

CURRICULUM VITAE

NAME: Dr. Sarwat Jahan

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STATUS: Married

NATIONALITY: Pakistani

ACADEMIC QUALIFICATIONS:

Degree	University	Subjects	Year
Post Doc	Quaid-i-Azam University, Pakistan.	Neuroendocrinology/Reproductive physiology	2005-2006
Ph.D	Quaid-i-Azam University, Pakistan.	Neuroendocrinology/Reproductive physiology	2000
M.Phil	Quaid-i-Azam University, Pakistan.	Reproductive physiology	1990
CPGS	Cmbridge university, UK.	Physiology	1991
M.Sc.	Quaid-i-Azam University, Pakistan.	Zoology	1987
B.Sc.	Punjab University, Pakistan	Zoology, Botany, chemistry	1985

Title of theses

PhD (Neuroendocrinology /Reproductive Physiology):

Neuroendocrine regulation of Prolactin secretion in the female rhesus monkey in relation to gonadal status-Involvement of excitatory amino acids.

**MPhil:
(Reproductive Physiology)**

Possible modulation of Prolactin secretion by Testosterone in the male rhesus monkeys.

**Post Graduate
study in Natural sciences:
(Physiology).**

Studies on Neuropeptide Y receptors.

TEACHING AND RESEARCH EXPERIENCE.

- Currently Associate professor in the Department of Animal Sciences, Quaid-i-Azam University, Islamabad.
- I was working as **Post-Doctoral Research and Teaching fellow** in the Department of Biological Sciences, Quaid-i-Azam University.
- On research side I am actively engaged in research work on problems related to Reproductive Biology.

PROFESSIONAL EXPERIENCE:

16 years research experience in biomedical sciences (Reproductive Physiology, Neuroendocrinology and Developmental Biology).

Currently	Associate professor of Zoology in Quaid-i-Azam University, Islamabad. At present I am supervising 8 MPhil students and 5 PhD students who are working on different problems related to reproductive health
2005-2006	Post-Doctoral research fellow in Quaid-i-Azam University, Islamabad. Engaged in research work on problem related to reproductive biology and involved in teaching MSc and MPhil students.
2001-05	Actively involved in addressing problems of fertility using reproductive physiology techniques at Fertility Clinic Islamabad.
1994-00	Biological Sciences Laboratories Quaid-i-Azam University Islamabad as a senior research assistant. Research area covered the Neuroendocrine regulation of menstrual cycle using rhesus monkey as a model. This dealt with the determination of hormonal profile using radio-immunoassays (RIA) and enzyme-immunoassays (EIA) techniques.

1992-94	IVF laboratories of Islamabad Private Hospital. This dealt with the determination of hormonal profile, Semen analysis, artificial insemination of sperms and in vitro fertilization.
1990-91	Reproductive Physiology laboratories at Cambridge University. This included the study of Neuropeptide-Y receptors localization using autoradiographic technique.
1988-90	Biological Sciences Laboratories Quaid-i-Azam University – Islamabad as a junior research assistant. Study relates to possible modulation of Prolactin secretion by Testosterone in the male rhesus monkeys.
Since Late 1980s	Various study visits to reproductive physiology laboratories / hospitals of France, Spain, Norway, UAE, Holland, Saudi Arabia etc since late 1980s. This was essentially to study and observe contemporary practices of assisted reproductive techniques and procedures.

