



KAZI NAZRUL UNIVERSITY ASANSOL

Faculty Profile

1. Name (Block Letter): ASAMANJA CHATTORAJ
2. Department: ANIMAL SCIENCE
3. Current Designation: ASSOCIATE PROFESSOR & HEAD
4. Address for Communication (Present): “MRITTIKA” Samannay Palli
Near Adyasakti Play Ground
Kalikapur, Bolpur
Birbhum-731 204
West Bengal
5. Address for Communication (Permanent): Do
6. Contact Number: 9436280230
7. Contact Mail (Personal and Institutional): asamanja.chattoraj@gmail.com
8. Research Degree:

| Degree | Name of the University | Date of Award |
|--------|------------------------|---------------|
| PhD | Visva-Bharati | 2008 |
| MSc | Visva-Bharati | 2000 |
| BSc | Visva-Bharati | 1998 |

9. Published Papers in Journals:

| S. No. | Name of Article | Journal with page no | ISSN/ ISBN No. | Referred/Non- Referred | No. of co-authors | Whether you are the main author | Date of Publication |
|--------|---|---|-----------------|------------------------|-------------------|---------------------------------|---------------------|
| 1. | Artificial Light at Night (ALAN), an alarm to ovarian physiology: A study of possible chronodisruption on zebrafish (<i>Danio rerio</i>). | Science of The Total Environment 628–629; 1407-1421 | ISSN: 0048-9697 | Referred | 8 | Corresponding author | 2018 |

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| 2. | Interaction of Melatonin and Gonadotropin-Inhibitory Hormone on the Zebrafish Brain-Pituitary-Reproductive Axis. | Molecular Reproduction and development. doi: 10.1002/mrd.22795. 84:389-400 | ISSN: 1098-2795 | Referred | 7 | Corresponding author | 2017 |
| 3. | Cloning, phylogenetic analysis and tissue distribution of melatonin biosynthesizing enzyme genes (Tph1, Aanat1, Aanat2 and Hiomt) in a tropical carp, <i>Catla catla</i> . | Biological Rhythm Research 48, 371-386 | ISSN 0929-1016 (Print), 1744-4179 (Online) | Referred | 7 | Corresponding author | 2017 |
| 4. | Daily and Seasonal Expression Profile of Serum Melatonin and Its Biosynthesizing Enzyme Genes (tph1, aanat1, aanat2, and hiomt) in Pineal Organ and Retina: A Study under Natural Environmental Conditions in a Tropical Carp, <i>Catla catla</i> . | Journal of Experimental Zoology Part A: Ecological Genetics and Physiology 325:688-700. | ISSN: 1932-5231 | Referred | 7 | Corresponding author | 2016 |
| 5. | Melatonin biosynthesizing enzyme genes and clock genes in ovary and whole brain of zebrafish (<i>Danio rerio</i>): Differential expression and a possible interplay. | General and Comparative Endocrinology 233:16-31, | ISSN: 0016-6480 | Referred | 7 | Corresponding author | 2016 |
| 6. | Rhinovirus Delays Cell Repolarization in a Model of Injured/Regenerating Human Airway Epithelium. | American Journal of Respiratory Cell and Molecular Biology. 55(4):487-499. | ISSN: 1535-4989 | Referred | | Third Author | 2016 |
| 7. | The daily expression profile of Neuropeptides (gnih, gnhr3, kiss1 and kiss2): A study of possible interaction in the brain of Zebrafish (<i>Danio rerio</i>). | Journal of Endocrinology and Reproduction | ISSN: 2455-1244 | Referred | 9 | Corresponding Author | 2016 |

