

CURRICULUM VITAE



Name GOUTAM GHOSH
Designation Assistant Professor of Zoology
Father's Name Sri Saroj Ghosh
Mother's Name Smt. Bharati Ghosh
Permanent Address S/O: Saroj Ghosh, Ramkrishna Nagar, Dharma,
Midnapore

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Nationality Indian

Sex Male

Marital status Married

Date of Birth 12-06-1977

Educational Qualifications (Summary)

- Ph.D (Science), 2007, Indian Institute of Chemical Biology (Jadavpur University)
- M.Sc in Zoology, 2000, Vidyasagar University, 1st Division (74.4%)
- B.Sc (Hons.) in Zoology, 1998, Vidyasagar University, 1st Division (72.4%)
- Higher Secondary Exam(10+2), 1995, WBCHSE, 1st Division (65.3%)
- Madhyamik Exam.(10th Class), 1993, WBBSE, 1st Division (74.6%)

Research Experience

More than 16 years.

(Engaged as Junior Research Fellow and Senior Research Fellow (CSIR) from July 2001 to July 2006 for pursuing Ph.D in Molecular Endocrinology Laboratory at Indian Institute of Chemical Biology, Kolkata, under supervision of Dr. Arun Bandyopadhyay and Prof. Samir Bhattacharya)

Worked as a team member in The Indian Genome Variation Consortium

a) Research Degree / Degrees: PhD

PhD Thesis Title : Molecular Mechanisms in Cardiac Hypertrophy: Involvement of Oxidative Stress and Role of Antioxidants

Date of submission : 23-07-2006

Date of award : 25-04-2007

Institute / University : Indian Institute of Chemical Biology, Kolkata (CSIR, Govt. of India)
Degree awarded by : Jadavpur University, Kolkata

b) Any other relevant information including UGC / CSIR NET or accredited State Level Test:

Tests with Year of qualification : CSIR/UGC NET -2000 (December)
CSIR/UGC NET -2001 (June)
SLET (conducted by WBCSC, accredited by UGC) -2001

Details of Experience and Training:

A. Research experience:

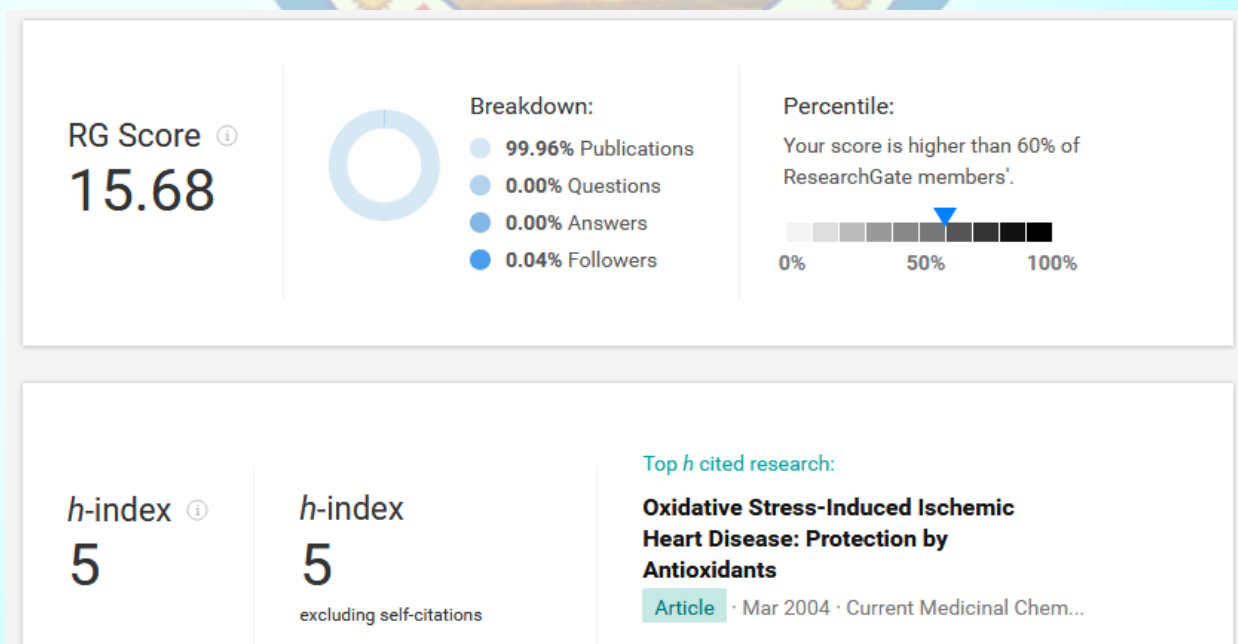
- DNA and Protein Electrophoretic techniques, Chromatographic techniques
- Protein purification, Western blot analysis, Northern and Southern blotting
- Oxidative stress biology (different antioxidant enzyme assays and measurement of free radicals)
- Protein phosphorylation, Protein kinase and protein phosphatase assays, protein trafficking studies
- Calcium-binding assays
- Radioimmunoassay, radio-ligand binding assays, scintillation techniques, ELISA
- Recombinant DNA techniques, cDNA library screening and cloning, PCR and mutagenesis, DNA sequencing, cDNA Microarray techniques
- Different histological and histochemical Techniques
- Cloning in plasmids
- Gene expression *in vitro* and *in vivo* and promoter analysis
- Protein over-expression and antibody generation
- Immunostaining, immunoprecipitation, Immunohistochemistry
- Semi-quantitative and quantitative RealTime PCR.
- siRNA mediated gene silencing
- Confocal microscopy and various microscopic techniques,
- Immunofluorescence, image processing and analysis
- Mammalian Cell culture, transfection of recombinant DNA in cultured cell
- Electrophysiological studies in cardiomyocytes
- Basic Bioinformatics applications and handling bio-based softwares etc.
- Experience in laboratory animal handling with ethical practice and many more....

B. Computer knowledge:

Operating Systems: Various OS viz. Windows 98, ME, NT, XP, Vista, Seven, DOS and Linux-based systems both Debian and KDE based environment like Ubuntu, Kubuntu, Mandriva, Open SuSE.

Software Knowledge: Microsoft Office packages, Adobe Photoshop CS 5, statistical analysis softwares viz. Origin, Sigmaplot, SPSS, Internet concepts and HTML, various scanning and imaging softwares viz. Kodak imaging, QuantiOne. Vast arrays of bioinformatics tools including data mining and retrieval from biological databases, several bioinformatics tools and softwares such as nucleotide and amino acid alignment tools, primer designing softwares, phylogenetic tree construction, homology searching engines, basic molecular modeling etc.