International Conferences / Seminars:

- International Summer School University of Oslo, Norway – 1989
- 4th International Reproductive Physiology Conference, Addenbrooke Hospital Cambridge, UK. – 1990
- Physiological Conference, Department of Physiology Cambridge University, UK– 1991
- Thirteenth Pakistan Congress of Zoology, March-1993.
- International Conference on Biology – University of Karachi - 1993
- Fourteenth Pakistan Congress of Zoology- April 1994.
- Fifteenth Pakistan Congress of Zoology- April 15-17, 1995.
- Dubai International Conference for Habitat II: Dubai- November 1995
- Sixteenth Pakistan Congress of Zoology- April 1996.
- Physiological Seminar at Academy of Sciences, Islamabad- 1997
- DAAD seminar on Physiology at Qaid-i-Azam University Islamabad – 1998
- One-day workshop on gender issues and environmental concerns. Fatima Jinnah Women University Rawalpindi- 2005.
- Harmful algal bloom concerns in coastal areas of Pakistan. PINSTIC, COMSTEC, NHM Islamabad- 2005.
- National Seminar on Effects of Pollution on Water Quality and Aquatic Life, held at the National Agricultural Research Centre, Islamabad. 26-27 June, 2007.
- International conference on congenital malformation and inherited disorders in childhood in Pakistan and in Pakistani communities living in Norway held in the Department of Anthropology, Quaid-i-Azam University, Islamabad on 12-13 November, 2007.
- 1st South Asian Conference of Physiological Societies in conjugation with 11th

- Biennial Conference of Pakistan Physiological Society, held at Shifa College of Medicine, Islamabad. November 10-12, 2008.
- 29th Pakistan Congress of Zoology, University of Sindh , Jamshoro. 24-26 Feb.2009.
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- 30th Pakistan Congress of Zoology, University of Agriculture Faisalabad (2-4 Mar, 2010).
- Third National symposium Recent trends in endocrinology reproductive sciences
Obestatin regulates rat testicular androgenesis in vitro Lahore 15-16 May 2010
- Third National symposium Recent trends in endocrinology reproductive sciences
Evaluation of bull semen quality and DNA integrity during cryopreservation with different cryoprotectants. Lahore 15-16 May 2010

Memberships:

- Oxford/Cambridge Alumni Association
- Darwin College, University of Cambridge, UK.
- Member Board of studies, Department of Animal Sciences Quaid-i-Azam University. Islamabad (2006-2009).
- Member Board of studies, Department of Bioinformatics. GC University, Faisalabad (2010).
- Life fellow of the Zoological society of Pakistan.
- Member/convener of M. Sc, M. Phil and Ph. D Departmental Admission Committee.
- Performed duties as Student Advisor.
- Incharge Dramatic Club.
- Council representative of International Neuroendocrine Federation. (INF).

Honours

- Merit scholarship in MSc from Quaid-i-Azam University, Islamabad (1986-87).
- Merit scholarship in MPhil from Quaid-i-Azam University, Islamabad (1988-89).
- Cambridge Commonwealth scholarship from Cambridge University U.K (1990-1991).
- Post Doctorate Fellowship

Hobbies:

- Tennis, Literature, Hiking, Social Welfare

Scientific Publications:

<i>List of Publications in International Journals / NATIONAL</i>					
S. No.	Year	Name of Authors, Journals and Title of Papers	Volume No.	Page No.	IF/Cit (For office use only)
1	1991	Arslan.M, Rizvi.SSR, Jahan.S , Zaidi.P, Shahab.M. Life Sciences ISSN No: 0024-3205 Possible modulation of N-Methyl-D, L-Aspartic acid induced prolactin release by testicular steroid in the adult male Rhesus monkey.	49,	1073-1077	2.451
2	2007	Jahan S. Jalali S. Shami S.A. American Journal of Primatology ISSN No: 0275-2565 Neuroendocrine regulation of Prolactin secretion in adult female rhesus monkey during different phases of menstrual cycle: Role of neuroexcitatory amino acid (NMA).	68	1-12	1.98
3	2008	Arozia Akram, Salman Ahmed Imtiaz and Sarwat Jahan Journal of college of physicians and surgeons of Pakistan Comparision of normal and abnormal sperm parameters on intrauterine insemination pregnancy rate.	06	342-346	0.554
4	2009	Jahan, S. , S. Rasool, M. A. Khan, M. Ahmad, M. Zafar, M. Arshad and A. M. Abbasi. Journal of Medicinal Plant Research. ISSN No: 1996-0875 Antifertility effects of ethanolic seed extract of Abrus precatorius L.on sperm production and DNA integrity in adult male mice	03	809-814	0.879
5	2009	Jahan, S. , N. Saeed, F. Ijlal, M. A. Khan, M. Ahmad, M. Zafar and A. M. Abbasi. Journal of Medicinal Plant Research. ISSN No: 1996-0875 Histomorphological study to evaluate anti-fertility effect of Abrus precatorius L. in adult male mice	03	1021-1028	0.879

