
BIOGRAPHICAL SKETCH

NAME: Asmita Bhattacharya	POSITION: Postdoctoral scholar, Stanford University
CONTACT: asmitab@stanford.edu	ADVISOR: Dr. Michael Bassik, Assistant Professor, Genetics Dr. Calvin Kuo, Professor, Hematology

EDUCATION/TRAINING

Institution and Location	Degree/ Position	Start date	End date	Field of Study
Indian Institute of Technology, Kanpur	B.Tech.	7/2008	5/2012	Biological Sciences & Biotechnology
Weill Cornell Medical College, New York	Research technician	9/2012	5/2013	Gastroenterology
Cornell University, Ithaca	Ph.D.	8/2013	8/2019	Molecular Biology and Genetics
University of Michigan, Ann Arbor	Postdoctoral scholar	9/2019	6/2020	Molecular & Integrative Physiology
Stanford University, Stanford	Postdoctoral scholar	7/2020	Ongoing	Genetics

A. PERSONAL STATEMENT

Having always been filled with an ardent desire to understand how simple entities associate to function as the complex organism throbbing with life, I found myself exploring various realms of biology since an early age. As an undergraduate, I worked in the limb development laboratory of Dr. Amitabha Bandyopadhyay, and interned at the Weinberg cancer genetics laboratory at the Whitehead Institute, M.I.T. Thereafter, I worked as a research technician in the colon cancer laboratory of Dr. Steven Lipkin at Weill Cornell Medical College, all the while learning key molecular biology techniques and enjoying the thrills of cutting-edge research. These stints trained me for graduate study and made me realize where my scientific passion truly lies.

In Cornell University, I joined the group led by Dr. Ling Qi in the field of physiological ER homeostasis. Here I investigated how perturbations in the cellular quality control machinery – Endoplasmic Reticulum Associated Degradation (ERAD) – affects liver function, disease and cancer. My thesis research endowed me with expertise in diverse fields (protein folding, metabolism, bile, cancer), and enabled me to formulate several primary scientific publications. During this time, I also secured funding by way of an American Heart Association (AHA) predoctoral fellowship, and managed the 400-cages-strong Qi lab mouse facility for five years.

To ensure my future success as an independent academic investigator in cancer research, I joined the laboratories of Dr. Michael Bassik and Dr. Calvin Kuo at Stanford University as a postdoctoral scholar. Here, by delving into high throughput screening technologies using spheroids and organoid culture, I plan to carve out my own scientific niche in cancer genetics, and hone my abilities as a responsible collaborator, prolific researcher and creative thinker.

B1. RESEARCH POSITIONS

- 07/2020–present Postdoctoral scholar, Department of Genetics, Stanford University, *Advisors:* Drs. Michael Bassik & Calvin Kuo
- 09/2019–06/2020 Postdoctoral scholar, Department of Molecular & Integrative Physiology, University of Michigan, *Advisor:* Dr. Ling Qi
- 07/2014–08/2019 Graduate student, Department of Molecular Biology & Genetics, Cornell University, *Advisor:* Dr. Ling Qi
- 02/2014–05/2014 Rotating graduate student, Department of Molecular Biology & Genetics, Cornell University, *Advisor:* Dr. Natasza Kurpios
- 10/2013–12/2013 Rotating graduate student, Department of Molecular Biology & Genetics, Cornell University, *Advisor:* Dr. Jun Liu
- 09/2012–04/2013 Research technician, Department of Gastroenterology, Weill Cornell Medical College, *Advisor:* Dr. Steven Lipkin
- 05/2011–07/2011 Intern, Whitehead Institute, Massachusetts Institute of Technology
Advisors: Drs. Robert Weinberg & Julia Rastelli
- 05/2010–10/2010, 12/2011–05/2012 Trainee, Department of Biological Sciences & Bioengineering, Indian Institute of Technology Kanpur, *Advisor:* Dr. Amitabha Bandyopadhyay
- 05/2009–07/2009 Intern, Department of Biological Sciences, Indian Institute of Science Education and Research Kolkata, *Advisor:* Dr. Srimonti Sarkar

B2. TEACHING ASSISTANT POSITIONS

- Laboratory in Biochemistry & Molecular Biology (BIOMG 4400), Cornell University – Fall 2014
- Nutrient Metabolism (NS 3310), Cornell University – Spring 2015, Spring 2016

