

## Brief Resume

1. **Name in full:** Dr GirishPatil, S.  
(Surname followed by forename)
2. **Date of Birth:** 26<sup>th</sup> March 1976
3. **Field of specialization:** Livestock Products Technology
4. **Designation:** Senior Scientist
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### 6. Academic career and professional attainments

#### a) Academic qualification

Degree	University/ Institution	Year	% Marks	Distinctions, if any
B. V. Sc. & A. H.	Veterinary College, Bidar, University of Agricultural Sciences, Dharwad, Karnataka	1998	90.8	Merit Scholarship
M. V. Sc.	Indian Veterinary Research Institute (IVRI), Deemed University, Izatngar-243122 Uttar Pradesh	2000	82.2	ICAR Junior Research Fellowship (JRF)
Ph. D.	Indian Veterinary Research Institute (IVRI), Deemed University, Izatngar-243122 Uttar Pradesh	2003	84.1	ICAR Senior Research Fellowship (SRF)
MBA (Marketing)	Sikkim Manipal University of Distance Education	2014	74.8	-
PGDTMA	University of Hyderabad and NAARM, Hyderabad	2021	82.5	Distinction

### 7. Position Held

Position	Duration	Institution
Principal Scientist	15.12.2017 till date	ICAR - National Research Centre on Meat, Hyderabad 500 092 Telangana
Principal Scientist	06.12.2016 to 14.12.2017	ICAR – National Research Centre on Pig, Rani, Guwahati 781 131 Assam

Senior Scientist	06.12.2013 to 05.12.2016	ICAR – National Research Centre on Pig, Rani, Guwahati 781 131 Assam
Senior Scientist	16.02.2013 to 05.12.2013	ICAR - National Research Centre on Meat, Hyderabad 500 092 Telangana
Scientist	05.11.2005 to 15.02.2008	ICAR - National Research Centre on Meat, Hyderabad 500 092 Telangana
Scientist	27.06.2005 to 04.11.2005	National Academy of Agricultural Research Management, Hyderabad 500 030 Telangana
Assistant Professor	13.02.2004 to 23.06.2005	College of Veterinary Science, Pantnagar, Uttaranchal
Assistant Professor	10.10.2003 to 06.02.2004	Faculty of Veterinary Science, Sher – E – Kashmir University of Agri. Sci. & Technology - J, RS Pura, Jammu, J & K.

#### 8.0 Specialized International trainings having relevance to food safety

- **International training on, ‘Slaughter practices and meat hygiene’ at University of Kentucky, United States of America** from 25<sup>th</sup> January 2010 to 25<sup>th</sup> February 2010 funded by Indian Council of Agriculture Research under National Agricultural Innovation Project.
- **International training on, ‘Buffalo meat traceability’ at Università Cattolica del SacroCuore (UCSC), Piacenza, Italy** from 10<sup>th</sup> June to 02<sup>nd</sup> August 2013 funded by Indian Council of Agricultural Research under Lal Bahadur Shastri Outstanding Young Scientist Award.

#### 9. Some of the specialized trainings, conferences/ symposia organized

<b>Trainings courses/ programs/ Conferences organized (Title)</b>	<b>Period</b>	<b>Duration</b>	<b>Number of participants</b>	<b>Co-ordinator/ associated</b>
ICAR Sponsored Short Course on, ‘DNA based techniques in forensic food analysis’ at ICAR – NRC on Meat, Hyderabad	14 <sup>th</sup> to 23 <sup>rd</sup> October 2019	10 days	20 faculties	Coordinator
Karnataka Sheep and Wool Development Corporation Limited (KSWDCL), Bangalore sponsored trainings for the beneficiaries of	08 training programs in 208-19	5 days each	180 beneficiaries	Coordinator

