Personal Information

Name	**G.V.P.P.S.RAVI KUMAR**
Nationality	Indian
Present Position and official address	Scientist - G, National Institute of Animal Biotechnology(NIAB), Hyderabad, Telangana, India Pin code - 500 032
Contact information	1-8-719 Bhadradri Residency New Nallakunta Hyderabad, Telangana, India Pin code - 500 044

Education

09/1997 – 07/2003	Ph. D., Animal Genetics ***(OGPA 8.4/10)*** Division of Animal Genetics, Indian Veterinary Research Institute (IVRI) Bareilly-243122, Uttar Pradesh, India Supervisor: Dr. Arjava Sharma Thesis title: Molecular characterization of Glucose-6-Phosphate-dehydrogenase gene in cattle.
12/1995 – 04/1997	M.Sc. (Dairying), Animal Breeding and Genetics ***(OGPA 8/10)*** Division of Dairy Cattle Breeding National Dairy Research Institute Karnal, Haryana-132001,India Supervisor: Dr. Ashwini Sharma Thesis title: Genotoxic effects of *Luecaena luecocephala* in Goats.
06/1989 – 12/1995	B.V.Sc. & A.H.(Bachelor of Veterinary Science and Animal Husbandry) ***(OGPA 8.68/10)*** College of Veterinary Science Andhra Pradesh Agricultural University, Tirupati, India

Honors/Awards/Distinctions

2017	**ICAR-Hari Om Trust Team Award**

2017 **Best Oral Presentation Award:** Sajad A. Wani et al., Genome wide Transcriptional analysis of peripheral blood natural killer cells: Gene expression signature indicative of differential molecular signalling pathways in Peste des petits Ruminants Virus vaccinated Goats and sheep- National Conference on “Challenges in quantitative genetics for improvement of Indigenous animal Genetic Resources” of ISAGBCON-2017 from 19-20 January at ICAR-IVRI

2017 **Young Scientist award:** Sajad A. Wani et al., Monocytes and lymphocytes from Peste des Petits ruminants virus infected goats showed contrasting global gene expression profiles on transcriptome analysis- National conference on “ Challenges in Livestock and Poultry Production-solutions with biotechnology” XXIII Annual convention of Indian Society for veterinary immunology and biotechnology from 17-19 April 2017.

2017 **Best Poster Award**: Amit R. Sahu et al., Lung Tissue comparative transcriptomics and network biology indicated a dampened humoral and cell mediate immune responses in goats than sheep under PPRV infection- VIROCON 2016 International symposium on “ Global Perspective in virus disease management” 8-10 December 2016 at ICAR-IIHR, Bengaluru, India.

2016 **Best Teacher Award** : ICAR - IVRI for the year 2015-16

2016 **Best Paper award -** Bhuvana et al., **Transcriptome analysis of host and bacterial genes in Pasteurella multocida infected mice model-** Global Symposium on “Animal Health: Newer Technologies and their Applications” XXIX Annual Convention of IAVMI, 12-14 February, 2016, Guwahati.

2015 **Best Poster award –** Shishir et al., **Canine parvovirus NS1 protein induced apoptosis in HeLa cells causes accumulation of reactive oxygen species and follows intrinsic pathway of apoptosis Indian Society for Veterinary Immunology and Biotechnology -** XXII Annual Convention and National Symposium on “Immunomics and Proteogenomics in Livestock Health & Productivity” December 17-19.

2014 **Best poster award -** S. Manjunath et al.,**Elucidating Host-Pathogen Interactions (HPIs) in Goat Peripheral Blood Mononuclear Cells (PBMCs) infected with Peste Des Petits Ruminants Virus (PPRV) using RNA sequencing-** International conference on host-pathogen interaction (ICHPI) July 12-15, NAIB Hyderabad

2014 **Best poster award -** Anjali et al., **Identification and validation of Genes (s) involved in Bluetongue Virus infection in sheep by Transcriptome analysis-**XXVIII Annual Convention of IAVMI & International Conference on "Challenges and Opportunities in Animal Health at the Face of Globalization and Climate Change" 30 October - 1 November, 2014

2014 **Best poster award -** Himani et al., **Standardization of Nucleic acid based assay for diagnosis of Japanese Encephalitis Virus in Swine blood samples-** in annual conference of IAVPHS, Guwahati 4th – 5th February,2014

2013 **Best Research Paper young scientist award -** Rajeev et al., **Velogenic Newcastle Disease Virus as an Oncolytic Virotherapeutics: In Vitro Characterization-** XIX Annual Convention of Indian Society of Veterinary Immunology and Biotechnology and National Symposium on Emerging trends in Biotechnology Research for sustainable Animal productivity and health held at IVRI,Izatnagar, Bareilly, Uttar Pradesh, from April 8-10, 2013

2011 The **Professor A.R Rao young scientist/researcher award** Prafull K Singh et al., at the international conference on **recent advances in cancer research : Bench to Bed side held at school of life sciences-**Central university of Gujarat, Gandhinagar, Gujarat.India from February 19-10,2011

