

## CURRICULUM VITAE-2025

<b>Title</b>	<b>Prof./Dr./Ms.</b>	First Name	<b>Rita</b>	Last Name	<b>Singh</b>
<b>Designation</b>		<b>Professor and Head</b>			
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### EDUCATIONAL QUALIFICATIONS

<b>Degree</b>	<b>Institution</b>	<b>Year</b>
<b>Ph.D. (Hormone Biochemistry)</b> Occurrence and role of Sulfation in Lutropin and Prolactin	University of Delhi	1990
<b>PG: M.Sc. Specialization in Reproductive Biology</b>	University of Delhi	1984
<b>UG: B. Sc. (Hons) Zoology</b>	Hindu college, University of Delhi	1982

### CAREER PROFILE

<b>Delhi University,</b> Division of Molecular Endocrinology and Reproduction Department of Zoology	<b>Professor</b>  Associate Professor  Reader	Jan 1, 2011 onwards  May 7, 2006  May 7, 2003	Teaching: M.Sc. Molecular Endocrinology, Cell Signaling, Protein Structure and Function, Computational Biology. Research: Cell regulatory mechanisms, Molecular defects in human PCOS and infertility, Proteomics based diagnostic tools.
<b>Delhi University,</b> Dr. B. R. Ambedkar center for Biomedical Research (ACBR)	Lecturer	Jan 18, 2002– May 7, 2003	Teaching: Biochemistry, Receptors and Cell Signaling. Research: Molecular mechanisms of FSH regulation of Fertility.
<b>All India Institute of Medical Sciences (AIIMS),</b> Department of Biochemistry	Scientist	1999-2002	Teaching: M.Sc. / MD, and B.Sc. Nursing, B.Sc. Human Biology Biochemistry and Cell Biology, Research: Signaling involved in foeto-placental cross-talk.
<b>Delhi University, SVC</b>	Lecturer	1990-1991	Post graduate Diploma in Biotechnology, Theoretical aspects of practical Immunology

### Post-doctoral Research Experience

**Member, 9<sup>th</sup> Indian Antarctic expedition**      **Funded by Department of Ocean Development, New Delhi**, “The impact of Antarctic Environment on the Hormonal Profile & Immunity of Human Volunteers” 1989-9 months

**Pool Scientist (1997-1999) Funded by CSIR**, Worked on the mechanisms in

<b>Scientist AIIMS (3 Yrs)</b>	Fetal-Placental unit and differentiation of trophoblasts
Dept. of Biochemistry	
DST-SYS (3Yrs)	<b>Indian Institute of Science (I. I. Sc. Bangalore)</b> Worked on “Interaction of SH3 domain of <i>Hck</i> and <i>Src</i> tyrosine Kinase with Guanylyl Cyclase C”
<b>Post-doctoral Fellowship</b>	<b>Centre for Cellular &amp; Molecular Biology (CCMB, Hyderabad)</b> from June 1994-Sept 1996. Worked on “The identification of SH3 domain interaction protein in signal transduction”
<b>CSIR (1991-1997) (5 Yrs)</b>	<b>Indian Institute of Integrative Medicine.</b> Jammu, J & K from March 1992 – June 1994 Worked on “Post-Coital contraceptive anti-oestrogenic compounds

#### AREAS OF INTEREST / SPECIALIZATION

**Molecular defects in Polycystic Ovary Syndrome (PCOD/PCOS/Infertility): Susceptibility Genes, Life Style and Environment and Proteomics based Diagnostic tools: Analysis of human Plasma of Breast, Ovary and Lung cancer Patients for the diagnostic Biomarkers.** The major contribution is in deciphering the metabolic defects in the ovarian granulosa cells of women with polycystic ovary syndrome (PCOS), a major reproductive health issue in young women. For the first time in the world, we reported the defective gene profiles highlighting the metabolic alterations in granulosa cells of PCOS women with and without insulin resistance. Genomic profiling brought out important susceptibility genes for insulin resistance and Diabetes type II in PCOS women. The data bank was created in NCBI and the work was published in the Journal of Clinical endocrinology and Metabolism (JCEM). Several laboratories have analyzed these data confirming the importance of our study. Further, we have also identified a novel signaling pathway of FSH which establishes its role in metabolism and cross-talk with insulin signaling pathways. FSH-stimulated IRS-2 expression is defective in PCOS granulosa cells. Consequently, we have established that the partial FSH sensitivity in PCOS women leads to the metabolic disorder and associated susceptibility to develop insulin resistance later in life. We have organized a number of meetings with young girls to spread awareness about the management of hormonal imbalance to maintain the healthy metabolic profiles.

#### GENOMIC DATA BANK CREATED FOR HUMAN NORMAL AND PCOS OVARIAN GRANULOSA CELLS

##### 1. HUMAN PCOS GENOME DATA BANK:

<http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE34526>

(MICROARRAY DATA FOR NORMAL, INSULIN RESISTANT & NON-RESISTANT PCOS WOMEN), GENE EXPRESSION OMNIBUS (GEO:)

##### 2. BIOINFORMATIC DATA BANK:

HUMAN IRS-2 PROMOTER AND TRANSCRIPTION FACTOR BINDING SITES

<http://dx.doi.org/10.1016/j.dib.2015.12.001>

#### RESEARCH GUIDANCE

Supervision of awarded Doctoral Thesis	12
Supervision of ongoing Doctoral Thesis	03
Supervision of awarded M. Phil dissertations	17
<i>Ph. D Adviser</i>	... 20
<i>M.Sc. Summer projects</i>	28
<i>M.Sc. and M. Tech 4th Semester projects</i>	08

<i>M.Sc. Medical Physiology</i>	02
<i>B.Sc. Biomed. / B. Tech. (Engineering) Summer project</i>	12
<i>B. Tech. (Engineering) IV SEM Project</i>	06
<i>M.Sc. Dissertations</i>	... 55

## RESEARCH PROJECTS (MAJOR GRANTS/RESEARCH COLLABORATION)

### RESEARCH PROJECTS: Single institutional grants of PI (14, 3-4 years duration)

Projects	International	National (Existing/Active 2021)	Funding Agencies
No.	2, DBT (INDO-US) and DBT-USA-CREST, 5 Foreign grants: US, Singapore, Italy, Iran, Qatar Stay and travel completely funded by foreign organizers	11 project grants +1 foreign travel grant from DU and 1 from DBT	ICMR, DBT, DBT-INDO-US-CRHR, CSIR, UGC, R&D-DU-UGC, DST-DU-PURSE
Collaborations and Funding	Medical School, VCU, USA Department of Breast cancer, UPENN, Philadelphia, USA INRA-Centre Val de Loire, 37380 Nouzilly, Tours, France	Dept. of Obgyn, AIIMS, Fortis Hospital, Shalimar Bagh, Gouri Hospitals, Delhi, Rajiv Gandhi Cancer hospital and research Institute, Delhi	

S. No.	Title of the Project (as PI)	Duration	Funding Agency
1.	Polycystic ovary syndrome: Impact of gonadotropin hormone imbalance: its consequences for maternal and the infant health, Ongoing	3 year 2021-2024	ICMR 84 Lakhs
2.	Susceptibility gene profile in the granulosa cells of PCOS women with and without insulin resistance: a correlation with glucose metabolism. Completed	4 Year 2015-2019	DBT 72 Lakh
3.	<a href="#">International Award (DBT-US-CREST): CANCER STEM CELLS USA Lab: Visiting Professor Completed</a>	1 Year 2012-2013	DBT and USA 23.3 lakhs
4.	“Differential protein profiling of plasma from patients with tissue specific CANCER” Completed	4 Year 2010-2013	DBT 51 Lakhs
5.	“Cancer Stem Cells and mouse model of Breast Cancer” Completed	3 Year, 2010-2013	DST-DU, R&D 15.86 laks
6.	Role of Follicle stimulating hormone (FSH) in the activation of Serine/Threonine Phosphatases” Completed	3 years 2010-2013	R&D DU 7.5 lakhs
7.	“Cross-Talk between Insulin receptor and Gonadotropins in Rat Granulosa Cells” Completed	3 Years 2007- 2010	DBT 44.5 lakhs
8.	“Recombinant Pituitary prolactin of Water Buffaloes	3 Years 2007-2010	UGC 12 lakhs

