Publications (Year wise)

- Sutradhar S, Deb A, Singh SS. 2022. Protective efficacy of melatonin and insulin against LPS caused toxicity in diabetic mice. Immunopharmacol Immunotoxicol. DOI: 10.1080/08923973.2022.2093739

- Singh SS, Laskar P, Deb A, Sutradhar S. 2021. Melatonin modulates hypophyseal-thyroid function through differential activation of MT1 and MT2 receptors in hypothyroid mice. In: Hypothyroidism: A new Aspect of Old Disease, Ifigenia Kostoglou-Athanassiou (Ed.), Published by Intech Open, pp 1-14.

- Sutradhar S, Deb A and Singh SS. 2020. Melatonin attenuates diabetes-induced oxidative stress in spleen and suppression of splenocyte proliferation in laboratory mice. Arch Physiol Biochem. 1-12. DOI:10.1080/13813455.2020.1773506.

- Laskar P and Singh SS. 2020. Receptor mediated action of melatonin in pituitary - thyroid axis of lipopolysaccharide challenged mice. Annals Thyroid Res. 6(2): 263-269.

- Singh SS, Deb A and Sutradhar S. 2020. Effect of melatonin on arsenic-induced oxidative stress and expression of MT1 and MT2 receptors in the kidney of laboratory mice. Biol. Rhythm Res. 51(8) 1216-1230. DOI: 0.1080/09291016.2019.1566993.

- Deb A, Sutradhar S and Singh SS. 2020. Melatonin protects ovary from diabetes induced oxidative damages in laboratory mice. Ind J Appl Res. 10(10): 23-26.

- Laskar P and Singh SS. 2020. Receptor mediated effect of melatonin in pituitary regulated thyroid secretions of hyperthyroid mice. J Health Sci Res. 5(2): 1-7.

- Laskar P and Singh SS. 2020. Receptor mediated counteraction of melatonin in splenocytic proliferation of lipopolysaccharide challenged mice. Int J Life Sci. 8(3):563-569.

- Laskar P and Singh SS. 2018. Melatonin modulates thyroid hormones and splenocytes proliferation through mediation of its MT1 and MT2 receptors in hyperthyroid mice. Proc Zool Soc. 71:186–193.

- Singh SS, Deb A and Sutradhar S. 2017. Dexamethasone modulates melatonin MT2 receptor expression in splenic tissue and humoral immune response in mice. *Biol. Rhythm Res.* 48: 425-435.

- Laskar P and Singh SS. 2016. Role of melatonin receptors in regulation of thyroid function in hyperthyroidic mice. In: *Updates on Integrative Physiology and Comparative Endocrinology*, C. Haldar, S. Gupta and S. Goswami (Eds.), Publication Cell, BHU. pp 139-154.

- Laskar P., Acharjee S., Singh SS. 2015. Role of melatonin in modulation of its receptors expression in mice spleen: effect of aging. In: *Animals and Alternatives in Life Sciences Research*, C. Haldar and S. Ghosh (Eds.), Luminous Books, Varanasi. pp 34-47.

- Singh SS, Laskar P and Acharjee S. 2015. Age- and sex- dependent effect of exogenous melatonin on expression pattern of melatonin receptor (MT1 and MT2) proteins in spleen of mice. *Biol. Rhythm Res*. 46: 403-415.

- Acharjee S and Singh SS. 2015. Melatonin and thermal stress regulate differential expression of heat shock proteins and melatonin receptors in spleen of mice. *Indian J Pharmaceut. Biol. Res.* 3(1): 36 – 47.

- Laskar P, Acharjee S and Singh SS. 2015. Effect of exogenous melatonin on thyroxine (T4), thyrotropin (TSH) hormone levels and expression patterns of melatonin receptor (MT1 and MT2) proteins on thyroid gland during different age groups of male and female Swiss albino mice. *Adv. Biores.* 6:7 – 14.

- Laskar P and Singh SS. 2015. Melatonin receptor (MT1 and MT2) proteins expression in thyroid gland and level of thyroxin (T4), thyrotropin (TSH) hormone during progression of age in male Swiss albino mice. *J. Biol. Scient. Opinion* 3:1 – 6.

