**<p> Academic Qualifications </p>**

**<p> *Doctor of Philosophy***(PhD):In Biology in 2006 **</p>**

**<p>** Institution : Kobe University, Kobe, Japan **</p>**

**<p> *Master of Science*** (Thesis group) : In Biochemistry and Molecular Biology in 1996 **</p>**

**<p>** Institution : Dhaka University, Dhaka, Bangladesh **</p>**

**<p>** Secured result : First class first position **</p>**

**<p> *Bachelor of Science*** (Honors) : In Biochemistry and Molecular Biology in 1995 **</p>**

**<p>** Institution : Dhaka University, Dhaka, Bangladesh **</p>**

**<p>** Secured result : First class fourth position **</p>**

**<p> *Higher Secondary Certificate***: In Higher Science in 1991 **</p>**

**<p>** (Science group) (Physics, Chemistry, Mathematics & Biology) **</p>**

**<p>** Institution : Patuakhali Govt. Univ. College, Patuakhali, Bangladesh **</p>**

**<p>** Secured result : First division **</p>**

**<p> *Secondary School Certificate***: In Basic Science in 1989 **</p>**

**<p>** (Science group) (General science, General and Higher Mathematics) **</p>**

**<p>** Institution : B.S. High School, Patuakhali, Bangladesh **</p>**

**<p>** Secured result : First division **</p>**

**<p> Academic Positions </p>**

**<p> *Present:* </p>**

**<p>** 1. Treasurer (08.10.2015-Present) **</p>**

**<p>** University of Barisal, Barisal-8200, Bangladesh **</p>**

**<p> *Previous* </p>**

**<p>** 2. Professor (10.10.2013-Present) **</p>**

**<p>** Department of Biochemistry and Molecular Biology **</p>**

**<p>** University of Dhaka, Dhaka-1000, Bangladesh **</p>**

**<p>** 3. Associate Professor (26.05.2011-09.10.2013) **</p>**

**<p>** Department of Biochemistry and Molecular Biology **</p>**

**<p>** University of Dhaka, Dhaka-1000, Bangladesh **</p>**

**<p>** 4. Assistant Professor (29.11.2006 – 01.06.2008; 01.04.2011-25.06.2011) **</p>**

**<p>** Department of Biochemistry and Molecular Biology **</p>**

**<p>** University of Dhaka, Dhaka-1000, Bangladesh **</p>**

**<p>** 5. Assistant Professor (01.04.2010 – 31.03.2011) **</p>**

**<p>** Department of Molecular Sciences, Faculty of Life Science **</p>**

**<p>** Kyoto Sangyo University, Japan **</p>**

**<p>** 6. Visiting Associate Professor (01.06.2008 – 31.03.2010) **</p>**

**<p>** Research Center for Environmental Genomics **</p>**

**<p>** Kobe University, Japan **</p>**

**<p>** 7. Lecturer (01.03.2001 – 28.11.2006) **</p>**

**<p>** Department of Biochemistry and Molecular Biology, **</p>**

**<p>** University of Dhaka, Bangladesh **</p>**

**<p>** 8. Research officer (14.03.2000 – 13.02.2001) **</p>**

**<p>** Molecular Genetics Laboratory, **</p>**

**<p>** International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B) **</p>**

**Research**

***Ph.D. research:***

How the frogs (*Xenopus laevis*) egg membrane-raft associated molecules uroplakin III (xUPIII) and uroplakin Ib (xUPIb) transmit the sperm mediated signal to the cytosolic molecules like xSrc, a tyrosine kinase was revealed. At fertilization the oncogenic product Src activates within a minute and phosphorylates xUPIII, a single transmembrane protein. The digestion of xUPIII by sperm protease and the activation of xSrc are correlated. The tetraspanin xUPIb, a binding partner of xUPIII cooperatively regulate xSrc.

(This research was carried out in the Dept. of Biosystems Science, Kobe University, Japan.)

***Post-doctoral research:***

The function of *Xenopus* G protein subunits on xSrc activity was tested using HEK293 culture cells. The xGiα and xGqα up regulate the xSrc activity whereas xGγ2β1 show the little effect. The inhibitory effect exert by xUPIb/xUPIII complex is rescued by either xGiα or xGqα subunit but not by xGγ2β1.

(This research was carried out in Kobe University and Kyoto Sangyo University, Japan.)

