individuals capable of providing the highest level of service.
- We will be synonymous with a brand of knowledge which is universal in content but uniquely Indian in context.

Achievements

capacity building initiatives: With funding from WHO India, it carried out extensive capacity building activity to create the critical mass for launching of a dedicated programme in old age health care. As a part of this exercise, faculty from 100 medical schools were sensitized in geriatrics and provided skills for establishing clinical services for older people. 1800 physicians were trained in old age health care in 36 programmes all over the country.

Formulating policy and programes: The Department also provided technical support to health systems in Oman, United Arab Emirates, Sri Lanka, Maldives and Myanmar for strengthening their old age health care in Primary Health Care under the auspices of World Health Organization. The Department of Geriatric Medicine has also influenced strategy for active ageing and old age care in South East Asia, Eastern Mediterranean and Western Pacific regions

m Ageing program: The department in collaboration with WHO and Ministry of Health and Family welfare, ia implementing m Ageing program which is aimed to evaluate the role of mobile technology for betterment of care of the patient.

NIH R01 project : Department in collaboration with University of Michigan (USA), University of Southern California, and Harward School of Public health is involved in NIH R01 project titled "Harmonized Diagnostic Assessment of Dementia (DAD) for Longitudinal Aging Study in India (LASI)".

Projects

- 22 funded and 40 non funded.

Any other information

Significant facilities in patient care/education /research/others :

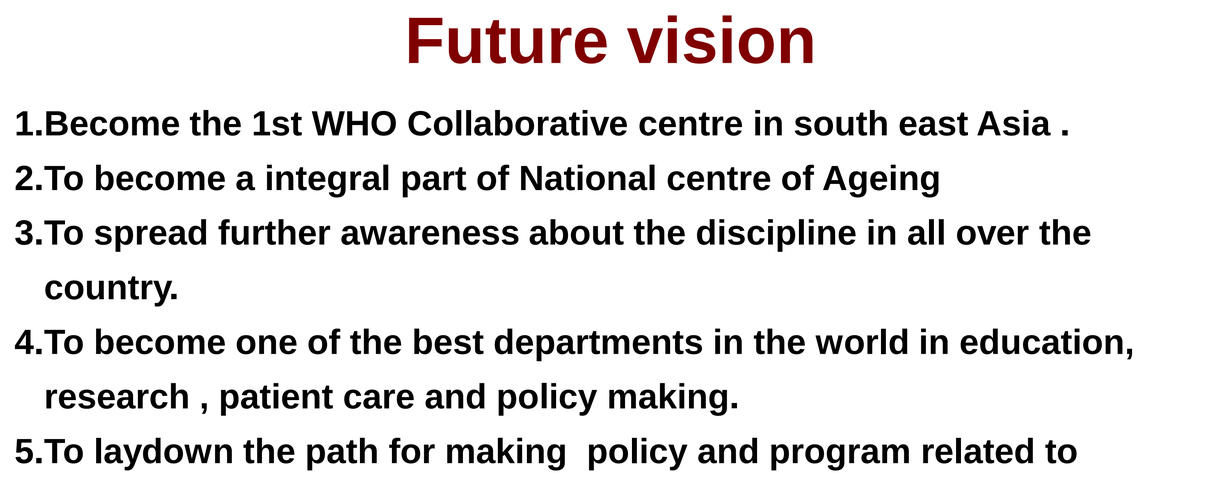
Outpatient service
Inpatient admission and management
Inter-departmental consultation
Dietary consultation services for older patients
Rehabilitation Services for older patients
Day Care Services
Fall and Syncope Assessment Clinic
Gait and Balance Assessment
Frailty Assessment
Memory Clinic
Non-invasive Cardiovascular Investigations
Molecular Biology Research Laboratory

Award

The Ministry of Social Justice and Empowerment, Government of India in recognition of research, training and developmental achievements nominated the department for "National Awards for Senior Citizen 2014" under the category of "Best Institution for research in the field of ageing".

Future vision

1. Become the 1st WHO Collaborative centre in south east Asia .
2. To become a integral part of National centre of Ageing
3. To spread further awareness about the discipline in all over the country.
4. To become one of the best departments in the world in education, research , patient care and policy making.
5. To laydown the path for making policy and program related to comfort care , long term care and home based care by evidence based studies.
6. To start new sub specialities i.e Geriatric oncology, Orthogeriatrics, frailty and fall clinic.



Gastrointestinal Surgery & Liver Transplantation

Year of Establishment: 1985

Prof Samiran Nundy

First head from May 1985 to June 1996.

Prof Tushar K Chattopadhyay

Head from July 1996 to October 2011

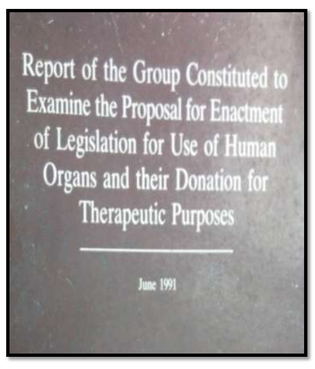
Prof Peush Sahni

- *Joined 20 May 1985*
- *Head since November 2011*

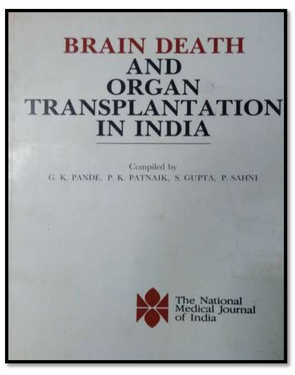
Vision statement

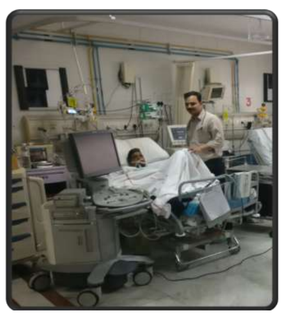
To provide comprehensive care to patients with gastrointestinal diseases with an emphasis on surgical management
To train surgeons from other parts of the country and to do research into Indian GI surgical problems
Main thrust: High quality of patient care, training of residents, good record keeping and research publications
Main areas of interest: Portal Hypertension, Hepato-pancreato-biliary Diseases, Hepatic Venous Outflow Obstruction, Inflammatory bowel disease, Gastrointestinal haemorrhage, Oesophageal Diseases and Liver Transplantation

Achievements



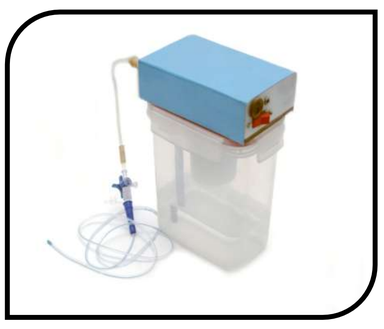
The department took the lead in proposing and drafting the law on brain death and organ transplantation in India. In 1994 the 'Transplantation of Human Organs Act' was passed by the Indian Parliament.

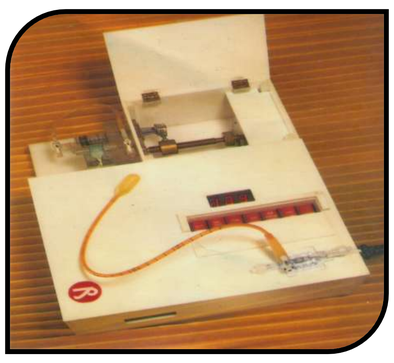




Patient care

- Surgical treatment of complex gastrointestinal disorders: 600 to 700 per year
- Liver transplantation: One of only a few government centers to provide this facility
- Development of "Indian solutions to Indian diseases"





Research and Publications

- Clinical studies, Comparative trials, Molecular studies and Animal experiments
- Research and development of various biomedical devices
- Actively involved in the publication of 'The National Medical Journal of India', 'Tropical Gastroenterology' and "GI Surgery Annual"

Education

- Trained over 100 surgeons from all over the country in advanced gastrointestinal surgical procedures
- Undergraduate teaching
- Super-speciality training
- Cadaveric workshops for training in organ retrieval

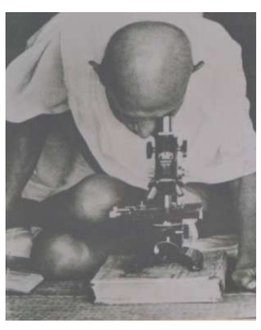
237 research publications & 8 books

Future Vision

- To establish a living donor liver transplant program
- To start post doctoral fellowships in Upper GI, Colorectal, HPB, etc.
- To do cutting edge research in various GI disorders to address locally relevant issues

Hematology

Year of Establishment- 1989



Conception of department

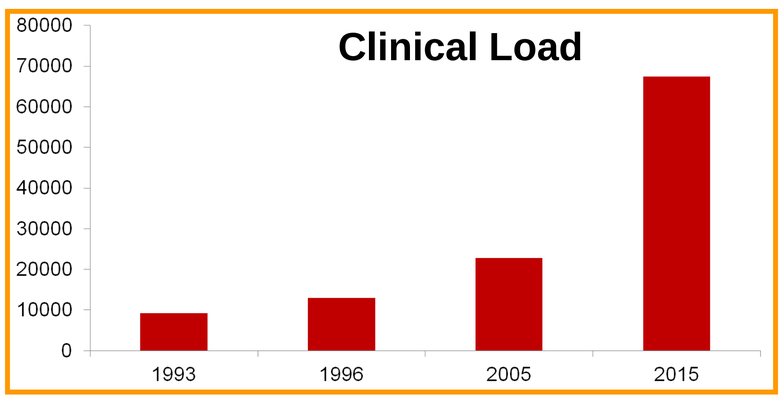
The department of Hematology AIIMS was established by Prof AK Saraya 1989, with faculty comprising of Prof M Bhargav, Prof VP Choudhary, Dr Rajiv Kumar, Dr HP Pati and Dr Renu Saxena.

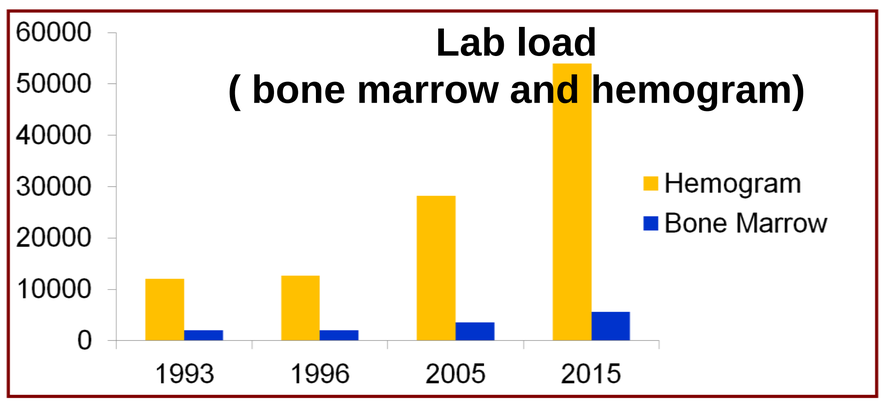
Prof AK Saraya

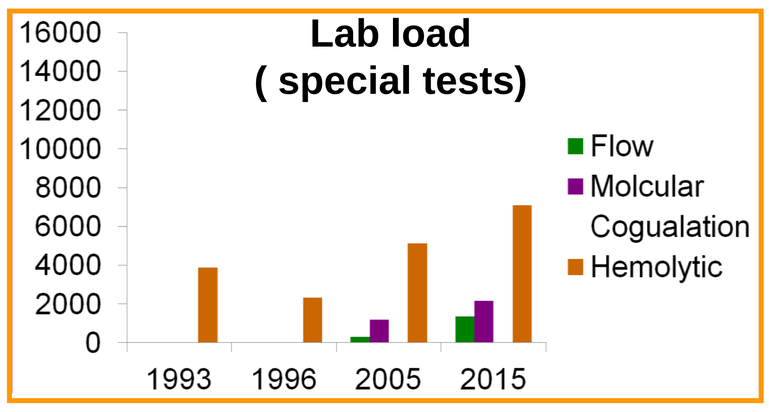
Background

- This department was conceived as a unique department having both specialized laboratory diagnostic services as well as state of the art treatment facilities for patients with benign hematology and hemato-oncology disorders. The Initial PhD program started with one student,
- Two DM courses were started in 2001-DM Clinical hematology and DM Hemato pathology.

Evolution of clinical and lab load







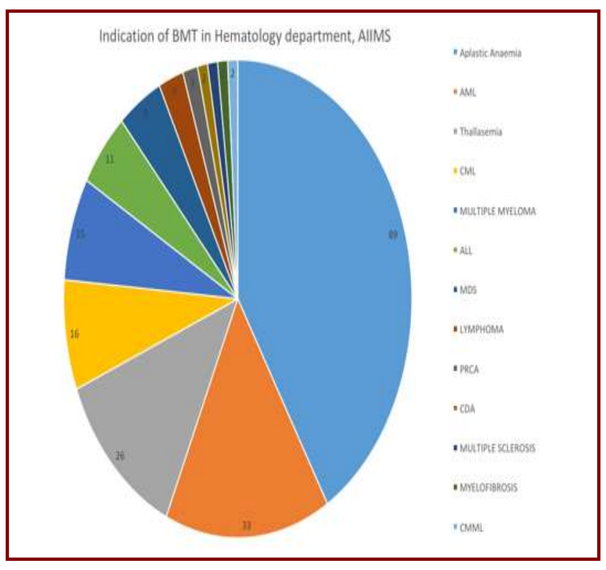
Thalassemia

Thalassemia and variant hemoglobinopathies

- These are inherited diseases which result in anemia and organ complications.
- We have a specialized daycare service for thalassemia, with advanced diagnosis by hemoglobin capillary zone electrophoresis and molecular testing for thalassemia mutations. Prenatal testing facilities are available.
- The decades of work in the field have contributed to the new national guidelines for Prevention and control of thalassemia and variant hemoglobinopathies in 2015.

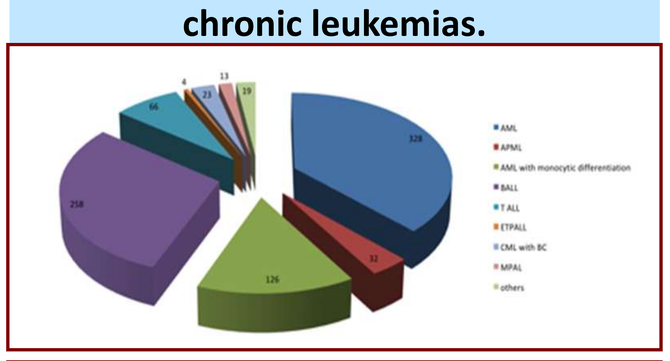
Stem cell transplant

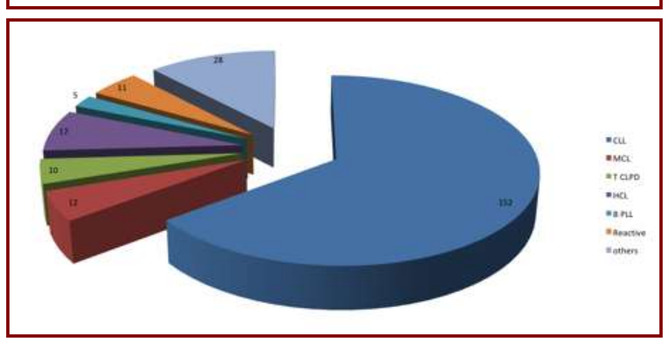
The stem cell transplant programme was started in 2004



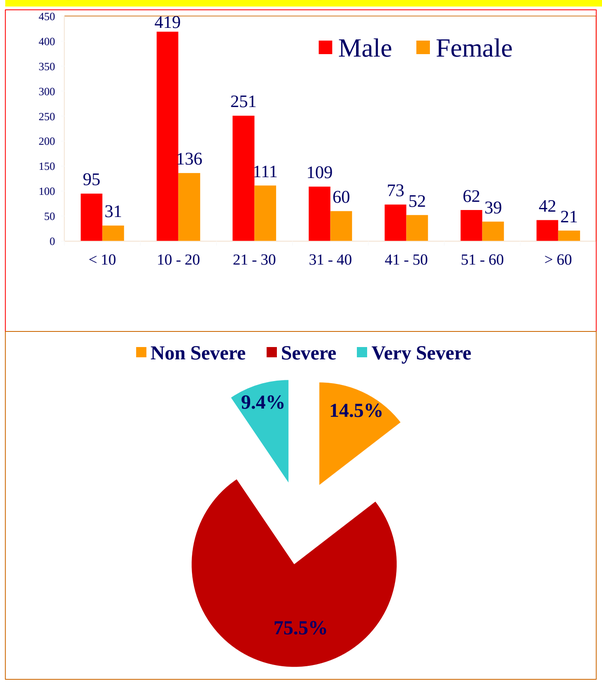
Leukemias & Aplastic anemia

Diagnosis and treatment for acute & chronic leukemias.





10 years data on Aplastic anemia



Hemophilia

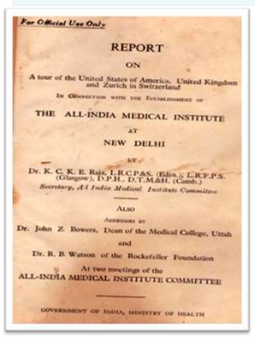
- Hemophilia is an inherited bleeding disorder that affects 1 in 10000 males.
- This puts the patient at life long risk for bleeding due to the deficiency of clotting factor in the blood.
- We have a comprehensive team based approach for management including primary prophylaxis and free factor replacement, medical management of bleeding
- Specialized in management of dreaded complications like high titre inhibitors.
- Co-ordination for necessary surgeries in these high operative risk patients. Prenatal testing is available.

Hospital Administration

Department of Hospital Administration, AIIMS, is the pioneering department in India established in 1962, and has since evolved into a center of excellence for teaching, training and research in the specialty.

History & Inception

Dr. J.R. Mc Gibony



For Official Use Only

REPORT

ON

A tour of the United States of America, United Kingdom and Zurich in Switzerland

In Connection with the Establishment of

THE ALL-INDIA MEDICAL INSTITUTE

AT

NEW DELHI

BY

Dr. K. C. K. E. Raju, L.R.C.P.&S. (Edin.), L.R.C.P.S. (Glasgow), D.P.H., D.T.M.&H. (Camb.)

Secretary, All India Medical Institute Committee

Also

Accompanied by

Dr. John Z. Bowers, Dean of the Medical College, Utah

and

Dr. R. B. Watson of the Rockefeller Foundation

At two meetings of the

ALL-INDIA MEDICAL INSTITUTE COMMITTEE

GOVERNMENT OF INDIA, MINISTRY OF HEALTH

In 1961, Dr. J. R. Mc Gibony, consultant to the World Health Organization for the field of Hospital Administration, recommended the introduction of Hospital Administration as a separate specialty. A full fledged academic Department of Hospital Administration for the first time in India, was started in 1966 under the able leadership of Brig (Dr.) M.L. Gaind.

Brig.(Dr.) M. L. Gaind

The Pioneers

Prof. R. P. Sinha
Former Head of the Department, AIIMS
Management Graduate from Cornell University, USA & MHA from AIIMS. Founder of Academy of Hospital Administration in 1987.

Prof. A.N. Safaya
Former Medical Superintendent, AIIMS
Founder Director, Sri Sathya Sai Institute of Higher Medical Sciences, Puttaparthy.

Teaching ,Research & Patient Care Services– Developmental Milestones & Contribution

Teaching , Training & Research

- Conducts MD/MHA programme in Hospital Administration.
- More than 215 Post-Graduates have passed out from Dept. till date.
- Short Term, Long term Training and Observership to WHO Fellows.
- Organises trainings for State Governments and Public Sector Organisations for different categories of healthcare workers.
- Healthcare Executive Management Development Programme (*HxMDP*) for Hospital Administrators.
- 217 thesis & 350 dissertations till date.
- 14 books and 30 Monographs.

Patient Care Services & Hospital Operations Management

- Established "Hospital Operations Control Room", the nerve center of hospital.
- "Hands on" administrative exposure to Residents.
- Replicated in other Medical Colleges having Hospital Administration.
- Department maintains various Patient Care Services.
- Plays leading role in hospital supplies and support services management.

Consultancy Services , Standards & Healthcare Guidelines Development

- Renders hospital management consultancy in India and to SAARC Nations.
- Technical support in establishing 200 bedded Emergency and Trauma Centre at Kathmandu, Nepal.
- Technical support for developing Emergency Medical Services System in Maharashtra.

1965-66	• First MHA course started in India • First Mechanised Laundry in a teaching hospital in India
1974-75	Commissioned first CSSD at AIIMS
1976-77	Hospital Resident's Manual prepared
1978-79	Rationalisation of hospital charges
1978-79	Creation of Medical Social Services for patients
1982	First paging system for hospital communication
1988-89	First 24 X 7 Hospital Operations Control Room in India
1988-89	First Hospital Administration Journal in India: 'JAHA' Initiated
1988-89	Manpower planning to develop staffing norms for various size hospitals
1988-89	Norms for 30 and 100 bedded hospitals developed for BIS
1998-99	Hospital waste management programme initiated in AIIMS
2003-04	Commissioning of New Medicine & Paediatrics OPD extension, New Emergency ward with 60 beds & 160 bedded New Private Ward
2005-06	Department Alumni and Faculty involved in development of NABH Standards
2006-16	Faculty involved in projects under PMSSY
2008-09	Integrated Learning Module for academics launched
2010 -16	Involved with upcoming Projects at AIIMS, New Delhi and Jhajjar campus
2012	Drafting of National Ambulance Code
2014	First public sector hospital to have digitised medical records
2014-15	Drafted National Guidelines for Clean Hospitals
2015-16	• Completed study on Health care services of Coal India project hospitals • Awarded 2nd prize for Kaya – Kalp by MOHFW, GOI

Support Services managed by Department

Hall of Fame: Famous Alumni

Dr. P. Satyanarayana
MHA (1972)
Ex Director, SVIMS, TPT
MS, NIMS, Hyderabad

Dr. Ved Prakash Gupta
MHA (1973)
Ex Special Secretary, Health, Jammu & Kashmir

Dr. Ajit Kumar Nagpal
MHA (1976)
Ex Director,
SKIMS, Srinagar

Dr. R. K. Sarma
MHA (1980)
Ex Director, NEIGRIHMS
MS, AIIMS, New Delhi

Lt. Gen. (Dr.) N. K. Parmar
MHA (1989)
Ex Dir. General
Armed Forces Medical Services

Awards

कायाकल्प

AWARD CERTIFICATE

पुरस्कार पत्र

This Award Certificate is presented to **All India Institute of Medical Sciences, New Delhi** Winner of **Second Prize** under 'Kayakalp' among the Central Government Hospitals for the year 2015-16 in recognition of their efforts towards excellence in promoting cleanliness, hygiene and infection control in the Hospital contributing to improved quality of care.

Thank you for your dedication and commitment.

Date : March 16, 2016
New Delhi

Jagat Prakash Nadda
Minister of Health & Family Welfare
Government of India

GOVERNMENT OF JAMMU AND KASHMIR

CITATION OF DR. SHAKTI GUPTA, PROFESSOR & MEDICAL SUPERINTENDENT AIIMS, NEW DELHI

Dr. Shakti Gupta presently working as Professor and Medical Superintendent at AIIMS, New Delhi, completed his MBBS from Govt. Medical College, Jammu in 1979 and obtained his MHA degree from AIIMS, New Delhi in 1989.

Dr. Gupta worked as International consultant on Procurement & Supply Management India TB & HIV/AIDS Programs supported by Global Fund under UNOPS Asia Office Project (UN Assignment) at Delhi. He was nominated expert by the Ministry of External Affairs, Govt. of India, for establishing 200 bedded Trauma Center at Kathmandu Nepal.

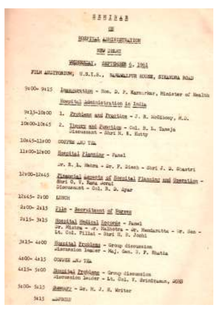
He is a Research Guide and examiner for Post-Graduate and Ph.D. Courses in Hospital Administration and has organized various National and International Conferences and Workshops and conducted WHO and World Bank Projects.

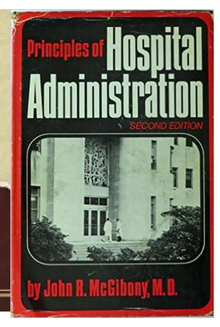
In recognition of his outstanding contribution, the State Government confers on Dr. Shakti Gupta, the State Award for Meritorious Public Service for the year, 2014.

Vision

To develop leaders for the healthcare sector so as to enhance the global competitive edge of our healthcare systems

Journey from Past to Present …..





Department at a glance

Medical Superintendent: 02
Faculty: 11
Senior Residents: 20
PG Residents: 13

Important International Collaborations of AIIMS

AIIMS – Osaka University MOU signing on Oct 13, 2014

Australia – India
Trauma System Collaboration (AITSC)

AIIMS – UOM (USA) Collaboration

MoU between AIIMS & Public Health England

Belgium delegation visited AIIMS to discussed the possibilities of Exchange the Students & Faculty.

Prof. Adam Habib ,Vice Chancellor, Witwatersrand University, Johannesburg, South Africa visited AIIMS to learn to introduce institution practice in their University on 19.04/2016

Swiss Medtech and Healthcare start-ups from Switzerland visited AIIMS on 15/09/2016 to expose the public hospital functions in India

H.E. Dr. Makur Matur, Undersecretary, Ministry of Health, Republic of South Sudan and Ambassador Dr. Daniel Peter Othol, Head of Mission of the embassy of the Republic of South Sudan, New Delhi visited AIIMS on 06/09/2016 to discussed the possibilities of exchange the students and Faculty

Sh. A.K. Gayan, Minister of Health & Quality Life, Mauritius visited AIIMS on 17/03/16 to review the work of AIIMS, New Delhi.

East Asia Summit Round Table on Trauma Care and Nursing was conducted at this Institute on 15/10/2016

Collaboration with Royal College of Physician and Surgeons of Glasgow

Six Decades of AIIMS

HOSPITAL INFECTION CONTROL COMMITTEE (HICCOM)

Year of Establishment- 1965

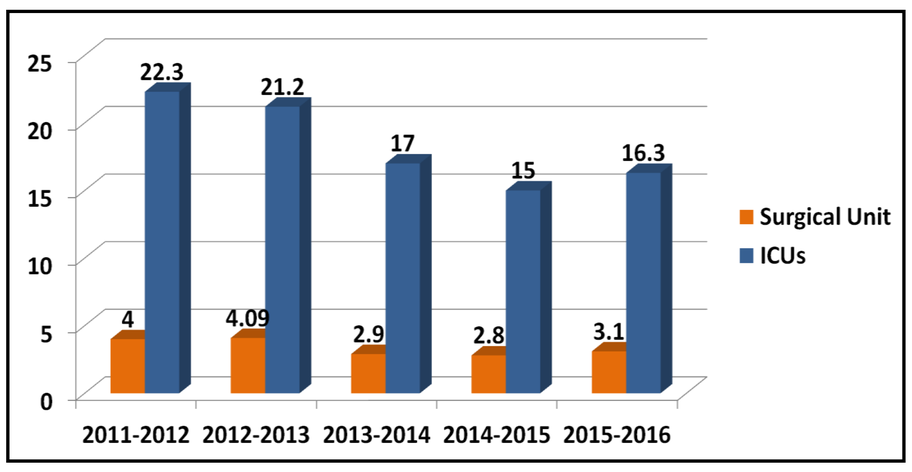
History

- AIIMS Hospital has a well defined infection control policy since 1973 woth a foral HICCOM in place since then
- The infection control core committee was formed in the year 1999 to look into day to day issues related to infection control.
- The first Infection Control Manual was released in the year 2004 and made available in all the clinical areas of the hospital.
- In 2008 Standard Operating Protocols (SOP) document regarding all procedures/processes was made available for ready reference of the hospital staff .

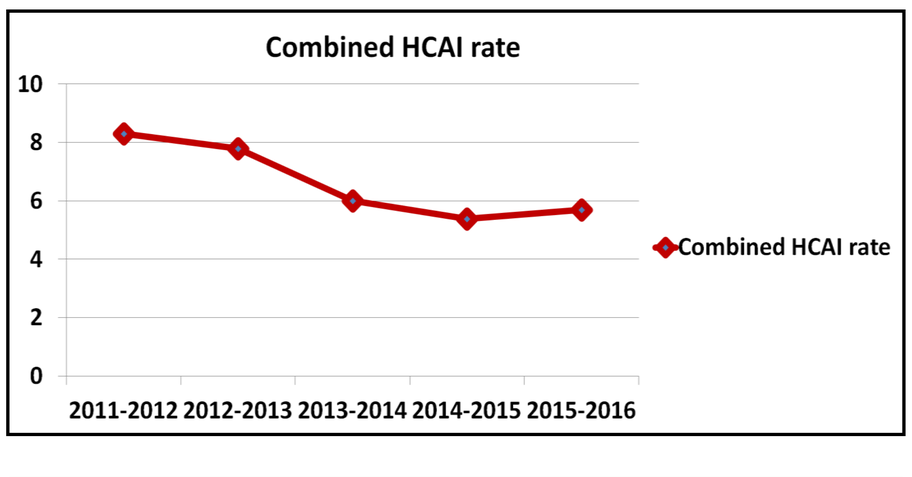
HCAI Data Analysis

- ICN's collect data from bacteriology laboratory for positive cultures of surgical and Intensive care Units, for BSI, SSI, VAP, UTI, CSF/Others, and the same is verified to ascertain the positive cultures are health care associated infection (HCAI) or not from each area.
- Data analysis and infection rate is calculated monthly and yearly for all ICUs and surgical units

HCAI RATE for ICUs and Surgical Units (2011 to 2016)



Combined HCAI rate (2011-2015)



Surveillance Activities

- Regular visits to all the areas assigned to ICNs and check SOPs, Bio Medical Waste segregation
- Daily visit to microbiology laboratory to ascertain the results of samples collected for surveillance and to liaise between microbiology and clinical departments.
- Attend special call from any clinical areas related to infection control practices and problems
- Incidental teaching on the basis of problems identified, action taken and follow up done for the implementation
- Surveillance of sterility, in-use solutions and environmental cultures for all areas are calculated for each month, compiled and send it to medical record section
- Collection of samples from different areas of hospital for surveillance purpose regularly and during outbreak
- Samples collected for surveillance are labeled and deposited after giving the laboratory number from the register

Important Outbreak Investigations

Congo Hemorrhagic fever outbreak

- Special session on effective use of PPE was organized and demonstrated by experts from NCDC during Congo Hemorrhagic fever outbreak in the month of January 2014.
- Took active part by providing information for final disposal of items used for the patient

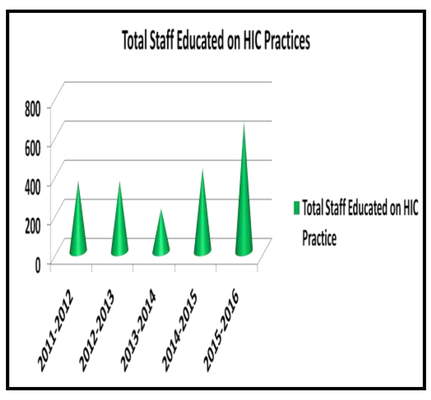
Clostridium difficile Infection

- In the month of October 2014 there was an outbreak of C. difficile infection.
- Managed successfully by isolating patients with contact precautions and educated the patient's relatives for the precautions while caring the patient.
- Actively took part in educating the health care personnel
- The affected clinical area was cleaned thoroughly with 1% Sodium Hypochlorite solution after shifting all the patient from the ward and supervised cleaning process personally.
- Checklist for cleaning and other precautions were given to Sister in Charge to fill up in all shifts.

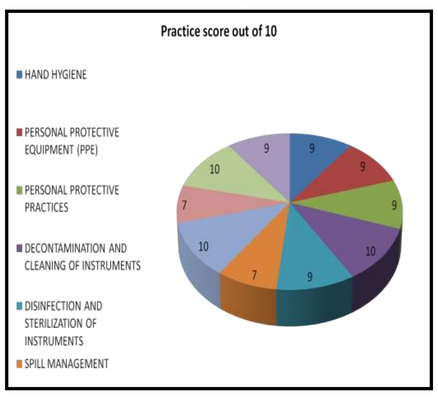
Teaching and other activities

- HICCOM organizes and conducts half day training programs on infection control practices for all the health care providers with the help of infection control core group. Pre and post training tests are conducted and the results are analyzed. Certificates are distributed at the end of the program for all the participants.
- ICNs being resource persons for educational programs conducted by CMET, College of Nursing and for newly joined health care workers.
- Involved in the teaching program for B.Sc (Hons) nursing students related to infection control prevention and practices.
- Attended various national and international conferences to be abreast with the latest information in hospital infection control. Presented scientific papers during conferences.

Staff Educated on HIC Practices (2011-2016)



KAYA KALP: KRA 6 Infection control evaluation According to guide lines



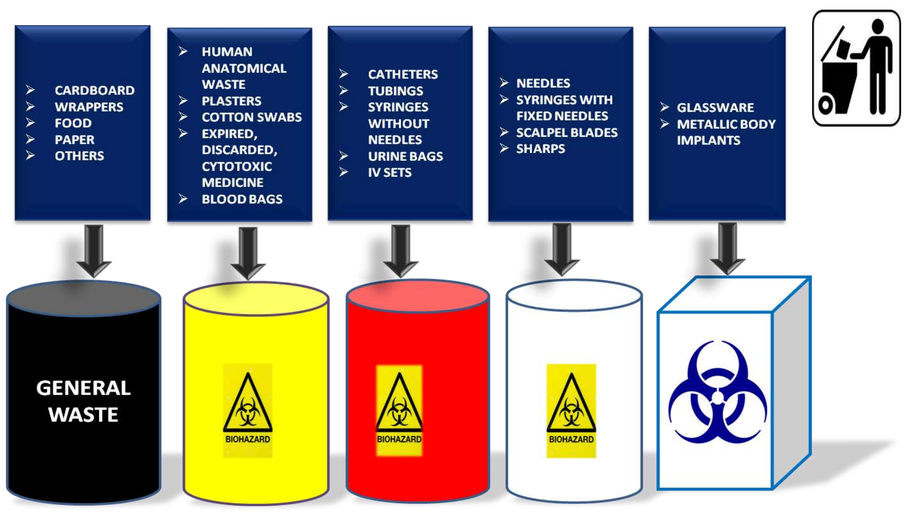
Bio Medical Waste Management

- BMW Management and Handling rules notified in 1998 under the environment protection act by the ministry of Environment and Forest (Govt. of India).