	( <i>Bubalus bubalis</i> )” Completed		
9.	International collaboration fund: CRHR "Polycystic Ovary Syndrome: Molecular Determinants of Abnormal Follicular Growth Reflected in Granulosa Cell Gene Expression Profiles" Completed	3 Years 2005-2009	<b>INDO-US DBT</b> 57 lakhs
10.	“Polycystic Ovary Syndrome: Deciphering insulin receptor signaling pathways in human granulosa cells by RNA interference” Completed	3 Years 2005-2008	RNAi, DBT 35 lakhs
11.	“Differential expression of genes in Polycystic ovary of rat, an attempt to understand the aetiology of PCOS” Completed	3 Years 2005-2008	CSIR 19 Lakh
12.	“Signalling mechanisms controlling the follicular differentiation in rat” Completed	3 years 2003-2006	(DBT) 20 Lakhs

## Ph.D. students.

Registered (Ph.D.)	Thesis/ Dissertation Submitted	Year	Degree Awarded
Jyoti Taneja	Molecular determinants of FSH action in granulosa cells.		2010
Reshma Korde	Functional Analysis of Cysteine and Aspartic proteases using pro-domain peptides and interference	2010	Yes
Gaganjot Singh	Differential Molecular Profiling of Various Tissue Specific Tumors-CANCER	2011	Yes
Anjali Nagendra	Molecular Determinants of Abnormal Follicular Growth in PCOS	2011	Yes
Surleen Kaur	Signaling Mechanism involved in Granulosa cell growth and differentiation.	2014	Yes
G. Anjali	Molecular Mechanism of cross-talk between insulin and gonadotropins in granulosa cells.	2016	Yes
Priya Bhardwaj	Proteomic Analysis of Cancer-specific proteins in human plasma-CANCER.	2016	Yes
Ruchi Lakra	Deciphering cross-talk in signaling pathways regulated by FSH in granulosa cells	2017	Yes
Anisha	Cancer specific Antigen/antibody detection in plasma of human cancer patients-CANCER	2018	Yes

Vidisha Minhas	Expression and characterization of recombinant immunogens inhibiting fertility in mice.	2019	Yes
Nidhi Chahal	Endocrine Disruption and Reproductive Dysfunction in Young Women	2023	Yes
Suman Yadav	Environmental Modifiers of Gene Expression in PCOS	2025	Yes
Pinki Phogat	Albumin associated cancer specific peptides in human plasma and their role in cancer pathophysiology	-	Ongoing
Ananya Aparupa	Gonadotropin imbalance and metabolic abnormalities in PCOS	-	Ongoing
Anjali Pathak	Gonadotropin cross-talk and physiopathology of PCOS	-	Ongoing

#### AWARDS, RECOGNITIONS AND DISTINCTIONS (International are marked Blue)

**Prof. N. R. Moudgal Memorial Oration Award-2026** by Indian Society for the Study of Reproduction and Fertility (ISSRF 2026), with a cash award of Rs. 25,000, a gold-plated medal and a citation, which will be conferred during the forthcoming “Global Summit on Innovations in Reproductive Biology: Emerging Frontiers and Discoveries” scheduled to be held during 20<sup>th</sup>-22<sup>nd</sup> February, 2026 at the Department of Zoology, Institute of Science, Banaras Hindu University (BHU), Varanasi.

**The Head, Department of Zoology**, University of Delhi **April, 1 2025** onwards

**Member, Academic Council**, University of Delhi, **2025**.

**Member, University Planning Committee**, **2025**.

**Governing Body member and Treasurer 2025**, Vivekananda College, University of Delhi, **2025**.

**University Representative, Management Committee**, Rajiv Gandhi Hostel, University of Delhi, Delhi, **2025**.

**University Representative, Management Committee**, Undergraduate Girls Hostel, University of Delhi, **2025**.

**Gold Medal and Oration-2023 award, Prof. Pera Govindarajulu Gold Medal Oration by SRBCE**, in recognition of research contributions in the field of Reproductive Endocrinology, “**Environmental Oestrogens, Immunomodulation and Fertility**” during “International Conference on Reproductive Sciences and Molecular Medicine: Innovations in Therapeutics and Technologies 2024 and 41<sup>st</sup> SRBCE Annual meeting, Nov. 15-17, 2024.

**Organising Chairperson, SRBCE-2024** & “International Conference on Reproductive Sciences and Molecular Medicine: Innovations in Therapeutics and Technologies 2024 and 41<sup>st</sup> SRBCE meeting, at University of Delhi, **Nov. 15-17 2024**.

**Selected candidate for Vice Chancellor** for Interaction at **TERI School of Advanced Studies, New Delhi**. Jan 5, **2024**.

**Le Studium visiting Researcher award (France), 2024** INRA, Director of Research, CNRS, Tours Centre de Recherché, Val de Loire, Nouzilly, **France**, May to July **2024**.

**QUAD Faculty (USA), Inaugural Faculty from Year 2022-2024**: Member of Faculty Panel (Review committee) for Quad Fellowships (In STEM Scholars of Quad Countries), Institute of International Education, New York, USA.

**Selected Fellow of LE STUDIUM, France** and Visiting Researcher Speaker at **LE STUDIUM**

Scientific Council, LE STUDIUM Loire Valley Institute for Advanced Studies 1, rue Dupanloup-45000 Orléans, and at CNRS, Equipe BIOS "Biologie des Systèmes de Signalisation des RCPG" Physiologie de la Reproduction et des Comportements, UMR 7247 INRAE- CNRS- Univ. Tours Centre de Recherches, Val de Loire, Nouzilly, May-Aug., **France, 2022**

**Organising Chairperson, International conference (In France as a Fellow):** International Conference on 'Gonadotropins in the Physiopathology: Current advances in the Mechanisms of Action' Virtual mode, organized by Le Studium, France Sept. 14, 2022- Sept. 15, **2022.**

**Guest of Honor,** in the Valedictory function of 3-day Virtual International Conference on "Infections and Immunity" under the auspices of Daulat Ram College, Univ. of Delhi, on **10.10. 2021.**

**Gold Medal Oration-2019, ISSRF, Prof. L. S. Ramaswami Memorial Award and Gold medal,** in recognition of **outstanding research in the area of Reproductive health** by Indian Society for Study of Reproduction and Fertility (ISSRF-2019), at JNU Convention Center, Jawaharlal Nehru University, New Delhi, Feb. 22, **2019.**

**Advisor of a start-up Company on Immunodiagnostics and as PCO Expert, TINRAD (Tulsi Immuno Nano Research and Development), Sept. 2020 onwards**

**Visiting Researcher, France- INRA-Centre Val de Loire, 37380 Nouzilly, Tours, Real-Time Receptor and messenger interactions, From June 18-August 17, 2018.**

**Academic Visitor National University of Singapore (NUS) (funded by NUS),** 5th Annual Graduate Scientific congress, Decoding Science: Translating Medicine, AGSC2015, **Yong Loo Lin School of Medicine, National University of Singapore (NUS),** Jan 27-30, **2015.**

**Visiting Scientist at Department of Breast Cancer, UPENN, Perelman School of Medicine, University of Pennsylvania, USA (1 Year),** Breast cancer stem Cells: Wnt 1 transgenic model of breast cancer. Aug, 2012- July 2013. Award for Advancement of Science (CREST-Program), Department of Biotechnology (DBT), Ministry of Science and Technology, India, 2012.