Publication profile



Key Research articles

- Surjyo Jyoti Biswas, Goutam Ghosh & Ved Prakash Dubey. 2017, In vivo reduction of sodium arsenite induced toxicity by ethanolic seed extract of *Trigonella foenum graecum* L. in *Mus musculus*, *Pharmaceutical Biology* (communicated)
- Biswas, S.J. and Ghosh, G., 2014. Effect of an extract of *Bauhinia variegata* leaves on chronic arsenic intoxication in mice (*Mus musculus*). *TANG*, 4(3), pp.42-48.
- Biswas SJ, Ghosh G, Roy-Karmakar S, Bandyopadhyay TK (2013). Comparative efficacy of *Bauhinia variegata* and *Embllica officinalis* against sodium arsenite induced toxicity in *Mus musculus*. *Forsch Komplement med*. 20(1):55-56. **[Impact Factor: 1.053]**
- Jana T, Ghosh G and Chatterjee A, 2010. *Actus shamimi* n. sp. (Nematoda: Mononchida) from Andaman and Nicobar Island, India with the key to the species of *Actus* Baqri and Jairajpuri, 1974. *Nematology*, 12(3): 343-348. **[Impact Factor: 0.962]**
- Jana T, Dattaray P, Ghosh G and Chatterjee A, 2010. First report of *Prionchulus kralli* (Mononchida: Nematoda) from India with a revised and updated key to the genus *Prionchulus* Cobb, 1916. *Nematologia Meditteranea*, 38: 59-65. **[Impact Factor: 2.314]**
- Ghosh G**, De K, Maity S, Bandyopadhyay D, Bhattacharya S, Reiter RJ and Bandyopadhyay A, Melatonin protects against oxidative damage and restores expression of GLUT4 gene in the hyperthyroid rat heart. *J. Pineal Res.* 2007; 42:71–82. **[Impact Factor: 10.391] (citation: 81 till July 2017)**
- Ghose Roy S, Mishra S, **Ghosh G**, Bandyopadhyay A. Thyroid hormone induces myocardial matrix degradation by activating matrix metalloproteinase-1. *Matrix Biol.* 2007; 26:269-279 **[Impact Factor: 7.400] (citation:38 till July, 2017)**
- Bandyopadhyay A, De K, **Ghosh G**, Konar A and Bhattacharya S. Physiological characterization of gene profile in hyperthyroid rat heart. *Journal of Experimental Zoology Part A Ecological Genetics and Physiology*. 2006; 305A(2): 107-202. Online ISSN: 1932-5231 **[Impact Factor: 1.44]**
- The Indian Genome Variation Consortium. (Worked as a team member in this consortium) The Indian Genome Variation database (IGVdb): a project overview. *Hum Genet* 2005; 118:1-11. **[Impact Factor: 5.138] (citation:76)**
- De K, **Ghosh G**, Datta M, Konar A, Bandyopadhyay J, Bandyopadhyay D, Bhattacharya S and Bandyopadhyay A, 2004. Analysis of differentially expressed genes in hyperthyroid-induced hypertrophied heart by cDNA microarray. *J Endocrinol*; 182:303-14. **[Impact Factor: 4.706] (citation:38 till July, 2017)**
- Bandyopadhyay D, **Ghosh G**, Bandyopadhyay A and Reiter RJ, 2004. Melatonin protects against piroxicam-induced gastric ulceration. *J Pineal Res*; 36:195-203. **[Impact Factor: 10.391] (citation:81 till July 2017)**
- Bandyopadhyay D, Chattopadhyay A, **Ghosh G** and Datta AG, 2004. Oxidative stress-induced ischemic heart disease: protection by antioxidants. *Curr Med Chem*; 11:369-87. **[Impact Factor: 3.583] (citation:146 till July, 2017)**
- Jana T, Dattaray P and Ghosh G, 2010. Population fluctuations of tylenchid nematodes in relation with soil abiotic factors in guava orchards in West Bengal, India. *Proceedings of the International Seminar on Modern Trends in Biological Sciences*, pp.56-61.

Book Chapters

- Bandyopadhyay A, De K, **Ghosh G**, Konar A, Maity S, Datta M and Bhattacharya S. DNA Microarray: From Technology to Endocrine Research. (2007). In *Hormone Biotechnology*, Ed. Maitra SK, Daya Pub House, Delhi 110035, India.
- Ghosh G**. Extinction: Is it really the bitter part of a better-known truth? (2016) in *Diurology* pp 21-23. (Ed. S. Partihar), Kabitika, India. ISBN: 978-93-85248-64-1.
- Das A., Ghosh S., and **Ghosh G.**, (2016). Marine Bioprospecting: A Pandora's Box of Medical Compounds in Environmental Awareness: An Introspection, pp 117-25 (Eds. Chandra et al.). Midnapore College, Midnapore and Avenel Press, Burdwan, WB. ISBN: 978-93-80736-26-6.