6	2010	Arshad Mehmood Abbasi, M A Khan ,Mushtaq Ahmed ,Muhammad Zafar , Sarwat Jahan and Shazia Sultana.Journal of Ethno pharmacology. ISSN No: 0378-8741 Ethnopharmacological application of medicinal plants to cure skin diseases and in folk cosmetics among the tribal communities of North-West Frontier Province, Pakistan.	128	322-335	2.466
7	2010	Arshad Mehmood Abassi, Mir Ajab Khan, Mushtaq Ahmad, Rahmatullah Qureshi, M. Arshad, Sarwat Jahan , M. Zafar and Shazia Sultana. Pakistan Journal of Botany. ISSN No: 0556-3321 Ethnobotanical study of wound healing herbs among the tribal communities in Northern Himalaya ranges district Abbottabad, Pakistan	42	292-297	0.947
8	2010	Jahan, S. , Ahmed, S., Taqvim, N. and Hizbullah. Pakistan Journal of Zoology.ISSN No: 0031-0182 Obestatin induces testosterone but not prolactin secretion in male Sprague Dawley rats	42	836-839	0.145
9	2010	Zehra Agha, Asif Mir and Sarwat Jahan Pakistan Journal of Physiology.ISSN No: 1819-270X Effect of single oral dose of melatonin on plasma concentration of prolactin and cortisol in male rhesus monkeys.	06	32-36	
10	2011	Sarwat Jahan , Shakeel Ahmed, Naseer Ali Shah and Hizbullah Pakistan Journal of Zoology. ISSN No: 0031-0182 Role of Neuromedin S in plasma testosterone and cortisol concentrations in male adult rhesus monkey (<i>Macaca mulatta</i>)	43	147-153	0.145
11	2011	Ismat Fatima, M.A.Munawar, Afia Tasneem, Sarwat Jahan , Mibahul A. and Shakeel Ahmed. Journal of Serbian Chemical Society. ISSN No: 0352-5139 Antithyroid activity of some 6-(alkylsulfanyl)-9H-purines.	76	1345-1364	0.725
12	2011	Sarwat Jahan , Shakeel Ahmed, Nazifa Taqvim and Hizbullah. Pakistan Journal of Zoology. ISSN No: 0031-0182 Possible modulation of testosterone secretion by obestatin in pubertal male rats	43	799-803	0.145
13	2011	Afroz Adeel, Sarwat Jahan , Fazl-i-Subhan, Waheed Alam and Riffat Bibi. Andrologia ISSN No: 0303-4569 Total Anti-oxidant status: A biochemical predictor of human fertility.	doi: 10.1111/j.1439-0272.2010.01131.x	Online available	0.1244
14	2011	Hizbullah, Sarwat Jahan and Shakeel Ahmed African Journal of Biotechnology. ISSN No: 1684-5315 Obestatin induces testosterone secretion from rat testis in vitro	10	3921-3928	0.573
15	2011	Sarwat Jahan , Riffat Bibi, Shakeel Ahmed and Salma Kafeel Journal of college of physicians and surgeons of Pakistan. ISSN No: 1022-386X Leptin Levels in Infertile Males	21	, 393-397	0.554
16	2011	Sarwat Jahan , Tabinda Sidrat, Shakeel Ahmed, Hizbullah Wazir and Kamran Ullah African Journal of Biotechnology. ISSN No: 1684-5315 Effect of obestatin on morphometry of testes and testosterone secretion in male rats.	10	7717-7722	0.573
17	2011	Tehzeeb Zulfiqar, Farwa Rizvi, Samina Jalali, S.A Shami, Nasira Tasnim, Sarwat Jahan Rawal Medical Journal. ISSN No: 0303-5212 Effects of Maternal Macronutrient intake in 3rd trimester of normal pregnancy on the maternal weight gain and neonatal birth weight of full term neonates.	36	137-142	