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|-----|--|--|---|----------|---|----------------------|------|
| | | on 20:129-138, | | | | | |
| 8. | Melatonin Bio-Synthesizing Machinery in Fish: A Current Knowledge with a Special Emphasis on Tropical Carp. | Single Cell Biology 5, 1-3. | ISSN: 2168-9431 | Referred | 7 | Corresponding author | 2016 |
| 9. | Melatonin bio-synthesizing enzyme genes (Tph1, Aanat1, Aanat2 and Hiomt) and their temporal pattern of expression in brain and gut of a Tropical Carp in natural environmental conditions. | Cogent Biology (Cognitive Science & Neuroscience) 2, | ISSN: 2331-2025 | Referred | 7 | Corresponding author | 2016 |
| 10. | Melatonin: A potent candidate in the regulation of fish oocyte growth and maturation; | General and Comparative Endocrinology 15:215-222 | ISSN: 0016-6480 | Referred | 3 | Second Author | 2013 |
| 11. | Rhinovirus-induced barrier dysfunction in polarized airway epithelial cells is mediated by NADPH oxidase 1. | Journal of Virology 85: 6795-808 | ISSN: 0022-538X (Print) 1098-5514 (Online) | Referred | 6 | Third Author | 2011 |
| 12. | Quercetin prevents progression of disease in elastase/LPS-exposed mice by negatively regulating MMP expression. | Respiratory Research 11: 131 | ISSN:1465-993X | Referred | 9 | Fifth Author | 2010 |
| 13. | Melatonin formation in mammals: in vivo perspectives. | Reviews in Endocrine and Metabolic Disorders 10: 237-243 | ISSN: 1389-9155 (print) ISSN: 1573-2606 (electronic) | Referred | 4 | First Author | 2009 |
| 14. | Posttranscriptional regulation of pineal melatonin synthesis in <i>Octodon degus</i> . | Journal of Pineal | ISSN: 1600-079X (Online | Referred | 8 | Third Author | 2009 |

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|-----|--|--|--|----------|---|---------------|------|
| | | Research 47:75–81 |) 0742- 3098 (print) | | | | |
| 15. | The increased degradation of NAT-H28Y mutant protein is due to a reduced interaction with 14-3-3. | Journal of Pineal Research 46:119– 120 | ISSN: 1600- 079X (Online) 0742- 3098 (print) | Referred | 4 | Second Author | 2009 |
| 16. | Posttranslational regulation of TPH1 is responsible for the nightly surge of 5-HT output in the rat pineal gland. | Journal of Pineal Research 45:506– 514 | ISSN: 1600- 079X (Online) 0742- 3098 (print) | Referred | 7 | Third Author | 2009 |
| 17. | Temporal relationship between the circulating profiles of melatonin and ovarian steroids under natural photo-thermal conditions in an annual reproductive cycle in carp <i>Catla catla</i> . | Biological Rhythm Research 40: 347- 359 | ISSN 0929- 1016 (Print), 1744- 4179 (Online) | Referred | 5 | First Author | 2009 |
| 18. | Localization and dynamics of Mel(1a) melatonin receptor in the ovary of carp <i>Catla catla</i> in relation to serum melatonin levels. | Comparati ve Biochemist ry and Physiology : A 152:327- 333 | ISSN: 1 095- 6433 | Referred | 2 | First Author | 2009 |
| 19. | Influence of serotonin on the action of melatonin in MIH-induced meiotic resumption in the oocytes of carp <i>Catla catla</i> . | Comparati ve Biochemist ry and Physiology : A 150: 301- 306 | ISSN: 1 095- 6433 | Referred | 2 | First Author | 2008 |
| 20. | Role of photoperiod and melatonin in the regulation of ovarian functions in | Fish Physiology and | ISSN: 0920- 1742 | Referred | 1 | Second Author | 2007 |

