





## XVI Annual Convention of Indian Society of Animal Genetics and Breeding (ISAGB) and National Conference on "Innovations in Animal Genetics & Breeding for sustainable productivity of livestock and poultry"

2<sup>nd</sup> & 3<sup>rd</sup> December 2022

Venue

## University Auditorium PJTSAU, Rajendranagar, Hyderabad

## **Program Schedule**

DAY 1: 2 DECEMBER, 2022	
9:00 AM- 10:00 PM	Registration
10.00 AM-	Inaugural Session & Award ceremony
12.00 PM	Dr. Mangala Rai, Former Secretary, DARE & DG, ICAR- Chief Guest
	Dr. V. Ravinder Reddy, Vice Chancellor, PVNRTVU, Hyderabad - Guest of Honour
	Dr. T.J. Rasool, Director, Camel Biotechnology Centre, UAE & Patron, ISAGB
	Dr. B.P. Mishra, Director, ICAR-NBAGR & President, ISAGB
	Dr. V.K. Saxena, Director (Research), BASU & Secretary, ISAGB
	Dr. R.N. Chatterjee, Director, ICAR-DPR & Chairman, Organizing Committee
	Dr. T.K. Bhattacharya, Director, ICAR-NRCE & Organizing Secretary
	Dr.U. Rajkumar, Pr.Sci. & Organizing Secretary, ICAR-DPR, Hyderabad
	High Tea: 12:00 -12.15 PM
12.15 PM-	Keynote Address
01.15 PM	Chair: Dr. V. Prabhakar Rao, Former VC, SVVU, Tirupati
	Co Chair: Dr. Abhijit Mitra, Animal Husbandry Commissioner, GOI
	Dr. V.K. Saxena, Director (Research), BASU, Patna
	Innovations in Animal Genetics and Breeding for sustainable productivity of
	livestock and poultry
	Dr. T.J. Rasool, Director, Camel Biotechnology Centre, UAE and
	Former ADG (AP&B), ICAR
	Lunch: 01.15 - 02.15 PM
2:15 PM-	Technical Session I
4:45 PM	Innovative breeding technologies- Current trends and future scope
	Chair: Dr. B.K.Joshi, Former Director, NBAGR, Karnal
	Co Chair: Dr. R.S. Gandhi, Former ADG(AP&B), ICAR, New Delhi
	Dr. Archana Verma, Head, AGB Division, NDRI (Online)
	Rapporteurs: Dr.R.Vinoo, Professor & Head, Dept of AGB, NTR CVSc, Gannavaram, Dr. S.S.Mishra, Pr Sci., CSWRI, Avikanagar