2011 **Best poster award** - Rajmani et al., **Assessment of Oncolytic potential of HN gene of NDV in DMBA induced Tumors in rats-** at Annual Conference And National Symposium on New Paradigm In Laboratory Animal Science In An Era Of Advance Biomedical Research 28-29th January, 2011

2011 **Sir. F.M. Burnett Memorial Award**: National Conference of ISVIB for the team work entitled " Development of viral gene therapeutice and their specific delivery to tumour for treatment of cancer in Bovines"

2011 **Excellence Award** for best poster presentation R.S.Rajmani et al., **Induction of apoptosis in cultured HeLa cells by HN protein of Newcastle Disease Virus-** at International Symposium on Cancer Biology, November 14-16, 2011 at National Institute of Immunology

2011	**3rd Prize Oral Presentation** Rajmani et al., **Blocking Akt and NFkB Pathways in conjunction with HN gene of Newcastle Disease Virus and TNF-alpha potentiates apoptosis-A new strategy to fight cancer** at 2nd International Conference on Stem cells & Cancer, Pune (India) 15th -18th October - 2011
2004	Asian Scientist Bursary award and DBT Financial Assistance for presenting a research paper at Tokyo.
2003	IVRI fellowship, Deemed University IVRI.
1997	Senior Research fellowship of Indian Council of Agricultural Research for the Ph.D Programme.
1993-94	Represented APAU in inter university cricket tournament at Manipal, Karnataka, India
1992-93	Participant in the earn while you learn poultry project at College of Veterinary Science, Tirupati, APAU,India
1987	Secured Telugu Vignan Parithoshikam for getting good marks in Xth standard

Publications

1. Pandey, A., Sahu, A. R., Wani, S. A., Saxena, S., Kanchan, S., Sah, V., Rajak, K. K., Khanduri, A., Sahoo, A. P., Tiwari, A. K., Mishra, B., Muthuchelvan, D., Mishra, B. P., Singh, R. K. and **Gandham, R. K**. (2017) Modulation of Host miRNAs Transcriptome in Lung and Spleen of Peste des Petits Ruminants Virus Infected Sheep and Goats. Front Microbiol*,* **8,** 1146.**Impact factor: 4.076**

2. Manimegalai J, Minakshi Prasad, Basanti Brar, Ikbal, **Ravi Kumar Gandham**, Upendra P Lambe, Koushlesh Ranjan and Jyoti Misri (2017) Validation of Interferon Induced IFIT Genes in Host Antiviral Defence Against BTV16 Infection : An Initial Report. The Indian Journal of Veterinary Sciences & Biotechnology (2017) Volume 13, Issue 1, 70-76.

4. Priya, G. B., Nagaleekar, V. K., Milton, A. A. P., Saminathan, M., Kumar, A., Sahoo, A. R., Wani, S. A., Gupta, S. K., Sahoo, A. P., Tiwari, A. K., Agarwal, R. K. and **Gandham, R. K.** (2017) Genome wide host gene expression analysis in mice experimentally infected with Pasteurella multocida. PLoS One*,* **12,** e0179420. **Impact factor: 2.806**

5. R.S. Rajmani, Lakshya Veer Singh, Shishir Kumar Gupta, Prafull Kumar Singh, Shikha Saxena, **G. Ravi Kumar**, Rajiv Kumar, Aditya P. Sahoo, Ashok K. Tiwari (2017) Molecular cloning, expression and characterization of rat tumor necrosis factor-α as potent anti-tumor candidate. Gene Reports, 7, 113-118.

6. Sahu, A. R., Wani, S. A., Saminathan, M., Rajak, K. K., Sahoo, A. P., Pandey, A., Saxena, S., Kanchan, S., Tiwari, A. K., Mishra, B., Muthuchelvan, D., Singh, R. P., Singh, Y., Baig, M., Mishra, B. P., Singh, R. K. and **Gandham, R. K.** (2017) Genome sequencing of an Indian peste des petits ruminants virus isolate, Izatnagar/94, and its implications for virus diversity, divergence and phylogeography. Arch Virol*,* **162,** 1677-1693. Impact factor: 2.05

7. Manjunath, S., Mishra, B. P., Mishra, B., Sahoo, A. P., Tiwari, A. K., Rajak, K. K., Muthuchelvan, D., Saxena, S., Santra, L., Sahu, A. R., Wani, S. A., Singh, R. P., Singh, Y. P., Pandey, A., Kanchan, S., Singh, **R. K., Kumar,** G. R. and Janga, S. C. (2017) Comparative and temporal transcriptome analysis of peste des petits ruminants virus infected goat peripheral blood mononuclear cells. Virus Res*,* **229,** 28-40. Impact factor: 2.62

8. Singh, A., Prasad, M., Mishra, B., Manjunath, S., Sahu, A. R., Bhuvana Priya, G., Wani, S. A., Sahoo, A. P., Kumar, A., Balodi, S., Deora, A., Saxena, S. and **Gandham, R. K.** (2017) Transcriptome analysis reveals common differential and global gene expression profiles in bluetongue virus serotype 16 (BTV-16) infected peripheral blood mononuclear cells (PBMCs) in sheep and goats. Genom Data*,* **11,** 62-72.

