



B.S. Abdur Rahman™

**Crescent**

Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956

**TWO WEEKS HANDS-ON WORKSHOP/ FDP**  
**ON**  
**BIOINFORMATICS UNLEASHED:**  
**EXPLORING SEQUENCES TO SIMULATION**

**September 17 to October 1, 2024**

*Organized by*

**School of Life Sciences**  
**B.S.Abdur Rahman Crescent Institute of Science**  
**and Technology, Chennai**

*In association with*

**Crescent Bioinformatics Association**

*Convenor*

**Dr. S. Hemalatha**  
Professor and Dean  
School of Life Sciences

*Organizing Team*

**Dr. S. Ranjani**, Asst. Prof  
**Dr. A. Baskaran**, Asst. Prof

## **About B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai, India**

B.S.Abdur Rahman Crescent Institute of Science and Technology is accredited with "A+" grade by NAAC, ranked 3rd among the Engineering Institutions in Tamilnadu in teaching, learning and resources by NIRF, MHRD. It has track record of 39 years of Excellence in offering Engineering, Science and Management programmes. Being one of the leading engineering institutions in India, it lays emphasis on innovative research, investment and first rate infrastructure.

## **About the School of Life Sciences**

School of Life Sciences is THE BEST SCHOOL in BSACIST, excelling in teaching, research and training programmes across the interdisciplinary areas of life sciences by nurturing student's bioentrepreneurs. The school offers Undergraduate, Postgraduate and Doctoral programme in Life Sciences. Visit [www.crescent.education](http://www.crescent.education)

## **About Crescent Bioinformatics Association (CBA)**

Crescent Bioinformatics Association (CBA) is started with the aim to explore the significance of Bioinformatics and its tools through education and research. Recent updates on bioinformatics and its importance in research will be explored via seminars, workshops, FDP and conferences.

## **Who can participate?**

Under-graduate and post-graduate students, PhD scholars, Faculty members can participate in 15 days Hands-on workshop/ FDP  
E-Certificate will be provided to all the participants.

**Registration Fee: Rs. 500/-**

## **Account Details for Registration**

Bank : Indian Overseas Bank, (IOB)  
Acc. Name : Dean, School of Life Sciences  
Ac. No. : 165701000019853  
IFSC code : IOBA0001657  
Branch : Vandalur, Chennai

**Scan to Register**



<https://forms.gle/XZztTBkdnYQ4Ydrq8>

**For more information please contact**  
[ranjani.sls@crescent.education](mailto:ranjani.sls@crescent.education); [baskaran@crescent.education](mailto:baskaran@crescent.education)

**After registration, please join in our whatsapp group**  
(link provided in the google form)

## Schedule Time: 6:00 pm – 7:00 pm

<b>Day</b>	<b>Topic</b>
<b>Day 1</b>	<i>Bioinformatics and databases</i>
<b>Day 2</b>	<i>Multi-omics</i>
<b>Day 3</b>	<i>Sequence alignment</i>
<b>Day 4</b>	<i>Homologous sequence search (BLAST, Clustal Omega)</i>
<b>Day 5</b>	<i>Molecular modelling</i>
<b>Day 6</b>	<i>Phylogenetic tree construction (Phylogenetic tools)</i>
<b>Day 7</b>	<i>Introduction to molecular docking and databases</i>
<b>Day 8</b>	<i>Pharmacokinetic screening of ligands</i>
<b>Day 9</b>	<i>Molecular docking – Autodock</i>
<b>Day 10</b>	<i>Molecular docking –Pyrx</i>
<b>Day 11</b>	<i>Molecular docking-protein-protein interactions</i>
<b>Day 12</b>	<i>Molecular Visualization (PyMol and Chimera)</i>
<b>Day 13</b>	<i>Molecular dynamics Simulation (Basics to Simulation)</i>
<b>Day 14</b>	<i>Molecular dynamics Simulation (System and Complex preparation for Simulation, Post simulation analysis and energy calculation)</i>
<b>Day 15</b>	<i>Assessment</i>