Curriculum Vitae

Ahsan Habib Polash

Doctoral Student, Kyoto University

1 Department of Radiation Genetics, Graduate School of Medicine

2 Laboratory for Molecular Biosciences, Life Science Informatics Research Unit

Mobile Phone: +81-90-1670-1971, Email: paulahsan@rg.med.kyoto-u.ac.jp

(DOB: 1987-Nov-14, Age 32; Nationality: Bangladesh)

Principal Research Areas:

- Cheminformatics, Computational chemical biology, Predictive toxicology
- Bioinformatics, Data processing i.e ChIP-seq data analysis, Data visualization, Immunoinformatics
- Traceability and interpretability in machine learning

Educational and Career History (most recent first):

- 2017 - present: Doctoral Student, Graduate School of Medicine, Kyoto University.
  Expected completion: March 2020
- 2016 - 2017: Research Student, Department of Radiation Genetics, Graduate School of Medicine, Kyoto University
- 2013 - 2016: Lecturer, School of Life Sciences, Independent University Bangladesh
- 2012 - 2013: Research Associate, Molecular Biology Lab, Department of Biochemistry and Molecular Biology, University of Dhaka (BMB-DU).
- 2010 - 2012: Masters of Science in Biochemistry and Molecular Biology, BMB-DU
- 2006 - 2010: Bachelor of Science in Biochemistry and Molecular Biology, BMB-DU

Selected Research Publications:

2019 : "Applicability Domain of Active Learning in Chemical Probe Identification: Convergence in Learning from Non-Specific Compounds and Decision Rule Clarification", *Molecules* 2019, *24*(15), 2716

2019 : Systematic approaches to build predictive models for rat oral toxicity. *CICSJ Bulletin* 2019, 37(1), 12

2018 : "Chemogenomic Active Learning's Domain of Applicability on Small, Sparse qHTS Matrices: A Study Using Cytochrome P450 and Nuclear Hormone Receptor Families", *ChemMedChem* 2018, *13*, 511.

*Designated Very Important Paper based on peer review reports.

2018: Equal contribution of book chapter, "A Survey of Web-Based Chemogenomic Data Resources". In: Brown J. (eds) *Computational Chemogenomics. Methods in Molecular Biology*, vol 1825. Humana Press, New York, NY

2015: A diverse community of jute (*Corchorus* spp.) endophytes reveals mutualistic host–microbe interactions. *Annals of Microbiology* (2015) 65: 1615

2013: "*In silico* prediction of structure and functions for some proteins of male-specific region of the human Y chromosome.", *Interdisciplinary Sciences: Computational Life Sciences* (2013) 5: 258

Technical Skills:

I. Data mining, Programming, Shell scripting for bioinformatics tools development, Data visualization
II. DNA/RNA extraction, Molecular cloning, PCR, Immunostaining, Chromosome aberration assay

Language Skills: Bengali (Native), English (Fluent), Japanese (elementary)

Summary of Graduate Research Career:

- PhD Topics: Artificial intelligence for drug discovery and chemical toxicity
- Masters Thesis Topics: Analysis of salt stress responsive molecular pathways in Jute (*Corchorus olitorius* var. *O-72*)

Future Career Goals and Strategies in Research:

- Contribution to academia through teaching and research
    - Interested largely in advanced computational biology, i.e. next-generation sequencing, machine learning.
    - Contribution to the fields of genetics and drug discovery through application of the above techniques on clinical or preclinical data.
    - Development of approaches to engage and enhance undergraduate and graduate level in computational biology.
    - Development of practical tools for data visualization aimed at both students and researchers.

Personality, Work Habits, and Leadership Experience:

- Considered as a friendly and open minded person by faculty colleagues and students.
- Belief that a positive mindset can provide significant boost to group performance.
- Capable of making tailored presentation on topics depending on the audience.
- Highly flexible in adapting to the personality of the person or colleague I am exchanging with.
- Able to maintain a dynamic yet well-organized working environment.
- Experience in leading and motivating groups of researchers or community members.
- As a biologist turned informatician, I recognize the critical importance of documentation in computer code, which leads to usability and improved work efficiency in a group. I stress high levels of self-evident documentation.