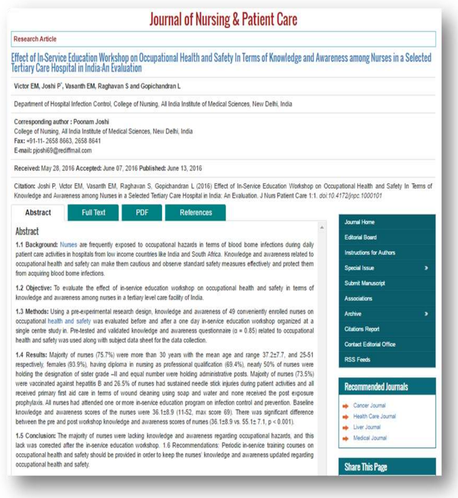
  There were 10 categories of waste and they were segregated according to the color coded bins/Bags at source by the generators of the waste.

New BMW management rules notified in March 2016

3 BINS, 01 CONTAINER & 01 BOX



Recent Research Publications



Future Plans

- infection control manual to be updated regularly
- Develop mobile application on infection control practices
- E-Learning
- Strict auditing of Hand hygiene practices in all the areas
- Plan to calculate device related infections
- Develop antibiotic policy

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Medical Oncology Laboratory at IRCH- AIIMS

Year of Establishment : 1992

History of the Department

Prof. Vinod Kochupillai was the first Head.
Currently, there are 7 faculty, 4 scientists and 7 PhD students.
Eight students have earned PhD degrees since the inception of the department.

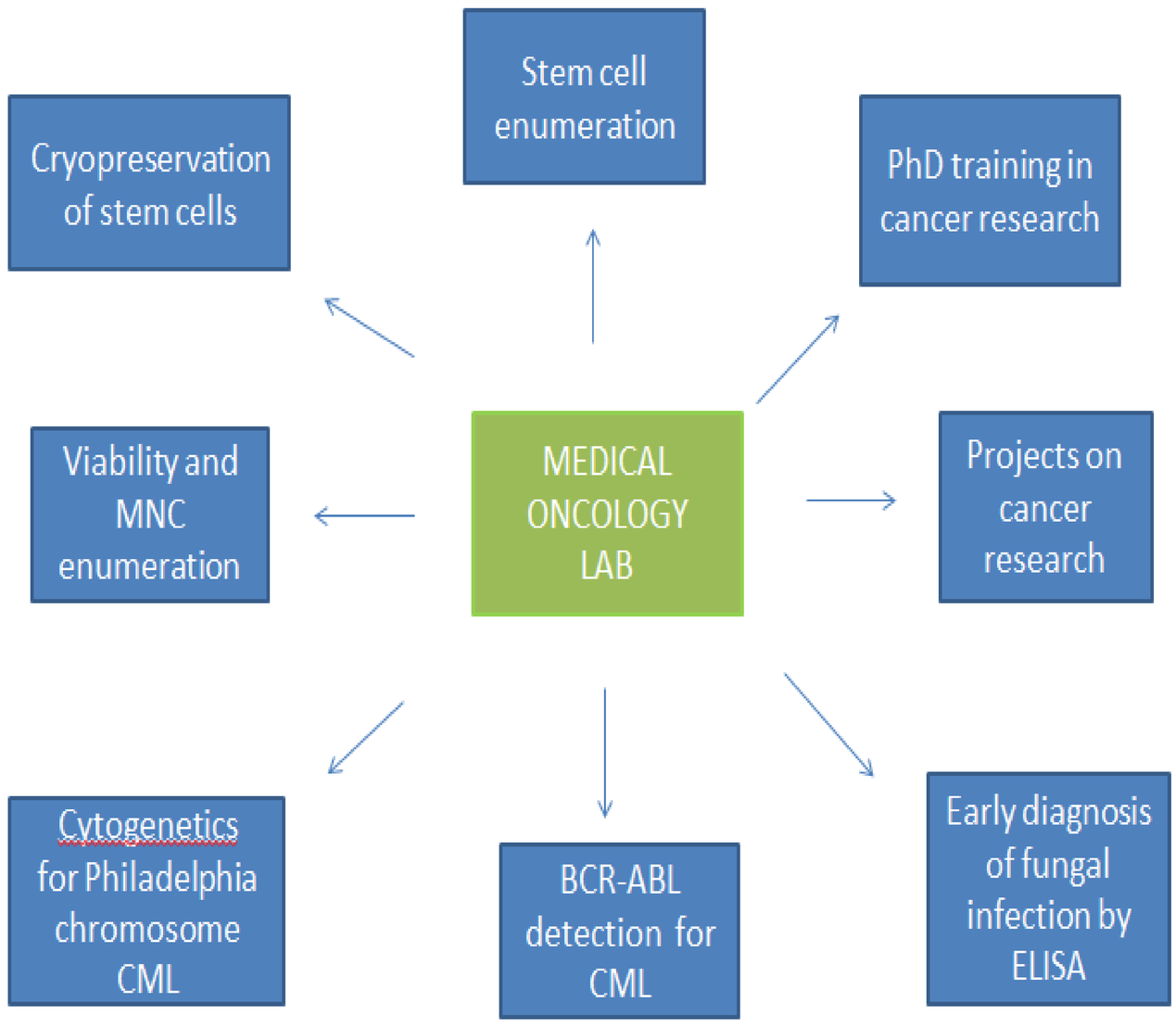
Prof. Vinod Kochupillai
(1992-2007)

Vision Statement

- To conduct high quality cancer research
- To meet the need for highly skilled scientists for innovative research in health problems of national importance

Achievements

- First autologous bone marrow transplantation in India in April 1990.
- First apheresis laboratory in AIIMS to produce high quality single donor platelets
- More than 1000 hemopoietic stem cell transplants have been done till now with results comparable to international standards.



First allogeneic BMT on 14-12-93.
Post transplant, the patient (standing) completed MBBS.

Patient Care Services
(Laboratory of the Department of Medical Oncology)

- Philadelphia chromosome analysis and PCR for blood cancer (CML) patients.
- Apheresis lab services
  - Single donor platelets started since 1989.
  - Stem cell harvest for BMT patients started since 1994.
- Stem cell count (CD34) by flow cytometry since 2004.
- Cryopreservation of stem cells at ultra-low temperature since 2006

Laboratory Medicine

Year of Establishment- 1988

Created as a holistic discipline for diagnostic laboratory sciences by bringing together three independent hospital service laboratories of AIIMS namely Clinical Pathology, Clinical Haematology and Clinical Biochemistry, to which Clinical Microbiology was added later

Founder members and History

Dr. R.A. Bhujwala and Dr. A.K. Mukhopadhyay

Dr. R.K. Arya, Professor of Pathology took over this service area as Officer In-charge in 1986 along with Dr. A.K. Mukhopadhyay, Lecturer, and Mr. B. K. Goel, Senior Biochemist. Dr. R.A. Bhujwala, Additional Prof. of Microbiology, took over as officer- in-charge in 1987 and this service laboratory was redesignated as a full-fledged department from December, 1988. Dr. M.G. Karmarkar (Additional Professor of the Dept. of Endocrinology) joined as Officer In-charge of this department in 1990 and became the first Professor & Head in 1992. MD (Laboratory Medicine), a full-fledged three year residency program was started in 1997.

On the occasion of Farewell of Prof. M.G. Karmarkar, first Head of the department

WHO DANIDA International Workshop in 1989

Vision

In concurrence with the national need of India, the institute wants to create appropriate human resource in the form of Laboratory Physicians who can offer 'one window solution' for all essential investigations from a multidisciplinary laboratory of a hospital to facilitate rapid and accurate diagnosis.

Achievements

Research

- Major Collaborations: WHO Reference lab for TB diagnostics
- Major Patents/ Researches with translational value:
  - Constructing a DNA Chimera for vaccine development against Leishmaniasis and Tuberculosis.Patent Application no.WO 2010/010577 A1.
  - Novel Protein Markers of drug resistance in Mycobacterium tuberculosis. Patent Application no. 1752/DEL/2008.
  - Polypeptides for the diagnosis and therapy of Leishmaniasis. WO 2005/063803 A1 (14-07-2005).
  - Methods for Amplification and Detection of Mycobacterium tuberculosis. WO 2005/061730 A1 (07-07-2005).
  - Oligonucleotides for Detection of Leishmaniasis and Methods Thereof. WO 2005/061729 A1 (07-07-2005).
  - Methods for Detection of Toxoplasmosis. 1611/DEL/2003. (Indian Patent)
  - A Process for Clearing the Blood Contamination for easy Detection of Microorganisms. Patent Application no. 743/DEL/2007.
  - Indian green mussel (Perna virdis) as a source for inhibiting the growth of Mycobacterium tuberculosis.

Kits developed in the department

State-of-the-art research facilities

Patient Care (2015-16)

1. Phlebotomy (Collection centre): 3,65,788
2. Emergency Laboratory services:
   i. Hematology: 7,27,194 tests
   ii. Clinical Chemistry: 9,77,312 tests
3. Routine Hematology: 34,03,616 tests
4. Routine Clinical Chemistry: 49,96,860 tests
5. Clinical Microbiology: 6,65,176 tests

Automated ESR Analyzer

Hematology Analyzer

Clinical Chemistry Auto Analyzer

Central Collection Facility

Education

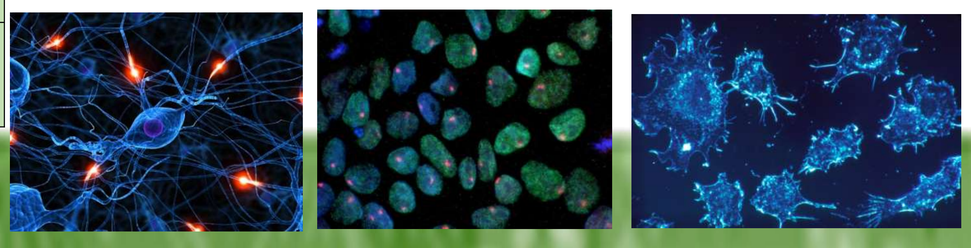
- Running MD (Laboratory Medicine) and Ph.D since 1997
- Produced 26 MDs and 17 PhDs till date
- Recently started lectures for Undergraduates in VIth semester.

Awards

1. BC Roy Award (Hari Om Ashram Alembic Research Award) of Medical Council of India, was awarded to Dr. Sarman Singh (2006)
2. BMJ Excellence Award 2014 (India) for Innovation in Healthcare Technology awarded to Dr. Sarman Singh

Laboratory Facilities at AIIMS

- Anaerobic & Mycoplasma
- Autonomic Function
- Bacteriology (Mircobiology)
- Bile Lab. GE & HNU
- Biochemical (Genetics)
- Biophysics
- Blood Collection Centre
- Bone Biopsy
- Bronchoscope
- Bio Technology Bio-Informatics Unit
- Behavioral Physiology
- CAT Scan
- Central RIA Facility
- Chemistry Section (Lab. Med.)
- Clinical Epidemiology
- Clinical Immunology (Med)
- Cytopathology
- De-addiction
- Dermatopath
- Electron Microscope
- Emergency Lab (Lab.Med.)
- Endocrine (Path Lab)
- Endocrine Services
- Endocrinology (R.I.A Facility)
- Endoscopy Room
- ENT Research Lab
- Experimental Animal Facility (E.A.F.)
- Experimental Lab
- Gross Anatomy Lab
- Hepatitis Lab
- Histochemistry (Path)
- HIV Lab (Micro)
- HLA lab
- Human Cytogenetics



- Hydrotherapy
- Leukemia Lab
- Lithotripsy (ESWL)
- Micro-Anatomy Lab
- Microbilogy (Lab. Med)
- Molecular Immunology Lab
- Molecular Reproduction & Genetic MRI Facility
- MRP Research (Repro. Biology)
- Mycology
- Neuro Pathology
- Neuro Physiology
- PET lab
- Orthodontics PG Lab
- Parasitology
- Physiotherapy
- Prosthodontics Lab
- Pulmonary Function Tests
- Rheumatology
- Renal Lab (Nephrology)
- Hormone Receptor
- RIA facility
- Respiratory Medicine
- RUAS (ENT)
- Serology
- Sleep Lab
- T.B.Lab
- TDM lab (Pharmacology)
- Tissue Culture
- Tissue Culture (Pathology)
- Transplant Immunology & Immunogenetics
- Ultrasound Urodynamics Lab (Urology)
- X-ray, Angiography DSA Room

Dr. B. B. Dikshit Library

Year of Establishment- 1956

Celebrating 60 years of Library Services

Library E-Reading hall

Shelving of back volume journals in newly installed Compactors at Dr. B.B. Dikshit Library

Launch of Library E-Resource Brochure

- The central library of institute came into existence in 1956 and named as Dr. B.B. Dikshit Library in 1973 by the name of founder director of the Institute. This Library building consists of two floors with a carpet area of 27,000 square feet with seating capacity of 350 readers. The library services remains open round the clock, seven days a week (24 X 7) including Sundays and holidays except National Holidays. The entire library is air-conditioned with CCTV surveillance, 3M Security system and Wi-Fi facility to access Electronic Resources.

Types of information sources	No. of sources
Books	73,115
Journals (Bound Vol.)	78,396
Pamphlets	17,633
Thesis & Dissertations	8,503
CD-ROMs	1,123
Video Cassettes	308
Audio Cassettes	109

Objectives

- To identify information needs of faculty members, doctors, research scholars, students and paramedical professionals.
- To develop well balanced and updated collection and to organize it as per the users' need that will enable the readers to use the library resources to the maximum.
- To provide seamless access to information. Act as gateway to digital and electronic information and develop a single access point library.
- To develop and conduct tutorials for the users to enable them to effectively utilize the facilities and resources available in the library.
- To act as a vital link between information sources and users.

E-Resources	No. of sources
E-Journals	1,562
E-Books	136
Databases	UpToDate, Access Medicine, BMJ Case Reports, BMJ Best Practice, Acland Anatomy, JoVE, HSTalks: Biomedical & Life Sciences Lectures, Web of Science
Nature (Article on Demand) Paid Service Other than Nature Subscription	

Services

- Issue of Library Smart Card & Borrowing Facility: Library members can borrow books and bound volumes of periodicals for a stipulated period through Library Smart Card.
- Inter-library Loan service Library has an inter-library loan facility initiated with medical and biomedical libraries in the city. Documents, which are not available within our collection, could be loaned from other libraries for a short period.
- Printing and Reprography Service: Library has been providing Black and white printing facility @ Re.1 per page and color print 8 Rs per page and reprographic facility @ 75 Paisa per page to its users.
- Reference Service: Library can help you to locate or search required information from the data bases. Library will also help you to verify and trace citation etc.
- Web OPAC: Entire library collection has automated through LS Premia (Web) software. The bibliographic citation information are available through Web OPAC (Online Public Access Catalogue). All the resources are documented with bar-coding and electromagnetic tag for security and circulation service.
- Single Point Search (Web Scale Discovery Service): Library has been providing "Single Point Search facility" to its users for subscribed E-Resources. It helps users for searching fastest and retrieve full text medical literature and compile the bibliographic reference sources from subscribed E-Resources.
- E-Reading Hall: Capacity of 80 readers with sufficient electric power point facility to charge the digital devices. It is fully air-conditioned with 24 X 7 Wi-Fi facility with ten Thin client computers for browsing the Library E-Resources.
- Remote Access: Library has been providing Remote Access of E-Resources through VPN, OpenAthens & RemoteXs.
- Internet & Wi-Fi:Internet & Wi-fi facility is also available for library members for searching E-Resources & database.
- CD-ROM Facility: Library has a collection of softcopy of Books and Thesis in CD-ROMs and these CD-ROMs can be browse and retrieve within the library for consultation purpose.

Card Catalogue

OPAC (Kiosk)

Information Literacy Programs

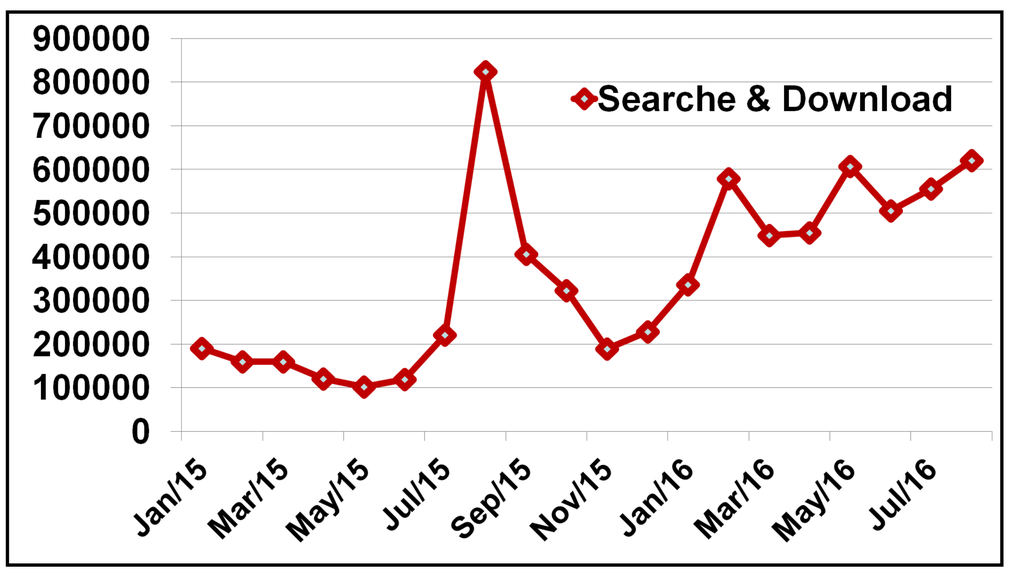
- Training & orientation program for Faculty Members
- Seminar on Web Scale Discovery Service
- Seminar on Empowering Clinical Leaders with Knowledge Based Systems
- Workshop on Role of Libraries in Clinical research

Launch of Library RFID Smart Card

Highlights of the year 2015-16

- Library has switched over to online version of journals from 2015 onwards.
- Bound Volume Journals moved to newly installed compactor.
- 24x7 wifi enabled E-Reading hall with 10 think client computers and has the capacity of 80 Readers with sufficient electric power point facility to charge the devices.
- Library has launched Smart Card for library members for circulation of books & journals.

Usage of Web Scale Discovery Service (Single Point Search)



शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Medical Social Welfare Unit

Year of Establishment- 1960

Group work in Geriatric ward

Objectives

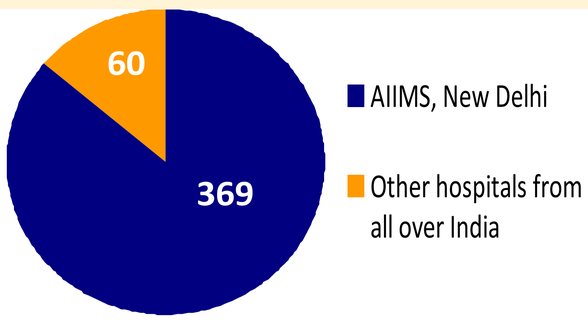
- To create a Therapeutic-Network and facilitate a Holistic-Healing leading towards a complete physical, psychological, social and vocational rehabilitation.
- To ensure the protection of the basic rights of the patients.
- To facilitate the various services for the poor and indigent patients.
- To coordinate with the Hospital Administration to facilitate the basic services.
- To impart Training of Medical Social Work to the Social Work Students.
- To conduct & coordinate the Research studies initiated by our unit and other departments of AIIMS.

Celebration of World Social Work Day

Patient Welfare Services & Highlights of 2015-16

1. Free medicines & surgical items for BPL/ indigent patients through Hospital Administration and through voluntary donations for OPD patients.
   - For 600+ admitted patients
   - For 10266 OPD patients (worth Rs. 15 Lakhs)
   - Rs. 2,11,059 for medicines through AIIMS poor fund
2. Exemption of Hospital Levy charges for BPL and indigent patients
   - For 12500+ patients
3. Counseling the patient and attendants empowering them towards physical, social, economical and psychological rehabilitation
   - 30000+ patients
4. Financial Assistance through Rashtriya Arogya Nidhi (RAN), Delhi Arogya Nidhi (DAN), PM Relief Fund, HMDG and Corporate Social Responsibility (CSR) Units.
   - RAN for 652 patients (more than Rs. 25 crores)
   - CSR donations for 21 patients (Rs. 24,01,670)
5. Free treatment for EWS (Economically Weaker Section) patients in 46 notified private hospitals as per the Hon'ble High Court Order
6. Assessment of unrelated Kidney Donors and their Authorization through Renal Authorization Committee as per the Transplant of Human Organ Act 1994
   - 28 cases of Unrelated kidney donors
7. Rehabilitation of Medico-Legal Cases (MLC) and Non-MLC Unknown/ Unattended/ Destitute/ Orphan patients
   - 141 patients
8. Railway concession facility to Cancer, Aplastic Anemia,TB, Leprosy, Thalassemia, Kidney transplant, Dialysis, Physically Handicapped, Blind, Heart-patient and Deaf & mute patients
   - 9900+ patients
9. Accommodation facilities to outstation patients in the four dharmshalas (Surekha Sadan, Sai Vishram Sadan, Rajgadhiya Dharmshala & Ratilal Sewagami Saadan)
10. Health promotional and education
11. Fund-raising and networking
    - Donations for medicines worth Rs. 4,43,304
12. Emergency care in Casualty: All Medical Social Services available 24 x 7
    - Special services during Epidemics, Disasters and Natural Calamities for managing the patient care efficiently
    - 24 x 7 Counseling services for survivors of Gender Based Violence (GBV) at One Stop Center
    - Coordination of shifting of 8800+ patients to other Government Hospitals

BPL Beneficiaries of Rashtriya Arogya Nidhi (RAN) from all over India in 2014-15



In 2014-15, 86% of beneficiaries of RAN scheme were from AIIMS, New Delhi

Rehabilitation of unknown patient

Diwali Celebration with admitted children

Dengue and Chikungunya counselling

Gift distribution in Pediatric Surgery ward

Training & Teaching activities of MSSO

- Training & orientation to the Medical and Non-medical staff of the hospitals
  - Orientation sessions for newly joined nurses
- Imparting training to NSS, BSW, MSW students from different colleges across India
  - 19 social work students
- Conducting Research Studies and coordinating in Research Projects

Orientation of newly joined nurses

Training of MSW students

"Committed to PATIENTS
Committed to AIIMS"

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

MEDICINE

Year of Establishment : 1958

Founder Members and History

Name	Tenure
Professor K. L. Wig	1958-1969
Professor M.M.S. Ahuja	1969-1982
Professor J.S Guleria	1982-1987
Professor K.K. Malhotra	1987-1990
Professor J. S. Bajaj	1990-1991
Professor A. N. Malviya	1991-1994
Professor J. N. Pandey	1994-2003
Professor S. K. Sharma	2003- till date

Professor K. L. Wig

Achievements

- Indian Guidelines on Extra-Pulmonary Tuberculosis (INDEX TB) in collaboration with Central TB Division, MoH & FW, Govt. of India and collaboration with South Asian Cochrane Centre, Vellore & Cochrane Infectious Diseases Centre at University of Liverpool, UK
- Formulated, published and disseminated Consensus & Evidence based multispecialty National Guidelines for Obstructive Sleep Apnea (INOSA Guidelines), First ed, 2014
- WHO Collaborating Centre for Research & Training in Tuberculosis
- Centre of Excellence for EPTB [MoH & FW, GoI]
- DM course in Infectious Disease (for the first time in India)

Significant facilities in Patient Care / Education / Research

- Intermediate Reference Laboratory (RNTCP, MOH & FW, GOI)
- Sleep Lab, Bronchoscopy Lab, PFT Lab
- Intensive Care Unit (ICU)
- DOTS/ DOTS Plus Centre
- ART Plus Centre

Awards

- Prof. J S Guleria : Padma Shri
- Prof. J S Bajaj : Padma Shri and Padma Vibhushan

Prof. S K Sharma		
1	**Shakuntala Amir Chand Prizes of Indian Council of Medical Research (ICMR) award** for application of bronchoalveolar lavage (BAL) in *interstitial lung diseases*	1991
2	**ICMR's prestigious Amrut Mody Prize (Chest Diseases)**	1996
3	**Hari Om Ashram Alembic Research award of Medical Council of India in Clinical Research**	2005
4	**Ranbaxy Research Award-2005 for Clinical Research** in the field of Tuberculosis, HIV and Sarcoidosis. Ranbaxy Science Foundation	2006
5	**Prestigious JC Bose Fellowship Award of Department of Science and Engineering Research Board (SERB), Ministry of Science & Technology, Government of India for individual incentive for increasing research and science related activities.**	2013
6	**AIIMS Excellence Research Award**	2014

Statistical Data

- Number of Faculty, Residents, technical staff etc.
- Faculty - 15
- Residents - 52

Teaching

- MBBS - 77
- Postgraduate - 58
- Ph.D. - 10

Vision Statement

- Excellence in patient care, training of medical students, research activities and playing the natural role of the parent branch for different specialties

Patient care (annual)

OPD

1	**Medical OPD**	
	New cases	100625
	Old cases	55700
2	**Infectious Disease Clinic (Monday 2PM)**	
	New Cases	206
3	**Sleep Clinic (Monday 2PM)**	
	New Cases	432
	Old Case	324
4	**Chest Clinic (Friday 2PM)**	
	New cases	537
	Old Cases	538
5	**Antiretroviral (ART) Centre**	
	Total registered till March 2016	9413
	ART started till March 2016	4167
	Regular follow up till March 2016	2714
	ART started in 2015-16	364
6	**AIIMS DOTS Centre** Total patients started on DOTS (April 2015-March 2016)	
	Cat I	73
	Cat II	21

7	**DOTS-Plus site**	
	Cat IV	6
	Cat V	1
8	**Laboratories:** **Sleep lab**:	
	Sleep studies	455
	EZ Scan	302
	Ambulatory monitoring of blood pressure	272
	Endothelial dysfunction studies	45
9	**PFT Lab**:	
	Pulmonary Function Test:	5182
	6 Minute walk test:	263
10	**Number of Bronchoscopy done:**	192
	EBUS	47
11	**ADA/ACE Lab**:	
	Adenosine deaminase tests	124
	ACE tests :	228
12	**DOTS AND PMDT services:**	
	No. of samples for sputum smear-	8847
	No. of samples for Solid culture-	642
	No. of samples for liquid culture-	7560
	No. of samples for solid Drug Susceptibility test	35
	No. of samples for liquid DST-	385
	No. of samples for Line Probe Assay(LPA)	4131
	No. of samples for GeneXpert-	2494

Research (Till date and in the Year 2015-16)

- Books-5
- Papers > 1000 (31 in 2015-16)

Microbiology

Year of Establishment : 1957

FOUNDER MEMBERS & HISTORY

- The department started with Dr. Ghosh Ray, who joined as an Associate Professor, and Dr. LN Mohapatra and Dr. Arya as Assistant Professors
- Dr. (Col) SL Kalra joined as Professor and the first Head of the Department in 1960. After his untimely demise in 1967, Dr. LN Mohapatra became the second head of the department till 1985

Col. (Dr.) S L Kalra
First Head of the Department

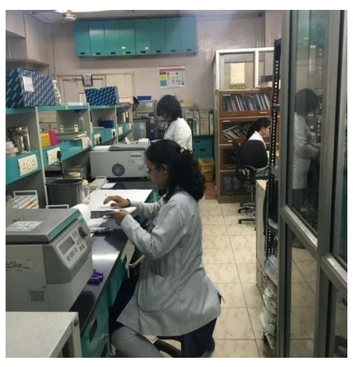
Dr. LN Mohapatra- The second and longest serving head of the department (1967-1985)

Department of Microbiology
(Photo prior to 1967)

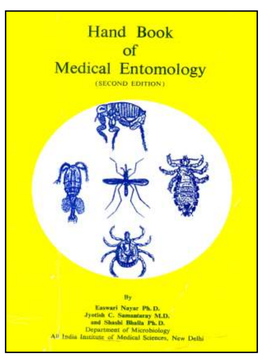
ACHIEVEMENTS

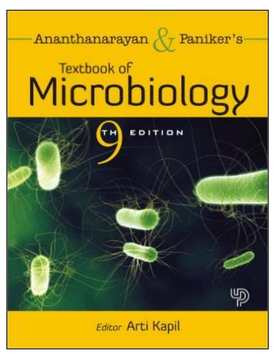
- Alumini are nationally and internationally eminent teachers
- Time appropriate research as per the need of the country
- State-of-the-art and reference laboratories in the department for many pathogens
- Scientific awards (Shanti Swaroop Bhatnagar, BC Roy awards) to the faculty members

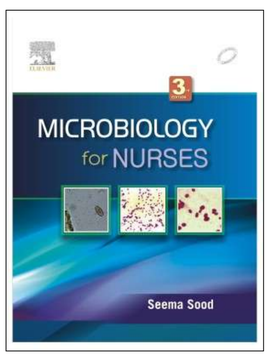
SIGNIFICANT FACILITIES

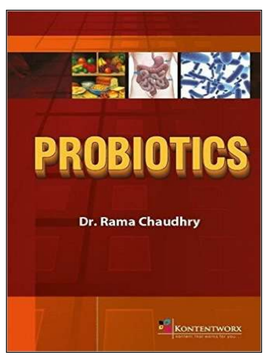


BOOKS PUBLISHED





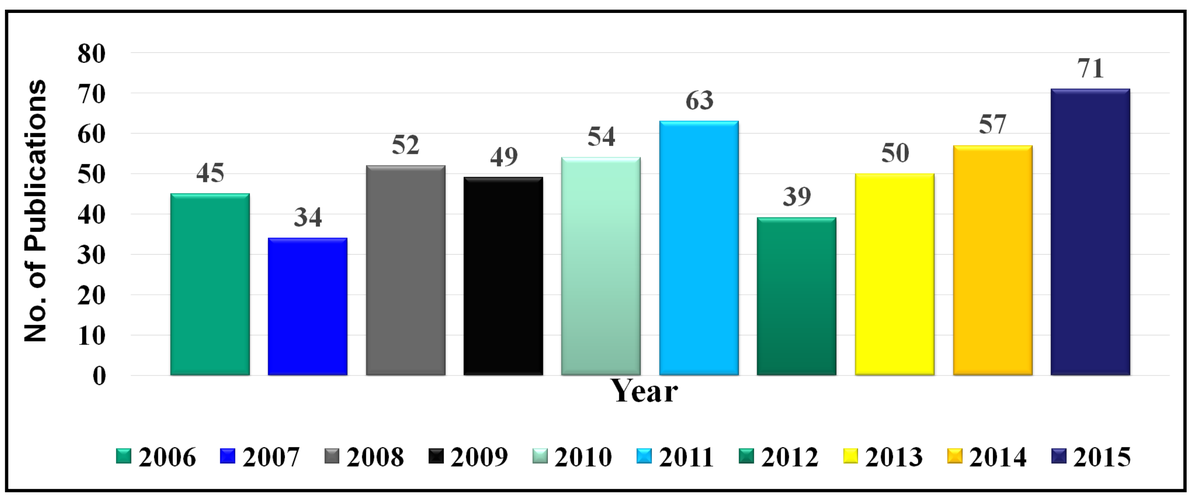




VISION STATEMENT

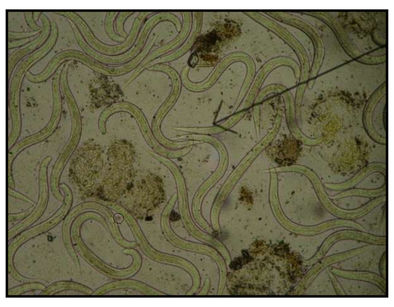
- The vision of the department is synchronised with the vision of the institute
- To provide up-to-date and holistic theoretical & practical training for MBBS, MD (Microbiology), DM (Infectious Diseases), and PhDs
- To carry out frontline research in all disciplines of Microbiology
- Train good academicians and teachers in the discipline

RESEARCH ARTICLES

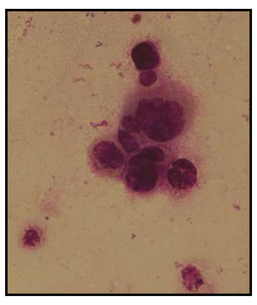


PATIENT CARE

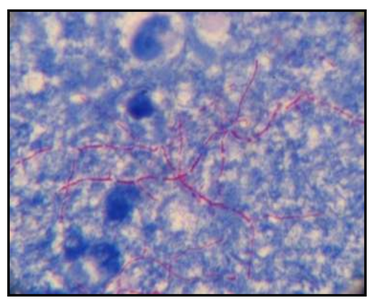
- State of the art facilities for conventional and molecular diagnosis of the following pathogens including emerging and re-emerging microbes:
- Bacteriology- Aerobes and facultative anaerobes- like Staphylococci, Streptococci, Enterococci, Corynebacterium, E.coli, Neisseria, Pseudomonas, Acinetobacter, Burkholderia etc
- Virology- including Influenza, dengue, human cytomegalovirus, HPV etc.
- Mycobacteriology- Mycobacterium tuberculosis, drug susceptibility & typing, NTM etc.
- Mycology- including Histoplasma, Cryptococcus, Candida, Asergillus, zygomycetes etc.
- Parasitology- including malaria, leishmania, coccidia, microsporidia etc.
- Special Bacterial Pathogen Laboratory- for diagnosis of Rickettsiae, Legionella, Bartonella, Leptospira etc.
- Anaerobic and Food-borne pathogens- like Clostridium difficile, Bacteroides spp.
- Ocular Microbiology- placed in the RPC for Ophthalmic Sciences
- Mycoplasma laboratory
- Hospital Infection Control (HIC) laboratory



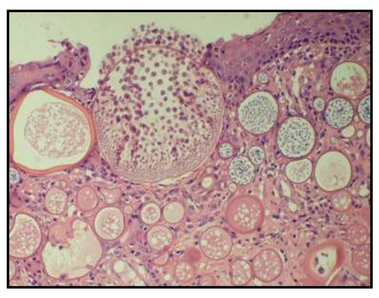
Strongyloides stercoralis – rhabditiform larvae (stool)



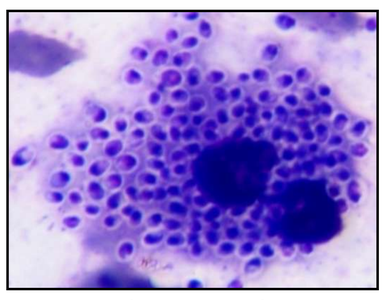
Tzanck smear – Herpes simplex virus



Nocardia spp.



