

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 (Yamuna Krishnan)
2. Structural Biology and Macromolecular Crystallography (Deepak T. Nair)
3. Exploring the architecture and function of transmembrane ion channels (M. K. Mathew)
4. Structure and dynamics of nucleic acid binding proteins (Mrinalini Puranik)
5. Cellular responses to fluid forces (Kaustubh Rau)
6. Cellular architecture of genome regulation (G. V. Shivashankar)
7. Computational approaches to protein science (R. Sowdhamini)
8. The dynamics and evolution of living networks (Mukund Thattai)
9. How do proteins fold, unfold and misfold? (Jayant Udgaonkar)

B. Cellular Organization and Signalling

1. The role of papillomaviruses and Notch signalling in the progression of human cervical cancers (Sudhir Krishna)
2. Cell Biology of the synapse (K. S. Krishnan)
3. Mechanisms of endocytosis in metazoan cells (Satyajit Mayor)
4. Mechanisms of apoptosis (Aparva Sarin)
5. Mechanisms of mitochondrial remodeling (V. Sriram)

C. Genetics

1. Inositol 1,4,5,-trisphosphate signalling in cellular and systemic physiology (Gaiti Hasan)
2. Evolutionary ecology and environmental conservation (Suhel Quadar)
3. Evolutionary history of human and animal populations: Understanding the past and predicting the future (Uma Ramakrishnan)
4. Developmental neurobiology of the olfactory system (Veronica Rodrigues)
5. Developmental genetics and neurobiology of flight and locomotion (K. VijayRaghavan)

D. Neurobiology

1. Computational neuroscience (U. S. Bhalla)
2. Plasticity in the Amygdala: Implications for stress disorders and mental retardation (S. Chattarji)
3. Regulation of axonal transport (Sandhya P. Koushika)
4. Gene regulation in the mammalian nervous system (M. M. Panicker)
5. Neural and physical basis of insect flight (Sanjay P. Sane)
6. Genetic analysis of chemosensory perception in *Drosophila* (O. Siddiqi)

The NCBS webpage 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.