	Lead papers
1.	A mission towards Zero Non-descript animal genetic resources of India: Challenges and opportunities
	Dr. B.P. Mishra, Director, ICAR-NBAGR, Karnal
2	Rate of lay as selection criterion for improving the egg production
	Dr.T.Kotaiah, Chairman, Indbro Research & Breeding Farms Pvt. Ltd., Hyderabad
3	Improvement of efficiency and profitability from hill and pack animalsDr. S.C. Mehta, Pr Sci ICAR-NRC on Equines, Bikaner
	Oral Abstracts
1	A platform-independent online field data collection software solution for the multi-trait and multi-breed Genomic selection program under smallholder dairy system of India <i>Nikhil Punde,Yuvraj Gaundare, Sachin Joshi, Kaustubh Bhave,Tejashree Shirsath, Vinoa</i> <i>Potdar, Velu Dhanikachalam, Santoshkumar Jadhav, Akshay Joshi, Marimuthu</i> <i>Swaminathan</i>
2	Kaikadi Donkeys: An Important Equine Germplasm of Western Vidarbha region Pravin Bankar, Shailendra Kuralkar, Snehal Patil, Shubhangi Shinde
3	Conservation and multiplication of Indigenous animals (Bosindicus) through In Vitro Embryo Production. P. D. Deshpande, G. S. Joshi, H. D. Kadam, V. N. Ghadge, J. R. Khadse, A.B. Pande
4	Evaluation of the performance of the sex-sorted semen in buffaloes maintained under the smallholder dairy system of Uttar Pradesh Yuvraj Guandare, Sachin Joshi, Nikhil Punde, Vikas Tiwari, Raviraj Jadhav, Kaustubh Bhave, Akshay Joshi, Tejashree Shirsath Vinod Potdar and Marimutthu Swaminathan
5	Genetic parameters of growth traits in Black Bengal goat maintained under natural farming system in different Agro-Climatic Zones of West Bengal. <u>Manoranjan Roy, Uttam Sarkar, Santanu Bera, Manik Ch Pakhira,</u> <u>Gopal Patra, and Soumitra Pandit</u>
6	Comparison of Sire Model and Animal Model efficiency for first lactation and lifetime lactation traits in crossbreed cattle <i>Manita Dangi, C V Singh,R S Barwal, B N Shahi , Rohit Sharmal and Gunjan</i>
7	Morphometric characterization of JanwalPashmi dogs in Marathwada region of Maharashtra S K Makne, PV Nandedkar, MM Chopade, SS Ali and Rahul Thakur
8	<ul> <li>Phenotypic Characterization of Native sheep Prevalent in Nagarjuna Sagar Area of Telangana</li> <li>S. Vasanthi, P. Jaya laxmi, S. Sai reddy, R.M.V. Prasad</li> </ul>
9	Identification and characterization of indian dog populations: present status and future prospects         S. Sajid Ali, D. B. Mungod, N. Vats, M. M. Chopade, P. S. Bankar AND P. V. Nandedkan
10	<ul> <li>Effect Of Climatic Parameters On Doe Productive Efficiency Of Sangamneri Doe Under Field Conditions</li> <li>S. S. Desai, S. D. Mandakmale, V. D. Borkar, S. B. Bhalerao and M. U. Tanpure</li> <li>Online Presentations</li> </ul>
11	Genetic evaluation of reproductive and litter traits in crossbred large white yorkshire pigs (svvu-t17)

	B. Ramya Naidu, B.Punya Kumari, P.Guruvishnu and D. Suresh Babu
12	Growth and production performance of Black Rock chicken reared at high-altitude Deachan Chuskit*, Nazia Parveen, Mayarngam Khansu, Mani Chopra, Swati and O P Chaurasia
3:15 PM- 4:45 PM	POSTER SESSION I : A (ABST-1-002-037) Time: 3.15-4.00 PM B (ABST-1-039-072): Time: 4.00-4.45 PM
	<ul> <li>Chairman: Dr. P. Kumarasami, Professor &amp; Head, TANUVAS, Chennai</li> <li>Members: Dr. M. Kishan Kumar, Professor&amp; Uni Head, LPM, CVSc, Hyderabad</li> <li>Dr.S. Sai Reddy, Officer Incharge, PRS, PVNR TVU, Hyderabad</li> <li>Dr. Aruna Pal, Head, LFC, WBUAFSc, Kolkata</li> </ul>
5.00 PM- 7.30 PM	Technical Session-II Genomics: Phenotype variability and trait expression in animals
	Chair: Dr. T.J. Rasool, Director, Camel Biotechnology Centre, UAE Co Chair: Dr. S.T.Viroji Rao, Registrar, PVNR TVU, Hyderabad Dr. P.K. Rout, ADG (AP&B) (Acting), ICAR, New Delhi (Online)
	Rapporteurs: Dr. D. Sreenivas, Professor & Head, Dept. of AGB, CVSc, Hyderabad Dr. V.Vohra, Pr Sci, NDRI, Karnal
	Lead Papers
1	Biotechnological approaches for improving productivity in animals <i>Dr. V.K. Saxena</i> , <i>Director (Research), BASU, Patna</i>
2	<ul> <li>Potential of epigenetics and epigenomics in improving production and adaptive traits in livestock and poultry (Online)</li> <li>Dr. R.S. Kataria, Head, Animal Biotechnology Division, NBAGR, Karnal</li> </ul>
3	Stem cells: An effective tissue engineering and ex situ conservation approach in animals <b><i>Dr. S.K. Maity, Principal Scientist, Division of Veterinary Surgery, IVRI, Izatnagar</i></b>
4	Application of genomic data in livestock and poultry <i>Dr D.C. Mishra</i> , Pr Sci <i>ICAR-IASRI</i> , <i>New Delhi</i>
	Oral Abstracts
1	Identification of putative genes and pathways responsible for regression of right ovary during embryonic and post hatch period in chicken Sajeed Mohd, Jayakumar Sivalingam, Shanmugam M, Bachamolla Shivani, U. Rajkumar, Rajith Reddy B, Satya Pal Yadav, T.K. Bhattacharya, Anand Laxmi Nidamanuri, M. Balakrishnan, Anuradha Kotla, B. Sridevi, P. Jayalakshmi and P. Kalyani
2	Genomic scans for signatures of selection revealing putative genomic regions and candidate genes for adaptation and production traits in cattle breeds of Tamil Nadu S. Vani, D. Balasubramanyam, K.G. Tirumurugaan, M. Gopinathan, HePr. Sci.ibhaS.M.K. Karthickeyan
3	PRDM6 gene InDel variants within the intron 1 region and its effects on body measurement traits in native goat breeds of Kerala <u>Manjutha S.</u> , Muhammad E. M., Radhika G., Bindya Liz Abraham, Muhasin Asaf V. N., and Senthil Murugan S.
4	Genomic divergence in high and low milk yielding cattle breed grouPr. Sci. from whole genome sequencing data