Rhinosporidium seeberi - Aquatic protist



Histoplasma capsulatum (yeast phase) -Bone marrow (Giemsa stain)

Details of Specimen Processed (Past Year)

Laboratory /Section	Number of tests performed (2015-16)
Bacteriology Laboratory	1,34,939
STD Laboratory	1,837
HIC Laboratory	24,796
TB Laboratory	28,835
Anaerobic, Mycoplasma & Special Pathogens Laboratory	6,154
Serology Laboratory	11,035
Virology Laboratory	9,649
HIV Laboratory	9,078
Mycology Laboratory	15,336
Parasitology Laboratory	16,707
Ocular Microbiology Laboratory	18,841
Total	**2,77,207**

FUTURE VISION

- **To update all the available facilities, and creation of new facilities (genomics, proteomics, etc.)**
- **To strengthen patient-care**
- **To strengthen teaching**

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

National Drug Dependence Treatment Centre

Year of Establishment : 1988

History

- De-addiction centre set up in1988 through MOH&FW grant
- Upgraded to National centre (National Drug Dependence Treatment Centre, NDDTC) in 2003
- Relocated to its current 10-acre premises at Kamla Nehru Nagar in Ghaziabad, nearly 40 km from A.I.I.M.S in 2003

Staffing and Patient Care

- Multidisciplinary team of professionals (Psychiatrist, Psychologists, Clinical Chemists, Biochemist, Biostatistician, Medical Social workers, Nurses) with 17 faculty and 40 non-faculty positions
- Outpatient, Inpatient (50 bedded) and services through community clinics for reaching out to underserved areas of New Delhi
- Specialty clinics: adolescents, tobacco cessation, comorbid mental illness, women, day care facility
- Nearly 4000 new patients, 73000 follow-up visits & 900 hospitalization per year
- State of the art, well-equipped laboratories to detect various drugs in body fluids; Nearly 21,000 tests for screening for various drugs annually

Developing Models of Care

- Strengthening of Drug De-Addiction program of Govt. of India through establishing "Drug treatment Clinics" in different parts of the country
- Addressing substance use concerns in a workplace setting (an oil refinery in North-East India (Assam)
- Development of online intervention for alcohol use as a part of E-health project (WHO supported)
- Development of psychosocial intervention for inhalant using street children with WHO support.
- A unique model using microcredit for rehabilitation of recovering persons
- Providing treatment and care through "Community drug treatment clinics"

Capacity Building

Resource Materials

- Manuals for physicians, nurses, paramedical staff and laboratory personnel
- Reference books: case-book for physicians, physician hand book, manual on long-term pharmacotherapy, brief intervention
- Training modules –facilitators manual, training on OST using BPN and Methadone
- Theme-based newsletters to be distributed to various Government hospitals and NGOs

Conducting Trainings

- Designated as "National Technical training Centre" by National AIDS Control Organization (NACO); Between 2012-2016: 45 training programmes conducted; over 1300 health staff trained on Opioid Substitution Therapy (OST) and Harm Reduction
- Training of general duty medical officers (GDMOs) one from each district hospital of the country with support of Ministry of Finance. 32 trainings conducted between 2010-2015 and 368 medical doctors trained on management of substance use disorders
- Training of health professionals from SAARC countries (Myanmar, Bangladesh, Nepal and Bhutan)
- Training activities through the national satellite system (provided by ISRO) conducted for some districts and medical colleges
- Faculty as resource persons in various training programmes organized by SCERT, Childline India, National Academy of Customs, Excise and Narcotics (NACEN); Narcotics Control Bureau; National Institute of Criminology and Forensics (NICFS) etc.
- Online training programme on OST for NACO, MOH&FW, GoI in collaboration with Public Health Foundation of India (PHFI)

Prof. D Mohan
Chief, (1988-2002)

Prof. Rajat Ray
Chief, (2002-2013)

Prof. Khandelwal
Chief, (2013 onwardsSudhir K)

Policy and Planning

- Organized several important national workshops, which have been instrumental for policy and planning.
- Prof. Rajat Ray, Ex-Chief, was member, International Narcotics Control Board (INCB), the monitoring body for the implementation of the UN international drug control conventions (2010-2014)
- Prof. Raka Jain honored as "Pioneer" in recognition of building international collaborative research on drug abuse in the 2015 NIDA International Forum meeting
- Faculty are members of various expert committees and technical groups at regional and international level, and contributing to policy development
- Faculty are technical experts and also holding key positions in national and international professional bodies and editorial boards in prestigious peer reviewed journals
- Several faculty members are recipient of professional honors and awards
- Developing Standard Policy and Practice Guidelines and conducting training on Drug Demand Reduction for staff working with Government of Nigeria

Collaborative Research

Public-health Research Projects

- National Survey on Extent and Pattern of Substance Use in India (Ministry of Social Justice and Empowerment, MSJE, 2016–18)
- National Survey on Extent, Pattern and Trends of Drug abuse in India (UNODC and MSJE, 2004)
- Psychosocially assisted pharmacological Treatment of Opiate Dependence (WHO-Geneva)
- Pharmacological treatment of Smokeless Tobacco use (NIH, NIDA, US Gov.)
- Size estimation of Injecting Drug Use in Punjab and Haryana (UNAIDS)
- Multisite study: Oral Substitution Treatment with buprenorphine and Methadone (UNODC)
- Oral Substitution Treatment in Tihar Prisons (UNODC)
- Estimating the size of Opioid Dependent People in Punjab, India (MSJE)
- Nation-wide Assessment of Substance Use in Children (NCPCR)

Biomedical Projects

- Efficacy of Varenicline for Smokeless Tobacco Use in India (Indo US Collaborative Project funded by National Institute on Drug Abuse (NIDA), in collaboration with University of Pennsylvania (2011-2014)
- Feasibility of transporting urine samples of drug users on filter paper for screening drugs of abuse: A pilot exploratory study (ICMR, 2012-2014)
- Effect of Nalbuphine on opiate withdrawal in rats: Behavioural, Biochemical and Molecular study (ICMR, 2012-15)

- WHO Collaborating Centre on Substance Abuse
- National Centre by MoHFW, NACO
- Regional Learning Centre by UNODC, ROSA
- National Survey on extent and pattern of substance use in India
- Collaboration with various international agencies and Ministries on Substance Use Disorder
- Lead in developing resource materials and training
- International and national collaborative research
- Assistance in policy and programme in India and other countries

Visit of Hon'ble Minister Social Justice and Empowerment to NDDTC (19th May, 2016)

Other Significant Achievements

- Ph. D programme in Addiction Psychiatry since 2010
- Designated as a WHO Collaborating Centre on Substance Use (2012-2016); continues for next four years
- Two National CME programmes: "Opioid Substitution Therapy (OST): Policy and Practice" in April 2015, and "Alcohol Use Disorders: Contemporary Issues" in April 2016
- Successfully bid for hosting the annual meeting of International Society of Addiction Medicine in 2019
- D.M. course in Addiction Psychiatry introduced from January 2016.

Future Vision

- Research priorities
  - Generating national data on substance use through national survey
  - Molecular genetics, neuro-imaging, basic neurochemistry, biological and behavioural interaction
  - Advances in pharmacotherapy and psychosocial interventions
  - Advances in community-level assessment and interventions
  - Evaluation of intervention models and programmes
- Continue to provide policy-level/strategic advice to GoI, National/International organisations
- Continue to enhance capacities of government and NGO centres
  - Development of National Database
  - Develop training curriculum and educational materials
  - Train Health Professionals
- Expand programme reach
  - Expansion of services through the Strengthening of DDAP by DTCs
  - From hospital to community and workplace
  - Servicing special groups (women, children, adolescents, homeless population)

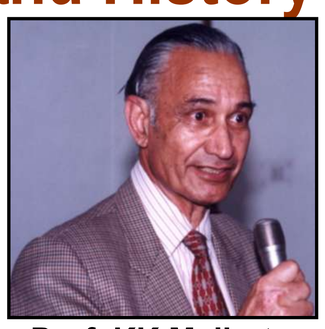
Nephrology

Year of Establishment- 1988

Division of Nephrology, department of Medicine since 1969 as separate weekly Renal Clinic was started on Monday on 27th Oct 1969
As a separate department June 1988;
DM Nephrology started 1990

Founder Members and History

Dr. KK Malhotra for division of Nephrology and
Dr. SC Dash for department of Nephrology



Prof. KK Malhotra
1969-1990

Prof. SC Dash
1977-2006

VISION

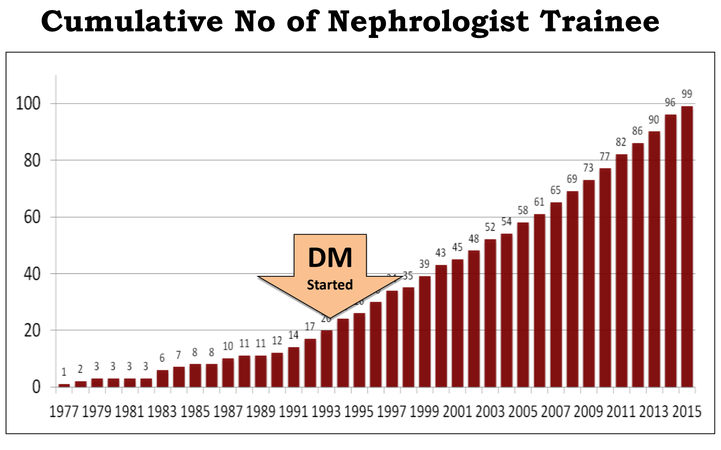
To be the model of exceptional care for poorest of the poor patients with kidney disease, their families and community

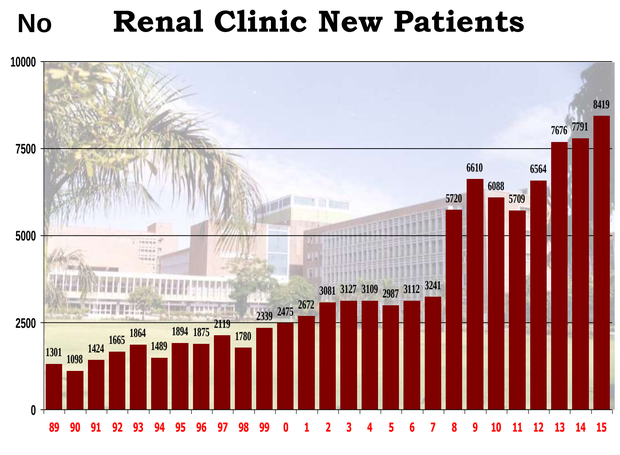
Achievements

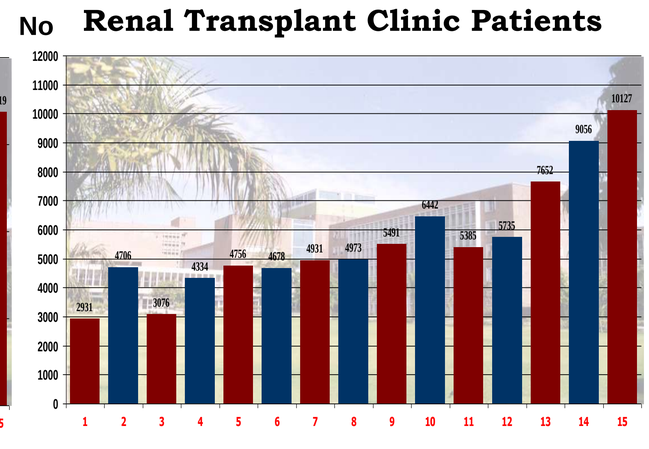
1. SK Agarwal designated country leader for transplantation by world transplantation society for five years since 2006.
2. SK Agarwal represented India during first international meeting on chronic kidney disease in Bellagio, Italy, 2004.
3. SK Agarwal represent Asia as council member in International Society of Nephrology since 2011
4. SK Agarwal is chief web advisor and in-charge of registry of National Organ and Tissue Transplant Organization (NOTTO), GOI
5. SK Agarwal, best nephrologist of the year 2015 by Minister of State, MOHFW

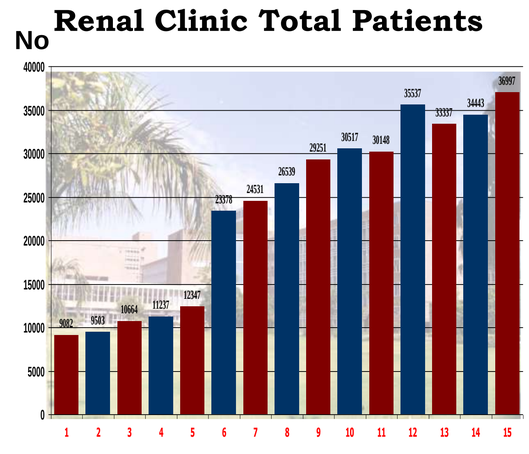
Patient care

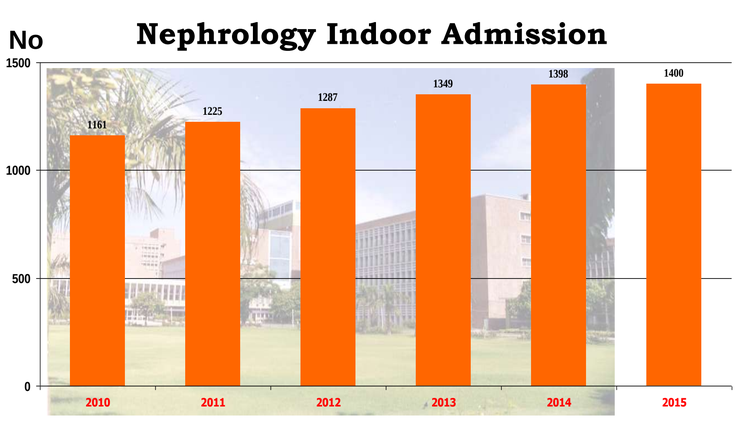
- State of art hemodialysis facilities
- Free of cost in-house immunosuppression monitoring for transplant

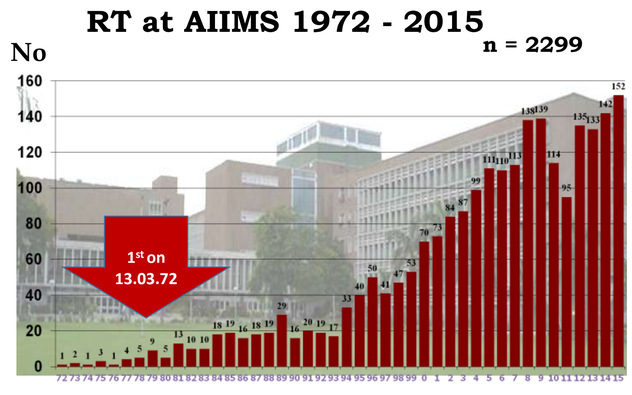












Research

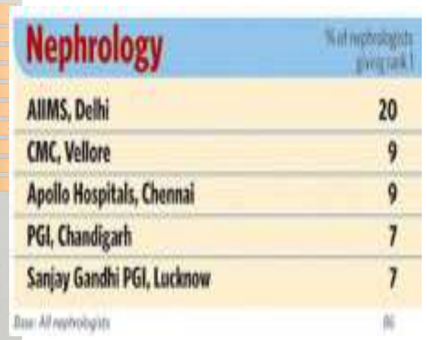
- Internationally recognised research in hepatitis and tuberculosis during renal raplacement therapy

Education

- Contribution in almost all government policies related to renal replacement therapy and prevention of kidney disease in India
- Throughout a week busy department teaching program

Rated as the
BEST NEPROLOGY DEPARTMENT in India
in several national surveys

5th Feb 2006



Nephrology	% of nephrologists giving rank 1
AIIMS, Delhi	20
CMC, Vellore	9
Apollo Hospitals, Chennai	9
PGI, Chandigarh	7
Sanjay Gandhi PGI, Lucknow	7

Base: All nephrologists (61)

Nov 2008

top 5 hospitals in Nephrology	% of doctors ranking among top 3 hospitals
All India Institute of Medical Sciences, Delhi	59
Christian Medical College, Vellore	34
Postgraduate Institute, Chandigarh	33
Apollo Hospitals, Chennai	18
Apollo Hospitals, Delhi	16

Base: All Nephrologists-61

Statistical Data

Number of Faculty, Residents, technical staff ect.	•Seven faculties •Thirteen senior residents •Three junior residents
MBBS	general
Postgraduate	Ninetinine
Ph.D	Nil
Other Teaching activities	▪14 trainee from armed forces ▪Short-term training for residents from ○ Medicine ○ Emergency medicine ○ Geriatric medicine
Research (Till date & in Year -16), only numbers	
Books (Total number and name of best 5 books)	NIL
Papers	390
Article	130
Chapters	82
Others	Patient education material Kidney and kidney failure Organ donation

Famous alumni

- **Dr. RK Sharma**, Director SGPGI and HOD Nephrology, SGPGI, Lucknow
- **Dr. DS Rana**, Chairman Sir Ganga Ram Hospital and Member institute body AIIMS
- **Dr. LC Sharma**, HOD Nephrology, SMS Medical College, Jaipur
- **Dr. Sanjay Gupta**, HOD Nephrology, Sultan Qaboos Hospital, Salalah, Oman
- **Dr. Shyamsunder**, HOD Nephrology, RML Hospital, New Delhi
- **Dr. AK Burman**, Director General Medical Education, Assam
- **Dr. Sanjay Vikrant**, HOD Nephrology, Shimla Medical College, Shimla
- **Dr. Manjuri Sharma**, HOD Nephrology, Guwahati Medical College
- **Dr. Shreebhusan Raju**, Nizam Institute of Medical Sciences, Telangana
- **Dr. HS Mahapatra**, HOD Nephrolgoy, RML Hospital, New Delhi
- **Dr. Suman Lata**, HOD Nephrology, ILBS, New Delhi
- **Dr. Yasir Rizvi**, HOD Nephrology, Safdarjung Hospital, New Delhi

Prof. SC Tiwari
1980-2009

Prof. Sanjay Gupta
1997-2013

Prof. SK Agarwal
1989-Cont.

Prof. D Bhowmik
1997-Cont.

Prof. S Mahajan
2002-Cont.

Dr. Soumita Bagchi
2012-Cont.

Dr. RK Yadav
2015-Cont.

हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE
शिक्षा EDUCATION
अनुसंधान RESEARCH

AIIMS Nephrology Alumni

Future VISION

Aspires towards the elimination of kidney disease in India

Six Decades of AIIMS

Neuroanaesthesiology and Critical Care

The Expanding Horizon .....

Year of Establishment : 1987

FOUNDER

- Dr Surinder Singh Saini, Dr. Hari Hara Dash and Dr. Parmod Kumar Bithal in 1987.
- 1st in the country to start a separate Neuroanaesthesiology department
- 1st in the country to start structured DM course in Neuroanaesthesiology (in the year 2002).
- Indian Society of Neuroanesthesiology and critical care (ISNACC) established by Dr Hari Hara Dash and Dr Parmod Kumar Bithal subsequently

VISION

- Excellence and innovation in the field of Neuroanesthesia, including perioperative & critical care and pain management.
- To establish Neuroanesthesiology & Neurocritical Care in the country.

REASEARCH

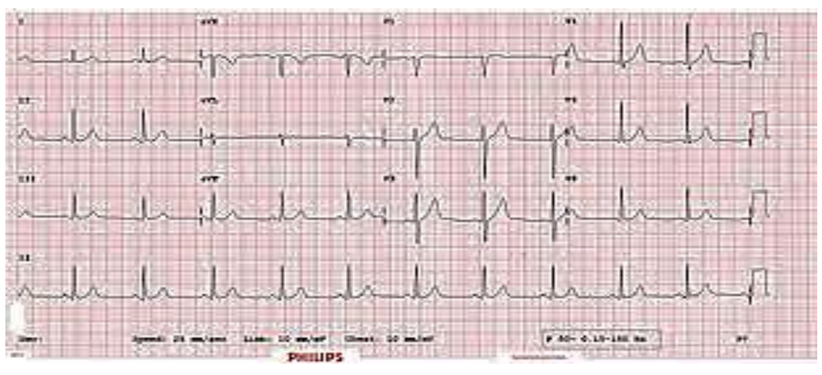
- >400 research publications so far.
- Ongoing research on Traumatic brain Injury, Intra-cerebral Aneurysm, Awake craniotomy, Neurophysiological monitoring.
- Started the Journal "Journal of Neuroanaesthesiology and Critical care"

JNACC Journal of Neuroanaesthesiology & Critical Care

PATIENT CARE

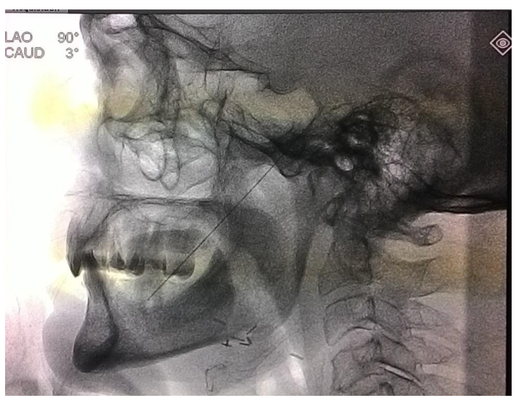
PRE ANAESTHESIA CLINIC (PAC)

- Evaluation before surgery to detect and treat the conditions that can adversely affect patient outcome.
- The annual OPD turnover of PAC Clinic is nearly 4500.



PAIN CLINIC

- For acute and chronic pain management
- Renowned referal center for management of pain in trigeminal neuralgia, Backache and CRPS.



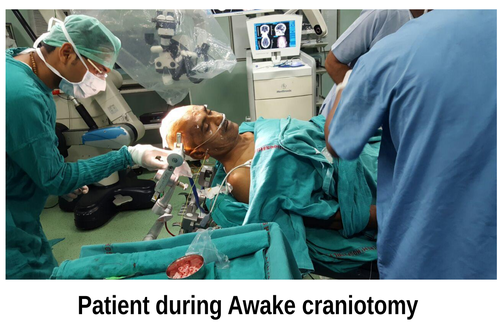
Radiofrequency Ablation for Trigeminal Neuralgia

INTENSIVE AND EMERGENCY CARE

- Patient management in 26 bedded Neurosurgical ICUs, 5 Bedded Neurological ICU at neurosciences centre & 20 bedded Neurotrauma ICU.
- 24x7 resuscitation services at neurosciences centre and trauma centre.
- Advanced patient monitoring in ICU ensuring patient safety and recovery

OPERATING ROOM

- Alleviation of pain and Anxiety.
- Management of complication and ensuring patient safety
- Patient management during different abnormal surgical positions.
- Perioperative brain protection stretegies
- Patient management during Awake Craniotomy so that patient is awake, and comfortable during surgery



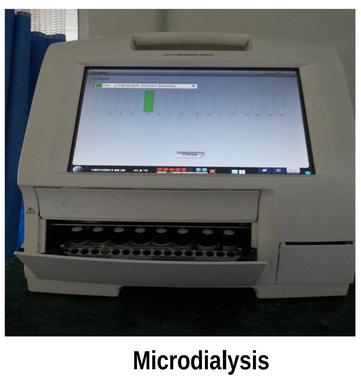
Patient during Awake craniotomy

ADVANCE MONITORING TOOLS

Trans Esophageal Echocardiography

Bispectral Monitoring

Cardiac output Monitoring



Microdialysis

Intracranial Pressure Monitoring

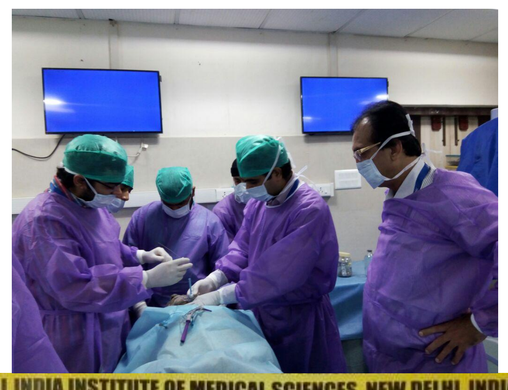
EDUCATION

- DM Degree Awarded So far : 34
- Training of Indian defence service personnel, traineess from different parts of country and overseas trainees from developing countries.
- Faculty of department form a vital Integral part of ongoing educational courses in the institute like ACLS, ATLS,AUTLS,AIIMS-BECC,ACCC.
- Going to start fellowship in Neurocritical Care soon.

AIIMS Neuroanaesthesia Update

- Regularly organizing AIIMS Annual Neuroanaesthesia Update and workshops emphasising the recent development in the field of patient care.

AIIMS CADAVERIC INTERVENTIONAL PAIN MANAGEMENT COURSE



ALL INDIA INSTITUTE OF MEDICAL SCIENCES, NEW DELHI, INDIA
CADAVERIC AIRWAY WORKSHOP

MESSAGE

- We are your perioperative neurophysician ensuring your safety and recovery not just inside operating room but beyond…
- We are a strong group striving hard to set a bench mark in neurological and neurosurgical patient care, education and research.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Neurology

Year of Establishment- 1965

Vision statement

The Department of Neurology, All India institute of Medical Science, New Delhi aspires to be the apex National centre for neurology patient care, education and research and one of the top neurology departments in the world, providing world-class, evidence-based, affordable patient care, conducting cutting edge research and making low cost innovations and creating a stimulating and inspiring educational environment for neurology trainees.

Founder members

In 1965, Prof. Baldev Singh was invited by Dr. Sushila Nayar, Union Health Minister to start the Department of Neurology at AIIMS. When Prof. Baldev Singh retired (1965-1968), the department was headed by Dr. S. N. Pathak, and then by Dr. Vimla Virmani (1975-1978).Subsequently the department was headed by Prof M C Maheshwari (1979-2001), Prof M Behari (2001-2013) and by Prof Kameshwar Prasad (2013- till date)

Achievements

Research

- Has been a leader in conducting and publishing research in the field of Neurosciences with the **largest number of publications**
- Inauguration of first of its kind AIIMS cohort study for stroke and dementia in the country.

Facilities:

- Ambit of research spans all the fields of neurology including stroke, epilepsy, movement disorders, neuroimmunology, sleep disorders and is supported by electrophysiology lab, stroke lab, epilepsy lab, sleep lab, meta-analysis soft wares through collaboration nationally and internationally.

Statistics:

- Research papers: more than 2000
- Chapters: more than 150
- Books: more than 10

Patient Care

- **Served >8 lakh patients** till date (mostly from underprivileged section of the society) with best possible, cost effective treatment
- **Tatkal registration** for needy patients.
- Developed comprehensive programs for care of patients with epilepsy, stroke, movement disorders, sleep disorders and neuroimmunological disorders.

Outpatient services:

- 6 days a week. On an average, about 400 patients are seen per day.

Inpatient services:

- 63 general ward beds, 5 ICU beds, 5 epilepsy monitoring beds, 3 sleep monitoring beds and 10 private ward rooms

Comprehensive care services for

- Stroke
- Epilepsy
- Sleep Disorders
- Movement Disorders Unit
- Neuroimmunological disorders
- Critically ill neurology patients
- Neurophysiology investigations
- Ataxia

Statistics: (2014-2015)

- OPD: 27009 new cases, 44840 old cases
- IPD: 2567 admissions

Education

- Has pioneered introduction of **evidence-based approach** in neurology practice and education.
- Trained **more than 150 neurologists** and conferred them the DM degree.
- Alumni from the department have established new neurology departments in different parts of India and abroad.
- The department in a quantum leap in 2015 is poised to become the **largest neurology department in the country** with 19 faculty and 36 residents.

Statistics:

- Number of faculty, residents (current)
  - Faculty: 10
  - DM residents:21
- Till Date:
  - DM residents: 173
  - PhD students: 30

Department of Neurology, AIIMS Alumni meet held in 2015

Future Vision

The Department aspires to take leadership role in developing models and framework of patient care, education and research in the field of Neurology by providing outstanding clinical care while rapidly discovering new treatments to reduce and eliminate the devastating impact of neurological disorders; training the very best neurologists and scientists of the future, and improving the health and well-being of the people we serve. We want to start fellowship programs and develop further the sub specialities of Neurology. We aspire to conduct cutting edge research and elucidate the fundamental mechanisms of Neurosciences, and translate these advances into novel preventive and therapeutic strategies for various neurological disorders.

Department of Neurology, AIIMS Faculty and Residents 2016

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

PROVIDING the poorest of poor with BEST POSSIBLE CARE.

Neuroimaging & Interventional Neuroradiology

Year of Establishment- 1956

Formerly known as the 'Department of Neuroradiology', the present name was adopted recently (2015) to better reflect the nature and extent of the work the Department is engaged in. Currently ours is one of the busiest departments in the AIIMS, functioning round the clock providing diagnostic as well as therapeutic services to a large number of patients with diseases of / or related to the nervous system.

HISTORY

PERSONALITIES

- The first seeds for specialized Neuroradiology work at AIIMS were sown in the early 1960's by Prof. Sneh Bharghava and nurtured later by Prof. SK Ghosh and Prof. RK Goulatia.
- Prof. SK Ghosh was the first one to take up exclusive neuroradiology work; When he left for another Institution in mid 70's, Prof Goulatia took the mantle.
- Plain Radiography and fluoroscopy were the only modalities available in those years, and the special procedures done in the department included direct needle puncture carotid angiography, Burrhole myodil ventriculography and lumbar route pneumoencephalogram with autotomography.
- Neurosciences Centre was formed in 1986 at AIIMS, with exclusive Neuroradiology department. Dr. RK Goulatia was the first Professor and Head of Neuroradiology department, and continued till 1994, when Prof. NK Mishra took over.
- Dr. NK Mishra along with Dr. Meera Rao did the first free flow embolization of cerebral AVM in 1979. He further ventured into all the areas of neurointervention like cerebral & spinal AVM embolization, CCF embolization and aneurysm coiling and established the department as a pioneer center for neurointervention in the country.
- Dr. Shailesh B Gaikwad, who had joined the department in 1991 as senior resident, became the Head of the Department in March 2016. He has further expanded the scope of the interventional neuroradiology work by introducing and optimizing procedures like carotid stenting, Onyx embolization of AVMs, stent assisted coiling and flow diverter treatment for complex aneurysms.

MACHINES

EARLY PHASE

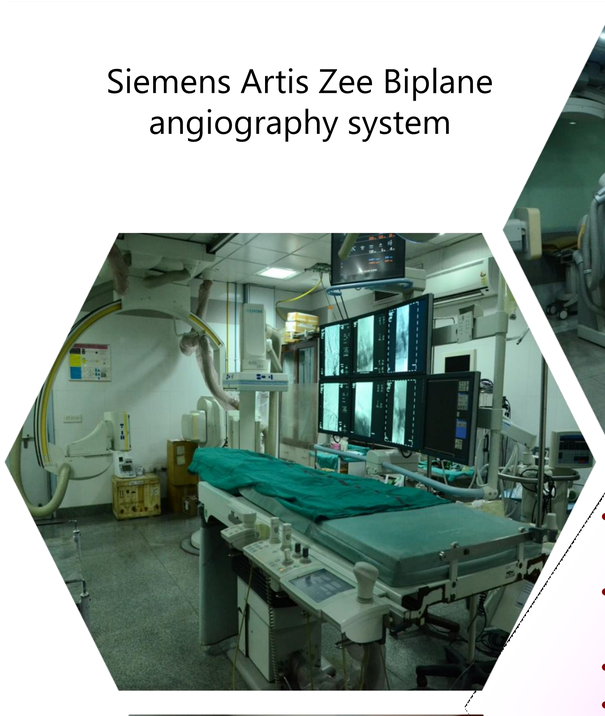
Year	Equipment	Procedures
Mid 1960s	Elema Schonander Skull table, equipped with three film manual changer	Direct needle puncture carotid angiography
1965	Lysholm skull table, fluoroscopy unit, 3 film manually operated film changer & manual processing	Direct needle puncture carotid angiography, Burrhole myodil ventriculography and lumbar route pneumoencephalogram with autotomography
Early 1970s	Angiography system with sliding table top & an automatic (AOT) film changer and image intensifier	All vascular studies including spinal angiography
1975	Mimer III	Cranial / spinal studies including pneumo-encephalography, ventriculography, tomography, air & water soluble contrast (metrizamide) myelography, cerebral angiography & cerebral angiography with tomography
Late 1970s	Catheterization lab equipped with automatic film changer (PUCK) & image intensifier fluoroscopy	Cardiac, cerebral & spinal angiographies

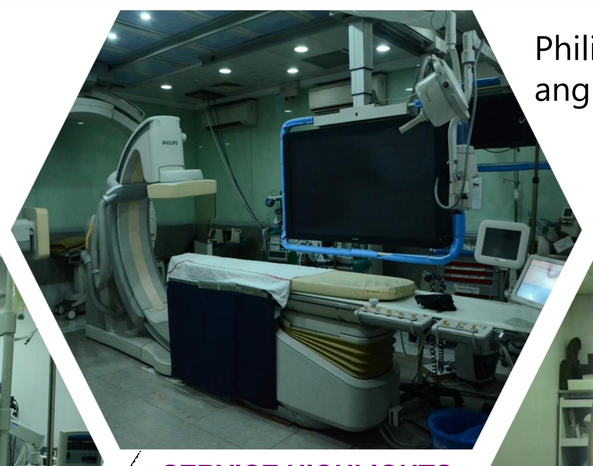
ERA OF CROSS SECTIONAL IMAGING

Year	Equipment
1978	Second generation CT system (CT1010); First CT system to be installed in the country
1983	Whole body scanner (Somatom DRH)
1983	Single plane analog subtracted angiography system
1991	A fourth generation CT system from Picker Corporation (PQ2000)
1993	First clinical MR imaging system in Dept of NMR
1995	Digital subtraction angiography system (Polytron)
1997	Gamma-Knife facility networked to the MR system, through a mini PACS
2000	Siemens Neurostar biplane angiography system
2010	Siemens Artis ZEE Biplane angiography system
2012	RIS-PACS
2013	Philips Allura Xper Biplane angiography system
2014	Siemens Somatom Definition Edge 128 slice CT system
2014	GE Optima 1.5T MR system under Dept of Neuroradiology

FACILITIES & SERVICES

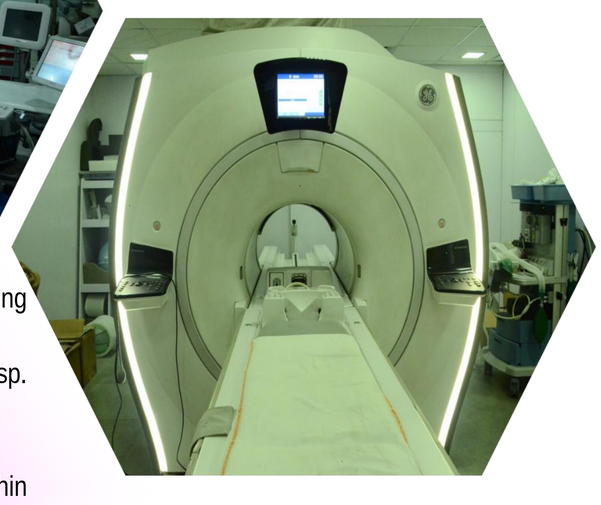
Siemens Artis Zee Biplane angiography system





Philips Allura Xper Biplane angiography system

GE Optima 1.5T MR system



SERVICE HIGHLIGHTS

- 24 hrs Diagnostic facilities including CT & MR
- 24 hrs Interventional services esp. acute stroke interventions
- No waiting list for CT
- Least waiting time for MRI within AIIMS
- Filmless department
- State of the art RIS & PACS with mobile applications
- Bedside services including Digital Radiography, USG and CT

Siemens Somatom Definition Edge 128 slice CT system

State of the art Conference room and Radiology reporting room

Philips Portable USG system & Mobile DR system

Statistics

- Number of Faculty: 4
- Number of Residents:
  a) D.M. Students =6
  b) Non-D.M senior residents = 4
- Number of Technical staff : 24

Education

- Three year DM (Neuroimaging and Interventional Neuroradiology) course was started in 2001; Since then thirteen candidates have successfully completed the course. Current total intake is 3 DM residents per year
- Rotational postings for MD Radiodiagnosis residents & MBBS students
- Observership programs for students from various institutes like NIMHANS, SCTIMST, Armed Forces and Services, and foreign nations

Patient care

Modalities	87-'91	92-'96	97-'01	02-'06	06-'11	12-'16
X - ray	22,456	38,876	65,719	76,904	87,446	96,811
USG	145	649	3,912	6,209	7,104	8,330
CT	18,091	19,433	32,440	59,223	1,14,422	97,332
MRI	-	2,456	5,912	8,722	9,981	15,220
DSA	834	1,977	2,654	3,690	3,478	3,673
Interventions	102	212	246	543	656	832

Research

- Number of research articles published: 124
- Number of chapters authored in text books: 20

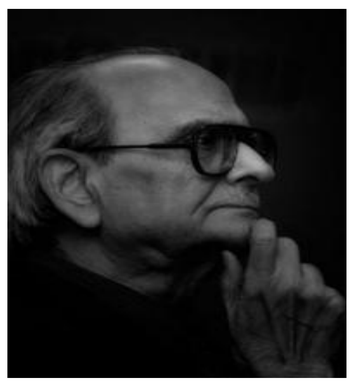
Awards

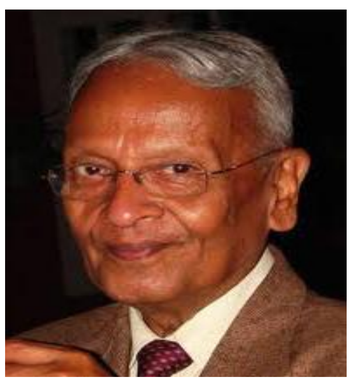
A. WHO Fellowship – Dr. NK Mishra (1988)
B. Boys-Cast Fellowship – Dr. Anil Khosla (1993)
C. WHO Fellowship – Neurointervention – Dr. Shailesh B Gaikwad (2001)
D. DBT Overseas Fellowship; Junior Faculty at UCSF - Dr. Ajay Garg (2008)
E. Visiting Professor, Harvard Medical School – Dr. Shailesh B Gaikwad (2009)

Neurosurgery

Year of Establishment- 1965

Founder Members & History


Prof. P. N.Tandon


Prof. A.K. Banerjee

- The department was initiated in 1965 with only two faculty members- Prof. P.N. Tandon and Prof. A.K. Banerjee.
- The neurosurgery services moved to their present location within the "red building" or the Cardiothoracic and Neurosciences Centre in 1988.
- The neurotrauma services were shifted to the Jay Prakash Narain Apex Trauma centre in 2007.

