CENTRAL INSTITUTE FOR RESEARCH ON GOATS

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Brief Biodata

Title : Dr.

Name : S.K.Jindal

Designation : Former Professor (Veterinary Physiology

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Educational Quali	ification		:	
Eamination /Degree/ Diploma	Class/ Division	Year	Subject with major field of specialisation	: Name of the University/Institute/ Baord
Matriculation /SSC/ SSLC/ Higher Secondary/ PUC	Ist	1971	English, Math, Sci, S.S. etc.	Board of School Education, Haryana
Bachelor's Degree	Ist	1975	Botany., Zoology, Chemistry	Kuruskhetra University, Kurkukshetra
Master's Degree or equivalent.	Ist	1977	Animal Physiology, Animal Biochem.	Kuruskhetra University, (N.D.R.I, Karnal)
Doctorate	Ist	1989	Animal Physiology	Kuruskhetra University, (NDRI, Karnal)

Professional experience:

Employer	Designation with Institution & place Of work.	Period (from to)	Scale of pay/present basic pay	Whether permanent or Temporary
Acting Director, CIRG	CIRG	Oct 2010 And 2016	2,18,200/- basic in 7 th Pay commission	S
	Head, Division	2003- continuing		

	of Physiology, Reproduction and Shelter Management, CIRG Makhdoom			
	Head Division of Buffalo Physiology & Reproduction CIRB	1996-1999		
Regular Service. President, ICAR	Principal Scientist, CIRG, Makhdoom	25.5.1999 by direct selection and 28.7.1998 by CAS		Permanent
President, ICAR	PS/Senior Scientist/ Scientist S-2, CIRB, Hisar	Jan., 1985 to 24.5.1999	12000-18000 16400- 22400(wef 27.7.98)	Permanent
President, ICAR	Scientist S-1, IVRI, Izatnagar	Aug., 1978 to Jan., 1985	700-1100	Permanent

Achievements:

- Research: Development of technology for freezing of buffalo and goat semen, Role of growth hormone in milk production in buffaloes, establishment of a buffalo and goat semen bank, artificial insemination using frozen semen in goats and buffaloes, Embryo transfer in buffaloes and goats, production of IVF kids, development of pessaries for controlled breeding, use of ultrasonography for early pregnancy diagnosis in goats, epididymal sperm reserves and maturation changes of goats,
- ♣ Important project handled include Studies on cryopreservation of buffalo semen, Biotechnology of embryo transfer in buffaloes, Epididymal physiology of domestic animals, Network Project on effect on climate, Refinement of frozen semen technology and establishment of semen bank in goats etc.
- **Administration:** I worked as **Acting Director of CIRG** for six months and **Head of the Division** for several years. My achievements include estimate and

- budget for construction of "C" block of the Institute building approved by the Council, Development of Agro-forestry Block near Yamuna Bank, Up-gradation of Leased line of the Institute, Record Green Fodder Production, reduced mortality, Establishment of milk and meat products parlour, meetings of the RAC, QRT and AICRP, Pavement of the Institute roads, renovation of Nutrition Laboratory.
- ♣ Worked as Head of Office of CIRB, In charge Library of CIRB, Purchase Officer of CIRB, In charge and Chairman/member- Vehicles, Central Store, Horticulture and Sanitation, CPAC, Library Advisory Committee, Library, High power enquiry committees, paper setter for ARS, NDRI, IVRI, GLA etc., Evaluator of ICAR projects, Thesis examiner for NDRI, IVRI, HAU, Head of Office, In charge Project Planning and Monitoring Cell of CIRB, OSD- Deemed University IVRI, Member Secretary-IMC, Selection committees, Member of the committee setup by the ICAR for revision of syllabus, External Examiner for NDRI, IVRI, Invited Keynote Speaker, Three external funded projects awarded to the Division during my tenure as HOD.
- Books --Goat Production and Health Management-2012, Introduction to Animal Physiology-2011, Biotechnology in Animal Health and Production-2010, He i kyu -2001 (ICAR), Goat Production-1984, (Total of 190 research, review and other publications). Compiled and edited Fifteen annual reports of CIRB and CIRG, EFC document of XI and XII Plan of CIRG and first EFC document of CIRB, Vision-2030 document for CIRG, Vision 2050 for CIRG, Goat Mission Project, Best Institution Award Document of CIRG-2010 drafted.
- Organizing Secretary of National Seminar on "Future Challenges and Opportunities to Improve Health and Production of Small Ruminants" of ISSGPU from 22-23 December, 2012. Coordinated one International Training Programme for Mongolian Scientists and a Winter school on "Recent Advances in Improvement of Productive and Reproductive Efficiency through Physiological and Nutritional Interventions". I have been extensively involved in Teaching and Training activities at various levels like guiding M.Sc., Ph.D. students, Development of post graduate curricula, organising and delivering lectures at various