**Chairperson, DBT- INDO-UK Newton-Bhabha Fund** for research collaborations from **2018 -2021.**

**Chairperson, NUS-DU admission Committee 2011** 4 students of M.Sc. Zoology were placed for PhD in Yong Loo Lin School of Medicine, National University of Singapore (NUS).

**Expert Member, Board of Studies (BOS), Indira Gandhi National Tribal University, Amarkantak (M.P.), 2019 -2021.**

**Expert Member, Board of Studies (BOS), University of Kashmir, Srinagar (J &K), 2021-2022.**

**Member, Recognition Committee** (Ordinance OA-2.1(a)), Goa University, Taleigao Plateau 403206 Goa, India.

**Executive Member of SRBCE** (Society for Reproductive Biology and comparative Endocrinology), India.

**Provost, North Eastern House for Women, Delhi University, Feb. 2018-March 2021**

**Chairperson/Member, Governing Body, Amarjyoti Institute of Physiotherapy, 2022-onwards.**

**Chairperson, Governing Body, Dr. B R Ambedkar College, Delhi University, 2021-2023.**

**Chairperson/Member, Governing Body, Keshav Mahavidyalaya, Delhi University, 2017-2019.**

**Member, Management Committee, Undergraduate hostel for women, University of Delhi, 2022-onwards**

**Member, Management Committee, Rajiv Gandhi hostel for Girls, University of Delhi, 2021-2024.**

**Expert Member**, Committee for recruitments and promotions in **Ministry of environment, forest and climate change**, New Delhi, **2018-2021**.

**Expert Member**, Committee for recruitments and promotions in **Ministry of Human Resource Development (HRD)**, New Delhi, **2018-2020**.

**Member, Thematic Committee on Institutional Social Responsibility (ISR)**, Centenary celebration committee, University of Delhi, 2022-23.

**Chairperson**, Health Awareness Sub-Committee, Centenary Thematic Committee, University of Delhi, 2022-23.

**Member, Editorial Board**, Journal of Endocrinology and Reproduction till date

**Member, Editorial Board**, Journal of Reproductive Healthcare and Medicine till date

**ICMR Task-force Member**: Multi-Center on **Polycystic ovary syndrome: mother and child health**.

**Convener, Societal Science initiative** on Reproductive health and hygiene in villages adopted by University of Delhi under Unnat Bharat Abhiyan for in collaboration with Department of Social work, University of Delhi 2019-onwards.

**Task-Force member**, Indian Council of Medical research (ICMR), 2016 onwards.

**ICMR-PRG Expert Member**, Committee for Investigator-cum-Brainstorming meeting “Evaluation of prevalence, regional phenotypic variation, Co-morbidities, risk factors and the variations in response to different therapeutic modalities among Indian women with Polycystic ovary syndrome (PCOS): A multicenter study across India.” Indian Council of Medical Research (ICMR), New Delhi, **2020**.

**Member Area Advisory Board, Reproductive Biomedicine, Amity University**, Noida, Haryana, 2017

**Member, Ethics Committee**, Sunder Lal Jain Hospital, Ashok Vihar, Delhi. (2013-2016).

**Member, Scientific Advisory Committee**, Talwar Research Foundation, New Delhi. 2011

**Vice Chancellor Nominee, Departmental Research Committee (DRC)**, and Extra mural grant committees Department of Anthropology, Department of Biochemistry, Institute of Home Economics, Department of Home Science, and Lady Irwin College, Department of Botany, Delhi University 2015 onwards.

**Member, Examination Disciplinary Committee (EDC)**, Delhi University (North and South Campus) from 2013-2019.

**Member, various Selection and Promotion Committees of the University Colleges and Departments, Zoological Survey of India**.

**Member, Faculty of Science**, University of Delhi, 2013, 2015-2022.

**Member Secretary, Human Ethics Committee**, University of Delhi, 2015-onwards.

**Mentor, Star College Project on Reproductive Health and Incidence of PCOS in college girls**, Department of Biochemistry, Daulat Ram College, Delhi University, 2016-2019.

**Member, Departmental Research Committee (DRC)**, Department of Zoology, 2016-2018, 2020 onwards.

**Convener**, Division of Molecular Endocrinology & Reproduction, Department of Zoology, Delhi University, **2009 onwards**.

**Convener**, Computational Biology, Biostatistics and Bioinformatics, 2015 onwards

**Convener**, Protein Structure function and Evolution, 2009 onwards

**Convener**, Animal house and Member, Animal ethics Committee, Purchase committee and Several

Committees Department of Zoology, Delhi University 2014 onwards.

**Member, UNESCO South Asia and South East Asia Science and Technology Policy Forum, 2010.**

**Member, Faculty Promotion committee, Medical School, Virginia Commonwealth University, USA, 2008.**

**INDO-US Visiting Scientist, Medical School, Virginia Commonwealth University, USA, DBT-INDO-US-CRHR Grant (2005-2008), June-July 2007.**

**Visiting Scientist, INDO-US project, Frontiers in Reproduction, 10<sup>th</sup> Annual Symposium Woods Hole Oceanographic Institution Clark Laboratory 507-Quissett Campus, Woods Hole, Massachusetts, USA, June 14-16, 2007.**

**International grants for conference invited speeches (Travel and stay) from Modena, Italy: NUS, Singapore, Royan Institute Tehran; Doha Qatar and France.**

**Member, 9th Indo-US Contraception and Reproductive Health Research Meeting, New Delhi, Sept. 19-21, 2007.**

**Pool-Scientist award, Council of Scientific and Industrial Research (CSIR), 1999.**

**DST young Scientist Award, 1997.**

**Scientist Member, 9th Indian Antarctic Expedition, Research project on human health in Antarctica, Nov. 1989-March 31, 1990.**

**CSIR and UGC JRF and SRF Qualified, 1985; Merit Awards during MSc Zoology 1983 and 1984.**

### **OUTREACH PROGRAMS: Health: Hormonal Imbalance, Cancer, PCOD/PCOS and Environment > 30**

**Organizer, Skill enhancement programme and hand-on Training for Non-teaching staff, Department of Zoology, University of Delhi, Jan 06-08, 2026.**

**Organiser, Faculty Development Program (FDP) on UG Research: A Way Forward for Skill Development UGCF-NEP-2020, Venue: Auditorium and Computational Biology Laboratory (Hand on for Soft-Research tools), Department of Zoology, University of Delhi, July 22-24, 2025**

**Organiser, Cultural exchange and Hindi Recitation by M.Sc. students, Sept. 26, Venue: Auditorium Department of Zoology, University of Delhi, July 22-24, 2025**

**Vice-Chancellor Internship program (3 Students from Life Sciences, Anthropology and Commerce joined for 2 months) on Zoological Museum restoration, Website development and Management of Departmental activities from June-July 2025**

#### **Health Awareness programs in 2025**

Invited lecture on **Lifestyle choices and Hormones: Direct impact on Neural Pathways and Mental well-being**, Deshbandhu College, University of Delhi on **March 20, 2025**.

Invited lecture on **Biological Structure, Gender and Reproductive Health**, Hindi Department, University of Delhi on **Sept 10, 2025**.

