

	Dr. Rubina Kumari Baithalu
	Scientist in Senior Scale
	<p>Discipline: Animal Reproduction and Gynaecology LPM Division, ICAR-National Dairy Research Institute, Karnal-132001 (Haryana) India Mobile: +91-8930827716 E-mail: rbaitthalu@gmail.com Rubina.Baithalu@icar.gov.in</p>
Educational Qualifications	<p>2016 Ph.D. Vety. Gynaecology & Obstetrics, ICAR-IVRI, Izatnagar 2010 M.V.Sc., Vety. Gynaecology & Obstetrics, ICAR-IVRI, Izatnagar, U.P. 2006 B.V.Sc. & A.H., COVSc, OUAT, Bhubaneswar</p>
Employment Details	<p>Scientist in Senior Scale, ICAR-NDRI, Karnal 01.01.2017 – Continuing Scientist, ICAR-NDRI, Karnal 10.04.2013 –31.12.2016 Scientist trainee, ICAR-NAARM, Hyderabad 01.01.2013 -09.4.2013</p>
Research Interests	<ol style="list-style-type: none"> 1. Reproductive Physiology of farm animals (Male and Female) 2. Reproductive Biotechnology, 3. Biomarker Discovery for estrous, Pregnancy and uterine health of farm animals
Membership of scientific societies	<ol style="list-style-type: none"> 1. Life member of Indian Society for Study of Animal Reproduction 2. Lifetime Member of Indian Society for Buffalo Development 3. Lifetime Member of Society of Animal Physiologists of India 4. Lifetime Member of Indian Society for Advancement of Canine Practice 5. Life member of Indian Veterinary Council. 6. Life member of Odisha Veterinary Council. 7. Life member Alumni Association, ICAR-NDRI, Karnal.

Publications

- Research paper: **39**
- Review article: **04**
- Book: **01**
- Book chapters: **04**
- Laboratory/Training manual: **09**
- Lead paper: **04**
- Invited lectures: **30**
- Protein data base: **01**
- Popular Articles: **06**
- Leaflets/Pamphlets: **01**
- National/International conferences attended: **15**
- Professional training attended: **01**
- Papers/ Abstracts in National Conferences/Seminars: **50**

- Awards/ Honours in conferences: **04**
- Reviewers of referred national/international journals: **05**
- **Awards/ Fellowships/Recognition received**
 1. OUAT Special Women Scholarship for higher technical, Professional and Management studies during B.V. Sc. & A.H programme for academic excellence.
 2. Awarded ICAR-JRF (2008) for pursuing M.V.Sc. degree programme, ICAR-IVRI.
 3. Awarded ICAR-SRF (2011) for pursuing PhD degree programme.
 4. Qualified National Eligibility test by ASRB in Veterinary Gynaecology and Obstetrics, 2010.
 5. Best Poster award in XII National Agricultural Science Congress, held at ICAR-NDRI, Karnal in 2015.
 6. Best Poster award in National Conference on Global Research Initiatives for Sustainable Agriculture & Allied Sciences, held at Merrut (UP) in 2015.
 7. Best Oral Presentation award in XXVII Annual Conference of Society of Animal Physiologists of India held at ICAR-NDRI, Karnal in 2018.
 8. Best Poster Presentation award in 34th Annual Convention of ISSAR and International Symposium held at College of Veterinary Science and Animal Husbandry, Anand Agricultural University, Anand, Gujarat in 2018.
 9. Received Associate fellowship of the National Academy of Dairy Sciences, India (NADSI) on 09.09.2018.

