



# क्षेत्रीय जनजाति आयुर्विज्ञान अनुसंधान केन्द्र जबलपुर (म.प्र.)

Regional Medical Research Centre for Tribals  
Jabalpur (M.P.)

## Research Facilities at a Glance

### DISCIPLINES OF RESEARCH

#### Bio-medical

Microbiology  
Genetics  
Vector Control  
Biochemistry  
Nutrition  
Community Medicine

#### Social-behavioural

Anthropology  
Demography  
Biostatistics  
Health Economics

### STAFF POSITION

Scientific	18*
Technical	58
Administrative	60

\*Five positions are vacant

**Dr. Neeru Singh, Director**

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## Malaria/Vector borne disease Laboratory

### Equipments available:

- ▼ **Binocular and inverted light Microscope** - Detection of parasites
- ▼ **ELISA Reader**- Detection of antigen/ antibody for Malaria, Dengue & Filaria
- ▼ **Thermalcycler** - Amplification and detection of the DNA
- ▼ **RT PCR**- Gene expression and quantification
- ▼ **DNA Sequencer**- Sequencing of genes
- ▼ **Flow cytometer** - Cells sorting and quantification
- ▼ **Cell harvester** - Harvesting of cultured cells
- ▼ **Liquid Scintillation Counter** - Estimation of Radio active incorporation in cultured cells
- ▼ **Culture facilities for *Plasmodium falciparum***
- ▼ **Multiplex system** - Cytokines estimation



## Malaria/Vector borne disease Laboratory

**Multiplex Suspension Array** -Luminex multiplex suspension array for simultaneous detection of 42 or more cytokine/growth factors/disease biomarkers.



**5 Part Differential Blood Cell Counter** (model xt2000i) - for 28 different hematologic parameters including reticulocyte count.



**Real-Time PCR (LightCycler 480)** - High-speed, high-accuracy Real-Time PCR (LightCycler 480) for gene expression analysis for various gene of parasite and host & genetic variation analysis with meltcurve and high-resolution melting (HRM).



**Inverted Light Microscope** - for cell & parasite culture.



**DNA Sequencer** - for genes sequencing & polymorphism studies.



**Speed Vac** - Savant DNA 120 Speed Vac concentrator for concentrating of DNA & Proteins.





## Genetics Laboratory

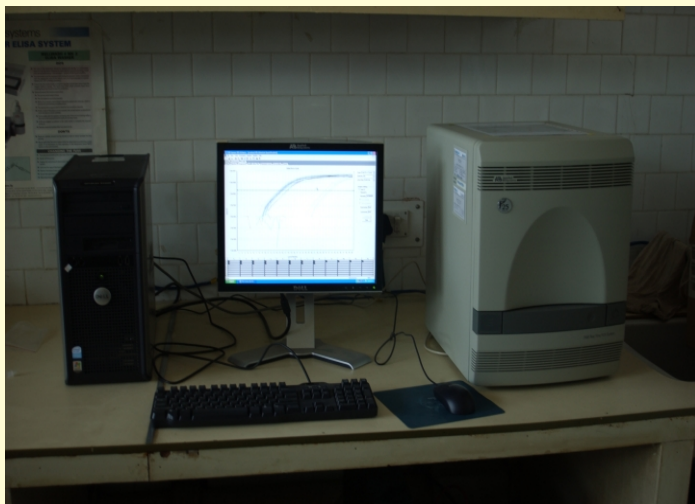
- ◆ **Electrophoresis** - Detection of abnormal haemoglobins
- ◆ **Gel documentation**- Preservation of gel images
- ◆ **HPLC**- Identification and separation of proteins
- ◆ **Automatic blood cell counter**-Three & Five part differential counter
- ◆ **PCR**- Mutation detection & analysis
- ◆ **Cold centrifuge**- Carry out centrifugation at 10,000g
- ◆ **Hb Variant** - Detection of different abnormal haemoglobins





## Microbiology Laboratory

- ◆ **BS II cabinet** -Culture of AFB for tuberculosis and drug sensitivity pattern
- ◆ **BS I cabinet** -Culture of bacteria
- ◆ **Gel electrophoresis**- Separation of different proteins of various organisms
- ◆ **Walk in incubator**- Incubation of large numbers of samples
- ◆ **Western blot apparatus**- Identification of proteins
- ◆ **PCR**- Amplification and mutation detection
- ◆ **FACS counter**- CD4 and CD8 cell count for monitoring of ART
- ◆ **ELISA reader**- Detection of antibody/antigen for HIV/AIDS



## Central facilities

- ◆ **Liquid nitrogen plant-** for continuous supply of liquid nitrogen required for storing and transportation of blood samples in  $-120^{\circ}\text{C}$
- ◆ **Cold room** - Conducting experiment at low temperature
- ◆ **Deep Freezer-**  $-70^{\circ}\text{C}$ ,  $-80^{\circ}\text{C}$  storage of biological samples
- ◆ **Central Library-** Air-conditioned library with more than 1500 books, 400 WHO publications. There are also 50 foreign journals and 60 Indian journals and periodicals.
- ◆ **Data management system-** Centralized management of data
- ◆ **Power backup** - 24 hrs electricity supply with power backup.





## Conference facilities

**Auditorium-**Air conditioned auditorium with all modern electronic projection facility



**Conference Hall-**Air conditioned conference hall with all modern facilities.



**Seminar Hall-**Air conditioned seminar hall with all modern facilities.