- Acharjee S and Singh SS. 2014. Expression of heat shock proteins (HSP70 & HSC70) and responsiveness of melatonin receptors (MT1& MT2) in spleen of Swiss albino mice subjected to hyperthermic stress condition. *Intl. J. Pharm. Bio Sci.* 5(4): (B) 801-814.

- Yadav SK, Haldar C and Singh SS. 2011. Variation in melatonin receptors (Mel (1a) and Mel (1b)) and androgen receptor (AR) expression in the spleen of a seasonally breeding bird, *Perdicula asiatica*. *J. Reprod. Immunol*. 92: 54-61

- Singh SS, Yadav SK and Haldar C. 2010. Effect of glucocorticoid and melatonin on immune function of Indian tropical bird, *Perdicula asiatica:* An *in vivo* and *in vitro* study. *Eur. J Inflamm.* 8: 89 – 98.

- Sharma S, Haldar C, Chaube SK, Laxmi T and Singh SS. (2010). Long-term melatonin administration attenuates low-LET *c*-radiation-induced lymphatic tissue injury during the reproductively active and inactive phases of Indian palm squirrels (*Funambulus pennanti*). *The British J. of Radiol*. 83: 137–151.

- Haldar C, Singh SS, Rai S, Skwarlosonta K, Pawlak J and Singaravel M. 2008. Melatonin and immunomodulation: Involvement of the neuro-endocrine network. In: *Experimental Endocrinology and Reproductive Biology*, C. Haldar, M. Singaravel, P. Cardinali and S. Pandi-Perumal (Eds.), Oxford Publication, UK. pp 297-314.

- Singh SS and Haldar C (2007). Peripheral melatonin modulates seasonal immunity and reproduction of Indian tropical male bird, *Perdicula asiatica*. *Comp. Biochem. Physiol*. *A* 146: 446-450.

- Singh SS and Haldar C (2007). Biological significance of daily in immunity of *Perdicula asiatica*: role of melatonin and testosterone. *Biol. Rhythm Res.* 38: 95-106.

- Singh SS, Haldar C and Rai S. 2006. Melatonin and differential effect of L-thyroxin on immune system of Indian tropical bird *Perdicula asiatica. Gen. Comp. Endocrinol*. 145:

215-221.

- Haldar C, Sharma S and Singh SS. 2006. Reproductive phase dependent circadian variations of plasma melatonin, testosterone, thyroxine and corticosterone in Indian palm squirrel, *Funambulus pennanti*. *Biol. Rhythm Res*. 37(1): 1-10.
- Singh SS and Haldar C. 2005. Melatonin prevents testosterone-induced suppression of immune parameters and splenocyte proliferation in Indian tropical jungle bush quail, *Perdicula asiatica. Gen. Comp. Endocrinol*. 141: 226-232.

- Rai S, Haldar C and Singh SS. 2005. Trade-off between L-thyroxin and melatonin in immune regulation of the Indian palm squirrel, *Funambulus pennanti* during the reproductively inactive phase. *Neuroendocrinol.* 82: 103-110.

- Haldar C, Sharma S and Singh SS. 2004. Annual variation of plasma melatonin following pinealectomy and melatonin administration in Indian tropical rodent, *F.pennanti*. *Biog. Amines* 18 (2): 131-141.

- Sharma S, Haldar C and Singh SS. 2003. Effect of single low intensity light pulse exposure and melatonin treatment on the circadian variation of melatonin in Indian palm squirrel, *F. pennanti. Biol. Rhym. Res.* 34(4): 237-246.

- Haldar C and Singh SS. 2001. Melatonin and immunological functions by the bursa of Fabricius in Indian jungle bush quail, *Perdicula asiatica*. In: *Avian Endocrinology*, A. Dawson and C. M. Chaturvedi (Eds.), Narosa Publishing House, New Delhi. pp 427-435.

