




Faculty Details proforma for DU Web-site

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cc: director@ducc.du.ac.in)

Title	Dr.	First Name	SHIBNATH	Last Name	MAZUMDER	Photograph
Designation	Professor					
Address	Immunobiology Laboratory Dept of Zoology, University of Delhi, Delhi 110 007					
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Educational Qualifications						
Degree	Institution				Year	
Ph. D	Post-Graduate Institute of Medical Education & Research (PGIMER), Chandigarh				1999	
M. Phil	University of Delhi				1991	
PG	University of North Bengal				1988	
UG	University of North Bengal				1986	
CAREER PROFILE						
<ul style="list-style-type: none">• July' 11- Till date Professor, Dept. of Zoology, University of Delhi, Delhi 110 007, India.• April'09 – June'11 Associate Professor, Dept. of Zoology, University of Delhi, Delhi 110 007, India.• June'08 - March'09 Associate Professor, Dept. of Zoology, School of Life Sciences, Visva-Bharati University, Santiniketan, 731 235, West Bengal, India.• July'05 - June'08 Reader, Dept. of Zoology, School of Life Sciences, Visva-Bharati University, Santiniketan 731 235, West Bengal, India.• Nov'04 - July'05 Senior Lecturer, Dept. of Zoology, School of Life Sciences, Visva-Bharati University, Santiniketan 731 235, West Bengal, India.						

- **Nov'99 - Nov'03 Lecturer**, Dept. of Zoology, School of Life Sciences, Visva-Bharati University, Santiniketan 731 235, West Bengal, India.
- **1993 - 1994 Lecturer**, Dept. of Biosciences, Banasthali Vidyapith (Deemed University), Rajasthan, India.

AREAS OF INTEREST / SPECIALIZATION

- Immunobiology of host pathogen interactions
- Immunotoxicology

SUBJECTS TAUGHT

- Immunology
- Biology of parasitism
- Fish-Biology

RESEARCH GUIDANCE

1. Supervision of awarded Doctoral Thesis: Eight
2. Supervision of Doctoral Thesis, under progress: Five
3. Supervision of awarded M. Phil dissertations: Seven
4. Supervision of M. Phil dissertations, under progress: One

PUBLICATIONS PROFILE

Research papers published (Last five years)

Datta. D, Khatri. P, Singh. A, Saha. D.R. Verma. G, Raman. R, **Mazumder. S* (2018)**. *Mycobacterium fortuitum*-induced ER-Mitochondrial calcium dynamics promotes calpain/caspase-12/caspase-9 mediated apoptosis in fish macrophages. ***Cell Death Discov.* DOI 10.1038/s41420-018-0034-9**

Srivastava. N, Shelly. A, Kumar. M, Pant. A, Das. B, Majumdar.T, **Mazumder. S* (2017)**. *Aeromonas hydrophila* utilizes TLR4 topology for synchronous activation of MyD88 and TRIF to orchestrate anti-inflammatory responses in zebrafish. ***Cell Death Discov.* DOI: 10.1038/cddiscovery.2017.09.006**

Singh. R, Khatri. P, Srivastava. N, Jain. S, Bramchari. V, Mukhopadhyay. A, **Mazumder. S* (2017)**. Fluoride exposure abates pro-inflammatory response and induces *in vivo* apoptosis rendering zebrafish (*Danio rerio*) susceptible to bacterial infections. ***Fish. Shellfish Immunol.* DOI: 10.1016/j.fsi.2017.02.022**

Ray. A, Bhaduri. A, Srivastava. N, **Mazumder. S. (2016)**. Identification of novel signature genes attesting arsenic-induced immune alterations in adult zebrafish (*Danio rerio*). ***J. HAZARD. MATER.* DOI: 10.1016/j.jhazmat.2016.09.001**

Kumari. U, Srivastava. N, Shelly. A, Khatri. P, Sarat. N, Singh. D.K. and **Mazumder. S*(2016)**. Inducible headkidney cytochrome P450 contributes to endosulfan immunotoxicity in walking catfish *Clarias gariepinus*. ***Aquat. Toxicol.*** DOI: **10.1016/j.aquatox.2016.08.009**

