SI.	Name of the	Training program title	Place and exact	Post training / post
No. 1	Scientist Dr. S. C. Roy,	"Molecular cloning and	duration Department of Cell	doctoral research utility Several molecular biology
1	Dr. S. C. Roy,	characterization of novel antibacterial proteins of male reproductive tract"	Biology, University of Virginia, Virginia, USA Six months (02.02.2009 to 01.08.2009)	techniques learned are being used in the on-going DBT-funded research project.
2	Dr. NKS Gowda	Mycotoxin toxicity and antioxidant status	University of Missouri, Columbia, USA 1.2.2007 to 30.7.2007 (6 months)	Based on this experience work on anti oxidant statu and chelated minerals an fluoride toxicity wa undertaken at NIANP.
3	Dr. K.GIRIDHAR	1. Post doctoral (Endeavour fellowship) research	University of New England, Armidale, Australia- 6 months (July,2009 to January,2010)	Collaborative work o evaluation of brow midrib sorghum varietie with Directorate o Sorghum Research Hyderabad
		2. Application of Remote Sensing and GIS in Natural Resource Management	National Bureau of Soil Survey and Land Use Planning, Regional Center, Bangalore- 3 weeks (11 November to 1 December, 2010)	Knowledge gained is bein utilised in IRC project 1. (Estimation of cro residues' production wit remote sensing techniques
		3. Crop Simulation Modeling and Impacts of Climate Change on agricultural production systems	Chiang Mai University, Thailand - 2 weeks (11 to 22 February,2013)	The new knowledge is being employed in the externally funded NICRA project ("Modeling the Impact of Climate Variation on Feed Resources' Availability for Livestock")
4	Dr. S.Senani	MDP on Priority Setting Monitoring and EvaluationProteinchromatography: analytical downstream processing	IIM Lucknow,22- 26March 2010 CFTRI, Mysore,27-31 Aug. 2007	Used in prioritizin, research and other issues Developed good understanding of th chromatographic techniques
5	Dr (Mrs) Manpal Sridhar	Training in molecular biology techniques under the Indo Australian project " Increasing the productivity of cattle in India and Australia through rumen fungal treatments"	CSIRO, Brisbane Australia for a period of six weeks with effect from 25.03.2005 to 6.05.2005.	The specific objective of the training course was to receive training with respect to rumen fungation culture studies and use of RTPCR & characterization of the different fungation isolates. With the training have successfull completed the project with the identification of a new fungal isolate. I have als imparted training to man

				post graduate students and scientists as well as in various training programmes organized by the Institute. I am pursuing molecular biology work in all my projects.
6	Dr. A.K. Samanta	Protein Chromatography: Analytical techniques to down stream processing	CFTRI, Mysore from 27th August to 31st August, 2007.	Learn advanced knowledge on chromatography techniques and applying in the subsequent research projects.
		Endeavour Research Fellowship on "Effect of prebiotics and probiotics on gut microbial profile in experimental colitis".	The university of Adelaide, Roseworthy Campus Australia from 14th May, 2009 to 8th September, 2009.	Completed research on prebiotics funded by DBT and IRC.
		NAIP international training on "Nutraceuticals".	North Carolina State University, USA from 8th September, 2011 to 6th December, 2011.	Undertaking research on nutraceuticals funded by DBT and Coconut Development Board.
7	Dr. P.S.P.Gupta	National training on IPR for Animal Scientists	SRS,NDRI 9-18th March,2011	The training gave immense knowledge about IPR and patents.
		DBT-CREST award Training	Michigan State University, USA 4th Feb,2012 to 3rd Feb,2013	The training gave me immense knowledge on latest proteomic and genomic technologies.
8	Dr. S. Mondal	Biotechnology Overseas Associateship training (Long term; one year) on "Identification and characterization of gene expression and protein processing in bovine endometrium in association with recognition and establishment of pregnancy"	Biology of Reproduction, University of Laval, Quebec, Canada from 2nd March, 2009 to 25th February, 2010	 Undertook National Fund project on the same area of expertise. To collaborate other research organization that would be interested in using RNAi as a tool for studying the gene function and manipulating gene expression. To develop the facilities for imparting training on gene silencing
		DBT sponsored training course on "Molecular techniques for production of recombinant cytokines and genome analysis in poultry"	CARI, Bareilly from 18th Aug to 7th Sept, 2007 (21 days)	 To develop linkages with for taking up collaborative project work
		ICAR sponsored winter school on "Reproductive techniques to augment fertility in dairy animals"	Karnataka Veterinary Animal and Fishery Sciences University, Bangalore from 1st to 21st December, 2006	 To develop linkages with for taking up collaborative project work
9	Dr. Kajal	1.BOYSCAST Overseas	The University of	Carrying out similar line

