

Workshop on

“QUANTITATIVE ANALYSIS AND MODELLING IN ANIMAL SCIENCES”

(A Programme by the Department of Science & Technology, Govt. of India)

Biological data are inherently noisy. The highly complex and nonlinear nature of biological processes contribute to the variability. Thus, data collected in laboratory experiments and field studies tend to have large variability. Designing experiments properly to account for confounding factors and biases are very important even before one starts collecting the data. After the data are available, adequate statistical analysis is required to extract the underlying features. Inadequate analysis would give rise to incorrect conclusions. Mathematical models based on the system being studied and available data allow specific predictions, which can be then tested experimentally. Modelling is, thus, the only way to have a testable predictive outcome to aid in experimental studies. Hence, its use in biological research is useful, and should be implemented more actively.

An intensive workshop on quantitative methods applied to biological data, and use of mathematical and computational modelling in biological problems for persons working in any area of Animal Sciences will be held at Pune from **August 17 to 22, 2009**. The workshop is intended for researchers with basic knowledge of mathematics and computational methods, but interested in advancing their expertise in basic data handling, statistical and mathematical methods, and modelling approaches. Examples of modelling in biological sciences will be presented on the last two days by experimental and theoretical biologists.

The programme will consist of lectures and hands-on sessions on specific examples from different areas in Biology, and introduction to useful software. Modelling methods, starting from the basics, will be developed. The primary idea is to raise the awareness of proper designing of experiments, treatment of data, and using data to extract information and prediction using modelling techniques. The faculty will be researchers with considerable experience in data handling and modelling.

VENUE: *Yashada, Rajbhavan Complex, Baner Road, Pune 411007*

ORGANISERS: *Dr. Somdatta Sinha & Dr. Ram Rup Sarkar,
Mathematical & Computational Biology Group, Centre for Cellular & Molecular Biology,
Uppal Road, Hyderabad 500007, AP.*

CONTACT: Email: gamasDST@gmail.com (use subject heading: “QAMAS Application”)

ORGANISING COMMITTEE:

*Amitabh Joshi (JNCASR, Bangalore), B.P. Singh (DST, New Delhi), G. Rangarajan (IISc, Bangalore),
L.S. Shashidhara (IISER, Pune), Mewa Singh (Mysore University), Rajani Joshi (IIT, Bombay).*

NUMBER OF PARTICIPANTS: 35 (Preference will be given to DST Animal Sciences project PIs and personnel)

IMPORTANT DATES:

Last date for receipt of Application for Participation - *July 1, 2009*
Selected participants will be informed - *July 15, 2009*
Arrival information to be intimated to organisers - *July 30, 2009*

APPLICATION: Send by Email to the organisers in plain paper giving name, affiliation, work and contact addresses (with telephone numbers and Email), DST project number (if any), biodata with date of birth and academic qualifications, a short paragraph on experience in data analysis and modelling methods. *Students need to attach a letter from their guides approving their participation request.*

Travel, as per DST rules, and boarding and lodging charges in Pune will be borne by the organisers.