9. Kumar, A., Gaur, G. K., **Gandham, R. K.,** Panigrahi, M., Ghosh, S., Saravanan, B. C., Bhushan, B., Tiwari, A. K., Sulabh, S., Priya, B., V, N. M., Gupta, J. P., Wani, S. A., Sahu, A. R. and Sahoo, A. P. (2017) Global gene expression profile of peripheral blood mononuclear cells challenged with Theileria annulata in crossbred and indigenous cattle. Infect Genet Evol*,* **47,** 9-18. Impact factor: 2.8

10. Sajad Ahmad Wani, Amit Ranjan Sahu, Shikha Saxena, Shahid Hussain, Aruna Pandey,Sonam Kanchan, Aditya Prasad Sahoo, Bina Mishra, Ashok Kumar Tiwari, Bishnu Prasad Mishra, **Ravi Kumar Gandham**, Raj Kumar Singh (2016). Systems Biology approach: Panacea for unravelling host-virus interactions and dynamics of vaccine induced immune response. *Gene Reports* DOI : 10.1016/j.genrep.2016.08.002

11. Rajmani RS, Gupta SK, Singh PK, **Gandham ravi Kumar**, Sahoo AP, Chaturvedi U, & Tiwari Ashok Kumar (2016). HN protein of Newcastle disease virus senitizes HeLa cells to TNF-α-induced apoptosis by down regulating NF-κβexpression. *Archives of Virology,* 161 (9): 2395-2405 **Impact Factor - 2.11**

12. Shishir Kumar Gupta, Pavan Kumar Yadav, A.K. Tiwari**, Ravi Kumar Gandham** and AP Sahoo (2016). Poly (I:C) enhances the anti-tumour activity of canine parvovirus NS1 protein by inducing a potent anti-tumour immunes response. *Tumour Biology*, DOI10.1007/s13277-016-5093-z. **Impact Factor - 3.611**

13. Singh M.N., Raina O.K., Sankar M., Rialch A., Tigga M.N., **Kumar G.R**. & Banerjee P.S. (2016) Molecular detection and genetic diversity of Babesia gibsoni in dogs in India. *Infect Genet Evol* **41**, 100-6.

14. Shishir Kumar Gupta, Ashok K. Tiwari, **Ravi Kumar Gandham** and AP Sahoo (2016). Combined administration of apoptin gene and poly (I:C) induces potent anti-tumour immune response and inhibits growth of mouse mammary tumours. *International Immunopharmacology,* 35: 163-173 **Impact Factor - 2.47**

15. **Ravi Kumar G**, Shikha Saxena, Sahoo AP, Chaturvedi U, Satish Kumar, Lakshman Santra, Laksyaveer Singh and Ashok K Tiwari (2016). Production and characterization of monoclonal antibodies to Newcastle disease virus. *Indian journal of Experimental Biology* 54: 180. **Impact Factor - 1.165**

16. Amit Ranjan Sahu, Sajad Ahmad Wani, Arpita Padhy, Amod Kumar, Govindara jan, Bhuvana Priya, Aditya Prasad Sahoo, Ashok Kumar Tiwari, **Ravi Kumar Gandham** (2015) Host-Virus Interaction: Role of miRNA and Bioinformatics Tools for miRNA Target Prediction. *Advances in Animal and Veterinary Sciences* 3(4) :30-36. **Impact Factor - 0.39**

17. Sajad Ahmad Wani, Amit Ranjan Sahu, Bishnu Prasad Mishra, Amod Kumar, Govindarajan Bhuvana Priya, Arp ita Padhy, Aditya Prasad Sahoo, Ashok Kumar Tiwari, **Ravi Kumar Gandham**, Raj Kumar Singh (2015) Whole Genome Sequence Analysis of Viruses; Moving Beyond Single/Partial Gene Based Phylogenies in Context of Epidemiology and Genetic Evolution. *Advances in Animal and Veterinary sciences*. 3(8) :435-443**. Impact Factor - 0.39**

18. R. S. Rajmani, **Ravi Kumar Gandham**, Shishir Kumar Gupta, Aditya P. Sahoo, Prafull Kumar Singh, Shikha Saxena, Rajiv Kumar, Uttara Chaturvedi and AshokK(2015).Tiwari.Administration of IkB-kinase inhibitor PS1145 enhance apoptosis in DMBA-induced tumor in male Wistar rats.*Cell Biol Int.*9999:1-12. **Impact Factor - 1.6**

19. Shishir Kumar Gupta, Pavan Kumar Yadav, **Ravi Kumar Gandham**, A.P. Sahoo, D. R. Harish, Arvind Kumar Singh, A.K. Tiwari (2016). Canine parvovirus NS1 protein exhibits anti-tumor activity in a mousemammary tumor model. *Virus Research* 213:289–298. **Impact Factor - 2.52**

