

CURRICULUM VITAE

Dr. Beena Bhandari

e-mail: beenabhandari@hrc.du.ac.in

1. Academic qualifications

- **Ph. D.** “*Signalling mechanisms associated with agonist-induced acrosome (Awarded, 2011) reaction in human spermatozoa*” **National Institute of Immunology**, Jawaharlal Nehru University
- **M. Sc. (Zoology)** Hindu college, **University of Delhi**, Delhi (2001-2003) First Division (69.2 %)
- **B. Sc. (H) Applied Zoology** Dyal Singh College, **University of Delhi**, Delhi (1998-2001) First Division (77.4%)

2. CSIR-UGC JRF & NET examination: Qualified Joint CSIR-UGC Junior Research Fellowship (JRF) and Eligibility for Lectureship-National Eligibility Test (NET) held on 22nd June 2003. F.NO. 10-2(5)2003(I)-EU.II

3. Teaching Experience:

- **Presently Working in Hansraj College**, University of Delhi as Assistant Professor from 7 Oct 2022.
- Worked in Ramjas College, University of Delhi as Assistant Professor (ad hoc) from Aug 2015 to 18 Sep 2022.
- Worked in Maitreyi College, University of Delhi as Assistant Professor(ad hoc) from 28 July 2011-13 Mar 2015.

4. Publications

- Xu WX*, **Bhandari B***, He YP, Tang HP, Chakravarty S, Talwar P, Gupta SK and Wang J (2012). Mapping of epitopes relevant for induction of acrosome reaction on Human Zona Pellucida Glycoprotein-4 Using Monoclonal Antibodies. *Am J Reprod Immunol.* 68 (6), 465-475 (*equal authorship). **ISSN: 1600-0897, IF: 3.886**
- Uttekar MM, Das T, Pawar RS, **Bhandari B**, Menon V, Nutan, Gupta SK, Bhat SV (2012) Anti-HIV activity of semisynthetic derivatives of andrographolide and computational study of HIV-1 gp120 protein binding. *Eur J Med Chem.* Oct; 56:368-74. doi: 10.1016/j.ejmech.2012.07.030. Epub 2012 Jul 24. **ISSN: 0223-5234, IF: 4.816, 5-year IF: 6.514**
- Sagare-Patil V, Galvankar M, Satiya M, **Bhandari B**, Gupta SK, Modi D (2012). Differential concentration and time dependent effects of progesterone on kinase activity, hyperactivation and acrosome reaction in human spermatozoa. *Int J Androl.* 35(5):633-44. **ISSN: 0105-6263, Online ISSN: 1365-2605, IF: 3.565**
- **Bhandari B**, Bansal P, Talwar P, Gupta SK (2010). Delineation of downstream signalling components during acrosome reaction mediated by heat solubilized human zona pellucida. *Reprod Biol Endocrinol* 23:8:7. **ISSN: 1477-7827, IF: 2.14**
- Ganguly A, Bukovsky A, Sharma RK, Bansal P, **Bhandari B**, Gupta SK (2010). In humans, zona pellucida glycoprotein-1 binds to spermatozoa and induces acrosomal exocytosis. *Hum Reprod.* 25:1643-56. **ISSN (print): 0268-1161, ISSN (online): 1460-2350, Impact factor: 4.990, 5 year IF: 4.949**

Reviews:

- Gupta SK, **Bhandari B**, Shrestha A, Biswal BK, Palaniappan C, Malhotra SS, Gupta N (2012). Mammalian zona pellucida glycoproteins: structure and function during fertilization. *Cell Tissue Res.* 349(3):665-78 **ISSN (print): 0302-766X, ISSN (online): 1432-0878, IF: 3.043**
- Gupta SK and **Bhandari B** (2011). Acrosome reaction: Relevance of zona pellucida glycoproteins. *Asian Journal of Andrology* 13: 97-105. **ISSN: 1008-682X, IF: 3.259**
- Gupta SK, Bansal P, Ganguly A, **Bhandari B**, Chakrabarti K (2009). Human zona pellucida glycoproteins: functional relevance during fertilization. *J Reprod Immunol* 83:50-5. **ISSN 0165-0378, IF: 2.322, 5-year IF: 2.639**

