

## Dr. Saiful Anam Mir, M.Sc., Ph.D.

❖ Personal Details

Sex- Male

Date of Birth: January 11, 1981

Nationality: Indian

Address:

Kabi Nazrul Sarani New Town, P.O. &amp; P.S.-

Baruipur, South 24 Parganas,

Kolkata-700144. West Bengal, India

Contact Details:

Mob No: **+91 9836242844**, Email ID: **mirsa@citycollegekolkata.org**

❖ Current Position: Assistant Professor (Stage I), Department of Zoology, City College, 102/1 Raja Rammohan Sarani, Kolkata-700009. (Under Calcutta University).

❖ Membership details:

Junior Member: NA

Life Member: Zoological Society Kolkata, India

❖ Member of Editorial Board: N/A❖ Educational qualifications: N/A

Course	University
B.Sc. (Zoology, Hons.), 2002	University of Calcutta
M.Sc. in Zoology (Special paper: Fisheries and Aquaculture), 2004	University of Calcutta
Ph.D., Subject, Thesis topic 2011	Subject: Molecular Biology/ Molecular Cardiology Thesis Title: Role of JAK-STAT Pathway in Myocardial Collagen Upregulation During Hypertrophy
Post Doct. , Topic, Country , 2012-2019	<p><b>Post Doc-1:</b> School of Medicine, University of California San Diego, California, USA Topic: Molecular and genetic analysis of involvement of Chromogranin A in Hypertension, Renal and Cardiac diseases.</p> <p><b>Post Doc-2:</b> Sanford Burnham Prebys Medical Discovery Institute, California, USA Topic: Protein misfolding and ER Stress during Type-I and Type-2 diabetes.</p> <p><b>Post Doc-3:</b> School of Medicine, University of California San Diego, California, USA Topic: Mitochondrial Dynamics and Inflammation during HBV and HCV infection.</p>

❖ Technical, workshop & Academic Training :

- **Faculty Development Programme (FIP):** 30<sup>th</sup> Orientation Course (Online) held from 28<sup>th</sup> July – 17<sup>th</sup> August, 2020 organized by UGC-HRDC, Mizoram University.

- **Refresher Courses (RC):** Refresher Course on ‘New Frontiers of Advancement in Natural and Biological Sciences’ from 10<sup>th</sup> September – 23<sup>rd</sup> September, 2021 organized by UGC-HRDC, University of North Bengal.

❖ **Previous working experience:** N/A

Sl. No.	Post	College, University and Organisation	Department	Duration
1				
2				

❖ **Area of expertise and Research Interest:**

- Hypertension
- Molecular cardiology and heart failure, cardiac electrophysiology
- Kidney physiology, hypertensive renal disease, chronic kidney disease (CKD) and Acute kidney injury (AKI)
- Extracellular matrix biology, blood vessel
- Endocrinology with special reference to adrenal gland and catecholamines

❖ **Special Research Trainings:**

- **Surgery and Animal Model:** Survival surgery with Rats and Mice for development of **heart and kidney disease models**.
- **Developed a method** for isolating **exosomes and exosomal miRNAs** from plasma and urine and has been in use in the Core facility, “**O’Brien Biomarkers Laboratory**” at UCSD, California, USA.
- Experienced in **Wire Myography** using “Radnoti Myography Setup” for pharmacological testing of drugs and agents modulating peripheral resistance and blood pressure using peripheral resistance arteries *ex vivo*.
- Trained in **LabChart** software for data acquisition, processing and analysis from AD Instruments.
- Trained in developing **Rodent Kidney disease models** through “5<sup>th</sup> UAB-UCSD O’Brien Center Rodent Kidney Physiology-Injury Workshop” during 20-24<sup>th</sup> April 2015 at VAMC, San Diego.
- **Participated and Taken training** in the workshop “Wastewater fed Aquaculture” from Central Institute of Freshwater Aquaculture (CIFA) at Rahara, West Bengal, India during 11-17<sup>th</sup> November, 2003.

