



Assistant Professor

Dr. Parth Pandya

Division of Biomedical Science, School of Science

Qualifications

BSc, MSc, PhD

- PhD Subject in Zoology (Neuroendocrinology & Ecotoxicology), The Maharaja Sayajirao University of Baroda, Vadodara.
- MSc in Biochemistry, The Maharaja Sayajirao University of Baroda, Vadodara.
- BSc in Zoology, The Maharaja Sayajirao University of Baroda, Vadodara.

Contact Details

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Areas of Expertise

Neuroendocrinology, Toxicology, Insect Diversity and Physiology

Profile

Dr. Parth has a research and teaching experience of 8 years. He teaches BSc, MSc and PhD Programs across the University. Dr. Parth's lab is currently focussing on the neuroendocrine regulation of puberty in different vertebrate models like fish and rats. The focus is on the regulation of Kisspeptin a key hormone playing a role in gonadal development and downstream hormone release to answer the questions related to pubertal diseases. Majorly the brain of the organisms is deeply studied in regards to the regulation attained by neurotransmitters and other associated neuropeptides.

The second part of the work focuses on the toxicological aspects of environmental contaminants (Metal ions, pesticides, etc.) contributing to environmental pollution and affecting non-target species.

The third part of the lab emphasises the diversity of insect pests in different parts of Gujarat and finding the approaches for pest control in the agricultural field and stored grains. For all the projects, we are employing advanced techniques like real-time PCR, Western blotting, Fluorescence-based analysis, FACs, and epigenetics analysis.

Dr. Parth was previously working as an Assistant Professor in the Department of Zoology, The M.S. University of Baroda, Vadodara. He is actively engrossed in safeguarding nature and is associated with NGOs like Gujarat Nature Conservation Society, Vadodara and has served in various value education programs of Ramakrishna Mission Vivekananda Memorial, Vadodara.

Collaborations

- The M.S. University of Baroda
- Nirma University

Awards and Recognition

- Best Oral Presentation Award in International Science Symposium on Emerging Trends in Science and Technology, Christ College Rajkot, Gujarat, India. (2017).
- Best Presentation Award at the International Conference of Emerging trends in Science and Technology (ETCST), Bangkok, Thailand (2014).
- Received Bharat Jyoti Award, From International Friendship society for excellence in Science (2014).
- Selected as Assistant Professor in Department of Zoology, The M. S. University of Baroda, Vadodara, Gujarat (2013).
- Cleared Gujarat State Lectureship Entrance Test (G-SLET) for lectureship (2012).
- Received Gold medal in the third year of Bachelors in Zoology for scoring the highest marks and securing 1st position (2010).
- Secured First Prize in Poster Presentation at Gujarat Science Excellence 2010, Ahmedabad.
- Secured Second Prize in Quiz Competition Organised by INSONA (NGO) Vadodara at The M.S. University Vadodara (2010).
- Secured Second Prize in Quiz Competition organised by Botany Department of The M.S. University Vadodara (2009).

Member/Reviewer/Life Member in Professional Societies

- Reviewer in Bio-Info journals
- Assistant Editor in SCREA American Journal of Biology
- Assistant Editor in IMPACT Journals and Journal of Biology (Science Publishers)
- Life Member of Society of Reproductive Biology and Comparative Endocrinology
- Life Member of Vigyan Gurjari

Research Projects

- Unravelling the kisspeptin melatonin Circuit in two vertebrate models. Approved by DST CRG of INR 39,84,000/- (Ongoing)
- To study the Biological Assessment of Orthoptera using DNA Barcode Approach Sanctioned by GUJCOST of INR 3,60,000/- (Completed)
- PhD Students: 01

Publications

Total Number of Publications: 13, Total Citations: 16, h-Index-2

- Sadekarpawar S., Pandya P., Upadhyay A. and Parikh P. (2015). A Comparative Assessment Of Trace Metal Accumulation In Oreochromis mossambicus And Labeo Rohita Exposed To Plant Nutrient Libreltm. International Journal of Current Advanced Research.4(10):441-449 [IF -4.915] [ISSN no: 2319-6475]
- Sadekarpawar S., Pandya P., Parikh P. (2015): Proteotoxicity Studies in Liver, Muscle, Kidney and Gills of Oreochromis mossambicus and Labeo rohita Exposed to Plant Nutrient (LibrelTM). International Journal of Research Studies in Biosciences (IJRSB).3(6):29-36. [IF:2.99]. [2349-0365].