Khatua S., Dinda S., Samanta K., **Ghosh G.** and Majumdar K.N. (2016). The Loss of Species diversity in the Sundarban Mangrove Ecosystem: Risk and Conservation Status. in Environmental Awareness: An Introspection, pp 196-207 (Eds. Chandra et al.). Midnapore College, Midnapore and Avenel Press, Burdwan, WB. ISBN: 978-93-80736-26-6.

Seminar/Symposia Publications:

1. Biswas SJ, Ghosh G, Roykarmakar S, Bandyopadhyay TK. Modulatory role of *Bauhinia variegata* against sodium arsenite induced genotoxic and biochemical changes in mice. 4th European Congress for Integrative Medicine, 7th to 8th Oct, 2011, Berlin.
2. Biswas SJ, Ghosh G, Madhu NR Roykarmakar S, Bandyopadhyay TK. Inhibition of sodium arsenite induced oxidative stress by dietary *Emblica officinalis* 'Amla' in mice. Presented paper in UGC sponsored National seminar on 'Essence of medicinal plants its cultivation, conservation and sustainable exploitation'. Organized by Vivekananda Mahavidyalaya, Haripal, 9th December, 2011.
3. "Physical interaction of Annexin VI and α -actinin in heart tissues and their involvement with cardiac hypertrophy" Goutam Ghosh, Kakali De, Malabika Datta, Samir Bhattacharya and Arun Bandyopadhyay. Poster presented at 10th Congress of the Federation of Asian and Oceanic Biochemists and molecular Biologists held on December 7-11, 2003 at Bangalore, India.
4. "Calcineurin Independent Cardiac Hypertrophy In Hyperthyroid Rat". De K, Datta M, Ghosh G, Bandyopadhyay D, Bandyopadhyay J, Konar A, Bhattacharya S and Bandyopadhyay A. submitted at International Symposium on Molecular Endocrinology and Cellular Signals held on November 14-16, 2002, at Indian Institute of Chemical Biology, Kolkata.
5. Genotoxic and cytotoxic potentials of acrylamide in mice : a time course study (2015), Sangeeta Samanta, Nishan Chatterjee, Santosh Kumar Giri, Goutam Ghosh, Surjyo Jyoti Biswas. Proceeding on Perspectives in Animal Sciences: Research and Application, Midnapore College, Midnapore, WB, India.
6. Supportive evidences for ameliorative potential of ethanolic seed extracts of *Trigonella foenum graecum*, against sodium arsenite induced toxicity in mice (2015). Goutam Ghosh and Surjyo Jyoti Biswas. Proceeding on Perspectives in Animal Sciences: Research and Application, Midnapore College, Midnapore, WB, India.
7. On the Feeding Behaviour of Nemertines - A Study from the Subarnarekha Estuary, Odisha, India. (2015). Sudipta Kr. Ghorai, Susanta Kr. Chakraborty and Goutam Ghosh. Proceeding on Perspectives in Animal Sciences: Research and Application, Midnapore College, Midnapore, WB, India.
8. Microarray analysis of gene expression in hyperthyroid rat heart. De K, Ghosh G, Datta M, Bandyopadhyay S, Bhattacharya S, Bandyopadhyay A. Proceedings of Fifth Congress of AOSCE. Nara, Japan, March 26-30, 2004, in Trends in Comparative Endocrinology, 2004(Eds. Oishi T, Tsutsui K, Tanaka S and Kikuyama S)
9. "Identification Of Gene Profiles In Hyperthyroid Induced Hypertrophied Heart And Its Implications" De K, Bandyopadhyay D, Ghosh G, Datta M, Bandyopadhyay J, Bhattacharya S and Bandyopadhyay A. submitted at International Symposium on Molecular Endocrinology and Cellular Signals held on November 14-16, 2002, at Indian Institute of Chemical Biology, Kolkata.
10. Cardiac Tumours: Pathophysiology, Diagnosis and Management of a Rare but Fatal Disease. (2015). Sudipta Kr. Ghorai, Surjyo Jyoti Biswas and Goutam Ghosh. In Proceedings of UGC Sponsored National Level Seminar On Food Habit And Cancer Held In 7th & 8th March' 2015, Organised by Department of Zoology, Egra Sarada Shashi Bhusan College, Egra, Purba Medinipur.
11. Cryptic Biodiversity Loss in Changing Global Scenario. (2017). Tiasi Ghosh Jana and Goutam Ghosh. In Proceedings of West Bengal Biodiversity Board Sponsored National Seminar on "Exploring The Modern Approach in Biological Science: From Genome to Organism". Organized by Department of Zoology, Sidho-Kanho-Birsha University, Purulia, West Bengal.
12. Biotechnology Prospects and Applications in Wetlands. 2016. In Proceedings of UGC sponsored National Semnar on Wetland Bioresource Management: Problems and Prospects. Organized by Tamralipta Mahabidyalaya held on 26th and 27th February, 2016. Purba Medinipur, WB.

