1. Name **Dr. Somenath Ghosh** 

2. Parents name and permanent Mrs. Puspa Ghosh and Mr. Monoranjan

address: Ghosh, 66, Puratan Chawk,

P.O. Nutanganj,

Burdwan-713102, West Bengal.

2.Address for correspondence Dr. Somenath Ghosh,

Assistant Professor and Head, P. G. Department of Zoology,

Coordinator, Department of Biotechnology,

Rajendra Post-Graduate College,

Jai Prakash University, Chapra-841301, Bihar, India.

3. Mobile +91-9936439419

4. E-mail somenath9936439419@gmail.com

5. Date and place of birth 28/07/1986, Burdwan

6. Nationality Indian

| Examination                  | Year                           | Board/University/Institute                           | Subjects  | Percentage/CGP                   |
|------------------------------|--------------------------------|--|---|----------------------------------|
| Secondary<br>Exam.           | 2002                           | West Bengal Board of Secondary<br>Education          | English, Bengali, History, Geography, Mathematics, Physical Science, Life Science, Biology.   | 81.125%                          |
| Higher<br>Secondary<br>Exam. | 2004                           | West Bengal Council of Higher<br>Secondary Education | English, Bengali, Physics, Chemistry, Mathematics, Biology.   | 73.7%                            |
| B.Sc.                        | 2007                           | University of Burdwan                                | Zoology (H), Botany, Chemistry,<br>Environmental Science, Bengali,<br>English.  | 63.125%                          |
| M.Sc.                        | 2009                           | Banaras Hindu University                             | Zoology (Specialization: Mammalian Reproductive Physiology)   | CGPA: 7.44/10                    |
| Ph. D                        | 2015                           | Banaras Hindu University                             | Zoology <b>Topic:</b> Modulation of Spleen and thymus function(s) in Indian goats <i>Capra hircus</i> by melatonin and different hormones: An <i>in vivo</i> and <i>in vitro</i> study. | Degree awarded<br>on 22/02/2016. |
| GATE                         | 2009                           | Indian Institute of Technology (IIT), Roorkee.       | Life Sciences   | 91.58.                           |
| NET                          | 2008,<br>2010<br>(AIR-<br>55). | Council of Scientific and Industrial Research.       | Life Science  |                                  |
| M.Sc Seminar                 | 2008-<br>2009                  | Dept. of Zoology, Banaras Hindu<br>University.       | Game Theory   | Satisfactory<br>Performance.     |
| Ph. D<br>Coursework          | 2010-11                        | Dept. of Zoology, Banaras Hindu<br>University.       | Functional Genomics, Fertility and Sterility, Molecular Techniques in Laboratory Practice.  | 72.7%                            |

### Research Achievements

### **Conference attended only:**

- 1. National Symposium on Comparative Endocrinology and Reproductive Physiology: Current Advances, (NSCERP-2009) from 17<sup>th</sup> -19<sup>th</sup> December, 2009, Department of Zoology, The Institute of Science Mumbai.
- 2. International Symposium on Endocrinology and Reproduction: Molecular Mechanisms to Molecular Medicine and 28<sup>th</sup> meeting of the Society for Reproductive Biology and Comparative Endocrinology from February 4<sup>th</sup> -6<sup>th</sup>, 2010 at Special Centre for Molecular Medicine, JNU and NIHFW, New Delhi.
- 3. FASEB Conference on melatonin Biology, 19<sup>th</sup> to 24<sup>th</sup> July, 2015, Lisbon, Portugal.