B3. HONORS AND FELLOWSHIPS

YEAR

Editorial Board Member, Diabetology & Metabolic Syndrome	2020
University of Michigan Summer Diabetes Symposium Best Oral Presentation Award	2018
ASBMB Graduate/Postdoctoral Travel Award	2018
American Heart Association (AHA) Predoctoral Fellowship	2016
Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship	2006
Indian School Certificate (ISC) examination (12th std.): Marks secured = 93%	2008
Indian Certificate of Secondary Examination (ICSE) (10th std.): Marks secured = 96%	2006
Cleared state levels of National Astronomy Olympiad, National Science Olympiad	2005

C1. JOURNAL PUBLICATIONS

- a) Bhattacharya A, Wei J, Song W, Gao B, Tian C, Wang J, Chen L, Fang D, Qi L. (2020). Sel1L-Hrd1 ER-associated degradation suppresses hepatocyte hyperproliferation and liver cancer. *Under review, Nature communications*.
- b) Bhattacharya A, Kakiyama G, Takei H, Nittono H, Qi L. (2020). Hepatic Sel1L-Hrd1 ER-associated degradation deficiency leads to intrahepatic cholestasis in mice. *Under review, JBC*.
- c) Bhattacharya A, Qi L. (2019). ER-associated degradation in health and disease – from substrate to organism. *Journal of Cell Science*, 132(23). *Invited review article*. PMID: 31792042.
- d) Bhattacharya A, Sun S, Wang H, Liu M, Long Q, Yin L, Kersten S, Zhang K, Qi L. (2018). Hepatic Sel1L-Hrd1 ER-Associated Degradation (ERAD) manages FGF21 levels and systemic metabolism via CREBH. *EMBO Journal*, 37(22). *F1000 Faculty recommended*. PMID: 30389665.
- e) Oteng AB, Bhattacharya A, Brodesser S, Qi L, Tan NS, Kersten S. (2017). Feeding Angptl4^{-/-} mice trans-fat promotes foam cell formation in mesenteric lymph nodes without leading to ascites. *Journal of Lipid Research*, 58(6):1100-1113. PMID: 28412693.
- f) Chen H, Wei Z, Sun J, Bhattacharya A, Miller P, Savage D, Serda R, Curley S, Chen S, Shen X, Lipkin S, Copeland N, Jenkins N, Shuler M. (2016). Engineering organotypic human colon through recellularization: An *ex vivo* model for studying cancer driver genes. *Nature Biotechnology*, 34(8):845-51. PMID: 27398792.
- g) Kim H*, Bhattacharya A*, Qi L. (2015). Endoplasmic reticulum quality control in cancer: Friend or foe. *Seminars in Cancer Biology*, 33:25-33. *, equal contribution. PMID: 25794824.
- h) Gillen DL, Meyskens FL, Morgan T, Zell J, Carroll R, Benya R, Chen WP, Bhattacharya A, Wong V, Chung J, Gonzalez R, Rodriguez L, Szabo E, Lipkin S. (2015). A phase IIa randomized, double-blind trial of Erlotinib in inhibiting EGF Receptor signaling in aberrant crypt foci of the colon. *Cancer Prevention Research*, 8(3):222-30. PMID: 25604134.

C2. CONFERENCE PRESENTATIONS

- a) Bhattacharya A, Qi L. (2019). Hepatic Sel1L-Hrd1 ERAD regulates bile homeostasis via transporter quality control. *University of Michigan Center for Gastrointestinal Research Annual Winter Retreat. Poster*.
- b) Bhattacharya A, Zhang K, Qi L. (2018). Hepatic ERAD manages FGF21 levels and systemic metabolism via CREBH. *University of Michigan Summer Diabetes Symposium. Oral presentation and poster. Best oral presentation awardee*.
- c) Bhattacharya A, Zhang K, Qi L. (2018). Hepatic ER-Associated Degradation manages FGF21 level and metabolism via CREBH turnover. *Michigan Medicine Annual Internal Medicine Research Symposium. Poster*.
- d) Bhattacharya A, Zhang K, Qi L. (2018). Hepatic ER-Associated Degradation manages FGF21 levels and metabolism via CREBH. *American Society for Biochemistry and Molecular Biology Annual Meeting. Poster. Travel awardee*.
- e) Bhattacharya A, Zhang K, Qi L. (2018). Hepatic ERAD manages FGF21 levels and metabolism via CREBH. *University of Michigan Center for Gastrointestinal Research Annual Winter Retreat. Poster*.
- f) Bhattacharya A, Kersten S, Qi L. (2017). Hepatic ERAD Regulates Overall Metabolic Profile via FGF21 Action. *Michigan Diabetes Research Center Annual Symposium. Poster*.