20. Shishir Kumar Gupta, Aditya Prasad Sahoo, Nighil Rosh, **Ravi Kumar Gandham**, Lovleen Saxena, Arvind Kumar Singh, Harish DR, Ashok Kumar Tiwari (2016). Canine parvovirus NS1 induced apoptosis involves mitochondria, accumulation of reactive oxygen species and activation of caspases. *Virus Research* 213:46-61 **Impact Factor - 2.52**

21. R. S. Rajmani, **Ravi Kumar Gandham**, Shishir Kumar Gupta, Aditya Prasad Sahoo, Prafull Kumar Singh, Rajiv Kumar, Shikha Saxena, Uttara Chaturvedi & Ashok K. Tiwari (2015). HN Protein of Newcastle Disease Virus induces apoptosis through SAPK/JNK pathway. *Appl Biochem Biotechnol*. DOI 10.1007/s12010-015 -1788-7. **Impact Factor - 1.606**

22. Manjunath S., Kumar G., Mishra B., Mishra B., Sahoo A., Joshi C.G., Tiwari A.K., Rajak K. & Janga S. (2015). Genomic analysis of host - Peste des petits ruminants vaccine viral transcriptome uncovers transcription factors modulating immune regulatory pathways. *Vet Res* 46, 15. **Impact Factor - 2.928**

23. Siddappa Manjunath BM, Bishnu Prasad Mishra, Shikha Saxena, Piyali Mondal, Amit Ranjan Sahu, Aditya Prasad Sahoo, Ashok K. Tiwari, **Ravi Kumar Gandham** (2015). Identification of suitable reference gene in goat peripheral blood mononuclear cells (PBMCs) infected with peste des petits ruminants virus (PPRV). *Livestock Science* 181:15-155. DOI 10.1016/j.livsci.2015.09.010. **Impact Factor - 1.293**

24. Garg, R., P. K. Patil, S. V. Singh, S. Sharma, **R. K. Gandham**, A. V. Singh, G. Filia, P. K. Singh, S. Jayaraman, S. Gupta, K. K. Chaubey, R. Tiwari, M. Saminathan, K. Dhama and J. S. Sohal (2015).Comparative Evaluation of Different Test Combinations for Diagnosis of Mycobacterium avium Subspecies paratuberculosis Infecting Dairy Herds in India. *Biomed Res Int* 2015: 983978. **Impact Factor - 2.13**

25. Singh, P. K., A. K. Tiwari, R. S. Rajmani, **G. R. Kumar**, U. Chaturvedi, L. Saxena, S. Saxena, J. Doley, A. P. Sahoo, L. Santra, M. Saxena, S. Kumar and B. Sharma (2015). Apoptin as a potential viral gene oncotherapeutic agent. *Appl Biochem Biotechnol* 176(1): 196-212. **Impact Factor - 1.606**

26. Dhanze H., Bhilegaonkar K.N., **Ravi Kumar G.V**., Thomas P., Chethan Kumar H.B., Suman Kumar M., Rawat S., Kerketta P., Rawool D.B. & Kumar A. (2015) Comparative evaluation of nucleic acid-based assays for detection of Japanese encephalitis virus in swine blood samples. *Arch Virol* 160, 1259-66. **Impact Factor - 2.255**

27. Harish D. Ramachandra, Arvind K. Singh, Shishir K. Gupta, Madhu C. Lingaraju, Goravanahalli M. Vidyalakshmi, Aditya P. Sahoo, **G. Ravi Kumar** and Ashok K. Tiwari. (2015). Matrix Metallo Proteinases Activities in N-methyl-N-nitrosourea Induced Mammary Tumour in Wistar Rats. *J Pure Applied Microbiology*, 3. **Impact factor - 0.07**

28. Harish D. Ramachandra, Arvind K. Singh, Shishir K. Gupta, Madhu C. Lingaraju, Goravanahalli M. Vidyalakshmi, Aditya P. Sahoo, **G. Ravi kumar** and Ashok K. Tiwari. (2015). Identification of Mammary Tumour Homing Peptides by In vivo Biopanning using Phage Display Library. *J Pure Applied Microbiology,* 3. **Impact factor - 0.07**

29. R. S. Rajmani, **Ravi Kumar**, Shishir Kumar Gupta, Aditya P. Sahoo, Prafull Kumar Singh, Shikha Saxena, Rajiv Kumar, Uttara Chaturvedi and Ashok K. Tiwari (2015). Administration of IkB-kinase inhibitor PS1145 enhances apoptosis in DMBA-induced tumor in male Wistar rats. *Cell Biology International,* 9999 (2015) 1–12. **Impact Factor - 1.933**

30. Shikha Saxena, GS Desai, **G Ravi Kumar**, AP Sahoo, Lakshman Santra, Lakshya Veer Singh, Sudesh Kumar & AK Tiwari (2015). Characterization and evaluation of apoptotic potential of double gene construct pVIVO.VP3.NS1. *Indian Journal of Experimental Biology*, 53: 249-255. **Impact Factor - 0.835**

