

# Saikat Biswas

M.Sc Zoology (Molecular Biology), Ph.D., CSIR-NET (JRF)

☎ +91-9039062774 • ☎ +91-9420178560 • ✉ saikatbiswas1985@outlook.com

## CURRENT POSITION

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Assistant Professor (Contract) at Center for Basic Sciences, Pt. Ravishankar Shukla University, Raipur

## EDUCATION

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- **Ph.D. in Zoology** [2014]  
*Department of Zoology, RTM Nagpur University, Nagpur, Maharashtra, India*  
*Title of Thesis: NADPH-Diaphorase and nitric oxide synthase expression in CNS of teleost during development*
- **M.Sc. in Zoology** [2006-2008]  
*Department of Zoology, University of Pune, Pune, Maharashtra, India*  
*GPA: 5.42/6; Grade: O*
- **B.Sc. in Zoology** [2003-2006]  
*Abasaheb Garware College, University of Pune, Pune, Maharashtra, India*  
*Aggregate: 81.4%*
- **India School Certificate Exam (ISC) (10+2)** [2003]  
*Julien Day School, Kalyani, Council for the Indian School Certificate Examinations (CISCE) Board*  
*Aggregate: 76.5%*
- **Indian Certificate of Secondary Examination (ICSE) (10)** [2001]  
*Julien Day School, Kalyani, Council for the Indian School Certificate Examinations (CISCE) Board*  
*Aggregate: 84.7%*

## SCHOLASTIC ACHIEVEMENTS

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- CSIR-NET (Lecturership), Govt. of India [November 2008 ]
- CSIR-NET (Lecturership), Govt. of India [June 2009]
- CSIR-Junior Research Fellowship (CSIR-JRF), Govt. of India [April 2010-March, 2012]
- CSIR-Senior Research Fellowship (CSIR-SRF), Govt. of India [April 2012-August, 2014]
- UGC Project Fellow, Govt. of India [Jun 2008- Mar 2010]

## TEACHING EXPERIENCE

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- **Contributory Lecturer** in *Department of Zoology, RTM Nagpur University, Nagpur* [July, 2015]
- **Assistant Professor (Contract)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur* [Aug 2015–Apr 2016]
- **Assistant Professor (Guest)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur* [May, 2016-June 2016]
- **Assistant Professor (Contract)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur* [Sep 2016–Apr 2017]
- **Assistant Professor (Guest)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur* [May 2017]

- **Assistant Professor (Contract)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur*  
[Aug 2017–Apr 2018]
- **Assistant Professor (Guest)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur*  
[May 2018]
- **Assistant Professor (Contract)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur*  
[Aug 2018–April, 2019]
- **Assistant Professor (Guest)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur*  
[May 2019]
- **Assistant Professor (Contract)** in *Center For Basic Sciences, Pt. Ravishankar Shukla University, Raipur*  
[July 2019–Till date]

## RESEARCH EXPERIENCE

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- CSIR-JRF and CSIR-SRF Research work.  
*Topic: To determine the role of Nitric oxide in modulating gonadal functions in teleosts* [Apr 2010-Aug 2014]
- Ph.D. Research work  
*Topic: NADPH-diaphorase and nitric oxide synthase expression in the CNS of teleost during development*  
[Sep 2010-June 2013]
- UGC Project Research work  
*Topic: Nitric oxide (NO) in the CNS of Indian major carp, Labeo rohita during development*  
[June 2008-March 2010]
- M.Sc. Project work  
*Topic: Expression of NADPH Diaphorase in the brain of chick (Gallus gallus) during development.*  
[June 2007-Feb 2008]

