

	Dr. Rajesh Kumar
	Scientist
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Educational Qualifications	<p>2013 Ph.D., Vety. Physiology, LUVAS, Hisar</p> <p>2009 M.V.Sc., Vety. Physiology, CCSHAU, Hisar</p> <p>2007 B.V.Sc. & A.H., F.V.Sc & A.H., SKAUST (K), Srinagar</p>
Employment Details	<ul style="list-style-type: none"> • Aug 2019-Continuing; Scientist, Dept. of Vety. Physiology & Biocm., LUVAS, Hisar • March 2015- Aug 2019; Assistant Professor, Dept. of Vety. Physiology, COVAS, KVASU, Pookode, Kerala • May 2013-March 2015; SRF,APR division, CIRB, Hisar • Sept. 2009- Jan. 2010; SRF, Animal Nutrition, CIRB, Hisar
Research Interests	Reproductive, Molecular and Environmental Physiology with special reference to diagnostic, proteomics and genomic tools
Membership of scientific societies	<ul style="list-style-type: none"> • Society of Animal Physiologist of India • Indian Association for Advancement of Veterinary Research • Society for Buffalo Development • Indian Society for Veterinary Immunology & biotechnology
Selected Publications	<ul style="list-style-type: none"> • Rajesh Kumar, AK. Balhara, RK Sharma,. M. Gupta, SK., Phulia and I. Singh. (2019).An in-vitro method for detection of postpartum anestrous condition in buffalo. Patent no 2940/DEL/2013.

- Minakshi. P., Kumar R., Ghosh M, Saini HM, Ranjan K, Brar B, Gaya P(2019). Single-Cell Proteomics: Technology and applications. Single-Cell Omics: Volume 1: Technological Advances and Applications. Elsevier Publication
- Minakshi P., Ghosh M., Kumar R., Patki HS., Saini HM, Ranjan K, Brar B, Gaya P(2019). Cell Metabolomics: Technology and applications. Single-Cell Omics: Volume 1: Technological Advances and Applications Elsevier Publication
- Minakshi P., Ghosh M., Kumar R., Patki HS., Saini HM, Ranjan K, Brar B, Gaya P(2019). Separation techniques with nanomaterials. Handbook of Nanomaterials in Analytical Chemistry, Elsevier

Awards/ Fellowships/Recognition received

- Patent granted entitled “An in-vitro method for detection of postpartum anestrous condition in buffalo”(2019)
- Best Paper Award. (2016) in national symposium conducted by society of veterinary biochemists and Biotechnologist of India (SVBBI), 2016 at Bhubaneswar.
- Best Young Faculty Award-2015. COVAS, KVASU, Pookode.
- INSPIRE– JRF(P) (2011). Govt. of India, Ministry of Science and Technology.
- Reviewer for different journals of Elsevier.

Detailed List of Publications

International Journals

1. Polymorphism in 5' untranslated region of heat-shock protein 70 gene as marker of post-partum anoestrus in Murrah buffaloes. (2017) *Reprod. Dom. Anim.*1–8. DOI: 10.1111/rda.12941
2. Identification of serum protein markers for early diagnosis of pregnancy in buffalo. (2017) *Animal Science Journal*. Volume 88(8) page:1189-97.doi:10.1111/asj.12754
3. Serum MX2 protein as candidate biomarker for early pregnancy diagnosis in buffalo. (2016) *Reprod. Dom. Anim.* Volume 51(4), p453-60: doi:10.1111/rda.12700
4. Sexual alteration in antioxidant response and esterase profile in *Hyalomma anatolicum anatolicum* (Acari: Ixodidae) ticks. (2017) *Journal of parasitic diseases*. Volume 41, Issue 1, pp 106–111.(Springer publication) DOI: 10.1007/s12639-016-0758-5
5. Profiling of urinary proteins in Karan Fries cows reveals more than 1550 proteins. (2015) *J. of Proteomics*.1-9.
6. Sequencing based polymorphism in leptin receptor gene and lack of association with post partum anestrus in Murrah buffaloes.(2014) *Turkish. J. Vet. Anim. Sci.*38: 1404-15, 2014
7. Molecular Characterization and Immunogenicity Analysis of 4D8 Protective Antigen of *Hyalomma anatolicum* Ticks Collected from Western India (2018). *International Journal of Peptide Research and Therapeutics* DOI: 10.1007/s10989-018-9776-8.
8. Nano-antimicrobials: A new paradigm for combating mycobacterial resistance (2019). *Current Pharmaceutical Design* DOI: 10.2174/1381612825666190620094041

9. Bluetongue virus vaccine: conventional to modern approach.(2019). Acta Virologica 63(01):3-18
10. Identification of novel proteomics markers involved in ovarian endocrinology of riverine buffalo (*Bubalus bubalis*). (2019). Biological Rhythm Research. DOI:10.1080/09291016.2019.1658061
11. Effect of temperature and humidity on rumen fermentation in buffalo (*Bubalus bubalis*). (2009). Pakistan J. Zool. Suppl. Ser. No. 9: 425-428
12. Influence of environmental variation on blood metabolites in buffaloes.(2009). Pakistan J. Zool. Suppl. Ser. No. 9: 289-291.