Detailed List Top 27 Publications

Research Papers

1. Singh LK, Pandey M, **Baithalu RK**, Fernandes A, Ali SA, Jaiswal L, Pannu S, Neeraj, Mohanty TK, Kumaresan A, Datta TK, Kumar S and Ashok K. Mohanty. 2022. Comparative proteome profiling of saliva between estrus and non-estrus stages by employing Label-Free Quantitation (LFQ) and Tandem Mass Tag (TMT)-LC-MS/MS Analysis: An approach for estrus biomarker identification in *Bubalus bubalis*. *Frontiers in Genetics*. 13: 867909. **Naas Rating: 10.60**
2. Lone SA, Mohanty TK, Bhakat M, Yadav HP, Paray AR, Dewry RK, **Baithalu RK**, Sinha R and Kumar P. 2021. Cholesterol-loaded cyclodextrin attenuates dilution effect and improves quality of bovine low sperm insemination doses during cryopreservation. *Andrologia*. 53 (10):e14202. **Naas Rating: 8.78**
3. Japheth KP, Kumaresan A, Patbandha TK, **Baithalu RK**, Sakthivel A, Nag SP, Manimaran A and Oberoi PS. 2021. Supplementation of a combination of herbs improves immunity, uterine cleansing and facilitate early resumption of ovarian cyclicity: A study on post-partum dairy buffaloes. *Journal of Ethnopharmacology* 272:113931. **Naas Rating: 10.36**
4. Tiwari S, Mohanty TK, Bhakat M, Kumar N, **Baithalu RK**, Nath S, Yadav HP and Dewry R. 2021. Comparative evidence support better antioxidant efficacy of mitochondrial-targeted (Mitoquinone) than cytosolic (Resveratrol) antioxidant in improving in-vitro sperm functions of cryopreserved buffalo (*Bubalus bubalis*) semen. *Cryobiology*. 101:125-134. **Naas Rating: 8.49**
5. Rather HA, Kumaresan A, Nag P, Kumar V, Nayak S, Batra V, Ganaie BA, **Baithalu RK**, Mohanty TK and Datta TK. 2020. Spermatozoa produced during winter are superior in terms of phenotypic characteristics and oviduct explants binding ability in the water buffalo (*Bubalus bubalis*). *Reprod. Dom. Anim.* 55: 1629–1637. **Naas Rating: 8.01**

6. Lone SA, Mohanty TK, Bhakat M, Paray AP, Yadava HP, Singh A, Sinha R, **Baithalu RK**, Rahim A, Kumar R, Kumar P and Shah, N. 2020. Modification of French mini-straw plug position for cryopreservation of small doses of bull sperm. *Anim. Reprod. Sci.*, 218; 106485. **Naas Rating: 8.15**
7. Lone SA, Mohanty TK, Bhakat M, Paray AR, **Baithalu RK**, Yadav HP and Sinha R. 2020. Supplementing extender with anandamide enhances quality of low sperm doses during cryopreservation in bulls. *Andrologia*. 2020; 00:e13782. **Naas Rating: 8.78**
8. Jaiswal L, De S, Singh RK and Baithalu RK. 2019. Molecular characterization and protein structure prediction of heat shock transcriptional factors in goat (*Capra hircus*) and sheep (*Ovis aries*). *Animal Biotechnology*. 31(5):432-439. **Naas Rating: 8.28**
9. **Baithalu, RK**, Singh SK, Kumaresan A, Kumar S, Maharana BR, Mallick S, Mohanty TK and Mohanty AK. 2019. Targeted transcript analysis revealed association of suboptimal expression of certain endometrial immunity-related genes with disparate uterine diseases in zebu cows. *Tropical Animal Health and Production*. 51(2):1-11. **Naas Rating: 7.56**
10. Singh I, Dudi SP, Lathwal SS, Ruhil AP, Singh Y, Malhotra R, **Baithalu RK** and Sinha R. 2019. Vocal cues based Decision Support System for estrus detection in water buffaloes (*Bubalus bubalis*). *Computers and Electronics in Agriculture* 162; 183-188. **Naas Rating: 11.57**
11. Vimlesh K, Kumaresan A, Nag P, Kumar P, Datta TK, **Baithalu RK.**, Mohanty TK. 2018. Transcriptional abundance of type-1 endocannabinoid receptor (CB1) and fatty acid amide hydrolase (FAAH) in bull spermatozoa: Relationship with field fertility. *Theriogenology* 114 (2018) 252-257. **Naas Rating: 8.74**
12. Shashikumar NG, **Baithalu RK.**, Bathla S, Ali SA, Rawat P, Kumaresan A, Kumar S, Maharana BR, Singh G, Puneeth Kumar DS, Singh SK, Lathwal SS, Jaiswal L, Mohanty TK, Mohanty AK. 2018. Global proteomic analysis of water buffalo (*Bubalus bubalis*) saliva at different stages of estrous cycle using high throughput mass spectrometry. *Theriogenology* 110; 52. **Naas Rating: 8.74**
13. Karan P, Mohanty TK, Kumaresan A, Bhakat M, **Baithalu RK**, Verma K, Kumar S, Das Gupta M, Saraf KK and Gahlot SC. 2018. Improvement in sperm functional competence through modified low-dose packaging in French mini straws of bull semen. *Andrologia*. 50(5):e13003. **Naas Rating: 8.78**
14. Gahlot SC, Kumar S, Kumaresan A, Vairamuthu S, Saraf KK, Sreela L, **Baithalu RK**, Lathwal SS and Mohanty TK. 2017. Biochemical analysis of uterine fluid for identification of indicators for subclinical endometritis in the water buffalo (*Bubalus bubalis*). *Reprod. Domest. Anim.* 53(1):48-53. **Naas Rating: 8.01**
15. **Baithalu RK**, Singh SK, Kumaresan A, Mohanty AK, Mohanty TK, Kumar S, Kerketta S, Maharana BR, Patbandha TK, Attupuram N, Agarwal SK. 2017. Transcriptional abundance of antioxidant enzymes in endometrium and their circulating levels in Zebu cows with and without uterine infection. *Anim. Reprod. Sci.* 177; 79–87. **Naas Rating: 8.15**
16. Singh P, Golla N, Singh P, Baddela VS, Chand S, **Baithalu RK**, Singh D, Onteru SK. 2017. Salivary miR-16, miR-191 and miR-223: intuitive indicators of dominant ovarian follicles in buffaloes. *Mol. Genet. Genomics*. 292 (5); 935-953. **Naas Rating: 9.29**