Nivedita memorial Lecture on **Hormones, Gender and Reproductive Health**: Inaugural Lecture of IQAC, Gargi College, University of Delhi on **Sept 25, 2025**

Invited Lecture and Health Awareness program under National Conference on Technological **Advancements in Adolescent Health Research**, organized under the auspices of the Indian Society for the Study of Reproduction & Fertility (ISSRF) lecture entitled "**Impact of Endocrine Disrupting Chemicals on Adolescent Health**, held at **Senior School BBVP, BITS Campus, Pilani, Rajasthan, Sept. 28-29, 2024.**

Invited lecture on “**Reproductive Hormones: Environmental Implications in cardiovascular and mental well-being**” under the aegis of Science Foundation Committee and DBT Star College Program in **Deen Dayal Upadhyaya College**, University of Delhi on **Sept 20, 2023**

Invited lecture on “**Rediscovering your Reproductive System: Linkages with your Mental and Physical health**” in Session on **HERwellbeing** organised by Albatross, The Zoological Society in association with the Research and Development Cell, **Gargi College** on **Feb 17, 2023**.

**Invited Lecture and Health Awareness program** under the auspices of the Indian Society for the Study of Reproduction and Fertility (ISSRF), lecture entitled “**Reproductive and Mental health issues in Adolescent Girls**” **National Conference on Lifestyle Diseases – A Matter of Concern to Adolescents, Senior School BBVP, BITS Campus, Pilani, Rajasthan, Sept.17-18 2022.**

**Undergraduate internship program** on Assessment of Deteriorating Reproductive health in Indian female population in the age group of 15-40 years, with 2 interns selected are from **Delhi College of Engineering**, Delhi and University of Delhi, **2021**.

Webinar on **Reproductive health in the New Era: Challenges of the Modern World**, organized by **Sri Venkateswara College**, University of Delhi, Delhi, **June 26, 2021**.

Webinar on **Environmental contributions to subfertility/Infertility in women with PCOS**, organized by **Indian Fertility Society (IFS), March 15, 2021**.

Webinar: on **How Corona Virus hacks human physiology?** One day National Webinar on Emerging Respiratory Viruses-Covid-19 and Influenza, Organized by **University of Kashmir and Academy of Ecosystems**, Kashmir on **Oct 5, 2020**.

Webinar on **COVID-19 Virus and Human Biology**, One day National Webinar on Adolescent Health During COVID-19 Pandemic, organised by Indian Society for the Study of Reproduction and Fertility (ISSRF), **Sept 19. 2020**.

**Invited Webinar on Covid-19 Pandemic: Susceptibility and Prevention**, organized by Swami Shraddhanand College, University of Delhi, **Delhi, May 21, 2020**.

**Societal Science program on Environmental endocrine threats and health in villages**” training program for M. Sc, students held in collaboration with Department of Social Work (DSSW), 21 students of MSc Final year, Sem IV: Molecular Endocrinology and Reproduction were trained for visits and interactions in 3 villages (Jagatpur, Mukundpur and Jharoda) adopted by University of Delhi under Unnat Bharat Abhiyan of Government of India, Feb.15-March 10, **2020**.

**Awareness lecture and chairperson of a session** during Awareness conference on **Changes in Lifestyle Influencing Adolescent Health (RHA-2019)** at S. S. Jain Subodh P.G. College as Mid-term activity of Indian Society for the Study of Reproduction and Fertility (ISSRF), Jaipur, Sept. 28-29, **2019**.

**Reproductive Health Awareness for Senior School students** of Birla Balika Vidyapeeth, Pilani, 10-11, September **2018** and **Reproductive Health Awareness for Senior School students** of Birla Balika Vidyapeeth, Pilani, **2016**.

**Organized Gynecologist-Student interaction workshop on PCOS/PCOD management at young age**, Auditorium, Department of Zoology, Delhi University, Aug. 12, **2016**.

**Reproductive Health Awareness for Senior School students** of Birla Balika Vidyapeeth, Pilani, September 10 – 11, **2016**.

**Reproductive Health Awareness for University students** in Four girl hostels in University Campus, by Master students specializing in Molecular Endocrinology and Reproduction, Jan-March **2016**

**Reproductive Health Awareness for Senior School students** of G. D. Goenka Public School, Agra,

Nov. 28, 2015.

**International awareness program for "Environmental Threats to Fertility"** during International congress on Embryo Implantation and Pregnancy: Intricacies and strategies for its success, National Institute of Immunology, March 9-11, 2015.

**Mentor, Daulat Ram College**, Environmental causes of PCOS/PCOD: Management of Reproductive Health in young women **student health camp and Symposium, 2015-2016**.

**Miranda House**: Endocrine Disruptors, Obesity and Infertility, Feb. 10, 2015.

**Khalsa College**: Cancer Stem Cells and Breast Cancer, Feb. 25, 2015.

**Daulat Ram College**, PCOS: Life Style, Obesity and Infertility, April 11, 2015.

**Hazards of Plastics and Reproductive health**, Delhi University Annual Festival, 2014-2015.

## **MEMBERSHIP OF PROFESSIONAL/ACADEMIC BODIES, SOCIETIES**

1. American Association for Cancer Research, USA.
2. American Society for Biochemistry and Molecular Biology (ASBMB), USA.
3. Federation for American Societies for Experimental Biology (FASEB), USA.
4. Indian Society for the Study of Reproduction and Fertility (ISSRF).
5. Society for Cell Biology, India.
6. Society for Biochemists of India.
7. Fertility Society of India.
8. Society for Reproductive Biology and Comparative Endocrinology.

## **INTERNATIONAL CONFERENCES >27 in 10 Yrs**

**Invited Speaker**, lecture entitled **Polycystic Ovary Syndrome (PCOS/PCOD): Genetic vs Epigenetic Etiology**, International Conference on Recent Trends in Biosciences and Technology (ICRTBT), **Galgotias University, Uttar Pradesh**, Aug. 25, 2025.

Prof. Pera Govindarajulu Gold Medal Oration by SRBCE **Gold Medal Oration, SRBCE 2023**: entitled **"Environmental Oestrogens, Immunomodulation and Fertility"** International Conference on Reproductive Sciences and Molecular Medicine: Innovations in Therapeutics and Technologies 2024 and 41st SRBCE Annual meeting, organised by University of Delhi, and Society of Reproductive Biology and Comparative endocrinology (SRBCE), at Delhi University, November 15-17, 2024

**Invited Speaker**, lecture entitled **Role of the FSH and LH in Fertility and Ovarian Cyst Development**, Scientific Council meeting 2024, Le Studium: Loire Valley Institute of Advanced Studies, New Orleans, **France, June 5, 2024**.

**Chairperson, Prof. S. S. Guraya Memorial Oration, and Invited Lecture on "Role of SRC family of non-receptor tyrosine kinases in female fertility"**, and International Conference on Reproductive Health Science with Emphasis on "Innovation, Integration, and Implementation" & and 34th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF-2024) at IICT Auditorium Indian Institute of Chemical Technology, Hyderabad, Telangana-500007 under the auspices

of the Indian Society for the Study of Reproduction and Fertility (ISSRF), **Feb 23 to 25, 2024**

**Invited Speaker**, lecture entitled “**Gonadotropin receptor cross-talk and altered functions in PCOS**” International conference on Molecular Medicine, Reproduction and Endocrinology, on Sept 14, 2023 organised School of Science, Navrachana University, and Society of Reproductive Biology and Comparative endocrinology (SRBCE), at **Vadodara, Ahmedabad, Sept 14-16, 2023**

**Invited Speaker**, “**Differential modulation of Insulin receptor substrates (IRS-1 and IRS-2) by gonadotropins in physiopathology of PCOS**”, International conference on Reproductive health with emphasis on “Innovations in reproductive sciences and technologies: Hope, risk and responsibilities” under the auspices of the Indian Society for the Study of Reproduction and Fertility (ISSRF), **Ravenshaw University, Cuttack, Odisha, Feb.24-26, 2023**.