mobile meat stall scheme of Govt of Karnataka				
ICAR Sponsored short course on, 'Farm to fork approach for quality pork production in the country' at NRC on Pig (NRCP), Guwahati.	01 <sup>st</sup> to 10 <sup>th</sup> December 2014.	10 days	20 In-service candidates from different parts of India.	Coordinator
National Symposium and V <sup>th</sup> Annual conference of Indian Meat Science Association at NRC on Meat (NRCM), Hyderabad.	07 <sup>th</sup> to 09 <sup>th</sup> February 2013.	3 days	300 participants from across the country.	Joint Organizing Secretary
National Workshop on, 'Strategies for modernization/up-gradation of service abattoirs in India' at NRCM.	17 <sup>th</sup> to 18 <sup>th</sup> March 2012	2 days	60 experts from across the country.	Organizing Secretary
National Workshop on, 'Implementation of livestock/ meat traceability in the country' at NRCM.	04 <sup>th</sup> August 2014	1 day	60 experts from across the country.	Convener
National Conference on, 'Opportunities and strategies for sustainable pig production' at NRCP.	20 <sup>th</sup> & 21 <sup>st</sup> December 2014	2 days	About 100 participants from across the country.	Co-Organizing Secretary
Model training course sponsored by Dept of Agri and Cooperation on, 'Integrated pig farming for sustainability and socio-economic upliftment of tribal population of north eastern region' at NRCP	05 <sup>th</sup> to 12 <sup>th</sup> January 2016	8 days	25 participants from across the country	Coordinator
Model training course sponsored by Dept of Agri and Cooperation on, 'Value addition and post harvest management of pork for ensuring hygienic meat production' at NRCP	01 <sup>st</sup> to 08 <sup>th</sup> November 2016	8 days	25 participants from across the country	Coordinator
Model training course sponsored by Dept of Agri and Cooperation on, 'Breeding and management of piggery enterprises for increased productivity and profitability' at NRCP	08 <sup>th</sup> to 15 <sup>th</sup> September 2015	8 days	25 participants from across the country	Coordinator
Training program on, 'Hygienic pork production and value addition' at NRCP in collaboration with Meghalaya Institute of Entrepreneurship, Shilling.	Three programs in 2014.	5 days each, 3 trainings	About five meat handlers in each training.	Coordinator
Training program on, 'Clean meat production' to meat handlers at NRCM.	2 <sup>nd</sup> to 6 <sup>th</sup> February 2009	05 days	35 butchers	Coordinator
Training program on, 'Technologies for production of processed meat products' at NRCM.	21 <sup>st</sup> to 27 <sup>th</sup> July 2010	06 days	38 processors	Coordinator
Training program on, 'Strategies for enhancing profitability in commercial	21 <sup>st</sup> to 23 <sup>rd</sup> February 2011	03 days	35 Presidents & representatives	Coordinator

sheep production’ to Presidents, District Sheep Breeders Association, AP at NRCM.			of sheep breeder associations	
Training program on ‘Hygienic meat production’ in municipal abattoirs at NRCM.	08 <sup>th</sup> to 10 <sup>th</sup> February 2012	03 days	18 municipal officials from 15 municipalities of Andhra Pradesh.	Coordinator
Training on ‘Integrated production system for sustained profitability in sheep production’ at NRCM.	08 <sup>th</sup> to 10 <sup>th</sup> August 2012	03 days	33 ADs of AP Sheep & Goat federation and entrepreneurs	Coordinator
<b>Awareness program</b> on ‘Clean meat production’ at Warangal municipality, Telangana.	02 <sup>nd</sup> March 2012	01 day	300 butchers and district officials	Coordinator
<b>Awareness program</b> on ‘Clean meat production’ at Mahabubnagar municipality, Telangana.	29 <sup>th</sup> March 2010	1 day	70 butchers and district officials	Coordinator
<b>Workshop</b> on ‘Scientific lamb feeding practices’ at Nellore, AP.	13 <sup>th</sup> April 2010	1 day	67 sheep farmers	Coordinator
<b>Participatory training program</b> on ‘Preparation and processing of value added meat products’ at NRCM.	29 <sup>th</sup> July to 04 <sup>th</sup> August 2010	06 days	06 meat handlers/processors	Coordinator
<b>Entrepreneurial training</b> on processed meat products at NRCM.	01 <sup>st</sup> to 06 <sup>th</sup> September 2010	06 days	02 entrepreneurs	Coordinator
<b>Entrepreneurial training</b> on ‘Scientific sheep slaughter and meat packaging technologies’ at NRCM	19 <sup>th</sup> - 20 <sup>th</sup> June 2011	02 days	9 entrepreneurs	Coordinator