Papers Presented

- Sarwat Jahan, Muhammad Inam, Shahnaz Murtaza and Syed Shaekeel Raza Rizvi. Antagonism of NMDA receptor with the dissociative anesthetic ketamine hydrochloride induces differential effective on the secretion of the anterior pituitary in the male monkey. 1st South Asian Conference of Physiological Societies in conjugation with 11th Biennial Conference of Pakistan Physiological Society, held at Shifa College of Medicine, Islamabad. November 10-12, 2008.
- Sonahra Zia, Shaista Aslam, Muhammad Inam, Afzaal Ahmad Naseem, Mazhar Qayyum, Sarwat Jahan and Syed Shaekeel Raza Rizvi. Determination of coliform bacteria, the indicator of fecal contamination, in potable water samples obtained from tube-wells and upstream and downstream outlets of water supply lines of old Rawalpindi city. National Seminar on Effects of Pollution on Water Quality and Aquatic Life, held at the National Agricultural Research Centre, Islamabad. 26-27 June, 2007.
- Shahida Parveen, Shaista Aslam, Muhammad Inam, Muhammad Farhan, Afzaal Ahmad Naseem, Mazhar Qayyum, **Sarwat Jahan** and Syed Shaekeel Raza Rizvi.. Assessment of heavy metals in groundwater samples obtained from bore-well and upstream and downstream outlets of water supply lines of old Rawalpindi city. National Seminar on Effects of Pollution on Water Quality and Aquatic Life, held at the National Agricultural Research Centre, Islamabad. 26-27 June, 2007.
- Afzal. I, **Jahan.S**, Jalali.S. Microcephaly and famous unfortunate people of Pakistan. International conference on congenital malformation and inherited disorders in childhood in Pakistan and in Pakistani communities living in Norway held in the Department of Anthropology, Quaid-i-Azam University, Islamabad on 12-13 November, 2007.
- Ali.S, **Jahan.S**, Jalali.S. Endocrine complications in Beta Thalassemia. International conference on congenital malformation and inherited disorders in childhood in Pakistan and in Pakistani communities living in Norway held in the

Department of Anthropology, Quaid-i-Azam University, Islamabad on 12-13 November, 2007

- Jalali S, **Jahan S**, Kaussar N. Neural tube defect: Aetiology and nutritional disturbance in folate metabolism. International conference on congenital malformation and inherited disorders in childhood in Pakistan and in Pakistani communities living in Norway held in the Department of Anthropology, Quaid-i-Azam University, Islamabad on 12-13 November, 2007
- Effect of different short term exposures to heavy metal copper on the testicular structure and spermatogenesis of the fish *Cyprinion Watsoni*.. Shakeel Ahmed, **Sarwat Jahan** and Samina Jalali. 29th Pakistan Congress of Zoology , University of Sindh , Jamshoro. 24-26 Feb.2009.
- Shazia Ali, **Sarwat Jahan** .Comparative study of intracytoplasmic sperm insemination outcome through sperm retrieval procedure in men with Azoospermia 1st South Asian Conference of Physiological Societies in conjugation with 11th Biennial Conference of Pakistan Physiological Society, held at Shifa College of Medicine, Islamabad. November 10-12, 2008.
- Shakeel Ahmed, **Sarwat Jahan**, Nazifa Taqveem and Hizbullah .Effect of Obestatin on plasma testosterone and prolactin secretion in male Sprague Dawley rats. 30th Pakistan Congress of Zoology, University of Agriculture Faisalabad (2-4 Mar, 2010).
- Ali, H. **Jahan, S.** Qamer, F.M., Ahmed, S.M., Khan, U., Gillani, H., Saleem, R., Dar, N.I. & Minhas, R.A. (2009). Mapping Distribution, Potential Habitat and Breeding Ranges of Himalayan Musk Deer (*Moschus chrysogaster*) in Machiara National Park, Azad Jammu and Kashmir, Pakistan. In “Proceedings of V World Conference on Mountain Ungulates, Granada, Spain.10-14 November 2009”.
- Nuzhat Nauman, Samina Jalali, **Sarwat Jahan**. S.A. Shami, Riffat Shaheen, Rehana Hamid. (21-23 October, 2009). Use of folic acid among pregnant women with