	Sankar Roy	Fellowship Programme;	Arizona, Tucson,	advanced research in the
		Sponsored by DST, Govt. of India	Arizona, USA. <u>For one year</u> : (From May'2009 to May'2010.	area of abiotic stress on livestock, stress bio- markers, cellular thermal tolerance and adaptation, managemental strategy for sustainable livestock production under recent climate change scenario.
		2. NAIP sponsored National training on "Allele Mining".	IISR, Calicut, India; <u>for</u> <u>14 days</u> ; (from 12 th to 25 th Sept'2011).	Useful for carrying out of regular research works.
		3. Summer school on "Gene expression techniques: Gene Amplification, cloning, characterization of recombinant clones & in-vitro expression analysis"	Division of Animal Biotechnology, IVRI, Izatnagar-243 122, UP. <u>For 21 days</u> (from July 25 th – 14 th August' 2007).	Useful for carrying out of regular research works.
		4. Winter School on"Recent trends in rumen Microbiology and Biotechnology".	Centre of Advanced studies in Animal Nutrition, IVRI, Izatnagar-243 122, UP. <u>For 21 days</u> (from February 16 th to 9 th March'2006).	Useful for carrying out of regular research works.
		5. Winter School on "Implications of WTO Agreements on Indian Agriculture"	NAARM, Hyderabad- 500 030. <u>For 21 days</u> (from October 4 th to 24 th , 2005).	Useful for carrying out of regular research works.
10	Dr. RAGHAVENDR A BHATTA	JSPS post-doctoral training on 'Estimation and mitigation of methane' at the National Institute of Livestock and Grassland Science Advanced training on methane mitigation	Tsukuba, Japan 29.09.2004 to 28.09.2006 United States Department of Agriculture, Texas, USA 01.09.2011 to 29.11.2011	Based on the expertise, the Network project on methane was conceptualized and is under progress A training programme was organized to impart the knowledge to others working on methane mitigation
11	Dr. P. K. Malik	Assessment of microbial diversity by next generation sequencing (NGS) for taxonomic and metabolic reconstruction of the gut microbes	NIANP, Bangalore 22 August – 4 September 2012.	Applying the acquired knowledge through said training in present institutional research project on 'molecular profiling of rumen acetogens at different

12	Dr. Angadi U B	Current Approaches and Applications of Bioinformatics in Agricultural Research Data driven web solution using	Central Tuber Crops Research institute Sreekariyam, Triruvananthapuram, Kerala, 28th March to 6th April 2011 10 Days Indian Agricultural	developmental stages in sheep' for exploring the diversity. Enhanced application knowledge of bioinformatics tools in animal science research and helped in the institute research projects
		open sources technology	Statistical Institute , PUSA, New Delhi 17 th Septemer 2005 to 7 th October, 2005	
13	Dr. I. J.Reddy	DBT Overseas Associateship. "RNA interference of prolactin during embryogenesis in turkey and domestic Hen".	Department of Animal Science. (Molecular Endocrinology) McGill University Montreal, Canada.	IRC Project: 3.14. Suppression of prolactin gene in during exova period in domestic hen". (project continuing with promising results)
			30.10.207 to 30.4.2008	
14	Dr A. V. Elangovan	Post doctoral Endeavour Research Fellowship, Australia "The use alternatives for feed antibiotics and supplementation of feed enzymes in broiler chicken"	University of New England, Armidale, NSW, Australia, Six months. 02-06-08 to 01-12-08	Based on this experience, continuing work on the area of enzymes under DBT funded project
15	Dr S. NANDI	ICAR sponsored summer school on "Recent advances in Agricultural Research Project management"	NAARM, Hyderabad from 1st to 21 st , 2006	Research Project formulation, management, planning, and execution
		WHO/TDR training workshop on Good Laboratory Practice (GLP)	29 th – 31 st October, 2007, Bangalore	Execution of GLP in laboratories
		Genomic and Proteomic Tools for animal Reproduction Research, NIANP, Bangalore	NIANP, Bangalore, Nov 10-30, 2009	Training used in Indo- Japan project
		DBT associateship for specialised training of young scientists in niche areas of biotechnology	1.10.2008 to 30.09.2009) at Virginia Tech University, Blacksburg, USA	Advanced knowledge in gene transfer and cell culture
		Training on "Hands on training on stem Cell research on quality animal production	NDRI Karnal from 17- 30 March, 2011	Advanced Embryo culture technique
		ICAR sponsored winter school training on "Functional genomics approaches for enhancing fertility in livestock"	22nd November to 12th December 2011	Proteomic and genomic training utilized in institute and external funded projects.
16	Dr. A.	Functional genomic	22nd November to	Conducting research