Projects (completed/ongoing)

PROJECT SANCTIONED BY UGC to Dr. Surjyo Jyoti Biswas (PI) & Dr. Goutam Ghosh (Co-PI): Evaluation of the antioxidant and cardioprotective effects of *Trigonella foenum graecum* and *Bauhinia variegata* in mice exposed to arsenic intoxication. [Amount-Rs766500, completed in March, 2017]

M.Sc. DISSERTATIONS SUPERVISED

Supervised Dissertations of the students of **Cell and Molecular Biology & Endocrinology** in the **M.Sc. course** at **PG Department of Zoology : 12**

Training Programs:

1. Eleventh Training Course on Field Ornithology held at Zoological Survey of India, Ministry of Environment & Forests, Government of India, Prani Vigyan Bhawan, Kolkata during January 1-4, 2008, Organized by Training & Extension Division, Zoological Survey of India, Kolkata.
2. Eleventh Leadership Course on Environmental Awareness and Wildlife Conservation held at Zoological Survey of India, Ministry of Environment & Forests, Government of India, Prani Vigyan Bhawan, Kolkata during March 24-27, 2009, Organized by Training & Extension Division, Zoological Survey of India, Kolkata.
3. UGC Sponsored Orientation Programme organized by UGC -Academic Staff College, Jadavpur University, 07-06-2010 to 03-07-2010.
4. Refresher Course on Application of Bioinformatics on Modern Biology, sponsored by DBT, Govt of India, organized by BIF Centre, Department of Microbiology, Vidyasagar University, March 8-31, 2010.
5. 21-DAY WINTER SCHOOL ON GEOSPATIAL TECHNOLOGIES Sponsored by Natural Resources Data Management System (NRDMS) Department of Science & Technology (DST) Ministry of Science & Technology Government of India to be held at Vidyasagar University on and from 16 November to 06 December, 2016.

Seminars, Conferences, Symposia, Workshops (Abstracts/ Posters presented or attended):

1. International Symposium on Molecular Endocrinology and Cellular Signals, held at Indian Institute of Chemical Biology, Kolkata on November 14-16, 2002.
2. International Symposium on Steroid Hormone Receptor Superfamily and Molecular Signaling (SHRSMS 2004), held at Rajiv Gandhi Centre for Biotechnology, Trivandrum, India, on November 25-27, 2004.
3. ISSRF-2005, Annual Meeting Organized by Reproductive Biology Research, Indian Institute of Chemical Biology and Institute of Reproductive Medicine, Kolkata, India. Under the auspices of Indian Society for the Study of Reproduction and Fertility held at EZCC, Kolkata, 4-6th February, 2005.
4. National Seminar on Frontiers in Zoology and National Symposium on Ocean as Source of Nutrients and Drugs for 21st Century organized by Department of Zoology, Goa University, Goa, India, February 22-24, 2006.
5. Seminar on Microbes, Human and Environment, organized by Department of Microbiology, Midnapore College, 14th September, 2006.
6. National Seminar on Medicinal Plants: (Theme-Indian Medicinal Plants To Marketable Drugs) sponsored by National Medicinal Plants Board, India, organized by Department of Botany, Midnapore College, March 8-9, 2007.
7. National Seminar on Insights in Cardiac Problems and its Management Organized by Department of Physiology & Nutrition, Ramananda College, Bishnupur in collaboration with Prof. N. M. Basu Memorial Committee, Kolkata, 11th February, 2009.
8. National Seminar on Role of IQAC on Quality Enhancement & Quality Sustenance in Higher Education, sponsored by NAAC, organized by Midnapore College, March 7-8, 2009
9. National Symposium on Emerging Perspectives -Zoological Research, organized by Department of Zoology, Vidyasagar University, Midnapore (West) -721102, W.B. India on 16-17 February, 2010