***M.Sc. research:***

The mosquito larvicidal activity of several *Bacillus sphaericus* species and *Bacillus thuringiensis* using their spores and crude extracts were compared. A mosquito larvicidal toxic protein was purified.

(This research was carried out in Dhaka University, Bangladesh.)

***Other research:***

Study the diarrheal potency of several *Vibrio cholera* strains which contain the different forms of CTXΦ using adult rabbit diarrhea model. CTXΦ is a filamentous bacteriophage which encodes cholera toxin.

(This research was carried out at the International Centre for Diarrhoeal Disease Research, Bangladesh.)

**Publications**

***Peer reviewed research:***

1. Amin, MA, Islam, MB, **AKM Mahbub Hasan**, Chowdhury, EK and Shekhar, HU. 2015. Pattern of Drug Resistance of Pathogenic Microbes in the Street Foods of Dhaka City, Bangladesh. Biores Comm. 1(1), 48-52.

2. **AKM Mahbub Hasan**, Hashimoto A, Maekawa Y, Matsumoto T, Kushima S, et al. 2014. The egg membrane microdomain-associated uroplakin III-Src system becomes functional during oocyte maturation and is required for bidirectional gamete signaling at fertilization in Xenopus laevis. Development 141: 1705-1714.

3. Hoque MA, Khatun MA, Islam R, Shekhar HU, Haque ME, **AKM Mahbub Hasan**. 2014. Antibacterial Activity of the Organic Extracts of Stem Bark of Cinnamomum aromaticum Nees. Dhaka Univ J Pharm Sci 13(2):221-224.

4. Sakib MS, Islam MR, **AKM Mahbub Hasan**, Nabi AHMN. 2014. Prediction of Epitope-Based Peptides for the Utility of Vaccine Development from Fusion and Glycoprotein of Nipah Virus Using In Silico Approach. Advances in Bioinformatics 2014: 17.

5. Yesmin N, Elias SM, Rahman MS, Haque T, **AKM Mahbub Hasan**, et al. 2014. Unique Genotypic Differences Discovered among Indigenous Bangladeshi Rice Landraces. International Journal of Genomics 2014: 11.

6. **AKM Mahbub Hasan**, ZH Mohammad, Hossain Uddin Shekhar. 2013. Lipid profile and renal function status in patients with hypothyroidism. J Bang Soc Pharm Professionals. 2 (II): 36-47

7. Kihira S, Yoshida J, Kawada Y, Hitomi Y, Asada T, Hisatomi R, Ohta A, Iwasaki T, **AKM Mahbub Hasan**, Fukami Y, Sato K. 2012. Membrane microdomain-associated uroplakin IIIa contributes to Src-dependent mechanisms of anti-apoptotic proliferation in human bladder carcinoma cells. Biol Open 1(10):1024-1034.

8. Uddin MM, Akteruzzaman S, Rahman T, **AKM Mahbub Hasan**, Shekhar HU. 2012. Pattern of beta-Thalassemia and Other Haemoglobinopathies: A Cross-Sectional Study in Bangladesh. ISRN Hematol 2012:659191.

**9.**Shibib BA, Amin MA, **AKM Mahbub Hasan**, Rahman R. 2012. A creeper, Coccinia indica, has anti-hyperglycaemic and anti-ureogenic effects in diabetic rats. J Pak Med Assoc 62(11):1145-1148.

10. **Dipankar Das Gupta, Md. Enamul Haque, Md. Nahidul Islam, Shafiqur Rahman, AKM Mahbub Hasan and Baigid Alam Shibib. 2011.**Alkaloid and Steroid from the Stem Bark of *Jatropha curcas* (Euphorbiaceae). Dhaka Univ. J. Pharm. Sci. 10 (1): 9-11.

11. Sabrina M. Elias, **AKM Mahbub Hasan** and Zeba I. Seraj. 2011. Microsatellite marker diversity and sequence polymorphism in the red gene locus of indigenous rice populations of Bangladesh. Plant Syst Evol. 296 (3-4):157-165.

12. Kushima S, Mammadova G, **AKM Mahbub Hasan**, Fukami Y, Sato K. 2011. Characterization of lipovitellin 2 as a tyrosine-phosphorylated protein in oocytes, eggs and early embryos of *Xenopus laevis*. Zoolog Sci. 28(8): 550-559.