17. Gahlot SC, Kumar S, Kumaresan A, Chand S, **Baithalu RK**, Lathika S, Patbandha TK, Lathwal SS and Mohanty TK. 2016. Efficiency of uterine fluid cytology in the diagnosis of subclinical endometritis in the water buffalo (*Bubalus bubalis*). *Reprod. Dom. Anim.* 52(3): 513-516. **Naas Rating: 8.01**
18. Rajak SK, Kumaresan A, Attupuram NM, Chhillar S, **Baithalu RK**, Nayak S, Sreela L, Singh RK, Tripathi UK, Mohanty TK and Yadav S. 2016. Age related changes in transcriptional abundance and circulating levels of Anti-Mullerian Hormone and Sertoli cell count in crossbred and Zebu bovine males. *Theriogenology*. 89:1-8. **Naas Rating: 8.74**
19. Ravinder R, Kaipa O, Baddela VS, Sinha ES, Singh P, Nayan V, Velagala CSN, Baithalu RK, Onteru SK and Singh D. 2016. Saliva ferning, an unorthodox estrus detection method in water buffaloes (*Bubalus bubalis*). *Theriogenology*. 86(5):1147-55. **Naas Rating: 8.74**
20. Rawat P, Bathla S, **Baithalu RK**, Yadav ML, Kumar S, Ali SA, Tiwari A, Lotfan M, Naru J, Jena M, Behere P, Balhara AK, Vashisth R, Singh I, Dang A, Kaushik JK, Mohanty TK and Mohanty AK. 2016. Identification of potential protein biomarkers for early detection of pregnancy in cow urine using 2D DIGE and label free quantitation. *Clin. Proteomics* 13:15. **Naas Rating: 9.99**
21. Bathla S, Rawat P, **Baithalu RK**, Yadav ML, Naru J, Tiwari A, Kumar S, Balhara AK, Singh S, Chaudhary S, Kumar R, Lotfan M, Behere P, Phulia SK, Mohanty TK, Kaushik JK, Nallapeta S, Singh I, Ambatipudi SK and Mohanty AK. 2015. Profiling of urinary proteins in Karan Fries cows reveals more than 1550 proteins. 2015. *J. Proteomics*. 8; 127: 193-201. **Naas Rating: 10.04**
22. Onteru S K, Baddela VS, Ravinder R, Kaipa O, Nayan V, Singh P, **Baithalu RK** and Singh D. 2015. Direct saliva transcript analysis as a novel non-invasive method for oestrus marker detection in buffaloes. *Biomarkers*. 4:1-3. **Naas Rating: 8.66**
23. Ulfina GG, Kimothi SP, Oberoi PS, **Baithalu RK**, Kumaresan A, Mohanty TK, Imtiwati P and Dang AK. 2015. Modulation of post-partum reproductive performance in dairy cows through supplementation of long- or short-chain fatty acids during transition period. *J. Anim. Physiol. Anim. Nutr. (Berl)*. 99(6):1056-64. **Naas Rating: 8.13**
24. Prasanta BA, Kumaresan A, Rupal P, Patbandha TK, Susavi K, Manimaran A, Baithalu RK, Nitin MA and Mohanty TK. 2015. Alteration in peripheral blood concentration of certain pro-inflammatory cytokines in cows developing retention of fetal membranes. *Anim. Reprod. Sci.* 157:11-6. **Naas Rating: 8.15**
25. Boro P, Kumaresan A, Singh AK, Gupta D, Kumar S, Manimaran A, Mohanty AK, Mohanty T K, Pathak R, Attupuram N M, **Baithalu RK** and Prasad S. 2014. Expression of short chain fatty acid receptors and pro-inflammatory cytokines in utero-placental tissues is altered in cows developing retention of fetal membranes. *Placenta* 35 (7): 455-60. **Naas Rating: 9.48**
26. **Baithalu RK**, Singh SK, Gupta C, Raja AK, Saxena A, Agarwal SK. 2013. Insulin stimulates progesterone secretion to a greater extent than LH in early pregnant buffalo luteal cells cultured in vitro. *Anim. Reprod. Sci.* 142 (3), 131-136. **Naas Rating: 8.15**