## PUBLICATIONS

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### Peer Reviewed Journals

1. Palande, N.V., **Biswas, S.**, Jadhao A.G. (2011) The ontogeny of Mauthner cells in the brain of *Labeo rohita* as revealed by NADPH-d and NOS immunohistochemistry. *Brain Str. Func.* 216: 67-75. **Impact factor 5.618**
2. **Biswas, S.P.**, Palande N.V., Jadhao A.G. (2011) Nitric oxide inhibited the melanophore aggregation induced by extracellular calcium concentration in snakehead fish, *Channa punctatus*. *Fish Physiol. Biochem.* 37:919-927. **Impact factor 1.662**
3. **Biswas S.P.**, Jadhao A.G., Palande N.V. (2014) Role of catecholamines and nitric oxide on pigment displacement of the chromatophores of freshwater snakehead teleost fish, *Channa punctatus*. *Fish Physiol. Biochem.* 40: 457-467. **Impact factor 1.662**
4. **Biswas, S.**, Jadhao A.G., Pinelli, C., Palande, N.V., Tsutsui K. (2015) GnIH and GnRH expressions in the central nervous system and pituitary of Indian major carp, *Labeo rohita* during ontogeny: An immunocytochemical study. *Gen. Comp. Endocrinol.* 220:88-92. **Impact factor 2.470**
5. Pinelli, C., Jadhao, A.G., **Biswas, S.P.**, Tsutsui, K., D’Aniello, B. (2015) Neuroanatomical Organization of the Brain Gonadotropin-Inhibitory Hormone and Gonadotropin-Releasing Hormone Systems in the Frog *Pelophylax esculentus*. *Brain Behav. Evol.* 85(1):15-28. **Impact factor 2.013**
6. **Biswas, S.P.**, Jadhao, A.G., Bhojar, R.C., Palande, N.V., Singh, D.P. (2015) Neuroanatomical localization of nitric oxide synthase (nNOS) in the central nervous system of carp, *Labeo rohita* during post-embryonic development. *Int. J. Dev. Neu. Int. J. Dev. Neu.* 46: 14-26. **Impact factor 2.580**
7. Palande, N.V., Bhojar, R.C., **Biswas, S.P.**, Jadhao, A.G. (2015) Short-term exposure to L-type calcium channel blocker, verapamil alters the expression pattern of calcium binding proteins in the brain of goldfish, *Carassius auratus*. *Comp. Biochem. Physiol. Part C.* 176-177: 31-43 **Impact factor 2.301**

8. Jadhao, A.G., **Biswas, S.P.**, Bhoyar, R.C., Pinellie, C. (2017) The distribution of nicotinamide adenine dinucleotide phosphate-diaphorase (NADPH-d) in the medulla oblongata, spinal cord, cranial and spinal nerves of frog, *Microhyla ornata*. J. Chemical Neuroanatomy. 81:76-86. **Impact factor 1.80**
9. Bhoyar, R.C., Jadhao, A.G., Sivasubbu, S., Singh, A.R., Sabharwal, A., Palande, N.V., **Biswas, S.** 2017 Neuroanatomical demonstration of calbindin 2a and calbindin 2b-like calcium binding proteins in the early embryonic development of zebrafish: mRNA study. J. Dev Neurosci. 60: 26-33. **Impact factor 2.580**

### **International and national conference proceedings**

1. Palande, N.V., **Biswas, S.P.**, Jadhao, A.G. (2011) Localization of calcium binding protein in retinotectal axis of *Labeo rohita* during development. Proceedings of International Conference on chemistry for mankind: innovative ideas in Life Sciences, pp 123-127.
2. **Biswas, S.P.**, Jadhao, A.G., Palande, N.V. (2012) Effect of Atropine and spectral sensitivity on the melanophore displacement in snake head teleost fish, *Channa punctatus*. NCIRTBS, Akola, pp 439-445.

### **Abstracts published in international and national conferences**

1. **Biswas, S.P.**, Palande, N.V., Sinh D., Jadhao, A.G. (2019) Ontogenic Neuroanatomical relationship of nNOS to GnRH and GnIH immunoreactive neurons in Indian Major Carp, *Labeo rohita*. Humbolt Kollegon Comparative Endocrinology and Physiology, Nagpur, pp 12.
2. **Biswas, S.P.**, Palande, N.V., Jadhao, A.G. (2014) Role of nitric oxide in early oocyte maturation in fresh water teleost, *Channa punctatus* (Bloch). ICEP-2014, Raipur, pp 21.
3. Palande, N.V., Jadhao, A.G., **Biswas, S.P.** (2014) Effect of gonadectomy on the expression of calcium binding proteins in the hypothalamus of *Clarius gariepinus*. ICEP-2014, Raipur, pp 15.
4. **Biswas, S.P.**, Palande, N.V., Jadhao, A.G. (2013) In vivo administration of nitric oxide donor sodium nitroprusside (SNP) promotes early oocyte maturation in fresh water teleost fish, *Channa punctatus* (Bloch). ICCEP-2013, Nagpur, pp 87.
5. **Biswas, S.**, Jadhao, A.G., Pinelli, C., Palande, N.V., Tsutsui, K. (2013) GnIH and GnRH expression in the olfactory system and brain of Indian major carp, *Labeo rohita* during ontogeny: An immunocytochemical study. ICCEP-2013, Nagpur, pp 167.
6. Palande, N.V., **Biswas, S.P.**, Jadhao, A.G. (2013) Calcium-binding proteins in the hypothalamohypophysial system of Indian major carp, *Labeo rohita* during ontogeny. ICCEP-2013, Nagpur, pp 34.
7. Biswas, S.P., Palande, N.V., Jadhao, A.G. (2012) Role of adrenaline, noradrenaline and nitric oxide in pigment displacement of snake head teleost, *Channa punctatus*. International symposium on Comparative Endocrinology and Stress Physiology, Kerala, pp 54.
8. **Biswas, S.P.**, Palande, N.V., Jadhao, A.G. (2011) Involvement of nitric oxide in the inhibition of melanophore aggregation induced by extracellular calcium ions in fish. ICCM-2011, RTMNU, pp 220.
9. **Biswas, S.**, Palande, N.V., Jadhao, A.G. (2009) Expression of nNOS immunoreactivity in the brain of *Labeo rohita* during ontogeny. NSCERP, Mumbai, pp 131.
10. Palande, N.V., **Biswas, S.**, Jadhao, A.G. (2009) Distribution of a brain specific calcium binding protein, Calretinin during development of Indian major carp, *Labeo rohita* (Ham). NSCERP, Mumbai, pp 135.