13. Laisa A. Lisa, Sabrina M. Elias, M. Sazzadur Rahman, Saima Shahid, Tetsushi Iwasaki, **AKM Mahbub Hasan**, Keiko Kosuge, Yasuo Fukami, and Zeba I. Seraj. 2011. Physiology and gene expression of the rice landrace Horkuch under salt stress. Funct Plant Biol. 38 (4):282–292.

14. Lahiry G, Rahman T, **AKM Mahbub Hasan**, Dutta AK, Arif M, Howlader ZH. 2011. Assessment of Impact on Health of Children Working in the Garbage Dumping Site in Dhaka, Bangladesh. J Trop Pediatr. 57(6):472-5.

15. Ferdaus MZ, **AKM Mahbub Hasan**, Shekhar HU. 2010. Analysis of serum lipid profiles, metal ions and thyroid hormones levels abnormalities in beta-thalassaemic children of Bangladesh. J Pak Med Assoc. 60 (5):360-4.

16. M Jakir H Howlader, M Arif, Ahmad F Karim, M Rakibul Islam and **AKM Mahbub Hasan**. 2008. Oxidative Stress and Antioxidant Status in Thyroid Dysfunction. Bangladesh J of Med Sci. 14 (1):52-6.

17. **AKM Mahbub Hasan**, Ou Z, Sakakibara K, Hirahara S, Iwasaki T, Sato K, Fukami Y. 2007. Characterization of *Xenopus* egg membrane microdomains containing uroplakin Ib/III complex: roles of their molecular interactions for subcellular localization and signal transduction. Genes Cells.12 (2):251-67.

18. **AKM Mahbub Hasan,**Sato K, Sakakibara K, Ou Z, Iwasaki T, Ueda Y, Fukami Y. 2005. Uroplakin III, a novel Src substrate in *Xenopus* egg rafts, is a target for sperm protease essential for fertilization. Dev Biol. 286 (2): 483-92.

19. Sakakibara K, Sato K, Yoshino K, Oshiro N, Hirahara S, **AKM Mahbub Hasan**, Iwasaki T, Ueda Y, Iwao Y, Yonezawa K, Fukami Y. 2005. Molecular identification and characterization of *Xenopus* egg uroplakin III, an egg raft-associated transmembrane protein that is tyrosine-phosphorylated upon fertilization. J Biol Chem. 280 (15): 15029-37.

20. Faruque SM, Rahman MM, **AKM Mahbub Hasan**, Nair GB, Mekalanos JJ, Sack DA. 2001. Diminished diarrheal response to *Vibrio cholerae* strains carrying the replicative form of the CTX(Φ) genome instead of CTX(Φ) lysogens in adult rabbits. Infect Immun. 69 (10): 6084-90.

21. **AKM Mahbub Hasan**, Jahangir M, Rahim KA, Rahman M. 2000. Comparative study of mosquito larvicidal activity of locally isolated *Bacillus sphaericus* strains and commercially available ones. Bangladesh J Biochem 6: 69-74.

***Review***

22. **AKM Mahbub Hasan**, Ijiri T, Sato K. 2012. Involvement of Src in the Adaptation of Cancer Cells under Microenvironmental Stresses. J Signal Transduct 2012:483796.

23. Ijiri TW, **AKM Mahbub Hasan**, Sato K. 2012. Protein-tyrosine kinase signaling in the biological functions associated with sperm. J Signal Transduct 2012:181560.

24. **AKM Mahbub Hasan**, Fukami Y, Sato K. 2011. Gamete membrane microdomains and their associated molecules in fertilization signaling. Mol Reprod Dev. 78 (10-11):814-30.

***Chapter***

25. Sato KI, **AKM Mahbub Hasan**, Ijiri T. 2014. Focused Proteomics on Egg Membrane Microdomains to Elucidate the Cellular and Molecular Mechanisms of Fertilization in the African Clawed Frog *Xenopus laevis*. In: Sawada H, Inoue N, Iwano M, editors. Sexual Reproduction in Animals and Plants: Springer Japan. pp 157-170.

26. **AKM Mahbub Hasan**, Chakrobarty, S., Chakrobarty, R., Nabi, A.H.M. Nurun. 2014. Application of Biotechnology and Bioinformatics in Drug Designing and Discovery. In: Devarajan Thangadurai, Sangeetha J, editors. BIOTECHNOLOGY AND BIOINFORMATICS New Jersey, USA: Apple Academic Press. pp. 355-390.