SEMINAR/CONFERENCE/WORKSHOP/REFRESHER/ORIENTATIONS ETC. PARTICIPATED:

Invited Lectures in Conferences (From Current)

S. No.	Title of Paper	Name of Conference	Date
1.	Hormones: The Humoral Signals	International Web Conference on Advance Research in Science, Humanities and Social Science, MBB University, Agartala	10.07.2020
2.	Receptor mediated modulatory effect of melatonin on oxidative stress in spleen of hyperthyroidic mice	International Symposium on Biological Rhythms, Department of Zoology, CCS University, Meerut	12.03.2019
3.	Melatonin modulates MT2 receptor expression and oxidative stress in spleen of laboratory mice	International Symposium on Recent Advances in Comparative Endocrinology, Madras Christian College, Tambaram, Chennai	01.12.2017
4.	Effect of melatonin on modulation of MT1 and MT2 receptor proteins expression pattern and thyroid function in mice	International Symposium on Integrative Physiology and Comparative Endocrinology, Zoology, BHU	13.02.2016
5.	Role of melatonin receptor in modulation of thyroid function in mice	National Symposium on Comparative Endocrinology and Reproductive Biology, Zoology, Visva-Bharati	03.10.2015

6.	Effect of dexamethasone on melatonin receptor expression and humoral immune response in laboratory mice	International Conference on Frontiers in Comparative Endocrinology & Neurobiology, Animal Sciences, University of Hyderabad	28.11.2014
7.	Role of melatonin in modulation of its receptors expressionin mice spleen: effect of aging	National Symposium on Animals and Alternatives in Life Science Research, Zoology, BHU	18.04.2014
8.	Importance of Chemistry in Biology	Seminar on the Eve of National Science Day 2011, MMDC College, Tripura	15.03.2011

Oral and Poster Presentations in Conferences

S. No.	Title of Paper	Name of Conference	Date
1.	Melatonin ameliorates diabetes-induced oxidative stress in spleen of laboratory mice in dose dependent manner	International Colloquium on Regulatory Mechanism Underlying Behaviour, Physiology and Development, Department of Zoology, University of Delhi, Delhi	26.03.2021
2.	Melatonin modulates MT2 receptor expression and splenocyte proliferation in hyperthyroidic mice	International Hmboldt Kolleg on Comparative Endocrinology and Physiology, Department of Zoology, RTM Nagpur University, Nagpur	08.01.2019
3.	Receptor mediated modulatory effect of melatonin on oxidative stress in spleen of hyperthyroidic mice	International Molecular and Clinical Aspects of Melatonin, Chulabhorn Graduate Institute, Bangkok, Thailand	30.08.2018
4.	L-thyeroxine modulates MT2 receptor expression in spleen and T-cell proliferation in mice.	International Symposium on Biological Timing and Health Issues in 21st Century, Zoology, University of Delhi	21.02.2017
5.	Age dependent changes in melatonin receptors (MT1 and MT2) expression in spleen and thyroid gland of albino rat.	International Conference on Chronobiology, Zoology, University of Delhi	03.10.2012
6.	Melatonin receptors MT1 and MT2 expression in SCN regulating daily rhythms in immunity of Indian jungle bush quail, *Perdicula asiatica.*	National Symposium on Comparative Endocrinology, Institute of Science, Mumbai	17.12.2009
7.	Adrenal glucocorticoid and melatonin in regulation of immune function in Indian tropical bird, *Perdicula asiatica.*	International Symposium of Society for Reproductive Biology and Comparative Endocrinology, Animal Sciences, University of Hyderabad	12.01.2009
8.	Effect of glucocorticoid and melatonin on immune function of a seasonally breeding Indian tropical bird, *Perdicula asiatica.*	International Conference on Humboldt Kollege on Structural Characterization Spectroscopy of Materials Relevant to Nanotechnology, Biomedical and Geobiology, Physics, BHU	07.11.2008
9.	Biological significance of seasonal and daily variation in immunity of Perdicula asiatica - role of melatonin and testosterone.	National Symposium on Current Trends in Pineal Research & 4th IPSG meeting, Zoology, GDBGC, Raipur	05.10.2006
10.	Melatonin preventstestosterone induced suppression of immune parameters and splenocyte proliferation in Indian tropical jungle bush quail, *Perdicula asiatica.*	International Conference on Humboldt Kollege on Structure and Characterization of Physical, Chemical, Bio and Geo materials, Physics, BHU	28.11.2005
11.	Melatonin prevents testosterone induced suppression of immune parameters and	II National Symposium on Comparative Endocrinology and Reproductive Physiology:	17.11.2005