27. **Baithalu RK**, Singh SK, Gupta C, Raja AK, Saxena A, Kumar Y, Singh R and Agarwal S.K. 2013. Cellular and functional characterization of buffalo (*Bubalus bubalis*) corpus luteum during the estrous cycle and pregnancy. *Anim. Reprod. Sci.* 140 (3), 138-146. **Naas Rating: 8.15**

Book Published

1. Maharana B R and **Baithalu R K.** (2017). *Vet Rapidex: A ready reckoner to Veterinary science, Animal science, Animal biochemistry and Biotechnology*, Kalyani Publisher, New Delhi, ISBN NO:978-93-272-6903-1

Practical Manual/Training Manual

1. Kumar, N and **Baithalu, R.K.** 2020. *Laboratory Manual on Basic principles of Animal Reproduction for course LP-412.*
2. A.K. Singh, **R.K. Baithalu** and Deepak Kumar. 2018. *Training Manual on Commercial dairy Farming under Entrepreneurship development programme by TBI, ICAR-NDRI, Karnal.*
3. A.K. Singh and **R.K. Baithalu.** 2019. *Instruction Manual on Commercial dairy Farming under Entrepreneurship development programme by TBI, ICAR-NDRI, Karnal.*
4. M.K. singh, N.L. selokar, and **Rubina K. Baithalu.** 2021. *Training Manual on Hands-on training on Ovum pick-up- In vitro Fertilization (OPU-IVF) technology.*
5. A. Kumaresan, **Rubina K. Baithalu,** T.K. Mohanty and Nishant Kumar. 2015. *Fertility Management in Dairy Animals under Entrepreneurship development programme by TBI, ICAR-NDRI, Karnal.*
6. A. Kumaresan, **Rubina K. Baithalu,** T.K. Mohanty and S.S. Lathwal. 2015. *Training Manual on Current Concepts and frontier technologies for fertility management in dairy animals by ICAR-NDRI, Karnal.*
7. A. Kumaresan, A.K. Chakravarty, T.K. Mohanty and **R.K. Baithalu.** 2015. *Training Manual on Laboratory Techniques for frozen Semen Evaluation and Quality Control by Artificial Breeding Research Centre, ICAR-NDRI, Karnal.*
8. T.K. Mohanty, M. Bhakat, A.K. Chakravarty and **R.K. Baithalu.** *Training Manual on Andrological Examination and Breeding Soundness Evaluation of Bull.* ICAR-NDRI, Karnal.
9. M. Bhakat, T.K. Mohanty, P. Singh, A. Kumaresan, A.K. Chakravarty, A.K. Gupta, S. Prasad and **R.K. Baithalu.** 2013. *Training Manual on In Farm Training by ICAR-NDRI, Karnal.*

Reviewers of referred National/International Journal

1. *Reproduction in Domestic Animals*, Wiley
2. *Frontiers in Endocrinology*, Frontiers

3. Frontiers in Veterinary Science, Frontiers
4. Indian journal of Dairy Science
5. Indian Journal of Animal Production and Management
6. Combinatorial Chemistry & High Throughput Screening, Clarivate
7. International Journal of Livestock Research
8. Asian Pacific Journal of Reproduction