Singh. R, Banerjee. C, Ray. A, Rajamani. P, and **Mazumder. S* (2016)**. Fluoride-induced headkidney macrophage cell apoptosis involves activation of CaMKIIg-ERK 1/2-Caspase-8 axis: role of superoxide in initiating the apoptotic cascade. ***Toxicol. Res.*** **5. 1477-1489.** DOI: **10.1039/C6TX00206D**

Datta. D, Khatri. P, Banerjee. C, Singh. A, Meena. R, Saha. D.R., Rajagopal, R, Rajamani. P, Mitra. A , **Mazumder. S*(2016)**. Calcium and superoxide-mediated pathways converge to induce nitric oxide-dependent apoptosis in *Mycobacterium fortuitum*-infected fish macrophages. ***PLoS ONE*** **11 (1): e0146554.** doi: **10.1371/journal.pone.0146554**

Batra. N, Roy. B, **Mazumder. S**, Nath. M **(2015)**. Synthesis and antibacterial evaluation of novel sulfonamide based [1,2,3]-triazoles. ***Indian J. Chem.*** **54B. 650-655.**

Goswami. R, Mukherjee. S, Rana. V.S, Saha. D.R, Rajagopal. R, Padhy. P.K, **Mazumder. S * (2015)**. Isolation and characterization of arsenic resistant bacteria from contaminated water-bodies in West Bengal, India. ***Geomicrobiology. J.*** DOI: **10.1080/01490451.2014.920938**

Banerjee. C, Singh. A, Das. T.K, Rajagopal. R, Srivastava. A, **Mazumder. S* (2014)**. Ameliorating ER- stress attenuates *Aeromonas hydrophila*-induced mitochondrial dysfunctioning and caspase mediated HKM apoptosis in *Clarias batrachus*. ***Scientific Reports.*** DOI: **10.1038/srep05820**

Goswami. R, Mandal. S, Mandal. S, Padhy. P.K., Ray. S and **Mazumder, S.*(2014)**. Effect of temperature and arsenic on *Aeromonas hydrophila* growth, a modelling approach. ***Biologia.*** DOI: **10.2478/s11756-014-0392-6**

Banerjee. C, Khatri. P, Rajagopal. R, Bhatia. H, Datta. M and **Mazumder. S* (2014)**. Role of Calmodulin-Calmodulin Kinase II, cAMP/Protein Kinase A and ERK 1/2 on *Aeromonas hydrophila*-Induced Apoptosis of Head Kidney Macrophages. ***PLoSPathogens.*** DOI: **10.1371/journal.ppat.1004018**

Banerjee. C, Singh. A, Rajagopal. R, and **Mazumder. S.*(2013)**. Calmodulin-CaMKII mediated alteration of oxidative stress: Interplay of cAMP/PKA/ERK 1/2/NFκB –NO axis on arsenic induced head kidney macrophage apoptosis. ***Toxicol. Res.*** DOI: **10.1039/C3TX50026H**

* **Communicating author**

RESEARCH PROJECTS

COMPLETED PROJECTS (LAST FIVE YEARS)

- Developing disease model of *Mycobacterium fortuitum* in fish and studying the role of plasmids in pathogenicity of the bacteria (Funded by University Grants Commission, Govt. of India(MRP-MAJOR-ZOOL-2013- 36692)).

- Understanding the interplay of cytokines and signalling molecules in fish resistant and susceptible to *A. hydrophila* induced ulcerative disease syndrome (UDS). **Funded by Department of Biotechnology, Govt. of India.**
- RNAi mediated comparative functional analysis of immune response genes in ruminants and fish against *Mycobacterium avium paratuberculosis* and *M. fortuitum*. **Funded by ICAR, Govt. of India.**
- Xenobiotic induced perturbations of fish immune system: A mechanistic approach towards understanding in vivo arsenic induced immunosuppression and apoptosis. **Department of Science & Technology, Govt. of India.**

AWARDS AND DISTINCTIONS

- INSA-Teachers Fellow
- First Class first in B.Sc. (H) examination
- Recipient of National Scholarship
- Recipient of University Merit Scholarship from University of North Bengal
- Recipient of NET (CSIR) Scholarship
- Recipient of CSIR Lateral SRF Scholarship
- A patent on five organometallic compounds (Anticancer drugs having bio-cidal activity, Patent Application number 353/KOL/2006). Filed through TIFAC, Dept. of Science and Technology, Govt. of India.

Hobbies: Music, games, movies and reading story books

Signature of Faculty Member