31. Gupta S.K., **Gandham R.K**., Sahoo A.P. & Tiwari A.K. (2015) Viral genes as oncolytic agents for cancer therapy. *Cell Mol Life Sci* 72, 1073-94. **Impact Factor - 5.8**

32. Sahoo A.P., Tiwari A.K., **Ravi Kumar G**., Chaturvedi U., Singh L. V., Saxena S., Palia S.K., Jadon N.S., Singh R., Singh K.P., Brahmaprakash B.S., Maiti S.K. & Das A.K. (2015) Establishment and characterization of a bovine rectal myxoma cell line. *Tissue & Cell* 47, 49-54. **Impact Factor - 1.258**

33. Rajmani R.S., Singh P.K., **Ravi Kumar G**., Saxena S., Singh L.V., Kumar R., Sahoo A.P., Gupta S.K., Chaturvedi U. & Tiwari A.K. (2015) In-vitro Characterization and Evaluation of Apoptotic Potential of Bicistronic Plasmid Encoding HN Gene of Newcastle Disease Virus and Human TNF-alpha. *Anim Biotechnol* 26, 112-9. **Impact Factor - 0.835**

34. R S Rajmani, Prafull Kumar Singh, Sanjay Kumar, **G Ravi Kumar**, Aditya P Sahoo, Lakshman Santra, Shikha Saxena, Lakshya Veer Singh, Uttara Chaturvedi, Lovleen Saxena, G S Desai, Shishir Kumar Gupta, Amit Kumar, N S Jadon & Ashok K Tiwari (2014). Development of dog mammary tumor xenograft in immunosuppressed Swiss albino mice. *Indian J. Exp. Biology*, 52: 935-42. **NAAS=6.84 , Impact Factor - 1.165**

35. Mandal M, Banerjee PS, Garg R, Ram H, Kundu K, Kumar S, **Kumar GV**. 2014. Genetic characterization and phylogenetic relationships based on 18S rRNA and ITS1 region of small form of canine Babesia spp. from India. *Infect Genet Evol* 27: 325-331. **Impact Factor - 2.591**

36. Thadiyam Puram Ramees, Ramswaroop Singh Rathore, Prashanth Suresh Bagalkot, **G.V.P.P.S. Ravi Kumar**, Hosakote Venkatappa ,Mohan1, R. Anoopraj, Ashok Kumar and Kuldeep Dhama (2014) Real-Time PCR Detection of *Arcobacter butzleri* and *Arcobacter cryaerophilus* in Chicken Meat Samples. *Journal of pure and applied microbiology*, 8(4), p. 3165-3169. **Impact Factor - 0.073**

37. Hitesh N Pawar, **G Ravi Kumar**, Raman Narang and Ravi Kant Agrawal 2014. Heat and cold stress enhances the expression of heat shock protein 70, heat shock transcription factor 1 and cytokines (IL-12, TNF- and GMCSF) in buffaloes. *Int.J. Curr. Microbiol.App. Sci* 3: 307-317.

38. Santra L, Rajmani RS, **Kumar GV**, Saxena S, Dhara SK, Kumar A, Sahoo AP, Singh LV, Desai GS, Chaturvedi U et al. 2014. Non-Structural protein 1 (NS1) gene of Canine Parvovirus-2 regresses chemically induced skin tumors in Wistar rats. *Res Vet Sci* 97: 292-296.**Impact Factor - 1.504**

39. Lakshman Santra, Rajmani RS, **G.V.P.P.S. Ravi kumar**, Sujoy Kumar Dhara, Shikha Saxena, A P Sahoo, G S Desai, Lakshya Veer Singh, Uttara Chaturvedi, Sudesh Kumar and Ashok K Tiwari. . 2014. In vitro cloning of Canine Parvo virus NS1 gene and reporter gene GFP in eukaryotic expression vector pVIVO-mcs and characterization of double gene construct in mammalian cells. *Indian Journal of Biotechnology* 13: 41-46.**Impact Factor - 0.287**

40. Manjunath Siddappa, **Ravi Kumar G**, Vishal Sarsani, Bishnu Prasad Mishra, Bina Mishra, C. G. Joshi, A. P. Sahoo, A. K. Tiwari, Sarath Chandra Janga. 2014. Whole-Genome Sequence of Sungri/96 Vaccine Strain of Peste des Petits Ruminants Virus. *Genome Announc* 2.

41. Lakshya Veer Singh, Shikha Saxena, Smita Gupta, Shishir Kumar Gupta, **G. Ravi Kumar**, G. S. Desai, Aditya Prasad Sahoo, Harish DR and A. K.Tiwari. 2014. Evaluation and comparison of the constitutive expression levels of Toll-like receptors 2, 3 and 7 in the peripheral blood mononuclear cells of Tharparkar and Crossbred cattle from different regions of India. *Veterinary World* 7:209-212.