10. 10th Congress of Federation of Asian and Oceanian Biochemists and Molecular Biologists organized by Indian institute of Science, Bangalore, India, December 7-11, 2003
11. Workshop on "Suggestive Curriculum by UGC on Practical Teaching in Zoology" held on Saturday, 24th February, 2007 in the Department of Zoology, University of Calcutta organized by Department of Zoology, University of Calcutta & The Zoological Society, Kolkata
12. Symposium on "Recent Trends in Cellular & Molecular Signaling", held during December 25-27, 2011 at Hotel Nest, Shankarpur, Digha, India.

Teaching Experience:

1. More than 10 years (From September, 2006 onwards) as Assistant Professor, Department of Zoology, Midnapore College, Midnapore-721101, WB, India (Teaching various aspects of Zoology at UG & PG Levels)
2. Worked as Guest Teacher at Department of Zoology, Vidyasagar University, Midnapore-721102, WB, India from 2007-2010 integrating multiple teaching styles to intensify the range of learning knowledge involving:
 - Teaching and organizing theoretical and practical courses in Molecular Biology and Genetics at Post-graduate level in Zoology Special paper: Genetics.
 - Teaching and organizing theoretical and practical Biostatistics Course at Post-graduate level in Zoology.
3. As Guest Faculty for MSc Course in Zoology, Directorate of Distance Education, Vidyasagar University for Six Years.
4. As Guest Lecturer, Department of Microbiology, Vidyasagar University, Midnapore-721102, WB, India. Teaching courses in Molecular Biology and Recombinant DNA technology.
5. As Guest Lecturer, Department of Aquaculture Management and Technology, Vidyasagar University, Midnapore-721102, WB, India. Teaching courses in Molecular Biology, Molecular cloning and Recombinant DNA technology, Fish Immunology, Fish Endocrinology for four years.
6. As Guest Lecturer, Post Graduate Department of Zoology, Raja N. L. Khan Women's College -721102, WB, India, from 2008 onwards. Teaching courses in Biophysics, Molecular Biology and Genetic engineering.

Resource person:

Worked as **Academic Advisor** and **Resource Person** in the NET/SET preparatory course conducted by Career Advancement Centre (UGC -sponsored) at Raja N L Khan Women's College, Midnapore for three years.

AWARDS AND FELLOWSHIPS:

- Qualified twice Joint CSIR-UGC Test for Junior Research Fellowship and Eligibility for Lectureship (CSIR/NET) in 2000
- Qualified twice Joint CSIR-UGC Test for Junior Research Fellowship and Eligibility for Lectureship (CSIR/NET) in 2001
- Qualified State Level Eligibility Test (SLET, conducted by West Bengal College Service Commission, accredited by UGC, held in 2001
- Received Gold Medal for securing highest marks in M.Sc. Examination in 2000 at Vidyasagar University
- Received Gold Medal for securing highest marks in B.Sc. Examination in 1998 at Vidyasagar University
- Received State Government Scholarship of Merit for Result of B.Sc, during 1998-2000.