27. **AKM Mahbub Hasan**, Takashi Matsumoto, Shigeru Kihira, Junpei Yoshida and Ken-ichi Sato. 2012. Phospho-Signaling at Oocyte Maturation and Fertilization: Set Up for Embryogenesis and Beyond Part I. Protein Kinases. Embryogenesis, p.447-498. Dr. Ken-Ichi Sato (Ed.), ISBN: 978-953-51-0466-7, InTech.

28. **AKM Mahbub Hasan**, Takashi Matsumoto, Shigeru Kihira, Junpei Yoshida and Ken-ichi Sato. 2012. Phospho-Signaling at Oocyte Maturation and Fertilization: Set Up for Embryogenesis and Beyond Part II. Kinase Regulators and Substrates. Embryogenesis, p.499-554. Dr. Ken-Ichi Sato (Ed.), ISBN: 978-953-51-0466-7, InTech.

<p>Welcome to the University of Barisal! It is our pleasure to present to you our first official website. From now on you will be able to visit us regarding any information about the university from wherever you are.</p>

 <p> The University of Barisal stands on the bank of the Kirtonkhola in the south central region of the country- a location hailed as the ‘Best Site’ for a University outside Dhaka by Govt. & Non-Govt. several visiting team including a high powered team of UGC in 2011. Blessed with exquisite bio-diversity, scenic coastal beauty and a rich cultural heritage of its own, the region is proud to have its first-ever general public university as the University of Barisal. It was first envisioned by the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman immediately after the War of Liberation and finally materialized by the daughter of the Father of the Nation, Hon’ble Prime Minister of the People’s Republic of Bangladesh, Jononetri Sheikh Hasina on 22 February 2011 through laying the foundation stone. The establishment of the University brings into reality the dreams of millions who have been cherishing the desire for higher education at their footsteps since independence.</p>

<p>On 24 January 2012, the University of Barisal officially started its academic journey. In session 2011-12, 400 students out of 9998 candidates have been admitted in six departments (English, Economics, Mathematics, Sociology, Marketing, Management Studies) under four faculties (Faculty of Arts, Faculty of Science, Faculty of Social Sciences and Faculty of Business Studies). In session 2013-13 out of 17,990 examinee/candidates 700 students have been admitted. Six new departments will be opened under the faculties as follows- Faculty of Science and Engineering: Department of Chemistry and Department of Computer Science & Engineering; Faculty of Bio-sciences and Agriculture: Botany and crop Sciences; Faculty of Social Sciences: Political science; Faculty of Business Studies: Finance and Banking; and Faculty of Law: Department of Law. A total of 1050 students will be admitted in the said 16 departments for the session 2013-14. The submission of online application for the session 2013-14 will take place from 4th September to 14th October 2013 as the admission tests for all units are scheduled to commence on 27th and 28th November 2013.</p>

<p>At present the University is being served by a group of qualified faculties blessed with youthful vigor and global outlook and a section of officers who proudly possess enviable academic feats to their names and are deeply committed to produce world class graduates in the disciplines of science, bio-sciences and agriculture, social science, arts, business and law to meet national and global demands for enlightenment and quality education. As we expect nothing less than superlative performance from students, teachers and officers alike, we have decided to award them performance-enhancing incentives on different categories. Top three students in each semester will be awarded Taka 2000.00 per month. There are special awards for best teacher, officer and staff, and there are VCs and Dean’s Awards too reserved for the most outstanding students and teachers.</p>

<p>The University incorporates values unique to the experiences of a coastal population living in the vicissitudes of environmental changes and passionately strives to uphold them in setting goals. The focus is not only to produce a skilled and marketable workforce for the country but one that is innovative in ideas, resilient in spirit and deeply informed of the intrinsic socio-economic patterns and lifestyle of people of this region. In that way the University is determined to act as a catalyst in major economic, social and cultural changes of the region while transforming itself into a centre of academic excellence for promotion of human, economical and technological development in Bangladesh.</p>

<p> Having started our journey, we already know that the path ahead is a steep one and we must go a long way to attain our mission and vision of establishing a fully technology based university with professional orientation to the field of academic research. As we proudly represent a region which has a legendary cultural past and is home to some glorious sons of the land, we declare to spare no efforts in living up to that honored task. It is therefore highly imperative that everyone associated with the university must work together and work tirelessly for the dream of transforming this institution into a centre of learning, teaching, and research. It is our hope that this website will keep visitors abreast with updated information regarding various events and academic schedules of the University while it is expected to get richer with incorporation of further facts and details in course of time.  </p>