42. Doley J, Singh LV, **Kumar GR**, Sahoo AP, Saxena L, Chaturvedi U, Saxena S, Kumar R, Singh PK, Rajmani RS et al. 2014. Canine parvovirus type 2a (CPV-2a)-induced apoptosis in MDCK involves both extrinsic and intrinsic pathways. *Appl Biochem Biotechnol* 172: 497-508.**Impact Factor - 1.606**

43. Das DP, Malik SV, Rawool DB, Das S, Shoukat S, **Gandham RK**, Saxena S, Singh R, Doijad SP, Barbuddhe SB. 2014. Isolation of Coxiella burnetii from bovines with history of reproductive disorders in India and phylogenetic inference based on the partial sequencing of IS1111 element. *Infect Genet Evol* 22: 67-71.**Impact Factor - 2.591**

44. Saxena L., **Kumar G.R**., Saxena S., Chaturvedi U., Sahoo A.P., Singh L.V., Santra L., Palia S.K., Desai G.S. & Tiwari A.K. (2013) Apoptosis induced by NS1 gene of Canine Parvovirus-2 is caspase dependent and p53 independent. *Virus Res* 173, 426-30. **Impact Factor - 2.526**

45. Swati, **GVPPS Ravi Kumar**, Gurvinder Singh Brah, Dipak Deka, R. K. Agrawal, Meera D Ansal and C S Mukhopadhyay (2013). Differential expression profiling of toll like receptors 3, 4 and 9 genes in major tissues of Indian major carp *Catla catla.* 83 (9): 983–986, *Indian Journal of Animal Sciences.***Impact Factor - 0.16**

46. Uttara Chaturvedi, **G. Ravi Kumar**, G. Desai, Sudesh kumar, Shahina Kalim, Aditya P Sahoo, B.B. Dash, Sangeeta Tiwari, Barkha Ratta, Lakshya Veer Singh and Ashok. K. Tiwari (2013), Phylogenetic and pathogenic analysis of Indian isolates of Newcastle Disease Virus. *Indian Journal of Biotechnology* 12:425-428. **Impact Factor - 0.287**

47. Hitesh N. Pawar, **G Ravi Kumar** and Raman Narang. 2013. Effect of Heat Stress on Milk Production and Composition in Murrah Buffaloes *Journal of Buffalo Science* 2: 98-102.

48. Uttara Chaturvedi, Shahina Kalim, L. V. Singh, A. P. Sahoo, S. K. Palia, Rajiv Kumar, **G. Ravi Kumar**, Sangeeta Tiwari, Ashok K. Tiwari 2013. Cloning, expression and phylogenetic analysis of IFN-γ gene in chicken. *Indian J of animal Science* 83 (4): 398-401. **Impact Factor - 0.160**

49. Kumar R, Tiwari AK, Chaturvedi U, **Kumar GR**, Sahoo AP, Kumar S, Tiwari S. 2013. Cloning and expression analysis of multiple proteins encoding P gene of Newcastle disease virus. *Indian J Exp Biol* 51: 116-123. **Impact Factor - 1.165**

50. Kumar R, Tiwari AK, Chaturvedi U, **Kumar GR**, Sahoo AP, Rajmani RS, Saxena L, Saxena S, Tiwari S, Kumar S. 2012. Velogenic newcastle disease virus as an oncolytic virotherapeutics: in vitro characterization. *Appl Biochem Biotechnol* **167**: 2005-2022. **Impact Factor - 1.606**

51. Singh P.K, Doley J, **Kumar G.R.,** Sahoo A.P., Tiwari A.K. (2012). Oncolytic Viruses and their specific targeting to tumour cells. *Indian Journal of Medical Research*,136 : 571-584. **Impact Factor - 1.446**

52. Saxena S, **Kumar GR**, Singh P, Chaturvedi U, Saxena L, **Kumar R**, Sahoo AP, Doley J, Rajmani, Kumar A et al. 2012. Prokaryotic expression of chicken infectious anemia apoptin protein and characterization of its polyclonal antibodies. *Indian J Exp Biol* 50: 325-331. **Impact Factor - 1.165**

53. Shah SM, **Ravi Kumar GV**, Brah GS, Santra L, Pawar H. 2012. Differential Expression of Th1- and Th2- Type Cytokines in Peripheral Blood Mononuclear Cells of Murrah Buffalo (Bubalus Bubalis) on TLR2 Induction by B. Subtilis Peptidoglycan. *Asian-Australas J Anim Sci* 25: 1021-1028. **Impact Factor - 0.541**

54. **Kumar G.R**., Saxena S., Saxena L., Chaturvedi U., Santra L., Kumar R., Sahoo A.P., Rajmani, Kumar A., Desai G.S., Kumar S. & Tiwari A.K. (2012) In vitro expression studies of non structural 1 protein of Canine Parvo virus 2 by polyclonal antiserum raised against CPV2-NS1 protein expressed in Escherichia coli as an antigen. *Indian J Exp Biol* 50, 618-24. **Impact Factor - 1.165**

55. **G.V.P.P.S Ravi Kumar**, V. Vohra, Aditya.P.Sahoo, Lakshman Santra and Shikha Saxena (2012) Whole genome selection: An overview *Journal of Animal Research* 2(1):1-8.

