

## Resume

Dr. Arkadeep Mitra, M.Sc., Ph.D.



### ❖ Personal Details

Sex- Male

Date of Birth: 02.01.1986

Nationality: Indian

Address: 51/3, Gopal Banerjee Lane  
Howrah-711101. West Bengal, India

Contact Details:

Mob No: +91 9903513989, Email ID: [arkadeep.mitra@citycollegekolkata.org](mailto:arkadeep.mitra@citycollegekolkata.org)

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

### ❖ Membership details:

Junior Member: N/A

Life Member: Life Member, Zoological Society of Kolkata

❖ Member of Editorial Board: N/A

### ❖ Educational qualifications:

Course	University/Organization	Subjects	Year	Specialization (if any)
B.Sc.	University of Calcutta	Zoology (Hons); Botany (Gen); Chemistry (Gen)	2006	N/A
M.Sc.	University of Calcutta	Zoology	2008	Cytogenetics and Molecular Biology
Ph.D	University of Calcutta	Zoology	2014	Cell and Molecular Biology
Post Doct.	N/A			
NET	CSIR-HRDG	Life Science	2007 (Dec) & 2008 (June)	N/A

### ❖ Technical, workshop & Academic Training :

1. 115<sup>th</sup> Orientation Program

Organized by: UGC-HRDC, University of Calcutta

Duration: 4 Weeks (5th September, 2016 to 4th October, 2017)

2. Refresher Course in Biological Science

Organized by: UGC-HRDC, University of Calcutta

Duration: 3 Weeks (2nd January, 2019 to 22nd January, 2019)

❖ Previous working experience:

Sl. No.	Post	College, University and Organisation	Department	Duration
1	Tenure Guest Faculty	Tripura University, Suryamaninagar, West Tripura – 799 022	Zoology	5 Months

❖ Area of expertise and Research Interest:

My graduate work was primarily focused on identification of novel causal proteins and related signaling mechanisms during two etiologically different cardiac disease forms – cardiac hypertrophy and myocardial infarction using murine models. A comparative proteome profile revealed changes in expression of proteins involved in various metabolic pathways, stress responses, contractile machinery, apoptotic signaling and other functions in these two diseases forms. Further downstream pathway analysis revealed that two different organelles mitochondria and endoplasmic reticulum play predominant roles during hypertrophy and MI respectively.

Currently I'm studying the underlying mechanisms of cardiac remodelling in a hypoxia-reoxygenation model of adult Zebrafish (*Danio rerio*).

❖ Research Projects:

a) Completed: N/A

b) Ongoing Project: N/A

❖ Publication:

Papers:

(In Chronological order)

**I. Full Length Original and Review articles**

1. Gupta S, Mukhopadhyay S, Mitra A\*. (2022). Therapeutic potential of GHSR-1A antagonism in alcohol dependence, a review. Life Sciences 291(Pt B):120316. DOI: 10.1016/j.lfs.2022.120316 [Online ISSN: 0024-3205; Impact Factor: 5.037]

2. Gupta S, Mitra A\*. (2021). Heal the heart through gut (hormone) ghrelin: a potential player to combat heart failure. Heart Fail Rev. 26:417-435. [Online ISSN: 1573-7322; Impact Factor: 4.214]

3. Gupta S, Mitra A\*. (2021). Challenge of post-COVID era: management of cardiovascular complications in asymptomatic carriers of SARS-CoV-2. Heart Fail Rev. doi: 10.1007/s10741-021-10076-y. [Online ISSN: 1573-7322; Impact Factor: 4.214]

4. Mitra A, Datta R, Rana S, Sarkar S. (2018) Modulation of NFKB1/p50 by ROS leads to impaired ATP production during MI compared to cardiac hypertrophy. J Cell Biochem. 119:1575-1590. [Online ISSN: 1097-4644; Impact Factor: 4.237]