#### **Abstracts Published**

## National Symposium:

- **1. Poster** presentation on the topic "Melatonin and testosterone in regulation of cell mediated immunity in Indian goat, *Capra hircus*" in Brain storming meeting in Advances in Neuroendocrinology organized by Reproduction Biology and Endocrinology Unit, Department of Zoology, Banaras Hindu University, Varanasi-22005, 14/02/2011-16/02/2011.
- **2. Poster** presentation on the topic "Seasonal and sex dependent variations in metabolic factors in Indian goat *Capra hircus*" in National Colloquium on Recent Advances in Molecular and Cellular Endocrinology at Dept. of Zoology, Banaras Hindu University, Varanasi, from 23/09/2011-25/09/2011.
- **3. Poster** presentation on the topic "Seasonal and sex dependent variation of energy distribution in maintenance of immunity with special reference to melatonin in Indian goat *Capra hircus*" in 30<sup>th</sup> Annual symposium of the Society for reproductive Biology and comparative endocrinology (SRBCE) & National conference on Novel Aspects and Emerging Trends in Reproduction and Endocrinology at Dept. of Zoology, University College of Science, Mohanlal Sukhadia University, Udaipur, Rajasthan from 30/01/2012-01/02/2012.
- **4. Oral** presentation on the topic "Seasonal and Sex dependent variations in ROS status in Indian goat *Capra hircus*: A correlative study with immunity and melatonin" in National Symposium on Recent Palestrae in Photosciences, Dept. of Zoology, Banaras Hindu University, Varanasi-221005 from 03/09/2012-04/09/2012.
- **5. Oral** presentation on the topic "Free radical status in immunomodulation and reproduction of Indian goat *Capra hircus*: role of melatonin" in 31<sup>st</sup>Annual symposium of the Society for reproductive Biology and comparative endocrinology (SRBCE) at Dept. of Microbiology, University College of Science, Karnataka University, Dharwad, Karnataka from 11/02/2013-13/02/2013.
- **6. Oral** presentation on the topic Adaptive And Ecological Significance of Season Dependent Hematological, Biochemical And Hormonal Variations in Tropical Goats *Capra hircus*" at National Symposium on Animals and Alternatives in Life Science research and annual convention of LASAI, Varanasi, Uttar-Pradesh from 16/02/2014-18/02/2014.
- **7. Oral** presentation on the topic "Melatonin reproduction-immune interplays in a ruminant short day breeder goat *Capra hircus*" at National Symposium on Recent Advances in reproductive health, at Banaras Hindu University, Varanasi, from 28/11/2013-30/11/2013.
- **8. Poster** presentation on the topic "Melatonin from plant products: Regulation of Immunity and general physiology in Indian goat *C. hircus*" at annual meeting of LASAI, at CDRI, Lucknow from 13/03/2015-14/03/2015.
- **9. Poster** presentation on the topic "Circadian rhythm of immune status and its

- correlation with circulating melatonin in Indian goat *Capra hircus*" at XXII National Symposium on Chronobiology, at Kurukshetra University, Kurukshetra, 15/03/2015-17/03/2015.
- **10. Oral** presentation on the topic "Seasonal and sex dependent variations in free radical parameters in lymphoid organs and gonads of Indian goat *Capra hircus*" at National Symposium on Life processes and sustainable development at Goa University, Goa from 16/02/2015-18/02/2015.
- **11. Poster** presentation on the topic "Role of Metabolic Hormone and Melatonin in regulation of immunity and energy allocation in Indian goat *Capra hircus*" at National Conference on Reproductive Health Challenges: Issues and Challenges at The IIS University, Jaipur, 11/09/2015-13/09/2015.
- **12. Poster** presentation on the topic "Seasonal immune modulation in Indian goat Capra hircus: Role of Phyto-melatonin" at 86<sup>th</sup> Annual session of National Academy of Sciences, India at UCOST, Dehradun, India from 02/12/2016 to 04/12/2016,.
- **13. Oral** presentation on the topic "Seasonal Immune modulation in Indian goat Capra hircus: Role of Phyto-Melatonin" at Science, Technology and National Development, organized by Department of Botany, Central University of Allahabad, Allahabad, India from 11/02/2017 to 13/02/2017.
- **14. Poster** presentation on the topic "Synthesis of Melatonin Loaded Poly (D, L-Lactic Acid) Nano-Particles (Mel-PLA-Nano-Particles)" at 87<sup>th</sup> Annual Session of NASI at Department of Zoology, Savitribai Phule University, Pune from 08/12/2017 to 10/12/2017.
- **15. Oral** presentation on the topic "Synthesis and Characterization of Physiological Impacts of Melatonin Loaded Poly (D, L-Lactic Acid) Nano-Particles (Mel-Pla-Nano-Particles) and its Putative use in Osteoporosis" at National Conference on Impact Xenobiotics on Human Health and Biodiversity, Lucknow University, Lucknow, from 30/03/2018-31/03/2018.