## 10. Books of importance in food safety

- V.V. Kulkarni, **Girish, P. S.**, S. B. Barbuddhe, B.M. Naveena and M. Muthukumar (2021) Analytical techniques in meat science, Published by Narendra Publisher, 1-265 (ISBN: 9789390309191)
- **Girish Patil, S.**, M. Muthukumar, B. M. Naveena, Suresh K. Devatkal and S. Vaithyanathan (2019) Business prospects in meat production and processing – An entrepreneurial handbook. Published by Agri Business Incubation Centre, National Research Centre on Meat, Hyderabad, 106 pages
- **Girish Patil, S.**, V. V. Kulkarni, A. R. Sen & M. Muthukumar (2014) Animal identification and meat traceability: An Indian perspective. Published by National Research Centre on Meat, Hyderabad under ICAR funded LBSOYSA project, 103 pages.

- NagappaShivaningKarabasanavar,**Girish Patil, S.,** Santosh Haunshi&Viswas, K. N. (2012)DNA based animal species identification. Hind Publisher, Hyderabad, 165 pages.
- Y. Ramana Reddy, N. Kondaiah, **Girish Patil, S.,** P. Baswa Reddy (2009) Nanyamenamamsautpati:Gorrelapampkam- Sheep rearing for Clean meat production (Book in telugu), SVVU, Tirupati under National Agricultural Innovation Project, 100 pages.
- N. Kondaiah, **Girish Patil, S.,** C. Ramakrishna, P. Baswa Reddy, Ramana Reddy (2009) *Parishubramaansutpadan* - Clean meat production (telugu book). NRC on Meat under National Agricultural Innovation Project, 30 pages.

### 11. Awards received

Award	Year	Awarding Organization
<b>National</b>		
<b>Lal Bahadur Shastri Outstanding Young Scientist Award</b> (Rs 1 Lakh cash award + Rs 30 Lakh for research project + Rs 5 Lakh for International training)	2010	Indian Council of Agricultural Research (ICAR), New Delhi.
<b>Young Scientist Award</b> (Cash award: Rs 25,000)	2009	National Academy of Agricultural Sciences (NAAS), New Delhi, India
<b>Young Scientist Award</b>	2005	Indian Association of Veterinary Public Health Specialists (IAVPHS), India
KU Patel Memorial Award (Best paper in Indian Food Packer Journal)	2004	All India Food Processors Association, New Delhi
Member	2020	National Academy of Science India
Associate Fellow	2019	National Academy of Veterinary Sciences (NAVS)
Best Oral presentation award	2010	Indian Meat Science Association Conference held at IVRI, Izatnagar
Best Poster Award	2008	Indian Meat Science Association conference, Bangalore
Best Poster Award	2012	Indian Poultry Science Association conference, Hyderabad
First Best Poster Award	2012	Indian Association of Veterinary Public Health Association Conference, GADVASU, Ludhiana
First best Oral Presentation Award	2013	Indian Meat Science Association Conference held at NRC on Meat, Hyderabad
Second best oral presentation award	2013	Indian Meat Science Association Conference held at NRC on Meat, Hyderabad

First best poster awards	2013	Indian Meat Science Association Conference held at NRC on Meat, Hyderabad
Second best oral presentation award	2013	Indian Meat Science Association Conference held at NRC on Meat, Hyderabad
<b>International</b>		
First Best Poster Award	2011	Reciprocal Meat Conference of <b>American Meat Science Association</b> organized at Kansas, USA
<b>Others</b>		
Better Opportunities for Young Scientists in Chosen Areas of Science & Technology (BOYSCAST) fellowship	2010	Department of Science & Technology. (Fellowship given for International training)
Associate Editor	2010 – 2013	Journal of Meat Science published by Indian Meat Science Association
<b>Fellowship</b>		
Fellow of National Academy of Biological Sciences	2020	
Fellow of Indian Meat Science Association	2019	
Fellow of Indian Veterinary Public Health Association	2015	
Fellow of Society for Applied Biotechnology	2014	