Proceeding:

- Gupta SK, Chakravarty S, Suraj K, Bansal P, Ganguly A, Jain MK, **Bhandari B** (2007). Chapter “Structural and functional attributes of zona pellucida glycoproteins” in *Gamete Biology: Emerging Frontiers on Fertility and Contraceptive Development: Proceedings of the International Congress Held at New Delhi, India, February 2006, Soc Reprod Fertil Suppl* **ISBN-10: 1904761437, ISBN-13: 978-1904761433.**

5. Research/work Experience

- Worked towards doctoral thesis in the field of “Molecular reproduction” on the topic of “**Signalling mechanisms associated with agonist-induced acrosome reaction in human spermatozoa**” from July 2005 to June 2010 under the supervision of Dr. S. K. Gupta.
- Worked as Senior Research Fellow in the project “Identification and Characterization of anti-viral compounds from medicinal plants: A step toward the development of microbicides” from 1st July 2010 to 28th Sep 2010 in the Reproductive Cell Biology Laboratory at National Institute of Immunology under the supervision of Dr. S. K. Gupta.
- Worked as Senior Research Fellow in the project “Development of herbal formulations and characterization of their active components for prevention of HIV infection” from 7th Oct 2010 to 4th May 2011 in the Reproductive Cell Biology Laboratory at National Institute of Immunology under the supervision of Dr. S. K. Gupta.

6. Awards

- **Award of All-India Post Graduate Scholarship for the year 2001-2003.**
- **Won award for Best Poster Presentation** in “International Congress on Bio immunoregulatory Mechanisms Associated with Reproductive Organs: Relevance in Fertility and in Sexually Transmitted Infection” held at National Institute of Immunology, New Delhi on Feb 09-13, 2009.
- **Awarded University Gold Medal in B.Sc. (H) Applied Zoology, 2001.**

7. Conferences/Symposium

- **Attended Virtual International Conference on “Infections and Immunity”** organized by Department of Zoology, Daulat Ram College, University of Delhi on 8-10 October, 2021.
- **Attended National Symposium on “Recent Advances in Immunology”** organized by Department of Zoology, Miranda House, University of Delhi at INSA on 17-18 July, 2014.
- **Presented poster** on the topic ‘Delineation of downstream signalling components involved in human sperm acrosome reaction mediated by human zona pellucida glycoproteins’ in “**International Congress on Reproductive Health**” held at University of Rajasthan, Jaipur, India (Feb 08-10, 2010).
- **Presented poster** on the topic ‘Delineation of downstream signalling components associated with acrosome induction in human spermatozoa induced by progesterone and zona pellucida glycoproteins’ in “**International Congress on Bio-immunoregulatory Mechanisms Associated with Reproductive Organs: Relevance in Fertility and in Sexually Transmitted Infection**” held at National Institute of Immunology, New Delhi (Feb 09-13, 2009).

8. Workshops/Orientation/FDPs

- **Successfully completed (Grade A+), a 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education”** organised by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from 21 November – 20 December, 2022.
- **Successfully completed (Grade A+) One-Week Online National Faculty Development Program “Basic IT tools, Advanced Spreadsheet Tools and Statistical Software Package with SPSS”** jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education from **27th October to 03rd November 2022.**
- **Successfully completed (Grade A+) online two-week refresher Course in “ZOOLOGY”** conducted by Teaching Learning Centre, Ramanujan College University of Delhi **in collaboration with Department of Zoology, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu** under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from 15-29 December, 2021
- **Successfully completed (Grade A+) online two-week interdisciplinary refresher course** in environmental studies on the theme ‘21st century environmental issues, challenges & solutions’ conducted by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from 15-29 July, 2021
- **Successfully completed (Grade A+) online a 2-Week Faculty Development Programme** on "Managing online classes and co-creating MOOCS 3.0" conducted by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from July 25 - August 10, 2020
- **Successfully completed (Grade A+) a 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education "Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" Teaching Learning Centre, Ramanujan College**