- Upadhyay A., Pandya P., Parikh P. (2014): Acute exposure of Pyrazosulfuron Ethyl induced Haematological and Blood Biochemical changes in the Freshwater Teleost fish *Oreochromis mossambicus*. *International Journal of advance Research in Biological Science*.1(2):79-86 [IF-1.5]. [2348-8069]
- Prajapati A, Chauhan G, Gupta S, Pandya P, Kaur S, Gupta S. Analysis of AR, PSA (KLK) and ER-? Genetic Variants and Benign Prostate Hyperplasia (BPH) Pathogenesis in Indian Population. *Biomed Res J* 2016;3(1):88-103. (IF-1.0).
- Patel B., Pandya P and Parikh P., (2016). Effects of Agro-Chemicals on Antioxidant Enzymes and Lipid Peroxidation in *Oreochromis mossambicus* And *Labeo rohita*. *International Journal of Zoology and Applied Biosciences*.1 (3):163-172. (IF-2.3).
- Pandya P. and Parikh P. (2016). Agrochemicals Induced Gene Expression Alterations In *O. mossambicus*. *International Journal of Advanced Research*.4(6): 830-840 doi: 10.21474/IJAR01. (IF:6.3)
- Pandya, P., Upadhyay, A., Thakkar, B., & Parikh, P. (2018). Evaluating the toxicological effects of agrochemicals on glucocorticoid receptor and serum cortisol level in Mozambique tilapia. *Cogent Biology*.doi.org/10.1080/23312025.2018.1480338. (IF-1.0).
- Singhal, S., Thakkar, B., Pandya, P. et al. (2018) Unraveling the diversity, phylogeny, and ecological role of cryptic Coleopteran species of Vadodara district: a first comparative approach from India. *JoBAZ* 79: <https://doi.org/10.1186/s41936-018-0062-2>. (IF-1.3).
- Paulson L., Pandya P, Thakkar B and Parikh P (2018). Isolation of pathogenic bacteria from *Musca domestica* and the effect of antibiotics, captured from Vadodara city, Gujarat. *6(4): 1369-1377*.
- Pandya P., Salunke A., Parikh P., (2020). Evaluating the toxic potential of agrochemicals on the hypothalamic-pituitary-thyroid axis in tilapia (*Oreochromis mossambicus*). *Journal of Applied Ichthyology*, 36:02 (203-211) Wiley.
- Thakkar, B., Pandya, P. & Parikh, P. (2020). Isolation, establishment and characterization of new insect cell line derived from midgut of rice weevil, *Sitophilus oryzae*. *In Vitro Cell.Dev.Biol.- Animal Springer Nature* <https://doi.org/10.1007/s11626-020-00523-9>.
- Salunke A., Pandya P., and Parikh P., (2020) Behavioral alterations and neurotoxicity of Imidacloprid on freshwater Teleost *Oreochromis mossambicus*, *Int. Res. Journal of Science & Engineering*, Special Issue A9: 23-30.
- Upadhyay A., Pandya P., Parikh P (2020). Experimental Study on Acute Exposure of Pyrazosulfuron Ethyl Induced Haematological and Blood Biochemical Changes in the Freshwater Teleost Fish *Oreochromis mossambicus*. *Recent Research Advances in Biology Vol. 1- Book Publisher International, London*.

Conference/Workshops/ Seminars Attended

- Participation in Workshop on Nurturing on Innovations and Startup Ecosystem, i-Hub, Government of Gujarat, Gandhinagar, Gujarat, 2020.
- Participation in Workshop on Bioinformatics organised by Holy Cross College, TN, 2020.
- DNA Damage & Repair Mechanism by Dr. J.Y. Masson (Laval University, Canada) at Department of Biochemistry, The M.S. University Of Baroda, 2011.
- Essential Of Cell Biology: Cytoskeleton by Prof. R.K. Rao (University of Tennessee, Health Science Centre, USA) at Department of Biochemistry, The M.S. University of Baroda, 2010.
- National Workshop on Invertebrate Taxonomy at Department of Zoology, The M.S. University Of Baroda, 2009.
- Participation on Innovative Pedogogy of Laboratory Animals In Animal Biology, Organised by St. Joseph College, TN, 2020.

