

# **Heavy Metal & Trace Metal Analysis**

**Inductively Coupled Plasma Spectrophotometer (ICP-AES)**

**Model: JY2000-2**

**Heavy & trace metal analysis in biological samples, Ayurvedic preparations, toys, cosmetics, implants, vegetables etc. by**

**ICP**



**Pb, Cd, As, Hg, Cu, Ni, Sn, Zn, Co, Cr,  
Al, Se, Fe, Mg, Mn, Ca, Sr, Pt, Au**

# **Collaborative Projects with Various Departments of AIIMS**

- **Effect of traditionally used Ayurvedic rasa aushadhies on renal and hepatic functions, clinical and experimental study.**
- **Blood heavy metals in children with autism and attention deficit hyperactivity disorder (ADHD) - a cross sectional study**
- **To evaluate the micronutrient levels in relation to oxidative stresses while pregnant women consumes daily VS weekly iron**
- **Synthesis and characterization ultrafine gold nanoparticles and their utility as x-ray contrast region – animal model.**
- **Evaluation of LFABP (Liver fatty acid binding protein) as a early biomarker of cisplatin induced nephrotoxicity.**
- **Evaluation of the frequency of polymorphism affecting lead and mercury toxicity among children with cerebral palsy.**

## Collaborative Projects Contd...

- Estimation of heavy metals in osteoarthritis patients: cross sectional study.
- Reversal of mercury induced toxicity in rats by combination therapy .
- Sertoli cell maturation status, role of heavy metals and role of vitamin A in spermiation defects in human.
- Potential effect of gene environment interaction between CYP450A1, GSTT1, GSTM1 and environment pollutants on semen quality.
- Quantitative detection of heavy metals and phthalates in toys.
- Effect of antiepileptic therapies on their elements status in Indian population in a tertiary care hospital.
- Assessment of proximal femoral bone mineral density and systemic metal ion levels after Birmingham Mid Head Resection Arthroplasty.

## **Collaborative Projects Contd.....**

- **Leaching of metal ions from orthodontic wires: effect of different soft drinks.**
- **Serum trace element levels in children receiving antiepileptic drug therapy: a cross sectional study.**
- **Interaction of zinc with sodium valproate and phenytoin in experimental models of seizure in rats.**
- **Study of quantitative determination of aluminium and zinc levels as a tool in fatal pesticide poisoning.**