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 and 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. Exploring the architecture and function of transmembrane ion channels (M. K. Mathew)
   3. Structural biology and macromolecular crystallography (Deepak T. Nair)
   4. DNA damage and repair mechanisms: insights from Raman spectroscopy and computational modelling (Mrinalini Puranik)
   5. Bioanalytics, linking biological phenotypes to their chemical basis (Dominik Schwudke)
   6. Cellular mechanobiology of genome regulation (G. V. Shivashankar)
   7. Computational approaches to protein science (R. Sowdhamini)
   8. 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. Only connect: how cells tune-in via multiple mechanisms of endocytosis (Satyajit Mayor)
   4. Mechanisms of apoptosis (Apurva Sarin)

C. Genetics
   1. Inositol 1,4,5-trisphosphate signalling in cellular and systemic physiology (Gaiti Hasan)
   2. Architecture, development and cell biology of the olfactory system (Veronica Rodrigues)
   3. Developmental genetics and neurobiology of flight and locomotion (K. VijayRaghavan)

D. Neurobiology
   1. Computational neuroscience of olfaction and memory (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)

E. Ecology and Evolution
   1. Evolutionary ecology and environmental conservation (Suhel Quadar)
   2. The genetic heritage of South Asia: tracking its history, conserving its future (Uma Ramakrishnan)
   3. Biodiversity and ecosystem functioning, plant herbivore interactions (Mahesh Sankaran)

F. Theory, Modelling and Analysis
   1. Computational folding and functional dynamics of proteins (Shachi S. Gosavi)
   2. The dynamics and evolution of living networks (Mukund Thattai)

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, GKVVK Campus, Bellary Road, Bangalore 560 065.