Vision statement

- **Providing state of the art neurosurgical services to the countrymen while meeting or exceeding the global standards of neurosurgical care**
- **Establishing the standards of neurosurgical education and skills development in India and producing neurosurgical leaders**

Achievements

- Establishment of a well equipped and dedicated centre for neurosurgery at AIIMS
- Training over 200 neurosurgeons who are presently working in India and abroad
- Providing state of the art services in all neurosurgical subspecialties comparable with the best in the world
- Establishment of Gamma Knife facility, centre for excellence in epilepsy and laboratories for neurosurgical skills training and surgical education.

Patient care facilities

- Bed strength of 180 beds including 60 trauma beds at JPNATC.
- 46 ICU beds including 20 at the trauma center
- 10 fully equipped modular operating rooms including 3 at the trauma center performing 4500 surgeries/year.
- Advanced intra-operative imaging systems – Intra-op MRI and O-Arm
- Facilities for minimally invasive brain and spine surgery
- Stereotactic radiosurgery (Gamma Knife)
- Portable computed tomography machines in intensive care units

Portable CT scanner in neurosurgery ICU

O Arm being used for imaging during surgery

Education

- Neurosurgery Skills Training Facility and Experimental Laboratory Neurosurgery Education and Training School (NETS)
  - The department has created a forum (http://www.aiimsnets.org/neurosurgeryeducation.asp) to support, coordinate, and enhance the efforts to generate an online forum for disseminating scientific information useful to neurosurgical trainees and specialists.
- Cadaver Training and Research Facility (CTRF)
  - This training laboratory provides a world-class cadaveric training facility for brain and spine surgery where cadaver workshops are held at quarterly intervals.

Suturing practice under high magnification of microscope being supervised by faculty at Neurosurgery Skills Training Facility and Experimental Laboratory

Trainees improving their micro-drilling skills at Neurosurgery Skills Training Facility and Experimental Laboratory using high speed drills on sheep head and scapula

Research

- Center of Excellence in Epilepsy
- Established at AIIMS in collaboration with the National Brain Research Centre in 2011.
- The objective of this national facility is to develop paradigms of epilepsy research and training in India.
- This center has all the modern gadgets such as a magnetoencephalogram (the first of its kind in India), advanced human electrophysiology, brain-mapping, cellular electrophysiology, and molecular research facility

Awards and Recognitions

- Prof. P.N. Tandon received Padma Shree (1973) , Padma Bhushan (1989), Padma Vibhushan (2005), B C Roy Award (1982), ICMR Award, Hari Om Ashram Award, and Dhanwantri Award. He has also been appointed as the 'National Research Professor' in 2014.
- Prof. V S Mehta received Padma Shree (2005).
- Prof. A K Mahapatra received B C Roy award in (2007) and UP Ratan Award (2007).
- Prof. B S Sharma received Dr. Shurveer Singh best scientist award (2010).

Statistical Data

- Number of faculty/residents/technical staff
  - Number of faculty : 18
  - Number of residents : 40
  - Number of Technical staff : 50
- Patient care (annual)
  - OPD :
    - 50,000 outpatients in neurosciences center
    - 1500 outpatients in Gamma Knife centre
    - 7000 outpatients in Trauma centre
  - Surgery
    - 3500 surgeries in neurosciences centre
    - 1500 trauma surgeries in JPNATC
    - 450 radiosurgery procedures at Gamma Knife centre
  - In patient
    - 180 beds including 60 for neurotrauma
- Teaching (till date)
  - Postgraduate : the department has trained over 200 neurosurgeons
- Research :
  - The department has published
    - over 50 books
    - over 700 research papers

Future vision

Establishment of 300 bedded, comprehensive neurosurgical centre at Jhajjar with separate facilities for every subspecialty of Neurosurgery.

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

NMR and MRI Facility

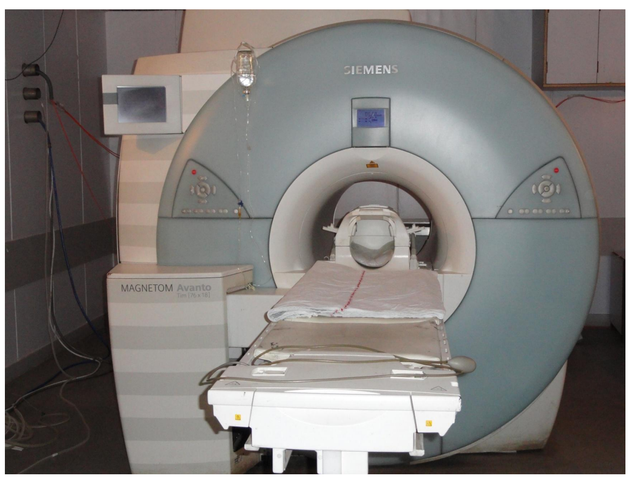
Year of Establishment : 1992

Prof. P Raghunathan, founding Head of the Department of NMR & MRI Facility at AIIMS
First clinical MRI and preclinical MRI national training and research facility since 1992

Patient Services

Two 3.0 Tesla MRI Scanner

One 1.5 Tesla MRI Scanner



7 Tesla Preclinical MRI

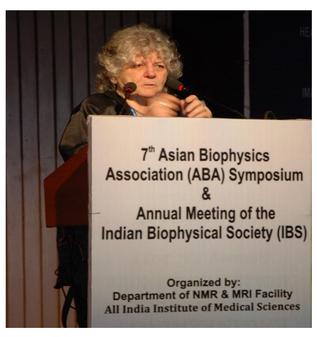
700 MHz NMR Spectrometer

Visit of Nobel Laureates

Prof. V. Ramakrishnan

Prof. Robert Huber

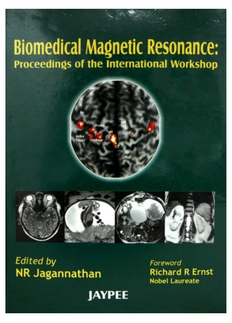
Prof. Richard Ernst



Prof. Ada Yonath

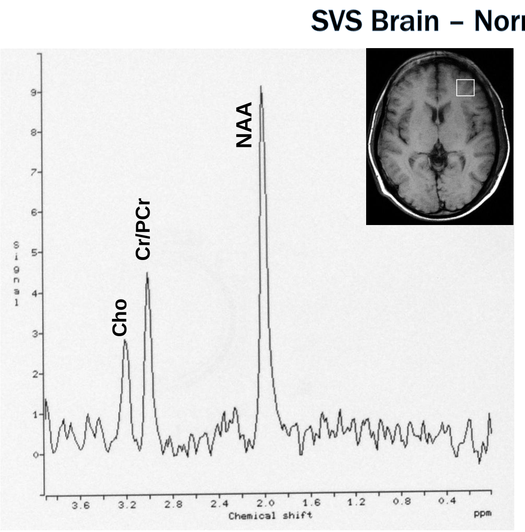
Awards and books

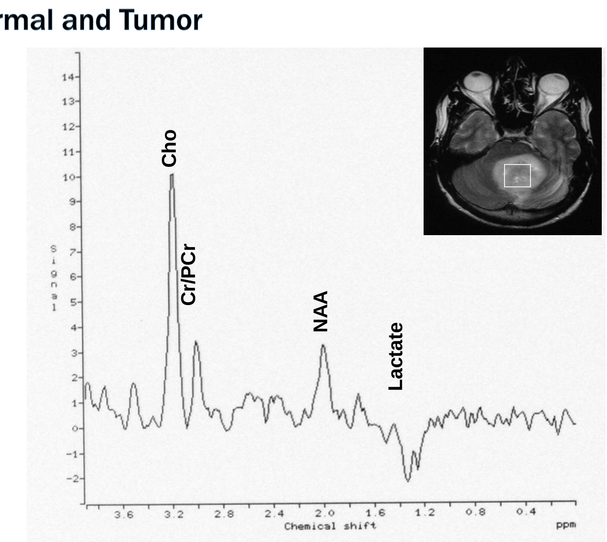
ICMR Award to Prof. N.R. Jagannathan



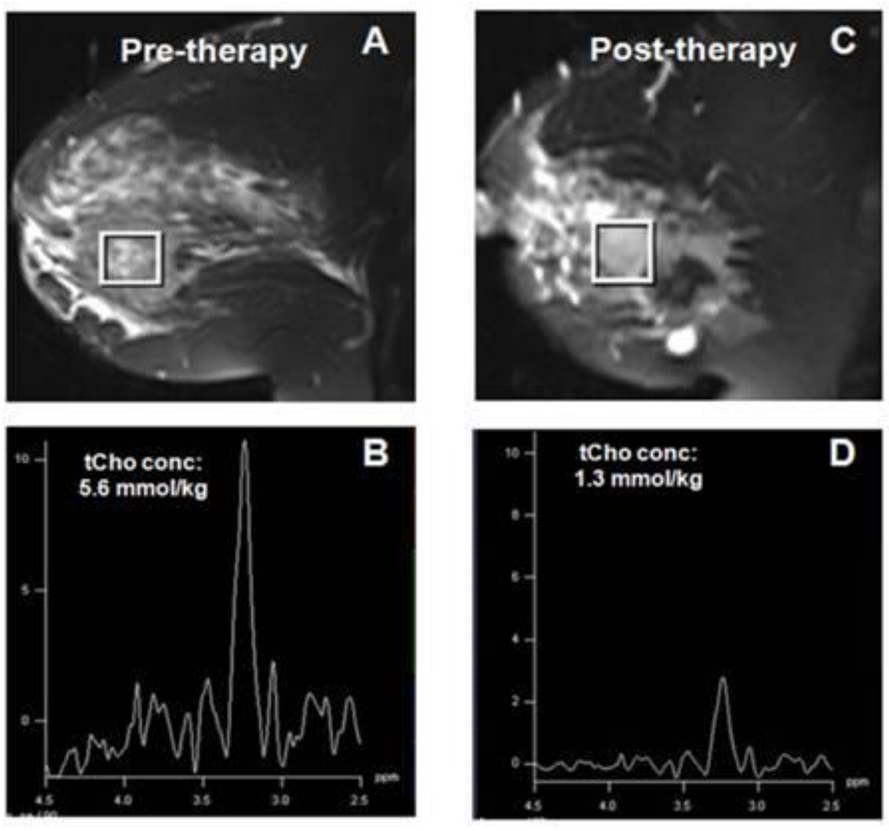
Research

SVS Brain – Normal and Tumor



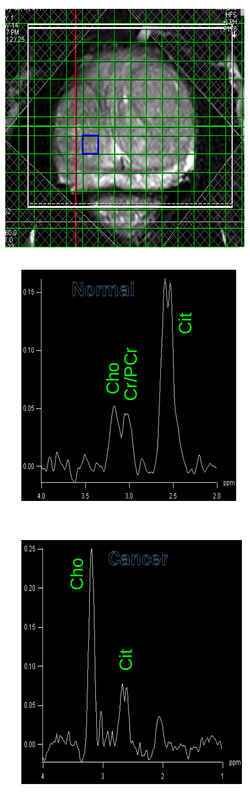


MRS Breast Cancer

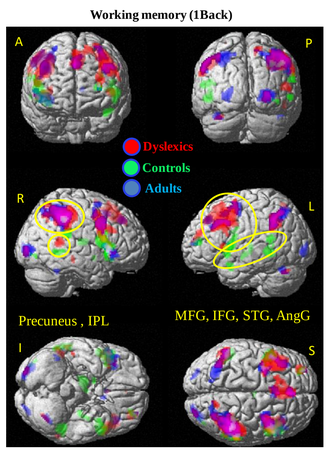


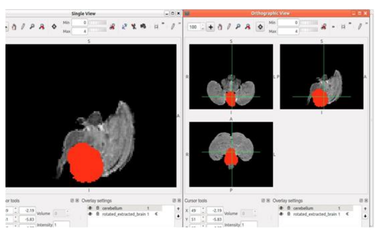
MRSI Brain

MRSI Prostate Cancer



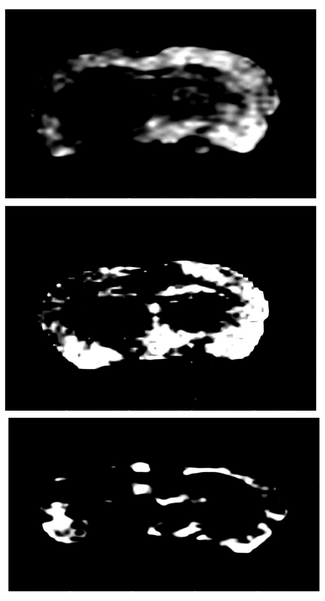
Memory assessment in Dyslexia





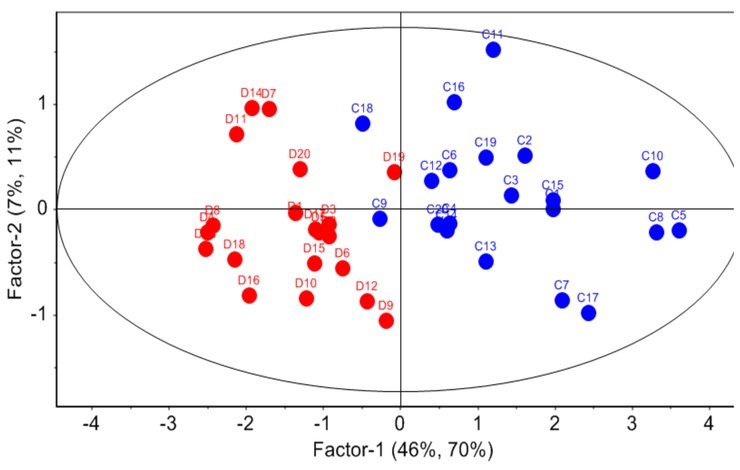
Neuro Cognitive evolution
Brain atlas of Crow in colloboration with NBRC

Preclinical Research

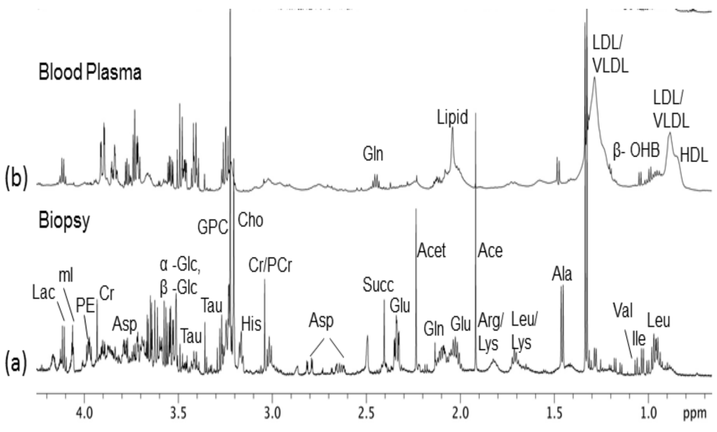


Evaluation of neuroprotective agents in rat model of acute ischemic stroke

Metabolomics



Multivariate Analysis plot showing the separation between patients with Celiac disease CeD (D,●) and healthy controls HC (C,●).



Proton NMR spectra of (a) intestinal mucosal biopsy, (b) blood plasma of a patient with Celiac Disease

OBSTETRICS AND GYNAECOLOGY

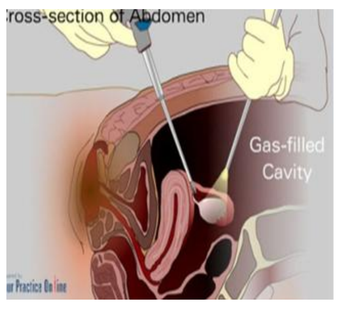
Year of Establishment : 1958

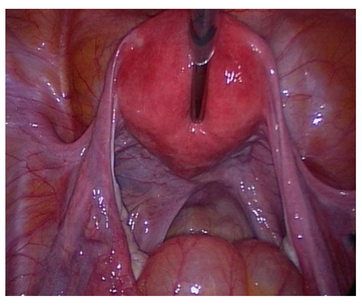
History

Head of Department

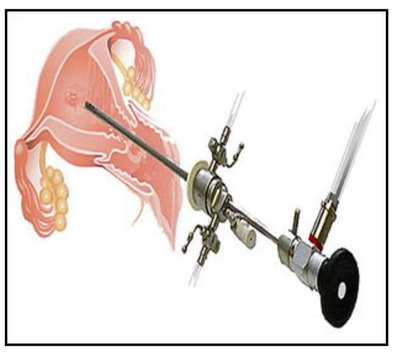
- Prof P K Malkani (1958-1974) -Founder member
- Prof Vera Hingorani (1974- 1986)-Honorary Gynaecologist and Obstetrician to then Indian prime minister, and also the former president of India.
- Prof Kamal Buckshee (1986-1998)- The first Indian Obstetrician and Gynaecologist to develop and standardize in utero Foetal Skin Biopsy technique, cordocentesis for fetal diagnosis and in utero blood transfusion, uterine balloon therapy in patient with Dysfunctional Uterine Bleeding.
- Prof D Takkar (1998 -2002) - Known for work in Operative laparoscopy
- Prof Suneeta Mittal (2002-2012) - Tremendous work in medical abortion and EC following which both were introduced in National Family Planning Programme.
- Prof Alka Kriplani (2012-Till date) - Established Operative Gynaecological endoscopy and minimally invasive operative approach including Robotic Surgery.

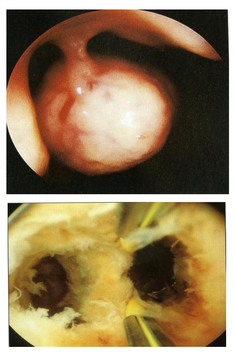
Pioneers in Minimal Invasive surgery



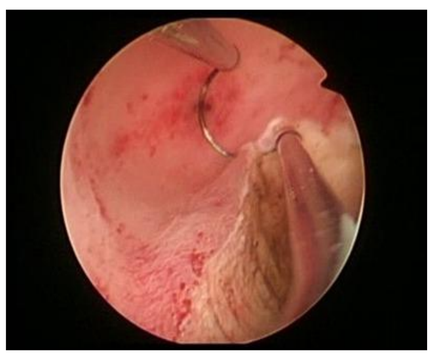


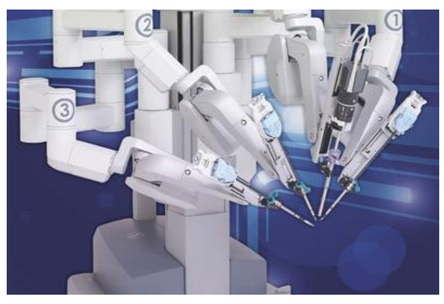
Laparoscopy





Hysteroscopy

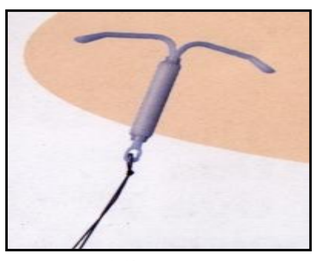




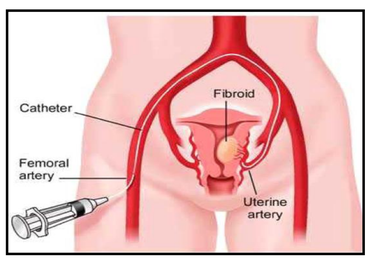
Skilled Surgeons in robotic approaches

Innovations

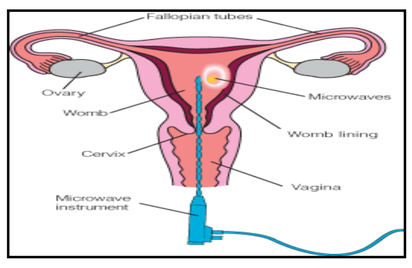
Management of Abnormal uterine bleeding



Mirena

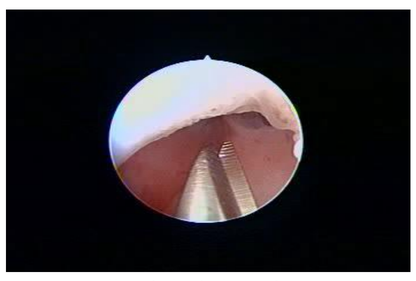


Endometrial Balloon Ablation



Uterine Artery Embolisation

Fertility enhancing hysteroscopic procedures

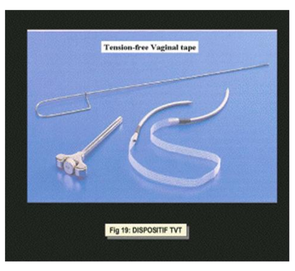


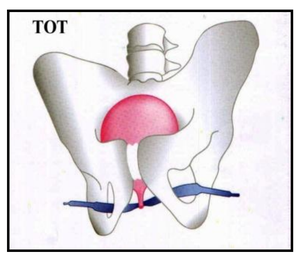
Adhesiolysis by scissor

Hysteroscopic Tubal Cannulation

Stress Urinary Incontinence Management

- Tension free tape and Tension free vaginal obtape is modern and scientific treatment of SUI with a high success rate (90-95%)
- Burch's colposuspension operation and medical management of urinary incontinences also offered to women





HPV Vaccination

- Intramuscular injection, total 3 doses given at 0, 1or 2 & 6 months preferably between 10 to 18 years of age
- Can prevent over 80% of cervical cancers

MIG workshop

Future Vision

- Reduce maternal mortality and to make the department an apex centre of patient care ,research and education in the country.
- Aim is to make the department a Centre of Excellence for training in various fields including MIS, Fetal medicine, Oncology, ART and other fields like Gynae Endocrinology.
- The proposed MCH centre will be a unique blend of knowledge and skills and a leading centre to provide prevention, promotion, treatment and management of all kinds of problems of mother and child.

Sub Specialties

Gynecological Endoscopy

- Using optical instruments specially designed to help diagnose and treat the most frequent female disorders and pathologies with minimal hospital stay and faster recovery

Gynecology Oncology

- Specialist care for women suffering from gynaecological cancer
- In Vitro Fertilization (IVF)

ART

- Living hope to many infertile couples at a subsidized cost

Fetal Medicine

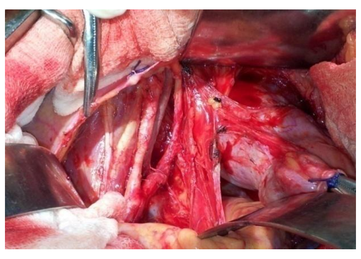
- Prevents birth of baby with physical and mental handicap

Urogynaecology

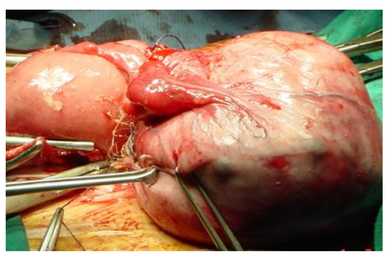
- Combines the best of two specialties, Urology and Gynecology and is designed to provide a complete approach to women's pelvic health

Leading Referral centre

Skilled Surgeries

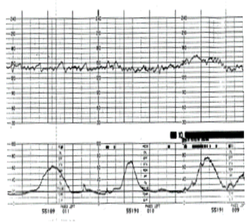


Wertheim's hysterectomy



Vaginal reconstructive surgeries

High Risk Pregnancy Care



NST Strip

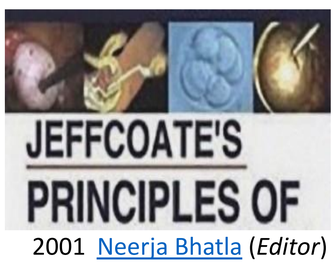
USG

- Special Care for Women With obstetrical, medical and surgical complications of pregnancy

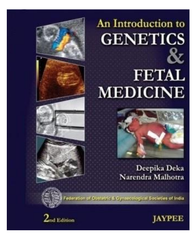
Statistics on patient care during 2015		
Clinic Type	New Patients	Old Patients
General	37152	72710
High Risk Pregnancy	2282	12764
Gynae Endocrine clinic	55	73
Gynae Cancer clinic	594	2864
IVF Clinic	886	3135
ANC	922	5135
Family welfare clinic	5108	3740

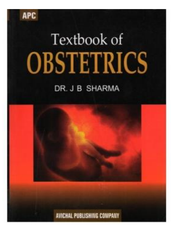
Achievement in the field of Obstetrics & Gynaecology during 2015	
Activities	No. of patients benefitted
Major surgeries	2440
Minor surgeries	3031
Caesarean deliveries	1239
Operative vaginal deliveries	121
Vaginal deliveries	1173
Obstetrics ultrasound	2589
Gynae ultrasound	13091
Family planning methods	
Cu.T	925
Oral pills	624
Female sterilization	814

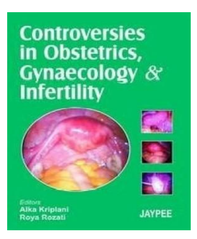
Publications and Research

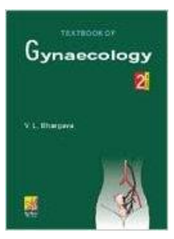


2001 Neerja Bhatla (*Editor*)







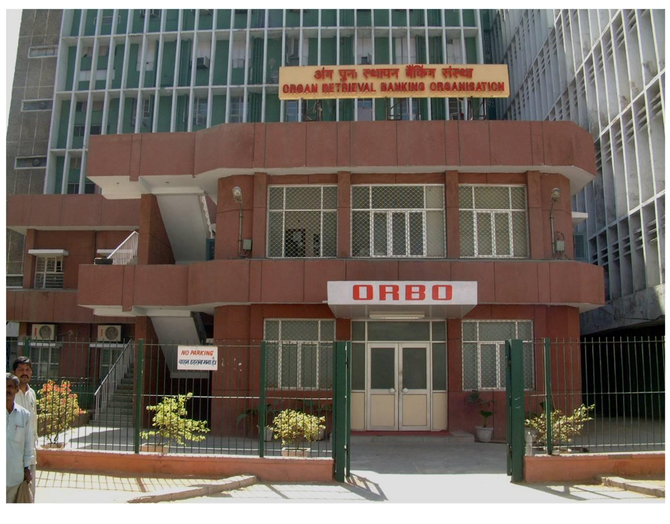


- Over 20 Books Edited, 1000 Papers, 100 Articles, 200 Chapters and more than 300 oral papers/posters
- Presented
- 2015
  - Papers 70
  - Article 06
  - Chapters 16
  - Others (presented papers/posters) 72
- Prof Sunesh Kumar is Peer Reviewer "European Journal of Obstetric, Gynaecology and Reproductive Medicine
- The Head of Department is Officer in Charge of WHO CCR in Human Reproduction and ICMR sponsored Human Reproduction Research Centre

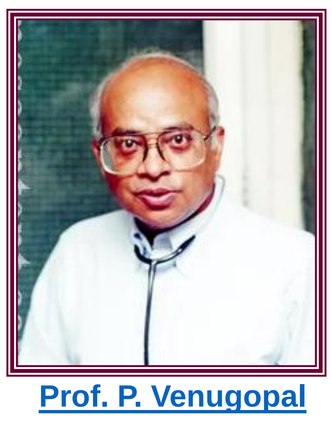
Teaching and Training

- MBBS and MD courses- since 1956
- Delhi Post Graduate Medical Education Forum (Department of Obstetrics and Gynaecology)organizes monthly meetings for postgraduate training since 2001
- The Department offers short term training in various super specialty subjects like 'Gynae Endoscopic Surgery', 'High Risk Pregnancy','Gynae Oncology' 'Ultrasonography' and 'Infertility'
- Organized 25 minimal invasive gynecology workshops under the women's health initiative
- Regularly organizing CMEs / Conferences on basic topics to recent advances to increase awareness and education of the health providers
- Fetal Medicine Fellowship- started from Jan, 2016

Six Decades of AIIMS



Organ Retrieval Banking Organization



Prof. P. Venugopal

Prof. Balram Airan

Prof. Aarti Vij

Founder Members
Year of Establishment : 2002

Achievements

- Established Ist Active Brain Death Donor Registry in Public Sector institution.
- Co-ordinated & organized First & Second Pancreas & Kidney transplantation in the country.
- Co-ordinated and organized First cadaver Split Liver Transplantation in country.
- Developed SOPs and Guidelines on various aspects of organ and tissue donation.
- Setup round the clock Helpline & exhaustive Website for public queries and efficient transplant coordination at any point of time.
- Brain Stem Death Certification Committee : Empanelled 100 Faculty members of AIIMS.
- First allocation of an Organ outside Delhi - Liver allocated to SGPGI, Lucknow.
- Developed training modules on Deceased Organ & Tissue Donation

Significant Facilities in patient care, education, research & others

ORBO maintains donor registry, coordinates the process of organ donation from procurement of organs to the transplantation, disseminates information to hospitals, organizations and individual creating awareness and undertakes training and research in the field of organ donation and transplantation.

Vision Statement

Encouraging organ & tissue donation, fair and equitable distribution and optimum utilisation of human organs & tissues

Statistical Data

a.	Number of Faculty, Residents, Technical Staff etc.	Faculty 1, Transplant Coordinator 3, Steno 1, DEO 2
b.	Patient Care (Annual)	
	Approx 250 – 300 Organs & Tissues (per year) Donation coordinated and transplanted into the terminally ill patients, giving them a new lease of life.	
c.	Teaching (Till date)	
i.	MBBS	Seminar on Brain Death and Organ Donation
ii.	Postgraduate	MHA, MSc.
iii.	Other Teaching Activities	
	1. In Service Education and Training of Nurses 2. Regular Training of Delhi Police Officer on Deceased Organ & Tissue Donation	
d.	Research (Till Date and in the year 2015-16)	
	Till Date 40 Nos. (2015-16 -: 03 Nos.)	

