M Obayed Ullah, PhD

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### **Education**

* Doctor of Philosophy in Structural Biology, School of Chemistry and Molecular Biosciences, University of Queensland, St Lucia, Brisbane, Australia (2014).

Thesis Title: “Structural basis of interactions of the TIR domain-containing proteins in TLR signaling pathways in humans”.

* MS in Pharmaceutical Science (Thesis), Department of Pharmacy, Jahangirnagar University, Dhaka, Bangladesh (2001; exam held in 2007), First Class 7th.

Thesis Title: “Toxicological studies of ROHITAKARISTA”.

* Bachelor of Pharmacy (Honors.), Department of Pharmacy, Jahangirnagar University, Dhaka, Bangladesh (2000; exam held in 2004), First Class 3rd.

 Project Title: “Pharmacological and Toxicological studies of LAUHASAVA”.

Research Experience

* My PhD project was focused on the structural biology of human immune proteins involved in human innate immunity. The project aims were to determine the crystal structure of TRIF and TRAM, adaptor proteins involved in TLR signaling pathways.
* During MS and undergraduate degrees, my research was focused on the pharmacological and toxicological studies of traditional medicines using animal model.

**Grant**

# **Co-investigator:** Research group/network title: Studies on Safety, Efficacy and Adverse Health Effects of Herbal Formulation of Bangladesh (BAN 05). ISP (International Science Program)-supported research groups and networks; Uppsala University, Uppsala, Sweden. Group Leader: Dr Md Rausan Zamir; email: rsnzamir@yahoo.com

**As a Supervisor**

During my research career I have supervised several undergraduate and master research projects in Southeast University, University of Queensland and Daffodil International University. Several of these research projects has been published in different journal which I have included in the publication list. Currently I am supervising four Honors research projects and three Masters research project in North South University. The title of few projects, which I supervised in Daffodil International University last year, has been given below:

1. Evaluation of hypoglycaemic activities of herbal drug “Methi” in streptozotocin induced diabetic rats.
2. Evaluation of the efficacy of “Alisa Garlitab”, an anti-diabetic herbal preparation, in streptozotocin induced diabetic rats.
3. Evaluation of the efficacy of an antidiabetic herbal drug (Ziabit) on diabetic induced animal model.

**As an Independent Researcher**

I have lead and completed several research projects including my Honors, Masters and PhD research projects. Outcome of all of these research projects has been reflected in my publication list. Last year while I was involved ISP (International Science Program)-supported research groups and networks (BAN05), I have completed the following research project as an independent researcher.

1. Evaluation of antidiabetic and hypolipidemic activity of “Diazym”, an antidiabetic herbal preparation formulated in Bangladesh, in diabetic induced rat.
2. Studies of the effects of an antidiabetic herbal preparation formulated in Bangladesh (“Diano”) on diabetic and cardiovascular complications in rat.
3. Evaluation of the efficacy of “Insucontrol” as an antidiabetic herbal preparation formulated in Bangladesh on diabetic induced animal (rat) model.

