



GAURAV DUTTA

Graduate Research Assistant in Animal Genomics

Department of Animal Science

University of Connecticut, CT, USA

Current address: 19 Chestnut Street, Willimantic-06226, CT, USA

PROFILE

A vet by designation and a passionate budding geneticist and animal breeder. Currently pursuing Ph.D. (First Year) in Department of Animal Science, UConn, CT, USA. My current research work is based on the genomic evaluation of heat-tolerant dairy US Holstein cattle. My research area of interest lies on animal genomics, quantitative and statistical genetics and computational bioinformatics.

D.O.B - 24.09.1996

CONTACT

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HOBBIES

Singing
Listening music
Watching cricket
Travelling and cooking

LANGUAGES

English (American)
Hindi
Bengali
Odia

NATIONALITY

Indian

EDUCATION

UNIVERSITY OF CONNECTICUT, STORRS, CT, USA

[AUGUST 2022- Continuing]

Ph.D. in Animal Science (Animal Genomics)
Graduate Research Assistant

ICAR-NATIONAL DAIRY RESEARCH INSTITUTE, KARNAL, HARYANA, INDIA

[NOVEMBER 2020- AUGUST 2022]

M.V. Sc (Masters in Veterinary Science)/MS
Animal Genetics and Breeding -Major
CGPA-8.681

ORISSA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, BHUBANESWAR, ODISHA, INDIA

[AUGUST 2015 – AUGUST 2020]

B.V. Sc & A.H (Bachelors in Veterinary Science and Animal husbandry)
OGPA-8.007 (Equivalent to DVM)

RAVENSHAW JUNIOR COLLEGE, CUTTACK, ODISHA, INDIA

[MAY 2012- MAY 2014]

CHSE (11TH-12TH)-Council of Higher Secondary Education
PERCENTAGE-83.17 %

L.R.D.A.V PUBLIC SCHOOL, CUTTACK, ODISHA, INDIA

[MAY 2002– MAY 2012]

CBSE (CLASS 1-10)-Central Board of Secondary Education
CGPA 10 (95 %)

INTERNATIONAL MOBILITY

INTERNATIONAL INTERNSHIP TRAINING PROGRAM

[MARCH 2020–MAY 2020]

3 months as an internee student in the 'Livestock and Animal Sciences' program at University of Nebraska-Lincoln, Panhandle Research and Extension Center (PHREC), Scottsbluff, Nebraska, USA (Sponsored and funded completely under ICAR NAHEP-IDP). It covered research on various areas of livestock production management, animal nutrition, range/grazing land management, animal disease diagnosis, animal genetics and breeding and animal husbandry. Visit to commercial feedlots and ranchers, veterinary clinics, heifer development farm, shearing practice in sheep farm. Entire program was guided by Dr. Jack Whittier (Ex-Director, PHREC) and Dr. Dale Grotelueschen (DVM)

PROFESSIONAL EXPERIENCE

INTERNSHIP

JAN 2020– AUG 2020

6 months internship during under graduation in Teaching Veterinary Clinical Complex, OUAT, Bhubaneswar, Odisha.

VETERINARY LICENSE CERTIFICATE

(16.11.2020- Continuing)

Registered (Odisha Veterinary Council) under the provisions of the Indian Veterinary Council Act, 1984 (52 of 1984) for practicing veterinary medicine in India.

RESEARCH EXPERIENCE

AUGUST 2022- Continuing

To perform the feasibility of a national genomic evaluation on heat-tolerant dairy US Holstein cattle.

OCTOBER 2021– AUGUST 2022

Functional transcriptome analysis in Karan Fries cattle (crossbred) under thermal stress using RNA sequencing under project NICRA (National Innovation on Climate Resilient Agriculture) funded by Indian Council of Agricultural Research, New Delhi, India. Key objectives are to generate and evaluate global transcriptome profile to find out differentially expressed genes (DEGs) and then go for functional annotation to find important signaling pathways and candidate molecules.