❖ **Research Projects:**

- a) **Completed:** Nil
- b) **Ongoing Project:** Nil

❖ **Publication:**

**Published Papers:**

1. Duc T Tran, Anita Pottekat, Kouta Lee, Megha Raghunathan, Salvatore Loguercio, **Saiful A Mir**, Adrienne W Paton, James C Paton, Peter Arvan, Randal J Kaufman, Pamela Itkin-Ansari. Inflammatory cytokines rewire the proinsulin interaction network in human islets. **J Clin Endocrinol Metab.** 2022; 107(11): 3100-3110.
2. Geon-Woo Kim, Hasan Imam, Mohsin Khan, Saiful Anam Mir, Seong-Jun Kim, Seung Kew Yoon, Wonhee Hur, Aleem Siddiqui. HBV-induced increased N6 methyladenosine modification of PTEN RNA affects innate immunity and contributes to HCC. **Hepatology.** 2021; 73(2): 533-547.

3. Duc T Tran, Anita Pottekat, **Saiful A Mir**, Salvatore Loguercio, Insook Jang, Alexandre Rosa Campos, Kathleen M Scully, Reyhaneh Lahmy, Ming Liu, Peter Arvan, William E Balch, Randal J Kaufman, Pamela Itkin-Ansari. Unbiased profiling of the human proinsulin biosynthetic interaction network reveals a role for peroxiredoxin 4 in proinsulin folding. *Diabetes*. 2020; 69(8): 1723-1734.
4. Jinhong Sun, Yi Xiong, Xin Li, Leena Haataja, Wei Chen, **Saiful A Mir**, Li Lv, Rachel Madley, Dennis Larkin, Arfah Anjum, Balamurugan Dhayalan, Nischay Rege, Nalinda P Wickramasinghe, Michael A Weiss, Pamela Itkin-Ansari, Randal J Kaufman, David A Ostrov, Peter Arvan, Ming Liu. Role of proinsulin self-association in mutant INS gene-induced diabetes of youth. *Diabetes*. 2020; 69(5): 954-964.
5. **Saiful A. Mir**, Nilima Biswas, Wai Cheung, Ji Wan, Nicholas Webster, Etienne Macedo, Daniel T. O'connor and Sucheta M. Vaingankar. Chromogranin A pathway: From pathogenic molecule to renal disease. *J Hypertens*. 2020; 38 (3): 456-466.
6. H. Imam, G.W. Kim, **S.A. Mir**, M. Khan and A. Siddiqui. Interferon-stimulated gene 20 (ISG20) selectively degrades N6-methyladenosine modified Hepatitis B Virus transcripts. *PLoS Pathogens*. 2020; 16(2), e1008338.
7. **Mir SA**, Li Y, Story JD, Bal S, Awdishu L, Street AA, Mehta RL, Singh P, Vaingankar SM. Mice overexpressing chromogranin A display hypergranulogenic adrenal glands with attenuated ATP levels contributing to the hypertensive phenotype. *J Hypertens*. 2018; 36(5): 1115-1128.
8. Pravenec M, Landa V, Zidek V, Mlejnek P, Šilhavý J, **Mir SA**, Vaingankar SM, Wang J, Kurtz TW. Effects of transgenic expression of dopamine beta hydroxylase (Dbh) gene on blood pressure in spontaneously hypertensive rats. *Physiol Res*. 2016; 65(6): 1039-1044.
9. Biswas N, Maihofer AX, **Mir SA**, Rao F, Zhang K, Khandrika S, Mahata M, Friese RS, Hightower CM, Mahata SK, Baker DG, Nievergelt CM, Vaingankar SM, O'Connor DT. Polymorphisms at the F12 and KLKB1 loci have significant trait association with activation of the renin-angiotensin system. *BMC Med Genet*. 2016; 17(1): 21.
10. **Mir SA**, Zhang K, Milic M, Gu Y, Rieg T, Ziegler M, Vaingankar SM. Analysis and validation of traits associated with a single nucleotide polymorphism Gly364Ser in catestatin using humanized chromogranin A mouse models. *J Hypertens*. 2016; 34(1): 68-78.
11. Zhang K, **Mir SA**, Hightower CM, Miramontes-Gonzalez JP, Maihofer AX, Chen Y, Mahata SK, Nievergelt CM, Schork NJ, Freedman BI, Vaingankar SM, O'Connor DT. Molecular Mechanism for Hypertensive Renal Disease: Differential Regulation of Chromogranin A Expression at 3'-Untranslated Region Polymorphism C+87T by MicroRNA-107. *J Am Soc Nephrol*. 2015; 26(8): 1816-1825. **(Joint 1<sup>st</sup> Author)**
12. Dev NB, **Mir SA**, Gayen JR, Siddiqui JA, Mustapic M, Vaingankar SM. Cardiac electrical activity in a genomically "humanized" chromogranin a monogenic mouse model with hyperadrenergic hypertension. *J Cardiovasc Transl Res*. 2014; 7(5): 483-493. **(Joint 1<sup>st</sup> Author)**
13. **Mir SA**, Chatterjee A, Mitra A, Pathak K, Mahata SK, Sarkar S. Inhibition of signal transducer and activator of transcription 3 (STAT3) attenuates interleukin-6 (IL-6) induced collagen synthesis and resultant hypertrophy in rat heart. *J Biol Chem*. 2012; 287(4): 2666-2677.
14. Chatterjee A, **Mir SA**, Dutta D, Mitra A, Pathak K, Sarkar S. Analysis of p53 and NK-kB signaling in modulating cardiomyocyte fate during hypertrophy. *J Cell Physiol*. 2011; 226(10): 2543-2554.
15. Karmakar D, Khan PP, **Mir SA**, Chatterjee A, Pathak K, Sarkar S, Duttagupta AK. Esterase polymorphism analysis in response to heavy metal stress in fish *Cirrhinus mrigala* (Hamilton) in and around Kolkata metropolis. *Zoological Research in Human Welfare (Zoological Survey of India)*. 2008; Paper 41: 383-391.