Future Vision

National Transplant & Training Centre

Research on Organ Donation & Transplantation

Other Information

- ORBO played Advisory Role in National Organ Transplant Programme under DGHS, Govt. of India
- ORBO contributed in Amendment of Transplantation of Human Organ Act - 1994

ORBO has Active Brain Death Donor Registry
Corneas, Kidneys, Heart, Liver, Lungs, Pancreas, Bones, Skin & Bone Marrow

24/7

Helpline: 1060 | **Web: orbo.org.in** | **Email: orboindia@yahoo.com**

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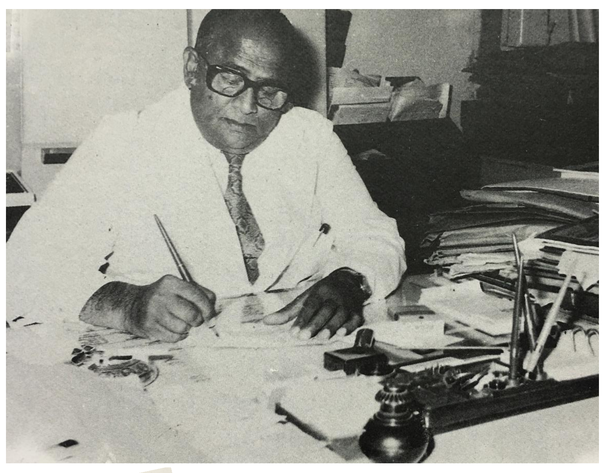
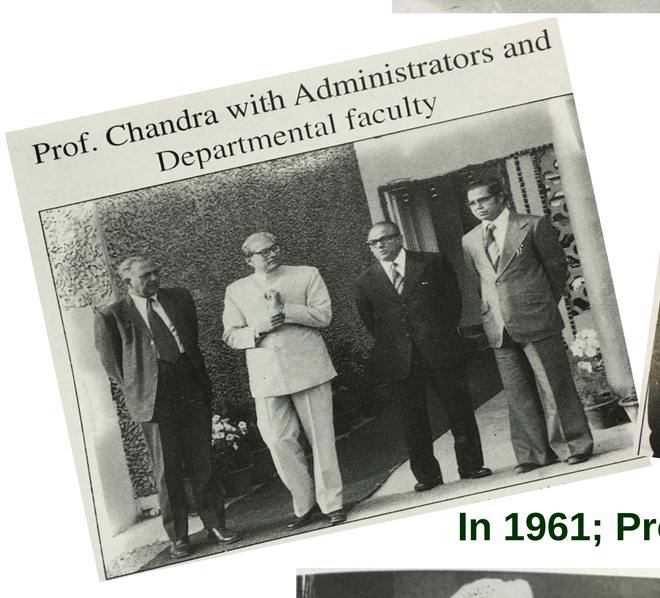
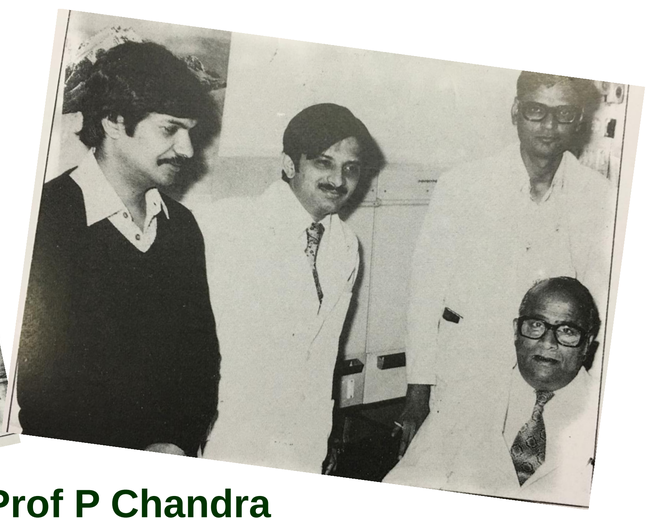
ORTHOPAEDICS

Year of Establishment: 1961

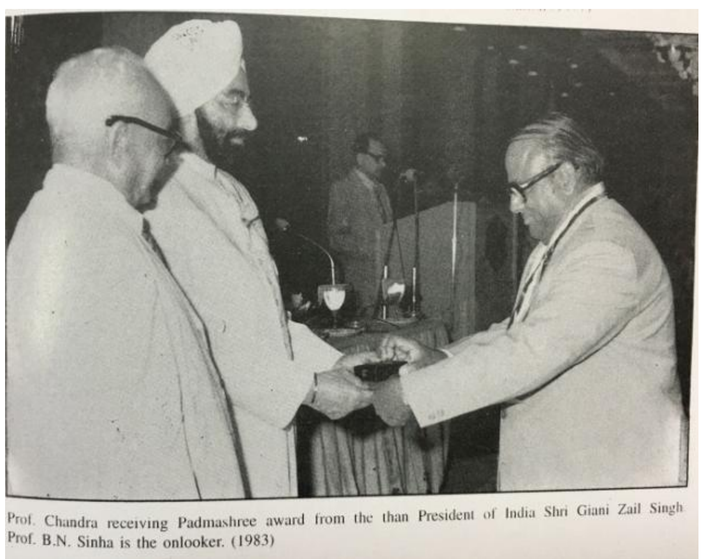
Founder Members and History



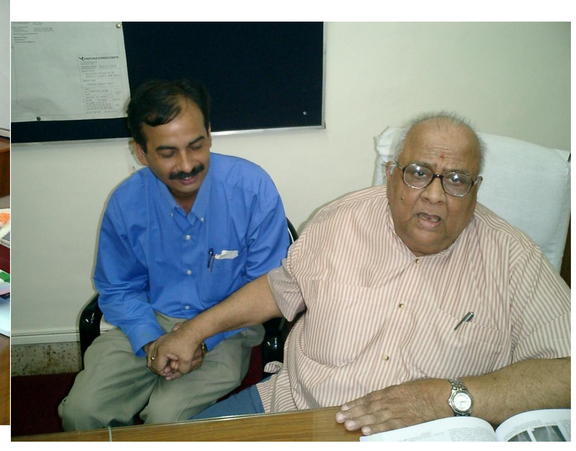




In 1961; Prof P Chandra



Prof. Chandra receiving Padmashree award from the than President of India Shri Giani Zail Singh Prof. B.N. Sinha is the onlooker. (1983)



Vision Statement

- The vision of the department is to take the practice, teaching and the research in the field to the highest pinnacle.
- High quality patient care provided with the state of the art infrastructure alongside the world class research and training remains the mission of the Department..

Biggest Achievements

- Rated as First Best Orthopedic Department in India for over a decade and best in all Sub-specialities in several surveys encompassing patient care, teaching and research
- Bone banking facility – The Institute is the only center in the country to have an indigenous Bone Banking with cadaveric bone allograft facility. The department is now the pioneer in complex reconstruction surgeries using allografts
- Spinal deformity correction and osteotomies- The department is leader in this part of the world in the surgical treatment of complex spinal ailments
- The department is the leader in the field of joint replacement surgeries in terms of the volume, complexities of replacement and use of the most modern technologies. The department was first to introduce many new technologies pertaining to joint replacement in India, including Navigated Hip replacement, RSA technologies etc.
- The department is the leader in orthopedic oncosurgery and has to its credit, largest number of limb salvage procedures and Pelvic tumor surgeries
- The department has a reputation of being the provider of world class trauma care through the JPN Trauma Centre, the Apex Tertiary Care Centre, one of its kind

Significant Facilities in Patient Care/ Education/ Research/Others

- Bone Banking Facility – The Institute is the only center in the country to have an indigenous Bone Banking with cadaveric bone allograft facility.
- 3D printing facility
- State of the art Physiotherapy facility
- Hydrotherapy facility
- An upcoming Gait Lab facility

Any Other Information

A. Social Service and public Health

- Health Camps at Leh and Ladakh, Agartala, Ranchi, Ratlam, Muzzafarpur, Sitamani
- Mobile health Service including health service on Hospital on wheel (Life Line Express)
- Public lectures on Various topics

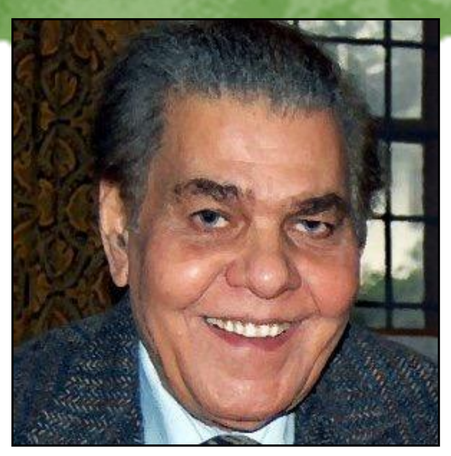
Future Vision

- The department aims to remain the leader in medical education by upgrading the facilities for hands on "Bioskills" training. Embracing new technologies such as PACS, Robotic Surgeries, Radiosteriometric analysis, Biomechanics laboratory armed with Finite Element Analysis facility, Interactive teaching and training modules including wet and dry lab and haptic devices will revolutionize the patient care, research and teaching.
- It is imperative that a Centre for Advanced Orthopaedic Surgery is sanctioned for achieving world class excellence in patient care, training and research.

FOR LAST > 10 YEARS OUR DEPARTMENT REMAINS BEST IN THE COUNTRY

Paediatric Surgery

Year of Establishment : 1971



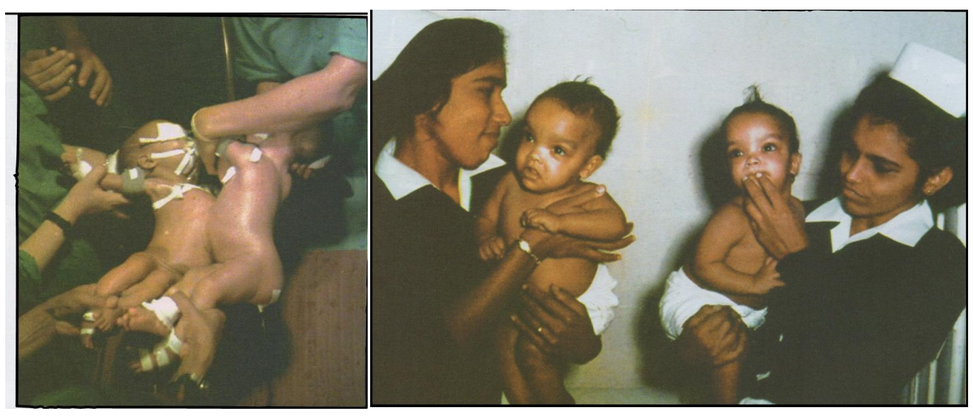
Founder :
Prof. Purushottam Upadhyaya

Vision Statement

To offer the best possible care to the surgical neonate and child, train the teachers, students and nurses in the field of Pediatric Surgery and conduct need based research in the specialty under ethical and scientific guidelines

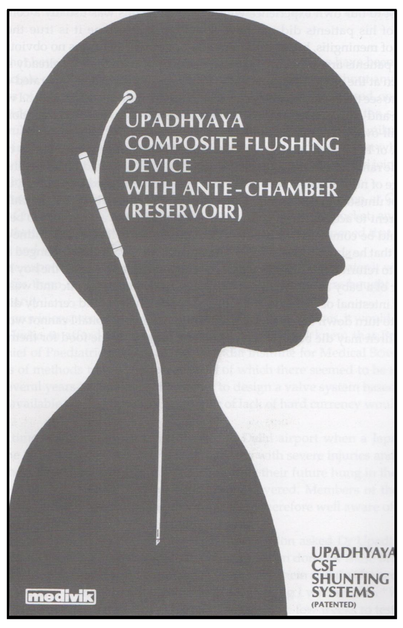
To establish guidelines on common problem related to tumors, malformations and trauma in children.

To serve as a role model and remain as a leader in the specialty for ideal and quality pediatric surgical care, teaching and research.



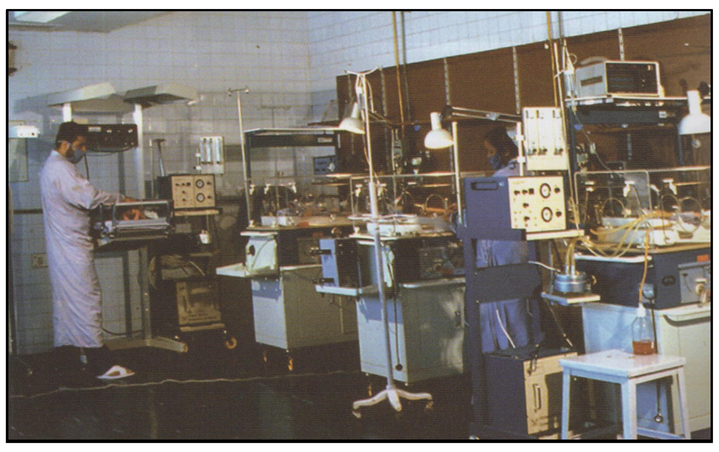
First successful separation of conjoined twins (Siamese twins) in India.

Dr DK Gupta was invited as one of the international guest faculty to participate in the workshop to modify classification and results in Anorectal malformations held in Kricenbeck, Germany 2005



A low cost, easy to work with and time tested device that has been used on more than 2,50,000 children in India and abroad.
National Research Development Corporation Award of the Govt. of India for inventing the 'Upadhyaya Shunt Valve' for Hydrocephalus (1974)

Achievements



- In 1975, the first modern neonatal surgical ICU, in India, was established at the AIIMS.
- It has remained as a model for others to emulate.
- Currently (on the right)the ICU is a state of the art 10 bedded surgical ICU that provides critical care to these paediatric surgical neonates.

Statistical Data (Till may 2016)

Number of Faculty, Residents, technical staff etc.

Head of the Department: Prof DK Gupta

Number of faculty	:10
Residents	:15
Technical staff	: 9

Patient care (annual)

I. OPD (including CRHSP, Ballabgarh) : 30000
II. Surgery (including CRHSP, Ballabgarh): 2500
III. In patient: 2000 (approx)

Teaching (till date)

I. Postgraduate (MCh) : 105
II. Ph.D. iv. Other Teaching activities : 3

Publications

I. Books : 11
II. Articles : 630
III. Chapters :199

Awards

1. Prof DK Gupta, the present HOD, has been invited to deliver the **Key Note Address at the Parliament Hill**, Govt. of Canada, Ottawa, October 2014.
2. Prof. DK Gupta has been the **Vice Chancellor** of King George's Medical University, Lucknow, UP for three years, 2011-14.
3. Prof. DK Gupta has been elected unanimously as the **President** of apex body in the World in Pediatric Surgery- World Federation of Associations of Pediatric Surgeons, 2014-16.
4. Alumni of this department:Dr. S.Chooramani (2011),Dr SN Kureel(2016) & Dr N Yarlagadda (2016) have been bestowed with the Padmashree award

Future Vision

- To develop an advanced pediatric surgical centre with 120 surgical beds and the Neonatal surgical ICU, in close proximity to the centre for mother and child, so as to develop various subspecialties in pediatric surgery.
- Expansion of infrastructure, bed strength, faculty and residents to offer state -of- the art advanced pediatric surgical care in various sub-specialties to treat neonates, infants and children from birth upto 14 or even 18 year of age, with a transitional specialty in National Children Hospital at Jhajhar.
- To expand neonatal surgical services with 20 beds exclusively for surgical neonates and an additional 20 beds for high care areas for critically sick children.
- To develop experimental laboratory with thrust to molecular biological research, stem cell research and tissue engineering research related to various congenital malformations, tumours, and trauma in pediatrics age group.
- To develop transplant facilities related to liver, kidney and intestine for various life threatening diseases in pediatrics age group.
- Apart from continuing MCh training program, the department is planning to start two year post MCh fellowship programs in neonatal surgery, urology, oncology and GI surgery, so as to train the teachers who would develop sub-speciality in various corners of the country and improve the patient care for the masses.
- To make the department of paediatric surgery at AIIMS as the centre of excellence to provide observership/training to overseas faculty and fellows in pediatric surgery not only from developing but also from developed world.

PATHOLOGY

Year of Establishment : 1957

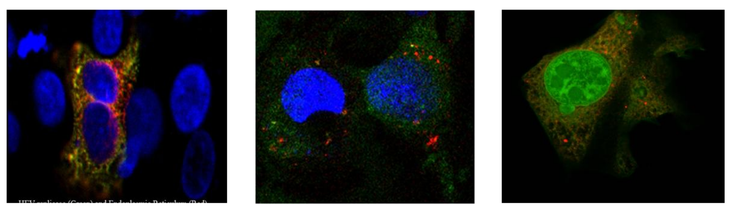
Founder Members and History

- With the establishment of A.I.I.M.S as a centre of excellence for medical research, education and patient care, a need was felt to develop pathology department to complement the clinical and basic research
- 1957 : The nucleus was created and department of pathology was started by Dr. V. Ramalingaswami
- 1957-1980: Several eminent colleagues like Drs H. D. Tandon, M.G. Deo, , N. C. Nayak and S. K. Sood joined Dr. V. Ramalingaswami as members of his team and developed a school of excellence in pathology
- Initially working from make shift laboratories, the research contributions from this department started attracting national and international attention
- Since then the department of pathology has always been in the forefront in the areas of research, diagnosis and academic activities
- An array of brilliant students from this department (too many to be enumerated here), has spread the name and fame of A.I.I.M.S throughout the world
- Departments of laboratory medicine, hematology and transfusion medicine at A.I.I.M.S are offshoots from the pathology department

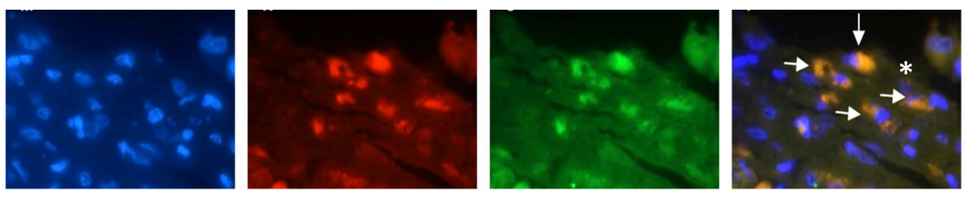
Best Achievements

- **Dr. V. Ramalingaswami** was one of the most eminent and well-known medical scientist from India. During an active research carrier spanning over four decades, he carried out pioneering studies on the pathology of nutritional deficiencies including protein calorie malnutrition, Iodine and vitamin A and D deficiency and the science that involved the damage at cellular and organ level. His exemplary work on Iodine deficiency paved way for the recognition of goitre as a national problem and development of effective counteractive measures culminated in the National Goitre Control Programme through iodinization of common salt
- **Dr. N.C. Nayak's** contributions to research are extensive and include demonstrating the role of hepatitis B in pathogenesis of hepatocellular carcinoma. He was also involved in definition, nomenclature, and classification of cirrhosis and pulmonary tuberculosis in collaboration with World Health Organization.
- **Dr. Meera Mathur** is credited with describing different stages of carcinogenesis of hepatocellular carcinoma at cellular level
- **Dr. S. K. Panda** Over a research career spanning the last twenty five years, Dr. S.K. Panda has worked extensively on epidemiology to biology of hepatitis E virus apart from other exemplary works on hepatitis B, C and G viruses
- **Dr. Chitra Sarkar** has introduced molecular pathology for localization of various oncogenes and tumor suppression gene proteins in brain tumors. The specialty has now built up as one of the best service, research and referral centers for neuropathology in India
- One of the most famous and well read books in pathology (Robbins) is co authored by alumni from this department **(Dr. Vinay Kumar)**
- In addition there have been significant contributions in the field of Nano pathology and Renal pathology by **Dr. A.K. Dinda** and in Muscle pathology by **Dr. M.C. Sharma**

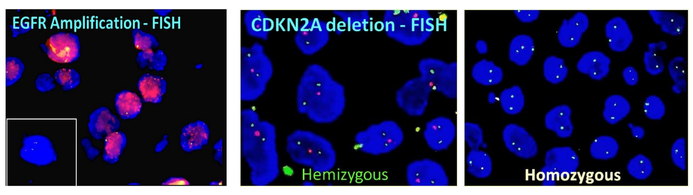
Use of Confocal microscopy in deciphering Hepatitis E Virus and Hepatitis B virus biology



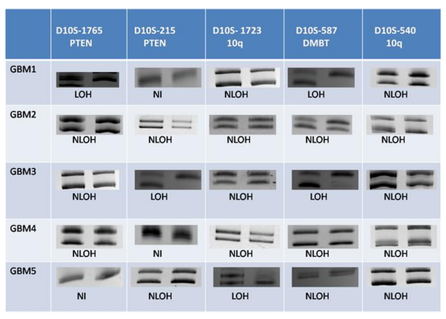
Dual Immunofluorescent staining for HEV and HBV proteins in liver biopsies of HEV + HBV infected patients



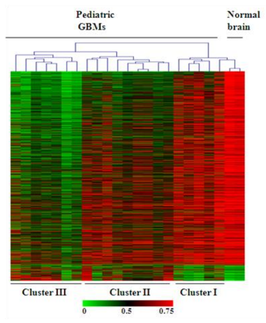
Neuropathology – Molecular diagnostics



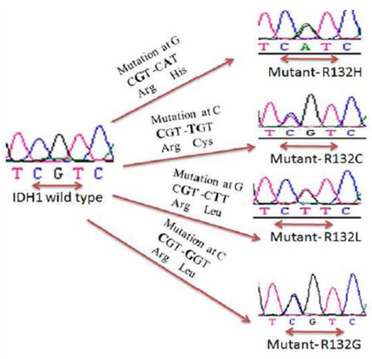
PCR with microsatellite markers on DNA from blood and tumor



Genome Wide Methylation Profiling



Sequencing



Contribution of the Department to Public Health Policy

- Novel research on nutritional pathology was instrumental in the defining the national policies for control of nutritional deficiencies like Kwashiorkor and other protein malnutrition related disorders
- Research demonstrating relationship of Goiter to Iodine deficiency led to introduction of Iodized salt in National Goitre Control Programme
- Research on leprosy immunology paved way for leprosy eradication program
- The Hepatitis B Vaccination program is based on work done by Dr. N. C. Nayak and Dr. S.K. Panda
- Blood bank screening for Hepatitis C Virus was introduced based on work done by Dr. S.K. Panda
- Plague diagnosis and characterization was provided by Dept of pathology under the directions from Dr. V. Ramalingaswamy

International collaborations of the Department

- Indo UK programme on viral Hepatitis
- Indo US vaccination programme on viral Hepatitis E
- Indo USSR ILTP programme on Anti Hepatitis DNA virus Drug screening
- Indo German collaborative program on Liver Cancer
- Indo US Program on Leprosy

Vision statement

Pathology department was established to create a center for advanced scientific research with its translation to patient care and in the process training the best for mankind

Services

Molecular Pathology

- This laboratory is being looked after by Dr. S.K.Panda (Current head of department)
- His main area of interest is molecular pathology of hepatitis viruses and his work on the same has many firsts to it including
  - First group to study the transmission pattern of Hepatitis B virus including mother to child transmission to help develop policy on HBV vaccination in India
  - Developed HCV diagnostics and studied its requirement in our blood bank system leading to introduction of HCV testing in blood banks
  - First group to detect Hepatitis G virus infection in India and genotype its strains
  - Developed the first Rhesus monkey model for enteric Hepatitis E virus (HEV) which has enabled HEV research in many developing countries
  - The first group to produce an infectious cDNA clone of HEV and demonstrate that culture supernatant of cells transfected with the full-length virus transcript is infectious to experimental animals

Patents

- Infectious cDNA clone of hepatitis E virus (HEV) genome, its production and uses {EP 1169341}
- Peptide Showing Cross-Reactivity with the Anti-Hepatitis B Surface Antigen Antiserum {EP 0662085}

Surgical Pathology

- This section is under Dr. S. Datta Gupta , Dr. M.C. Sharma and Dr. P. Das
- More than 45,0000 specimens are processed every year including special stains and frozen section examination

Neuropathology

- Neuropathology division was started by Dr. S. Roy and is currently under Dr. C . Sarkar
- The diagnostic immunohistochemistry facilities have complete panel of neuronal, glial and neuroendocrine markers
- A special diagnostic facility for muscle has been established where in all muscle biopsies are completely evaluated using enzyme histochemistry and immunohistochemical staining for the various muscle proteins

Dermatopathology

- This division was started by Dr Manoj Singh in 1986
- First and for a long time the only dermatopathology division in the country
- Teaching and collaborative efforts from this division have resulted in the Delhi Dermatopathology Forum and Dermatopathology Society of India

Renal Pathology

- Renal Pathology was started by Dr. UN Bhuyan and currently the laboratory is being looked after by Dr. A K Dinda.
- He has been actively involved in developing simple diagnostic techniques for early detection of renal diseases and their progression
- This division is credited with establishing immunofluorescence examination on kidney biopsies

Cardiac Pathology

- This section was started by Dr Prem Chopra and presently Dr. Ruma Ray is looking after the lab
- Cardiac pathology deals with a variety of specimens including aortic aneurysms, cardiac tumor, explanted native hearts, pericardiectomy specimens, endomyocardial biopsies etc.
- It also has a crucial role in autopsied cases of congenital heart diseases and offers diagnosis in post cardiac transplant surveillance biopsies

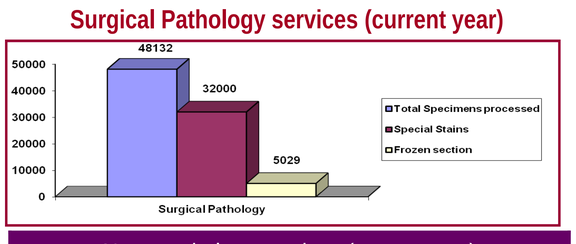
Gastrointestinal and Liver Pathology

- This section is under Dr. S.K. Panda and Dr. S. Datta Gupta
- The significant descriptions of pathology of Indian childhood cirrhosis and NCPF are from this division
- Deals with variety of gastrointestinal specimens and actively involved in research activities of the same

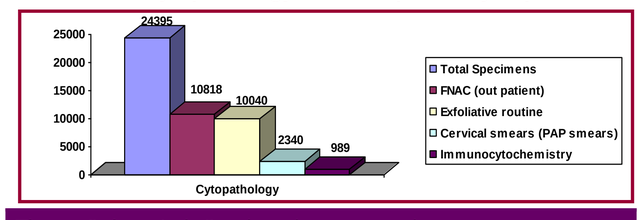
Cytopathology

- This laboratory was started by Dr. P.K. Gupta, later on Dr. Kusum Verma established FNAC and currently this division under Dr. V.K. Iyer and Dr. S. Mathur
- Over 20,000 specimens are processed annually, including equal numbers of fine needle aspiration cytology and exfoliative cytology specimens, Ultrasound guided aspirates are done with on-site immediate assessment by the pathologist.

Surgical Pathology services (current year)



Cytopathology services (current year)



Neuropathology services (current year)		
Surgical specimens		2789
Frozen section		271
Imuunihistochemistry	Routine	8549
	Research	1103
	Muscle Biopsy	2870
Muscle enzyme histochemistry		1230
Muscle immunohistochemistry		95
Diagnostic FISH		54

Tissue Culture Lab Services (current year)	
H&E Staining	7391
Special Stains	903
Immunohistochemistry	3429
Frozen Sections	5029
Unstained	2812
Coated slices	19961

Renal pathology services (current year)	
Urine sediment analysis	1714
Immunofluorescence of kidney biopsy	716
Electron microscopy of kidney biopsy	666

Other services	
Autopsies performed	29
Electron microscopy specimens processed	1432
Immunohistochemistry Diagnostic Research	39931 1283

Cardiac Pathology Services (current year)		
Specimens	Routine	403
	Research	125
Others works	Immunohistochemistry	271
	H&E stains	147
	Manual processing: post cardiac transplant biopsies	11

Pathology Teaching (current year)

- MBBS : 75 per batch
- Postgraduate : 21 (current year)
- Ph.D : 8 (current year)
- Other Teaching activities : Short term trainings to numerous students coming from other institutions

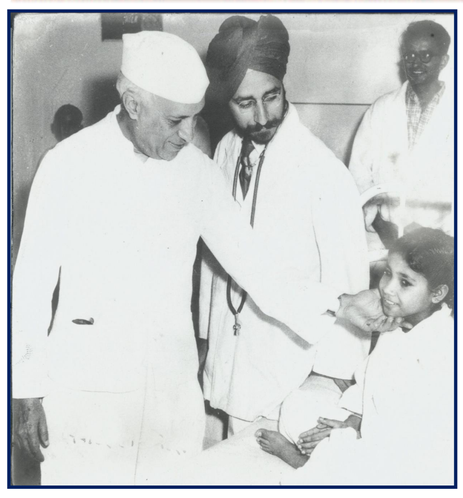
Pathology Research (current year)

- Papers (published) : 218
- Papers (presented) : 58
- Articles (published) : 11
- Chapters (published) : 6

Designed and Printed at K L Wig CMET, AIIMS, New Delhi

PAEDIATRICS

Year of Establishment : 1960



First day, first Prime Minister

Prime Minister Nehru at the inauguration of the Children's Ward on the 3rd floor of the Nursing Hostel – the then AIIMS hospital, January 1960

Vision

Our vision is to be one of the ten best academic centres of Pediatrics in the world before 2020

Mission

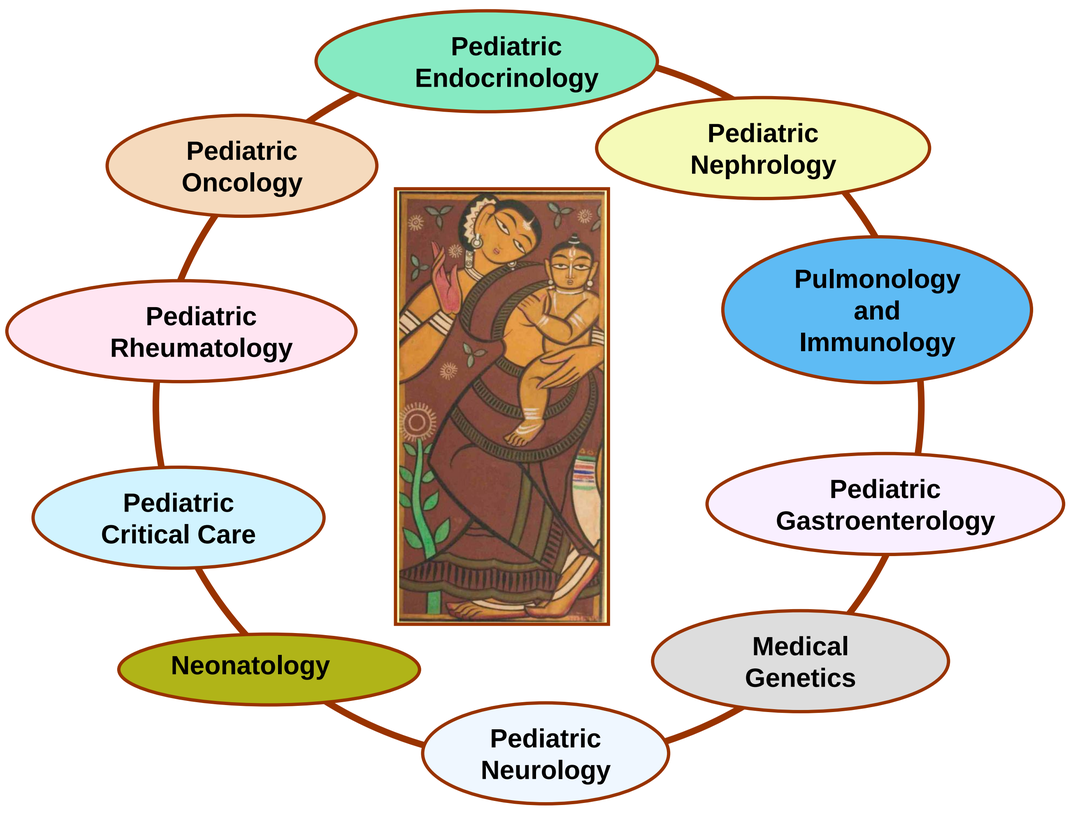
Our mission is to improve the health of children through world-class excellence in:

- Education. Imparting knowledge, skills and competencies in child health to diverse providers;
- Patient care. Ensuring specialty-based, evidence-based, equity-driven and state-of-the-art pediatric care;
- Research. Creating and translating knowledge to improve child health at individual and population level;
- Innovation. Innovating solutions and harnessing novel technologies to preserve, protect and restore child health; and
- Policy assistance. Extending technical assistance for child health policy and program to government and other stakeholders

Core values

- Accountability
- Enabling mentorship
- Child friendliness
- Partnering and team spirit
- Good governance
- Fraternal ethos

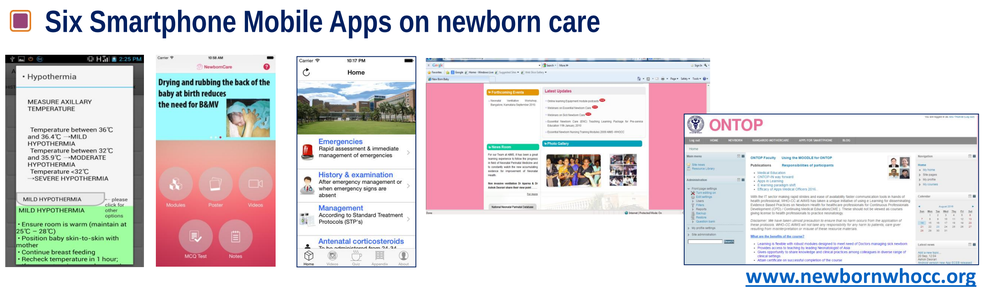
A Department of 10 subspecialties



Popular Books and Learning Resources

Innovations in Education

- e-learning platform OnToP trained over 3000 doctors and nurses in 8 countries
- Six Smartphone Mobile Apps on newborn care



www.newbornwhocc.org

Our Leaders

- Late Dr. P. N. Taneja — Father of Pediatrics, Teacher of Teachers — Head: 1960-62
- Late Dr. O. P. Ghai — Visionary, Father of Super-specialties in Pediatrics — Head: 1962-89
- Dr. B. N. S. Walia — Child Health Statesman, Institution-builder
- Dr Meharban Singh — Neonatology — Head: 1989-97
- Dr Vimlesh Seth — Pediatric Immunology & Tuberculosis — Head: 1997-2001
- Dr Veena Kalra — Pediatric Neurology — Head: 2001-08

Our Pioneers

- Late Dr. Seeta Sinclair : Child Development
- Dr. Ishwar C Verma : Medical Genetics
- Dr. R N S Srivastava : Pediatric Nephrology
- Dr. A Chetty : Pediatric Pulmonology
- Dr. M K Bhan : Pediatric Public Health
- Late Dr. L S Arya : Pediatric Oncology
- Dr. P S N Menon : Pediatric Endocrinology
- Dr. N K Arora : Pediatric Gastroenterology & Hepatology

Distinctions

- Only Department running 4 DM courses
- Two WHO Collaborating Centres (Newborn Health and Medical Genetics)
- Largest PhD programme for a clinical department
- Consistently rated as nation's best Pediatrics Department every year by 'The Week' since 2007
- Awarded CNBC TV 18 best specialty Department in the country 2011
- Over 100 research papers each year – often the highest for any Department

Pathbreaking Research

- Epidemiology of childhood typhoid fever
- Scalable management of persistent diarrhoea
- AMR in neonatal sepsis
- Pediatric treatment regimens for tuberculosis
- Profile of cystic fibrosis in India
- Fluid balance in children on critical life support
- Ketogenic diet in intractable epilepsy
- Fragile X syndrome
- Body composition in children born small for gestational age (SGA)
- Newer variant of Hemolytic Uremic Syndrome (HUS)
- Risk factors for survival in acute lymphoblastic leukaemia

Unique Products

Drugs

Low osmolality ORS — Rotavirus vaccine — Goat lung surfactant extract

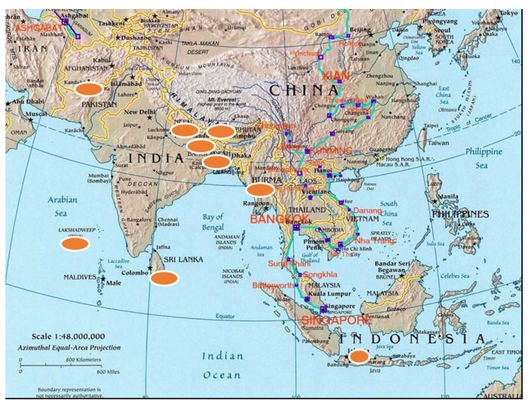
Diagnostics

Celiac disease rapid diagnostic — Sweat chloride test

National Programs

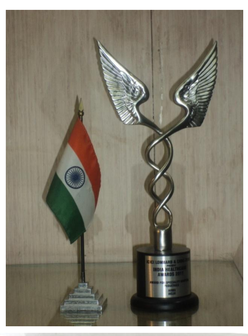
Various roles in national programs: research, policy, program design, training, evaluation

- Diarrheal Disease Control Program: research, program design
- Integrated Management of Neonatal and Child Illness: Design
- Immunization program
- Pediatric TB, HIV
- ARI control program
- Rashtriya Bal Swasthya Karyakram
- Integrated Child Development Services
- Home based Newborn Care
- Facility based Newborn Care
- Navjat Shishu Suraksha Karyakram
- National Guidelines: KMS, Vitamin K, Antenatal steroids



Impact on public health in the country and beyond

World Health Organization



Visit of Mrs Jacqueline Kennedy to Children's Ward 1962

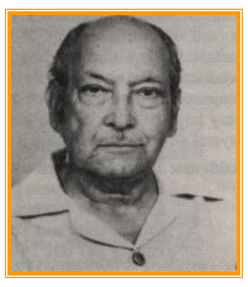
Pharmacology

Year of Establishment- 1956

Vision Statement

To be a Centre of Excellence and key opinion leader in teaching, research, and practices and policies related to medicine in India

Heads of Department


Dr. R B Arora
Founder & Head

Dr. N K Bhide

Dr. S D Seth

Dr. S K Gupta

Dr. Y K Gupta

Achievements

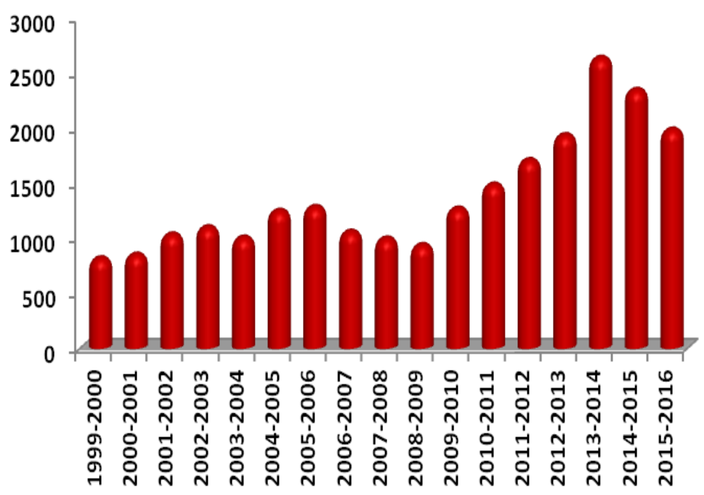
National Poisons Information Centre (NPIC)

Provides information on management of various poisonings

Round-the-clock (24 X 7)

Toll free no. 1800116117

26589391, 26593677



Number of calls in NPIC (1999 – 2016)

Adverse Drug Reaction (ADR) Monitoring Centre

- Pharmacovigilance programme of India in 2010
- Pharmacology Department is National Scientific Co-ordinating Centre
- More than 20 Workshops organized to create awareness on ADR reporting and training of different stakeholders
- **AIIMS has reported more than 3500 ADR reports since 2011**

CReATE Centre

- Establishment of Clinical Research Advancement Towards Excellence (CReATE) Centre in 2013
- CReATE application in AIIMS (All India Institute of Medical Sciences) is a reporting tool for Ethics Committee to record, analyse, report, track and submit the Serious Adverse Events to Indian Regulatory Authorities

Metal Analysis by

Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)

12,000 samples analyzed for the detection of heavy metals and trace metals

Hg, Cd, Pb, As, Cu, Zn, Fe, Mg, Mn, Cr, Co, Ni, Au, Al, Se, Pt

Therapeutic Drug Monitoring (TDM)

Drugs commonly estimated

Anti-epileptics
Anti-tubercular
Anticancer
Immunosuppressants

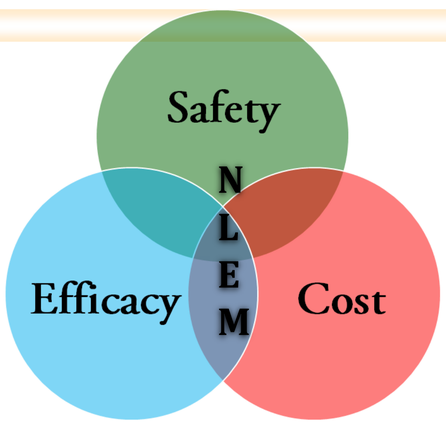
Role in National Policies

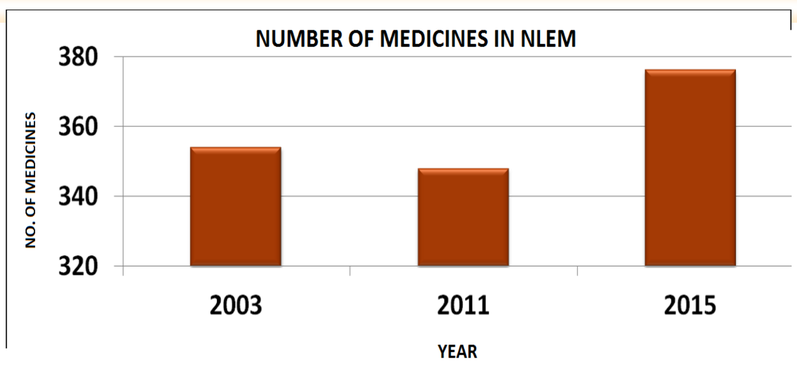
National List of Essential Medicines

Essential medicines- Satisfy the priority healthcare needs of majority of the population

Primary Purpose- promote rational use of medicines considering efficacy, safety and cost.