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|-----|---|---|---|----------|---|---------------|------|
| | Indian carp <i>Catla catla</i> : Basic information for future application. | Biochemistry 33: 367-382 | (Print) 1573-5168 (Online) | | | | |
| 21. | Melatonin in the regulation of annual testicular events in carp <i>Catla catla</i> : Evidence from the studies on the effects of exogenous melatonin, continuous light and continuous darkness. | Chronobiology International 24:629-650 | ISSN 0742-0528 (Print), 1525-6073 (Online) | Referred | 2 | Second Author | 2007 |
| 22. | Arsenic-induced changes in optic tectal histoarchitecture and acetylcholinesterase-acetylcholine profile in <i>Channa punctatus</i> : amelioration by selenium. | Comparative Biochemistry and Physiology : C 144:16-24 | ISSN: 1532-0456 | Referred | 2 | Second Author | 2006 |
| 23. | Photoperiod, pineal photoreceptors and melatonin as the signal of photoperiod in the regulation of reproduction in fish. | Journal of Endocrinology and Reproduction 10: 73-87 | ISSN: 2455-1244 | Referred | 2 | Third Author | 2006 |
| 24. | The pineal organ and reproduction in fish. | Proceeding of Zoological Society (Calcutta) 59: 35-60 | ISSN: 0373-5893 | Referred | 4 | First Author | 2006 |
| 25. | Implication of melatonin in oocyte maturation in Indian major carp (<i>Catla catla</i>). | Fish Physiology and Biochemistry 31: 201-207 | ISSN: 0920-1742 (Print) 1573-5168 (Online) | Referred | 2 | Second Author | 2005 |
| 26. | Melatonin Accelerates Maturation Inducing Hormone (MIH)–Induced Oocyte Maturation in Carps | General and Comparative Endocrinology | ISSN: 0016-6480 | Referred | 5 | First Author | 2005 |

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|-----|--|---|-----------------|----------|---|---------------|------|
| | | (COVER PAGE) . 140: 145-155 | | | | | |
| 27. | Ultrastructural and Morphometric Study of the Pineal Complex in Indian Major Carp <i>Catla catla</i> in Response to Continuous Light and Darkness. | Journal of Endocrinology and Reproduction 9: 1-10 | ISSN: 2455-1244 | Referred | 2 | Second Author | 2005 |

10. Articles/Chapters Published in Edited Volume:

| Sl. No | Name of Article/chapter | Name of Edited Volume, Editor and Publisher | ISBN No | No of Co-author | Whether you are the main author | Date of Publication |
|--------|---|---|---------------|-----------------|---------------------------------|---------------------|
| 1 | Clock System in Fish: A Phenomenon of “Orchestrate” or “Master-slave”? 329-341. | Updates on Integrative Physiology and Comparative Endocrinology. Prof Chandana Halder; BHU, India | 81-85305-72-2 | 7 | Corresponding Author | 2016 |

11. Full Papers in Conference Proceedings: N/A

| Sl. No | Title with Page No | Details of Conference Publication | ISSN/ISBN No | No of Co-author | Whether you are the main author | Date of Publication |
|--------|--------------------|-----------------------------------|--------------|-----------------|---------------------------------|---------------------|
| 1. | | | | | | |
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12. Published Books or Edited Volume:

| Sl. No. | Title | Book or Edited Volume | Publisher & ISBN No. (I. International II. National III. Regional) | Whether Peer Reviewed | No of Co-author/s | Whether you are the main author | Date of Publication |
|---------|---------------------------------|-----------------------|---|-----------------------|-------------------|---------------------------------|---------------------|
| | Photoinduction and Reproduction | Book | International Lambert Publication. Saarbrücken Germany ISBN: 978-3-8433-9225-9. | Yes | 2 | First Author | 2010 |