	Neelam A Topno, Sarwar Azam, Dr Ravi Kumar Gandham, and Dr Subeer S Majumdar
5	Identification and characterization of differentially expressed microRNAs in milk
	exosomes in healthy and sub-clinical mastitic crossbred cattle
	Sudarshan Mahala, Amit Kumar, A K Pandey, H O Pandey, Bharat Bhushan, Triveni Dutt
6	Genetic Admixture and Population Structure Analysis of South Indian Cattle Breeds
	Saravanan, R., Vandana, CM., Murali, N., Kathiravan. P., and Thiruvenkadan, A.K.
7	Proteomic and genomic dissection of (sexed) spermatozoa of indicus cattle (Bosindicus)
	Rongala Laxmivandana, Sofi Imran Ul,Umar, Chhaya Patole, Pranab J Das, Dhanu K
	Murasing, Mridula Sharma, Tilak R Sharma, Kewal K Sharma, Arunava Pattanayak,
	Soumen Naskar
8	Transcriptome Analysis Reveals Key Genes And Pathways Associated With Heat Stress
	Response In Sahiwal Cattle.
	Pradyut Das, Rani Alex, Dipankar Paul, Gopal Gowane, Archana Verma and Ashutosh,
	Kashif Dawood Khan, Amritanshu Upadhyay
	Online Presentation
9	Identification of single nucleotide variants and selective sweep regions in Ankamali pigs
_	of Kerala by whole genome sequencing
	Michelle Elizabeth Roy, Manoj M Rojan P.M, Tina Sadan, T.V Aravindakshan., A.P.
	Usha and M.P. Unnikrishnan
6:15 PM-	POSTER SESSION II : A (ABST-2- 001-032) Time: 6.15-7.00 PM
7:30 PM	B (ABST-2-033-061) Time:7.00-7.45 PM
	Chairman: Dr. B. Ekambaram, Director of Research, PVNRTVU, Hyderabad,
	Members: Dr.GVPPS. Ravikumar, Pr. Sci., IVRI, Izatnagar
	Dr.P.Amareswari, Pr Sci & Head., LRS, Mamnoor, Warangal
7.30 PM-	General Body Meeting of ISAGB
8.00 PM	
8.00 PM-	Cultural Programs
8.45 PM	
	Dinner
	DAY 2: 3 DECEMBER 2022
09:30 AM –	Technical Session-III
12:00 Noon	
	Trends in computational genetics and artificial intelligence in understanding genome
	complexity
	Chair: Dr. Arjava Sharma, Former Director, NBAGR, Karnal & CIRC, Meerut
	Co Chair: Dr. Vineet Bhasin, Former Pr Sci (AG&B), ICAR & Consultant ILRI, South
	Asia Office, New Delhi (Online)
	Dr. M. Gnana Prakash, Comptroller, PVNRTVU, Hyderabad
	Rapporteurs: Dr. P. Kumarasami, Professor & Head, TANUVAS, Chennai
	Dr. S.Naskar, Pr. Sci., IIAB, Ranchi
	Lead papers
1	Artificial intelligence and machine learning tools in animal improvement: A futuristic
1	view
	Shri Alokesh Ghosh, Associate Director, CDAC, Kolkata
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10:30 AM – 12:00 Noon	POSTER SESSION III (ABST-3-01-18) Time: 10.30-12.00 Noon Chairman: Dr.Anil Kumar, Professor, Dept of AGB, KVASU, Mannuthy Members: Dr.P. Jayalaxmi, Professor & Head, CVSc, Mamnoor, Waranagal Dr.Amit Kumar Sr Sci, AG Division, IVRI, Izatnagar
9	Identifying and Annotating Signatures of Selection in the Bovine Genome for Understanding Adaptation To Various Climates Sonali Sonejita Nayak, Manjit Panigrahi, Divya rajawat1, Harshit Kumar, K.A. Saravanan, Kanika Ghildiyal, Anurodh Sharma, Bharat Bhushan, Triveni Dutt
8	Selection Signatures for fiber production attributes in commercial species Kanika Ghildiyal, Manjit Panigrahi, Divya Rajawat, Harshit Kumar, Sonali Sonejita Nayak Anurodh Sharma, Bharat Bhushan
1	Molecular characterization of the promoter region and m-sinco Tr omding sites prediction in the sperm cells chromatin remodeling genes of Murrah Bulls Harsimran Kaur, Meenakshi Chitkara, Rashi Vasisth, Ankita Gurao, Manishi Mukesh, Mahesh Shivanand Dige, Karpenahalli Ranganatha Sriranga, Pawan Singh and Ranjit Singh Kataria Online Presentations
6	<ul><li>Genetic evaluation of juvenile and production traits in vanaraja male line (pd-1) chicken</li><li>Suresh K, Sreenivas D, Jayalaxmi P and Rajkumar U</li><li>Molecular characterization of the promoter region and in-silico TF binding sites</li></ul>
5	A non-linear modeling to determine the lactation curve for test day milk yield, fat yield and fat percent in crossbred cows reared under smallholder dairy system in Jharkhand state. <i>Akshay Joshi, Kaustubh Bhave, Santosh Kumar, Ajit Singh, Sachin Joshi, Yuvraj</i> <i>Gaundare and Tejashree Shirsath.</i>
4	Duck genome evolved as better resistant to chicken genome against avian influenza - revealed through transcriptomics. <i>Manti Debnath</i> , <u>Aruna Pal</u> , Argha Chakraborty
3	Identification of miRNAs in the Magnum tissue of Indigenous Chicken during Early laying period and their Modulation due to Se Supplementation Anand Laxmi N, <i>Jayakumar S, Shanmugam M, Rama Krishna Mahapatra</i>
2	Selection of SNP Markers for Genomic Prediction using Genetic Algorithm Avinash Kumar Bhatia, Dinesh kumar yadav, Sat pal dixit
1	Oral Abstracts Annotation of Copy Number Variations in swamp and riverine buffalo Aishwarya Dash, Kangabam Bidyalaxmi, Kousalya Devi M,Nidhi Sukhija, Jayakumar Sivalingam and I D Gupta
4	Advance computing and bioinformatics for handling big data to understand phenomics <b>Dr. GVPPS. Ravikumar</b> , Pr. Sci., ICAR-IVRI, Izatnagar
3	Statistical modelling for genome-wide association with milk phenotypes in dairy animals <i>Dr. Amit Kumar</i> , <i>Sr. Scientist, IVRI, Izatnagar</i>
	Challenges (online) <b>Dr. Dinesh Kumar</b> , Professor and Dean Academic, Central University of Haryana, Mahendergarh, Haryana