**Le Studium Fellow Attendee, International Multidisciplinary Conference**, “Understanding, Preserving and Improving the world around us, **Orleans, France, 28-30, June, 2022**.

**Invited Speaker** “**Cross-talk between FSH and LH: Implications for metabolic disorder in women with PCOS.**” International Conference on ‘Gonadotropins in the Physiopathology: Current advances in the Mechanisms of Action’ Virtual mode, organized by **Le Studium, France, Sept 14, 2022**.

**Invited Speaker (France)**, Gonadotropin Imbalance and FSH-signaling defects in granulosa cells and Physiopathology of PCOS at BIOS "Biologie des Systèmes de Signalisation des RCPG" Department for Physiology of Reproduction, INRAE, Val de Loire, Nouzilly, **France, June 20, 2022**.

**Invited Lecture**, “Selective defects in the signaling mechanisms of gonadotropins and metabolic disorders in PCOS” International Conference on “Reproductive Biology, Comparative Endocrinology & Development” CRBCED and SRBCE conference 2022 at **CSIR-CCMB, Hyderabad Sept. 14-16, 2022**.

**Invited lecture** Impact of high LH levels on Glucose uptake and storage in granulosa cells, implications in the pathogenesis of polycystic ovary syndrome, 32nd Annual Meeting of the ISSRF along with the International Conference on Reproductive Healthcare, **Rajasthan Feb. 11-13, 2022**

**Invited lecture** on Sex differences in the incidence and severity of Covid-19, in International conference on challenges and strategies in reproductive and environmental health with special reference to Covid-19 pandemic, **Webinar organized by ISSRF and University of Delhi. Feb. 19-21, 2021**

**Invited Speaker**, Elevated Follicle stimulating hormone in post-menopausal women and its impact on the pathogenesis of ovarian cancer, World Congress on Reproductive Health with Emphasis on Reproductive Cancers, Infertility and Assisted Reproduction at **Shri Mata Vaishno Devi University, Katra, Jammu, J&K, Feb. 14-16, 2020.**

**Chairperson**, Selected topics in cancer awareness in India, **World Cancer Congress, Jaipur Feb. 3-5, 2020.**

**Prof. L. S. Ramaswami Memorial Oration and Gold medal, 'Gonadotropin imbalance and Metabolic defects in Polycystic ovary syndrome'** Global Conference on Reproductive Health with focus on Occupational, Environmental and Lifestyle Factors (ISSRF-2019), at JNU Convention Center, **Jawaharlal Nehru University, New Delhi Feb. 22, 2019.**

**Invited speaker** Environmental threats to Reproductive Health: Increasing PCOS/PCOD in young women in India. International Conference on Changing Environment: Understanding the Emerging Challenges and their Management Strategies with Pre-conference Workshop “**The Foldscope**” Venue: Conference Centre, University of Delhi, April 11-12, 2019.

**Invited Speaker**, Polycystic Ovary Syndrome (PCOS): Gonadotropin imbalance and Metabolic disorder, Biology and Bioinformatics of Signaling Systems, **Physiologie de la Reproduction, INRA -**

Centre Val de Loire, 37380 **Nouzilly, Tours, France**, July 4, 2018.

**Chairperson and Panelist**, Selected topics in cancer awareness in India, **World Cancer Congress 2018**, Jaipur Feb. 3-5, 2018.

**Invited Speaker**, *Novel FSH signaling mechanisms in PCOS*, International Conference on Gonadotropins and Receptors 12th International Symposium on GnRH, The hypothalamic-pituitary-gonadal axis in cancer and reproduction, ICGR-IV, **Modena, Italy** Sept 20-23, 2017.

**Invited Speaker**, *Environment, Lifestyle and Reproductive Health Challenges in Young Women*, International Conference on “Reproductive Health with Emphasis on strategies for infertility, assisted reproduction and Family Planning held at AIIMS, New Delhi, Jan 23-25, 2017.

**Paper Presentation on Role of FSH in Metabolic Disturbances in Polycystic Ovary Syndrome: a partial defect in FSHR (GPCR) activation in PCOS granulosa cells**, **41st European Symposium on Hormones and Cell Regulation**: GPCR dynamics for fine tuning of physiological processes, **Monte Ste Odile, Alsace, France**, Oct. 5-8, 2016.

**Invited Speaker**, Role of FSH in Metabolic Disturbances in Polycystic Ovary Syndrome, **International congress on Reproductive Biomedicine, Royan institute, Tehran, Iran**, Aug 31-Sept. 2, 2016.

**Invited Speaker**, Molecular Defects in Polycystic Ovary Syndrome (PCOS) and Prediction of Infertility in PCOS Patients, **International congress on Reproductive Biomedicine, Royan institute, Tehran, Iran**, Aug 31-Sept. 2, 2016.

**Invited Speaker**, Defects in the cross-talk between FSH and IGF-1/insulin signaling pathways and infertility in PCOS patients, International Conference on “Reproductive Health with Emphasis on Occupational, Environmental and Lifestyle Factors held at Ahmadabad, 18 - 20 Feb. 2016.

**Invited member**, “**Global Biotechnology Summit**” on 5th& 6th February 2016 organized by Department of Biotechnology, Ministry of Science and Technology, at Vigyan Bhawan, New Delhi.

**Invited Speaker**, "Metabolic Disturbance in Polycystic Ovary Syndrome: Susceptibility Genes, Life Style and Environment", Department of Anatomy, **Yong Loo Lin School of Medicine (NUH), National University of Singapore (NUS), Singapore**, Jan 28-30, 2015.

**Invited speaker**, “Proteomic profiling of Lung Cancer Specific Plasma Proteins: Novel diagnostic strategy for environmentally exposed Male Lung Cancer Patients” **6th International conference on Environmental mutagens in Human Populations, Doha, Qatar**, Mar. 26-29, 2012.

Attended Symposium on Obesity, diabetes and cardiovascular Disease: concept and challenges at Translational Research Center, **University of Pennsylvania, Philadelphia, USA**, 2012.

**Invited speaker**, “PI3K/AKT dependent and independent pathways in the Regulation of Glycogenesis by Follicle Stimulating Hormone in Granulosa Cells” International Conference on Reproductive Health with Emphasis on Strategies for Family Planning ICMR, New Delhi, Feb. 19 -21, 2012.

### **NATIONAL CONFERENCES > 30 in 10 Yrs**

Invited Speaker Lecture entitled **Reproductive Hormones and Gender-based brain differences**, Anthropology Department, University of Delhi, Delhi, Aug 21, 2025.

Invited Speaker Lecture entitled “**PCOS/PCOD: A threat to reproductive health, mental and physical wellbeing in young women**”, organized by ISSRF and Department of Zoology, Banaras Hindu University, **21.09. 2024**.

Invited Speaker, Lecture entitled on “**Bioluminescence Resonance Energy Transfer (BRET)-based imaging of G-protein coupled receptor (GPCR) interactions with insulin receptor substrates (IRS-**

**1 and IRS-2) in living cells** during National Conference on emerging trends in Biotechnology and Food engineering (From 04-05 April, 2024) organized by **Sharda University**, Greater Noida, on **04.04.2024**.

**Invited Speaker** Lecture entitled “**Lifestyle and hormones: A leading science of Subfertility, Infertility and/or Mental disturbances in youth, National Webinar on Modern Lifestyle and Female Reproductive Health** organized by Department of Prasuti Tantra and Department of Zoology, Banaras Hindu University, **03.04. 2024**.

