



# Miranda House

## UNIVERSITY OF DELHI

**Name:** DR. REETUPARNA BASAK  
**Department:** Zoology  
**Current Designation:** Assistant Professor  
**Email id:** reetuparna.basak@mirandahouse.ac.in

### Academic Qualifications:

Year	Degree	Institute
2017	Ph.D	Department of Zoology, University of Delhi, Delhi, India
2010	Postgraduation: M.Sc. (Zoology) specialization in Molecular Reproductive Endocrinology	Miranda House College, University of Delhi, Delhi, India
2008	Graduation: B.Sc. Zoology (Honours)	Miranda House College, University of Delhi, Delhi, India

### Research Degree:

Ph.D. awarded in 2017 on research topic “*Receptors for gonadotropins and sex steroids in testis of spotted snakehead Channa punctatus: expression during different reproductive phases and under the effect of human chorionic gonadotropin*”.

**Field of Specialization:** Molecular Reproductive Endocrinology

**Total Teaching Experience:** 8 years

**Teaching at Miranda House since:** 2023

### List of Publications:

#### Research/Review Articles

- **Impact of xenoestrogens on sex differentiation and reproduction in teleosts**  
*Authors: Brototi Roy, Reetuparna Basak, Umesh Rai;*  
*Journal and issue: Aquaculture and Fisheries, 2022 7:562-571.*  
*doi: <https://doi.org/10.1016/j.aaf.2022.02.001>*
- **Demystifying bisphenol A-induced alterations in hypothalamic-pituitary-ovarian functions leading to polycystic ovarian syndrome**  
*Authors: Reetuparna Basak, Ananya Banerjee, Umesh Rai;*  
*Journal and issue: Proceedings of the Zoological Society; 2021 74:466-478.*  
*doi: <https://doi.org/10.1007/s12595-021-00407-0>*



# Miranda House

## UNIVERSITY OF DELHI

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- **Seasonality of reproduction in male spotted murrel *Channa punctatus*: correlation of environmental variables and plasma sex steroids with histological changes in testis.**  
*Authors: Reetuparna Basak, Alivia Roy, Umesh Rai;*  
*Journal and issue: Fish physiology and Biochemistry; 2016 Oct; 42(5):1249-1258.*  
*doi: 10.1007/s10695-016-0214-6*
- **De novo sequencing and comparative analysis of testicular transcriptome from different reproductive phases in freshwater spotted snakehead *Channa punctatus***  
*Authors: Alivia Roy, Reetuparna Basak, Umesh Rai;*  
*Journal and issue: PlosOne; 2017;12(3): e0173178*  
*doi:10.1371/journal.pone.0173178*
- **In silico analysis, seasonal variation and gonadotropic regulation of *jag1* and its receptor *notch1* in testis of spotted snakehead *Channa punctatus***  
*Authors: Alivia Roy, Reetuparna Basak, Umesh Rai;*  
*Journal and issue: General and Comparative Endocrinology; 2018 Sep; 15; 266:166-177.*  
*doi: 10.1016/j.ygcen.2018.05.014.*
- **In silico analysis, temporal expression and gonadotropic regulation of receptors for follicle-stimulating hormone and luteinizing hormone in testis of spotted snakehead *Channa punctata***  
*Authors: Reetuparna Basak, Alivia Roy, Umesh Rai;*  
*Journal and issue: Journal of Fish Biology; 2018 July; 93(1):53-57.*  
*doi: 10.1111/jfb.13727*

### Book Chapters

- **Basak, R. & Roy, A. (2023).** Anatomy and Histology of the Male Reproductive System. In M. Yadav, & B. Roy (Eds.), Human Reproductive Biology and Health (pp. 105-133). Pearson.

### Major Achievements

- **Gold Medalist** (First position) in M.Sc. Zoology and awarded **Smt Usha Ganguly Medal**
- University Grants Commission **Junior Research Fellowship** and **National Eligibility Test (NET)**
- **INSPIRE DST Fellowship** (JRF- 2011 and SRF- 2013)
- Appointed as **University Teaching Assistant** in 2011
- Second best presentation at **National Symposium CERB 2015**, Visva-Bharti, Santiniketan, India.
- Excellent presentation at **the 8th international congress of Asia and Oceania Society for Comparative Endocrinology (AOSCE)** held at Korea University College of Medicine, Seoul, Korea (June, 2016)

### Membership of Professional Bodies:

Life member of the Indian Society for Comparative Endocrinology (Reg. No. S/47554) since 2017



# Miranda House

## UNIVERSITY OF DELHI

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### Resource person:

- Resource Person of the **National Capacity Building Workshop-2024** entitled **“Emerging Frontiers in Biomedical Research: Drug Resistance to Drug Delivery”** organized by Department of Zoology, Miranda House from October 14-16, 2024
- Resource Person at **“Bridge Course”** conducted by Department of Zoology, Miranda House from September 9-13, 2024
- Resource Person at **“Inspire Internship Programme 2024”** organized by Miranda House from Jul 8-12, 2024
- Resource Person at **“DSKC Summer Internship 2024”** conducted at Miranda House from June 13, 2024 to July 25, 2024
- Resource Person at **“Capacity Building Training Program on Model Organisms”** organized by Department of Zoology, Miranda House from April 15, 2024 to April 30, 2024
- Resource Person at **“DSKC Summer Internship 2023”** conducted at Miranda House from June 6, 2023 to July 18, 2023
- Resource person of online **“M.Sc. Entrance Examination Preparation Classes”** organized by Department of Zoology, Bhaskaracharya College of Applied Sciences from January 22, 2022 to February 26, 2022
- Resource person of online short-term certificate course on **“Immunological Techniques and their Applications”** in collaboration with Department of Zoology, University of Delhi from October 22- November 09, 2021 at Bhaskaracharya College of Applied Sciences.

### Seminars/Workshops/Conferences Organised:

- Organizing member of **8<sup>th</sup> Annual Meeting of IAZ & 5<sup>th</sup> International Conference on “Recent Trends in Life Sciences and Biotechnology”** organized by M.M. Engineering College, Maharishi Markandeshwar (Deemed to be University) from December 12-14, 2024
- Organizing member of **41<sup>st</sup> SRBCE Conference – 2024** entitled **“International Conference on Reproductive Sciences and Molecular Medicine: Innovations in Therapeutics and Technologies”** (ICRSMM-2024) organized by Department of Zoology, University of Delhi from November 15 -17, 2024
- Organizing Secretary of the **National Capacity Building Workshop-2024** entitled **“Emerging Frontiers in Biomedical Research: Drug Resistance to Drug Delivery”** organized by Department of Zoology, Miranda House from October 14-16, 2024
- Coordinator of **DBT-sponsored Popular Lecture Series** entitled **“Biotechnology: A Catalyst for Human and Environmental Development”** organized by Department of Zoology, Miranda House on October 4, 2024 and October 22, 2024
- Coordinator of Webinar on **“An Introduction to Power BI”** organized by DSKC Cervical Cancer Project Team, Department of Zoology, Miranda House on July 13, 2024
- Coordinator of Webinar on **“Shielding Lives from Cervical Cancer: HPV and its vaccine”**



# Miranda House

## UNIVERSITY OF DELHI

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organized by DSKC Cervical Cancer Project Team, Department of Zoology, Miranda House on June 15, 2024

- Session Coordinator of “*Capacity Building Training Program on Model Organisms*” organized by Department of Zoology, Miranda House from April 15, 2024 to April 30, 2024
- Coordinator of Webinar on “*Health Tech Diagnostics: Progress and Prospects*” organized by Department of Zoology, Miranda House on July 25, 2023
- Coordinator of online short-term certificate course on “*Immunological Techniques and their Applications*” in collaboration with Department of Zoology, University of Delhi from October 22- November 09, 2021 at Bhaskaracharya College of Applied Sciences.
- Coordinated online workshop “*Sparrow conservation and nest building with Nest Man of India-Mr. Rakesh Khatri*” on October 08, 2021 at Bhaskaracharya College of Applied Sciences
- Organized webinar entitled “*जैव ऐ रंगमंच*” on July 24, 2021 at Bhaskaracharya College of Applied Sciences.
- Organized webinar entitled “*I write my own story*” on March 05, 2021 at Bhaskaracharya College of Applied Sciences.
- Organized webinar entitled “*Managing Mental Health and Promoting Mindfulness*” on November 17, 2020 at Bhaskaracharya College of Applied Sciences.
- Organized webinar entitled “*Don’t Hesitate Vaccinate*” on November 10, 2020 at Bhaskaracharya College of Applied Sciences.
- Co-coordinated *the National webinar on “Career opportunities in Indian Air Force*” organized by Career Counseling Cell, Bhaskaracharya College of Applied Sciences on August 27, 2020.
- Organized *one-day seminar entitled “The Dilemma of Choosing a Career*” on March 04, 2020 at Bhaskaracharya College of Applied Sciences.
- Organized *one-day workshop on “Reproductive Biology*” on February 14, 2020 in collaboration with the research laboratory of Prof. Umesh Rai at the Department of Zoology, University of Delhi.
- Organized *one-day workshop on “Immunology*” on September 26, 2019 in collaboration with the research laboratory of Prof. Umesh Rai at the Department of Zoology, University of Delhi.
- Organized *one day seminar on “Neuroplasticity: Role in learning, memory and spinal injury*” on February 20, 2019 at Bhaskaracharya College of Applied Sciences.
- Organized “*National Conference on Diseases and Drugs: Emerging Trends and Challenges*” at Department of Zoology, Zakir Husain Delhi College in 2018
- Organized workshop “*Techniques for Endocrine Research*” at Department of Zoology, University of Delhi on behalf of Indian Society for Comparative Endocrinology in 2012.
- Actively participated in the organization of *the Academic Congress “Enabling the youth: Redefining education*” at University of Delhi in 2012