12.15 PM -	Technical Session IV
1.45 PM	ISAGB Young Scientist award
1	Melatonin receptor (MTNR1A) gene polymorphism and their Association with
	reproductive traits of buffaloes
	R.S. Kathiravan, R. Chitra, N. Murali and M. Arthanarieswaran
2	Growth hormone gene polymorphisms as candidate markers for carcass traits in Kuttanad
	ducks of Kerala
	Sahana V.N., Bindya Liz Abraham and Marykutty Thomas
3	TWAS revealed significant causal loci for milk production and its composition in Murrah
	buffaloes
	<u>Supriya Chhotaray</u> , Vikas Vohra
4	Site Directed Mutagenesis of Prolactin gene in Chicken through CRISPR/Cas9 Mediated
	Gene Editing
	<u>B.Rajith Reddy</u> , B.Ekambaram, P. Jaya Laxmi, Ch.Hari Krishna Dr.D.Sakaram and T.K.
	Bhattacharya
5	RNAi mediated in vivo silencing of two lipogenic genes for reduced serum and egg
	cholesterol in chicken
	<u>Athe Rajendra Prasad</u> , T.K.Bhattacharya, R.N.Chatterjee, N.G.Sagar
6	Growth performance of local goat in southern Odisha
	Surita Majumder, Chandana Sree C., Dillip Kumar Karna, Chinmoy Mishra, Sushant Kumar Dash
7	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
	J. Theja Sri, D. Sakaram, S. Sai Reddy, Suresh Rathod, & T.K. Bhattacharya
	Online Presentations
8	Genetic Analysis of Growth Traits in Salem Black Goat Under Farm Conditions
	Akshata, D. Cauveri, P. Devendran, J. Muralidharan
9	Evaluation of Machine Learning Algorithms for the Prediction of Genetic Merit.
	Ambreen Hamadani, Nazir A Ganai, S. Mudasir, S. Shanaz, S. Alam, Hussain
10	Statistical Modelling And Genetic Evaluation Of Growth Curve Parameters In Black
	Bengal Goats (Capra hircusbengalensis)
	A Jemima Jasmine, Uttam Sarkar, Manoranjan Roy and Sanjoy Datta
11	Development of modified BrdU resistant Vero cell line
	Barkathullah N, Bina Mishra, Chhabi Lal Patel, B.P. Mishra, Ravi Kumar Gandham, Joyshikh
10	Sonowal, Amitesh Dubey, Krishna Bharali, Vaishnavi D.
12	Assessment of Linkage Disequilibrium and Haplotype Block Structure in Indigenous Cattle Breeds of Tamil Nadu using Whole Genome Sequence Data
	M Tejaswi Sindhu Ratnam, A Gopinathan, K Thilak Pon Jawahar, P Azhahianambi, K G
	Thirumurugann, S Vani, and S M K Karthickeyan
	Lunch: 1.45-2.45 PM
02.45 PM-	Technical Session V
03.45 PM	Scientist Industry Interface on "Agripreneurship in Animal Breeding & Genetics"
	Chair: Dr. Subeer S. Majumdar, Vice Chancellor, Gujarat Biotechnology University &
	Former Director, NIAB, Hyderabad
	Panellists
	Dr. Abhijit Mitra, Animal Husbandry Commissioner, GOI, New Delhi
	Dr. R.K. Sethi, Former Director, CIRB, Hisar
	Dr. S. Barbudhe, Director, NRC on Meat
	Dr.S.T.Viroji Rao, Registrar, PVNR TVU, Hyderabad

