



2nd National Workshop on Bioinformatics and Computational Biology

Dates: 18-20 December, 2016

Venue: CVASU and USTC Campus, Chittagong, Bangladesh

Organized Jointly By:

Bangladesh Bioinformatics and Computational Biology Association (BBCBA)
Bioinformatics Research Group of Rajshahi University (BioRGRU)
Chittagong Veterinary and Animal Sciences University (CVASU)
University of Science and Technology Chittagong (USTC)

Supported By:

Higher Education Quality Enhancement Project (HEQEP:CP-3603, CP-3215) of UGC

Program

Day-1. Sunday 18 December 2016

Venue: CVASU New Conference Room (Academic Building-2, 2nd Floor)

09.00-09.30 am	Registration
09.30-10.30 am	Session 1: Inaugural session <ul style="list-style-type: none"> Welcome address by Prof. Dr. Md. Nurul Haque Mollah, President of BBCBA and Professor, Dept. of Statistics, Rajshahi University Introducing the Keynote speaker: Prof. Dr. AMAM Zonaed Siddiki, General Secretary, BBCBA and Professor, Dept. of Pathology and Parasitology, CVASU Key presentation : “<i>Application of Bioinformatics in Epidemiology and Control of Infectious Diseases</i>” Prof. Dr. Probodh Borah, Head, Biotechnology Dept, Assam Agricultural University, India Speech from Special Guest: Mrs. Mahmuda Khatun, Director, BCSIR, Chittagong. Speech from Special Guest: Prof. Dr. Provat Chandra Barua, Hon`ble Vice Chancellor, University of Science and Technology Chittagong (USTC) Speech from Chief Guest: Prof. Dr. Goutam Buddha Das, Hon`ble Vice Chancellor, Chittagong Veterinary and Animal Sciences University Speech from the Chairperson: Prof. Dr. Nurul Absar, Pro-Vice Chancellor, University of Science and Technology Chittagong (USTC) Vote of thanks: Prof. Dr. Md. Arifuzzaman, Dean, Faculty of Biomedical and Life Sciences, University of Science and Technology Chittagong (USTC)

10:30-10:45am	Tea Break
10.45-01.00 pm	Session 2: Presentation session Venue: Video conference Room, Academic Building (3rd Floor), CVASU Facilitator: Prof. Dr. Probodh Borah, AAU, India <u>Theoretical sessions</u> <ol style="list-style-type: none"> 1. Fundamentals of Bioinformatics and its Applications 2. Sequence Alignment and Molecular Phylogeny
01.00-02:00 pm	Lunch break
02:00-05:00 pm	Session 3: Hands on Practical session Facilitator: Prof. Dr. Probodh Borah <u>Theoretical Sessions</u> <ol style="list-style-type: none"> 1. Protein Structure Prediction and Molecular Modeling 2. Bioinformatics in Drug Discovery Hands-on Sessions: <ol style="list-style-type: none"> 1. Protein Sequence Retrieval from UniProtKB (with keywords tumor necrosis factor, human) 2. Protein Structure Visualization using RASMOL/UCSF Chimera 3. Protein Primary Structure Analysis - ProtParam 4. Protein secondary structure prediction by SOPMA/ExPASy Tools 5. Protein Tertiary structure prediction by homology modeling using Swiss Model workspace/Modeller 6. Protein Tertiary structure analysis by RAMPAGE – PDBsum/ PROCHECK
05:00 pm	Closing

Day-2. Monday 19 December 2016

Venue: USTC New Campus (Dept of Pharmacy, 6th Floor Lecture Room)

09.00-10.00 am	Session 4: Presentation and Hands on training session <u>Lecture 1</u> <i>Topic: Bioinformatics as a tool for regeneration biology: Retinal regeneration study perspective</i> Resource Person: Dr. Md. Rafiqul Islam Chairman, Dept. of Genetic Engineering and Biotechnology, Chittagong University.
10:00-10:15 am	Tea Break
10.15-01.00 pm	Hands on training session <u>Lecture 2</u> <i>Topic: Introduction to computational genomics and hands-on training.</i> Resource Persons: Md. Jahangir Alam¹ and Dr. Hafizur Rahman² ¹ Bioinformatics Lab, Dept. of Statistics, ² Institute of Biological Sciences (IBSc.), Rajshahi University
01.00-02.00 pm	Lunch Break
02:00-05:00 pm	Session 5: Presentation and Hands on training session <u>Lecture 3</u> <i>Topic: Introduction to computational transcriptomics and hands-on training.</i> Resource Persons: Mr. Md. Shahjaman and Prof. Dr. Md. Nurul Haque Mollah Bioinformatics Lab, Dept. of Statistics, Rajshahi University <u>Lecture 4</u> <i>Topic: Introduction to computational metabolomics and hands-on training.</i> Resource Persons: Mr. Nishith Kumar and Prof. Dr. Md. Aminul Hoque Bioinformatics Lab, Dept. of Statistics, Rajshahi University

Day-3.Tuesday 20 December 2016

Venue: USTC New campus (Dept of Pharmacy, 6th Floor Lecture Room)

09.00-10.00 am	Session 6: Presentation and Hands on training session <u>Lecture 5</u> <i>Bioinformatics tools for whole genome sequence (WGS) data analyses</i> Resource Person: Dr. Asutosh Das Associate Professor, Dept. of Animal Breeding and Genetics, CVASU and Fellow, Aarhus University, Denmark
10:00-10:15 am	Tea Break
10.15-01.00 pm	<u>Lecture 6</u> <i>Topic: Next generation drug discovery: Designing Drugs by Computer.</i> Resource Person: Mr. S. M. Zahid Hosen Scientific Officer, BCSIR, Chittagong
01.00-02.00 pm	Lunch Break
02:00-04:00 pm	Session 7: Presentation and Hands on training session <u>Lecture 7</u> <i>Topic: Introduction to computational toxicogenomics and hands-on training.</i> Resource Persons: Md.Nazmol Hasan¹, Md. Masud Rana¹ and Dr. Moizur Rahman² ¹ Bioinformatics Lab, Dept. of Statistics, ² Dept. of Veterinary and Animal Science, Rajshahi University
04.00-04.30 pm	<u>Lecture 8</u> <i>Topic: Next generation sequencing (NGS) data analyses pipeline: An introduction</i> Resource Person: Prof. Dr. AMAM Zonaed Siddiki Dept. of Pathology and Parasitology, CVASU and Fulbright Scholar, The George Washington University, USA
04.30- 05.00 pm	Session 7: Closing session Feedback session BBCBA Membership drive Certificate awarding ceremony

*All trainee participants are requested to bring their own laptop PC, one multi-plug for AC power and Hi-speed wifi modem for Hands-on training sessions. The copy of all presentations will be available online in Dropbox and relevant information will be forwarded by email to all registered participants.

**For any queries, please contact Prof. AMAM Zonaed Siddiki @ 01717718884 or Mr. Abul Hashem @ 01819179169.