- Participated in Science Leadership Workshop organised by Department of Botany, Central University of Punjab, Punjab, 2020.
- 'International Conference on Reproduction and Comparative Endocrinology' and 37th meeting SRBCE organised by BITS Pilani, Goa, 2018
- 'Molecular Diseases' Organised by Department of Biochemistry, the M.S University of Baroda, Vadodara at Vadodara (1st and 2nd August), 2014.
- 'International Conference on Comparative Endocrinology and Stress Physiology' organised by Nagpur University at Nagpur, 2013.
- 'Bridging the gap: Basic Science & Clinical Practice':4th World Congress of IACS (International Academy of Cardiovascular Sciences) at The M.S. University of Baroda (held 1st - 3rd February 2011).
- 'Importance of Trees in Conservation of Avian Diversity' state-level Seminar organised by the Department Of Zoology, The Maharaja Sayajirao University Of Baroda and Bird Conservation society Gujarat 2010.

Oral/Poster Presentations

- Poster Presentation on 'Evaluation of the environmental relevant toxic potential of agrochemicals on hypothalamic-pituitary-thyroid axis in *Oreochromis mossambicus*' Presented in International Conference on Reproduction, Endocrinology and Development, 2019 organised by Navrachana University, Vadodara
- Poster Presentation on 'Ameliorative Effect of Melatonin against nickel toxicity at an environmentally relevant concentration in Zebra fish (*Danio rerio*)' in International Conference on Ecohealth and Environmental Sustainability, 2020, organised by Navrachana University, Vadodara.
- Oral presentation entitled 'Understanding the Effects of Sublethal Pesticide Exposure on Honey Bees: A Behavior, biochemical and histological evaluation' in International E-conference on Emerging Trends and Challenges in Life Sciences organised by Indraraj Art, Commerce and Science College, Maharashtra, 2020.
- Poster Presentation on 'Neuroendocrine regulation of Gonadal axis: A review on Vertebrates' in National Conference on Gynecology and reproductive Biology. 5. Oral Presentation on 'Morphological and Molecular identification of Orthoptera fauna of Vadodara district Gujarat' in International Symposium on Emerging Trends in Science and Technology organised by Christ College, Rajkot, Gujarat, 2017.
- 'Gene Expression Studies on *O.mossambicus* Exposed to Agrochemicals'. Poster on Presentation Conference on at International Physiology(CEIP), Kerala, 2015 Endocrinology and Integrative Physiology.
- 'Evaluation of Genotoxicity Potential of Pyrazosulfuron Ethyl in *Oreochromis mossambicus*' Poster Presentation at Emerging Trends in Science and technology (ETCST), Bangkok, Thailand 2014.
- Proteotoxicity Studies In Liver, Muscle, Kidney and Gills Of *Oreochromis mossambicus* and *Labeo rohita* Exposed to Plant Nutrient (LibrelTM)' Oral Presentation at Emerging Trends in Science and technology (ETCST), Bangkok, Thailand 2014.
- 'Assessment Of Trace Element Genotoxicity By the Micronucleus test in Freshwater Fish *O.mossambicus*' Oral presentation in International Conference on Ecotoxicology and Environmental Sciences (ICEES), Organised by IEES Kolkata at New-Delhi, 2014.
- 'Identification By Biometrics: Application To Human Society' Poster presentation at Science Excellence 2010, by Gujarat University Ahmedabad
- 'Fission Yeast Cells Undergo Nuclear Division In Absence Of Spindle Microtubule' Oral Presentation at Science Excellence 2011, by Gujarat University Ahmadabad.
- Poster Presentation in the Science Symposium organised By Christ College Rajkot 2008, Saurashtra University, Rajkot.

Expert Lecture/Invited Talk/Committee Members

- Invitation to deliver an Expert lecture on Cell wall, Membrane and Organelles in the CSIR NET Crash course workshop at PG-N-BT-CBC, south Gujarat region, 2020.
- Treasurer in International Conference on Ecohealth and Environmental Sustainability (ICEES), 2020, held at Navrachana University, Vadodara.
- Scientific Committee Member, International Conference on Public Health ICPH-2021, Navrachana University, Vadodara.
- Treasurer in International Conference on Reproduction, Endocrinology and Development, (ICRED), 2019, held at Navrachana University, Vadodara.

