### NATIONAL WORKSHOP

on

# "Current Approaches in Molecular Modeling of Proteins" 8 - 10 January 2016

### **APPLICATION TO REGISTER**

Title First Name
Last Name
Educational Status
Designation/Student
University/Institute
Address (Mailing)
City State
Pin CodeTel/Mobile
Email(valid)
Accommodation required (tick): yes / no
DD Details
No Date
Issuing Bank

### **Signature of Applicant**

Separate application form may be downloaded from the website.

URL: www.bisr.res.in

Last Date of Application: **31 December 2015** 

### REGISTRATION INFORMATION

**Timings**: 09:30 - 18:00 hrs

**Registration** 09:00 hrs Day 1

#### **Venue**

Mini Conference Hall, Birla Auditorium, Birla Institute of Scientific Research, Statue Circle, Jaipur 302001

**Fee:** Rs 2000/-

The fee includes course documentation as well as midsession refreshments and lunch.

**On-spot registration** is available only in condition of availability of seat with late fees and prior information.

### **Accommodation:**

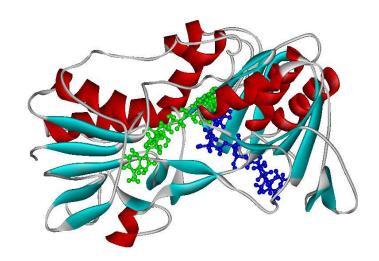
Accommodation will be provided on written request to the convener and the participant will bear the cost of accommodation.

### **Disclaimer**

In the event of circumstances beyond its control, the Management reserves the right to alter the program, the speakers, the date or the venue.

# BISR, Jaipur and BTIS Sub-DIC, DBT, GOI

**Training Programs'** 



# **Current Approaches in Molecular Modeling of Proteins**

8<sup>th</sup> - 10<sup>th</sup> January 2016



# Birla Institute of Scientific Research Jaipur

"Gain the competitive edge with practical experience and hands-on technical training."

### PROGRAM DESCRIPTION

Bioinformatics has created an unprecedented opportunities for researchers to design novel leads and therapeutic molecules. Today, the computational techniques implemented for molecular modeling and drug design are very promising and, as a result, have immensely reduced down the time and the cost of experimental research. The *In-silico* studies have enhanced our understanding of molecular properties and the specific behavior of drug-receptor interaction at the molecular level.

This workshop focuses on current techniques of molecular modeling of proteins that are being practiced by researchers involved in bio-molecular modeling and designing of specific chemical compounds. Each concept will be covered through guided practical training. For lab exercise, various open source and commercial software will be used in training such as Autodock, Modeller, Arguslab, DeepView, Marvin Draw, Molinspiration and Discovery studio. The workshop is self-contained and does not assume any special knowledge of computer programming or Bioinformatics.

## **TOPICS COVERED**

- Introduction to Molecular Modeling
- Proteins: Structure & Properties
- Databases and Information Resources
- Structure Alignment & Superposition
- Sketching and Building Biomolecules
- Protein Structure Prediction
- Protein Secondary Structure Prediction
- Homology Modeling Technique
- Protein Threading or Fold Recognition
- Ab Initio Modeling Methods
- Molecular Docking Techniques
- Computer Aided Drug Designing

## **TEACHING FACULTY**

Besides BISR faculty, eminent guest speakers from renowned Bioinformatics Centers of India will deliver lectures and conduct demonstration on various aspects on Bioinformatics.

### LAB EXERCISE

Accessing online resources, Structure databases, Sketching & Building biomolecules, Predicting and analyzing various properties of proteins, Homology modeling of proteins, Threading and Ab-initio methods for tertiary structure prediction, Molecular docking using Autodock.

### WHO SHOULD ATTEND?

The participants of the course may be students, research scholars, faculty and industry personnel with background in Life Sciences and/or Information Technology. *The workshop is self-contained and does not assume any special knowledge of the subject.* 

### **HOW TO APPLY**

Interested candidates may apply by sending filled application form along with the DD of Rs 2000/- in favor of "The Birla Institute of Scientific Research" payable at "Jaipur" latest by December 31, 2015 to the Convener. The confirmation of participation will be informed through emails only. Selection criteria would be first come first serve. (Mark heading of your envelop with "Bioinformatics workshop" 8 –10 January 2016.)

**Note:** The number of participants is limited to **40** only. **For any query email at workshop.bisr@gmail.com** 

### Dr. P S Solanki

Convener
Bioinformatics Workshop
Birla Institute of Scientific Research
Statue circle, Jaipur – 302001, Rajasthan (INDIA) **Tel**: 0141-2385094 ext 324 (0), **Fax**: 0141-2385121

A certificate of attendance for professional development will be given to each participant who completes the course.

"For more details visit www.bisr.res.in"