**Invited Speaker** Lecture entitled “**Ethics in Human Research**” during National Webinar on Good Clinical Practice Workshop 18-19 March 2024, organized by Society of Chronomedicine, CCS University Merrut delivered on **19.03.2024**.

**Invited Speaker**, Lecture entitled “**Physiology of Emotions: Environmental Modulation and Current Challenges**”, Miranda House, **20.11.2023**.

**Invited Speaker**, Lecture entitled “**Reproductive hormones and Neuromodulation: Environmental Challenges in Women Empowerment**” Udaipur, **03.11.2023**.

**Invited Speaker**, Lecture entitled “**Modulation of neural pathways: Adverse effects of environmental steroids on Mental and Metabolic health**”, Daulat Ram College, **12.10.2023**.

**Invited Speaker**, Lecture entitled “**Brain and Thoughts of Youth: Influence of environmental steroids on male as well female neural networks**” Maharaja Agrasen College, **11.10.2023**.

**Invited Speaker**, Lecture entitled “**Reproductive Hormones: Environmental Implications in cardiovascular and mental well-being**”, Deen Dayal Upadhyaya College (DDU), **20.09.2023**.

**Invited Speaker**, Lecture entitled “**Rediscovering your Reproductive System: Linkages with your Mental and Physical health**”, Gargi College, **17.02.2023**.

**Invited Speaker**, Lecture entitled “**Connections between Reproductive hormones, Mental and Physical well-being, that you must know!**” Daulat Ram College, **08.02.2023**.

**Resource person/Speaker, National Science Academies (INSA)'** Lecture workshop on "Biotechnology- Principles and Practice", August 10 -11 2022. Lecture entitled “Recombinant DNA technology- therapeutic proteins”, at Sri Sankara Arts and science College (University of Madras), Enathur, Kanchipuram-631561, **Aug 11, 2022**.

**Resource Person/Speaker, Science Academies (INSA)’ Virtual Lecture Workshop** entitled ‘The Biological and Chemical Basis of Biotechnology, lecture entitled “Cloning and Expression of Therapeutic Protein in Prokaryotic and Eukaryotic Systems, TSWRDCW Bhupalpally, Aurora’s degree College, Telangana University, Hyderabad, **March 24-25, 2022**.

**Resource person/Speaker, Science Academies’ (INSA) Virtual Lecture Workshop** on Proteins-Structure, Function and evolution, entitled “Molecular recognition in signal transduction with the example of Glycoprotein Hormone, Follicle Stimulating hormone (FSH)-cognate Receptor interaction” Telangana University, **Feb 23-24, 2022**.

**Invited speaker, Biased signaling of FSHR in granulosa cells and physiopathology of PCOS**, National Conference on Reproduction and Endocrinology, 30<sup>th</sup> December- 2021, organized by SRBCE at Mysore University from Dec. 28-30, **2021**.

**Invited Speaker, Genetics/Epigenetics of Recurrent Implantation failure in women with PCOS** in a Webinar organized by Indian Fertility Society (IFS) on Aug. 6, **2021**.

**Invited Speaker, Environmental contributions to subfertility in women with PCOS** in a Webinar conference on Environmental Toxins: Where are we heading? organized by Indian Fertility Society

(IFS), March 15, 2021.

Webinar on **COVID-19 Virus and Human Biology**, One day National Webinar on Adolescent Health During COVID-19 Pandemic, organised by Indian Society for the Study of Reproduction and Fertility (ISSRF), Sept 19. 2020.

Webinar: on **How Corona Virus hacks human physiology?** One day National Webinar on Emerging Respiratory Viruses-Covid-19 and Influenza, Organized by University of Kashmir and Academy of Ecoscience, Kashmir on **Oct 5, 2020.**

**Invited Speaker & Chairperson, Environmental Toxins and Environmental toxins and Health**  
**“How Plastics cause hormonal imbalance in Children**, National Seminar on Reproductive Health Awareness for Senior School students of Birla Balika Vidyapeeth, BITS Campus, Pilani, Rajasthan, Sept. 15-16, 2018.

**Human ethics committee considerations for research on human subjects, Acharya Narendra Dev College**, University of Delhi, Govind Puri, Kalkaji, New Delhi, Delhi 110019, February 21, 2018.

**Plenary Lecture, Molecular defects in Human PCOS Ovary**, 2nd JK Medical Science Congress 2017 1st Annual Conference of M P PCOS Society Society, Srinagar, J&K, May 10-13, 2017.

**Metabolic defects in Granulosa cells of PCOS Women**, 2nd JK Medical Science Congress 2017 1st Annual Conference of M P PCOS Society, Srinagar, J&K, May 10-13, 2017.

**Environmental Pollutants and Health Hazards**, Speaker and Organizer, National Symposium & Awareness Program on “Lifestyle and Reproductive Health Challenges, Daulat Ram College, Delhi University, Delhi, March 29, 2017.

**Polycystic ovary syndrome (PCOS): Is it a genetic or environmental disorder?** National Symposium of communicable and non-communicable disorders, Punjab University, Chandigarh Feb 21, 2017.

**Endocrine Disruptors, PCOS and Reproductive Health: “Hazards of Plastics” & Chairperson**, National Seminar on Reproductive Health Awareness for Senior School students of Birla Balika Vidyapeeth, BITS Campus, Pilani, Rajasthan, **Sept. 10 – 11, 2016.**

**Endocrine Disrupters & Reproductive Health**, 2nd National Seminar on Reproductive Health Awareness for Senior School students of G. D. Goenka Public School, **Agra. 28 Nov, 2015.**

**Environmental causes of PCOS/PCOD: Management of Reproductive Health and Fertility in young women** Conference on Reproductive Health Challenges: Issues & Remedies (NCRHC-2015), Jaipur, **Sept. 11-13, 2015.**

Metabolic Defects in Polycystic Ovary Syndrome: Susceptibility Genes and Infertility", Sixth Symposium on "Frontiers in Molecular Medicine", Organized by Special Centre for Molecular Medicine, Jawaharlal Nehru University (JNU), **New Delhi, Feb. 13-14, 2015.**

Molecular defects in Polycystic Ovary Syndrome: Susceptibility Genes, Life Style and Environment" National Symposium on changing environment and lifestyle: Impact on Reproductive Health (NSCEL-2013), **All India Institute of Medical Sciences (AIIMS), New Delhi, Nov 19-21, 2013.**

## **RESOURCE PERSON, TEACHER TRAINING LECTURES IN OTHER UNIVERSITIES**

**Academic Staff College, University of Kashmir, J&K 2015**, Lecture 1. "Environmental Endocrine Disruption: Management of Reproductive Health and Infertility", Refresher course for University and College teachers, May 14, 2015;

Lecture 2. "Molecular aspects of Polycystic Ovary Syndrome: Causes, Diagnosis and Prevention", Refresher course for University and College teachers, May 15, 2015.

**Botany Department, University of Delhi**, "Current Trends in Environmental Neuroendocrine Disruptors, Obesity and Infertility", Refresher Course for University teachers, Dec 11, 2014.

**Ambedkar Centre for Biomedical Research (ACBR)** Microarray: High-Throughput analysis of Gene Expression, 3rd workshop on "Bioinformatics and Molecular Modeling in Drug Design", at Bioinformatics Facility (DBT), 2012.

**Reviewer:** Molecular and Cellular Endocrinology, Biology of Reproduction, Reproductive Biology, Scientific Reports, Indian Journal of Clinical Biochemistry, Journal of Reproductive Immunology- Elsevier Publication, Indian Journal of Experimental Biology, Journal of cell and Animal Biology (International), Projects: DBT, ICMR.

