

Dr. D. Y. Patil Vidyapeeth, Pune (DEEMED TO BE UNIVERSITY)

Dr. D. Y. Patil Biotechnology & Bioinformatics Institute

Tathawade, Pune 411033. DST-FIST (Level-1)

Supported Institute

(Infrastructure Support for Teaching & Research Awarded by The Department of Science & Technology, Ministry of Science & Technology, Govt. India, New Delhi)

Approved by All India Council for Technical Education (AICTE), GOVT OF INDIA Website: biotech.dpu.edu.in phone: +91 20 67919444 /67919400

Name : Dr. Neelima Dubey

Designation: Assistant Professor

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Educational Qualifications

- Ph.D. in Reproductive Endocrinology (2009), Department of Zoology, Faculty of Science, Banaras Hindu University, Varanasi, India
- M.Sc. in Zoology (2002), Department of Zoology, Faculty of Science, Banaras Hindu University, Varanasi, India- First Class
- B.Sc. in Botany, Zoology and Chemistry with Honors in Zoology (2000), Faculty of Science, Banaras Hindu University, Varanasi, India-First Class
- Higher Secondary in Science (1996) Council for the Indian School Certificate Examination, New Delhi, India- First Class

Professional Experience

- **Assistant Professor** (April 2018- till present), at Dr. D.Y Patil Biotechnology & Bioinformatics Institute, Tathawade, Pune, MH- 411033
- **Project Scientist** (October 2017-March 2018), at National Centre for Cell Science (NCCS), Pune University campus, Pune, MH-411007
- **Research Associate** (January 2017-September 2017), at National Centre for Cell Science (NCCS), Pune University campus, Pune, MH-411007
- Special Volunteer (Foreign) (August 2014 August 2017), at National Institute of Health (NIH), Section on Behavioral Endocrinology, National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD 20892
- Research fellow (Full Time Employee) (October 2012 April 2014), at National Institute of Health (NIH), Section on Behavioral Endocrinology, National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD 20892
- **Postdoctoral fellow** (January 2011 Sep. 2012), at National Institute of Health (NIH), Section on Behavioral Endocrinology, National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD 20892

- Senior Research Fellow (April 2008 December 2009), Department of Zoology, Banaras Hindu University, Varanasi, India
- **Junior Research Fellow** (April 2004 March 2008), Department of Zoology, Banaras Hindu University, Varanasi, India

Field of Specialization

Reproductive endocrinology and endocrine related mood disorders in women, Disease modeling using human induced pluripotent stem cell (hiPSC) and immortalized cell line technique/ 3D organoid culture/ Transcriptomics/ Proteomics/ Cell and Molecular Biology

Specific Areas of Interest

- i. Stem Cell Biology
- ii. Human induced pluripotent stem cell (hiPSC) biology
- iii. Neuropsychiatry

Awards, Academic Assets & Fellowships:

- Selected as Full-Time Employee (September 2012) at National Institute of Health, Section on Behavioral Endocrinology, National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD 20892
- Selected for Post doctoral Program at NIH, Bethesda (January 2011) at National Institute of Health, Section on Behavioral Endocrinology, National Institute of Mental Health, National Institutes of Health (NIH), Bethesda, MD 20892
- University Grants Commission (UGC)-Senior Research Fellow (April 2008 November 2009), Department of Zoology, Banaras Hindu University, Varanasi, India
- University Grants Commission (UGC)-Junior Research Fellow (April 2004 March 2008), Department of Zoology, Banaras Hindu University, Varanasi, India
- National Eligibility Test (NET) for Lectureship and Junior Research Fellowship (JRF) conducted by Council of Scientific and Industrial Research (CSIR), New Delhi in 2003.
- Graduate Aptitude Test in Engineering (GATE) conducted by Indian Institute of Technology in 2003

Presentations & Conferences and workshops Attended: Poster & oral presentations

- **Poster presentation**: Differential expression of mRNA & protein in the lymphoblastoid cell lines derived from women with and without premenstrual dysphoric disorder (PMDD) at International Congress of Cell Biology, Hydrabad, India 2018.
- **Poster presentation:** "Whole transcriptome expression profiles in lymphoblastoid cells from women with PMDD and controls: diagnostic differences and differential response to ovarian steroids" at National Institutes of Health (NIH), Bethesda. September 23, 2014
- **Poster presentation: The Society for Neuroscience** Annual Meeting in Washington, DC, November 12-16, 2011