17	Arangasamy Dr Jyotirmoy Ghosh	 approaches for enhancing fertility in livestock" Assessment of Microbial Diversity by Next Generation Sequencing (NGS) For Taxonomic and Metabolic Reconstruction of the Gut Microbes". DBT Overseas Associateship under Niche Areas of Biotechnology 	12th December, 2011 at NIANP Adugodi Bangalore. 21 days winter school 22nd August to 04th September, 2012 at NIANP Adugodi Bangalore 14 days University of Connecticut, Connecticut State, USA One year in 2008	 projects in the area of reproductive genomic approach. Conducting research projects in the area of reproductive genomic approach. 1) Better understanding of research problems and experiments 2) Obtained project 	
18	Gnosn Dr S.Anandan	Molecular biology technique	CSIRO, Livestock Industries, Queensland Bioscience Precinct, Australia 16 May to 30 June,2005.	 2) Obtained project funding of about 1 crore from other organizations. Utilized the skills for achieving project objectives (as evidenced by publications & reports) 	
		National training on IPR for Animal Scientists	SRS,NDRI 9-18th March,2011	The training imparted knowledge about IPR and patents.	
19	Dr S.Selvaraju	Recent techniques in reproductive physiology	Center of Advanced studies in veterinary physiology, IVRI, Izatnagar, India Duration: 14th January to 3rd February 2005, 21 days.	The techniques learnt were used for the ongoing projects at the Institute	
		Granulosa cell culture and transcriptomics	Underwent training at Michigan State University, USA Duration: 28th March to 1st July 2009 3 months.	The techniques were used for the ongoing Institute ad well as externally funded projects at the Institute. The techniques learnt were taught to the scientists and Assistant professors at ICAR and SAUs under Hands on	
				training on "Techniques for assessing ovarian follicular function in cattle and buffalo (November 16th to December 6th 2010, 21	

		fellowship training on, "Function of spermatozoal RNAs in spermatozoa function and fertility"	laboratory, Department of Obstetrics and Gynecology, School of Medicine, Wayne State University, Detroit, USA. Duration: 10th September 2012 to 9th September 2013	used for the ongoing Institute ad well as externally funded projects at the Institute.
20	Dr. S. B. N.Rao	Short term Training Programme on "Modern Methods of Pesticide Residue Analysis"	Central Food Technological Research Institute, Mysore – 570020 (16/10/2006 to 20/10/2006)	The training provided ideas for method development in the analysis of pesticides in feedstuffs.
		Endeavour Research Fellowship, DEST, AUSTRALIA (Experiment Title: Level and frequency of cottonseed meal supplementation for Merino sheep fed a roughage diet as a winter supplementation strategy)	University of New England, Armidale, NSW. 13-4-2008 to 6-10-2008	The training provided skills which are being implemented in India.
		NAIP sponsored training on "Rapid and Nondestructive Evaluation of Food Quality and Safety Factors using Spectroscopy and Biosensing Methods"	Central Institute of Post-Harvest Engineering & Technology (ICAR), PAU Campus, Ludhiana – 141004 (Punjab) (06-05-2011 to 19-05- 2011)	Skills are being utilized for developing laboratory and projects
		NAIP sponsored training programme on "Data analysis using SAS"	University of Agricultural Sciences, GKVK, Bangalore. 8/8/2011 to 13/8/2011	Skills are being utilized for data analysis.
21	Dr. Chandrasekhara iah	Latest Techniques used in rumen fungal culture studies, use of RT-PCR and characterization of different fungal isolates.	Commonwealth Scientific and Industrial Research Organization, Brisbane, Australia 25.03.2005 to 6.05.2005	project for isolation of fungi.
		To learn novel technologies in the area of molecular-biology which can be applied in rumen microbial ecosystem	Kansas State University – College of Veterinary Medicine Kansas State University, Manhattan, KS 66503, USA. 22-08.2011 to 22.10.2011	NAIP project
22	DR K.S.Prasad	Management Development Programme on Leadership Development	NAARM,Hyderabad 12 days April 9th to 20th , 2012	As Incharge of AND the skills are implementing for effectively running

				the division
23	Dr D. Rajendran	Challenges and Constraints in poultry Production and their mitigation	Veterinary college and Research Institute TANUVAS, Namakkal, 21 days, (24th Nov to 14th Dec 2010)	It helped in the Project on poultry
		National Training on Application of Nano Science & Technology in Agriculture	TNAU, Coimbatore, 14 days (December 15 - 28, 2011)	Concept paper submitted and accepted.
		Management Training Programme on Technology Management for Research	NAARM, Hydrabad, 7 days, (28th Feb-6 March, 2013)	It helping in day to day activity of ITMU
24	Dr.R.Umaya Suganthi	Summer school on "PCR and its application in disease diagnosis"	Madras Veterinary College, Chennai, India, June 2005 (21 days)	The training was useful in carrying out the research activities in the institute.
		Winter School on "Functional Genomic Approaches for Enhancing Fertility in Livestock"	NIANP, Bangalore, 22 nd November to 12 th December 2011 (21 days)	Specific techniques were used in institute and DBT project.
		Training on Western Blotting and Real Time PCR techniques	Annamalai University, Chidambaram, Tamil Nadu, 11 th to 14 th October, 2011, 3 days	Helped in carrying out work under DBT project on aflatoxins.