### Seminars/Workshops/Conferences attended:

- **2021:** Attended a webinar on “*Geo-tagging*” organized by Photography Club of Bhaskaracharya College of Applied Sciences on December 30, 2021



# Miranda House

## UNIVERSITY OF DELHI

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- **2021:** Attended a capacity-building workshop on “**Event Coordination & Database Management**” organized by NAAC Core Committee of Bhaskaracharya College of Applied Sciences on November 22 & 25, 2021
- **2021:** Attended workshop on “**Student Satisfaction Survey**” organized by Internal Quality Assurance Cell of Bhaskaracharya College of Applied Sciences on November 12, 2021
- **2021:** Attended the screening of “**Drishtikon- India’s Scientific Journey**” organized by Film club and Dramatics club of Bhaskaracharya College of Applied Sciences on October 03, 2021
- **2021:** Attended workshop on “**Decoding BEAMS**” organized by Digitization & Automation Committee of Bhaskaracharya College of Applied Sciences on September 01, 2021
- **2021:** Attended workshop on “**Decoding BRAHMA**” organized by Digitization & Automation Committee of Bhaskaracharya College of Applied Sciences on August 24, 2021
- **2021:** Attended the National workshop on “**Psycho-Social Skills of a Good Helper: Tackling the COVID Pandemic**” organized by Bhaskaracharya College of Applied Sciences in association with Mahatma Gandhi National Council of Rural Education, Ministry of Education, Govt. of India on June 30, 2021.
- **2021:** Presented poster at “**International Colloquium On Regulatory Mechanisms underlying Behavior, Physiology and Development**” organized by Department of Zoology, University of Delhi from March 24-26, 2021
- **2020:** Attended the National webinar on “**National Education Policy 2020: Futuristic policy for new India**” organized by Vivekanand Vichar Manch, Bhaskaracharya College of Applied Sciences on August 25, 2020.
- **2020:** Attended the National webinar on “**Career opportunities in civil services**” organized by Career Counseling Cell, Bhaskaracharya College of Applied Sciences on June 27, 2020.
- **2020:** Attended the National webinar on “**Career opportunities for undergraduates**” organized by Career Counseling Cell, Bhaskaracharya College of Applied Sciences on June 24, 2020.
- **2020:** Attended the National webinar on “**Covid 19 Pandemic: The road map to recovery**” organized by Department of Microbiology, Bhaskaracharya College of Applied Sciences on June 25, 2020.
- **2020:** Attended the National webinar on “**Botanical secrets for wellness: clued from nature’s signature**” organized by Department of Botany, Bhaskaracharya College of Applied Sciences on May 16, 2020.
- **2020:** Attended the Intercollege Faculty Development Programme “**Understanding GOOGLE Classroom**” organized by Automation and Digitization Committee, Bhaskaracharya College of Applied Sciences from May 13-14, 2020.
- **2020:** Attended the Intercollege Faculty Development Programme “**Online transaction of courses with Moodle-LMS**” organized by Automation and Digitization Committee, Bhaskaracharya College of Applied Sciences from May 08-10, 2020.
- **2020:** Attended the National webinar on “**Revisiting well-being**” organized by Department of Human Communication, Bhaskaracharya College of Applied Sciences on May 06, 2020.





# Miranda House

## UNIVERSITY OF DELHI

---

- **2019:** Attended the conference on “**Golden Jubilee Celebration of the Insecticides Act, 1968 (Promoting Food Safety and Security)**” organized by International Institute of Biotechnology and Toxicology (IIBAT) on February 22, 2019.
- **2016:** Represented India and DU as a presenter at the **8<sup>th</sup> congress of Asia and Oceania Society for Comparative Endocrinology (AOSCE)-from Comparative to translational research (AOSCE** and Korea University College of Medicine, Seoul, Korea)
- **2015:** Presented at **National Symposium on Comparative Endocrinology and Reproductive Biology** (Indian Society for Comparative Endocrinology at Department of Zoology, Visva-Bharati, Santiniketan, West Bengal, India)
- **2012:** Conference on **Comparative Endocrinology & Stress Physiology** (Indian Society for Comparative Endocrinology & International Association of Stress Physiologists, University of Kerala, Thiruvanthapuram, Kerala, India)
- **2011:** Workshop on **Recent Trend in Developing Bioremediation Strategies for Hexachlorocyclohexane (HCH) & Other Chloronised Contamination** (Indo Swiss Collaboration in Biotech at Department of Zoology, University of Delhi, Delhi, India)
- **2011:** Symposium on **Recent Advances in Molecular & Cellular Endocrinology** (Indian Society for Comparative Endocrinology at Department of Zoology, Banaras Hindu University, Varanasi, India)
- **2010:** Symposium on **Prevention is better than cure** (Department of zoology, Hindu College University of Delhi, Delhi, India)
- **2010:** Workshop on **Application of Molecular Biology Techniques in Reproductive Biomedicine** (Indian Society for Comparative Endocrinology at National Institute of Health and Family Welfare, New Delhi, India)