5. Ray A, Rana S, Banerjee D, Mitra A, Datta R, Naskar S, Sarkar S. (2016) Improved bioavailability of targeted Curcumin delivery efficiently regressed cardiac hypertrophy by modulating apoptotic load within cardiac microenvironment. *Toxicol Appl Pharmacol.* 290:54-65. [Online ISSN: 0041-008X; Impact Factor: 3.347]
6. Mitra A, Basak T, Ahmad S, Datta K, Datta R, Sengupta S, Sarkar S. (2015) Comparative Proteome Profiling during Cardiac Hypertrophy and Myocardial Infarction Reveals Altered Glucose Oxidation by Differential Activation of Pyruvate Dehydrogenase E1 Component Subunit  $\beta$ . *J Mol Biol.* 427:2104-2120. [Online ISSN: 0022-2836; Impact Factor: 4.76]
7. Naskar S, Datta K, Mitra A, Pathak K, Datta R, Bansal T, Sarkar S. (2014) Differential and conditional activation of PKC-isoforms dictates cardiac adaptation during physiological to pathological hypertrophy. *PLoS One.* 9(8):e104711, doi:10.1371/journal.pone.0104711. [Online ISSN: 1932-6203; Impact Factor: 2.806]
8. Ganguly S, Mitra A, Sarkar S. (2014). Role of  $\alpha$ -Crystallin B in regulation of stress induced cardiomyocyte apoptosis. *Cardiovascular & Hematological Agents in Medicinal Chemistry.* 12:60-65. [Online ISSN: 1875-6182 ; Impact Factor: 0.00]
9. Mitra A, Ray A, Datta R, Sengupta S, Sarkar S. (2014) Cardioprotective role of P38 MAPK during myocardial infarction via parallel activation of  $\alpha$ -crystallin B and Nrf2. *J Cell Physiol.* 229(9):1272-82. doi: 10.1002/jcp.24565. [Online ISSN: 1097-4652 ; Impact Factor: 5.546]
10. Mitra A, Basak T, Datta K, Naskar S, Sengupta S , Sarkar S. (2013) Role of  $\alpha$ -crystallin B as a regulatory switch in modulating cardiomyocyte apoptosis by mitochondria or endoplasmic reticulum during cardiac hypertrophy and myocardial infarction. *Cell Death and Disease.* 4:e582. doi: 10.1038/cddis.2013.114. [Online ISSN: 2041-4889; Impact Factor: 6.304]
11. Mir SA, Chatterjee A, Mitra A, Pathak K, Mahata SK, Sarkar S. (2012) 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.* 287(4):2666-77.[Online ISSN: 1083-351X; Impact Factor: 4.238]
12. Chatterjee A, Mir SA, Dutta D, Mitra A, Pathak K, Sarkar S. (2011) Analysis of p53 and NF- $\kappa$ B signaling in modulating the cardiomyocyte fate during hypertrophy. *J Cell Physiol.* 226(10):2543-54. [Online ISSN: 1097-4652 ; Impact Factor: 5.546]

## **II. Mini Articles/Abstracts**

1. Mitra A, Datta K, Sarkar S. (2014) Role of alpha crystallin B in regulation of differential mechanism of myocyte cell death during heart failure. *Heart.* 100 Suppl 1:A8. doi: 10.1136/heartjnl-2013-305297.21. [Online ISSN: 1468-201X ; Impact Factor: 6.059]
2. Mitra A, Basak T, Sengupta S, Sarkar S. (2012) Myocyte Apoptosis Occurs Via Different Routes in Etiologically Different Cardiac Diseases. *Journal of Hypertension.* 30(e-Supplement 1): e233. doi: 10.1097/01.hjh.0000420425.36437.10. [Online ISSN: 1473-5598 ; Impact Factor: 4.085]

Books: N/A

❖ Awards:

1. Prof. A.S. Mukherjee Memorial Award for securing highest marks in ‘Cytogenetics and Molecular Biology’ special paper in M.Sc examination; Awarded by: Zoological Society of Calcutta; Year: 2008.
2. 1st Prize for best poster presentation at ‘IPCON-2011’ held at New Delhi during 3rd -5th April 2011; Awarded by: Proteomics Society of India; Year: 2011
3. 1st Prize for best poster presentation at ‘CRCAIIMS-2012’ held at New Delhi during 17th-18th February 2012; Awarded by: All India Institute of Medical Sciences (AIIMS); Year: 2012.
4. Selected for a Special Travel grant for Commitment to Hypertension research; Awarded by: International Society of Hypertension; Year: 2012
5. 1st Prize for best poster presentation at Two-Day International Conference on Down Syndrome Research: Indian initiative in Global perspective. Awarded by: Dept. of Zoology, University of Calcutta in collaboration with The Zoological Society, Kolkata & Trisomy 21 Research Society, Netherlands. Year: 2020

❖ List of Participation in Seminar, Conference and Workshop

Invited Lectures:

1. **Conference:** Symposium 2016  
**Organiser:** Department of Genetics, University of Calcutta, Kolkata  
**Title of paper:** N/A
2. **Conference:** Advances in Biotechnology  
**Organiser:** State Biotech Hub, Tripura University (A Central University), Tripura, India  
**Title of paper:** N/A
3. **Conference:** Overview on Biodiversity  
**Organiser:** Netaji Nagar Day College  
**Title of paper:** N/A

International/National:

2020

1. **Conference:** Two-Day International Conference on Down Syndrome Research: Indian initiative in Global perspective  
**Organiser:** Dept. of Zoology, University of Calcutta in collaboration with The Zoological Society, Kolkata & Trisomy 21 Research Society, Netherlands  
**Title of paper:** Genetic network analysis of Down's syndrome using DAVID bioinformatic resources.  
**Status:** International
2. **Conference:** Two-Day National Conference on Science and Technology: Rural Development  
**Organiser:** Surendranath College, Kolkata and Indian Science Congress Association, Kolkata  
**Title of paper:** DAVID: An integrated biological knowledgebase to decipher complex disorders.  
**Status:** National

**2019**

3. **Conference:** Future India: Science and Technology  
**Organiser:** City College, Kolkata and Indian Science Congress Association, Kolkata Chapter  
**Title of paper:** Interactome Analysis: An excellent tool to study complex disorders.  
**Status:** National

**2014**

4. **Conference:** 6th International Conference on Recent Advances in Cardiovascular Sciences (RACS)  
**Organiser:** International Academy of Cardiovascular Sciences & Delhi Institute of Pharmaceutical Sciences & Research, New Delhi, India  
**Title of paper:** P38 Mitogen activated protein kinase renders cardio-protection during myocardial infarction via parallel activation of  $\alpha$ -crystallin B and Nrf2  
**Status:** International

**2013**

6. **Conference:** 100th Indian Science Congress  
**Organiser:** Indian Science Congress and University of Calcutta, Kolkata, India  
**Title of paper:** Comparative proteome profiling reveals induction of ER stress mediated apoptosis in rat model of myocardial infarction.  
**Status:** International

**2012**

7. **Conference:** CRC AIIMS-2012  
**Organiser:** All India Institute of Medical Sciences, New Delhi, India  
**Title of paper:** Comparative proteome profiling indicates two distinct pathways of apoptosis during cardiac hypertrophy and myocardial infarction.  
**Status:** International

**2011**

8. **Conference:** XXXV All India Cell Biology Conference  
**Organiser:** Indian Society of Cell Biology & National Institute of Science Education and Research (NISER), Odisha, India  
**Title of paper:** Comparative proteome profiling reveals alteration of distinct set of proteins during cardiac hypertrophy and myocardial infarction.  
**Status:** International
9. **Conference:** IPCON2011  
**Organiser:** The Proteomics Society (India) & Jawaharlal Nehru University, New Delhi, India  
**Title of paper:** Identification of novel causal proteins during cardiac hypertrophy in a rat model, via differential proteome profiling  
**Status:** International

❖ [Workshops/Events organized.](#)

**Conference:** Future India: Science and Technology  
**Organiser:** City College, Kolkata and Indian Science Congress Association, Kolkata Chapter  
**Role:** Jt. Convener, Publication Committee.  
**Status:** National

❖ [Additional activities:](#)