

## Short Biography of Mst Sharmin Aktar



Mst Sharmin Aktar is currently a PhD candidate (3<sup>rd</sup> year) at the Department of Chemistry in North Carolina State University, USA. She completed her Bachelor of Pharmacy (Hons.) (20<sup>th</sup> batch) and Master of Pharmacy Degrees from State University of Bangladesh (SUB) securing the first position in both the examinations with GPA 4.00 in a scale of 4.00. These outstanding academic credentials brought her two prestigious awards from the University, the Chancellor's gold medal for B. Pharm. (Hons.) and the Vice-Chancellor's award for M. Pharm. examination results. She has served as Formulation Scientist for 3 years (2016-2019) in the Regulatory Affairs Division (R&D Formulation), Renata Limited, Bangladesh where she used to develop generic formulation of medicines and executed bioequivalence study for acquiring the approval of the MHRA and FDA approved market.

Mst Sharmin's research interest includes structure-based drug discovery i.e., molecular docking, computational study, molecular biology and bioinformatics, target drug optimization, investigation of the geometry, solvation free energy, dipole moment, molecular properties, identifying and understanding the binding mode and the intermolecular hydrogen bond interactions between the drug molecule and the target protein, drug designing, generic drug formulation and manufacturing, extracting biologically active enzymes from marine worm, purification, testing and analyzing different protein activity, making crystal structures with different protein and substrate using x-ray and neutron crystallography. Now she is working in her research lab with different modern analytical techniques like UV-Visible spectrophotometry, Mass spectroscopy, X-ray and neutron crystallography, Raman spectrophotometry, NMR to evaluate and investigate different pharmacological activities of proteins with the grant of National Science Foundation (NSF), USA.

During her M. Pharm. study Mst. Sharmin carried out a research work with Naproxen and Hispolon to investigate the *in silico* physicochemical, pharmacokinetic and toxicological properties and the results were published in "*Dhaka University Journal of Pharmaceutical Sciences*" (2016) and "*Der Pharma Chemica*" (2017), respectively.

Mst Sharmin got several recognitions in her academic life. She got "Primary school scholarship" and "junior secondary school scholarship" (District 1st in both) in 2002 and 2005, respectively. She had been awarded the prestigious "National Talent Scholarship" for standing 1st position in

national merit list by Kindergarten Association, Bangladesh in 2004. She obtained scholarship for SSC and HSC exam results by securing the position in Education board merit list. She also grabbed “Kindergarten Association Scholarship” every year from 2000-2005 for having good academic records. One of her biggest achievements was getting the Chancellor’s Award for the outstanding result in B. Pharm. (Hons.) degree and Vice-Chancellor’s Award for M. Pharm. degree.

She has always been connected with the extra-curricular activities from the very beginning of her childhood like debate, music, drama, essay writing, scout activities in school, college and university life. Being on the sphere of national debate team and winning several competitions and being a class representative have made her a confident presenter.

She achieved 1st prize (national level) in singing competition arranged by Bangladesh Kindergarten Association in 2005. She secured 2<sup>nd</sup> position in national cultural TV program (NatunKuri) for singing and been awarded with gold medal in 2004. She was a member of National Debate Foundation, Bangladesh (NDF-BD) and had been awarded for taking part in debate competition on national TV (BTV) in 2004. Besides, she was the “school scout captain” from 2003-2006 and “college scout captain” from 2008- 2010. She also served as the “district leader” for conducting motivational training and workshop for youth and children under the project of “Save the Children Australia”.

The Department of Pharmacy, State University of Bangladesh (SUB) is proud to have such an outstanding alumnus. We wish her every success in new endeavors.