NLEM 2011 and 2015 were prepared by the Department of Pharmacology, AIIMS under the chairmanship of Dr YK Gupta

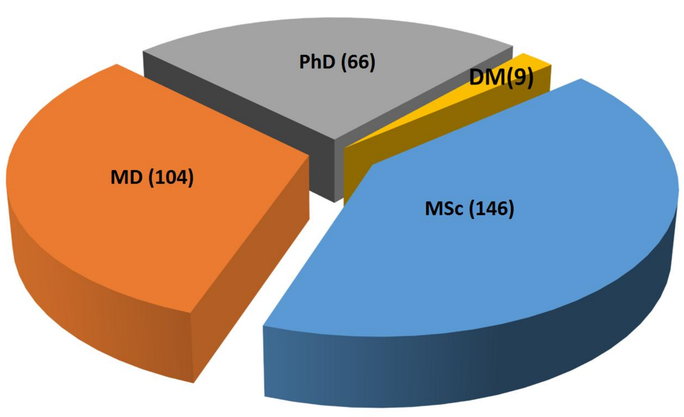




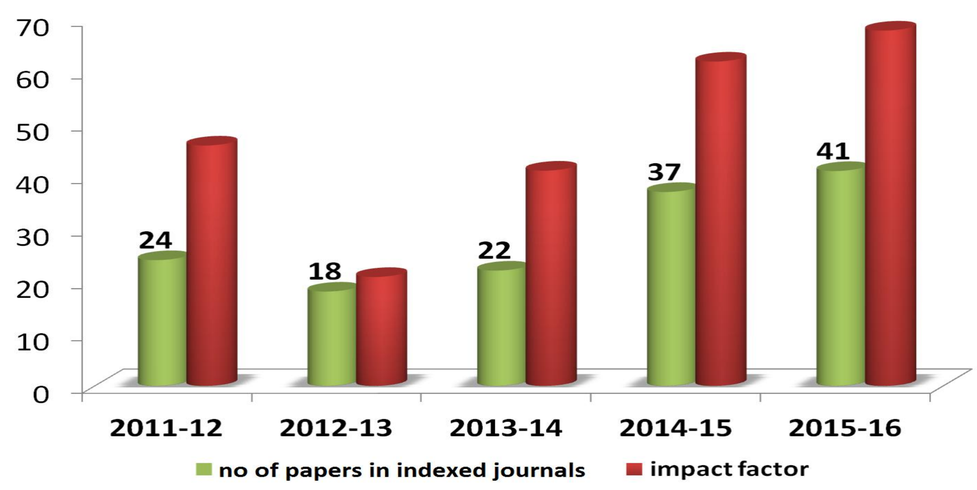
- Rationality of Fixed Dose Combinations
- Clinical Trial Regulation
- Ethical Use of Animals in Research
- Environmental Pollutants

Courses Offered

(No. of students passed)



Publications



Important Animal Models Developed

- Model for Middle Cerebral Artery Occlusion (MCAo) for Stroke
- Model for Drug-Resistant Seizures
- Model for Alzheimer's Disease
- Model for Ischemia Reperfusion Injury for MI

Future Vision

- Computer Assisted Learning
- Replacement of Animal Models by *in vitro* Testing Models
- Pharmacogenomics
- Pharmacoeconomic Studies
- National Drug Development Centre

Designed and Printed at K L Wig CMET, AIIMS, New Delhi

Physiology

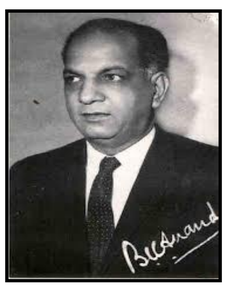
Year of Establishment- 1965

History

FACULTY of
The All India Institute of Medical Sciences
at the Farewell given to Dean,
Professor B. K. Anand

Department of Physiology was established and developed by eminent neurophysiologist Prof. Bal Krishan Anand in 1956. The first batch of MBBS students were admitted in 1956. First MD students(1959) were Dr Pritam Kaur Gill and Dr Sushil Dua while first PhD student(1965) was Dr. R. Vijayan Pillai. During the golden period of department (1956-1975), department attracted many national and international researchers and students which included Dr SK Dua, Dr GS Chhina, Dr KN Sharma, Dr SK Manchanda, Dr T Desiraju, Dr Usha Nayar, Dr Yutaka Oomura to name few. First scientific investigation in the world on yoga and meditation was started by Dr Anand and Dr Chhina in the department in 1961.

Dr. G.S. Chhina (extreme left) with first Prime Minister Pandit Jawahar Lal Nehru, when he visited the Department of Physiology, AIIMS.Dr. (Mrs.) S. Dua Sharma, Dr. A.S. Paintal and Dr. A.P. Sharma are accompanying them.

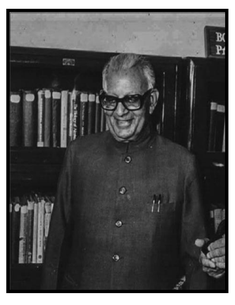


Prof. B.K. Anand (1917-2007)

After completing his pioneering research in the USA on the role of Hypothalamus in the feeding behavior of rat in 1952, he came back to India to establish and lead the Department of Physiology from 1956 till 1974. He was awarded Shanti Swarup Bhatnagar Prize for Science and Technology in 1963 and *Padma Shri* in 1969 for his meritorious contributions.

Prof. G S Chhina (1926–2011)

He joined department of Physiology at AIIMS and worked with Dr BK Anand and Dr Baldev Singh on food intake, reproduction and yoga. Even after retirement in 1986, he continued working as Emeritus Professor and contributed to the field of Physiology.



Prof. Baldev Singh (1904-1998)

He is often referred to as the 'Grand-father Neuron' by the scientific community. He joined as Emeritus Professor of Physiology in AIIMS. He was interested in research on lateral hypothalamus, highaltitude, yoga, sleep, consciousness and hyperpyrexia .Under his leadership, the department became an international centre of neurophysiological research.

Prof. Surender Kumar Manchanda (1931-1998)

He joined the Department of Physiology as a Demonstrator under Prof. B.K. Anand in 1957.He took over as the Head and Professor of Physiology 1974 and led the Department till November 1991. He made major scientific contributions in the field of Neurosciences and Reproduction.

Major achievements in 60 years

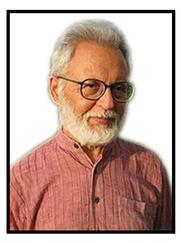
1. The XXVI Congress of International Union of Physiological Sciences was held in AIIMS in 1974
2. First time scientific investigation on Yoga was carried out in 1961 by Prof BK Anand and Prof GS Chhina
3. First time dept. of Physiology started objectively structured practical examination in regular internal examination
4. First Asian and Oceanic Physiological Society Congress was organised in 1990
5. First neural transplant in rat was carried out in 1998
6. First EEG study in human started in India at dept. of Physiology
7. Participated in Antarctic scientific research in XII Indian Scientific Expedition to Antarctica (1992-1994)
8. Prof Usha Nayyar helped establishing BPKIHS, Dharan, Nepal in 1994
9. Prof KK Deepak established first Yoga clinic and first Autonomic Function Lab at BPKIHS, Dharan, Nepal in 1998
10. Second Interim Congress of world sleep was organised in department in 2005
11. Indian Society for Pain Research and therapy started by Prof Usha Nayyar in department of Physiology

Significant contributions

- **Hypothalamus and its role** – Established role of feeding and satiety centres in hypothalamus
- **Thermoregulation** – Role of preoptic area
- **Sensory Physiology** – Dr AS Paintal initiated research and established the role of vagal sensory input (J receptors)
- **Yoga and Meditation** – Dr Ramesh Bijlani established Integral Health Clinic
- **Medical Education –** Introduced OSPE, Contributed to establishment of CMET

Dr AS Paintal

Dr Mohan Kumar

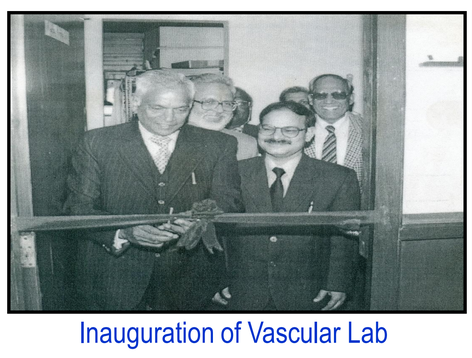


Dr Ramesh Bijlani

Dr Usha Nayyar

Legacy is carried forward by..

- The XXVI Congress of International Union of Physiological Sciences : held in AIIMS in 1974
- The Implantation Biology Laboratory :established by Prof. Jayasree Sengupta (1976)
- The Sleep laboratory: established by Prof V Mohan Kumar (1980s)
- Autonomic Function Laboratory: established by Prof. K.K. Deepak (1989)
- Cellular and Molecular Biology laboratory: established by Prof. Debabrata Ghosh.(1993)
- Neurophysiology laboratory: established by Prof. Usha Nayar and Prof. Rashmi Mathur
- Integral Health Clinic (IHC): established Prof. R.L. Bijlani (2000)
- Vascular Function Laboratory: established by Prof. KK Deepak (2000)
- The Stress and Cognitive Electroimaging Lab : established by Prof. Ratna Sharma (2010)
- Intra-Operative Neurophysiological Monitoring: established by Prof AK Jaryal (2008)
- Respiratory Physiology Laboratory: established by Dr A Talwar (2010)



Inauguration of Vascular Lab

Faculty 2016

Dr. K K Deepak contributing towards Medical Education

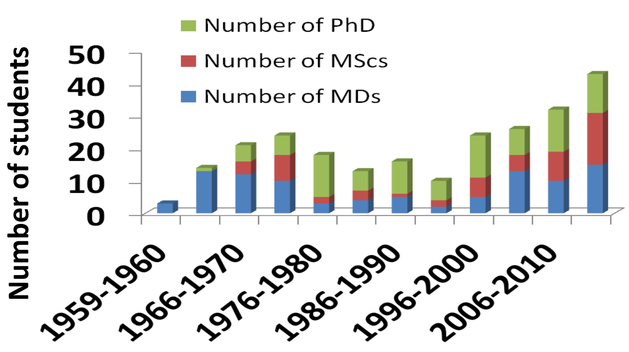
60 Years Contribution

Administrative Positions

Dean	BK Anand
CMET	Usha Nayar KK Deepak

Sub Dean (Academic)	Usha Nayar BK Kapoor
Sub Dean (Examination)	KK Deepak AK Jaryal

Teaching



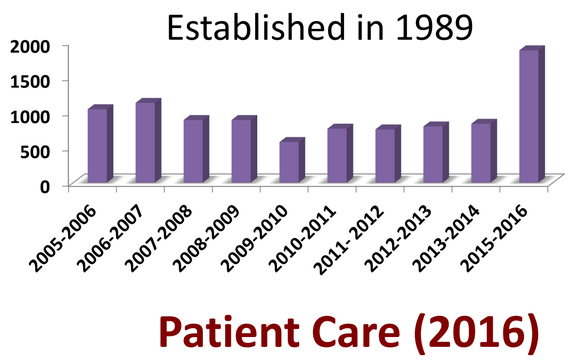
Research

Field wise publications

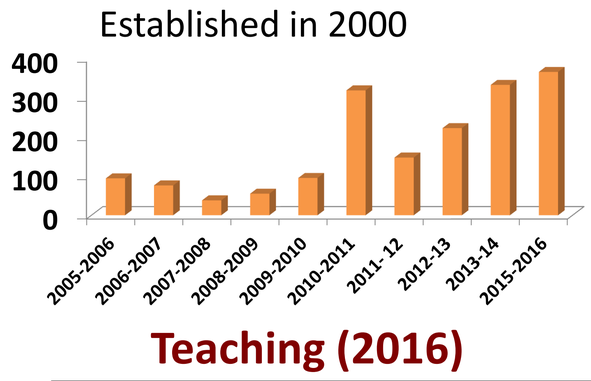
Cardiovascular system	50
Endocrinology/Reproduction	144
Environment	14
Ethics	2
Gastointestinal/Nutrition/Metabolism	68
Medical education	32
Miscellaneous	167
Nervous system	283
Renal system	6
Respiratory system	17

Clinical Investigations and Interventions

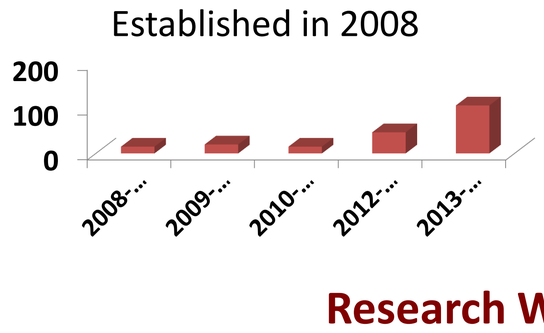
Autonomic function lab



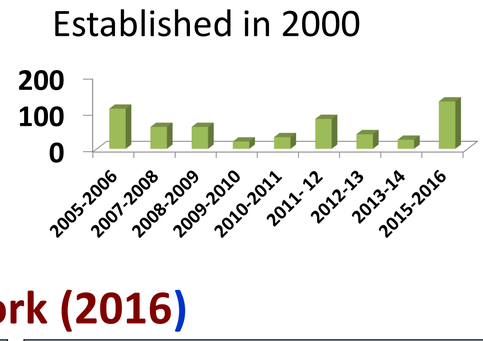
Integral Health Clinic



Intra-operative Neuro-monitoring



Transcranial magnetic stimulation



Patient Care (2016)

Autonomic function lab	1875
Integral Health Clinic (IHC)	365
Intra-operative Monitoring	80

Teaching (2016)

MBBS	72
MD	11
MSc	9
PhD	33
Nursing	140

Research Work (2016)

CMEs/Workshops/Symposia/Conferences Organized	40
Oral papers and posters	23
Funded projects : Ongoing	12
Funded projects : Completed	5
Departmental projects: Ongoing	46

Departmental projects:	
Completed	4
Publications	36
Abstracts	32
Chapters	2
Edited books	1

* Data collected from Annual Reports

Vision Statement

Develop Physiology as the visible basis of tomorrow's medicine and provide fundamental understanding of scope of human physiology in its basic, applied and clinical dimensions

Designed and Printed at K L Wig CMET, AIIMS, New Delhi

Media and Protocol Division

Golden Jubilee Public Lecture Series

Dengue Fever
23 September 2015

Panelists and Speakers: Dr. M.C. Misra, Dr. S. K. Sharma, Dr. A.C. Dhariwal, Dr. Praveen Aggarwal, Dr. S.K. Kabra, Dr. Ashutosh Biswas, Dr. Sanjeev Sinha, Dr. Lalit Dar, Dr. Poonam Coshic, Dr. Anil Goswami

Prevention of Blindness
8 October 2015

Panelists and Speakers: Dr. Atul kumar, Dr. J.S. Titiyal, Dr. Radhika Tandon, Dr. Praveen Vashist, Dr. Pradeep Sharma, Dr. Ramanjit Sihota

Mass Media and Mental illness
9 October 2015

Panelists and Speakers: Sh. Ziya Us Salam, Dr. Usha Ramanathan, Dr. Pratap Sharan, Dr. V.K. Srivastava, Ms. Sreeparna Chakrabarty, Dr. Siddhartha Sarkar

Life with Head Injury: Prevention & Treatment
30 October 2015

Panelists and Speakers: Dr. A.K. Mahapatra, Dr. B.S. Sharma, Dr. Deepak Gupta, Dr. Sanjeev Bhoi, Dr. U. Singh, Dr. Vinay Goyal, Dr. Ashima Nehra

Encouraging Rational use of Antibiotics
17 November 2015

Panelists and Speakers: Dr. M. C. Misra, Dr. Soumya Swaminathan, Dr. R. Laxminarayanan, Dr. Pallab Ray, Dr. Shiva Prakash, Dr. Purva Mathur, Dr. V.K. Paul, Dr. B.K. Rao, Dr. Arti Kapil, Dr. Sunil Gupta

Epilepsy in Children: Challenges and Solutions
02 December 2015

Panelists and Speakers: Dr. M. C. Misra, Sh. V. Srinivas (DDA), Dr. V.K. Paul, Dr. Sheffali Gulati, Mrs. Poonam Natarajan (Former Chairperson, National Trust), Dr. Manjari Tripathi, Dr. P. Sarat Chandra, Dr. Biswaroop Chakrabarty, Dr. Prashant Jauhari

Air Pollution: How to safeguard your health
22 December 2015

Panelists and Speakers: Dr. M. C. Misra, Dr. Randeep Guleria, Dr. S.K. Kabra, Dr. Nitish Naik, Ms. (Dr.) Sunita Narain (DG, C.S.E.) Dr. J.S. Titiyal, Dr. Neerja Bhatla

Childhood Obesity: The Increasing Challenge - Implications & Prevention
28 January 2016

Panelists and Speakers: Dr. V. K. Paul , Dr. Vandana Jain, Ms. Anuja Agarwal, Dr. Madhulika Kabra, Dr. Rajni Sharma, Dr. Raj Kumar Yadav, Dr. Renu Sharma, Dr. Sandeep Aggarwal

Beyond the Treatment of Childhood Cancer: Improving the Life of Survivors
18 February 2016

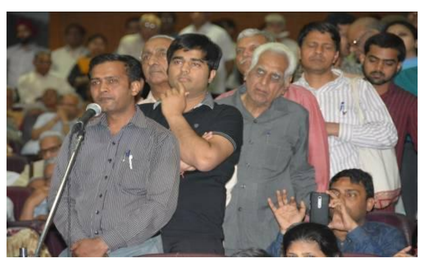
Panelists and Speakers: Dr. M.C. Misra, Dr. V. K. Paul, Dr. Rachna Seth, Dr. Sameer Bakhshi, Dr. Madhulika Kabra, Dr. Sandeep Agarwala, Dr. Sushmita Pathy, Dr. Bhavna Chawla, Dr. Jagdish P Meena, Dr. Savita Sapra, Dr. Manoj Sharma

Chronic Kidney Disease: Challenges and Solutions
09 March 2016

Panelists and Speakers: Dr. S.K. Agarwal, Dr. A. Bagga, Dr. D. Bhowmik Dr. H. Mahapatra, Dr. S. Mahajan, Dr. V. Seenu, Dr. P. Hari, Dr. Sandeep Aggarwal, Dr. Soumita Bagchi

TB Control: Unite to end TB
17 March 2016

Panelists and Speakers: Dr. S.K. Sharma, Dr. S.K. Kabra, Dr. J.B. Sharma, Dr. Sunil D. Khaparde, Dr. V.P. Myneedu



How to save yourself from Knee Joint Pain: Prevention & Treatment
23 March 2016

Panelists and Speakers: Dr. M.C. Misra, Dr. Rajesh Malhotra, Dr. S.K. Kabra, Dr. Anjan Trikha, Dr. Manish Soneja, Mrs. Kanchan Mittal

Diabetes: Beware of the New Epidemic
7 April 2016

Panelists and Speakers: Dr. M.C. Misra, Dr. Nikhil Tandon, Dr. Atul Kumar, Dr. Sanjay Agarwal, Dr. Neerja Bhatla, Dr. Rohit Bhatia, Dr. Ambuj Roy, Ms. Suma

Dengue, Chikungunya, Zika: Can new mosquito control strategies conquer new foes?
9 May 2016

Panelists and Speakers: Dr. M.C. Misra, Prof. Scott Ritchie (James Cook University, Queensland, Australia), Dr. Saumya Swaminathan, (D.G. ICMR), Dr. A.C. Dhariwal, (Director, NVBDCP), Dr. S.K Sharma, Dr. Sanjeev Sinha, Dr. Sanjay Rai, Dr. Lalit Dar

Tobacco is a killer in all its forms Stop it before it stops you!
31 May 2016

Panelists and Speakers: Dr. M.C. Misra, Dr. Alok Thakar, Dr. O.P. Kharbanda, Dr. K. Anand, Dr. Atul Sharma, Dr. Suman Bhasker, Dr. Nitish Naik, Dr. Sonali Jhanjee, Dr. Jagdish Kaur WHO (SEARO)

Yoga and Wellbeing
19 June 2016

Panelists and Speakers: Dr. M. C. Misra, Dr. H. R. Nagendra (Chancellor), Dr. V.K. Bahl, Dr. Randeep Guleria, Dr. Nikhil Tandon, Dr. Rajesh Malhotra, Dr. Gautam Sharma

Polycystic Ovary Syndrome (PCOS) - A multi-specialty, multi-system galloping Epidemic
15 July 2016

Panelists and Speakers: Dr. M. C. Misra , Dr. Soumya Swaminathan (ICMR), Dr. Nutan Agarwal, Dr. Mohd Ashraf Ganie Dr. Nikhil Tandon, Dr. Rajesh Sagar, Dr. Nitish Naik, Dr. Vandana Jain, Dr. Nomita Chandiok (ICMR), Dr. Alka Mohan

Hepatitis: Causes, Treatment and Prevention
28 July 2016

Panelists and Speakers: Dr. M. C. Misra , Dr. S.K. Acharya, Dr. Ajay Duseja (PGI), Dr. Shalimar, Dr. Saurabh Kedia

Chikungunya and Dengue Fever
23 September 2016

Panelists and Speakers: Dr. M.C. Misra, Dr. S.K. Sharma, Dr. A.C. Dhariwal, Dr. S.K. Kabra, Dr. Sanjeev Sinha, Dr. Ashutosh Biswas, Dr. Lalit Dar, Dr. Anil Goswami

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Psychiatry

Year of Establishment- 1962

Vision Statement:

To develop highly trained manpower, curriculum and techniques for undergraduate and postgraduate medical education

Origin

Mr Allen Gregg was the Rockefeller Foundation Administrator at A.I.I.M.S, whose wife, **Dr Luvia Gregg** was incidentally a Psychiatrist, who had accompanied her husband during his tenure at Delhi. She volunteered to initiate the clinical psychiatric services at A.I.I.M.S and offered to teach undergraduate students -1961

Stalwarts of AIIMS Psychiatry

Dr D Satyanand
Founder of the Department of Psychiatry at AIIMS, Dr Satyanand also initiated the Psychiatry unit at CRHSP, Ballabgarh.

Dr JS Neki
Dr Neki introduced important concepts in the field of doctor-patient relationships. He was also a well renowned and decorated poet.

Dr NN Wig
A dynamic teacher and mentor to many in the field of psychiatry, Dr Wig pioneered in the field of Indian psychiatric epidemiology.

Dr D Mohan
Dr Mohan worked extensively in the field of substance use, and has several landmark publications to his name.

Dr Rajat Ray
A member of several WHO & UN committees on substance use disorders, contributed profusely to this field.

Dr SK Khandelwal
From early pioneer work of Lithium use in bipolar disorders in India to founding neuropsychiatry services at AIIMS, Dr Khandelwal's contributions are immense

Major Achievements

- Pioneers in designing comprehensive training in **Psychiatry for undergraduates**
- Pioneers in starting **MD Psychiatry for postgraduates in 1962** in a general hospital
- Forerunners of **Clinical psychology services** (1964) with stalwarts of the field like **Dr GG Prabhu, Dr Shakuntala Dube, Dr Surya Gupta, Dr Manju Mehta**
- Running several specialty clinics, including **one of the first child guidance clinics of the country**
- **First meeting for drafting National Mental Health Programme** was convened at AIIMS
- Expedition and scientific research at **Antarctica**
- Recent contributions include significant contributions to the **ICD-10** and **ICD-11** classificatory systems of the **WHO,** and the Mental Health Survey
- **Biological Therapy Initiative** - Repetitive Trans-cranial Magnetic Stimulation

Clinical Facilities

Out-patient clinic

- More than **18,000 new** patients registered every year
- More than **42,000 cases** followed up every year
- Dedicated clinics for **severe mental disorders, common mental disorders, psychosomatic disorders, child & adolescent mental disorders**

In-patient Department

- 32 beds for inpatient management of cases, 2 dedicated beds for child psychiatry
- Psychotherapy and Occupational therapy

Training in Psychiatry

- 237 residents trained till date
- Total 30 junior and 16 senior residents
- PhD program in clinical psychology

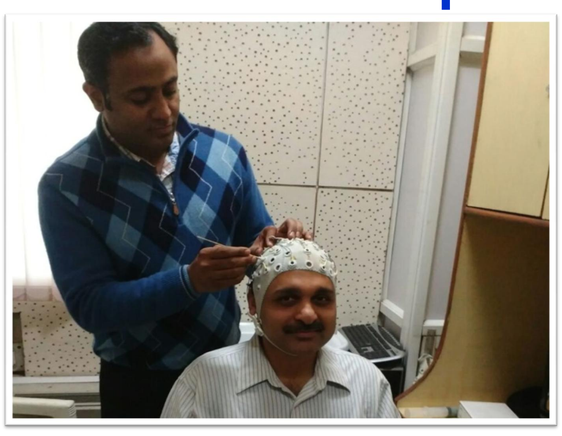
Academic Facilities

Remembering our past: The Department, 2006

Departmental Activities

rTMS and TDCS

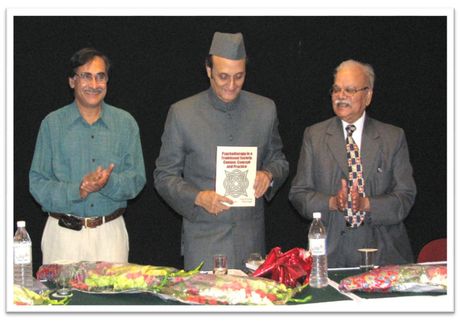
- Latest techniques in biological approach to treatment of patients employed



qEEG

- Newest techniques for diagnosis & monitoring of mental illnesses

Prof Khandelwal being felicitated for his contributions to the field of Psychiatry by Hon'ble President Kalam



One of the several book launches by the department

Department of Psychiatry hosting the international meeting of the Field Studies Coordinating Group for ICD-11

Swastha Bharat Samman -2011, Zee News

Antarctica Expedition – 2008, Mental Health in extreme conditions

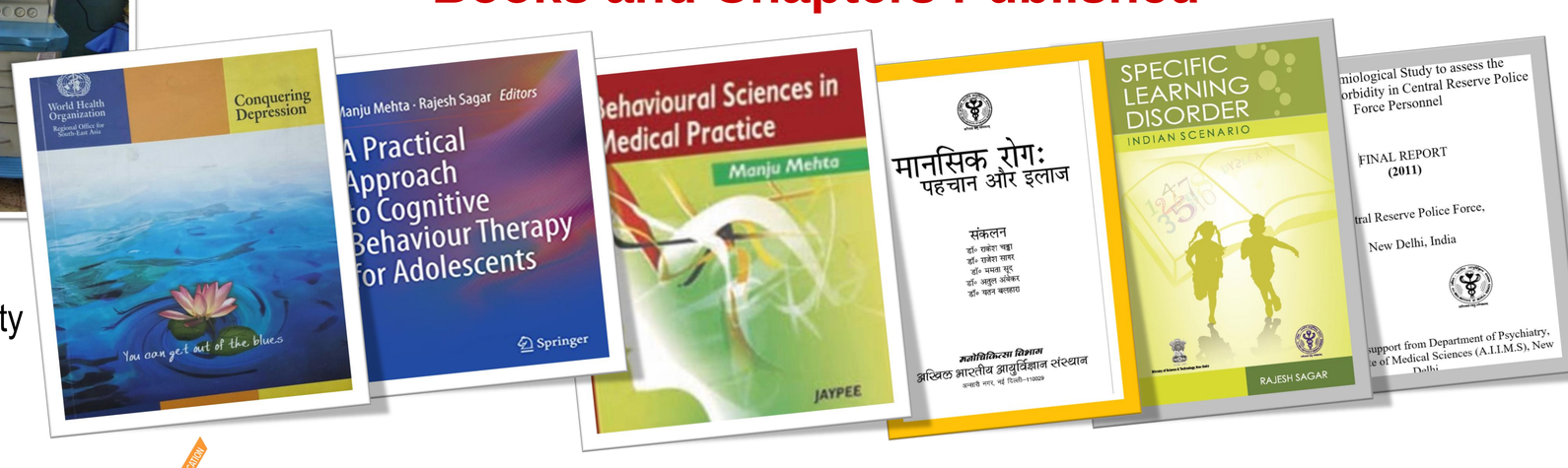
Lithium Level Monitoring

- Drug level monitoring in Bipolar disorder

Modified ECT

- State of art ECT for safety and efficacy

Books and Chapters Published



Pulmonary Medicine and Sleep Disorders

Year of Establishment- 2011

Prof. & Head Dr. Randeep Guleria
Head of Department 2011 …..

FOUNDER FACULTY

Dr. Randeep Guleria, Dr. G. C. Khilnani,
Dr. Anant Mohan, Dr. Karan Madan, Dr. Vijay Hadda

ACHIEVEMENTS

- Dr. Randeep Guleria received the Padma Shree award by the Govt. of India.
- The Department has been ranked as the best department in Pulmonary Medicine by the Nielsen Survey published in " The Week" in 2014, 2015

Interventional Pulmonology Laboratory

- Pioneers in state of the art Interventional Pulmonology facilities in the country.

EDUCATION

- Running a full fledged DM program in Pulmonary, Critical Care and Sleep Medicine with an average annual output of 5 DM fellows who have been well trained in the specialty
- Department is also running a Ph. D program.

RESEARCH

- **Department is conducting high quality research involving: -**
  - Magnetic Phrenic nerve Stimulation
  - Pulmonary Rehabilitation
  - Exhaled Breath Analysis
  - Lung Cancer
  - Sarcoidosis
  - Yoga and respiratory health
  - Non invasive ventilation / NAVA
  - Interventional Pulmonology
  - ECMO

OTHERS

- Annual National Conference – "Pulmocrit" being conducted by the Department since 2012 in association with CHEST (USA) Covers multiple aspects related to the field and a focused workshop is conducted in a separate area every year which has received a phenomenal response
- Involved with WHO and Govt. of India in developing "National Guidelines for Management of Chronic respiratory diseases in India"
- AIIMS - JEFFERSON – 1st International Symposium on Recent Advances in Pulmonary Medicine
- Indian Respiratory Summit 2016 – International meeting on Airway Diseases

SIGNIFICANT FACILITIES IN PATIENT CARE :

Specialty Clinic (2015-16)

S. No	Clinic	New Cases	Old cases	Total
1	Lung Cancer	448	1622	2070
2	Combine Pulmonary Surgery	285	342	627
3	Sleep Disorders Clinic	307	281	588
4	ILD/PAH	204	262	466

AWARDS

- Prof Randeep Guleria received Padma Shree award in 2015 by Govt of India.