# International Symposium:

### India:

- **1. Poster** presentation on the topic "Phyto-melatonin mediated immune modulation in Indian goat *Capra hircus*: A comparative aspect" in Global meet of Biologists at IICT, Hyderabad and Osmania University from 26/12/2012-28/12/2012.
- **2. Poster** presentation on the topic "Phyto-melatonin and seasonal immunity of Indian goat *Capra hircus*" at International conference on Reproductive Health: Issues and strategies under changing climate scenario and 24<sup>th</sup> Annual meeting of ISSRF at Izatnagar, Bareilly from 06/02/2014-08/02/2014.
- **3. Oral** presentation on the topic "Melatonin reproduction-immune interplays in a ruminant short day breeder *Capra hircus*" at International Conference on recent trends in Biomedical Sciences and 32<sup>nd</sup> annual meeting of SRBCE, Tiruchirappalli, Tamil Nadu from 07/02/2014-09/02/2014.
- **4. Oral** presentation on the topic "Energy distribution in maintenance of immunity and reproduction with special reference to melatonin in Indian goat *Capra hircus*" at International Colloquium on Endocrinology and Physiology, Dept. of Zoology, Govt. D. B. College, Raipur, C.G., India from 29/09/2014-30/09/2014.
- **5. Poster** presentation on the topic "Role of metabolic hormone and melatonin in regulation of immunity and energy allocation in Indian goat *Capra hircus*" at International Conference on Frontiers in Comparative Endocrinology and Neurobiology at Hyderabad, India from 25/11/2014-28/11/2014.
- **6. Oral** presentation on the topic "Melatonin from plant products: Regulation of Immunity in Indian goat *C. hircus*" at 33<sup>rd</sup> Meeting of Society for Reproductive biology and Comparative Endocrinology, Davangere, Karnataka 26/02/2015- 28/02/2015.
- **7. Poster** presentation on the topic "Therapeutic efficacy and toxicity of Tamoxifen loaded PLA Nano particles for breast cancer" at ADME-Toxicology, Radisson

Blu Plaza, New-Delhi from 30/05/2013-31/05/2013.

- **8. Oral** presentation on the topic "Role of metabolic hormone and melatonin in regulation of immunity and energy allocation in Indian goat *Capra hircus*" at International Symposium on Integrative Physiology and Comparative Endocrinology, Dept. of Zoology, BHU, 12/02/2016-14/02 2016.
- **9. Oral** presentation on the topic "Synthesis, Characterization and Evaluation of Physiological Impacts of Melatonin Loaded Poly (D, L-Lactic Acid) Nano-Particles (Mel-Pla-Nano-Particles) and its Putative use in Osteoporosis" at International conference on Prospective of medical, food and agro-technology: From Health to wealth and future challenges, DDU Kaushal Vikash Kendra, RGSC, BHU from 19/02/2018 to 20/02/2018.
- **10. Keynote Speaker** on the topic "Synthesis, Characterization and Evaluation of Toxicity of Melatonin Loaded Poly (D, L-Lactic Acid) Nanoparticles (Mel-Pla-Nano-Particles) and Its Putative use in Osteoporosis" at International conference on Innovative research on Science, Humanities, Engineering and Management, Shri Kushaldas University, Rajasthan from 15/02/2020-16/02/2020.
- **11. Oral presentation** on the topic "Synthesis, characterization and evaluation of toxicity of melatonin loaded poly (d, l-lactic acid) nano-particles (mel-pla-nano-particles)" at International Conference on Emerging Bioscience Research for Rural and Urban Development, Patna University, Patna, Bihar from 21/12/2021-22/12/2021.

### Abroad:

- **1. Oral** presentation on the topic "Energy distribution in maintenance of immunity and reproduction with special reference to melatonin in Indian goat *Capra hircus*" in 11<sup>th</sup> International Conference on Goats in University of La-Palmas, Gran Canaria, Spain Organized by International Goat Association from 23/09/2012 to 27/09/2012.
- **2. Poster** presentation on the topic "Stress, hormone and immunity: an intensive crosstalk in focus of
- melatonin in Indian goat *Capra hircus*" in Hudson Alpha Nature Immunology Conference on Immunogenomics, Hudson Alpha Centre for Biotechnology, Alabama, USA organized by Nature Publishing Group from 03/10/2012-03/10/2012.
- **3. Poster** presentation on the topic "Immunity and reproduction in Indian Goat *Capra hircus*: A hormonal perspective in focus of melatonin and energy distribution" at Cell Symposium on Immune metabolism at Toronto city, Toronto, Canada organized by Cell Publishing Group from 09/06/2013-11/06/2013.
- **4. Poster** presentation on the topic "Hormonal regulation of immunity of goats, *Capra hircus*: involvement of melatonin, hormonal receptors and cytokine" at FASEB Conference on Melatonin From actions to therapy at Niagara City, New York, USA from organized by Federation of American Societies for Experimental Biology, FASEB, USA from 07/07/2013-13/07/2013.
- **5. Oral** presentation on the topic "Seasonal immune modulation in Indian goat Capra hircus: Role of Phyto-melatonin" at The 6<sup>th</sup> Asia Oceania Conference on Photobiology from at Novotel Sydney Central Hotel, New South Wales, Australia, organized by Asia Oceania Society for Photobiology, Japan from 10/11/2013-13/11/2013.
- **6. Poster** presentation on the topic "Oxidative load of lymphatic tissues of common goat *Capra hircus*: Involvement of sex, season and melatonin" at 27<sup>th</sup> Congress of European Comparative Endocrinologists, Rennes, France, organized by European Society for Comparative endocrinologists, 28/08/2014-30/08/2014.
- **7. Poster** presentation on the topic "Hormonal regulation of immunity of goats, *Capra hircus*: involvement of melatonin, hormonal receptors and cytokines" at Academia Sinica, Taipei, Taiwan, organized by 15/11/2015-18/11/2015.
- **8. Keynote speaker** on the topic "Synthesis, characterization and evaluation of toxicity of melatonin loaded poly (d, l-lactic acid) nano-particles (mel-pla-nanoparticles) and its putative use in osteoporosis" at Global Congress on Toxicology, Japan from 06/05/2019-07/05/2019
- 9. Oral presentation on the topic "Synthesis and characterization of melatonin loaded