**Publications (Scopus Author ID: 47761611300)**

1. **Ullah MO**, Sweet MJ, Mansell A, Kobe B. Regulation and therapeutic potential of TRIF-dependent TLR signaling*. Submitted to the “Journal of Leukocyte Biology”.*
2. **Ullah MO**, Zaman KHA, Chowdhury MAI. Analgesic, anti-diarrhoeal, antioxidant and cytotoxic properties of *Barringtonia acutangula* leaf and bark. Going to submit soon.
3. Zamir R, Hosen A, Ullah MO, Nahar N. Microbial and Heavy Metal Contaminant of Antidiabetic Herbal Preparations Formulated in Bangladesh. Evidence-Based Complementary and Alternative Medicine, vol. 2015, Article ID 243593, 9 pages, 2015. doi:10.1155/2015/243593 **(Impact factor: 1.88)**
4. Alam MA, Subhan N,HossainH, Hossain M, RahmanMM, **Ullah MO**. Hydroxycinnamic Acid Derivatives: A Potential Class of Natural Compounds for the Management of Lipid Metabolism and Obesity. Submitted to *“Nutrition and Metabolism”* after revision based on reviewer comments. **(Impact factor: 3.26)**
5. **Ullah MO**, Valkov E, Ve T, Williams S, Mas C, Mansell A, Kobe B. Recombinant production of functional full-length and truncated human TRAM/TICAM-2 adaptor protein involved in Toll-like receptor and interferon signaling. [Protein Expr Purif.](http://www.ncbi.nlm.nih.gov/pubmed/25306876) 2015; 106: 31-40.
6. **Ullah MO**, Ve T, Alaidarous M, Sweet MJ, Mansell A, Kobe B. The TLR signaling adaptor TRIF/TICAM1 has a N-terminal helical domain with structural similarity to IFIT proteins.Acta Crystallogr Sect D Biol Crystallogr. 2013; 69(12): 2420-2430. **(Impact factor 14.1)**
7. **Ullah MO**, Ve T, Alaidarous M, Dkhar J, Ericson DJ, Sweet MJ, Mansell A, Kobe B. Crystallization and X-ray diffraction analysis of the N-terminal domain of the Toll-like receptor signaling adaptor protein TRIF/TICAM-1. Acta Crystallogr Sect F Struct Biol Cryst Commun. 2013; F69(7): 766–770.
8. [Alaidarous M](http://www.ncbi.nlm.nih.gov/pubmed?term=Alaidarous%20M%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Ve T](http://www.ncbi.nlm.nih.gov/pubmed?term=Ve%20T%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Casey LW](http://www.ncbi.nlm.nih.gov/pubmed?term=Casey%20LW%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Valkov E](http://www.ncbi.nlm.nih.gov/pubmed?term=Valkov%20E%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Ericsson DJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Ericsson%20DJ%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [**Ullah MO**](http://www.ncbi.nlm.nih.gov/pubmed?term=Ullah%20MO%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Schembri MA](http://www.ncbi.nlm.nih.gov/pubmed?term=Schembri%20MA%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Mansell A](http://www.ncbi.nlm.nih.gov/pubmed?term=Mansell%20A%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Sweet MJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Sweet%20MJ%5BAuthor%5D&cauthor=true&cauthor_uid=24265315), [Kobe B](http://www.ncbi.nlm.nih.gov/pubmed?term=Kobe%20B%5BAuthor%5D&cauthor=true&cauthor_uid=24265315). Mechanism of bacterial interference with TLR4 signaling by Brucella TIR-domain-containing protein TcpB. J Biol Chem. 2013; DOI:10.1074/jbc.M113.523274. **(Impact Factor 4.65)**
9. [Alaidarous M](http://www.ncbi.nlm.nih.gov/pubmed?term=Alaidarous%20M%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Ve T](http://www.ncbi.nlm.nih.gov/pubmed?term=Ve%20T%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [**Ullah MO**](http://www.ncbi.nlm.nih.gov/pubmed?term=Ullah%20MO%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Valkov E](http://www.ncbi.nlm.nih.gov/pubmed?term=Valkov%20E%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Mansell A](http://www.ncbi.nlm.nih.gov/pubmed?term=Mansell%20A%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Schembri MA](http://www.ncbi.nlm.nih.gov/pubmed?term=Schembri%20MA%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Sweet MJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Sweet%20MJ%5BAuthor%5D&cauthor=true&cauthor_uid=24100574), [Kobe B](http://www.ncbi.nlm.nih.gov/pubmed?term=Kobe%20B%5BAuthor%5D&cauthor=true&cauthor_uid=24100574). Cloning, expression, purification, crystallization and preliminary X-ray crystallographic analysis of the TIR domain from the Brucella melitensis TIR-domain-containing protein TcpB.Acta Crystallogr Sect F Struct Biol Cryst Commun. 2013; F69(10): 1167-70.
10. **Ullah MO**, Haque M, Urmi KF, Md. Zulfiker AH, Anita ES, Begum M, Hamid K. Anti-bacterial activity and brine shrimp lethality bioassay of methanolic extracts of fourteen different edible vegetables from Bangladesh. Asian Pacific Journal of Tropical Biomedicine. 2013;3(1):1-7.
11. Krishna Kundu N, **Ullah MO**, Hamid K, Urmi KF, Bulbul IJ, Khan MAI, Akter M, Choudhuri MSK. Studies of lipid profile, liver function and kidney function parameters of rat plasma after chronic administration of "sulavajrini vatika". Pakistan Journal of Biological Sciences. 2012;15(14):666-72.
12. **Ullah MO**, Urmi KF, Howlader MA, Hossain MK, Ahmed MT, Hamid K. Hypoglycemic, hypolippidemic and antioxidant effects of leaves methanolic extract of baccaurea ramiflora. International Journal of Pharmacy and Pharmaceutical Sciences. 2012;4(SUPPL.3):266-9.
13. Akter M, Khan M, Muhsin M, Hamid K, **Ullah MO**, Bulbul IJ, Firoz A, Uddin MB, Urmi KF. In vitro studies on antibacterial, antifungal, and cytotoxic properties of leucas aspera. Biology and Medicine. 2012;4(4):183-7.
14. Hamid K, Urmi KF, Kabir MS, **Ullah MO**, Choudhuri MSK. Toxicological studies of astavarga kvatha curna, an ayurvedic formulation, on liver function parameters of rat plasma. Biology and Medicine. 2012;4(1):27-31.
15. Hamid K, **Ullah MO**, Kabir MS, Paul AK, Alam MZ, Choudhuri MSK. Changes in lipid profile of rat plasma after chronic administration of astavarga kvatha curna (AST) - an ayurvedic formulation. Biology and Medicine. 2011;3(3):26-31.
16. Hamid K, **Ullah MO**, Sultana S, Howlader MA, Basak D, Nasrin F, Rahman MM. Evaluation of the leaves of ipomoea aquatica for its hypoglycemic and antioxidant activity. Journal of Pharmaceutical Sciences and Research. 2011;3(7):1330-3.
17. Hamid K, Kabir MS, **Ullah MO**, Bulbul IJ, Siddiqua M, Choudhuri MSK. Effect of ardhabilva kvatha curna, an ayurvedic formulation, on liver and kidney function parameters of rat plasma after chronic administration. Biology and Medicine. 2010;2(3):49-57.
18. Md Zulfiker AH, Ripa FA, Rahman MM, **Ullah MO**, Hamid K, Khan MMR, Rana MS. Antidiabetic and antioxidant effect of scoparia dulcis in alloxan induced albino mice. International Journal of PharmTech Research. 2010;2(4):2527-34.
19. **Ullah MO**, Hamid K, Ashfaqur Rahman K, Choudhuri MSK. Effect of rohitakarista (RHT), an ayurvedic formulation, on the lipid profile of rat plasma after chronic administration. Biology and Medicine. 2010;2(2):26-31.
20. Haque M, **Ullah MO**, Nahar K. In vitro antibacterial and cytotoxic activities of different parts of plant swietenia mah agony. Pakistan Journal of Biological Sciences. 2009;12(7):599-602.
21. **Ullah MO**, Sultana S, Haque A, Tasmin S. Antimicrobial, cytotoxic and antioxidant activity of centella asiatica. European Journal of Scientific Research. 2009;30(2):260-4.
22. **Ullah MO**, Jashim Uddin M, Hamid K, Kabir S, Azizur Rahman M, Choudhuri MSK. Studies of various biochemical parameters of rat plasma following chronic administration of "rohitakarista" - an ayurvedic formulation. Pakistan Journal of Biological Sciences. 2008;11(16):2036-9.
23. **Ullah MO**, Shrestha T, Sirajam Munira T, Choudhuri MSK. Pharmacological and toxicological studies of an ayurvedic formulation ("lauhasava") on the biological system of rats and mice. Pakistan Journal of Biological Sciences. 2008;11(16):2013-7.