	splenocyte proliferation in Indian jungle bush quail, *Perdicula asiatica*.	Retrospect and Prospect, Zoology, University of Delhi	
12.	Avian immunomodulation: Effect of testosterone and melatonin in Indian jungle bush quail, *Perdicula asiatica*.	XXII Symposium for Society for Reproductive Biology and comparative Endocrinology, Chennai, India	25.01.2004
13.	Effect of exogenous dexamethasone and melatonin on the immune status of Indian jungle bush quail, *Perdicula asiatica.*	XX Symposium for Society for Reproductive Biology and Comparative Endocrinology, Trichi, India	07.01.2002
14.	Effect of exogenous melatonin administration on spleen and its immune responsiveness inIndian jungle bushquail, *P. asiatica*, during reproductive regressive phase	National Symposium on recent Trends in Life Sciences and Biotechnology, University of Mumbai, Mumbai, India.	21.11.2001
15.	Effect of Exogenous melatonin administration on immune function of Indian jungle bush quail, *P. asiatica*, during reproductive active phase.	XIX Symposium for Society for Reproductive Biology and Comparative Endocrinology, University of Baroda, Vadodara, India	17.01.2001

MEMBERSHIP/POSITIONS IN LEARNED ACADEMIC BODIES/ORGANIZATIONS:

- Life Member - Indian society for Chronobiology
- Life Member - Indian Society for Comparative Endocrinology
- Life Member - Society for Reproductive Biology and Comparative Endocrinology

RESEARCH PROJECTS:

S. No.	Title of Project	Funding Agency	Amount (in lakhs)	Duration
1.	Rhythmic expression of Melatonin receptors (Mel 1a, 1b and 1c) on central (CNS) and Peripheral (spleen) targets of Indian tropical quail, *Perdicula asiatica*: Role in Immunomodulation	YSA, DST, New Delhi	11.76	20.06.2006 – 19.06.2009
2.	Neuroimmunoendocrine modulation of thyroid functions in mice: Role of melatonin and its receptors	UGC, New Delhi	9.31	01.02.2011 – 31.01.2014
3.	Role of melatonin and its receptors in immunomodulation by hypothalamo-hypophyseal-adrenocortical axis in physically stressed mice.	CSIR, New Delhi	18.4	01.03.2012 – 28.02.2015

4.	Melatonergic and adrenergic regulation in neuroendocrine modulation of immune function in Physically stressed mice	CSIR, New Delhi	32.0	01.07.2017 – 30.06.2020

RESEARCH SUPERVISIONS (SCHOLAR'S NAME, TOPIC AND STATUS):

S. No.	Name of Candidate	Supervisor/Co-supervisor	Thesis Title	Status
1.	Dr. Samik Acharjee	Supervisor	Role of melatonin in modulation of HSP70 expression and immune function in thermally stressed mice	Awarded (2016)
2.	Dr. Prashanjit Laskar	Supervisor	Modulatory role of melatonin in immunoendocrine regulation of thyroid function in mice	Awarded (2017)
3.	Dr. K. V. Geetha	Co-supervisor	Taxonomy of Cerambycidae and Scarabaeidae (Insecta: Coleoptera) of Tripura, North East India	Awarded (2021)
4.	Dr. Anindita Deb	Supervisor	Role of melatonin in regulation of reproductive function in experimentally induced diabetic female mice	Awarded (2022)
5.	Dr. Sangita Sutradhar	Supervisor	Efficacy of melatonin in determining immune status of experimentally induced diabetic mice	Awarded (2022)
6.	Ms. Subhrata Sarma	Supervisor	Efficacy of quercetin and melatonin in modulation of immune function in diabetic mice	Registered

SCHOLARSHIP/ AWARD/ RECOGNITIONS OF NATIONAL AND INTERNATIONAL STATUS:

2004 – 2005	Research Associate	Council of Scientific and Industrial Research,New Delhi, India.
2006 – 2009	Young Scientist	Department of Science and Technology, NewDelhi, India.
2009 – 2010	Senior Research Associate	Council of Scientific and Industrial Research New Delhi, India.