- **Workshop** on "Epigenetics" FAES Graduate School, National Institutes of Health (NIH), Bethesda, December 3-6, 2013
- Workshop on "Using Stem Cells for Biological and Therapeutics Discovery in Mental illness" at Bethesda, MD, USA from April 24-25, 2012.
- **Workshop** on "iPS Cells: Principles and Methods" at National Institute of Health, Bethesda, MD, USA from March 30-April 1st, 2011.
- Oral presentation: "Seasonality in expression of nitric oxide synthase (NOS) isoforms in the testis and testicular nitric oxide (NO) and testosetrone in the catfish, *Clariasbatrachus*" at **XX National Symposium on Chronobiology** at School of Life Sciences, Pt. Ravishankar Shukla University, Raipur, India. December 27-29, 2008.
- **Poster presentation:** "Effect of nitric oxide on steroidogenesis in Asian catfish, *Clariasbatrachus*: an *in vitro* study" at **International Structural Neuroscience Conference on Peptides** at Department of Pharmaceutical Sciences, Nagpur University Campus, Amravati Road, Nagpur, India. February 2-3, 2008.
- Oral presentation: "In vitro effect of piscine growth hormone and insulin like growth factor- I on steroidogenic activity of Leydig cells in an Asian catfish *Clariasbatrachus*" at National Symposium on An Update of Reproductive Endocrinology: Novel and Applied Strategies at Centre of Advanced Study, Department of Zoology, Banaras Hindu University, Varanasi, India. February 26-28, 2007.
- Participated in scientific deliberations at National Symposium on Comparative Endocrinology and Reproductive Physiology: Retrospect and Prospect at Department of Zoology, University of Delhi, Delhi. November 17-19, 2005.
- Oral Presentation: "Agonistic Behavior in Animals" during the Seminar series at Department of Zoology, Banaras Hindu University, Varanasi, India. October 2001.

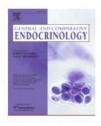
Membership of Scientific/ Societies/ other Professional bodies:

Society for Neurosciences (SFN)
Indian Society for Comparative Endocrinology (ISCE)
International Federation of Comparative Endocrine Society (IFCES)

Publications:

- 1) Marrocco J, Einhorn N, Petty G, Li H, **Dubey N,** Hoffman J, Berman K, Goldman D, Lee F, Schmidt, P, (2018). Epigenetic intersection of BDNF Val66Met genotype with premenstrual dysphoric disorder transcriptome in a cross-species model of estradiol add-back. **Molecular Psychiatry**. *Under revision*
- 2) **Dubey N**, Hoffman JF, Schuebel K, Yuan Q, Martinez PE, Nieman LK, Rubinow DR, Schmidt PJ and Goldman D, (2017). The ESC/E(Z) complex, an effector of response to ovarian steroids, manifests an intrinsic difference in cells from women with Premenstrual Dysphoric Disorder. **Molecular Psychiatry.** 22(8): 1172–1184. doi:10.1038/mp.2016.229 *
 - (* Extensively covered by both International and National news reports in The Telegraph, The Sun, FoxNews, New York Magazine, Zee News, Times of India, The Tribune, Indian Express etc.)
- 3) **Dubey, N**, Kumar, P, Lal, B (2015) Endocrine regulation of testosterone production by Leydig cells in the catfish, Clariasbatrachus: Probable mediators of growth hormone. **Animal Reproduction Science.** 154, 158-165.

