

Maliha Rahman, MS

Texas A&M University-Central Texas
1001 Leadership Place, Killeen, TX 76549

Education

	July 10, 2017
PhD, University of Oklahoma health Sciences Center, Oklahoma City, OK	2012
MS, Biochemistry and Molecular Biology, Oklahoma State University,	2007
OK MS, Microbiology, University of Dhaka, Bangladesh	2005
BS, Microbiology, University of Dhaka, Bangladesh	

Teaching Experience

January, 2008-July, 2009

Lecturer

Department of Microbiology
Primeasia University, Dhaka, Bangladesh

Duties: Developed course outline and objectives, selected specific material to cover, selected required texts, wrote and presented lectures

- Wrote and administered exams and quizzes
- Developed and graded class projects

Guest Lecturer

15 February, 2017

University of Oklahoma Health Sciences Center
College of Pharmacy
Lecture topic: Antibody mediated immunity

Research Experience

Research Assistant/PhD student

University of Oklahoma Health Sciences Center, Oklahoma City, OK August, 2013-present

Research Projects:

- Comparative genome analysis of the daptomycin resistant *Streptococcus anginosus* strain associated with breakthrough bacteremia using different Bioinformatics techniques
- Transcriptome analysis of *S. anginosus* strains with and without phage like chromosomal island using RNA-seq and molecular biology.
- Streptococcal virulence analysis using waxworms (*Galleria mellonella*) as the model organism.

Research Assistant/MS Student

Oklahoma State University, Stillwater, OK

August, 2009-December, 2012

Research Projects:

- Clone, express and purify affinity tagged proteins.
- Used yeast two hybrid analysis to identify modifications of yeast microtubule binding proteins.
- Identification of protein sumoylation sites by Mass spectroscopy.

Research Assistant/MS student

University of Dhaka, Dhaka, Bangladesh

2006-2007

Research Projects:

- Analysis of total DNA from freshwater sample.
- 16S rDNA PCR and analysis by DGGE gel.
- Bacterial community analysis by 16S rDNA sequencing.

Student Evaluations

- “Very clear and easy to understand.”
- “Good interaction with the slides (underlining and circling information as it is discussed).”
- “I came away feeling like I understood the material well.”
- “I liked that she used her story as an example. Personally, it helps me to remember the concepts later.”
- “I also enjoyed it when questions were asked to keep the class involved in the lecture.”
- “...she managed to keep our class’s attention the entire time. I was not only impressed with how well she explained certain concepts, but she spoke in a way that made me believe she is truly passionate about immunology.”

Course Work

- Basic and advanced courses in the area of **Microbiology, Biochemistry, Molecular Biology, Cell Biology** and **Genetics**.
- Basic courses in the area of **Bioinformatics, Immunology** and **Pharmaceutical Sciences**.

Volunteer Work

Intern

Experimental Solutions, LLC, Oklahoma City, OK

July, 2016-present

Judge

Poster Presentations

Graduate Research Education And Technology Symposium (GREAT)

University of Oklahoma Health Sciences Center

March, 2016

Event Coordinator

Graduate Student and Post Doc Career Development Workshop

Speaker: Dr. Isaiah Hankel from Cheeky Scientist

March, 2016

Science experiment demonstration

Exploring Math and Science Academy (EMSA)

Summer program for High school students

University of Oklahoma Health Sciences Center

June, 2014

Mentor

Studentmentor.org

December, 2012-July, 2013

Award and Workshops

- Loyd and Maurine Harris Travel Award, 2016, University of Oklahoma Health Sciences Center
- Deans Award, 2007, University of Dhaka
- “Mass Spectrometry” weeklong workshop at Oklahoma State University
- “Introduction to Teaching” workshop at University of Oklahoma Health Sciences Center

Organizations

- American Society for Microbiology, ASM
- American Heart Association, AHA

Technical Skills

General laboratory techniques: Bacterial culture, molecular cloning, nucleic acid (DNA, RNA, plasmid) extraction, protein purification and quantification, primer design, PCR, qPCR, electrophoresis (SDS-PAGE, agarose gel), Western-blot, high affinity chromatography, waxworm infection model.

Bioinformatics: Software packages: Gene construction kit, Artemis, Geneious, Base by Base, Graphic Converter, ImageJ, Strand NGS, Graphpad Prism and Parsnp. Servers: CGView, KEGG Automatic Annotation Server (KAAS), iPath, IslandViewer 3, EDGAR database. Coding: Bio-Linux and formatdb.

Languages:

- English (Full professional proficiency)
- Bengali (Native proficiency)

Immigration Status: US Permanent Resident

Publications

1. **Rahman M**, Nguyen SV, McCullor KA, King CJ, Jorgensen JH, , McShan WM. Comparative genome analysis of the daptomycin resistant *Streptococcus anginosus* strain J4206 associated with breakthrough bacteremia. *Genome Biology and Evolution*. 2016 doi: 10.1093/gbe/evw241
2. **Hendrickson C**, Euler CW, Nguyen SV, **Rahman M**, McCullor KA, King CJ, Fischetti VA, McShan WM. Elimination of Chromosomal Island SpyCIM1 from *Streptococcus pyogenes* Strain SF370 Reverses the Mutator Phenotype and Alters Global Transcription. *PLoS One*. 2015 Dec: e0145884.
3. **Rahman M**, Nguyen SV, McCullor KA, King CJ, Jorgensen JH, McShan WM. Complete Genome Sequence of *Streptococcus anginosus* J4211, a Clinical Isolate. *Genome Announc*. 2015 Dec: e01440-15.
4. Alonso A, D'Silva S, **Rahman M**, Meluh PB, Keeling J, Meednu N, Hoops HJ, Miller RK. The yeast homologue of the microtubule-associated protein Lis1 interacts with the sumoylation machinery and a SUMO-targeted ubiquitin ligase. *Mol Biol Cell*. 2012. 23(23):4552-66.
5. **Rahman M** and Karim M. Heterologous expression of a human cap-binding protein eIF4E in *Escherichia coli*. *Dhaka University Journal of Pharmaceutical Sciences*. 2006. 5(1-2):59-62.

Conference Presentations

1. **Rahman M**, Nguyen SV, McCullor KA, King CJ, Jorgensen JH, , McShan WM (**Oral**) Comparative genome analysis of the daptomycin resistant *Streptococcus anginosus* strain J4206 associated with breakthrough bacteremia. ASM Microbe 2016, Boston MA
2. **Rahman M**, Nguyen SV, McCullor KA, King CJ, Jorgensen JH, , McShan WM (**Oral**) Comparative genome analysis of the daptomycin resistant *Streptococcus anginosus* strain J4206 associated with breakthrough bacteremia. GREAT 2016, OUHSC
3. **Rahman M**, Nguyen SV, McCullor KA, King CJ, Jorgensen JH, , McShan WM (Poster) Transcriptome Analysis of *Streptococcus pyogenes* Chromosomal Island SpyCIM1. Wind River Conference on Prokaryotic Biology, June 2015, Colorado.