TRAINING EXPERIENCE

USE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING FOR REVAMPING THE EXISTING ANIMAL BREEDING SYSTEMS

[March 22-28, 2022]

7 days online training program on concepts and application of AI based technologies in animal genetics and breeding. Organized by NAHEP cell of SKAUST-K, Jammu & Kashmir, India

COMPLETE DATA SCIENCE TRAINING: ADVANCED STATISTICS IN PYTHON, MACHINE AND DEEP LEARNING

[February 2022]

Completed in online platform in Udemy which dealt with advanced statistics like regressions, clustering and factor analysis, machine and deep learning.

TEN DAYS VIRTUAL TRAINING PROGRAM ON QTL ANALYSIS AND GENOME-WIDE ASSOCIATION STUDIES

[February 15-24, 2022]

Topics involved QTL mapping analysis, population structure, GWAS studies and genomic selection and NGS data analysis techniques. Organized by Division of Agricultural Bioinformatics, ICAR-Indian Agricultural Statistics Research Institute, New Delhi under DBT project.

ONLINE WORKSHOP ON TRANSCRIPTOMICS DATA ANALYSIS WITH GALAXY

[24TH January-26TH January, 2022]

3 days hands-on training on essentials of RNA seq, finding read counts from raw reads and then finding genes and pathways. Organized by GeneSpectrum Life Sciences LLP, Pune, Maharashtra

ONE MONTH BIOINFORMATICS WORKSHOP MULTIOMICS BOX

[15TH January-12TH February, 2022]

Topics covered were analysis based on epigenomics, metagenomics and transcriptomics. Organized by Decode life Bioinformatics, Rohtak, Haryana

THREE-DAYS TRAINING PROGRAMME CUM WORKSHOP ON BASICS OF BIOINFORMATICS FOR BIOLOGISTS

[13TH December-15TH December, 2021]

Topics covered were databases and data mining, sequence retrieval, primer designing. Organized by ICAR-Indian Veterinary Research Institute (IVRI), Izatnagar, Bareilly, Uttar Pradesh, India in collaboration with CAAST-ACLH.

INTERNATIONAL TRAINING ON BAYESIAN METHOD OF ESTIMATING GENOMIC BREEDING VALUE

[23RD NOVEMBER-25TH NOVEMBER,2021]

Topics covered were estimation of genomic breeding value using SNP-BLUP, Bayes A and Bayes R. Organized by Centre for Animal Science, The University of Queensland, Brisbane, Australia & BAIF Development Research Foundation, Pune, India (Online)

21 DAYS INTERNATIONAL ONLINE TRAINING PROGRAM

[16TH November-6TH December, 2021]

On Physiological and Biotechnological Interventions for the improvement of Production, Reproduction and Health status in Animals. Organized by NDVSU, Jabalpur, Madhya Pradesh, India

INTERNATIONAL SYMPOSIUM ON HARNESSING THE POTENTIALS OF GENOME EDITING TOOLS TO AUGMENT THE PRODUCTIVITY AND HEALTH OF FARM ANIMALS

[19TH -20TH JULY 2021]

Organized by Animal Biotechnology Centre of ICAR-National Dairy Research Institute, Karnal, India

ONE WEEK INTERNATIONAL E-TRAINING ON GENE CLONING: ADVANCES AND APPLICATIONS IN VETERINARY SCIENCES

[31ST MAY-4TH JUNE,2021]

Organized under ICAR-NAHEP-CAAST Project entitled 'Centre of Excellence for Advanced Research on Animal Food Safety', Mumbai Veterinary College, MAFSU, Nagpur, India

ONLINE TRAINING PROGRAMME ON SMART DAIRY FARMING: BOOSTING PRODUCTIVITY THROUGH INNOVATIONS

[18TH-22TH AUGUST,2020]

Organized by NAHEP-CAAST, Navsari Agriculture University, Gujarat, India

TRAINING PROGRAMME IN ADVANCE DAIRY FARMING AND ENTREPRENEURSHIP DEVELOPMENT

[29TH OCTOBER- 4TH NOVEMBER,2019]

Conducted at the Regional Demonstration and Training Centre, National Dairy Development Board (NDDB), Siliguri, West Bengal, India.