poly (d, 1-lactic acid) nano-particles (mel-pla-nano-particles) and its putative use in osteoporosis" Global conference on Nanomedicine, nanobiology, nanotechnology and pharmacology Tokyo, Japan from 14/10/2019-15/10/2019,.

### Workshops Attended:

- 1. **Workshop** on "Radiation Safety", Organized by department of Atomic Energy, BARC, Mumbai and Inst. of Medical Sciences (IMS), BHU, Varanasi, 03/01/2011.
- 2. **Workshop and Hands-on Training Course** on "Molecular Techniques in Cell Signaling and Biomedical Nanotechnology", Department of Biochemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi from 27/01/2010-31/01/2010.
- 3. **DST sponsored workshop** on Young Scientists on "Live cell functional imaging and neurotransmitters receptors functional regulation" at Centre for Neuroscience, Department of Biotechnology, Cochin University of Science and Technology, Cochin, Kerala from 01/03/2013-03/03/2010.
- 4. **Workshop and Hands on training** at Washington University in St. Louis and Beth Israel Deaconess Medical Center, Harvard University, 14/07/2013-18/07/2013.
- 5. **3 days National Workshop on Optical Microscopy** at Department of Zoology, University of Burdwan from 25/04/2018- 27/04/2018.
- 6. **International workshop** on Sustainable Development at Department of Zoology, University of Allahabad from 11/02/2016-18/02/2016.
- 7. **7 days National Workshop** on Optical Microscopy at Department of Zoology, University of Burdwan from 05/02/2019-11/02/2019.
- 8. **3 days National Workshop** on Optical Microscopy at Department of Zoology, University of Burdwan from 26/11/2019-02/12/2019.
- 9. **International workshop** on Bio-Informatics and computational Drug Designing at Shobhit University, Gangoh from 16/02/2018-17/02/2018.

### Research Position:

CSIR-NET-JRF and SRF (from 2009 to 2014),

C/o Prof. Chandana Haldar,

Head of Dept. and Principal Chair of Pineal

Research Lab., Dept. of Zoology, Banaras

Hindu University.

**CSIR-RA-Post Doctoral Fellow** (from 2017 to 2018),

Department of Zoology,

Banaras Hindu University

and Department of Zoology, University of Allahabad.

### Appointment details:

### Temporary appointments:

- **1. Teaching Assistant** at Department of Zoology, Banaras Hindu University, Varanasi-221005 from 01/07/2013 to 31/12/2014. **Classes Taught: UG and PG.**
- **2. Guest Faculty** at Zoology Section, Mahila Mahavidyalaya, Banaras Hindu University, Varanasi-221005 from 01/07/2015 to 31/12/2015. **Classes Taught: UG.**
- **3. Guest Faculty** at Department of Zoology, Central University of Allahabad, Allahabad-211002 from 28/07/2016 to 28/04/2017. **Classes Taught: UG and PG.**

# Permanent appointments:

- **1. Assistant Professor** at Department of Biomedical Engineering, Shobhit University, Gangoh, Saharanpur from 20/08/2018 to 31/07/2019. **Classes taught: UG and PG.**
- **2. Assistant Professor** at Post Graduate Department of Zoology, Rajendra College, Jai Prakash University, Chapra-841301 from 07/08/2019- till date. **Classes taught: UG and PG.**

**Total Research Experience:** Around 12 years

**Total Teaching Experience:** Around 5 years 6 months.

#### **Research Profile:**

**URL:** https://sites.google.com/view/drsomenathghosh/about?authuser=0 **Website:** http://membership.sciencepublishinggroup.com/drsomenathghosh

Google-Scholar: https://scholar.google.co.in/citations?user=NH1c7aoAAAAJ&hl=en

Citation: 134. h-index: 7. i10-index: 4.