## **Books:**

1. Mohsin Khan, Hasan Imam and **Saiful Anam Mir**. Regulation of Antiviral Immunity by Mitochondrial Dynamics. Handbook of Mitochondrial Dysfunction. Chapter- 34, 2019; CRC Press, Taylor and Francis Group, LLC; ISBN- 13: 978-1-138-33608-7. (**Book Chapter**)

## **Published Abstracts:**

1. Sucheta M Vaingankar, **Saiful A Mir**, Nilima Biswas, Nicholas Webster, Daniel T. O'Connor. Chromogranin A Pathway: From Pathogenic Molecule to Renal Disease. *Hypertension*. 2017; 70 (Supplement 1) (P127, Page-149).
2. **Saiful A Mir**, Jacob Story, Anneke Street, Linda Awdishu, Prabhleen Singh, Ravindra L Mehta and Sucheta M Vaingankar. Dysregulated Chromogranin A Expression in Acute Kidney Injury. *JASN*. November 2016; 27 (Abstract Edition): TH- PO114 (Page-123).
3. Sucheta M. Vaingankar, **Saiful A. Mir**, Wai W. Cheung and Kuixing Zhang. Chronic Kidney Disease and the Chromogranin A Pathway: from Pathogenic Molecule to Disease. *JASN*. 2015; 26 (Abstract Supplement): TH-PO030 (Page-98).
4. Sucheta Vaingankar, **Saiful Mir**, Kuixing Zhang, C Makena Hightower, Jose Miramontes-Gonzalez, Daniel O'Connor. Regulation of chromogranin A by hsa-miR-107 in hypertension and nephropathy. *The FASEB Journal*. 2014; 28(Supplement 1): 1136.19.