## 12. Publications

### 12.1 Important Research Publications

Sl. No.	International Journals
1.	P. S. Girish, S. B. Barbuddhe, AparanaKumari, Deepak B.Rawool, Nagappa S. Karabasanavar, M. Muthukumar, S. Vaithiyanathan (2020) Rapid detection of pork using alkaline lysis-Loop Mediated Isothermal Amplification (AL-LAMP) technique. <b>Food Control</b> , 110, 107015
2.	<b>Girish, P.S</b> ,Anjaneyulu, A.S.R., Viswas, K.N., Shivakumar, B.M., Anand, M., Patel, M. and Sharma, B. (2005) Meatspecies identification by Polymerasechainreaction – restriction fragment lengthpolymorphism (PCR-RFLP) of mitochondrial 12S rRNAgene. <b>Meat Science</b> , 70:107-112.

3.	<b>Girish, P.S.</b> , Anjaneyulu, A.S.R., Viswas, K.N., Anand, M., Rajkumar, N., Shivakumar, B.M. and Sharma Bhaskar (2004) Sequence analysis of mitochondrial 12S rRNA gene to identify meat species. <b>Meat Science</b> , <b>66</b> : 551-556.
4.	<b>Girish, P. S.</b> , Haunshi, S., Vaithyanathan, S., Rajitha, R. & Ramakrishna, C. (2013) A rapid method for authentication of Buffalo ( <i>Bubalus bubalis</i> ) meat by alkaline lysis method of DNA extraction and species specific polymerase chain reaction. <b>Journal of Food Science &amp; Technology</b> , 50 (1):141–146.
5.	Karabasanavar, N., Sivaraman, G.K., Satheesha S. P., Archana S. Nair, Ardhra Vijayan, Vineeth Rajan and Girish P. S. (2022) Non-diarrhoeic pigs as source of highly virulent and multidrug-resistant non-typhoidal <i>Salmonella</i> . <i>Braz J Microbiol</i> <a href="https://doi.org/10.1007/s42770-022-00700-w">https://doi.org/10.1007/s42770-022-00700-w</a>
6.	Nagappa Karabasanavar, Madhavaprasad Chakkodabail Benakabhat, Shilpa Agalagandi Gopalakrishna, Prashanth S. Bagalkote, Jagadish Basayya Hiremath, <b>Girish Shivanagowda Patil</b> , Gopalan Krishnan Sivaraman, Sukhadeo B. Barbudhe (2022) Polyclonal hen egg yolk antibodies could confer passive protection against Salmonella serotypes in broiler chicks. <i>Journal of Food Safety</i> , e12987. <a href="https://doi.org/10.1111/jfs.12987">https://doi.org/10.1111/jfs.12987</a>
7.	Vaithyanathan, S., Naveena, B. M., Muthukumar, M., <b>Girish, P. S.</b> and N. Kondaiah (2011) Effect of dipping in pomegranate ( <i>Punica granatum</i> ) fruit juice phenolic solution on the shelf life of chicken meat under refrigerated storage (4 <sup>0</sup> C), <b>Meat Science</b> , <b>88</b> : 409 – 414.
8.	Santosh Haunshi, Rantu Basumatary, <b>Girish, P.S.</b> , Sunil Doley, Bardoloi, R. K. and Ashok Kumar (2009) Identification of chicken, duck, pigeon and pig meat by species-specific markers of mitochondrial origin. <b>Meat Science</b> , <b>83</b> , 454 – 459.
9.	Bheemashankar H. Kannur, Md. Nadeem Fairoze, <b>P. S. Girish</b> , Nagappa Karabasanavar and B. H. Rudresh (2017) Breed traceability of buffalo meat using microsatellite genotyping technique. <b>Journal of Food Science and Technology</b> , 54 (2), 558 - 563.
10.	<b>Girish, P. S.</b> , Sanyal, M. K., Anjaneyulu, A. S. R., Keshari, R. C. and Naganath, M. (2004) Quality of chicken patties incorporated with different milk proteins. <b>Journal of Food Science and Technology</b> , 41 (5), 511 - 515.
11.	Vaithyanathan, S., Naveena, B.M., Muthukumar, M., <b>Girish, P.S.</b> , Sen, A.R., Babji, Y. and Ramakrishna, C. (2009) Effect of methyl gallate on physico-chemical qualities of spiced meat patties. <b>Journal of Food Science &amp; Technology</b> , 46 (6): 577-580
12.	Neha Sharma, Thind, S.S., <b>Girish, P.S.</b> and Deepak Sharma (2008) PCR-RFLP of 12S rRNA gene for meat species identification. <b>Journal of Food Science &amp; Technology</b> , 45 (4) : 353 – 355