13. Papers Presented in Conferences/Seminars/Workshops/ Symposia:

| S. No. | Title of the Paper Presented | Title of the Conference/Seminar/Symposia | Organising Authority | Whether International/National/State/Regional/University/College Level | Date of presenting the Paper |
|--------|---|---|--|--|------------------------------|
| 1 | Expression of Melatonin Biosynthesizing Enzyme Genes in Central and Peripheral Organs: A Possible Interplay with Clock Associated Genes in Teleost. | International Symposium on Integrative Physiology and Comparative Endocrinology | SRBCE and Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi, India | International INVITED | 2016 |
| 2 | Reproductive Physiology in Fish: Involvement of Light in its Regulation | National Symposium on Comparative Endocrinology and Reproductive Biology | Visva-Bharati, Santiniketan, West Bengal, India | National INVITED | 2015 |
| 3 | Environmental Lighting Condition and Synchronization of Biological Rhythm: A Study on the Reproductive Parameters on Fish. | National Symposium on Bioresources and Sustainable Development and 2nd National Bioresources and Sustainable Development Summit | North-Eastern Hill University, Shillong, India | National | 2015 |
| 4 | Ovarian Melatonin Biosynthesis Genes and Altered Photoperiod in the Regulation of Ovarian Growth and Maturation in Zebrafish (Danio Rerio) | 1 st National Bioresources and Sustainable Development Summit | IBSD, DBT | National | 2014 |
| 5 | Photoinduction and reproduction: A tale of regulation of reproductive physiology in fish. | International conference on “BIOACTIVE CHEMICALS FOR REPRODUCTION AND HUMAN HEALTH” | SRBCE and Davangere University, Karnataka, India, | International INVITED | 2015 |
| 6 | <i>Octodon degus</i> , a Suitable Model for the Chronobiological Studies on the Basis of its Regulation on Melatonin Biosynthesis | International Conference on Environmental Biology and Ecological Modelling | Visva-Bharati, Santiniketan, West Bengal, India. | International INVITED | 2013 |
| 7 | Posttranscriptional control of melatonin production in <i>Octodon degus</i> . | International Conference on “Recent Trends in Biomedical Sciences” | SRBCE and Holy Cross College, Tiruchirappali, Tamilnadu, India. | International INVITED | 2014 |

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|----|---|--|--|--------------------------|------|
| 8 | The insight of chronobiology with an emphasis on the nightly surge of serotonin output in the rat pineal gland and the role of TPH1 | “Innovations in Science & Technology for Inclusive Development” | Indian Science Congress and Manipur University, Manipur, India. | National INVITED | 2013 |
| 9 | The role of TPH1 in the night time production of serotonin in the rat pineal gland. | International Symposium on Molecular Signalling, | Visva-Bharati, Santiniketan, India. | International INVITED | 2013 |
| 10 | Nightly surge of serotonin output in the rat pineal gland and the role of TPH1. | National Conference on Endocrinology and Reproduction: Innovatives in Reproductive Biotechnology | SRBCE & University of Dharwad, Karnataka, India | National INVITED | 2013 |
| 11 | Molecular Regulation of Melatonin Biosynthesis. National Workshop on | “Non-Animal Science Teaching & Research”. | Department of Zoology, Vidyasagar University, West Bengal, INDIA. | National INVITED | 2011 |
| 12 | Oxidative Stress Induced by Rhinovirus Plays a Role in the Disruption of Epithelial Barrier Function. | Annual Conference of American Thoracic Society. | New Orleans, LA, USA | International | 2010 |
| 13 | Posttranscriptional regulation of pineal melatonin synthesis in <i>Octodon degus</i> | Annual conference of the Society for Neuroscience | Chicago, IL, USA | International | 2009 |
| 14 | Posttranslational regulation of TPH1 is responsible for the nightly surge of 5-HT output in the rat pineal gland. | 20th Anniversary Meeting of the Society for Research on Biological Rhythms. | Sandestin Golf and Beach Resort in Destin, Florida. USA | International | 2008 |
| 15 | Posttranslational regulation of TPH1 is responsible for the nightly surge of 5-HT output in the rat pineal gland. | Zoological Sciences; Recent challenges and its Applications in Medical Research. | Department of Zoology, GGV, Bilaspur, India | National | 2012 |
| 16 | Serotonin blocks the Action of Melatonin in MIH-Induced Oocyte Maturation in Indian Major Carp <i>Catla catla</i> . ‘ | XXV National Symposium on Reproductive Biology and Comparative Endocrinology’ | SRBCE and Dept of Zoology, University of Kerala, Thiruvananthapuram, India | National | 2007 |
| 17 | Serotonin is Antagonistic to the Action of Melatonin in MIH-Induced Oocyte Maturation in Indian Major Carp <i>Catla catla</i> . | National Symposium on Comparative Endocrinology and reproductive Physiology, | University of Delhi, Delhi, India | National | 2005 |

