Dr. Divya Rajawat(BVSc, MVSc-AGB)

Scientist-B

Sericulture Biotechnology Division

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Qualified:

- ICAR-JRF,AIR-3
- ICAR-SRF,AIR-2
- ICARNET

Specialization:

- Animal Genetics and Breeding
- Population Genetics
- Genomics& bioinformatics
- Molecular and Population Genetics

Academic Performance:

Qualification	Division	Percentage	University/Board	Rank/Medal/Award
Matriculation Certificate (10th)	First	77.67% (First)	U.P. Board	First
Secondary Certificate (12th)	First	76% (First)	U.P. Board	First
Bachelor's Degree (BVSc)	First	8.222 (First)	College of Veterinary Science & AH, Mhow (NDVSU, Jabalpur)	First
Master's Degree or equivalent (MVSc)	First	8.746 (First)	ICAR-IVRI	(University Bronze Medal)
Doctorate (PhD)	Pursuing (ICAR-IVRI)	8.060 (First)	Pursuing (ICAR-IVRI)	-

Award/Recognition:

Award			
1	**First Prize for Best Poster Presentation**	Indian Society of Animal Genetics and Breeding	December 17-18, 2021
2	**First Prize for Best Poster Presentation**	Society For Conservation of Domestic Animal Biodiversity	September 21-22. 2022
3	**Second Prize for Best Oral Presentation**	Indian Society of Animal Genetics and Breeding	December 2-3, 2022
4	**Alumni Award of Late P.G. Supekar Memorial for securing the highest marks in Veterinary Medicineof Mhow Veterinary College**	NDVSU Veterinary College	2018-19

Participation in Seminar/Symposium etc -

- Successful Completing Gyanshala (Skill Development Programme) on Good Laboratory Practices in R&D Laboratories was organized from 10th to 19th October, 2023 at Indian Veterinary Research Institute, IVRI.
- Successful completion of IDEATHON – 2023 on **"Biotechnology in precision livestock farming"** of Indian Society of Veterinary Immunology and biotechnology at college of animal biotechnology, Guru Angad Dev Veterinary and Animal science university, Ludhiana on 17th July 2023.
- Successful completion of the National Conference on **"Innovations in Animal Genetics & Breeding for sustainable productivity of livestock and poultry and XVI annual convention"** of Indian Society of Animal Genetics & Breeding at ICAR-Directorate of Poultry Research, Hyderabad on 2-3 December, 2022.

- Successful completion of the National Conference on **"National Symposium on Contemporary Technology for Animal Genetic Resource (AnGR) Management"** of Society For Conservation of Domestic Animal Biodiversity, at National Bureau of Animal Genetic Resources, Karnal on September 21-22, 2022.
- Successful completion of the webinar on **"Use of Artificial Intelligent & Machine Learning for Revamping the Existing Animal Breeding System"** organized by Division of Animal Genetics and Breeding, F.V.Sc. and AH, SKUAST-Kashmir (22.03.2022 to 28.03.2022)
- Successful completion of online Training on Artificial Intelligence on Intelligent Systems: Adding New Dimensions to Animal science organized by Institutional Development Plant cell, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana (1.03.2022 to 4.03.2022)
- Successful completion of the National Conference on **"Animal Breeding Strategies in the Era of Genomics & Phenomics and XV Annual Convention"** of Indian Society of Animal Genetics & Breeding, at National Bureau of Animal Genetic Resources (17.12.2021-18.12.2021).
- Successful completion of the webinar on "Contemporary issues in teaching and Extension during COVID-19 Pandemic" organized by College of Veterinary Science & Animal Husbandry, Mhow, M.P. (30.05.2020 to 31.05.2020)

International papers:

AUTHORS	TITLE	YEAR	JOURNAL	IMPACT FACTOR
INTERNATIONAL PUBLICATIONS				
1. Rajawat, D., Panigrahi, M*., Nayak, S.S., Ghildiyal, K., Sharma, A., Parida, S., Kumar, H., Bhushan, B., Dutt, T.	Uncovering genes underlying coat color variation in indigenous cattle breeds through genome-wide positive selection	(2023)	*Animal Biotechnology*	**(Impact factor: 3.7)** **(NAAS factor: 8.28)**
2. Saravanan, K. A., **Rajawat, D.**, Kumar, H., Nayak, S. S., Bhushan, B., Dutt, T.,Panigrahi, M*. **(Both first authors equally contributed)**	Signatures of selection in riverine buffalo populations revealed by genome-wide SNP data.	(2022)	*Animal Biotechnology*	**(Impact factor: 3.7)** **(NAAS factor: 8.28)**
3. Rajawat, D., Panigrahi, M*., Kumar, H., Nayak, S.S., Saravanan, K. A., Bhushan, B., Dutt, T.	Revealing genomic footprints of selection for fiber and production traits in three Indian sheep breeds.	(2022)	*Journal of Natural Fibers*	**(Impact factor: 3.507)** **(NAAS factor:11.32)**
4. Rajawat, D., Panigrahi, M*., Kumar, H., Nayak, S.S., Parida, S., Bhushan, B., Gaur, G.K., Dutt, T., Mishra, B.P.	Identification of important genomic footprints using eight different selection signature statistics in domestic cattle breeds.	(2022)	*Gene*	**(Impact factor: 3.5)** **(NAAS factor: 9.68)**
5. Ayushi Vaidhya, Kanika Ghildiyal, **Divya Rajawat**, Sonali Sonejita Nayak, Subhashree Parida and Manjit Panigrahi*	Relevance of pharmacogenetics in effective drug discovery and designing for veterinary clinical practice: A review	(2023)	*Animal Genetics*	**(Impact factor: 2.4) (NAAS factor: 8.88)**