56. Srinivasa Rao T., J.P.S. Gill, **G.V.P.P.S. Ravi Kumar,** Sandeep Ghatak, K.N. Bhilegaonkar Mudasir Ali Rather and P.K. Patil (2011). Prevalence and Putative Virulence Genes of Shiga Toxin-Producing *Escherichia Coli* Isolated from Water, Fish and Human Diarrhoeic Samples in Punjab, India. *International Journal of Applied Biotechnology and Biochemistry.* 1: 59-70

57. Rajmani R.S., Doley J., Singh P.K., **Kumar Ravi**, Barathidasan R., Kumar Pawan, Verma P.C. and Tiwari A.K. 2011. Induction of skin tumour using DMBA in wistar Rat and histopathological evaluation. *Indian J. Vet. Pathol.* 35(2) : 217-220.

58. Rajmani R.S., Doley J., Singh P.K., **Kumar Ravi**, Barathidasan R., Kumar Pawan, Verma P.C. and Tiwari A.K. 2011. Induction of mammary gland tumour in rats using N-methyl-N-nitroso urea and their histopathology. *Indian J. Vet. Pathol.* 35(2) : 142-146, 2011.

59. Saxena L, Chaturvedi U, Saxena S, **Kumar GR**, Sahoo AP, Kumar S, Doley J, Rajmani RS, Singh PK, Kumar R et al. 2011. Characterization and in vitro expression of non-structural 1 protein of canine parvovirus (CPV-2) in mammalian cell line. *Indian J Exp Biol* 49: 654-659. **Impact Factor - 1.165**

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Trainings conducted

Sl. No	Title of the training	Position	Duration	Funding agency	Year
1	National workshop cum training programme on “Bioinformatics Tools for Genome Analysis”	Course Coordinator	14-16, Mar	DBT	2011
2	National workshop cum training programme on “*In-silico* Approach for Genome Analysis”	Course Coordinator	14 -16, Mar	DBT	2012
3	National workshop cum training programme on “Use of Bioinformatics Tools in Biotechnology”	Course Coordinator	22 - 24, Mar	DBT	2012
4	National workshop cum training programme on “Computational Approaches in Biotechnology for Beginners”	Course Coordinator	29 Nov - 01 Dec	DBT	2014
5	Training Programme on “Basic Course on Use of Bioinformatics Tools in Veterinary Science Research”	Course Coordinator	17 - 21, Feb	DBT	2014
6	Training Programme on “Basic Course on Use of Bioinformatics Tools in Veterinary Science Research”	Course Coordinator	13-15, Nov	DBT	2014
7	Training Programme on “Basic Course on Use of Bioinformatics Tools in Veterinary Science Research”	Course Coordinator	23-25, Feb	DBT	2015
8	National Workshop Cum Training Programme on “Computational Approaches in Biotechnology For Beginners”	Course Coordinator	23 - 26, Mar	DBT	2015
9	Training Programme on “ Use of Bioinformatics Tools in Veterinary Science Research: Basic and fundamentals.	Course Director	18-20, Feb	DBT	2016

10	Training Programme on “ Use of Bioinformatics Tools in Animal Science Research: Basic and fundamentals.	Course Director	08-10, Mar	DBT	2016
11	National Workshop Cum Training Programme on “Basic Concepts in Bioinformatics for Beginners”	Course Director	15-19, Mar	DBT	2016
12	Analysis of high throughput sequencing & microarray data to unravel host-pathogen interactions	Course Director	Nov 17-Dec 7, 2015	ICAR	2015

Trainings Attended

Sl. No	Title of the Course	Duration	Institution	Yr
1	Allele mining (Next Generation Sequence analysis)	Sep 6th - Dec 4th	IUPUI, Indianapolis, USA	2013
2	Genomics and Beyond- 16th ADNAT Convention	Dec 6th - Dec 16th	CR Rao AIMSCS,NIAB and CMSD and UoH Hyderabad	2012
3	Assessment of microbial diversity by Next Generation Sequencing (NGS) for taxonomic and metabolic reconstruction of the gut microbes	Sep 5th - Sep 15th	NIANP, Bangalore	2012
4	Course on Real Time PCR	June 2nd - June 4th	State of art Genomics and Proteomics training facility at lab India, Gurgoan	2008
5	Workshop on Microarray Technology	Nov 14th - Nov 17th	Genetix Biotech Asia Pvt ltd, New Delhi	2007
6	Molecular and Quantitative Genetic Techniques for livestock improvement	Jan 3rd - Jan 23rd	NDRI, Karnal	2006
7	Genomics and gene sequencing	Nov 16th - Nov 26th	PAU, Ludhiana	2004
8	Computer aided material production	May 24th - June 3rd	NAARM Hyderabad	2004

9	Genomics and Proteomics in Biotechnology	Oct 29th - Oct 31st	PAU, Ludhiana	2003
10	Recent Advances in Characterization and Conservation of Animal Genetic Resources	July 16th - Aug 6th	NBAGR, Karnal	2001
11	Advances in Genetic techniques for Improving Farm Animal Productivity	Nov 19th - Dec 9th	NDRI, Karnal	1999
12	Molecular Genetic Approaches for studying bacterial Pathogenesis	Nov 16th - Nov 26th	IVRI, Izatnagar	1998
13	Refresher Course for Senior Scientist	Jun 5th - Jun 18th	NAARM	2012
14	National Training Workshop on Scientific Report Writing and Presentation	Nov 26th - Nov 30th	NAIP(NAARM)	2013