### **Teaching Experience**

**Assistant Professor**

Department of Pharmaceutical Sciences, North South University, Dhaka, Bangladesh. From July 2015 to till Today.

Department of Pharmacy, Daffodil International University, Dhaka, Bangladesh. From July, 2014 to July, 2015.

**Senior Lecturer**

Department of Pharmacy, Southeast University, Dhaka, Bangladesh. From August, 2008 to December, 2009.

**Lecturer**

Department of Pharmacy, Southeast University, Dhaka, Bangladesh. From February, 2005 to August, 2008.

**Tutoring**

Chemistry (BIOC 1020), School of Chemistry and Molecular Biosciences, University of Queensland, St Lucia, Brisbane, Australia. Semester 2, 2011.

### **Administrative Experience**

**Program Coordinator**

B. Pharm Honors program, Department of Pharmacy, Southeast University. From December 2006 to December 2007

### **Recent Awards**

### AsCA’13 Early Career Travel Award to attend the 12th Asian Crystallographic Association Meeting, 2013 in Hong Kong.

Travel Award to attend the Special FAOBMB Symposium, 2013 at National University of Singapore (NUS), Singapore.

### **Recent Conferences/Symposia Presentations**

**Oral:** Special FAOBMB Symposium, 2013 at NUS, Singapore.

 National Conference of Bangladesh Crystallographic Association, 2013.

 Australian Protein Production Symposium, Brisbane, 2012

 South East Queensland Structural Biology Symposium, Brisbane, 2012

**Poster:** Asian Crystallographic Association, Hong Kong 2013

 Asian Crystallographic Association, Adelaide 2012

 Protein Structure and Function, Lorne, 2012

 TLROZ2012, Melbourne, 2012

 East Coast Protein Meeting, Coffs Harbor, 2011

 Annual SCMB Research Student Symposium, 2010-2012

 IMB Structural Biology Divisional Symposium, 2010-2012

### **Recent Courses**

**External:** Crystallography School, Brisbane, 2010

**UQ:** Safety with Analytical X-Ray Equipment, 2010

### **Membership of Scientific Societies**

SCANZ (Society of Crystallographers in Australia and New Zealand)

ASBMB (Australian Society for Biochemistry and Molecular Biology)

BCA (Bangladesh Crystallographic Association)

**Personal Information**

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References

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Signature



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