6. Nayak, S.S., Panigrahi, M*., **Rajawat, D.**, Ghildiyal, K., Sharma, A., Parida, S., Kumar, H., Bhushan, B., Mishra, B.P., Dutt, T.	Comprehensive selection signature analyses in dairy cattle exploiting purebred and crossbred genomic data	(2023)	*Mammalian Genome*	**(Impact factor: 3.224) (NAAS factor: 9.68)**
7. Nayak, S.S., Panigrahi, M*., Kumar, H., **Rajawat, D.**, Sharma, A., Bhushan, B., Dutt, T.	Evidence for selective sweeps in the MHC gene repertoire of various cattle breeds	(2023)	*Animal Biotechnology*	**(Impact factor: 3.7) (NAAS factor: 8.28)**
8. Kumar, H., Panigrahi, M*., Strillacci, M. G., Nayak, S.S., **Rajawat, D.**, Ghildiyal, K., Bhushan, B., Dutt, T.	Detection of genome-wide copy number variation in Murrah buffaloes	(2022)	*Animal Biotechnology*	**(Impact factor: 3.7) (NAAS factor: 8.28)**
9. Kumar, H., Panigrahi, M*., **Rajawat, D.**, Panwar, A., Nayak, S.S.,Kaisa, K., Bhushan, B.,Dutt, T.	Selection of breed specific SNPs in three Indian sheep breeds using ovine 50K array.	(2021)	*Small ruminant research*	**(Impact factor: 1.893). (NAAS factor: 7.61)**
10. Kumar, H., Panigrahi, M*., Saravanan, K.A., **Rajawat, D.**, Parida, S., Bhushan, B., Gaur, G.K.,Dutt, T., Mishra, B.P	Genome-wide detection of copy number variations in Tharparkar cattle.	(2021)	*Animal Biotechnology*, 1-8.	**(Impact factor: 3.7) (NAAS factor: 8.28)**
11. Panigrahi, M*., Kumar, H., Nayak, S.S., **Rajawat, D.**, Parida, S., Bhushan, B., Sharma, A., Dutt, T.	Molecular Characterization of CRBR2 fragment of TLR4 Gene in Association with Mastitis in Vrindavani Cattle.	(2022)	*Microbial Pathogenesis*	**(Impact factor: 3.848) (NAAS factor: 9.74)**
12. Pal, D., Panigrahi, M*., Chhotaray, S., Kumar, H., Nayak, S.S., **Rajawat, D.**, Parida, S., Gaur, G.K., Dutt, T., Bhushan, B.	Admixture analyses by various approaches using bovine 50K BeadChip in	(2022)	*Tropical Animal Health and Production*	**(Impact factor:1.7) (NAAS factor: 7.56)**

	Vrindavani cattle.			
13. Panigrahi, M*., **Rajawat, D.,** Sonejita Nayak, S., Ghildiyal, K., Sharma, A., Jain, K., Lei, C., Bhushan, B., Mishra, B.P., Dutt, T.	Landmarks in the history of selective sweeps.	(2023)	*Animal Genetics*	**(Impact factor: 2.4) (NAAS factor: 8.88)**
14. Ghildiyal, K., Nayak, S. S., **Rajawat, D.**, Sharma, A., Chottaray, S, Bhushan, B., Dutt, T., Panigrahi, M*.,	Genomic insights into the conservation of wild and animal diversity: A Review	(2023)	*Animal Genetics*	**(Impact factor: 2.4) (NAAS factor: 8.884)**
15. Kumar, H., Panigrahi, M*., Panwar, A., **Rajawat, D.**, Nayak, S.S., Saravanan, K. A., Kaisa, K., Parida, S., Bhushan, B., Dutt, T.	Machine Learning Prospects for Detecting Selection Signatures Using Population Genomics Data.	(2022)	*Journal of Computational Biology.*	**(Impact factor: 1.7) (NAAS factor:7.479)**
16. Ghildiyal, K., Panigrahi, M*., Kumar, H.,**Rajawat, D.**, Sonejita Nayak, S., Lei, C., Bhushan, B., Dutt, T.	Selection signatures for fiber production in commercial species: A review.	(2022)	*Animal Genetics*	**(Impact factor: 2.4) (NAAS factor: 8.884)**
17. Panigrahi, M*. Kumar, H., Saravanan, K. A., **Rajawat, D.**, Sonejita Nayak, S., Ghildiyal, K., Kaisa, K., Parida, S., Bhushan, B., Dutt, T.	Trajectory of livestock genomics in South Asia: A comprehensive review.	(2022)	*Gene,* 843, 146808.	**(Impact factor: 3.5) (NAAS factor: 9.68)**
18. Saravanan, K. A., Panigrahi, M*., Kumar, H., Nayak, S. S., **Rajawat, D.**, Bhushan, B., Dutt, T. (2022).	Progress and future perspectives of livestock genomics in India: a mini review.	(2022)	*Animal Biotechnology* (pp. 1–9).	**(Impact factor: 3.7) (NAAS factor: 8.28)**

