

## **Brief Biodata**

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| <b>Name</b>        | : | <b>Dr Devara Divya</b>       |  |
| <b>Designation</b> | : | Scientist                    |                                                                                     |
| <b>Discipline</b>  | : | Animal Genetics and Breeding |                                                                                     |
| <b>Email</b>       | : | divya.devara@icar.org.in     |                                                                                     |
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### ★ **Education qualification** (*Graduation on wards*)

| Degree           | Subject (s)                                          | Institute                                                                                                   |
|------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| B. V. Sc. & A.H. | Veterinary and Animal Sciences as per VCI curriculum | College of Veterinary Science, Rajendranagar, Sri Venkateswara Veterinary University, Tirupati              |
| M.V.Sc.          | Animal Genetics and Breeding                         | College of Veterinary Science, Rajendranagar, Sri Venkateswara Veterinary University, Tirupati              |
| Ph. D.           | Animal Genetics and Breeding                         | College of Veterinary Science, Rajendranagar, P. V. Narsimha Rao Telangana Veterinary University, Hyderabad |

### ❖ **Area of research**

Dr. Divya's research focuses on Animal Breeding, Molecular Genetics, Gene Editing, and Transgenesis. Her research aims to advance genetic improvement in cattle through the application of genomic selection, functional genomics, and genome-editing technologies for enhanced productivity, reproductive efficiency, and disease resilience.

### ❖ **Fellowships/Awards etc. (Not more than five)**

|    |                                                                             |
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| 1. | Second prize in oral presentation, IPSACON2015                              |
| 2. | IPSA Dr. P. Kothandaraman Memorial Award for Best Presentation, IPSACON2017 |
| 3. | Second prize in oral presentation, ISAGBICON2024                            |

### ❖ **Selected Publications: (Max. 20)**

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| 1. | <b>D. Divya</b> , A. K. Mohanty, Sushil Kumar, Vaibhav Patel, Ravinder Kumar, Anjali, Megha Pande, Suresh Kumar, Ankita Patel & K. K. Kanaka. 2026 Nanotechnology in Improving Animal Husbandry Using Genetic Approaches. In: Singh, K.S., Akhtar, N., Ahemad, N., Aggarwal, D., Anand, S. (eds) Nanobiomaterials in Animal Husbandry. Smart Nanomaterials Technology. Print ISBN: 978-981-95-4541-4; Online ISBN: 978-981-95-4542-1. <i>Springer, Singapore</i> <a href="https://doi.org/10.1007/978-981-95-4542-1_19">https://doi.org/10.1007/978-981-95-4542-1_19</a> . |
| 2. | Jakkoju Theja Sri, Durgam Sakaram, S Sai Reddy, Suresh Rathod, <b>Devara Divya</b> and Tarun Kumar Bhattacharya. 2025 Polymorphism in the minimal promoter region of elongation of very long chain fatty acids protein 2 (ELOVL2) gene and its effect on serum triglycerides in layer chicken. <i>International journal of advanced biochemistry research</i> SP-9(7):330–336.                                                                                                                                                                                             |
| 3. | Sushil Kumar and <b>Devara Divya</b> . 2025 Augmenting milk production in cattle: converging conventional and advanced technologies. <i>Indian journal of animal genetics and breeding</i> 44(1):38–42.                                                                                                                                                                                                                                                                                                                                                                    |