congenital anomalies in a hospital population. 3rd congress of the International society of Nutrigenetics/Nutrigenomics(ISSN).

Abstract published in International journal

- Mapping Distribution, Potential Habitat and Breeding Ranges of Himalayan Musk Deer (*Moschus chrysogaster*) in Machiara National Park, Azad Jammu and Kashmir, Pakistan. In “Proceedings of V World Conference on Mountain Ungulates. Ali, H. **Jahan, S.** Qamer, F.M., Ahmed, S.M., Khan, U., Gillani, H., Saleem, R., Dar, N.I. & Minhas, R.A. (2009).

- Use of folic acid among pregnant women with congenital anomalies in a hospital population. 3rd congress of the International society of Nutrigenetics/Nutrigenomics(ISSN). Nuzhat Nauman, Samina Jalali, **Sarwat Jahan.** S.A. Shami, Riffat Shaheen, Rehana Hamid. (, 2009).

Research Project awarded

- A possible role of Neuropeptide (NPY) in the reproductive function of female rhesus monkey (sponsored by Higher education commission). Co. Principal Investigator: Dr Sarwat Jahan.
- Effect of Peripheral administration of puberty onset protein “Kisspeptin” on male sex hormones and spermatogenesis in perpubertal stages: an in vitro and in vivo investigation in laboratory rats. 2008-2010. Pakistan Science Foundation (PSF). 1.8 million. Co. Principal Investigator: Dr Sarwat Jahan.

Courses Taught

- Advances in Biology of Reproduction.
 - Reproductive Physiology.
 - Cell Biology.
 - Advances in Cell Biology.
 - Neurobiology
 - Proteins and polypeptides hormones
 - Vitamins and Hormones
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- PhD's under supervision: __05__
 - M.Phil produced to date: __27__
 - . M.Phil students currently under supervision: __8__

Aims and objectives of reproductive lab.

The application of cellular and molecular biology together with genetics provide the keys to study of reproduction, but many of the problems associated with infertility, fertilization, fetal growth and development, pregnancy loss and maternal complications are still poorly understood. The aim of this lab is to provide opportunity for students to specialize in human reproductive biology considering both basic science and clinical aspects of the subject. Practical experience in major laboratory techniques including histological studies, hormone assays, bio chemical assays, assessment of sperm and the application of molecular biology to reproductive medicines are part of the studies conducted. The broad and long term objectives of this lab are to elucidate the endocrine and neuroendocrine control systems which govern the reproductive processes in a representative primate, the rhesus monkey. The lab comprises the following topics of the research work ; the neuroendocrine

control of reproduction in the rhesus monkey; role of different newly discovered peptides such as obestatin, ghrelin and neuromedin on reproduction by using monkeys and rats as an experimental paradigm; evaluation of bull semen quality and sperm DNA integrity during cryopreservation with different cryoprotectants; etiology of infertility and to study the effect of iron overload on anterior pituitary gland in beta thalacemic patients. The lab has active collaboration with Centre of Excellence for bovine genetics Renala Khurd, Okara under control of Pakistan army and Cleveland clinic in America.

