Name: Ashima Bhattacharjee
Designation: Associate Professor & Ramanujan Fellow, Amity Institute of Biotechnology, Amity University, Kolkata.
Visiting Faculty, S. N. Pradhan Centre for Neurocsiences, University of Calcutta.

Education and Research Experience
MSc: Zoology from the University of Calcutta (First Class First, Gold Medal).
PhD.: CSIR-Indian Institute of Chemical Biology (Jadavpur University) as CSIR-JRF and SRF.
Postdoctoral work: Johns Hopkins University School of Medicine, USA and Oregon Health & Science University, USA.

Email ID:abhattacharjee@kol.amity.edu; ashima.bhattacharyya@gmail.com

Research Interest
Copper is an essential micronutrient required for various biochemical processes by the virtue of its incorporation into curpenzymes. Both copper elevation and deprivation leads to pediatric disorders involving neurological symptoms suggesting the necessity of its tight regulation in the neurons. The laboratory is interested in understanding the role of the complex interplay of cellular copper and redox homeostasis during neuronal and glial differentiation and neuron-glia communication.
Genetic inactivation of the hepatic copper export pathway leads to Wilson Disease involving both hepatic and neuropsychiatric symptoms. The laboratory is interested to understand the role genetic mutations in *ATP7B* on its cellular functions and causation of hepatocellular carcinoma.

Selected Publications

(1) **Ashima Bhattacharjee***, KaustavChakraborty, AdityaShukla. Cellular Copper Homeostasis: Current Concepts on its interplay with glutathione homeostasis and its implication in Physiology and Human Diseases (Review). ***Metallomics***. 2017. 9(10): 1376-1388 (****Corresponding author***).

(2) **Ashima Bhattacharjee**, Haojun Yang, Megan Duffy, Emily Robinson, Arianrhod Conrad-Antoville, Ya-Wen Lu, Tony Capps, Lelita T. Braiterman, Michael J. Wolfgang, Michael Patrick Murphy, Ling Yi, Stephen G. Kaler, Svetlana Lutsenko, and Martina Ralle. Activity of Menkes Disease Protein ATP7A is Essential for Redox Balance in Mitochondria. ***J Biol. Chem***. 2016.291(32):16644-58.

(3) Arnab Gupta[1], **Ashima Bhattacharjee**[1], Oleg Y. Dmitriev, SergiyNokhrin, LelitaBraiterman, Ann L. Hubbard, and Svetlana Lutsenko. Cellular copper levels determine the phenotype of the Arg^{875} variant of ATP7B/Wilson disease protein. ***Proc. Natl. Acad. Sci. USA***, 2011, 108:5390-5 ([1] **First Author**)

(4) Oleg Y. Dmitriev[1],**Ashima Bhattacharjee**[1], SergiyNokhrin, Eva-Maria E. Uhlemann, Svetlana Lutsenko. Difference in stability of the N-domain underlies distinct intracellular properties of the E1064A and H1069Q mutants of Cu-transporting ATPase ATP7B. ***J Biol. Chem***. 2011 May 6;286(18):16355-62. ([1] **First Author**)

(5) **Ashima Bhattacharjee** and Justine R. Smith. Ocular Vascular Endothelial Heterogeneity. ***Vascular Disease Prevention*** (invited review), 2009, *6,* 158-165.

(6) **Ashima Bhattacharjee**, Deblina Banerjee, SuddhasilMookherjee, MoulinathAcharya, Antara Banerjee, Ananya Ray, AbhijitSen, the Indian Genome Variation Consortium, Kunal Ray. Leu432Val Polymorphism in *CYP1B1* as a Susceptible Factor towards Predisposition to Primary Open-Angle Glaucoma.***Mol. Vis.***2008; 14:841-850

(7) **Ashima Bhattacharjee**, MoulinathAcharya, ArijitMukhopadhyay, SuddhasilMookherjee, Deblina Banerjee, Arun Kr. Bandopadhyay, Sanjay Kumar Daulat Thakur, AbhijitSen, Kunal Ray. *Myocilin* Variants in Indian Open Angle Glaucoma patients. ***JAMA Ophthalmology*** (formerly ***Arch. Ophthalmol.)***, 2007; 125: 823-829