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|----|--|---|---------------------------------------|----------|------|
| 18 | Melatonin-MIH (Maturation Inducing Hormone) interactions in the maturation of oocytes in <i>Catla catla</i> : An in vitro study. | XXIII Natl. Symp. Reprod. Biol. & Comp. Endocrinol. (Awarded “Prof. N.J. Chinoy prize” for the third best poster presentation in this symposium.) | SRBCE and Visva-Bharati, India | National | 2005 |
| 19 | Melatonin induces germinal vesicle breakdown (GVBD) earlier than MIS alone in maturing oocytes of the Indian major carp, <i>Labeo rohita</i> . | XXII Natl. Symp. Reprod. Biol. & Comp. Endocrinol | SRBCE and University of Madras. India | National | 2004 |
| 20 | Changes in the Profile of Acetylcholinesterase activity in the Isolated Brain of Fish. | XXVII Environmental Mutagenesis Society of India. | EMSI and SRBCE, India | National | 2003 |

14. Organising Seminar/Conference/Symposia:

| S l. N o | Whether you are Convenor/ Co-convenor | Theme of the Conference/Seminar/ Symposia | Whether International/National/Regional/ State/University Level | Funding Authority | Date of the Conference/Seminar/ Symposia |
|-------------------|--|---|---|----------------------|--|
| | Co-Convenor | International Conference on Seribiotechnology | International | DBT, DST | December 2012 |

15. Invited Lectures/Chairing the Session or Presentation for Conferences/Seminar/Symposia etc:

| Sl. No | Title of the Lecture/Academic Session | Title of the Conference/Seminar | Organizing Authority | Whether International/National/ State/Regional/ University/College Level | Date of Conference/ Seminar/ Symposia |
|--------|---|---|--|--|--|
| 1 | Expression of Melatonin Biosynthesizing Enzyme Genes in Central and Peripheral Organs: A Possible Interplay with Clock Associated Genes in Teleost. | International Symposium on Integrative Physiology and Comparative Endocrinology | SRBCE and Department of Zoology, Institute of Science, Banaras Hindu University, Varanasi, India | International INVITED | 2016 |
| 2 | Reproductive Physiology in Fish: Involvement | National Symposium on Comparati | Visva-Bharati, Santiniketan, West Bengal, India | National INVITED | 2015 |

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|---|---|---|---|-----------------------|------|
| | of Light in its Regulation | ve Endocrinology and Reproductive Biology | | | |
| 3 | Photoinduction and reproduction: A tale of regulation of reproductive physiology in fish. | International conference on "BIOACTIVE CHEMICALS FOR REPRODUCTION AND HUMAN HEALTH" | SRBCE and Davangere University, Karnataka, India, | International INVITED | 2015 |
| 4 | <i>Octodon degus</i> , a Suitable Model for the Chronobiological Studies on the Basis of its Regulation on Melatonin Biosynthesis | International Conference on Environmental Biology and Ecological Modelling | Visva-Bharati, Santiniketan, West Bengal, India. | International INVITED | 2013 |
| 5 | Posttranscriptional control of melatonin production in <i>Octodon degus</i> . | International Conference on "Recent Trends in Biomedical Sciences" | SRBCE and Holy Cross College, Tiruchirappali, Tamilnadu, India. | International INVITED | 2014 |
| 6 | The insight of chronobiology with an emphasis on the nightly surge of serotonin output in the rat pineal gland and the role of TPH1 | "Innovations in Science & Technology for Inclusive Development" | Indian Science Congress and Manipur University, Manipur, India. | National INVITED | 2013 |
| 7 | The role of TPH1 in the night time production of serotonin in the rat pineal gland. | International Symposium on Molecular Signalling, | Visva-Bharati, Santiniketan, India. | International INVITED | 2013 |
| 8 | Nightly surge of serotonin output in the rat pineal gland and the role of TPH1. | National Conference on Endocrinology and Reproduction: Innovative s in | SRBCE & University of Dharwad, Karnataka, India | National INVITED | 2013 |