STATISTICAL DATA

Number of faculty – 5 Number of Residents - 21

Patient care (data from 1 April 2015 till 31 March 2016)

a. OPD – New Cases - 9931; Old - 18614

b. Inpatient admissions (2015) – Ward 483 OPD 331

c. Interventional Pulmononlogy (2015) – flexible Bronchoscopy – 1748, EBUS – TBNA - 385, Radial EBUS – 25, Rigid Bronchoscopy – 68, Semirigid Thoracoscopy - 53

d. Pulmonary Function Test – 17162, Cardiopulmonary exercise testing – 64, Pulmonary Rehabilitation – 56

e. Sleep Studies (2015) – 611 patient visits

Teaching (Till Date)

a. DM – 07 students have passed out

b. PhD - 07

SOCIAL SERVICE AND PUBLIC HEALTH

- Public lectures on various topics in respiratory medicine & air pollution
- Many community based research projects is on Air Pollution/ Obesity are in progress.

FUTURE VISION

- To provide state of the art patient care and continuously strive to be at the forefront of research in Pulmonary Medicine, Critical Care, Sleep Medicine and Interventional Pulmonology
- With the increasing incidence of respiratory ailments, there is a tremendous need to develop research and patient care facilities related to the specialty and we as a department are committed towards this goal.
- We hope that a dedicated centre for Advanced Pulmonology and Allied research shall be developed in the future at the Institute for providing world class facilities in research, patient care and teaching

Designed and Printed at K L Wig CMET, AIIMS, New Delhi

Radiodiagnosis

Year of Establishment- 1956

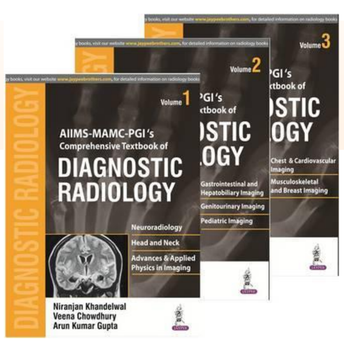
History & Highlights

- The department of Radiodiagnosis at AIIMS is one of the oldest department founded by Dr. N G Gadekar
- Department was headed by stalwarts like Dr N.G.Gadekar, Dr Sneh Bhargava and Dr Manorama Berry
- First CT scan in the country was installed here in 1978
- One of the earliest ultrasound scanner was installed in 1979
- In late 80's Dept. of Neuroradiology and Cardiac-radiology were formed to nurture the respective fields
- Dept. of Radiodiagnosis at AIIMS is probably the best in the country and amongst the best equipped in the world
- State of the art subsecond Spiral and 256 Slice Dual energy Multidetector CT
- 1.5 tesla MR Imaging with spectroscopy, functional MRI
- State of the art ultrasound equipment with Color Doppler, 3D, 4D, shearwave elastography and guided interventions
- Flat Panel Digital Subtraction Angiography and Vascular and nonvascular Interventional Lab
- Breast Imaging suite with breast related interventions
- Digital Flouoroscopy Units
- Plain Radiography with direct flat panel digital technology
- We have the state of the art RIS and PACS system
- Almost all diagnostic and interventional procedures are performed covering head to toe
- We have evolved from traditional film screen technology to fully digital technology
- Currently we have the potential to become filmless department
- We also provide 24X7 emergency services in Radiography, Barium/dye studies, USG, Doppler, CT and interventional procedures (vascular & nonvascular)

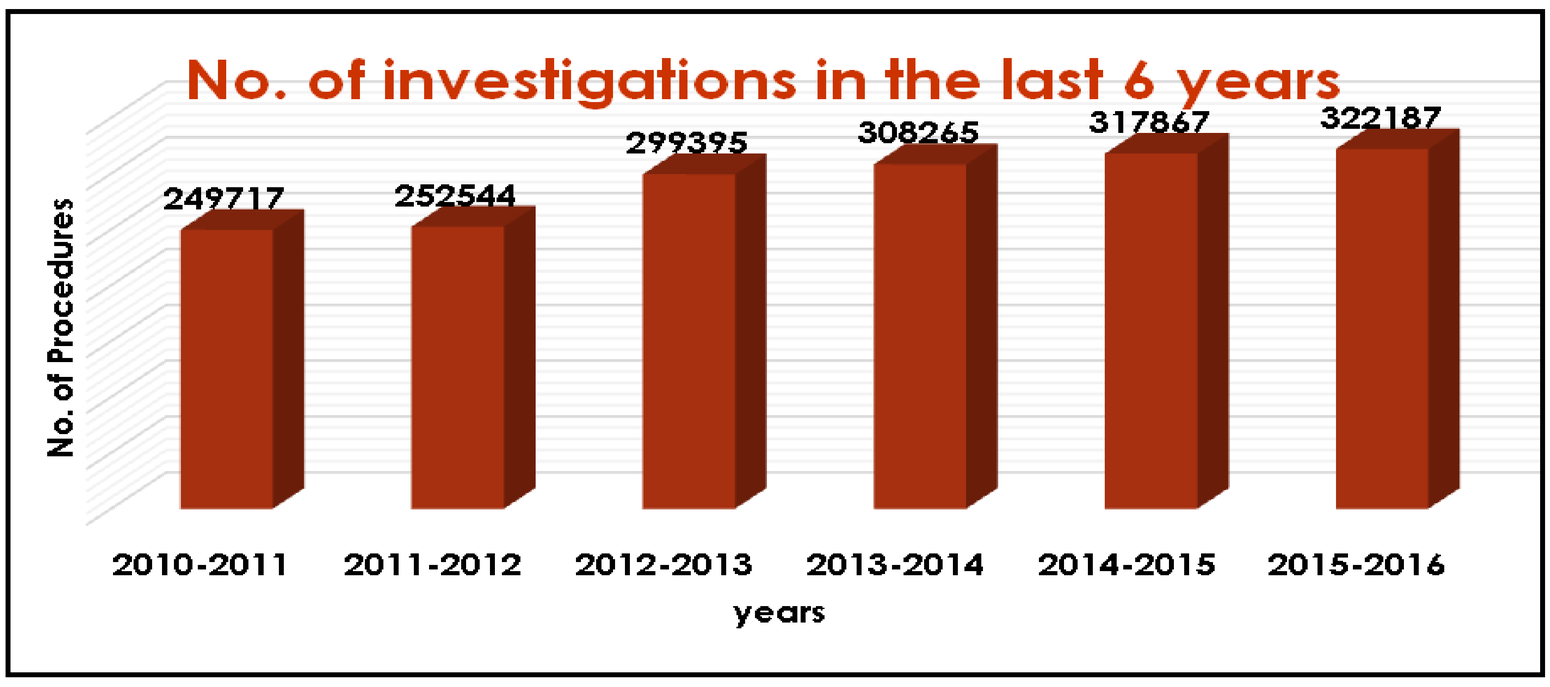
Ultrasonography

Research & Education

- One of the pioneers in starting the speciality of Pediatric Radiology in the country & founded the society of Pediatric Radiology under the leadership of Dr Arun Kumar Gupta
- Started the AIIMS- MAMC-PGI educational series which is known all over the country and we are about to start the 4th series
- Bringing out the AIIMS-MAMC-PGI books in various specialities which are well known all over the country
- Periodically conducting imaging courses on various speciality to disseminate knowledge
- Published innumerable articles in both national and international indexed journals and authored many books in the field of radiology
- We are about to start the fellowships in GI, chest and Pediatric imaging to train resident doctors so as to improve the quality of health care in the country



Dual Energy Computed Tomography



Angiography Suite

Vision

- Providing high quality imaging and interventional services to patients
- Disseminating knowledge by conducting conferences, CME and publishing books
- To do cutting edge research and innovations to further the knowledge of radiology

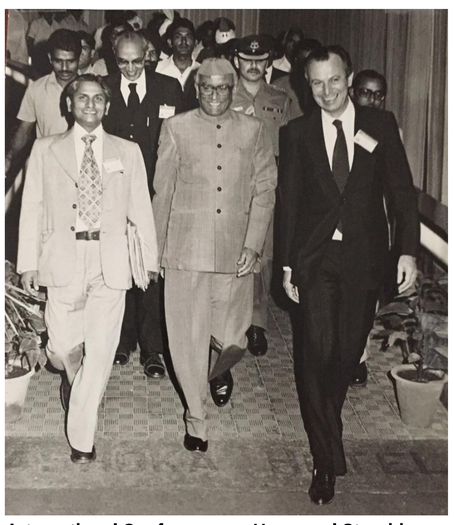
MRI

Reproductive Biology

Year of Establishment- 1963 (as unit) & 1970 (as dept.)

Founders & History

Ford Foundation, Govt. of India & Director AIIMS



International Conference on Hormonal Steroid
Prof. KR Lomas, President of India, Prof.L Martini

Sheldon J. Segal worked in RBRU as advisor of Ford Foundation (just before joining as Director, Population Council). Similarly, Dr. T Hayashida (Consultant, Ford Foundation) also worked as advisor as well as visiting scientist to guide reproductive research in early days of the department

The original **vision** of the department was to create an infrastructure for research in reproduction. Initial thrust was on contraception (female followed by male), steroid biochemistry (estrogen, progesterone, etc) and prostaglandins. Gradually, vision shifted to increase knowledge of biomics, genomics and proteomics related to reproductive process along with training of highly ranked medical students and scientists who, through research, teaching and service, will provide new understanding of reproductive issues that have an impact on public reproductive health. The vision is to foster education and research into reproductive sciences, in particular, reproductive disorders. The focus of the Department is to study molecular and cellular biology of male and female reproduction along with reproductive cancers. Advanced molecular and genetic approaches on these models are used to develop novel concepts and tools for the study of physiology and pathology of reproduction in humans.

Achievements

- WHO Research & Training Centre in Human Reproduction from 1972 to 1978 (WHO-RTC)
- WHO Collaborating Center for Reproductive Research until 1999 (WHO-CCR)
- Development of Norethisterone acetate and Norgestrel based silastic implants for fertility control (single silastic implant-D for the long term contraception in women); Initial research work on reversible, non-occlusive intravasal copper device (IVD) in monkey as well as anti-progestin RU486 (part of basic research conducted)
- Research on progesterone & steroid biochemistry
- World congress on Hormonal Steroid, 1978

Services

- State of art RIA (Radio-Immuno Assay), first time in India used for reproductive hormone analysis and still continuing with 100's of test parameters carried out daily on various hormones, tumor markers and other biomarkers
- Prostaglandin estimation first time in India
- Hormone Receptor Assay Laboratory first time in India
- State of art molecular cytogenetics laboratory providing national resources in molecular cytogenetic techniques
- Specialized semen analysis laboratory
- Sophisticated cell culture laboratory

Patient care

- Counseling: Over 400 annually (Reproductive Genetic Counseling programme is operational with national and international patients)
- Molecular Cytogenetic for diagnosis of microdeletion syndrome, chromosomal abnormality and disorder of sex development
- Indirect: Over 1.5 lakh tests per annum through CRIA unit
- Semen analysis: 150-160 specialized tests (annually)

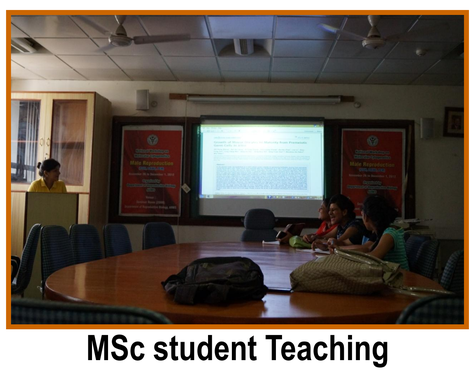
Education

- Only center in India providing teaching & training in Reproductive Biology
- PhD in Reproductive Biology
- MSc in Reproductive Biology & Clinical Embryology
- WHO Fellowship in Reproductive Endocrinology
- Diploma course in Clinical Embryology (coming soon)
- Diploma course in Molecular Diagnostics (coming soon)
- Annual workshop on molecular cytogenetics

Workshop on Male Reproduction

WHO Training course on Reproductive Endocrinology

Diagnostic Service



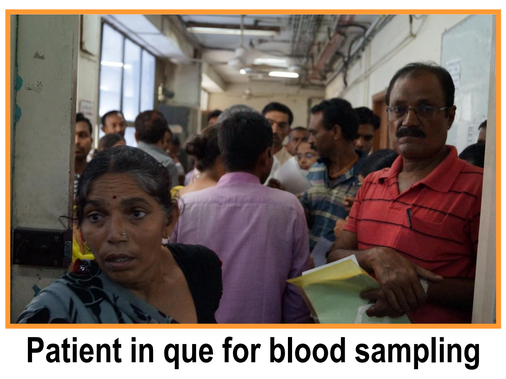
MSc student Teaching

Research Areas

- Malformation
- Male Infertility (primary testicular failure)
- PCOS
- POF
- Hyperprolactinemia
- Biological Basis of Skewed Sex Ratio
- Chromosomal Abnormality in Preimplantation Embryo
- Thyroid hormones in testicular function
- Mechanism of steroid hormones
- Phytoestrogen
- Endocrine disruptors
- Reproductive cancers (prostate, breast, ovary, etc)

Molecular Laboratory

Biochemical laboratory



Patient in que for blood sampling

Various Microscope

Statistical Data

- Number of Faculty, Residents, technical staff, etc (present):
- Faculty: 05
- Scientist: 01
- PhD Student: 05
- Technical Staff: 13
- Publication (annual)
  - Papers: 6-8
  - Book chapters: 3-4
  - General article: 1-2
  - Conference abstract: 12-15

Automated Hybridization Station

Microarray Scanner

Gene Scanner

Cryopreservation Unit

- The **future vision** of the department is to foster education, research and specialized research oriented patient care in reproductive sciences through Reproductive Research Clinic. The areas of work in the department will be Reproductive genetics, Reproductive endocrinology, Reproductive toxicology, Clinical embryology and Cryopreservation, Developmental genetics, Sex differentiation and development, Aging, Gametogenesis, Phytohormones, Andrology, Reproductive oncology, etc besides in depth work on specific disorders like Sexual dysfunction, unexplained infertility, primary amenorrhoea, oligo/azoospermia, Premature ovarian failure, Poly cystic ovarian disease, Endometriosis, Recurrent unexplained abortions, intrauterine growth restrictions, fetal malformations, Pregnancy induced hypertension, etc.
- Department is working to establish NIPS (non invasive prenatal screening) and PGS (preimplantation genetic screening
- Department also working on creating & maintaining semen & gonadal tissue bank for cancer patients and infertile patients

शिक्षा EDUCATION
अनुसंधान RESEARCH
हीरक जयंती 1956-2016 DIAMOND JUBILEE
स्वास्थ्य सेवा PATIENT CARE

Rheumatology

Established year 2015

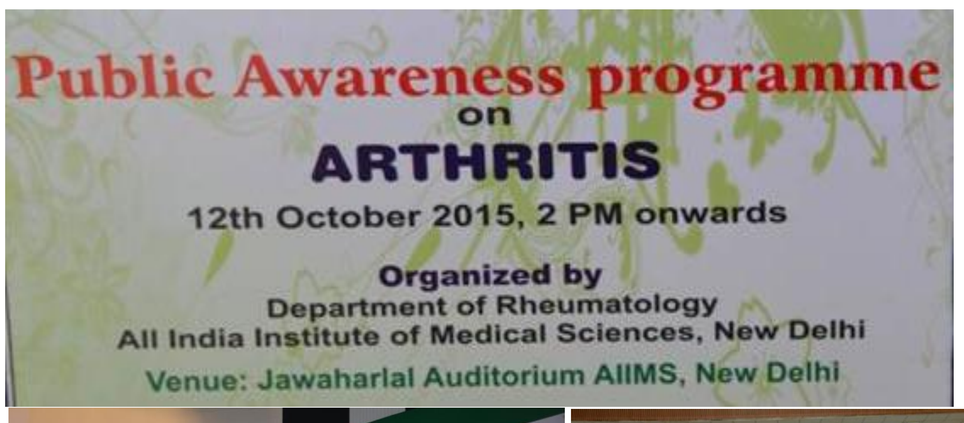
Dr. A N Malaviya
(Served AIIMS from 1968 to 1994)
Established Clinical Immunology Lab in 1968
Started Rheumatology Clinic in 1975

Founders of Rheumatology

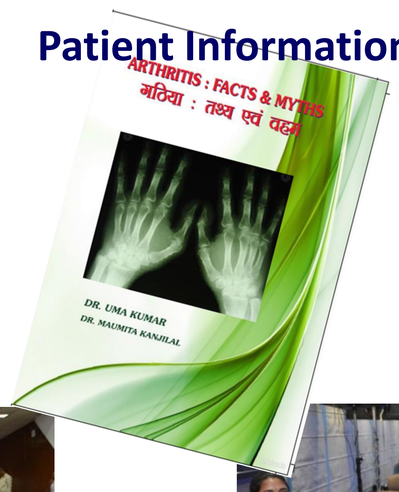
1. Budding speciality in India, still in the stage of infancy.
2. It deals with more than 200 arthritis and related disorders.
3. Burden of these disorders has increased globally by more than two and a half times over past decades.
4. Musculoskeletal conditions as a group cause 21.3% of the total years lived with disability (YLD) in the world, second to mental and behavioral problems (23.2%).

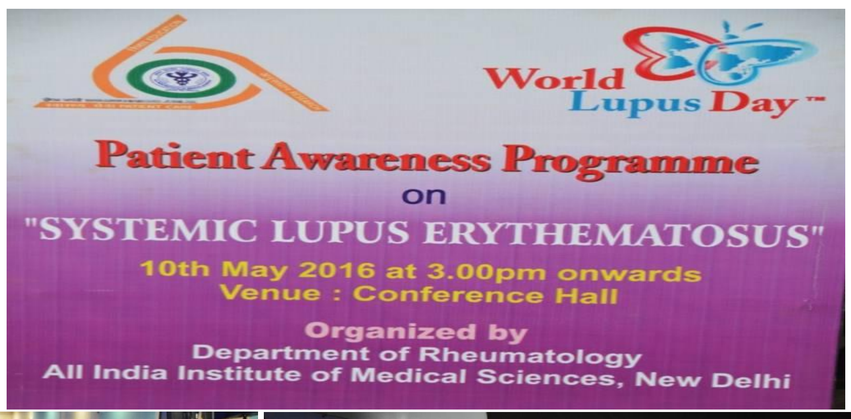
Dr. Uma Kumar
Started Rheumatology Day Care (2012)
Established Department of Rheumatology (2015)

Patient care & education programme: Interactive session



Patient Information Booklet





Patient care in OPD

- Approximately 40,000 patients seen annually

Rheumatology Day Care

- 6 bed facility operates 6 days a week
  Monday to Friday : 8am to 4pm ,Saturday: 8am to 1pm

MSK Ultrasound

Synovial fluid aspiration

Intra Articular Injection

Clinical Immunology Laboratory

Future vision

Transforming into 'Centre of Excellence ' for Rheumatological Disorders

Human resource building (DM programme, Fellowships etc)

Integrating 'State of art' medical facility with social responsibility

Ongoing reseach study – 9

Completed research study-41

- Systems biology of complex diseases: from genetic findings to lead molecule development for rheumatoid arthritis. Centre of Excellence on Genomic Sciences and Predictive Medicine (GESPREM) Phase-II.
- To study the effect of climate, air pollution, and socioeconomic factors on health (Immunological) and disease state (Rheumatoid Arthritis)
- Development of targeted nanomedicine for the treatment of rheumatoid arthritis.
- Genetic Analysis of Psoriasis and Psoriatic Arthritis in Indian in collaboration with Dermatology.- Indo US Collaboration

Collaboration

UNIVERSITY OF LIVERPOOL

MEMORANDUM OF UNDERSTANDING
(Hereinafter called 'MOU')
On Academic Cooperation
For collaborations in Medical Education, Clinical Research and Training

UNIVERSITY OF MICHIGAN

Stem Cell Facility *(DBT- Centre of Excellence for Stem Cell Research)*

Year of Established : 2005

Founder Member and History

Prof. P. Venugopal

- The facility was the innovative and prospective idea of former director of AIIMS, Dr. P. Venugopal. In 2001, reports by Orlict et al states that Bone marrow cells have potential to regenerate infracted myocardium. This published report led to the genesis of this separate facility in 2005 to initiate research in basic and translational area

Introduction

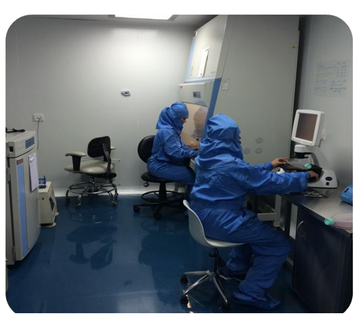
- Stem Cell Research is highly promising field in regenerative medicine
- The major achievement for facility was granting of Centre for Excellence of Stem Cell Research by DBT, Govt. of India in 2008.
- This is recognised as one of its kind facility for stem cell research in north India.
- Keeping abreast with the recent advances in the field of stem cell research, this facility was upgraded to cGMP laboratory (current good manufacturing practices) in 2014.

Our Moto: " Bench to Bedside"

- Translation of our basic research to patient care service
- To the Patient Stem Cells is a new ray of hope to cure all diseases and give a new life

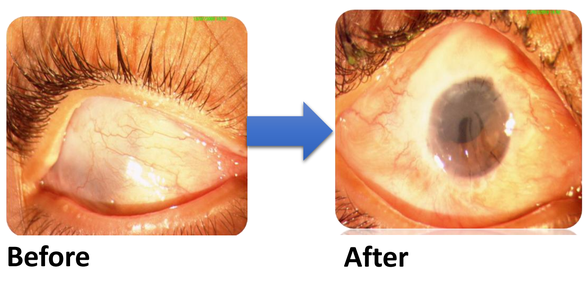
Achievements

- Established DBT- Centre of Excellence for Stem Cell Research a state- of the- art under guidelines of cGMP (current good manufacturing practices) for clinical research and patient care.
- This was possible through the generous funding by DBT, Govt. of India



- Published 90 research articles in journals of national and international repute and received 5 awards at various fronts. Also, filed for 3 patents.
- Training Centre for M.Sc., Ph. D., M.D., D.M. students and WHO fellows from within and outside AIIMS.

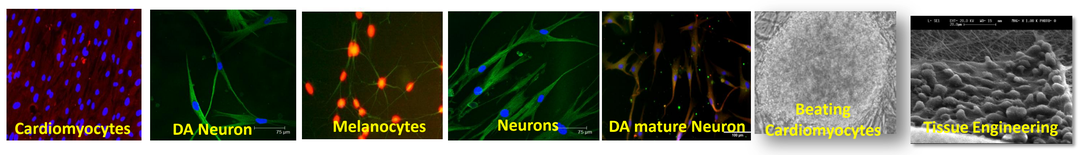
- Setting up of Umbilical Cord Blood Stem Cell Banking at AIIMS for in-house patients.



- Three basic researches (limbal stem cells, oral mucosa stem cells & hair follicular stem cells) led to "Bench to Bedside implications" in the field of Vitiligo and ocular surface reconstruction.

Vision Statement

- Stem Cell Research holds immense potential in the field of regenerative medicine to treat various degenerative diseases like cardiomyopathy, stroke, peripheral vascular disease, retinitis pigmentosa, diabetes, etc.
- We also perceive to manufacture clinical grade stem cells that can be efficiently used for treating various degenerative diseases.
- We believe that well planned and effectively executed research will pave the path towards an era of regenerative medicine where there will be possibility of cure from deadly diseases.



Significant Facilities in Patient Care/Education/Research/Others

Patient Care:

- Isolation and expansion of hematopoietic mononuclear cells from iliac crest or sternum.
- Flow cytometric analysis and enumeration of hematopoietic stem cells.
- Setting up of Umbilical Cord Blood Stem Cell Banking at AIIMS for in-house patients.
- Limbal stem cell and oral mucosal stem cell transplantation for corneal surface reconstruction.

List of Stem Cell Banking

No	Source	Number
1	Bone Marrow (Hemotopoietic Stem Cell)	650
2	Bone Marrow (Mesenchymal Stem Cell)	600
3	Bone Marrow (Mononuclear Stem Cell)	117
4	Hematopietic Stem Cells- Growth Factor Mobilized	38
5	Umbilical Cord Blood Stem Cell	114
6	Dental Pulp –Stem Cell	150
7	Adipose Tissue- Stem Cell	150
8	Limbal Tissue-Stem Cell	50
9	Amniotic Membrane Batches	40
	Total	1909

Education:

- Training and Teaching:

Number of Candidates		
M.Sc.	Ph.D.	M.D./M.Ch.
45	20	16

- **Research publications:** 90 original articles in journals of national and international repute
- **Public awareness:** Imparted awareness at public front: About stem cell research and its applications through television and radio talks, newspaper articles, blogs and public lectures.
- **Research:** Involved in 34 research projects as principal Investigator and Co-principal Investigator as individual and collaborative work with various departments of AIIMS and renowned institutions of the country.
- **Others:** Advisor of various government bodies involved in drafting guidelines for Stem Cell Research and member of High Powered Committee of Central Drugs Standard Control Organization, Government of India to draft guidance Document for regulatory approval of Stem Cell and Cell Based Products (SCCPs).

Statistical Data

Teaching

- Postgraduate : 45
- Ph. D./ M.D./D.M : 36
- Others Teaching activities: N= 70 (Public lectures, TV shows, radio talks, blogs and lectures at AIIMS and various educational institutes of the country).

Famous Alumni

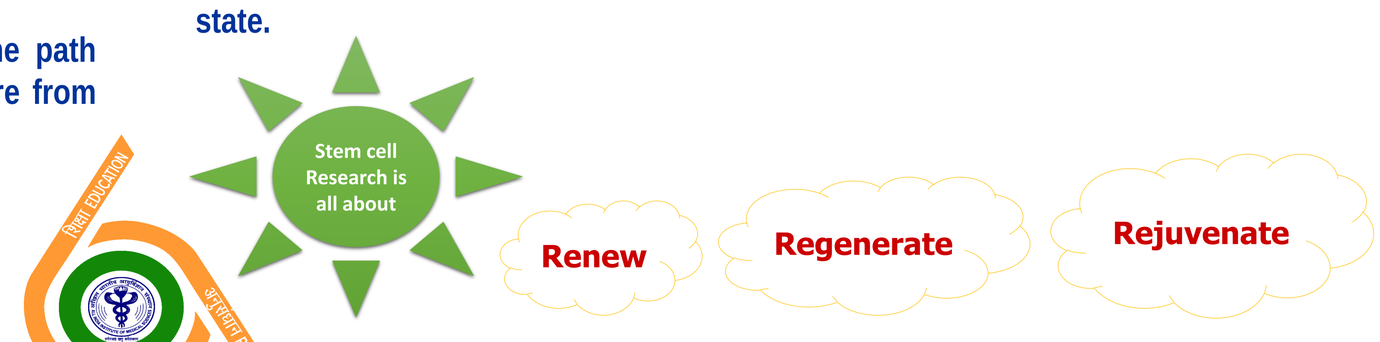
- Dr. Sushmita Bose: Post Doctoral Research Associate, Texas Tech. USA
- Dr. Anil Kumar: Assistant Professor, Amity University, Gurgaon
- Dr. Krishan Gopal Jain: Principal, Vijaya International School, Agra
- Dr. Pooja Teotia: Post Doctoral Fellow, University of Nebraska, USA

SOURCE OF FUNDING	YEAR	TOTAL AMOUNT (IN LAKHS)	STATUS
Extramural Research Grant			
ICMR	2006	29.0	Completed
DBT	2008-2013	45.0	Completed
DBT	2008-2015	900.0	Completed
ICMR	2009	59.0	Completed
ICMR	2011	45.0	Completed
ICMR	2011	7.0	Completed
ICMR	2012	49.9	Completed
UGC	2013	5.0	Completed
DBT	2014	27.9	Ongoing
ICMR	2015	56.0	Ongoing
Intramural Research Grant			
Institute Project	2006	1.0	Completed
Institute Project	2009	1.0	Completed
Institute Project	2010	1.0	Completed
Institute Project	2011	1.0	Completed
Institute Project	2012	4.0	Completed
Institute Project	2014	4.0	Completed
Institute Project	2015	4.7	Completed
TOTAL GRANT: Rs. 1240.5 Lakhs			

Future Vision

Our future aim is based on following areas of research:

- Use of stem cells and tissue engineering to develop tissues and organs (later in future) using 3D bioprinitng for treatment or replacement of damaged parts.
- We also aim for gene correction approach in genetic diseases, using stem cells with corrected and functional genes. This approach may not be able to correct the cells within the body, but will be able to produce proteins to improve from the diseased state.



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SURGICAL ONCOLOGY, DR BRA IRCH

Since 1988

Prof. N.K.Shukla established the department of Surgical Oncology 1988

- Cancer is emerging as a major public health problem all over the world. There are three main types of treatment modalities available for treating cancer - Surgery, Radiotherapy and Chemotherapy. The Surgical specialty dealing with cancer management is known as Surgical Oncology. Surgery plays an important role in the management of both early cancers as well as advanced cancers in combination with chemotherapy and radiotherapy.
- The surgical oncology services were started at BRA-IRCH in 1988 and it became a full fledged department in 2001. Currently the department of Surgical Oncology has 46 inpatient beds (5 Private ward beds), 3 major operation theaters , minor operation theater complex and ICU.

- The department of Surgical Oncology offers both outpatient and inpatient services for screening, diagnosis and treatment of cancer patients . The department offers both minor and major operation theater services including endoscopy for various kinds of cancer. On an average 3,500 to 4000 minor and major surgical procedures are performed every year. In addition to patient care the Surgical Oncology department is actively involved in teaching , training and research activities. The department offers advanced training in the field of surgical oncology including MCh Surgical oncology program.

TEACHING

Undergraduate teaching: The faculty was involved in undergraduate teaching by giving didactic lectures and by participating/ moderating seminars on oncological topics.

Post graduate teaching: The faculty was involved in teaching and training of 15 Mch surgical oncology students and 12 surgical oncology senior residents, DM medical oncology residents and MD radiotherapy junior residents by giving didactic lectures, moderating seminars, journal clubs etc. & clinical teaching during ward rounds and in special cancer clinics of IRCH. Dr. Shukla and Dr. Deo acted as chief guides and Co-guides in the thesis of Mch surgical oncology students. They also acted as Co-guide and Co-supervisors in DM medical oncology thesis, MD radio diagnosis MD radiation oncology thesis & PhD students from different dept. of BRA IRCH & AIIMS. The faculty was also involved in teaching & training of dental surgery residents and Mch students from RCC, Thiruananthapuram who are posted on one month rotation.

- Para clinical teaching/training: The faculty was involved in the teaching of the M.Sc. nursing oncology students.
- Long and short term training:

Courses / Training

M.Ch Surgical Oncology . 3 year academic training program with 2 seats in June session and 3 seats (1 sponsored) in December session (Selection through All India competitive examination).

Senior Residency in Surgical Oncology (Non academic 3 years) : Three years structured training in Surgical Oncology after MS in general Surgery. (Selection through All India competitive examination).

Long term Training: One to Two years training in Surgical Oncology for sponsored general surgeons from Armed Forces, State Medical Colleges , Public sector hospitals and other governmental agencies..

Short term observer-ship – 1to 6 months observership in Surgical oncology.

International Trainees – Long-term training & Short term observer-ship.

PATIENT CARE

Surgical Oncology Sub-Specialties

- Head & Neck Oncology, Breast Oncology, Gastrointestinal Oncology (Gastro Esophageal , Hepato –Biliary, Colorectal cancers),Thoracic Oncology, Genito-Urinary & Gynae Oncology,Bone & Soft Tissue Tumors, Peritoneal surface Malignancies

(A)Facilities available in department

1) Minor Operation Theater:- Diagnostic and minor therapeutic procedures including Lymph node biopsy, punch/ trucut biopsy, excision of Skin/Oral tumors, soft tissue tumors, feeding jejunostomy, colostomy, insertion of Hickman's catheter / chemo ports for long term Chemotherapy are available in the Minor O.T.

2) Endoscopy Services (Diagnostic & Therapeutic):

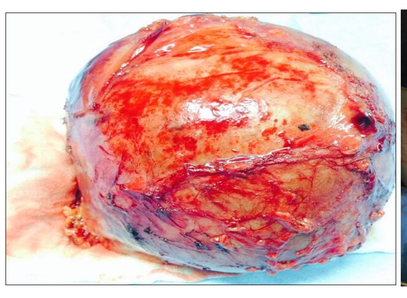
Diagnostic Endoscopy: Video and Fibre optic upper G.I.endoscopy, side viewing duodenoscopy, Colonoscopy, Sigmoidoscopy, Bronchoscopy, Cystoscopy, Nasopharyngo laryngoscopy and laparoscopy.

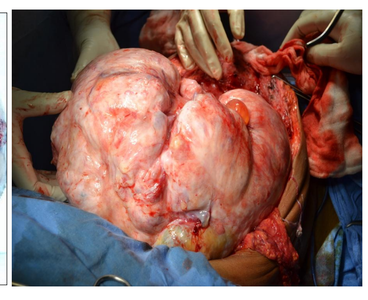
Therapeutic Endoscopy: Stricture dilatation, Intraluminal Radiotherapy, Stenting and Percutaneous Endoscopic Gastrostomy.

3) Major Operation Theater :- Facilities available for all major cancer Surgeries including radical resection and reconstruction of tumors involving Head & Neck, GI tract, Breast, Bone and Soft tissue , Genito urinary and Gynaecological malignancies,Peritoneal Surface malignancies, Hepato-Biliary-Pancreatic malignancies and Thoracic tumors. Advanced reconstructive surgical procedures are under taken to reconstruct the defects after resection.

In addition advanced state of art technologies like LASERS, CUSA, Harmonic Scalpel, Surgibone, Vesalius, Thoracoscopy, Laparoscopy and Intra Operative Radiotherapy are also available.

Number of Minor Operations & Endoscopic procedures performed: 8372 in 2015-16
Number of Major Cancer Operations performed: 1978 in 2015-16





RESEARCH

The department of Surgical Oncology is actively involved in clinical and basic research related to the field of cancer.

Collaborating Departments and Institutes

Departments : Department of Biochemistry, Biotechnology , Medical oncology, Radiation Oncology , Lab Oncology, Nuclear magnetic Resonance Nuclear Medicine, Radio-diagnosis and Bio-statistics

National & International Institutes : ICMR , ICPO, DST , DBT, Institute of Biosciences - Jamia Milia University, TMH , UKCCR (UK), INDOX (India and Oxford University, UK Clinical trials network).

