

VISITING POST-DOCTORAL FELLOWSHIPS

The National Centre for Biological Sciences (NCBS) has been established by the Tata Institute of Fundamental Research. It is located on the campus of University of Agricultural Sciences, Bangalore.

A small number of post-doctoral fellowships tenable at NCBS are available each year. Applications from those with a Ph.D. degree or equivalent (**in any branch of natural science/engineering**) and demonstrated research capabilities will be entertained throughout the year and will be considered in February and August. Applicants should summarize recent research experience and include names and addresses of three persons who can be contacted for a critical evaluation of the applicant's research. Applications will be accepted throughout the year. The fellowship is tenable at NCBS. Applicants should indicate the group(s) they are interested in working with.

The mandate of NCBS is basic research in the frontier areas of biology. **In addition a collaborative iBio: Interdisciplinary studies in biology (exploring the physics and chemistry of living matter) Program (with TIFR-Mumbai campus and Raman Research Institute) has been initiated to bridge the language & tools of physics, chemistry, engineering and biology.** Current research interests of the faculty are in the following:

A. Biochemistry, Biophysics and Bioinformatics

1. Structure and dynamics of nucleic acids and its applications in Bionanotechnology (Yamuna Krishnan)
2. Exploring the architecture and function of transmembrane ion channels (M. K. Mathew)
3. DNA damage and repair mechanisms: insights from Raman spectroscopy and computational modelling (Mrinalini Puranik)
4. Mechanisms of damage by laser pulses to single cells and tissue (Kaustubh Rau)
5. Understanding chromatin remodelling and transcription control at the nanoscale (G. V. Shivashankar)
6. Computational approaches to protein science (R. Sowdhamini)
7. The dynamics and evolution of living networks (Mukund Thattai)
8. How do proteins fold, unfold and misfold? (Jayant Udgaonkar)

B. Cellular Organization and Signalling

1. Notch signalling in human epithelial cancers (Sudhir Krishna)
2. Cell Biology of the synapse (K. S. Krishnan)
3. Living membranes: how cells orchestrate multiple mechanisms of endocytosis (Satyajit Mayor)
4. Mechanisms of apoptosis (Apurva Sarin).
5. Molecular mechanisms of mitochondrial remodelling (V. Sriram)

C. Genetics

1. Investigating the role of Inositol 1,4,5-triphosphate signalling in cellular and systemic physiology (Gaiti Hasan)
2. Molecular genetic analysis of complex neuro-psychiatric disorders (Quasar Saleem Padiath)
3. Evolutionary ecology and environmental conservation (Suhel Quadar)
4. Evolutionary history of human and animal populations: Understanding the past and predicting the future (Uma Ramakrishnan)
5. Developmental neurobiology of the olfactory system (Veronica Rodrigues)
6. Developmental genetics and neurobiology of flight and locomotion (K. VijayRaghavan)

D. Neurobiology

1. Computational neuroscience of olfaction and memory (U. S. Bhalla)
2. Neural plasticity in the amygdala and hippocampus (S. Chattarji)
3. Genetic approaches to understand axonal transport (Sandhya P. Koushika)
4. Gene regulation in the mammalian nervous system (M. M. Panicker)
5. Genetic analysis of chemosensory perception in *Drosophila* (O. Siddiqi)

The NCBS web page at <http://www.ncbs.res.in> has brief accounts of the research projects being undertaken by these groups **and about the iBio Program. Applications may be sent to the Head (Academics), National Centre for Biological Sciences, GKVK Campus, Bellary Road, Bangalore 560 065.**