M.Phil Produced in Year 2008-2011

S.No	Student's Name	Thesis title	Year
1.	Muhammad Inam	Does antagonism of glutamatergic neurotransmission to hypothalamic neurosecretory cells affect the secretion of growth hormone, testosterone and cortisol in the male rhesus monkey?	2006-08
2.	Riffat Bibi	Possible role of Leptin in male infertility.	2006-08
3.	Zehra Agha	Effect of melatonin administration on plasma prolactin and cortisol concentration in adult male rhesus monkey (<i>Macaca mulata</i>).	2006-08
4	Hamid Ali Khan	Mapping genes underlying human hereditary bone disorder in Pakistani consanguineous families	2008-2009
5	Naseer Ali Shah	Effect of Neuromedin S on plasma testosterone and cortisol secretion in adult male rhesus monkey	
6	Hassan Ali	Mapping of potential habitat and breeding ranges of Musk deer (<i>Moschus moschiferus</i>) in different localities of Pakistan.	2006-2009
7	Naima Saeed	Histomorphological study to evaluate antifertility effect of <i>Abrus Precatorious</i> in adult male mice.	2007-2009
8	Salma Rasool	Antifertility effect of ethanolic seed extract of <i>Abrus Precatorious</i> on sperm production and DNA integrity in adult male mice	2007-2009
9.	Tabinda sidrat	Effect of obestatin on reproductive organs of male rats	2008-2009
10.	Nazifa Taqveem	Effect of obestatin on testosterone secretion in male Sprague Dawley rats	2007-2009
11.	Afroz	Role of total I antioxidant status in human male infertility	

- 12.Sumbal Javaid Correlation study between Leptin and Cortisol levels in smoker and non smoker infertile men 2007-2009
13. Hizbullah In vitro effect of anorexogenic gut peptide obestatin on testosterone production in rat testis 2008-2010
14. Irum Emanuel Effect of antithyroid drug 2,8 Dimercapto-6-hydroxypurine on reproduction in adult male rats 2008-2010
15. Asma Batool Effect of obestatin on fasting induced Testosterone secretion in adult male rats 2008-2010
16. Muhammad Amjad Khan
A study to evaluate the bull semen quality and sperm DNA integrity during cryopreservation with different cryoprotectants 2008-2010
- 17.Samina Razzaq Adverse effect of arsenic exposure on the mammary glands of adult female rats. 2008-2010
- 18.Faiza Jabeen Reproductive genotoxic effect of sodium arsenite and DNA fragmentation in adult female rats. 2008-2010
- 19.Tayyaba Afsar Obestatin a peptide encoded by ghrelin gene opposes ghrelin effect on testosterone secretion 2008-2010
- 21.Kamranullah Antioxidant activity of metabolic extract of *Caryopteris grata* Benth ex Hook.f. against Arsenic induced oxidative stress in adult male mice. 2009-2011
- 22.Javadia Shafaq Role of antiovarian antibodies in patients with ovarian failure. 2009-2011
- 23.Jabeen Akhtar Antisperm antibody associated with infertility in men. 2009-2011
- 24.Hussain Ahmed Effect of Neuromedin S (NMS) on ghrelin suppressed testosterone secretion in adult male rhesus monkey. 2009-2011
- 25.Beenish Ishtiaq Immunocytochemical detection of GPR39 receptor in the rat testicular tissues 2009-2011
- 26.Sana Siddique An Immunohistochemical analysis for different expression of GPR39 in patients with reproductive carcinomas. 2009-2011
- 27.Satwat Malik Evaluation of ovarian antioxidant status and hypoglycemic effect of *Ficus religiosa* in alloxan-induced diabetic female rats. 2009-2011