- 4) Lal, B & **Dubey**, N (2013) Existence of a nitric oxide synthase /nitric oxide system in fish testis and its role in modulation of androgenesis. **Fish. Physiol. Biochem**. 39:65–69.
- 5) **Dubey, N** & Lal, B (2010). Seasonality in expression and distribution of nitric oxide synthase isoforms in the testis of the catfish, *Clariasbatrachus*: Role of nitric oxide in testosterone production. **Comp. Biochem.Physiol. Part C.** 151, 286-293.
- 6) **Dubey, N** & Lal, B (2009). Paracrine role of macrophage produced-nitric oxide (NO) in Leydig cell steroidogenesis in a teleost, *Clariasbatrachus*: Impact of gonadotropin, growth hormone and insulin on NO production by testicular macrophages. **Gen. Comp. Endocrinol**. 160, 12-18.*



* Figure from this article formed cover page of the journal, General and Comparative Endocrinology Volume 160, Issue 1, January 2009

7) **Dubey, N** & Lal, B (2008). Nitric oxide: An autocrine regulator of Leydig cell steroidogenesis in the Asian catfish, *Clariasbatrachus*. **Gen. Comp. Endocrinol.** 158, 161-167.

8)

Manuscripts under preparation:

1) **Dubey N**, Schuebel K, Goldman D, Schmidt PJ (2018). Human induced pluripotent stem cells (iPSC) based disease modelling for premenustral dysphoric disorder (PMDD).

Conference Proceedings

- 1. Goff A, Hoffman J, **Dubey N**, Schuebel K, Marrieta C, Yuan Q, Martinez P, Nieman L, Rubinow D, Schmidt P, Goldman D (2017) Lymphoblastoid cell lines from women with premenstrual dysphoric disorder differ in genetic mRNA & protein expression profiles compared with asymptomatic controls.Biological Psychiatry Vol 81, issue 10, page S205.
- 2. Marrocco J, Petty GH, **Dubey N**, Hoffman JF, Berman KF, Goldman D, Schmidt PJ and McEwen BS (2017) Estradiol add-back in BDNF Val66Met mice mimics the behavioral and transcriptional phenotype of premenstrual dysphoric disorder SFN 2017, 159.14/OO3.
- 3. Hoffman JF, **Dubey N**, Schuebel K, Marietta C, Yuan Q, Martinez PE, Nieman LK, Rubinow DR, Schmidt PJ and Goldman D, (2016). Women with Premenstrual Dysphoric disorder (PMDD) differ in baseline and steroid hormone response expression profiles of the ESC/E(Z) pathway compared with asymptomatic controls. SFN 2016, 174.18/GGG9.
- 4. Hoffman JF, **Dubey N**, Schuebel K, Marietta C, Yuan Q, Martinez PE, Nieman LK, Rubinow DR, Schmidt PJ and Goldman D, (2015). Whole Transcriptome Expression Profiles in Lymphoblastoid Cells

- from Women with Pmdd and Controls: Diagnostic Differences and Differential Response to Ovarian Steroids. **General Female Reproductive Endocrinology**, FRI-092.
- 5. Hoffman JF, **Dubey N**, Schuebel K, Marietta C, Yuan Q, Martinez PE, Nieman LK, Rubinow DR, Schmidt PJ and Goldman D, (2014). Whole transcriptome expression profiles in lymphoblastoid cells from women with PMDD and controls: diagnostic differences and differential response to ovarian steroids. **NIH Research Festival**, CLIN-8
- 6. Hoffman, JF, Dubey, N, Schuebel, K, Marietta, C, Yuan, Qiaoping, Martinez, P, Nieman, L, Rubinow, DR, Schmidt, PJ Goldman, D.(2015) Lymphoblastoid Cell Lines from Women with Premenstrual Dysphoric Disorder (PMDD) Differ in mRNA and Protein Expression Profiles of the ESC/E(Z) Pathway Compared with Asymptomatic Controls. National Institute of Mental Health, Rockville, Maryland, United Nations. Neuropsychopharmacology (2015) 40, S106–S271; doi:10.1038/npp.2015.325
- 7. Lal, B & Dubey, N (2011). Intra-testicular Nitric Oxide Regulates Steroidogenesis in Fish. Indian J. Sci. Technol. 4 (S8), 138-136.
- 8. **Dubey, N**& Lal, B (2011). Possible mediator of growth hormone action on testicular testosterone production in the Asian catfish, *Clariasbatrachus*. **Indian J. Sci. Technol.** 4 (S8), 153-154.