## **❖ Awards:**

- Awarded with “**ICMR- Post-Doctoral Research Fellowship (PDF) 2012**” from Indian Council of Medical research (Ref.# 3/1/3/PDF(5)/2012-HRD, dated 10/4/2012), New Delhi, India for two years, applied from Molecular Biochemistry Lab, NICED, Kolkata, India under the guidance of Dr. Kalyan. K. Banerjee (Not opted).  
Title of Project- “**Cytokine production and signal transduction pathways induced by *Vibrio cholerae* cytotoxin: a cell culture based study**”.
- Awarded with “**Sudev Bhusan Ghosh Young Scientist Award**” from Zoological Society, Kolkata, India for the year 2009-2010.  
Title of talk- “**Role of JAK-STAT pathway in myocardial collagen upregulation during hypertrophy**”.
- As a **Visiting Graduate Student** worked in the Department of Medicine, University of California San Diego (UCSD), USA, through Jan- Dec, 2009.

## **❖ List of Participation in Seminar, Conference and Workshop**

1. **Saiful Anam Mir**, Mohsin Khan, Hasan Imam, Geon-Woo Kim and Aleem Siddiqui. HBV activates Parkin-mediated mitophagy leading to attenuated ATP level in human macrophages. International Conference on Autophagy and Lysosome, (ICAL2020), January 16-18, 2020, IISC, Bengaluru, India. (**Poster Presentation**)
2. **Saiful Anam Mir**, Mohsin Khan, Hasan Imam, Geon-Woo Kim and Aleem Siddiqui. HBV activates Parkin mediated mitophagy in human macrophages. International HBV Meeting- The Molecular Biology of Hepatitis B Viruses, October 1-5, 2019, Melbourne, Australia. (**Poster Presentation**)
3. Sucheta M Vaingankar, **Saiful A Mir**, Nilima Biswas, Nicholas Webster and Daniel T. O'Connor. Chromogranin A Pathway: From Pathogenic Molecule to Renal Disease. AHA Council on Hypertension, AHA Council on Kidney in Cardiovascular Disease, American Society of Hypertension Joint Scientific Sessions 2017; September 14-17, San Francisco, CA, USA. (**Poster Presentation**)
4. **Saiful A Mir**, Jacob D Story, Anneke Street, Linda Awdishu, Prabhleen Singh, Ravindra L Mehta and Sucheta M Vaingankar. Dysregulated Chromogranin A in Acute Kidney Injury.

ASN Kidney Week 2016 Annual Meeting, November 15-20, Chicago, IL, USA. (**Poster Presentation**)

5. Sucheta M. Vaingankar, **Saiful A. Mir**, Wai W. Cheung and Kuixing Zhang. Chronic Kidney Disease and the Chromogranin A Pathway: from Pathogenic Molecule to Disease. ASN Kidney Week 2015 Annual Meeting, November 5-8, San Diego, CA, USA. (**Poster Presentation**)
6. Sucheta Vaingankar, **Saiful A Mir**, Kuixing Zhang, C Makena Hightower, Jose Miramontes-Gonzalez, Daniel O'Connor. Regulation of chromogranin A by hsa-miR-107 in hypertension and nephropathy. Federation of American Societies for Experimental Biology Meeting, 2014, San Diego, CA, USA. (**Poster Presentation**)
7. **Saiful A Mir**, Kuixing Zhang, Daniel T. O'Connor and Sucheta Vaingankar. Quantitative and qualitative effects of chromogranin A expression on autonomic function and blood pressure: delineated using “humanized”*CHGA* BAC transgenic mouse models. 17<sup>th</sup> International Symposium on Chromaffin Cell Biology, July 13-17<sup>th</sup>, 2013, Rouen, Normandy, France. (**Poster Presentation**)
8. **Mir SA**, Chatterjee A, Mitra A, Pathak K and Sarkar S. “Inhibition of Signal Transducer and Activator of Transcription 3 (STAT3) activation reduces myocardial hypertrophy via regression of fibrosis in rats”. Cardiovascular Research Convergence- 2012, 17-18<sup>th</sup> February, AIIMS, New Delhi, India. (**Oral Presentation**)
9. **Mir SA**, Chatterjee A, Mitra A, Pathak K, Naskar S and Sarkar S. “Activation of both STAT1 and STAT3 regulates IL-6 induced cardiac fibrosis *in vitro*” in 2<sup>nd</sup> World Heart Failure Society Congress, 5-7<sup>th</sup> February, 2010 at PIMER, Chandigarh, India. (**Poster Presentation**)
10. Chatterjee A, **Mir SA**, Mitra A, Pathak K and Sarkar S. “Balance between apoptosis and cell cycle decides the cell fate during cardiac hypertrophy” in the 2<sup>nd</sup> World Heart Failure Society Congress, 5-7<sup>th</sup> February, 2010 at PIMER, Chandigarh, India. (**Poster Presentation**)
11. Chatterjee A, **Mir SA**, Mitra A, Pathak K and Sarkar S. ‘Balance between apoptosis and cell cycle decides the cell fate in hypertrophic cardiomyocytes’ in the 33<sup>rd</sup> All India Cell Biology Conference and International Workshop on Cell Cycle regulation, 10-13<sup>th</sup> December, 2009 at University of Hyderabad, Hyderabad, India. (**Poster Presentation**)
12. Chatterjee A, **Mir SA**, Pathak K, Young D, Sen S and Sarkar S. “Role of p53 during myocardial injury leading to heart failure” in 30<sup>th</sup> All India Cell Biology Conference and Symposium on “Molecules to Compartments: Cross-Talks and Networks” during February, 2007 at Delhi University, Delhi, India. (**Poster presentation**)
13. Attended a national symposium on “Zoology a Neo-Realistic Approach” on 26-27 March, 2004 organized by Department of Zoology, University of Calcutta, Kolkata, India, and presented a poster on “Comparative assessment and hatching success of *Artemia* cyst in artificial sea water”. (**Poster Presentation**)

