

# National Centre for Biological Sciences Tata Institute of Fundamental Research

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## 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. 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 Physics in Biology 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. Exploring the architecture and function of transmembrane ion channels (M. K. Mathew)
2. Single molecule biophysics of gene regulation (G. V. Shivashankar)
3. Computational approaches to protein science (R. Sowdhamini)
4. How do proteins fold, unfold and misfold? (Jayant Udgaonkar)

### B. Cellular Organization and Signalling

1. The role of human papillomavirus oncogenes and Notch signaling in 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 (Aparna Sarin)

### C. Genetics and Development

1. Molecular genetics of InsP<sub>3</sub> signaling in *Drosophila* (Gaiti Hasan)
2. The development of functional neural networks in *Drosophila* (Veronica Rodrigues)
3. Nerve and muscle development (K. VijayRaghavan)

### D. Neurobiology

1. Computational neuroscience (U. S. Bhalla)
2. Neural plasticity in the amygdala and hippocampus (S. Chattarji)
3. Gene expression in the mammalian nervous system (M. M. Panicker)
4. Genetic analysis of chemosensory perception (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 Physics in Biology Program.**

Applications may be sent to the Head, Academic Activities at the above address.