19. Saravanan, K.A., Panigrahi, M*., Kumar, H., **Rajawat, D.**, Nayak, S.S., Bhushan, B., Dutt, T.	Role of Genomics in combating COVID-19 pandemic.	(2022)	*Gene*	**(Impact factor: 3.5)** **(NAAS factor: 9.68)**

Popular article

- ✓ Nayak, S.S., Kumar, H., **Rajawat, D.,** Saravanan, K.A., Panwar, A., Ghildiyal, K., Smaraki, N., Jogi, H.R., Sharma, A., Bhushan, B. and Dutt, T., 2023. Coalescence: An anti-clockwise travel. The Pharma Innovation Journal.
- ✓ **Rajawat, D.,** Kumar, H., Panwar, A., Sonejita, S., Nayak, K. G., Sharma, A., ... & Panigrahi, M. (2022). Pan-genomics: A review of analysis, evolution, applications and future prospects. The Pharma Innovation Journal, 37.
- ✓ Panwar, A., Kumar, H., **Rajawat, D.,** Sonejita, S., Nayak, K. G., Sharma, A., ... & Panigrahi, M. (2022). High throughput phenotyping and big data analytics for livestock improvement. The Pharma Innovation Journal, 37.
- ✓ **Rajawat, D.,** Kumar, H., Saravanan, K.A., Kaisa, K., Panwar, A., Ahmad, S.F., Bhushan, B., Panigrahi, M. (2021) Cinderella of genetics (*Drosophila melanogaster*) – population genetics to genomics. Journal of entomology and zoology studies 9(2):311-319
- ✓ Kaisa, K., Kumar, H., Talokar, A.J., Saravanan, K.A., **Rajawat, D.,** Panigrahi, M., Dutt, T., and Bhushan, B. (2020). Concepts of Genomic selection in poultry and its applicationsInt. J. of livestock research 10(10): 32-42
- ✓ Kumar, H., Panigrahi, M., Kaisa, K., **Rajawat, D.,** Saravanan, K.A., Dutt, T., Bhushan, B. (2020) Recent trends & applications of big data science in chronobiology. Journal of entomology and zoology studies. 8(4): 2244-2250
- ✓ Latha Preethi, A., Saravanan, K.A., Kumar, H., Virbhai, D.M.K., Tyagi, S.K., **Rajawat, D.,** Kaisa, K., Bhushan, B., Panigrahi, M. (2020) Advances in genome editing technology and its application in poultry breeding. Journal of entomology and zoology studies. 8(2): 1416-1423

14.2. Other publications:

Sl. No.	Authors	Year	Book chapter/Manual	No. of pages
1	Panigrahi, M., Saravanan, K.A., Harshit	**2022**	Recent advances in breed identification and selection signature using genomic	Chapter: 1 Publisher: ICAR-IVRI

	Kumar, Nayak, S.S., **Rajawat, D.,** Kaisa, K. Bhushan, B.		information in India. **In book: Integrating phenomics and genomics for improving livestock production, health and well-being.**	
2	Bhushan, B., Kaisa, K., Kumar, H., Saravanan, K.A., Nayak, S.S., **Rajawat, D.,** Panigrahi, M.	**2022**	Transcriptome analysis for bovine mastitis resistance. **In book: Integrating phenomics and genomics for improving livestock production, health and well-being.**	Publisher: ICAR-IVRI
3	Panigrahi, M., Kumar, H., Nayak, S.S., Saravanan, K.A., **Rajawat, D.,** Bhushan, B.	**2021**	Genomic landscape and selection signature of Indian cattle	National Conference of ISAGB on "Animal Breeding Strategies in the Era of Genomics and Phenomics"

Extra-Curricular achievements:
Team Game/Sport/NCC/mountaineering etc.

- Achieved the **certificate 'C'** of NCC examination held in 2018 under the authority of Ministry of Defence, Government of India (MP&CG/C cert/Girls/2018/3100).
- Achieved the **certificate 'B'** of NCC examination held in 2017 under the authority of Ministry of Defence, Government of India (MP&CG/B cert/Girls/2017/0235).