#### ❖ Workshops/Events organized.

- **Organized and participated** in the National Online Workshop on ‘**Ecological Paradigm-An Applied Perspective**’ organized by The Zoological Society Kolkata-India Research and Application Foundation, held on December 1-19, 2022.
- **Organized and acted as a resource person** in the ‘**Three-Day Workshop on Basic Molecular Biology Techniques**’ organized by The Zoological Society Kolkata-India Research and Application Foundation in Association with City College, Kolkata and Raja Peary Mohan College, Hooghly, held on December 7-9, 2022.
- **Acted as an organizing member** in the “Brainstorming Conference towards a Consortium on **Biodiversity Research in Eastern Himalayas and Eastern Ghats**” organized by the Department of Zoology, University of Calcutta, Kolkata, held on April 9-12, 2011 at Chemchi, Sikkim, India.

- Acted as a resource person in the workshop on “**Training Course in *Drosophila* genetics: a new way to look teaching and research resources**”, organized by Prof. S. P. Raychaudhuri *Drosophila* Stock Centre, Department of Zoology, University of Calcutta, Kolkata, India; March 28-30, 2006.

❖ Additional activities :

- Member of the “Ubac Mountaineering Association”, Kolkata, India.
- Member of the “MGLB Welfare Society”, Kolkata, India.
- Served as Executive Committee Member of “Saikat”, the Bengali Association in San Diego, California, USA.
- Acted as **Organizing Secretary** of the “**Annual Reunion Committee**” of Department of Zoology, University of Calcutta for two consecutive years through 2008 & 2009.
- Was actively **involved in organizing all national seminars** organized by the Department of Zoology, University of Calcutta during 2002- 2011.
- As an **organizing member** organized and participated as guide in ‘Adventure and Nature Study Camps’ for children with Ubac Mountaineering Association.
- As an **organizing member** organized and participated as a guide in few trekking programs mainly in north eastern foothills of the Himalayas with Ubac Mountaineering Association.
- Passed the **Certificate “A” Examination-** 1994, under the authority of Ministry of Defence, Government of India, as a cadet in NCC.
- Interested in travelling, adventure camping, mountaineering, trekking, indoor and outdoor games and sports, reading books and listening to music and singing,
- Interested in Dramatics and acting.

**Google Scholar Link:**

[https://scholar.google.com/citations?hl=en&user=YRjsylgAAAAJ&view\\_op=list\\_works](https://scholar.google.com/citations?hl=en&user=YRjsylgAAAAJ&view_op=list_works)