Lead Paper:

1. Proteomics for analysis of multiple climate change stressors in livestock. Third Convention of Society of Veterinary Biochemists and Biotechnologists of India and National Symposium on Bridging Biochemical Interventions and Environmental Remediation for One Health Improvement to be held on November 2, 2018 - November 3, 2018, at Lala Lajpat Rai University of Veterinary and Animal Sciences Hisar, Haryana 125004, India.

National Journals

1. Relation between antioxidant status and postpartum anestrous condition in Murrah buffalo.(2015). Veterinary World. Oct;8(10):1163-6.
2. Hemato-biochemical and hormonal profiles in post-partum water buffaloes. Veterinary World.8(4); 512-517.
3. Allelic and genotypic frequencies in polymorphic Booroola fecundity gene and their association with multiple birth and postnatal growth in Chhotanagpuri sheep. Veterinary World 9(11):1294-1299
4. OAS1 gene as potential biomarker to detect early pregnancy in buffalo. (2015) Journal of Cell and Tissue Research 15(3): 5187- 5192
5. MX2 gene expression analysis, identification of B-cell epitope of MX2 protein to develop antibody for detection of early pregnancy in Buffalo. (2015) Journal of Cell and Tissue Research Vol. 15(3) 5141-5150
6. Leutinising hormone receptor gene polymorphism and its association with post partum anestrus in murrah buffaloes. (2014) Journal of Cell and Tissue Research 14(2): 4237- 4240
7. Hematological profile in postpartum anestrous and normal cyclic murrah buffaloes. (2014) Journal of Cell and Tissue Research 14(2): 4241- 4243
8. Tissue Distribution of Different Minerals and Antioxidant Status in various Organs of *Hyalomma anatolicum anatolicum* (Acari: Ixodidae).(2014). J. Cell Tissue Res. 14(2):4273-4277
9. Follicular dynamics, hormonal and biochemical profile across seasons in buffaloes. (2017). Indian Journal of Animal Sciences. 87 (7): 824–828, July 2017/Article
10. Effect of bypass fat supplementation on milk yield, fat content and triglyceride levels on Murrah buffaloes. (2009). *Indian buffalo j.* No. 7:84-85.
11. Post feeding time dependency of few blood metabolites in Murrah buffaloes. (2011). *Indian buffalo j.* Vol:9:17-18
12. Hemoglobin, triiodothyroxine and thyroxin levels in male buffaloes are post feeding time dependent.(2011). *Indian buffalo j.* Vol:9:19-20
13. PCR-RFLP of luteinizing hormone receptor gene and lack of its association with postpartum anoestrus in Murrah buffaloes. (2015). *Veterinary practitioner* 16(2):247-249.
14. Field study on protected fat feeding during summer season on milk yield and milk composition in buffaloes. (2013). *The Haryana Veterinarian.* 52 p93-95
15. Mineral Status Affect on the Postpartum Cyclicity in Murrah buffaloes Status of mineral affect on the postpartum cyclicity in murrah buffaloes. *Animal Science Reporter*
16. PCR-RFLP of leptin receptor (*lepr*) gene of buffalo to establish association with postpartum anestrus trait. *The Haryana Veterinarian*
17. Effect of exposure to monochromatic light on breast and thigh muscle fibre diameter of broiler chicken.(2018). *The Pharma Innovation Journal.* 7(9): 142-144.
18. Concentrations of progesterone and estradiol-17 β in the follicular fluid of ovarian follicles of goat. (2017). *J.Vet.Anim.Sci.* 48(1):85-87.

Popular Articles

- *Battakh palan se badahe aamdani.*(In Hindi) .2012. Kheti-ICAR
- *Bheaid palan se kare aachi kamai.* (In Hindi). 2013.March,. Haryana Samwad pp 42-45.
- *Aamdani ka sadhan bater palan.* (In Hindi).2012. Kheti-ICAR. May. 19-20.
- *Kitrim garbhadharan sambhandhit upkaran aur vidhi* (In Hindi). 2012. CIRB-ICAR.
- *Ande prapt karne keliye murgipalan.* Sept, 2012. Pp 38-43. Krishi Samwad
- Nipha virus outbreak redefining the importance of zoonoses. Agrobios, 2018, volXVIIIm issue3
- Knowledge of new technologies and products for optimising profit from animal husbandry practices. Buffalopedia, CIRB, Hisar
- Use of Hormones to increase the productivity from Animal Husbandry. Buffalopedia, CIRB, Hisar
- Adhunik Praudhiki ke roop me pashu ahar me enzyme purakta ka kare istamal aur kishan rahe khushhal.(2019). Pahudhan: jan(5:1): 26-31.