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| 4.  | <b>Devara Divya</b> , Sushil Kumar, A K Das, Ravinder Kumar. 2024 Resilience of Indian cattle in changing climate. <i>Indian farming</i> 74(12):22–24.                                                                                                                                                                                                                                                                                         |
| 5.  | Supriya Chhotaray, K Meera, KA Saravanan, Harshit Kumar, <b>Devara Divya</b> , Ashish Bahadhre. 2024 Breeding for multiple stress tolerance in the animal sector. In: Book of Research and Technology advancements in agriculture. Srinivasa Rao Ch., Dhandapani A and Sanjiv Kumar. ICAR-NAARM, Hyderabad, India. Pp. 748. ISBN No.: 978-93-340-3808-8.                                                                                       |
| 6.  | Athe Rajendra Prasad, TK Bhattacharya, N Govardhana Sagar, RN Chatterjee, <b>Divya Devara</b> . 2022 Silencing Acetyl-CoA Carboxylase A (ACACA) and Sterol Regulatory Element Binding Protein 1 (SREBP1) genes through RNAi reduce cholesterol content in serum and eggs of transgenic chicken. <i>Scientific reports</i> 12, 1191.                                                                                                            |
| 7.  | <b>D Divya</b> and TK Bhattacharya. 2021 Bone morphogenetic proteins (BMPs) and their role in poultry. <i>World poultry science</i> 77(3): 539–564.                                                                                                                                                                                                                                                                                            |
| 8.  | Kanaka KK, Chatterjee RN, Kumar P, Bhushan B, <b>Divya D</b> , Bhattacharya TK. 2021 Cloning, characterisation and expression of the SERPINB14 gene, and association of promoter polymorphisms with egg quality traits in layer chicken. <i>British Poultry Science</i> 62(6):783–794. doi: 10.1080/00071668.2021.1934400.                                                                                                                     |
| 9.  | Santosh Haunshi, <b>Divya Devara</b> , Kannaki Ramasamy, Rajkumar Ullengala, Rudranath Chatterjee. 2020 Genetic diversity at major histocompatibility complex and its effect on production and immune traits in indigenous chicken breeds of India. <i>Archives animal breeding</i> 63:173–182.                                                                                                                                                |
| 10. | Pothanaboyina Guru Vishnu, Tarun Kumar Bhattacharya, Bharat Bhushan, Chandan Paswan, Athe Rajendra Prasad, <b>Devara Divya</b> . 2019 Genetic polymorphism in core promoter sequence of ACTRIIB gene and association analysis with growth traits in chicken. <i>Reproduction in domestic animals</i> 54(10):1330–1340.                                                                                                                         |
| 11. | P Guru Vishnu, TK Bhattacharya, Bharat Bhushan, Pushpendra Kumar, RN Chatterjee, Chandan Paswan, K Dushyanth, <b>D Divya</b> , A Rajendra Prasad. 2019 In silico prediction of short hairpin RNA and in vitro silencing of activin receptor type IIB in chicken embryo fibroblasts by RNA interference. <i>Molecular biology reports</i> <a href="https://doi.org/10.1007/S11033-019-04756-0">https://doi.org/10.1007/S11033-019-04756-0</a> . |
| 12. | P Guru Vishnu, TK Bhattacharya, Bharat Bhushan, Pushpendra Kumar, RN Chatterjee, Chandan Paswan, A Rajendra Prasad, <b>D Divya</b> , K Dushyanth. 2019 Molecular characterization and computational structure prediction of activin receptor type IIB in Aseel and Broiler chicken. <i>Research in veterinary science</i> 126:139–149                                                                                                          |
| 13. | <b>Devara Divya</b> , Tarun Kumar Bhattacharya, Manthani Gnana Prakash, RN Chatterjee, Renu Shukla, Pothana Boyina Guru Vishnu, Amirthalingam Vinoth and Kotha Dushyanth. 2018 Molecular characterization and expression profiling of BMP 3 gene in broiler and layer chicken. <i>Molecular biology reports</i> 45(4):477–495.                                                                                                                 |
| 14. | Athe Rajendra Prasad, TK Bhattacharya, Pushpendra Kumar, N Govardhana Sagar, Bharat Bhushan, P Guru Vishnu and <b>Divya Devara</b> . 2018 Expression profile of acetyl-coA carboxylase (ACACA) gene in layer chicken during juvenile stage. <i>Journal of animal research</i> 8(2):1–6.                                                                                                                                                        |
| 15. | Rajendra Prasad Athe, Binoy Chandra Naha, Govardhana Sagar Neerasa, Parthasarathi BC, Ramesh Nukala, <b>Divya Devara</b> . 2018 Review on molecular markers- characteristics and applications in                                                                                                                                                                                                                                               |

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|                                     | animal breeding. <i>International journal of livestock research</i> 8(1):1–7.                                                                                                                                                                        |
| 16.                                 | <b>D Divya</b> , M Gnana Prakash, RN Chatterjee, V Ravinder Reddy, Y Narasimha Reddy and TK Bhattacharya. 2018 Relative expression profile of aa genotype of BMP4 gene in broiler and layer chicken. <i>Journal of animal research</i> 8(4):549–554. |
| <b>❖ On-going research projects</b> |                                                                                                                                                                                                                                                      |
| 1.                                  | Optimization of Guide RNA for CRISPR/Cas9-Mediated Knockout of CD46 in Cattle Fibroblasts (as PI)                                                                                                                                                    |
| 2.                                  | Genome-wide Analysis of Copy Number Variations Affecting Semen Quality Traits in Frieswal and Sahiwal Bulls (as PI)                                                                                                                                  |