25	Dr Letha Devi G	"Research Methodology, data management and Biostatistics"	NIANP, Bangalore Two days 8-9 January 2010	Knowledge enhancement for data management and analysis for various research projects
		"Recent advances in web technologies for information management in agriculture"	IASRI, New Delhi 21days 16.02.2010 to 08.04.2010	Knowledge enhancement for Web based expert system development, used for the research project
		"Gender Issues in Science & Technology"	National Institute of Advanced Studies, IISc, Bangalore. Four days 22 -26, November, 2010.	Better management of day to day activities related to research and other activities in office
		"Intellectual Property Rights (IPR) for animal scientists"	SRS-NDRI, Bangalore. Ten days 9-18, March, 2011	Knowledge enhancement for IPR and other related issues concerned with research and transfer of technologies.
26	Atul P Kolte	National Training on "Microbial Diversity Analysis of Agriculturally Important Microorganisms"	NBAIM, UP 3-25 th January, 2006	The training has helped me to initiate work in the area of unculturable microbes and a project on metagenomics of rumen and soil microbes
		Intellectual property Protection & Technology Licensing in Agriculture Organized by Indo- US Agricultural Knowledge Initiative. Management Development programme on "Management of Intellectual Property"	KAU, Thrissur 18-20 Feb, 2008 IIM, Indore (MP) 8-10 February, 2010	The trainings helped in discharging duties as I/C of Institute Technology Management Unit of NIANP. The Unit has facilitated filing 6 patents and 3

		NAIP sponsored International Training in the area of Genome Resource Conservation	Iowa State University, USA 02.12.2010 to 28.02.2011	technologies commercialization. The training has enhanced my abilities for using next generation sequencing techniques for metagenomics and transcriptomic analysis. Post training a new laboratory has been established to take up work in the area.
27	Dr A.Thulasi	Molecular characterization of anaerobic fungi and application of RT-PCR to study microbial diversity	CSIRO, Brisbane, Australia May 15 th to June 30 th 2005	Worked for my Ph.D based on the above training. The techniques learnt were used in the ACIAR project on "Increasing the productivity of cattle in India and Australia with rumen fungal treatments.
		National training programme on Microbial diversity analysis of Agriculturally important microorganisms	NAIBM, MAU NATH Bhanjan, Uttar Pradesh January 3-25, 2006	Presently working on VTCC_ Rumen Microbes project based on training received.
		Application of Denaturing gradient gel electrophoeresis for riumen microbial studies	CSIRO, Brisbane, Australia February 12 th to march 12 th , 2008.	Technique used on studying the methanogen diversity and the bacterial diversity.
28	Dr.SOUMITRA JASH	National Training on Intellectual Property Rights (IPR) for Animal Scientists	NDRI (Southern Campus), Bangalore, 9-18 March, 2011	Sentitization of IPR issues and patent filing process
		National Training on Rapid and non-destructive evaluation of food quality and safety factors using spectroscopy and biosensing methods	CIPHET, Ludhiana, May 6-19, 2011	Acquaintance on working of GC-MS- MS and NIR spectroscope

	[]			[]
		Nanotechnology Applications in Agriculture	Dept. of Nano Science & Technology, TNAU, Coimbatore, December 15-28, 2011	Synthesis and characterization on nano-particles using SEM and TEM
		Recent advances in animal genetic resources conservation technologies and its significance in the modern IPR era vis-à-vis climate change scenario	Southern Regional Station of NDRI, Bengaluru during July 18-27, 2013	Biotechnological application for genetic conservation and its evaluation as IPR property
29	Dr C David	Recent techniques in reproductive physiology	Center of Advanced studies in veterinary physiology, IVRI, Izatnagar, India Duration: 14th January to 3rd February 2005, 21 days.	The techniques learnt were used for the ongoing projects at the Institute
30	Dr. A Mech	Recent advances in animal genetic resources conservation technologies and its significance in the modern IPR era vis-à-vis climate change scenario	Southern Regional Station of NDRI, Bengaluru during July 18-27, 2013	Application of intellectual property right for Animal genetic resource conservation
31	R.ANBU	Training for new recruited Assistants of ICAR	NEW DELHI 27-05-2013 to 06-06-2013	Working in accordance with rules , procedure instructed by