Projects handled

Title of Research project	PI/Co-PI	Funding Agency	Budget (Lakhs)
1. Elucidating the gene network(s) and identification of noval gene(s) underlying host-pathogen interaction in PPRV infection - **Completed**	PI	DBT	50.69
2. Understanding the molecular events associated with economically important diseases of livestock through system biology approach- **Ongoing**	PI	ICAR-CABin	49.82
3. Development of monoclonal antibodies against Newcastle disease virus – **Completed**	PI	IVRI	4.5
4. Identification of viral gene and development of tumour targeted nano-delivery vehicle for cancer therapy in bovine – **Completed**	Co-Pi	ICAR	500
5. Unique traits in indigenous livestock making them resilient to climate change and database development: impact of climate variability on major zoonotic stresses including surveillance (livestock disease resistance traits) – **Ongoing**	Co-Pi	ICAR	146

Other projects handled at PAU/GADVASU

Sl.No	Type of project	Details such as title, PI/ CO-PI, Allocation etc	Duration
1	Sponsored (State Government)	**Title** : Molecular and Cytogenetic Studies in farm animals (PV-3) **CoPI :** Ravi Kumar **Allocation :** 7.00 lakhs	1yr
2	Institutional (Subproject)	**Title :** Studies on Growth hormone gene polymorphism in meat and egg type chicken **PI :** Ravi Kumar **Allocation :** 2.00 lakhs	1 yr
3	Institutional (Subproject)	**Title :** Studies on NPY gene polymorphism in egg type chicken **PI :** Ravi Kumar **Allocation :** 2.00 lakhs	1 yr
4	Sponsored (State Government)	**Title:** Molecular and Cytogenetic Studies in farm animals (PV-3) **CoPI :** Ravi Kumar **Allocation :** 18.00 lakhs	1 yr
5	Institutional (Subproject)	**Title :** Studies on Growth hormone receptor gene polymorphism in egg type chicken **PI :** Ravi Kumar **Allocation :** 2.00 lakhs	1 yr
6	Institutional (Subproject)	**Title :** Cloning, sequencing and characterization of SCA2 gene in egg type chicken and quails **PI :** Ravi Kumar **Allocation :** 2.00 lakhs	1 yr
7	Sponsored (State Government)	**Title:** Molecular and Cytogenetic Studies on animals for faster genetic gains (NPV-61) **CoPI :** Ravi Kumar **Allocation :** 7.00 lakhs	Non-plan

Special efforts made to improve teaching methodology

1. Manuals prepared	1. Manual developed for the course - Advances in Genetics Engineering (BTY - 708) 2. Manual developed for the course - Bioinformatics in Biotechnology (BTY - 614) 3. Manual developed for the course **-** Genome analysis in Farm Animals (BTY - 712)

2. CDs prepared	1. Developed CDs for the course - Advances in Genetic engineering (BTY-708) 2. Developed CDs for the course - Bioinformatics in Biotechnology (BTY-614)
3. Aid developed	1. Website developed (www.gandhamravi.com) where the presentations in various courses in Biotechnology can be downloaded by students - Currently under maintenance
4. Other Aids developed	1. Developed a **monograph** on "Phylogenetic analysis using MEGA 4.0, MEGA 5.05 and PHYLIP"
	2. Developed a **technical Bulletin -** "Analysis of Real time PCR"
	3. Developed a **training manual** for "National workshop - cum - training programme on "Bioinformatics tools for genome analysis" held from March 14-16, 2011 at Bioinformatics centre, IVRI, 1-91
	4. Compiled and edited **five books**:
	• ***In silico* approach for genome analysis**. (2012). Eds, A.K.Tiwari, **G Ravi Kumar**, A P Sahoo and GS Desai, IVRI, Izatnagar, 1-156
	• **Bioinformatics tools in Biotechnology** (2012).Eds, A.K.Tiwari, **G Ravi Kumar**, A P Sahoo and GS Desai, IVRI, Izatnagar, 1-194
	• **Computational Approaches in Biotechnology for Beginners** (2014).Eds, **GVPPS Ravi Kumar**, AP Sahoo, GS Desai, Ravikant Agarwal, & A. K. Tiwari, IVRI, Izatnagar, 1-210
	• **Basic Concepts in Bioinformatics for beginners** (2015).Eds Ravi Kumar Gandham, Aditya P Sahoo, Ravi Kant Agarwal and A.K.Tiwari, IVRI, Izatnagar, 1-198
	• **Analysis of high throughput Sequencing and Microarray data to unravel Host-Pathogen Interactions** (2015). Eds. **Ravi Kumar Gandham**, Aditya P Sahoo and Amit Kumar, IVRI, Izatnagar, 1-194