

Summer training on Biochemistry, Biotechnology and Bioinformatics Programme Schedule

| Date | Subject | Faculty | Venue |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------|
| 4 th May 9.30-10.30 | Registration | | ATIC Hall |
| 10.30 – 11.30 | Briefing of the course | Coordinators | ATIC Hall |
| 11.30-12.00 | Tea break | | |
| 12.00 – 1.00 | Pre-evaluation Test | Rashid Pervez/U. Parthasarthy | ATIC Hall |
| 2.00- 4.30 | Concept of Models and Modling Biological System (L) | K. Kandiannan | ATIC Hall |
| 5 th May 9.30-11.15 | Oxidative damage in living systems and potential for the use of phytochemicals as antioxidants and nutraceuticals (L) | Shamina, A. | ATIC Hall |
| 11.30- 4.30 | Functional Foods and Nutraceuticals (L & P) | Shamina, A. | ATIC Hall |
| 6 th May 9.30-1.30 | Cytological techniques and photomicrography (L & P) | R. R. Nair | ATIC Hall |
| 2.00- 4.30 | Information retrieval in digital libraries (L) | Sushama Devi | ATIC Hall |
| 7 th May 9.30-11.15 | Intellectual property rights (L) | D. Prasath | ATIC Hall |
| 11.30- 4.30 | Extraction of plant enzymes, proteins and isozymes analysis (L & P) | K.S Krishnamurthy | ATIC Hall |
| 8th May 2011 (Sunday) | | | |
| 9 th May 9.30-11.15 | Flavour profiling of Spices (L) | T.J. Zachariah | ATIC Hall |
| 11.30- 4.30 | Bioactive phytochemicals in spices (L & P) | N. K. Leela | ATIC Hall |
| 10 th May 9.30- 1.30 | Chemical Analysis of Soil, Water, Manure and Plant Samples (L & P) | S. Hamza | ATIC Hall |
| 2.00- 4.30 | C-sequestration and its potential (L) | V. Srinivasan | ATIC Hall |
| 11 th May 9.30- 1.30 | GIS as a tool for biodiversity study (L & P) | U. Parthasarthy | ATIC Hall |
| 2.00- 4.30 | Basics of Statistics and Statistical Softwares for Researchers (L) | K. Jayarajan | ATIC Hall |
| 12 th May 9.30- 11.15 | Biosafety laboratory procedures (L) | K. Nirmal Babu | ATIC Hall |
| 11.30- 4.30 | Isolation, culturing and maintenance of fungal pathogens and biocontrol agents (L & P) | R. Susheela bhai | ATIC Hall |
| 13 th May 9.30- 4.30 | Plant Tissue Culture and Micropropagation (L & P) | K. N. Babu/Sauj / Anupama | ATIC Hall |
| 14 and 15th May 2011 (S. Saturday and Sunday) | | | |
| 16 th May 9.30- 11.15 | Isolation and PCR amplification of genomic DNA from recalcitrant tissues | B. Sasikumar | ATIC Hall |
| 11.30- 4.30 | DNA markers in plant improvement - AFLPs and Simple Sequence Repeats (SSRs)/Microsatellite (L & P) | K. N.Babu/ R. Paul/ Anu Cyriac | ATIC Hall |
| 17th May 2011 (Budh Purnima) | | | |
| 18 th May 9.30- 11.15 | Plants as surrogate protein factories (L) | Krishna Radhika | ATIC Hall |
| 11.30- 4.30 | Molecular Approaches for Studying the Genetic Diversity of plant and microbes (L & P) | K. Anupama / K. Nirmal Babu | ATIC Hall |
| 19 th May 9.30- 1.30 | Analysis of biological sequences (L & P) | S. J. Eapen/Reena | ATIC Hall |

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| 2.00- 4.30 | Plant molecular farming (L) | KNB/K.Anupama/ R.Swedha | ATIC Hall |
| 20 th May 9. 30- 4.30 | <i>Agrobacterium</i> Mediated Transformation of Plants (L & P) | KNB/KR/E. J. Suraby/P. Anupama | ATIC Hall |
| 21 th May 9. 30- 11.15 | Isolation of total RNA from plants (L) | D. Prasath/Vijay | ATIC Hall |
| 11.30- 4.30 | Isolation of plant DNA and RAPD analysis (L & P) | T. E. Sheeja | ATIC Hall |
| 22nd May 2011 (Sunday) | | | |
| 23 rd May 9. 30- 4.30 | Isolation of plasmid DNA from <i>Escherichia. coli</i> (L & P) | K. N. Babu/ Anu Cyriac/Suraby, E. J. | ATIC Hall |
| 24 th May 9. 30- 11.15 | Transgenic crops (L) | T. E. Sheeja | ATIC Hall |
| 11.30- 4.30 | qPCR (L & P) | D. Prasath | ATIC Hall |
| 25 th May 9. 30- 11.15 | Use of molecular tools for the identification of nematodes (L) | Rashid Pervez | ATIC Hall |
| 11.30-1.30 | Tanscriptomics (L) | K. J. George | ATIC Hall |
| 2.00- 4.30 | Multiple Sequence alignments (L) | S.J .Eapen/Reena | ATIC Hall |
| 26 th May 9. 30- 1.30 | Primer design and validation (L & P) | Chandrashekhar | ATIC Hall |
| 2.00- 4.30 | Molecular Phylogeny (L) | S.J .Eapen/ Chandrashekhar | ATIC Hall |
| 27 th May 9. 30- 4.30 | Molecular modelling (L & P) | S.J .Eapen/Rosana | ATIC Hall |
| 28 th May 9. 30- 4.30 | Development of Molecular Maps in Plants (L & P) | K. N. Babu/ Cissin Jose | ATIC Hall |
| 29th May 2011 (Sunday) | | | |
| 30 th May 9.30- 4.30 | Computational methods in gene prediction (L & P) | Chandrashekhar | ATIC Hall |
| 31 st May 9.30- 4.30 | Field Trip | U. Parthasarthy/ Rashid Pervez | ATIC Hall |
| 1 st June 9.30- 4.30 | Project Presentation | - | S. J. Hall |
| 2 nd June 9.30-1.30 | Data mining characters (L & P) | U. Parthasarthy | ATIC Hall |
| 2.30- 3.30 | Performance Test | Coordinators | ATIC Hall |
| 3 rd June 9.30 -11.00 | Post Evaluation | P. Rajeev | ATIC Hall |
| 3 rd June 11.30 - 1.00 | Valedictory Function and Distribution of Certificate | | |
| Tea Break at 11.15-11.30 & 3.15-3.30 PM; Lunch Break at 1.30-2.00 PM on all working days | | | |