**Publon profile:** https://publons.com/researcher/AAX-2790-2020/

Citations: 61. H-Index: 3

Web of Science Researcher ID: AAX-2790-2020

**Research gate Profile:** https://www.researchgate.net/profile/Somenath-Ghosh-2

**ORCiD** https://orcid.org/0000-0001-9927-0059 **Vidwan** https://vidwan.inflibnet.ac.in/profile/267165

**Scopus Id:** https://www.scopus.com/authid/detail.uri?authorId=56409054300

### **Administrative Experience:**

1. **Head**, Department of Zoology, Rajendra College, Chapra.

- 2. Coordinator, Department of Biotechnology, Rajendra College, Chapra.
- 3. **Assistant Centre Superintendant**, Common B. Ed., Entrance Test, Saran Zone, Rajendra College, Chapra.
- 4. Patrolling Magistrate, Bihar General Assembly Election, 2020.

#### **Publications**

### **Books Edited:**

- 1. Animals and Alternatives in Life Science Research, Chandana Haldar, Somenath Ghosh (Eds), Luminous Press, Varanasi, (ISBN No. 9789385149139) (2015).
- **2.** Modulations of spleen and thymus function(s) in Indian goat *Capra hircus* by melatonin and different hormones: An *in vivo* and *in vitro* study, **Somenath Ghosh**, Isara Publishing House, New-Delhi, (ISBN No. 9781329893702) (2016).

# **Book chapters:**

### **International:**

- **1.** Phyto-melatonin: A novel therapeutic aspect of melatonin in nature's way. (2014). C. Haldar, S. Ghosh and A. K. Singh chapter in a book "Melatonin: Therapeutic value and Neuro-protection", V. Srinivasan Eds., CRC Press, Taylor and Francis Group, USA, pp. 515-522 (ISBN No. 9781482220094).
- **2.** Impact of organophosphates and other pesticides on blood parameters of fishes and earthworms. (2017). Singh S, Tiwari RK, **Ghosh S**, Pandey RS, chapter in a book "Studies of Components of Blood and its Functions", L. Kadam and M. Zaheer Eds., Open Access e-Books Publishing House, USA, pp. 1-11 (ISBN No. 9788193575789).
- **3.** Synthesis, characterization and evaluation of toxicity of melatonin loaded poly (D,L-lactic acid) Nano-Particles (Mel-PLA-Nano Particles) and its putative use in osteoporosis (2020). **Ghosh S**, Rai SK, Haldar C, Pandey RS, chapter in a book "Innovations in Food Technology: Current Perspective and Future Goals", R. R. Mishra and P. Mishra Eds., Springer-Nature Publishing House, USA, pp.1-10 (ISBN No. 9789811561214).
- **4.** Cannabis effect on male and female reproductive health. (2019). **Ghosh S,** chapter in book "Bioactive Compounds in Nutriceutical and Functional Food for Good Human Health", K. Sharma Eds., Intech Open Access e-books, USA, pp. 1-14 (ISBN 978183880884).

#### **National:**

- **1.** Goats as the alternative animal model for immunity research. (2015). **S. Ghosh,** C. Haldar and Kaushalendra, chapter in a book "Animals and Alternatives in Life Science Research", C. Haldar and S. Ghosh Eds., Luminous Press, Varanasi, pp. 251-267 (ISBN No. 9789385149139).
- **2.** Synthesis, Characterization and Evaluation of Physiological Impacts of Melatonin Loaded Poly (D, L, Lactic Acid) Nano-Particles (Mel-Pla-Nano-Particles) and its Putative use in Osteoporosis. (2018). **Ghosh S**, Rai SK, Pandey RS, chapter in a book "Proceedings of Impact of Environmental Xenobiotics on Human Health and Biodiversity", M. Serajuddin Eds., Amiga Press, New Delhi, India, pp. 73-80 (ISBN No. 9789384533519).
- **3.** Reproduction and Energy Budget in Goats. (2018). **Ghosh S**, Rai SK, Haldar C, chapter in a book "Proceedings of Impact of Environmental Xenobiotics on Human Health and Biodiversity", M. Serajuddin Eds., Amiga Press, New Delhi, India, pp. 61-68 (ISBN No. 9789384533519).
- **4.** Experiments with Goats: Limitations and Challenges. (2018). **Ghosh S**, Rai SK, haldar C. chapter in a Book "Proceedings of Impact of Environmental Xenobiotics on Human Health and Biodiversity", M. Serajuddin Eds., Amiga Press, New Delhi, India, pp. 69-72 (ISBN No. 9789384533519).
- **5.** Impaired Folate and Homocysteine Metabolism as a cause of Neural Tube Defects: A Mini Review. (2018). Rai SK, **Ghosh S**, Singh R, Singh K, Pandey R. chapter in a book "Contemporary climatic issues and challenges: A Multidisciplinary Approach", M. Yadav, V. Rani, A. Kumar Eds., NRC Press, New Delhi, India, pp. 1-10 (ISBN No. 9788179759592).
- **6.** Alzheimer's disease: Mechanism and Nutritional Management. (2018). SK Rai, Ghosh S, Singh K, Pandey RS, Singh R, chapter in book "Micronutrients, Indigenous Nutritional Practices & Clinical Nutrition for Global Health including recent advances", R. K. Srivatava Eds., BHU Press, Varanasi, pp. 117-124 (ISBN 8185305579).
- **7.** Prevention of Pandemics in India: Past and Present (2021). **Ghosh S,** chapter in book "The History of Pandemics and Epidemics: Reverberations, Responses and Resilience", Pathak S Eds. Anamika Publications and Distributors Pvt. Ltd., New Delhi (ISBN 9788195381463).
- **8.** Goats as the emerging animal model for immunity research (2020). **Ghosh S.** and Hussein M. S., chapter in book: "Raka", Sinha AK Eds., Luminous press, Varanasi, pp. 306-317 (ISBN No. 9789385149993).
- **9.** Goats of India and world: A review (2020). **Ghosh S**. and Kumari R. chapter in book: "Raka", Sinha AK Eds., Luminous press, Varanasi, pp. 1-8 (ISBN No. 9789385149993).
- **10.** Reproduction in Goats: roles of seasonality and hormones. (2021). **Ghosh S.** chapter in book: Applied Entomology and Zoology (Vol-8), B.S. Chandel Eds., Akinik Publishing House, New Delhi (Accepted, ISBN yet to receive).