- University of Delhi under the aegis of Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) from June 26 - July 24, 2020
- **Successfully completed Swayam ARPIT Course for Career Advancement Scheme (CAS)** promotion on Climate Change: A Guide for Teachers of All Disciplines with an "A" Grade in the proctored examination held on 16.02.2020, Indian Institute of Science Education and Research (IISER), Pune
- **Participated** in the Regional Workshop **Research As Pedagogy a Science Teacher Education Program (RAP a STEP)** for teachers of undergraduate science courses held on May 9th and August 18th – 19th 2017 at SGTB Khalsa College and Gargi College, University of Delhi, respectively organised by the MHRD-supported Centre of Excellence in Science and Mathematics Education (COESME) at Indian Institute of Science Education and Research (IISER) Pune, with support from the Department of Biotechnology (DBT), Government of India.
- **Participated in Training Workshop** on “**Zebrafish as an animal model system**” organized by Departments of Biochemistry and Zoology, Daulat Ram College, University of Delhi on 15th -17th March 2017.
- **Participated as Convenor** in the workshop “**Techniques in Biology**” organized by DBT-Star College Project, Ramjas College on 26th Sep 2015.
- **Participated** in ‘**Fire Safety and Disaster Management**’ workshop held on 18-19 Dec 2014, organized by Maitreyi College under Star college scheme of DBT, Government of India.
- **Attended workshop** on “**The culture of responsibility: Biosafety and Biosecurity**” held on 2nd Sep 2012 at Maitreyi college.

9. Other activities

- Participated as **Staff volunteer** in Workshop on **Digital Learning “Role of Technology in Learning”** held on September 25th 2018 at Ramjas College, University of Delhi.
- Participated as **Staff organizer** for “**Undergraduate Science Teacher’s Workshop themed at developing scientific temper in students: tools and techniques**” organized by Department of Zoology, Ramjas College (under DBT-star college project) and India Bioscience on 31st January 2017 and held at Ramjas College, University of Delhi, Delhi.
- Participated as **Staff volunteer** in Workshop on Digital Learning “Role of Technology in Learning” held on September 25th 2018 at Ramjas College, University of Delhi.
- Participated as **Staff volunteer** in the **2nd Science Film Festival** held under the aegis of IQAC, Ramjas College on 28th-29th Aug 2018, organized by Ramjas College, University of Delhi and Vigyan Prasar, DST, Govt. of India.
- Participated as **Staff organizer** for “**Undergraduate Science Teacher’s Workshop themed at developing scientific temper in students: tools and techniques**” organized by Department of Zoology, Ramjas College (under DBT-star college project) and India Bioscience on 31st January 2017 and held at Ramjas College, University of Delhi, Delhi.
- Participated as **Staff volunteer** in the **Science Film Festival** held at Ramjas College on 23rd-24th Aug 2016, organized by Department of Zoology in the academic session 2016-17
- Participated as **Staff organizer** for one day symposium “**Recent Trends in Biology**” conducted at Maitreyi College on 25th Feb 2015 under Star college scheme of DBT, Government of India.
- **Member of Local Organizing Committee** responsible for Organization of “**International Congress on Bio-immunoregulatory Mechanisms Associated with Reproductive Organs: Relevance in Fertility and in Sexually Transmitted Infection**” held at **National Institute of Immunology**, New Delhi (Feb 09-13, 2009).
- **Member of Local Organizing Committee** responsible for Organization of **International Conference** on “**Gamete biology: Emerging Frontiers in Fertility and Contraceptive Development**” held at **National Institute of Immunology**, New Delhi (Feb 22-25, 2006)

10. Membership of Academic bodies or societies

American Society of Microbiology (ASAM) 2012-14