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| | | Reproductive Biotechnology | | | |
| 9 | Molecular Regulation of Melatonin Biosynthesis. National Workshop on | “Non-Animal Science Teaching & Research”. | Department of Zoology, Vidyasagar University, West Bengal, INDIA. | National INVITED | 2011 |

16. Ongoing Projects/Consultancies: N/A

| Sl. No | Title | Agency | Period | Grant/Amount Mobilized (Rs.) |
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17. Completed Projects/Consultancies:

| Sl. No | Title | Agency | Period | Grant/Amount Mobilized (Rs..) |
|--------|--|--|-------------|-------------------------------|
| | Molecular mechanism of melatonin biosynthesis in the pineal, retina and gut in the context of regulation of ovarian functions in carp <i>Catla catla</i> | Department of Science and Technology (SERB; SR/FT/LS-179/2010) | Three Years | ₹ 20.23 Lakh |
| | Chronobiology of extra pineal source of melatonin and its mechanism of biosynthesis in the context of the regulation of annual reproductive cycle in carp. | Special Programme of Department of Biotechnology under NER “Units of Excellence” (U-Excel), No. BT/407/NE/U-Excel/2013 | Four Years | ₹106.28 Lakh |
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18. Received Research Fellowship/ Awards:

| Sl. No | Title | Funding Authority | Period | Grant/Amount Mobilized (Rs..) |
|--------|--|-------------------|--------|-------------------------------|
| 1 | “Membership in Reproduction and Endocrinology” by the Society for Reproductive Biology and Comparative Endocrinology-2016 | SRBCE | N/A | N/A |
| 2 | “Prof MA Akbarsha Oration Award” for the contribution in endocrinology by the Society for Reproductive Biology and Comparative Endocrinology-2015 | SRBCE | N/A | N/A |

19. Academic Staff College Organised Orientation/ Refresher Courses Attended: N/A

| Name of the Courses | Place | Duration From | Sponsoring Authority |
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20. Training Courses, Teaching-Learning-Evaluation Technology Programmes, Faculty Development Programme:

| Sl. No | Programme/Course | Duration | Organising Authority | Period |
|--------|---|------------------------|----------------------|--------|
| 1 | UGC under National Mission on Education through ICT (NME-ICT) | THREE MODULES PREPARED | UGC | N/A |

21. Research Guidance:

| Sl. No | Name of the Research Student | Title of the Thesis/Dissertation | Date of Thesis Submission | Date of Degree Awarded |
|--------|------------------------------|---|---------------------------------|---------------------------|
| 1 | Dr. Chongtham Rajiv | Extra Pineal Sources of Melatonin: The Expressivity of its Bio-Synthetic Genes in Annual Gonadal Cycle in Indian Major Carp | 10 th August 2017 | 2 nd May 2018 |
| 2 | Dr. Zeeshan Ahmad Khan | Photoperiod and Ovarian Physiology: A Chronobiological Approach in Zebrafish (<i>Danio rerio</i>) | 25 th September 2017 | 3 rd July 2018 |

22. Any other Information:

THREE STUDENTS ARE REGISTERED FOR PhD and they are on the verge of completion.

Research Proposal are ready for submission for funding.