	Dr.B.Ekambaram, Director of Research, PVNR TVU, Hyderabad
	Industry side
	Dr. Suresh Rayudu, CH, Srinivasa Farms
	Dr. Vinod Vijay Potdar, Program Executive, BAIF
	Dr. T. Kotaiah, MD, M/s Indbro, Poultry sector
	Dr.Dinesh Kumar Ladani, , VHL, Hyderabad
	Sri Subhash Seraphim, Deputy General Manager, NABARD, Hyderabad
	Sri Kalyan Koley, Founder & CEO, Agrepreneur (Goat sector)
	Dr.Abhisek Tripathi, Director, R&D Operations, M/s Novelgene Technologies
4.00 PM -	Plenary and Valedictory Session
5.00 PM	
	Chief Guest: Dr.K.M.L. Pathak, Former DDG (AS) & Former VC, DUVASU, Mathura
	Guests of Honor: Dr.S.K. Majumdar, VC, GBU, Gandhinagar
	Dr. T.J Rasool, Director, Camel Biotechnology Centre, UAE
	Dr.B.P. Mishra, Director, ICAR-NBAGR & President, ISAGB
	Dr.V.K.Saxena, Director (Research), BASU & Secretary, ISAGB
	Dr.R.N.Chattrejee, Director, ICAR-DPR, Hyderabad & Chairman, ISAGBCON 22
	Dr.U. Rajkumar, Pr Sci., ICAR-DPR & Organizing Secretary, ISAGBCON 22