Recent Publications

- Singh, Pawan, Sajjan Singh, R.K.Sharma and S.K.Jindal (2003) Post thaw motility of Murrah bull semen following different methods of thawing and incubation. Indian Buffalo J. 1(1) 33-34.
- Yadav EN, Kharche S D, Goel A K, Jindal S K and Johri D.K. 2007. Comparative efficacy of different techniques for oocytes recovery from pre pubertal goat ovaries. Indian Journal of Animal Sciences 77 (10): 988-990.
- Yadav EN, Kharche SD, Goel A K, Jindal SK, Sinha NK and Johri DK. 2008. Effect of serum source on in vitro maturation and fertilization of prepubertal goat oocytes. Indian Journal of Animal Sciences 78 (2): 146-149.
- Kharche, S.D., S.K.Jindal, R. Priyadhrashini, Satish Kumar, A.K.Goel, N. Ramachandran and Rout, P.K. (2013) Fertility following frozen semen artificial insemination in Jamunapari goats. Indian Journal of Animal Sciences 83(10) 1071-1073
- Juhi Pathak, S.D. Kharche, A.K. Goel, S.K. Jindal (2013) A comparative study on parthenogenetic activation and embryo production from in vitro matured caprine oocytes Small Ruminant Research, 113: 136-140.
- Yadav P, Kharche S D, Goel A K, Jindal S K and Goel P. (2013) Effect of Defined and Complex Culture Media on embryo development from in vitro matured caprine oocytes. Indian J. of Animal Science 83: 1048-1052.
- Sinha Rajni, Kharche S D, Sinha N K, Goel A K, Jindal S K and Saraswat Sonia. (2013). Effect of cryopreservation on in vitro maturation and cleavage rate of immature prepubertal goat oocytes. Indian J. of Animal Science 83(9) 898-902.
- Kharche SD, Goel AK, Jindal SK, Jha BK and Goel P.(2013) .Assessment of Parthenogenetic Embryo Production by Activation of In-vitro Matured Caprine Oocytes with Different Concentrations of Ethanol. Small Ruminant Res 111: 100-103
- Sinha Rajni, Kharche S D, Sinha N K, Goel A K, Jindal S K and Saraswat Sonia. (2014). Effect of vitrification and slow freezing on in-vitro matured prepubertal goat oocytes. Indian J. of Animal Sciences (accepted).
- S.D.Kharche et al (2014) Development of parthenote following in vivo transfer of embryos in Capra hircus," In Vitro Cellular & Developmental Biology Animal. (accepted for publication)

List of research projects

Research				
Type of Project	Details such	Duration	Accomplishments	Initiation/
	as Title,			Formulation
	P.I./Co-PI,			
	Allocation			
	etc			
Studies on	P.I.	1979-	Epididymal sperm	As PI, I was
epididymal		1984	reserves, production	involved in
Physiology of			rates and various	formulation,

domestic animals			changes taking place in the epdidymis were studied.	execution of the project
Uterine and placental proteins influence on the maintenance of pregnancy, fetal tissue differentiation and lymphopoietic system	collaborator	1979- 1984	Role of endometrial enzymes in implantation and role of thyroid in maintenance of pregnancy was studied	Collaborator with Dr.J.N.Panda as P.I.
Cryopreservation of Buffalo Semen	P.I.	1992- 1999	Protocol for freezing of buffalo semen was developed and a semen bank with more than one lakh doses of frozen semen established.	I initiated the project from scratch and establishment of laboratory, planning, execution was carried out by me. However, very good bulls were already available from the state govt farm.
S&T Project on Cattle Herd Improvement for Increased productivity using Embryo Transfer Technology (Department of Biotechnology) project at CIRB from Sept 1992- March 1998	worker	1992- 1998	Embryo transfer in buffaloes was demonstrated with the production of many ET calves and development of IVM/IVF technology in buffaloes	I was a worker in the project and as Head of the division was involved in day to day execution of the project.
Development of non-invasive technique of embryo collection and transfer for enhancing goat production	Co-P.I.	2002- 2004		

In-vitro production of caprine embryo and their survival following fresh and frozen embryo transfer.	Co-PI	2002- 2007	I was a collaborator and Head of the Division, when our team announced the Birth of IVF goat kid Krishna at CIRG	
Multiplication of superior germ plasm of Jamunapari goats through embryo Transfer technology	Co-PI	2002-2007	ET goat kids were produced.	
Refinement of frozen semen technology in goats and strengthening of goat semen bank	P.I.	2007- 2012	Project is currently underway under the XI th Plan priority area	As PI, I am responsible for planning and execution of the project.
Flagship project on Artificial Insemination in goats	P.I.	2014-	Currently underway	

Externally Fun	Externally Funded Projects							
PI / Co-PI / Other	Title	Year	Amount	Funding agency				
Co-PI	Development of non-invasive technique of embryo collection and transfer for enhancing goat production	2002- 2004	28.45 lacks	NATP				
Co- PI	"Biotechnology of Embryo Transfer in Buffaloes and was involved in Embryo Transfer, cryopreservation, IVM, IVF and hormone assay work.	1992- 1997	128 lacs	DBT				
Co-PI	NAIP (ICAR) (Component 4) Developmental Potency of Parthenogenetic goat embryos Consortium Co-PI S.K. Jindal	2009- 2012		NAIP				
PI	Network project (ICAR) on Adaptation and facilitation of livestock to impending climatic changes through shelter management	2008- 2013		ICAR				
PI	AICRP- on Plastic Project on use of plastic in goat shelters.	2015- 2017	107 Lakhs	ICAR				

(S.K.Jindal)