**11.** Goats and Immunity: A contemporary Review (2021). **Ghosh S** and Hussain M. S, chapter in book: Advances in Agriculture Sciences (Vol-30), R. K. Naresh Eds., Akinik Publishing House, New Delhi, pp. 29-44 (ISBN 9789390846795).

### Research/Review Articles

### **International:**

- **1.** Immune Modulation in Goats by Melatonin and Other Hormones: A Novel Horizon of Research. (2014). C. Haldar and **S. Ghosh.** J Immune Res., 1: 1-7.(**ISSN**: 2471-0261). **I.F. 1.2**
- **2.** Multi faceted roles of giloy: A mini review (2021). **Ghosh S.** J. Nat. Ayur. Med., 5: 1-5. (**ISSN**: 2578-4986).
- **3.** Daily variation in melatonin level, antioxidant activity and general immune response of peripheral blood mononuclear cells and lymphoid tissues of Indian goat *Capra hircus* during summer and winter. (2014). A. K. Singh, **S. Ghosh**, P. Basu, C. Haldar, Ind. J. Exp. Biol., 52: 467-477, (**ISSN:** 0975-1009). **I. F. 1.2**
- **4.** Adaptive and ecological significance of the seasonal changes in hematological, biochemical and hormonal parameters in the tropical goat *Capra hircus*. (2013). **S. Ghosh**, A. K. Singh, C. Haldar. J. Endocrinol. Rep., 17: 113-122. (**ISSN:** 0971- 913 X).
- **5.** Seasonal modulation of immunity by melatonin and gonadal steroids in a short day breeder goat *Capra hircus*. (2014). **S. Ghosh**, A. K. Singh, C. Haldar. Theriogenol., 82:1121-1130. (**ISSN:** 0093-691X).
- **6.** Therapeutic efficacy and toxicity of tamoxifen loaded PLA nanoparticles for breast cancer. (2015). S. K. Pandey, **S. Ghosh**, P. Maiti, C. Haldar. Int. J. Biol. Macromol., 72: 309-319. (**ISSN** 0141-8130) **I.F. 5.1**
- 7. Human pineal gland: Histo-morphological study in different age group and different causes of death. (2014). R. Singh, S. Ghosh, A. Joshi, C. Haldar, J. Anat. Soc. Ind., 15:320-323. (ISSN 0003-27784).
- **8.** Free radical load in lymphoid organs (spleen and thymus) of Indian goat *Capra hircus*: role of sex, season and melatonin. (2015). **S. Ghosh**, Kaushalendra and C. Haldar. Int. J. Pharma. Pharmaceut Sci., 7: 263-269. (**ISSN:** 0975-1491). **I.F. 2.02**
- **9.** Chronic cannabis induced oxidative stress and reproductive containment in female mice. **Ghosh S**, Rai SK. (2018). Int. J.Green Pharm. 12: 227-236. (**ISSN**: 0973-8258).
- **10.** Homology Modeling and Molecular Docking Study of Organophosphates and Pyrethroids in Terms of Potential Toxicity. (2017). Pandey RS, Singh S, Tiwari RK, **Ghosh S**, Rai SK, Shree P. Int. J. Pharma. Pharmaceut. Sci. 9: 9-11. (**ISSN:** 0975-1491). **I.F. 2.021**
- **11.** *Boerhavia diffusa*: One plant with many functions. (2018). **S Ghosh,** SK Rai. Int. J. Green Pharm. 12: S442-S448 (**ISSN**: 0973-8258).
- **12.** Dimorphic Modulation of Immunity: From Gender to Hormones. (2018). **S Ghosh** and SK Rai. Asian J. Pharmaceut. 12: S822-S834 (**ISSN** 1998-409X).

