



Dr. Pranab Jyoti Das, B.V.Sc., M.V.Sc., PhD
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Publications	Total no. of Research Paper : 50
	Total no. of Books/Manual : 20
	No. of patent granted (G) /filed (F) : (0) (01)
	Copyright granted (G) /filed (F) : (0) (03)
	Policy Document :05
Experience with research interest:	
<p>Dr Das is an interdisciplinary researcher with a background in managing various collaborative research projects. He has over 15 years of experience working with molecular biology, cytogenetic and functional genomics of animal. Dr Das has an additional background in Veterinary Medicine and in-depth knowledge in conducting animal studies. Dr Das has a well-equipped molecular biology laboratory at ICAR-National Research Centre on Pig. Currently, Dr Das is working on those regions of the mammalian genome which contain genes that confer infertility/subfertility in male.</p>	
Top 10 Publications:	
<ol style="list-style-type: none"> 1. Baily M.P., Avila F., Das P.J., Kutzler M.A., Raudsepp T. (2019).An Autosomal Translocation 73,XY,t(12;20)(q11;q11) in an Infertile Male Llama (<i>Lama glama</i>) With Teratozoospermia. <i>Frontiers in Genetics</i>. doi: 10.3389/fgene.2019.00344. 2. Janečka J.E., Davis B.W., Ghosh S., Paria N., Das P.J., Orlando L., Schubert M., Nielsen M.K., Stout T.A.E., Brashear W., Li G., Johnson C.D., Metz R.P., Zadjali A.M.A., Love C.C., Varner D.D., Bellott D.W., Murphy W.J., Chowdhary B.P., Raudsepp T. (2018). Horse Y chromosome assembly displays unique evolutionary features and putative stallion fertility genes. <i>Nature Communication</i>. 9(1):2945. doi: 10.1038/s41467-018-05290-6. 3. Krishnan G., Paul V., Biswas T.K., Chouhan V.S., Das P.J., Sejian V. (2018).Adaptation strategies of yak to seasonally driven environmental temperatures in its natural habitat.<i>International Journal of Biometeorology</i>.62 (8):1497-1506. doi:10.1007/s00484-018. 4. Ghosh S., Qu Z., Das P.J., Fang E., Juras R., Cothran E.G., McDonell S., Kenney D.G., Lear T.L., Adelson D.L., Chowdhary B.P., Raudsepp T. (2014). Copy number variation in the horse genome.<i>PLoS Genetics</i>. 10(10):e1004712. doi:10.1371/journal.pgen. 5. Das P.J., Mishra D.K., Ghosh S., Avila F., Johnson G.A., Chowdhary B.P., Raudsepp 	

- T. (2013). Comparative organization and gene expression profiles of the porcine pseudoautosomal region. *Cytogenetic and Genome Research*. 141:26-36.
6. **Das P.J.**, McCarthy F., Vishnoi M., Kachroo P., Gresham C., Li G., Love C.C., Varner D.D., Chowdhary B.P., Raudsepp T. (2013). Stallion sperm transcriptome comprises functionally coherent coding and regulatory RNAs as revealed by microarray analysis and RNA-seq. *PLoS One*. 8(12): e1003139.
 7. Raudsepp T., McCue M.E., **Das P.J.**, Dobson L., Vishnoi M., Fritz K.L., Schaefer R., Rendahl A., Love C.C., Mickelson J.R., Varner D.D., Chowdhary B.P.(2012). Genome-Wide Association Study Implicates Testis-Sperm Specific FKBP6 as a Susceptibility Locus for Impaired Acrosome Reaction in Stallions. *PLoS Genetics*. 8(2): e56535.
 8. **Das P.J.**, Lyle S., Beehan D., Chowdhary, B.P. Raudsepp, T. (2011) Cytogenetic and molecular characterization of Y isochromosome in a 63XO/64Xi(Yq) mosaic karyotype of an intersex horse. *Disorders of Sex Development in Domestic Animals. Sexual Development*,6(1-3):117-127.
 9. **Das P.J.**, Paria N., Gustafson-Seabury A., Vishnoi M., Chaki S.P., Love C.C., Varner D.D., Chowdhary B.P., Raudsepp T. (2010) Total RNA isolation from stallion sperm and testis biopsies. *Theriogenology*.74 (6):1099-1106, 1106e1-2.
 10. **Das P.J.**, Chowdhary B.P., Raudsepp T. (2009). Characterization of the bovine pseudoautosomal region (PAR) and comparison with sheep, goat and other mammalian PARs. *Cytogenetic and Genome Research*.126:139–147.

Technologies developed:

1. Technology to diagnose Canine Parvovirus (CPV) DNA in dogs
2. Technology to identify stallions' subfertility.
3. Technology for sperm RNA isolation in stallion.
4. Technology for Camelid molecular cytogenetics.
5. Technology to identify Impaired Acrosome Reaction susceptibility marker for in Stallions.
6. Methodology to identify sex chromosome aneuploidy in domestic species and identify disorders of sex development in Domestic Animals.
7. Technology for manufacturing of garments from jute-yak blended fabric.
8. Technology for sex determination of yak.
9. Technology to identify male specific markers for yak.
10. Developed biomarker related to male fertility in Yak using miRNA.
11. Developed technology to isolate miRNA from yak sperm.
12. Developed an IT-based system technology to identify parasitic load in a faecal matter of pigs.
13. Technology for identification and traceability system in pig.
14. Development technology for non-invasive infrared thermal imaging system in pigs.
15. Technology for identification of meat animal species using FINS PCR.
16. Developed LAMP (Loop-Mediated Isothermal Amplification) technique to identify pork and pork product.
17. Developed RAPD technique for detection of wild pork from domestic pork, beef, and chevon.
18. Development technology for breed specific mtDNA sequences for native pig of NE region.
19. Development online Piggery information system.
20. Development online real-time data management system for Pig stakeholders.
21. Technology for Decision Support System (DSS) for examining health status pigs.

Awards:

1. Breed Registration certificate award (Registration of Arunachali Yak-INDIA_YAK_2300_ARUNACHALI_16001)
2. Letter of Appreciation for contribution in Animal by ADNAT Silver Jubilee Convention, International Symposium on Biodiversity and Bio banking, IIT, Guwahati, 2018.
3. Reorganization Certificate from Indian association of Hill Farming (SFEIES-2017).
4. Director's appreciation letter for major achievements as principal investigator for the project entitled "E-Varaha: Information System for Safe Pork Production in North Eastern India". (2017-2019).
5. Appreciation and reorganization letter from international Journal *PLoS One* and included expert reviewer panel of the journal. 2018
6. 2013- Part of the research team to produce Worlds first test tube Yak Calf named "NORGYAI".
7. <http://www.icar.org.in/E-Book/State-Wise-Achievements-2%20years.pdf> (Page 9-10).
8. Morris Animal Foundation Research Award, 2010
9. CVM Postdoctoral Research Award, Texas A&M University, 2010.

Membership of professional society:

- Member, Veterinary Council of India
- Member, Advisory panel in Conservation Review
- Member of the CVM PDF Association of the CVM, Texas A&M University, USA
- Member Texas A&M, USA Link Endowment boundary Team
- Member of the American Association for the Advancement of Science
- Member , Editorial Board - Gnome Publications