13.	Vaithyanathan, S., Naveena, B.M., Muthukumar, M., <b>Girish, P.S.</b> , Ramakrishna, S., Sen, A.R. and Babji, Y. (2008) Biochemical and physico chemical changes in spent breast meat during post mortem ageing. <b>Poultry Science</b> , 87 : 180-186.
14.	Nagappa Karabasanavar, <b>P. S. Girish</b> , Deepak Kumar & S. P. Singh (2017) Detection of beef adulteration by mitochondrial D-loop based species-specific polymerase chain reaction, <b>International Journal of Food Properties</b> , 20 (52), 2264-2271.
15.	Nagappa S. Karabasanavar, S.P. Singh, Umapathi V., <b>Girish Patil</b> , Sunil N. Shebannavar & Deepak Kumar (2011) Authentication of carabeef (water buffalo, Bubalus bubalis) using highly specific polymerase chain reaction. <b>European Food Research &amp; Technology</b> , 233 : 985 – 989.
16.	<b>Girish, P.S.</b> , Anjaneyulu, A.S.R., Viswas, K.N., Santhosh, F.H., Bhilegaonkar, K.N., Agarwal, R.K., Kondaiah, N. and Nagappa, K. (2007) Polymerase Chain Reaction – Restriction Fragment length Polymorphism of Mitochondrial 12S rRNA gene : A simple method for identification of poultry meat species. <b>Veterinary Research Communications</b> , 31 (04): 447-455.
17.	Nagappa S. Karabasanavara, S.P. Singh, Umapathi V., Deepak Kumar, <b>Girish Patil</b> & Sunil N. Shebannavar (2011) A highly specific PCR assay for identification of raw and heat treated mutton (Ovisaries). <b>Small Ruminant Research</b> , 100 (02): 153 – 158.
18.	Naveena, B. M., Sen, A. R., Muthukumar, M., Girish, P. S., Praveen Kumar, Y. & Kiran, M. (2013) Carcass characteristics, composition, physico-chemical, microbial and sensory quality of emu meat. <b>British Poultry Science</b> , 54 (03), 329 – 336.
19.	Patel, M., Das, N., Pandey, H.N., Yadav, M.C. and <b>Girish, P.S.</b> (2005) Mating and incidental activities of ram (Ovisaries) when exposed to ewe(s) and competitor ram in pen mating condition. <b>Asian Australasian Journal of Animal Science</b> , 18 (04), 463-469.
20.	Patel, M., Das, N., Pandey, H.N., Yadav, M.C. and <b>Girish, P.S.</b> (2007) Ram mating behaviour under different social conditions. <b>Asian Australasian Journal of Animal Science</b> , 20 (01), 112-118.
21.	Nagappa Karabasanavar, Suresh P. Singh, Sunil N. Shebannavar, Kotresh M. Angadi, <b>Girish Patil, S.</b> & Umapathi U. Pillai (2010) Identification of avian species using polymerase chain reaction and sequence analysis of mitochondrial 12S rRNA gene. <b>Veterinarski Arhiv</b> , 80 (5), 539 - 547.
22.	B. M. Naveena, A. R. Sen, S. Vaithyanathan, <b>Girish Patil</b> & N. Kondaiah (2013) Antioxidant potential of pomegranate juice in cooked chicken patties. <b>Journal of Muscle Foods</b> , 21, 557 – 569.