- **13.** Melatonin from plant products: Regulation of immunity and general physiology in Indian goat *Capra hircus*. (2021). **Ghosh S.** and Haldar C. Am. J. Multidis. Res. Dev. 7: 39-56. (**ISSN:** 2360-821X).
- **14.** Multi-Faceted Effects of Cannabis and Cannabinoids on the Male Reproductive System: A Review. (2020). **Ghosh S**. Internat. J. Pharma Biosci. 11: 75-80. (**ISSN:** 0975-6299). **I.F. 0.12**
- **15.** Melatonin as an Anti-Cancer Molecule: A Retrospective Perspective. (2020). **Ghosh S.** Haya: Saudi J. Biol. 5: 291-297. (**ISSN**. 2415-623X). **I.F. 0.54**
- **16.** Genetic Regulation of Neural Tube Defects: A Contemporary Review. (2021). **Ghosh S.** Internat. J. Pharma Biosci. 2: b65-b71. (**ISSN**: 0975-6299). **I.F. 0.12**
- **17.** Cannabis and male reproductive health (2021). **Ghosh S.** Entry collection in MDPI- Encyclopedia. https://encyclopedia.pub/8616.
- **18.** Immune status in goats. (2021). **Ghosh S**. Con. Dairy Vet. Sci. 4: 431-436. (**ISSN**: 2637-4749). **I.F. 3.17**
- **19.** Roles of Melatonin and Phyto-Melatoninas an Anti-Cancer Molecule: An Evolutionary Perspective. (2021). **Ghosh S.** J. Nat. Ayurvedic Med. 5: 1-8. (**ISSN**: 2578-4986).

### **National:**

- **1.** Dynamics and regulation of Goat Reproduction. (2015). C. Haldar, **S. Ghosh**. Int. J. Curr. Res. Acad. Rev., 3: 20-36. (**ISSN**: 2347-3215).
- **2.** Goats as the emerging animal model for immunity research (Accepted) (2017). **Ghosh S**, Rai SK, Haldar C. Shobhit Univ. J. Interdis. Res. (**ISSN**: 2394-8841).
- **3.** Origin and distribution of goats in World and India: An approach which was till date neglected (Accepted) (2017). **Ghosh S**, Rai SK, Haldar C. Shobhit Univ. J. Interdis. Res. (**ISSN**: 2394-8841).
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- **25.** Pandemic scenario in India: A review. (2022). **Ghosh S.** Adv. Res. J. Med. Clin. Sci. 8: 735-740 (**ISSN No:** 2455-3549).
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- **28.** Pandemic scenario in India: A review. (2022). **Ghosh S.** Open access J. Compl. Alt. Med. 3: 426-429 (**ISSN No:** 2644-1217)

### Awards and Honors:

#### International:

- **1. Best Poster Award** (2013), Melatonin Biology Conference, Federation of American Societies for Experimental Biology (FASEB), Niagara City, NY, USA.
- **2.** Outstanding Oral Presentation Award (2013), 6th Asia Oceania Conference on Photobiology (6th AOCP), Asia Oceania Society for Photobiology (Japan), New South Wales, Australia.
- **3. Organizers' Prize** for Oral Presentation (2015), 33<sup>rd</sup> Meeting of Society for Reproductive Biology and Comparative Endocrinology and International Conference on Bioactive Materials on Reproduction and Human Health, Davangere, Karnataka, India.
- **4. Best Researcher Award** (2020), VD Good Professional Foundation, Coimbatore, India.
- **5. Young Scientist Award** (2021), VD Good Professional Foundation, Coimbatore, India (Selected, Award will be presented on 22/10/2021-23/10/2021 at Hyderabad).
- **6. Young Scientist Award** (2021), International Conference on Emerging Bioscience Research for Rural and Urban Development, Patna University, Patna.