### **Research Awards to Research Students**

**Best Poster Award, 2019**, Akanksha Sharma, Awareness conference on Changes in Lifestyle Influencing Adolescent Health (RHA-2019) at S. S. Jain Subodh P.G. College as Mid-term activity of Indian Society for the Study of Reproduction and Fertility (ISSRF), Jaipur, Sept. 28-29, 2019.

**Best Poster Award, 2013**, G. Anjali and Rita Singh in National Symposium on changing environment and lifestyle: Impact on Reproductive Health (NSCEL-2013), All India Institute of Medical Sciences, New Delhi, Nov 19-21, 2013.

### **SELECTED PUBLICATIONS**

1. **Singh R**, Pathak A, Yadav S, Aparupa A. **Oogenesis, Physiology of ovulation and Infertility** in book entitled "**INFERTILITY From Basics to Advanced Reproductive Technology**", Evangel publications (In association with FOGSI), ISBN: 9788197821660, **Medical Book Editors: Roya Rozati, R S Sharma, Neena Malhotra** Chapter from 1-7, Jan 22, 2025.
2. Aparupa, A., & **Singh, R**. **Adipose Tissue Dysfunction in PCOS**. Journal of Endocrinology and Reproduction (JoER), 2024, 27(4), 241–251. <https://doi.org/10.18311/jer/2023/34082>
3. **Singh R**, Kaur S, Yadav S, Bhatia S. **Gonadotropins as pharmacological agents in assisted reproductive technology and polycystic ovary syndrome**. Trends Endocrinol Metab. (TEM, Cell Press) 2023;34(4):194-215. doi:10.1016/j.tem.2023.02.002. **IF: 11.4**
4. **Singh R**, & Pathak A **Gonadotropin Receptor Cross-Talk and Altered Functions in Gonadal and Non-Gonadal Tissues**. Journal of Endocrinology and Reproduction (JoER), 2023, 27(3), 169–177. <https://doi.org/10.18311/jer/2023/34991>
5. **Rita Singh**, Suman Yadav, Smita Bhatia. Linking Microplastics exposure to birth outcomes, development and human reproductive ailments. Newsletter of Indian Society for the Study of Reproduction and Fertility (ISSRF) on Environmental Impacts on Reproductive Health, ISSRF News Letter 2023:31:38-42. (ISSN: 2395-2806).
6. Chahal N, Geethadevi A, Kaur S, Lakra R, Nagendra A, Shrivastav TG, De Pascali F, Reiter E, Crépieux P, Devi MG, Malhotra N, Muralidhar K, **Singh R**. **Direct impact of gonadotropins on glucose uptake and storage in preovulatory granulosa cells: Implications in the pathogenesis of polycystic ovary syndrome**. Metabolism: Clinical and Experimental. (Elsevier) 2021;115:154458. doi:10.1016/j.metabol. **IF: 13.934**.
7. Surleen Kaur, Irsad Ahamad, M. Gouri Devi, **Rita Singh**. Effect of body mass index on the biochemical outcome after fresh embryo transfer in women with and without polycystic ovary syndrome (PCOS). **J. Pharmaceutical Negative Results (JPNR)** (Wolters Kluwer Medknow Publications, Open access, Scopus ISSN: 0976-9234, 2229-7723), 2021;12(1):74-79. doi:

8. Suman Yadav, Irsad Ahamad, Smita Bhatia, M. Gouri Devi, **Rita Singh**. Menstrual Irregularities in Adolescent Girls and Correlation with the Extent of Exposure to Plastics: A Case-Control Study. **Int. J Cur. Res. and Rev.** (IJCRR, Open access Medical Journal, Creative Commons Attribution-NonCommercial 4.0 International License, Scopus) 2020;12(24):229-235. Doi:10.31782/IJCRR.2020.122442.
9. **Rita S**, Smita B, M. Gouri D. Neuroendocrine Defects in Polycystic Ovary Syndrome (PCOS): Different Phenotypes based on the Levels of Gonadotropins (FSH and LH), and Body Mass Index. **Int J Cur Res Rev.** (IJCRR, Open access Medical Journal, Creative Commons Attribution-NonCommercial 4.0 International License, Scopus), 11(12), 2019, 29-34, <http://dx.doi.org/10.31782/IJCRR.2019.11126>
10. Kaur S, Archer KJ, Devi MG, Kriplani A, Strauss JF 3rd, **Singh R**. **Differential gene expression in granulosa cells from polycystic ovary syndrome patients with and without insulin resistance: identification of susceptibility gene sets through network analysis.** (JCEM, Oxford University Press, Endocrine Society Journal). 2012;97:E2016-21. **IF: 6.134**. doi:10.1210/jc.2011-3441.
11. Anjali G, Kaur S, Lakra R, Taneja J, Kalsey GS, Nagendra A, Shrivastav TG, Devi MG, Malhotra N, Kriplani A, **Singh R**. **FSH stimulates IRS-2 expression in human granulosa cells through cAMP/SP1, an inoperative FSH action in PCOS patients.** Cell Signalling (Elsevier) 2015;27(12):2452-66. doi: 10.1016/j.cellsig.2015.09.011. **IF: 4.315**
12. Kaur S, Anjali G, Bhardwaj P, Taneja J, **Singh R**. **Data in support of FSH induction of IRS-2 in human granulosa cells: Mapping the transcription factor binding sites in human IRS-2 promoter.** Data In-Brief. (Elsevier) 2015;6:162-7. doi:10.1016/j.dib.2015.12.001. **IF: 1.0**
13. Minhas V, Kumar R, Moitra T, **Singh R**, Panda AK, Gupta SK. Immunogenicity and contraceptive efficacy of recombinant fusion protein encompassing Sp17 spermatozoa specific protein and GnRH: Relevance of adjuvants and micro-particles based delivery to minimize number of injections" American **Journal of Reproductive Immunology** (Wiley-Blackwell), 83(4): e13218. 2019. <https://doi.org/10.1111/aji.13218> **IF: 3.777**
14. V Minhas, A Shrestha, N Wadhwa, **Rita Singh**, SK Gupta. Novel Sperm and Gonadotropin-releasing Hormone-based Recombinant Fusion Protein: Achievement of 100% Contraceptive Efficacy by Co-immunization of Male and Female Mice. **Molecular Reproduction and Development.** 2016;83:1048-1059,. doi: 10.1002/mrd.22743. **IF: 2.609**
15. **Singh R**, Mehul D, Singh G, Kumar R, Bhatia S. Gender-based differences in coronavirus disease 2019: Hormonal influencers of severe acute respiratory syndrome coronavirus receptors and immune responses. **Journal of Reproduction Healthcare and Medicine (JRHCm) JRHM**, Scientific Scholar, India and US ISSN (Print): 2768-1106, ISSN(Online): 2768-1114). 2021;2 (17):1-10. Doi:10.25259/JRHM\_10\_2021.
16. **Rita Singh**, Priya Bhardwaj and Shikha Sagar, Polycystic ovary syndrome: Is it a consequence of endocrine disruption by BPA? Newsletter of Indian Society for the Study of Reproduction and Fertility (ISSRF) on Environmental Impacts on Reproductive Health, ISSRF News Letter 2016;18:85-88. (ISSN 2395-2806).
17. **Rita Singh** "Polycystic Ovary Syndrome: Susceptibility Genes, Life Style and Environment" Newsletter of Indian Society for the Study of Reproduction and Fertility (ISSRF) on Challenges of Reproductive Health due to Influence of Changing Environment & Lifestyle, Review, ISSRF