23.	<b>Girish P S</b> , LipikaNath, R Thomas, Rajkumar V &TanweerAlam (2018) Development of Shelf Stable Ready-to-eat Pork Curry Using Retort Processing Technology. <b>Journal of Packaging Technology &amp; Research</b> , 2, 61 - 66.
24.	<b>Girish, P. S.</b> , Vaithyanathan, S., NagappaKarabasanavar and ShaileshBagale (2016) Authentication of sheep ( <i>Ovisaries</i> ) and goat ( <i>Capra hircus</i> ) meat using species specific polymerase chain reaction. <b>Indian Journal of Animal Science</b> , 86 (10), 1172 – 1175.
25.	<b>Girish, P.S.</b> , A S R Anjaneyulu, Viswas K Nagaleekar, SanthoshHaunshi, K N Bhilegaonkar, R K Aggarwal& N. Kondaiah (2009) Poultrymeatspeciation by sequenceanalysis of mitochondrial 12S rRNAgene. <b>Indian Journal of Animal Science</b> ,79 (02), 217 – 220.
26.	<b>Girish P.S.</b> ,Baswa Reddy P., Ramakrishna C., Y. Ramana Reddy, Chava Satish and Kondaiah, N. (2012) Effect of nutrient supplementation on growth performance and carcass characteristics of Nellore ram lambs – An on-farm evaluation study. <b>Indian Journal of Animal Science</b> , 82 (12): 1601 – 1602.
27.	Bheemashankar H. Kannur, Md. Nadeem Fairoze, Girish P. S., C. Renukprasad, NagappaKarabasanavar, ShaileshBagale and Rudresh B.H. (2017) Microsatellite based polymorphism and genetic diversity among Indian buffalo breeds. <b>Indian Journal of Animal Science</b> , 87 (06), 65-70.
28.	KarabasanavarNagappa, C.B., Madhavaprasad, A.G., Shilpa, Hiremath, Jagadish, P.S., Girish and S.B., Barbuddhe (2020) Prevalence of Salmonella serotypes S. Enteritidis and S. Typhimurium in poultry supply chain. <i>Journal of Food Safety</i> , e12852.
29.	Rajkhowa, Swaraj, Pegu, Seema R, <b>Patil S, Girish</b> , Agrawal, Ravi (2021) Development and application of a novel triplex-PCR assay for rapid detection of Methicillin resistant Staphylococcus aureus (MRSA) from pigs. <i>Letters in Applied Microbiology</i> , 72(2): 121-125
30.	Mounika, T., Girish, P.S., Shashi Kumar, M. et al. (2021) Identification of sheep (Ovisaries) meat by alkaline lysis-loop mediated isothermal amplification technique targeting mitochondrial D-loop region. <i>J Food SciTechnol</i> 58, 3825–3834 (2021). <a href="https://doi.org/10.1007/s13197-020-04843-2">https://doi.org/10.1007/s13197-020-04843-2</a>
31.	Jagdish S., Girish P.S., Shashi Kumar M., Aparana K., Praneetha D.C., Santosh K., Nagappa K. (2021) Species Identification of Biological Samples Derived from Wild Ungulate Species by Forensically Informative Nucleotide Sequencing of Mitochondrial 12S rRNA Gene. <i>International Journal of Livestock Research</i> , 11 (06), 43-55.

## 12.2 Policy Paper

Girish Patil, S., S. B. Barbuddhe, Sindura Ganapathi, Praveen Malik, N. Kondaiah, Varsha Joshi, Meenesh C. Shah and B. N. Tripathi (2021) Traceability System for Indian Meat Sector: Concept and Way forward. Policy Paper No. 3, Pub. by ICAR – National Research Centre on Meat, Hyderabad, 32 pages.