CONFERENCES/CONVENTIONS

NATIONAL CONFERENCE ON ANIMAL BREEDING STRATEGIES IN THE ERA OF GENOMICS AND PHENOMICS AND XV ANNUAL CONVENTION

[17TH-18TH DECEMBER,2021]

Organized by ISAGB (Indian Society of Animal Breeding and Genetics) in collaboration with ICAR- NBAGR, Karnal, Haryana, India.

XVIII ANNUAL CONVENTION AND NATIONAL WEBINAR ON HARNESSING POTENTIAL OF INDIGENOUS ANIMAL GENETIC RESOURCES FOR ENHANCEMENT OF PRODUCTIVITY AND PROFITABILITY

[11TH-12TH FEBRUARY,2021]

Organized by Society for Conservation of Domestic Animal Biodiversity (SOCDAB) and ICAR-National Bureau of Animal Genetic Resources, Karnal, Haryana, India

FUNDING/SCHOLARSHIPS

3 months Internship (March -May 2020) in **University of Nebraska-Lincoln, Panhandle Research and Extension Center, Scottsbluff, Nebraska, USA** (Sponsored and funded by ICAR NAHEP-IDP cell, New Delhi, India). Funding amount-**8500 dollars** which includes fees, transportation, off campus education tour, stipend (accommodation, food, health insurance), VISA, airfare.

Awarded with **ICAR-NDRI Institutional Scholarship (INR 7560/month)** for Master's program (M.V. Sc in A.G.B) during the year 2020- 2022.

Awarded with **e-Medhabruti Scholarship (INR 10,000/Year)** during under graduation (B.V. Sc & A.H) in C.V. Sc &A.H, OUAT, Bhubaneswar from 2015-2020.

SKILLS/EXPERTISE

IT Skills-Proficient in R/R Studio platform and have worked in Linux operating system during my research project, NGS/RNA Seq Data analysis, Primer designing, Transcriptome analysis using pipelines

Molecular techniques-PCR, Agarose gel Electrophoresis, DNA Isolation, RNA Isolation, Liver Biopsy collection, Karyotyping, Real time PCR, Peripheral Blood Mononuclear Cells (PBMC) Isolation

Breeding-Correction of the phenotype using Least squares analysis, Estimation of genetic parameters using Wombat, Pedigree viewer, prediction of breeding values using BLUPF90, ssGBLUP, Genomic Selection, GWAS

AWARDS/ACHIEVEMENTS (EXTRA CURRICULARS)

Bronze in one act play in All India Inter Agri Unifest competition organized by ICAR in RAJUVAS, Bikaner, Rajasthan, in 2016.

Best Startup Idea in National Startup Summit held at CCSHAU, Haryana, India in 2017.

Best Startup idea in OUAT (Orissa University of Agriculture and Technology) E-Startup boot camp in 2018, Odisha, India

RAJYAPURASKAR award in The Bharat Scouts and Guides (National Scouting and Guiding Association of India)

REFEREES

DR. BRENO FRAGOMENI (ASSISTANT PROFESSOR, ANIMAL GENOMICS)

Department of Animal Science, University of Connecticut, Storrs, CT, USA

- **Email:** breno.fragomeni@uconn.edu ; **Contact:** +1 8604862413
- **Current Research Area**
Genomic Selection, GWAS, Quantitative genomics

DR. RANI ALEX (SCIENTIST, ANIMAL GENETICS AND BREEDING)

Animal Genetics & Breeding Division, ICAR-NDRI, Karnal

- **Email:** ranialex01vet@gmail.com; Rani.Alex@icar.gov.in; **Contact:** +91 834988581; **Website:** www.ndri.res.in
- **Current Research Area**
Genomics, Quantitative Genetics, Reproductive Genetics, Thermal adaptability of indigenous animals

DR. GOPAL RAMDASJI GOWANE (SENIOR SCIENTIST, ANIMAL GENETICS AND BREEDING)

Animal Genetics & Breeding Division, ICAR-NDRI, Karnal

- **Email:** Gopal.Gowane@icar.gov.in; gopalgowane@gmail.com; **Contact:** +91 7597288789; **Website:** www.ndri.res.in
- **Current Research Area**
Quantitative genetics, Immuno-Genetics