



## DR. ALIVIA ROY

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### ***Professional Summary***

A passionate researcher and committed academician with over a decade of teaching experience guiding undergraduate Zoology students in reputed colleges of the University of Delhi. Possesses excellent communication skills along with strong administrative competence, leadership abilities, and effective team management, reflecting a high standard of professional ethics.

### ***Educational qualifications***

- **Ph. D. (2017)** - Department of Zoology, University of Delhi

**Title of thesis:** RNA-Seq analysis of testis during different reproductive phases in spotted snakehead *Channa punctatus*: expression analysis of *jag1*, *notch1*, *kpna2*, *sstr2*, *klhl10*, *gria1*, *arnt2*, *foxj1*, *plzf* and *lhx8* along the testicular cycle and under the effect of human chorionic gonadotropin

- **M.Sc. Zoology (2010)** Department of Zoology, University of Delhi  
Specialization- Reproductive physiology  
**Percentage obtained- 82.4%**
- **B.Sc. (H) Zoology (2008)** Miranda House, University of Delhi  
**Percentage obtained- 77.18%**
- **Std. XII (2005)** South-Eastern Railway Mixed Higher Secondary School  
Kharagpur, West Bengal  
**Percentage obtained- 90%**
- **Std. X (2003)** St. Agnes High School  
Kharagpur, West Bengal  
**Percentage obtained- 93%**

### ***Teaching experience***

- Assistant Professor (Ad-Hoc) in Department of Zoology, Bhaskaracharya College of Applied Sciences, University of Delhi (from July 2017 till date)
- Guest faculty at Department of Zoology, University of Delhi for teaching a portion of the M.Sc. semester IV paper Biology of Pregnancy, Parturition and Lactation (2021 & 2022)
- Assistant Professor (Guest) in Zoology department, Maitreyi College, University of Delhi (August 2016 - April 2017)
- Assistant Professor (Guest) in Zoology department, Miranda House, University of Delhi (January 2017 - April 2017)

### ***Notable accomplishments***

- **Second position in Delhi University in Master of Zoology program** (academic session 2010-2011)
- Qualified **Eligibility for Lecturership (NET)** in the subject Life Sciences securing 26/1232 rank.
- Appointed as **University Teaching Assistant (UTA)** in the Department of Zoology for a period of four years during which M.Sc. practical classes were conducted for papers such as Comparative animal physiology, Metabolism: concepts and regulation, Biology of parasitism, Comparative endocrine physiology and Biology of reproduction.

### ***Research expertise***

***In situ* techniques:** In-depth analysis of RNA sequencing data, Primer designing, Phylogenetic studies

**Other tools & techniques:** DNA/RNA extraction, semi-quantitative and Real time PCR, Gel electrophoresis, Tissue processing, Microtomy & staining, Immunohistochemistry, Hormone treatments, ELISA, performing various types of surgery in rat model.

### ***Research Publications***

- *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**; Volume 266, 166-177

*doi: 10.1016/j.ygcen.2018.05.014*

- *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, 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**; 93 (1):53-71  
*doi: 10.1111/jfb.13727*
- 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):1249-58.  
*doi: 10.1007/s10695-016-0214-6*
- A mini review on influence of physical exercise in remodeling the immune mechanism  
 Authors: Anjali Saxena, Ankita Dua, Mohit Kumar, **Alivia Roy** and Aeshna Nigam  
 Journal and issue: *World Journal of Biology Pharmacy and Health Sciences*; 2024, 18(02), 349-358
- Book chapter: Anatomy and Histology of the Male Reproductive System. In *Human Reproductive Biology and Health*, Authors- Reetuparna Basak, **Alivia Roy** (2023). Pearson India Education Services Pvt. Ltd. (pp. 105-132). ISBN: 978-93-560-6632-8

### ***Administrative Responsibilities***

1. Secretary, Bhaskaracharya Teaching Staff Association (2021-2025)
2. Convener, Debate club of ECA committee (2023- till date)
3. Convener, Dance club of ECA committee (2018-2021)

4. Member, Magazine & E-newsletter committee (2017- till date)
5. Member, IQAC committee (2019- till date)
6. Member, NAAC committee Group II (2018- till date)
7. Member, ECA committee (2017- till date)
8. Member, Social Media Outreach Committee (2025- till date)
9. Member, Sports Committee (2025- till date)
10. Member, Music club (2025- till date)
11. Member, Women Development Cell (2025- till date)
12. Member, Biological & Chemical Waste Management committee (2020- 2023)
13. Member, Annual Maintenance Contract committee (2021- 2025)
14. Member, Annual Report committee (2020-2021)
15. Member, Gandhian study center (2017-2019)
16. Member, Decoration Committee of Annual day (2017-2019)
17. Member, Prospectus & Annual Report committee (2017-2018)
18. Member, Student Advisory & PR committee (2017-2018)
19. Member, Modern & Fine Arts club (2017-2018)

### ***Hobbies***

Travelling, Yoga, Music, Reading & Fine arts

### ***Personal Dossier***

- Languages proficient in: English, Hindi and Bengali
- Marital status: Married
- Date of birth: December 20, 1986