#### National:

- **1. Best Poster Award** for Poster Presentation in Annual Convention of Laboratory Animal Science Association of India, CSIR-Central Drug Research Institute, Lucknow, Uttar-Pradesh, India.
- **2. Resource Person** in the training program entitled "Hands on training on Biological Tools and Techniques", Department of Biomedical Sciences, Shobhit University, Shaharanpur, Uttar- Pradesh, India.
- **3.** Chaired a session in International Conference on Innovative Research on Science, Humanities, Engineering & Management" (IC-IRSHEM-2020)". at Shri Khushal Das University, Hanumangarh, Rajasthan.
- 4. Corona Warrior Award (2020), Rajendra College, Chapra, Bihar, India.
- **5. Research Excellence Award** (2020), Institute of Scholars (InSc), Bangalore, India.
- **6. Young Achiever Award** (2020), Asia Pacific Chamber of Commerce, Belagave, India.
- 7. Honoris Causa D. Sc. in Zoology (2020), Commonwealth Vocational

University, Kingdom of Tonga.

- 8. Zonal Co-Chapter Head, Bihar Chapter, Research Foundation of India (2020).
- **9. Young Achiever Award** (2020), Institute of Scholars (InSc), Bangalore, India. *Other Information:*
- 1. **Editor** of News Letters of Department of Zoology and Department of Biotechnology (ISSN No. 9789385149146).
- 2. **Editor** of Journal of Ecology and Natural Resources (ISSN No. 25784994)
- 3. Associate Editor of Journal of Natural and Ayurvedic Medicine (JONAM), USA.
- 4. Editorial Board Member of the following journals:
- a. International Journal of Photochemistry and Photobiology.
- b. International Journal of Pharma and Bio Sciences
- c. Journal of Natural and Ayurvedic Medicine.
- d. World Journal of Pharmaceutical Research.
- e. International Journal of Life Science and Pharma Research.
- f. World Journal of Advance Healthcare Research.
- g. American Journal of Multidisciplinary Research and Development.
- h. Advance research Journal of Medical and Clinical Sciences.
- 5. Volunteer reviewer of the following journals:
- a. International Journal of Pharmacy and Pharmaceutical Sciences.
- b. African Educational Research Journal.
- c. International Journal of Pharma and Bio Sciences.
- d. International Journal of Life Science and Pharma Research.
- e. Scholars Academic Journal of Pharmacy.
- f. Concepts of Dairy and Veterinary Sciences.
- g. Asian Journal of Biotechnology and Bioresource Technology.
- h. Journal of Pharmaceutical Research International.
- i. Journal of Natural and Ayurvedic Medicine.
- 6. Membership of following Academic Societies:
- a. Student Member of International Goat Association, USA.
- b. Professional Life Member of Institute of Scholars (InSc), Bangalore, India.
- c. **Fellow Member** of Scholars Academic and Scientific Society, Jorhat, Assam (FSASS).
- d. **Fellow Member** of Institute of Scholars (InSc), Bangalore, India (FInSc).
- e. **Distinguished Member of** International Organization of Academic and Scientific Development (FIOASD).
- **6. Organized** "International Webinar on Recent Advances in Animal Science and Molecular Biology" as **Organizing Secretary** under aegis of Research Foundation of India (RFI) on 25/11/2020.
- **7. Organizer and scientific committee member of** "International Webinar on Pharmacy and Pharma Network" going to be held from 18/04/2022 to 19/04/2022.
- **8.** Speaker and participant in "Genetic Basis of Traditional and Alternative Medicine" organized by Harvard Medical School, USA from 25/06/2021 to 24/07/2021.

### Foreign Scientists who are aware of my area and interest of research and agreed to collaborate:

# 1. Dr. Louis A Zarazaga

Professor,

Departamento de Ciencias

Agroforestales, Universidad

de Huelva.

Carretera de Palos de la

Frontera s/n. 21819

Palos de la Frontera,

Huelva, Spain

E-Mail: zarazaga@uhu.es

# 2. Dr. Russel J Reiter,

Professor,

Dept. of Cellular and Structural Biology, UT Health Science Center, St. Antonio, USA.

E-Mail: reiter@uthscsa.edu

# 3. Dr. Sunil Kumar Rai,

Assistant Professor, Medical University of Americas, Saint Kitts and Nevis, West Indies. E-Mail: <a href="mailto:sunilkumar.mbt@gmail.com">sunilkumar.mbt@gmail.com</a>

# 4. Dr. Kumar S. Bishnupuri,

Research Instructor, Washington University in St. Louis, St. Louis, USA.

E-Mail: ksbishnupuri@rediffmail.com

# 5. Dr. Shaik. S. Savali,

Instructor, MD Anderson Cancer Centre, University of Texas, Texas, USA. E-Mail: shavali@hotmail.co m