18. Shrivastav TG, Chaube SK, Kariya KP, **Singh R**, Kumar D, Jain P, Karwar S, Uyake J, Deshmukh B. Influence of different length linker containing DHEA-7-cmo-enzyme conjugates on sensitivity and specificity of DHEA-3-hs-antibody. *J Immunoassay Immunochem*. 2012;33(1):1-17. doi:10.1080/15321819.2011.591475.
19. Shrivastav TG, Chaube SK, Kariya KP, Kumar D, **Singh R**. Antigen heterologous enzyme linked immunosorbent assay for the measurement of DHEA in serum. *J Immunoassay Immunochem*. 2011;32(4):326-41. doi:10.1080/15321819.2011.570117.
20. Shrivastav TG, Chaube SK, Kariya KP, Rangari K, **Singh R**. Development of an antigen heterologous enzyme linked immunosorbent assay for measurement of corticosterone in rat serum. *J Immunoassay Immunochem*. 2011;32(3):244-57. doi:10.1080/15321819.2011.559391.
21. Shrivastav TG, Chaube SK, Kariya KP, **Singh R**, Kumar D, Pandit D, Ujawane P, Kumari P, Pandey B. Influence of different length linker containing DHEA-7-CMO-enzyme conjugates on sensitivity and specificity of DHEA-17-CMO-antibody. *J Immunoassay Immunochem*. 2011;32(4):269-83. doi: 10.1080/15321819.2011.560325.
22. Shrivastav TG, Chaube SK, Kariya KP, Kumari P, **Singh R**, Kumar D. Influence of different homologous and heterologous combinations of antibodies and enzyme conjugates of dehydroepiandrosterone on the sensitivity and specificity of DHEA ELISA. *J Immunoassay Immunochem*. 2011;32(2):114-27. doi: 10.1080/15321819.2010.543221.
23. **Singh R** and M. Gouri Devi, The Susceptibility gene expression profiles in granulosa cells of women with Polycystic Ovary syndrome, *Perspectives in Cytology and Genetics*, 2011;XV:211-214.
24. **Singh, R** “*Reproductive Health Concerns*: The impact of Environmental Toxicants on Reproductive health of women/ men”. Proceedings of World conclave of Scientists: on Regional Co-operation in Science and Technology: Opportunities and Challenges in the context of Globalization. UNESCO South Asia and South East Asia Science and Technology Policy Forum at INSA, New Delhi, Book edited by Mohsin U Khan (website: [www.Zaheerfoundation.com](http://www.Zaheerfoundation.com)), published by CSIR National Institute of Science communication and Information Resources, New Delhi, 61-74, 2010.
25. T.G. Shrivastav, S.K. Chaube, Charu, K. Rangari, K.P. Kariya, **Singh R** Enzyme linked immunosorbent assay for milk progesterone. *J Immunoassay and Immunochem*. 2010;31: 301-313.
26. T. G. Shrivastav, S. K. Chaube, K. P. Kariya, S. Bhanot, **Singh R**. Development of heterologous Enzyme linked immunosorbent assay for Dehydroepiandrosterone in serum. *J Immunoassay and Immunochem*. 2010;31:266-278.
27. J. Taneja, and **Singh R**, Regulation of Insulin receptor and its substrates by Follicle Stimulating Hormone in Granulosa cells. *Reproduction, Fertility and Development (Supplement)* 2010;20:86-86.
28. M.J. Hossain, R. Korde, P.K. Singh, S. Kanodia, R. Ranjan, G. Ram, G.S. Kalsey, **Singh R** and P. Malhotra, *Plasmodium falciparum* Tudor staphylococcal Nuclease interacting proteins suggest its role in nuclear as well as splicing processes. *Gene* 2010;468:48-57.
29. **Singh R and M. Gouri Devi**, Role of LH in the etiology of PCOS: Intra-ovarian defect in human polycystic Ovary Syndrome patients without peripheral Insulin resistance. Chapter 31, pg. 355-365, in Book entitled Gonadal and Nongonadal Actions of Gonadotropins, Nervosa

publishing house Pvt Ltd. (ISBN 978-81-7319-983-7), no. 355-365, 2009.

30. R. Korde, A. Bhardwaj, Rita Singh, A. Srivastava, V.S. Chauhan, R.K. Bhatnagar and P. Malhotra, A pro-domain Peptide of Plasmodium falciparum cysteine protease (falcipain-2) inhibits malaria parasite development. *Journal Medicinal Chemistry* 51, 3116-3123, 2008.
31. Rita Singh, Biotechnology Chakravyuha: Biotechnology education in India *Current Science* 93 (7) 889, 2007.
32. Rita Singh, Trophoblast Differentiation: Towards understanding the regulatory mechanisms. Department of Biochemistry, AIIMS, New Delhi. Review, *Proceedings of Indian National Academy of Sciences (PINSA)* B68 No 6 pp 547-558, 2002.
33. Rita Singh, Interaction of Guanylyl Cyclase C with the SH3 domain of Src tyrosine kinase, Yet another mechanism for desensitization. *J. Biol. Chem.* 278, 24342-24349, 2003.
34. Shivakrupa, Rita Singh, G. Swarup, Identification of a Novel Splice Variant of C3G which shows Tissue Specific Expression. *DNA and Cell Biology* 18: 701-708, 1999.
35. Rita Singh, Antifertility potential of 2-[piperidinoethoxy phenyl]-3-[4-methoxy phenyl]-2H benzo pyran: a potent antioestrogenic compound in rats. *J Reproduction & Fertility* 106:49-53, 1996.
36. Rita Singh, The impact of Antarctic environment on the reproductive physiology and immune system. IX Antarctic Expedition: Technical Publication No. 6, 269-273, DOD, 1994.
37. Rita Kohli/Singh, N. Chadha and K. Muralidhar Are sheep and buffalo prolactinssulfated? *Biochem Biophys Res Commun (BBRC)*. 149:515-522, 1987.
38. Rita Kohli/Singh, N. Chadha and K. Muralidhar Presence of tyrosine-o-sulfate in sheep pituitary prolactin. *FEBS Letters*, 242:139-143, 1988.
39. N. Chadha, Rita Kohli/Singh, G.L. Kumari and K. Muralidhar Physico-chemical characterisation of buffalo prolactin. *Mol. Cell Biochem.* 105:61-71, 1991.
40. Rita Kohli/Singh and K. Muralidhar Effect of Gn-RH on sulfation on lutropin: A potential bioassay for Gn-RH. *Endocrinol. Jap.* (ISSN: 0013-7219) 37 (1):31-41, 1990.
41. K. Muralidhar, N. Chadha and Rita Kohli/Singh, Purification and characterization of prolactin from sheep and buffalo pituitaries. *J. Bioscience*, 13:201-214, 1988.
42. Rita Kohli/Singh, N. Chadha and K. Muralidhar Does sulphate incorporation into pituitary proteins have any physiological significance? In: *Neuroendocrine Regulation in Fertility Control*” (Eds. Vinod Singh and K. Muralidhar). Biotechnology Series Vol. 1, NEHU Publication, Shillong, 1989.
43. N. Chadha, Rita Kohli/Singh and K. Muralidhar Use of the discarded “acid pellet” for the purification of prolactin from sheep and buffalo pituitaries. *IRCH Medical Science Research (Biochemistry)*. 15:711-71, 1987.
44. N. Chadha, Rita Kohli/Singh, K. Muralidhar. The effect of hypothyroid status on rat ovarian response to PMSG. *J. Reprod. Biol. Comp. Endo.* 5:19-24, 1985.

Prof. Rita Singh