### **CONFERENCES ATTENDED**

1. National symposium on recent trends in malarial studies, Pune, India (2006)
2. National Symposium on comparative endocrinology and reproductive physiology, Mumbai, India (2009)
3. International conference on chemistry for mankind: innovative ideas in life sciences, Nagpur (2011)
4. International symposium on Comparative Endocrinology and Stress Physiology, Kerala, India (2012)
5. National conference in Innovative trends in Biological Sciences, Akola, India (2012)
6. International conference on Comparative Endocrinology and Physiology, Nagpur, India (2013)

7. International Colloquium on Endocrinology and Physiology, Raipur, India (2014)
8. National Symposium on Comparative Endocrinology and Reproductive Biology, Santiniketan, India (2015)
9. Humbolt Kolleg on Comparative Endocrinology and Physiology, Nagpur, India (2019)

## WORKSHOPS ATTENDED

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1. Workshop on electrophysiology, 2nd SERC-DST School in neuroscience, Centre for Neuroscience, Indian Institute of Sciences (IISc), Bangalore, India (2009)
2. Workshop on understanding Tools and Techniques in Molecular Biology, Department of Zoology, RTM nagpur University, Nagpur (2012)
3. One day workshop cum training on SYSTAT 13 software, IQAC, Pt. Ravishankar Shukla University, Raipur (2015)

## SKILLS

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### Research skills

- **Microscopy:** Light microscopy (Fluorescent, Stereo-zoom)
- **Microtomy:** Rotary microtome, Cryotome
- **Spectroscopy:** UV-Vis & Fluorescence
- **Immunocytochemical techniques**
- **Blotting Techniques:** Western Blot, Northern Blot, Southern Blot
- **Histochemical Techniques**
- **Molecular Biology techniques:** Polymerase chain reaction (PCR), ELISA, Gene Isolation and other techniques related to recombinant DNA technology
- **Basic Bioinformatics applications**

### Technical skills

- **Operating Systems:** Windows and Linux
- **Scientific softwares:** GraphPad, Photoshop, CorelDraw, L<sup>A</sup>T<sub>E</sub>X, MATLAB, MS Office, MS Excel

## EXTRA-CURRICULAR ACTIVITY

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- Associate Editor (Designing) of the Annual Magazine of Center for Basic Sciences “JARAI” (Edition 1 and 2)

## REFERENCES

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- **Prof. Arun G. Jadhao**  
Head of the Department  
Department of Zoology  
RTM Nagpur University  
Nagpur, Maharashtra  
Email: agj213@hotmail.com
- **Prof. H. K. Pathak**  
(Former Director)  
Center for Basic Sciences  
Pt. Ravishankar Shukla University  
Raipur, Chhattisgarh  
Email: hkpathak05@gmail.com

## PERSONAL INFORMATION

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**Father's name** Mr. Pradip Kumar Biswas  
**Date of birth** 15/04/1985  
**Marital status** Married  
**Gender** Male  
**Permanent address** Vill: Sutargachi  
P.O. Shimurali  
Dist: Nadia  
West Bengal  
Pin: 741248  
**Languages** English, Hindi, Bengali, Marathi  
**Hobbies** Painting, Reading

## DECLARATION

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I hereby certify that all the information furnished above is correct to the best of my knowledge and belief and I promise to abide by all the norms laid down by your esteemed organization.

(Dr. Saikat Biswas)