## 12.3 Books

- V.V. Kulkarni, **Girish, P. S.**, S. B. Barbuddhe, B.M. Naveena and M. Muthukumar (2021) Analytical techniques in meat science, Published by Narendra Publisher, 1-265 (ISBN: 9789390309191)
- Nagappa K, **Girish, P. S.**, Viswas KN and Santhosh Haunshi(2012) Molecular techniques for meat species identification. Pub. By Hind Publisher, Hyderabad, 1 – 225 (ISBN: 9788192189376)
- Desai, B. A., **Girish Patil, S.** and Nagappa, K. (2021) Mamsodhyama and Mamsa Sanskarane, Book in Kannada, 1-245 (ISN: 9789354458594)
- **Girish Patil, S.**, M. Muthukumar, B. M. Naveena, Suresh K. Devatkal and S. Vaithyanathan (2019) Business prospects in meat production and processing – An entrepreneurial guide. Published by ICAR – National Research Centre on Meat, Hyderabad, 1-105 (ISBN: 978-93-5351-599-7)

### Edited book

- Vaithyanathan, S., S. B. Barbuddhe, Girish Patil, S. and Vishnuraj, M. R. (2019) Molecular techniques for forensic analysis of foods of animal origin. Published by ICAR – National Research Centre on Meat, Hyderabad (ISBN No. 978-93-5391-239-0)

## 13. Intellectual Property Rights

**Copyright:** **Girish Patil, S.** (2019) Livestock traceability database. Copy right (No. SW-12499/2019)

**Patent:** Portable Meat Production and Retailing Facility (P-MART) for Sheep and Goats (Patent application No. 202111016135)

## 14. Contributions in standards development

- Member - Scientific Panel on Meat and Meat Products of Food Safety and Standards Authority of India (Since 2015 till date)

- Member – APEDA Committee on Anomoly and critical issues hampering the implementation of livestock standards and also suggesting way forward for allowing livestock certification under grower groups.
- Member – Bureau of Indian Standards FAD/15P I (Food hygiene and safety management) Committee
- Resource Person on Meat Traceability for Department of Animal Husbandry and Dairying, Govt of India.

### 15. Technology transfer/ Consultancy

- M/s SiddarthaNallu, Hyderabad on, ‘Value added meat product processing’ – Has established successful online supply chain for pickles with name ‘Bloom foods’.
- Karnataka State Sheep and Wool Development Corporation, Bangalore establishment of mobile meat stall units
- Satynarayana Spicy Foods Pvt Ltd., Boduppall, Hyderabad (MrsGogikarSarika) for establishment of value added meat products processing
- Indbro Poultry Breeders Pvt. Ltd., Hyderabad for establishment of poultry abattoir
- SricharanVeeramachaneni, VJ Estates Pvt. Ltd., Hyderabad for establishment of small ruminant abattoir
- Are-katika mutually aided Co-operative society Limited, Hyderabad for establishment of slaughterhouse at Jiyaguda, Hyderabad with support from GHMC, Hyderabad
- Rukshita Pork Private Ltd., Mahabubngar for establishment of pig abattoir and pork product processing plant
- Lavya Pork Pvt. Ltd., Hyderabad for establishment of pork processing plant.
- Magnus Sheep Park Pvt. Ltd., Hyderabad for establishment of small ruminant abattoir
- Bharatiya Kisan Sangh, Aizawl, Mizoram on establishment of pork production and processing plant

### 16.0 List of externally funded research projects handled

Title of the Project	Duration	Funding Agency	Total budget (Rs)
Value chain for clean meat production from sheep	2008 – 2012	World bank Sponsored National Agricultural Innovation Project	389 lakh
Developing traceability model for Indian buffalo meat industry	2011 – 2015	ICAR under Lal Bahadur Shastri Outstanding Young Scientist Challenge project	26 lakh

Development of shelf stable pork products using retort processing technology for promoting entrepreneurship in north eastern states of India	2015 – 2018	Ministry of Food Processing Industries	45 lakh
e-Varaha: Information system for safe pork production in north eastern region	2016 – 2018	Information Technology Research Academy	238 lakh
Development of rapid laboratory and field based assays for microbiological quality assurance of pork	2017 - 2020	Department of Biotechnology, New Delhi	65 lakh
Enabling technologies in mammalian cell culture towards cultured meat production	2019-2022	Department of Biotechnology, New Delhi	457 lakh