Areas of Research :

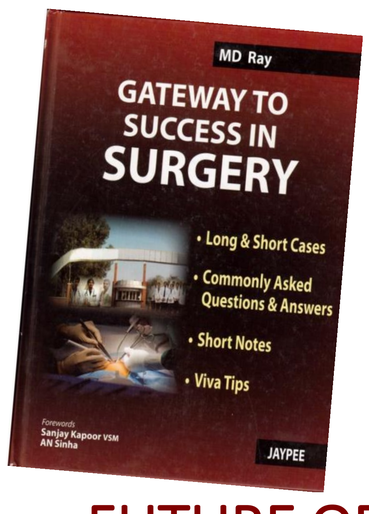
- Epidemiology, Risk Factors, Molecular Biology, Genetics, Newer Imaging Methods , Magnetic Resonance Spectroscopy, Multimodality treatment protocols, Organ conservation protocols

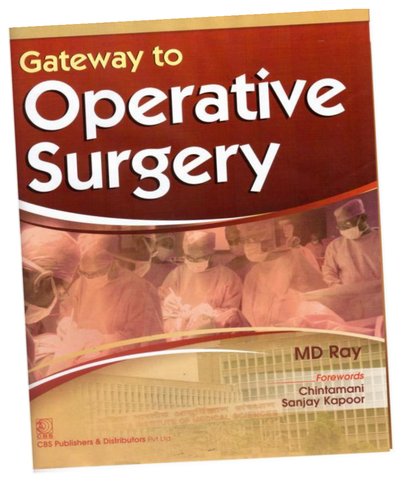
Computerized Prospective Solid Tumor Data Base :

- The department of Surgical Oncology has developed and maintaining a totally computerized prospective solid tumor data base. Till date we have the complete clinical, treatment and outcome data of more than 10,000 cancer patients.

PUBLICATIONS

Total Publications till date more than 400 in different National and International Journals. Published Books are





FUTURE OF THIS CENTRE:

- Considering the rapid progression and increase incidence of Cancer burden in India National Cancer Centre being rapidly developed by the supervision of this centre. It would be a World class Cancer centre in near future. All the standard facilities will be available in this centre staring from micro vascular Surgery to up graded Robotic Surgery. Definitely this centre will fulfill the need of public in India and will emphasize the preventive aspects strongly too. Not only in patients care but also in research, teaching and training this centre will lead the Country as always.

Transplant Immunology and Immunogenetics

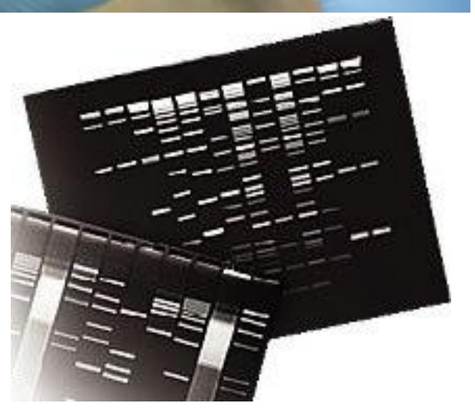
Year of Establishment- 1993

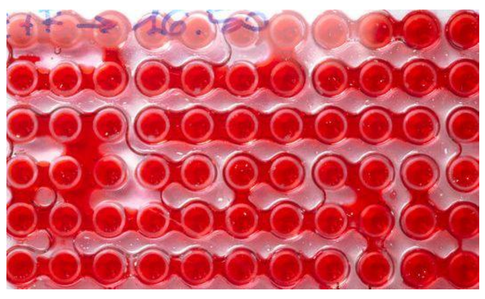
1st Department of Transplant Immunology and Immunogenetics in India

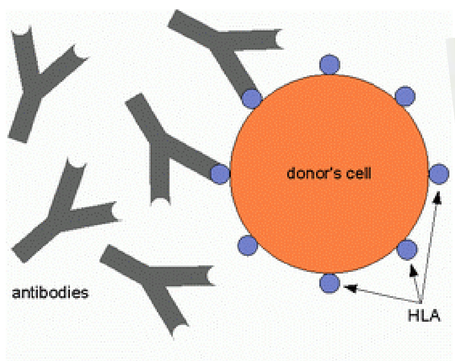
"Growing needs for HLA matching and immunological monitoring following organ and bone marrow transplantation"

What is Required before a Transplant ?

- HLA Matching
  - Determine HLA-A,B & DR for Patient & Donor
- Cross-Match Test
  - Determines if the Patient has antibodies to donor HLA Antigens
- Detection of Anti-HLA Antibodies Calculate PRA
  - PRA : Panel Reactive Antibody is the amount of antibody present in patient's serum and reported as %





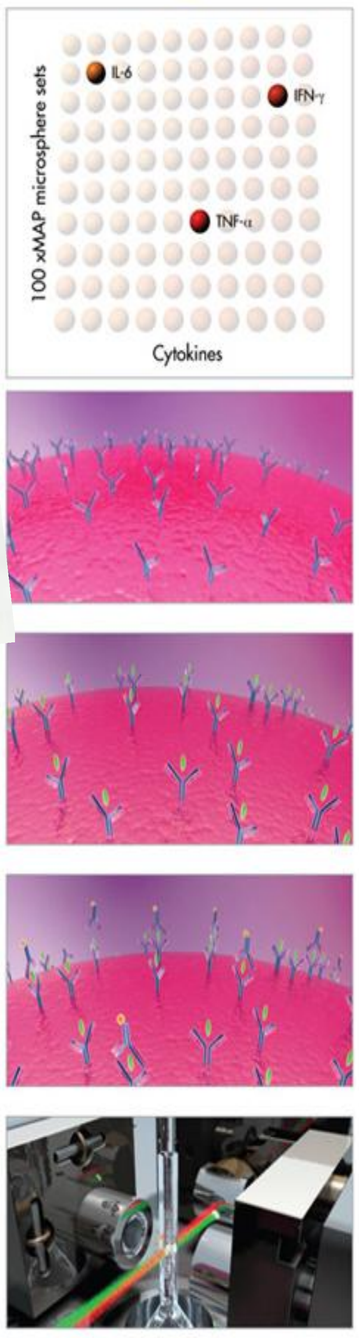


Antibody Screening Techniques

- CDC : Complement Dependent Cytotoxicity
- ELISA : Developed in 1980's and more sensitive than CDC
- Flow PRA : Specifies Anti-HLA Class-I & II (1990)
- Luminex: 21st Century Tool and highly sensitive. Epitope Level Prediction

Luminex Based Technologies

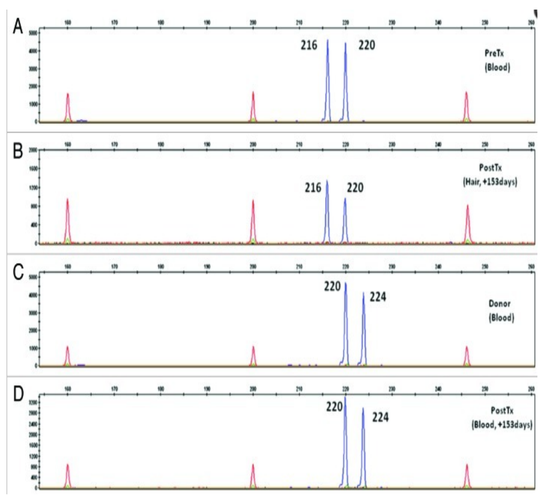
xMAP Technology Process Flow

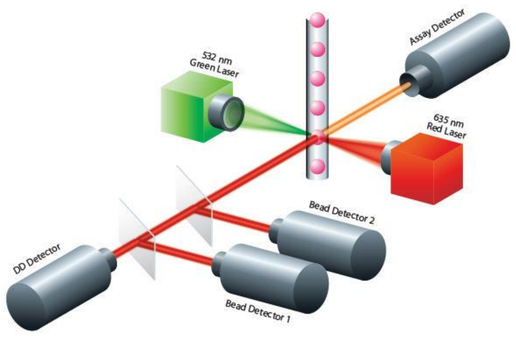


1. Microspheres are dyed to create 100 distinct colors
2. Microspheres are coated with capture antibody
3. Sample is added to microspheres and analyte is captured
4. Fluorescent tagged detection antibody is added
5. Lasers detect both bead dyes and tagged detection antibody

Multiplex STR-PCR Based Monitoring for BMT

- Initiated at AIIMS in 2002
- Post bone marrow transplant chimerism monitoring is being done by using highly sensitive multiplex STR-PCR based techniques.
- This helps in defining the graft status, prognosis and treatment modalities.





Initiated Flowcytometry based diagnosis of Primary Immunodeficiencies and Research

Vaccination approaches for Tuberculosis, Leishmania etc.

Genetic Diversity
- Clinical and biological significance

Research Areas
- Infectious Diseases
  - Mycobacterial & HIV
- Autoimmune Diseases
  - Rheumatological, Diabetes & Cardiovascular

Department of Transplant Immunology and Immunogenetics

Established transplant related technologies at AIIMS
- Organ TX
  - Immunobiology
  - Molecular matching
  - Immunological predictors
- BMT
  - Matching strategies
  - Chimerism analysis
  - Cytokine studies

Technology Update and quality control exercises
- Immunological
- PCR Based
- Sequence Based

Asian Indian Donor Marrow Registry (AIDMR)

Established in 1994

Prestigious Research Awards

SAVE A LIFE

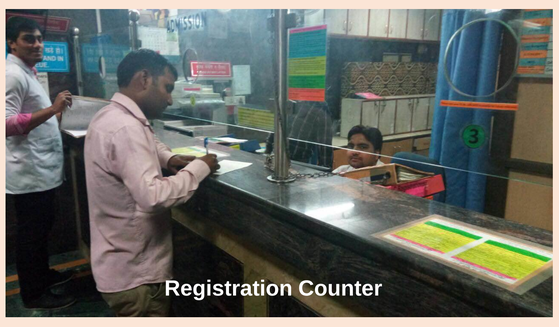
REGISTER AS A DONOR

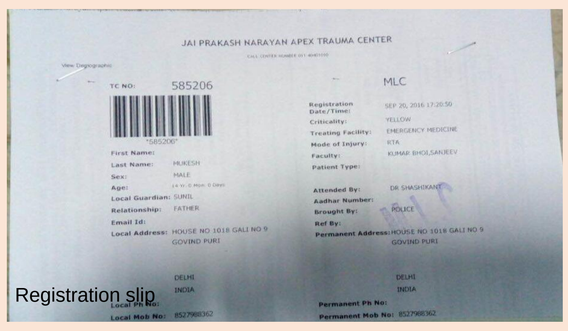
रक्त दान: महा दान | अंग दान : परम दान

Patient's e - Journey at Trauma Centre

PATIENT REGISTRATION

Emergency Department


Registration Counter



Registration slip

- e-Registration of patient
- Registration slip

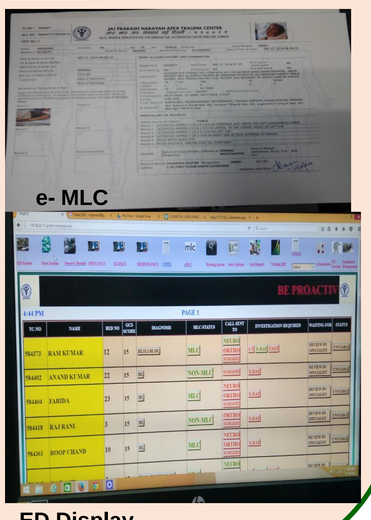
EMERGENCY DEPARTMENT

Triaging

ED Roster

PACS

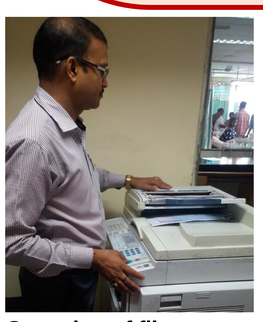
- Triaging
- e-MLC
- Patient Display System
- PACS
- MLC notes
- Computerised order entry and specimen processing
- Computerised Admission, dispatch, death, unknown, plaster room registry, minor OT


e- MLC

ED Display

MRD

- Scanning of all patient's files
- Uploading to EMR (Vista)

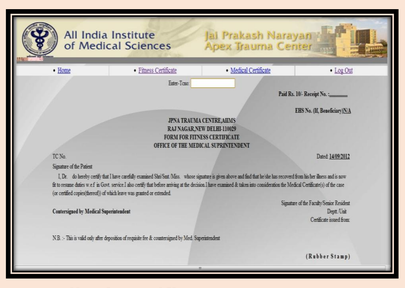

Scanning of files

RADIOLOGY

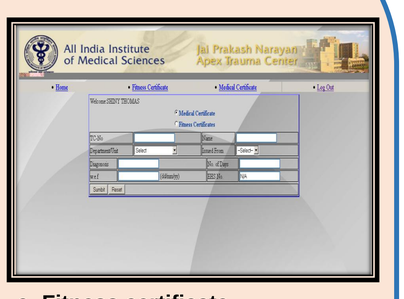
Shifting of patient (assisted by a nurse) with ED Transfer out note for imaging

OUT PATIENT DEPARTMENT

Reception counter



e-Medical certificate



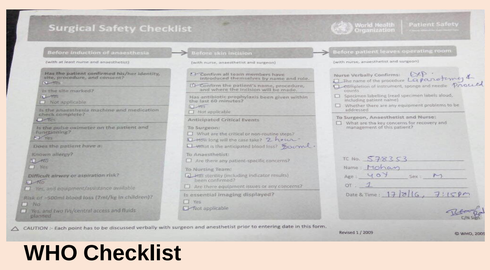
e- Fitness certificate

Queue management system

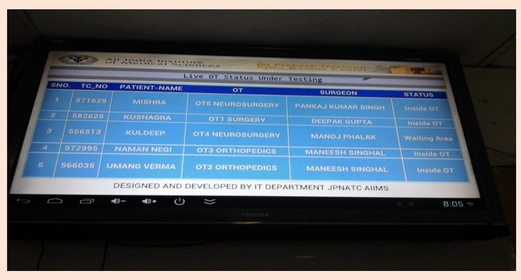
- 100% Online appointment system
- Integrated call centre
- e- Medical Certificate
- e-fitness certificate

OPERATION THEATRE

Operating room

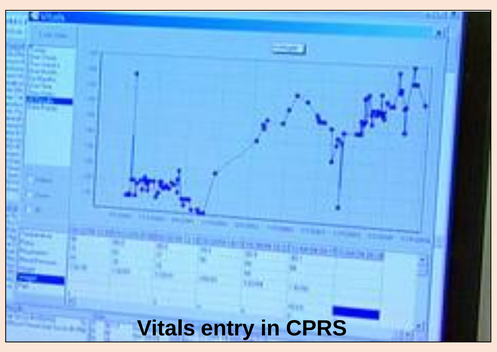


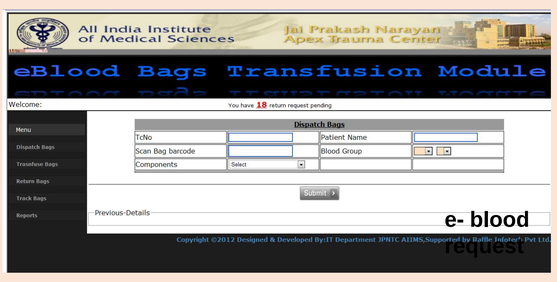
WHO Checklist


OT Display

- WHO OT Checklist
- Online Operation Note
- OT list display

WARD

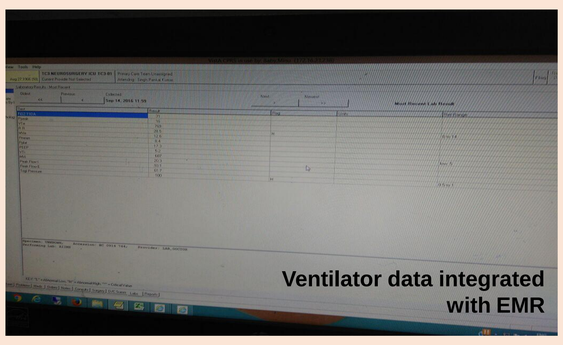

Vitals entry in CPRS



e- blood request

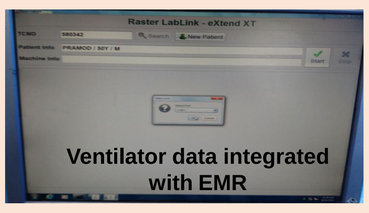
- Computerized Patient record system-Transfer out note, Discharge note
- Lab Interface
- Kiosk
- Ventilator integration
- e- vitals entry

MOST ADVANCED IT ENABLED ICU AMONG PUBLIC SECTOR HOSPITALS


Ventilator data integrated with EMR

Ventilator data integrated with EMR

Mobile CT


Ventilator data integrated with EMR

- 20 bedded ICU, ventilator and monitor data coming automatically in to EMR.
- ABG Integrated with EMR
- e-Vitals entry
- e- Transfusion
- ICU critical score trends
- Fully IT enabled ICU

AWARDS

eHEALTH BEST JURY AWARD FOR ONLINE HEALTHCARE PROVIDER

eINDIA 2011 AWARD FOR THE BEST ICT ENABLED HOSPITAL OF THE YEAR

mBillionth SOUTH ASIA AWARD 2010

eINDIA 2010 AWARDS

ACCOLADES

Six Decades of AIIMS

Trauma Care at JPNATC -At the Cutting Edge of Technology

Prof. Venugopal Inaugurates trauma center

Year of Establishment of Trauma Centre :2006

Departments

- Critical Care and Anaesthesia
- Emergency Medicine
- Forensic Medicine
- Lab Medicine and Blood Bank
- Medical Record Section
- Neurosurgery
- Orthopaedics
- Physiotherapy
- Radiology
- Trauma Surgery

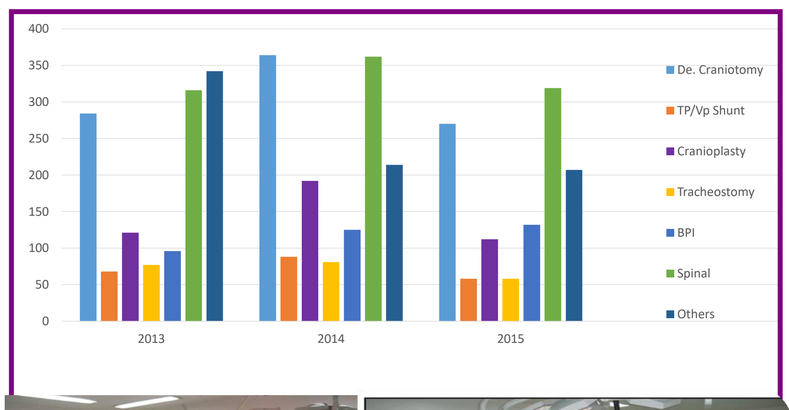
Model Emergency Department

Neurosurgery

Model Neurotrauma ICU

- Neurosurgery ICU (TC3)Total bed -20
- Neurosurgery ICU (TC3)total ventilators -20
- TC3 ICU Total ventilator integration -20
- ABG Integration-completed

Surgeries Performed

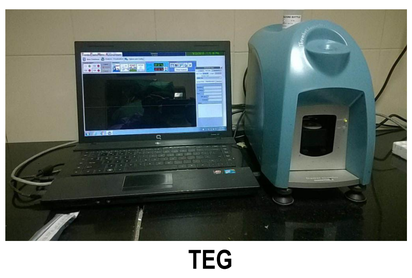


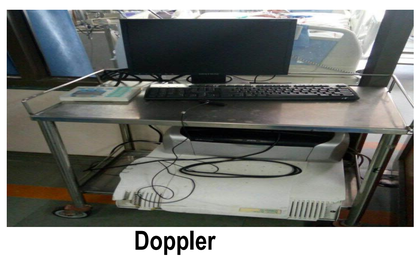
O Arm in Neuro OT — C Arm in Neuro OT

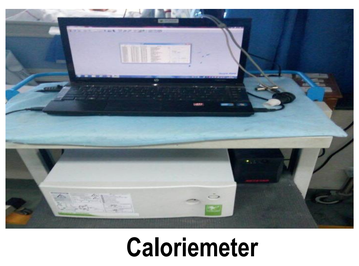
Patient relative counselling

Ultrasound Nursing

Microdialysis


TEG


Doppler


Caloriemeter

Clinical workload

YEAR	OPD	ADMISSION	SURGERY	BEDS
2013	6384	1661	1304	58
2014	6450	1957	1426	58
2015	6832	1881	1334	58

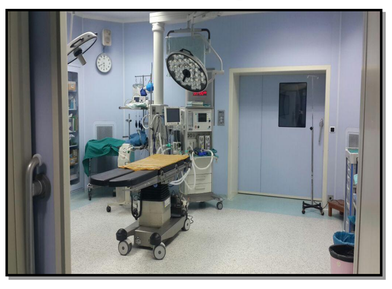
Stem cell and Translational Neurosciences Laboratory (STN)

STN Team

Stem cell & Translational Neurosciences Laboratory(STN Lab) is inaugurated by Prof. M. C. Misra on 4th June 2016 and is involved in brain and spinal cord injury research and also other translational research including molecular work.

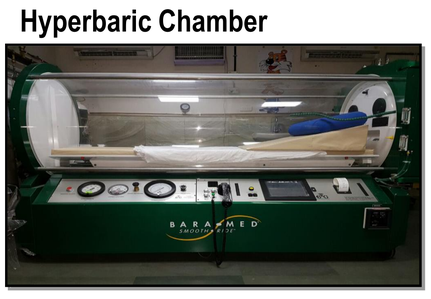
Trauma Surgery and Critical Care

Modular Operating Rooms



The Team

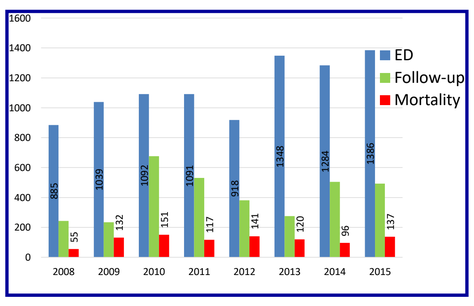
Hyperbaric Chamber



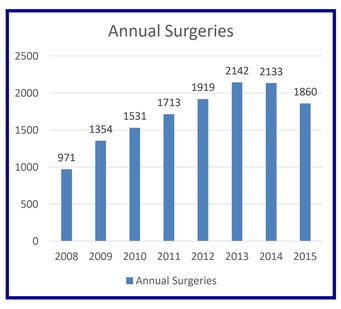
Simulator

Serving and Saving more people every year..

Yearly Admissions in Trauma Surgery



Yearly Surgeries

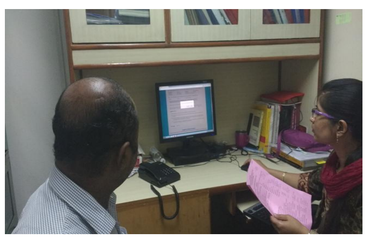


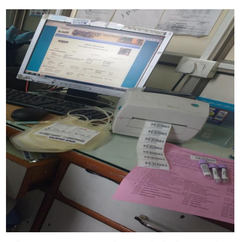
From Everest crusaders to foreign visitors, we take care of all…

Blood Bank / Lab Medicine/ HICC

- Founder Members: Dr M C Misra, Dr Rama Basin
- History: Blood Bank: Started as blood storage centre and now a full fledged blood bank with 100% components. Lab services had humble beginnings with limited resources, staffs and now advanced to state of art advanced laboratory & transfusion services.

Computerization in Donor screening, collection


Computerised screening


Computerised blood bag preparation

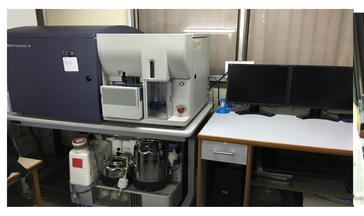
Automated blood collection using biomixer

Automated Immuno hematology & TTI screening (CLIA)

Chemiluminescence Immuno analyser

Automated Immunohematology analyser

Trauma Immunology



Flowcytometer for monitoring of trauma patients

Blood Bank Team -JPNATC

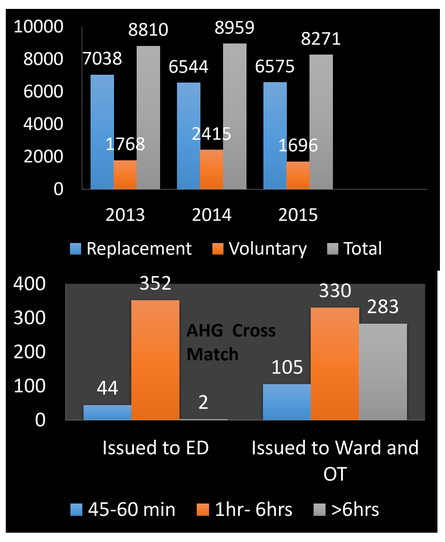
Hospital Infection Control (HICC)

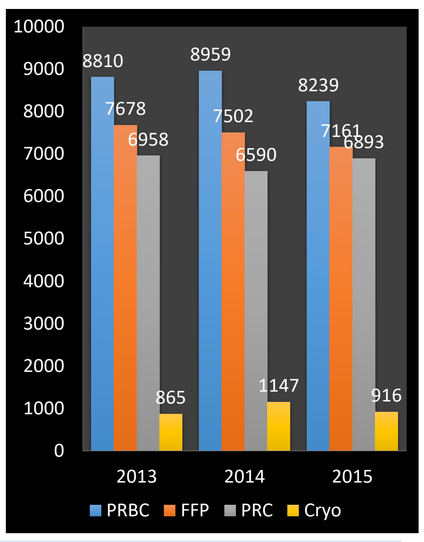
World Health Organization Asia Pacific Hand Hygiene Excellence Award (2015)

Laboratory Medicine statistics 2011-15

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Biochemistry	377405	498599	883278	494072	478474
Hematology	402283	449660	437573	445506	537217
Coagulation	45722	61499	56025	53664	66899
TEG	1391	2234	1859	2585	5162
Microbiology	30473	25347	30955	26849	24680
Histopathology	4341	4966	4675	3822	6019

Blood Bank statistics



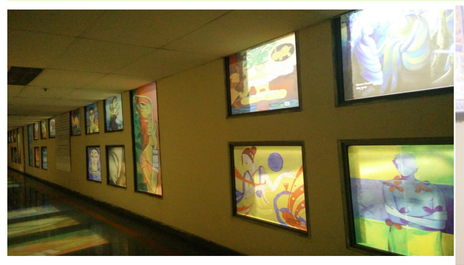


Physiotherapy

Education session

Orthopedics/Radiology

Art Gallery at JPNATC



A unique place that brings Oasis of contemplation ,healing and rejuvenation

COURSES AND COLLABORATIVE PROJECTS AT JPNAT

AITSC — AUSTRALIA - INDIA TRAUMA SYSTEMS COLLABORATION
ATLS — Advanced Trauma Life Support ATLS® Course
Advanced Trauma Life Support — INDIA
AIIMS-PDCP — Personality Development, Communication & Presentation skills
AIIMS Ultrasound Trauma Life Support Course
COMMUNITY EMERGENCY INITIATIVE
BPRS — Basic Plastic & Reconstructive Surgery (BPRS) Course
AIIMS reap — Workshop on Research, Ethics and Publication for Nurses
American Heart Association — Learn and Live — Advanced Cardiac Life Support Coming soon
ATCN — Advanced Trauma Care for Nurses ATCN Course
AIIMS Basic Emergency Care Course — AIIMS Basic Emergency Care AIIMS-BECC Course
AIIMS KISS — Keep it Simple Sonography (AIIMS-KISS) Course

JPNATC AT NEWS

Life-saving tips a phone call away
24X7 The trauma unit at AIIMS is to get a medical call centre, new wards and more beds in time for Games 2010
hindustantimes

Live stats on Aiims trauma centre site
TRANSPARENCY Real time updates on waiting time, discharges

THE TIMES OF INDIA
At AIIMS new information system to ease woes of attendants
NEW DELHI: If things go according to plan, relatives of patients and doctors at AIIMS are likely to face less inconvenience while attending on the injured admitted at the hospital's casualty.
Emergency Display Information System (EDIS), a electronic patient status board put up at the casualty, will display information as well as detailed content regarding patient injury status and criticality, clinical plans and disposition status, doctors teams, status of their hospital stay, health status and their expected care plans among other things.
A brain child of the chief of Trauma Centre Dr M C Misra and associate professor of neurosurgery Dr Deepak Agrawal, EDIS was conceived after doctors found there was dearth of coordination and right communication between doctors team and patient's relatives while taking care of patient in hospital emergency departments.
"The whole idea behind it is to streamline patient care system in the emergency. There is lot of chaos in an emergency. There are times when we have to attend 25 to 50 patients in an emergency. This display system is similar to the facility in the airports that display information related to flights," Agrawal said.
"Once the information is on the display screen, relatives and attendants know the status of the trauma patients. Doctors on shift duties can find out which patient is waiting for them and what next action needs to be done if they view the EDIS."
Patient details are upgraded by a dedicated team of nurses and the software for the EDIS facility has been linked to the registration software too.
"This will also check for complaints of negligence from relatives regarding to patient care. Suppose, a doctor has prescribed for an X-ray of an injured, the time taken to accomplish it can tell us about the waiting period. This facility can point out any negligence on the part of medical staff, if any," Agrawal said.

Now, a study to gauge stress level of AIIMS' doctors, nurses
PTI
New Delhi, June 17, 2012
The AIIMS Trauma Centre has joined hands with IIT-Delhi to determine the stress level in doctors and nurses managing emergency cases.
The study is being done for best treatment outcome of patients admitted in the hospital, said Dr Deepak Agarwal, assistant professor of neurosurgery at the Jai Prakash Narayan Apex Trauma Centre.
"If a doctor or nurse who is attending patients at the emergency unit is stressed out, it will hamper the treatment. And whether a medical personnel is stressed out or not depends on the level of experience and training. Such a study is being conducted for the first time," Dr Agarwal said.
Funded by the Department of Science and Technology, Dr MC Mishra, chief of AIIMS Trauma Centre, and Dr KK Biswas too are involved in this. Agarwal said the project was approved in February.
"We are in the process of testing the sensors to measure the stress level in doctors and nurses. These are electronic sensors attached to the medical personnel's body who is attending on an emergency patient," he said.

Designed and Printed at K L Wig CMET, AIIMS, New Delhi

Urology

Year of Establishment: 1963

Founder members and History: Urology as a distinct specialty was initiated at AIIMS with the creation of a Urology Clinic in the Department of Surgery in the year 1958. In 1963, a separate department of Urology was created with Dr. Sarinder Man Singh's appointment as Associate Professor and Head of Urology and Dr. B.C. Bapna's appointment as Assistant Professor. The M.Ch. training program was started in the year 1966.

Dr. Sarinder Man Singh
Founder & Head 1969-1988

Vision Statement

- The department endeavors to maintain its high standards in urology education and practical training of the residents to go along with the high output and quality clinical/basic research.
- Be a role model to be emulated for other departments across the country in terms of research, ethics & state of the art patient care

Achievements

- More than 600 indexed publications
- Two Padma awards for the Department Faculty

Padmashree:

- Dr Narmada P Gupta and Dr Ashok K Hemal

- Three BC Roy national awards for Department faculty/ alumni

BC Roy Award:

- Dr Narmada P Gupta, Dr Ashok K Hemal, Dr Inderbir Gill

- Department has completed more than 50 years in urology education and training of residents

Golden jubilee celebrations 2015

Robotic Surgery

- 133 alumni serving and practicing advanced urology across the globe
- First robotic system in urology in the country
- Pioneers in laparoscopic urology and lasers in the country
- Significant facilities in patient care/ education/ research/ others: The Department is fully equipped with the latest technology such as Endourological surgery (TUR, PCNL and URS (1989), ESWL (1987), Urodynamics, Ultrasound, Lasers, Microsurgery, Fusion Biopsy, Laparoscopic surgery (1992) and Robotic surgery (March 2005). State of the art medical care is provided for a variety of urological ailments and the department serves as a referral centre for complicated problems for patients in North India, Bihar, Orissa, Assam and neighbouring countries like Nepal, Afghanistan, Bhutan etc.
- Held many landmark workshops and conferences in Robotics, lasers, reconstructive and endo-urology

Statistical Data:

Number of Faculty: 6, Residents: 11, Technical Staff: 15

Patient care (2015-16)

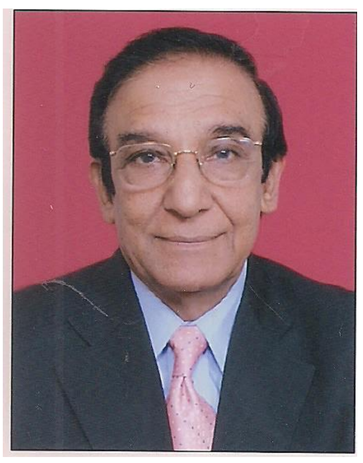
OPD (2015-16)		
	New cases	Old cases
Main Hospital	19123	36339
BRAIRCH	381	4066
Andrology clinic	202	621

In patient	
Long admissions	1459
Short admission	791
USG &Fusion Biopsy	324

Surgeries (2015-16)	
Main OT	2301
Open	553
Endourology	1399
Laparaoscopy	168
Robotic	127
Microsurgery	54
Minor OT	13595
ESWL	1068

Research	(Till date)	(Year 2015-16)
Books	8	NA
Papers	NA	19
Articles	625	27
Chapters	NA	3
Others	NA	NA

Famous Alumni



Dr. Surinder N Wadhwa
Head : 1988-1998

Dr. Narmada P Gupta
Head: 1998-2010

Dr. Prem N Dogra
Head: 2010present

Many Institutions and Departments are headed across the country and abroad by alumni and past faculty of the department

- N P Gupta: BC Roy and Padma Shree awardee, past president Urology Association of Asia and Urology Society of India, Head Medanta Medicity, Gurgaon
- A K Hemal: BC Roy and Padma Shree awardee, Director, Robotics and Minimally Invasive Surgery, Wake Forest Baptist Medical Center, USA
- Inderbir Singh Gill: Famous for advanced minimally invasive urologic oncologic surgery especially partial nephrectomy. Currently Chairman, USC Institute of Urology, Keck School of Medicine, University of Southern California, USA
- Mahendra Bahndari: CEO, Vattikutti Foundation, Henry Ford Hospital. USA
- Other past and present Heads of Departments

Army R&R Hospital, New Delhi : Col. SV Kotwal, Maj Gen. DV Singh
AFMS, Pune : Air Marshal DP Joshi (PVSM, AVSM)
BVUMC, Pune : Brig. DK Jain
ACMS, New Delhi : Brig SC Dash
JIPMER, Pudducherry : Mahendra Bhandari, LN Dorairajan
RML Hospital &PGIMER, New Delhi : Rajeev Sood
Safdurjung Hospital, New Delhi : NK Mohanty, Anup Kumar
GMC Jammu : Sunil Gupta
GMC, Guwahati : Rajeev TP
RIMS, Imphal : A Kaku Singh
RML Hospital, Lucknow : Ishwar R Dayal
University of Dundee, UK : Ghulam Nabi
Keck School of Medicine, USA: Monish Aron

Future Vision:

- The department intends to expand its clinical and research facilities and promote sub-specialization by the faculty into individual areas within Urology. Training opportunities will be expanded and will include the use of simulators and dry labs.