

Dr. PRASANNA VASU, Ph. D.

Principal Scientist & Associate Professor, AcSIR

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Educational Qualification

1998 - 2002 **Ph.D. in Biotechnology** Central Food Technological Research Institute (CSIR-CFTRI), University of Mysore, Karnataka, India. (Year: **2004**)

Thesis Title: Pectin hydrolysis *in vivo* and its role in fruit softening during ripening in mango (*Mangifera indica* L.). Under the supervision of Dr. R. N. Tharanathan, Senior Scientist & Deputy Director, C.F.T.R.I.

1992 - 1994 **M.Sc. in Biotechnology** University of Mysore, Mysore, Karnataka, India. (*1st Class, 67.6%, year of passing: 1994*).

1989 - 1992 **B. Sc. In Chemistry, Botany and Zoology** University of Mysore, Mysore, Karnataka, India. (*1st Class, 66.3%, year of passing: 1992*)

Professional Experience

2017 – cont. **Principal Scientist**, Food Safety and Analytical Quality Control Laboratory, CSIR-CFTRI, Mysore, Karnataka, India

Food Safety and Analytical Quality Control Laboratory – Research supporting ‘Foodomics’ and ‘Nutritional Research’ in various aspects of food quality, safety and security. Research mainly focus on: 1) Analytical method development for accurate quantification of food contaminants, adulterants, additives using LC-MS/MS (Foodomics); 2) Improvement of nutritional value of food constituents to achieve better food quality (Nutritional Research); 3) Protein designing (*in silico*), and protein engineering (cloning and expression), and 4) **Group Leader:** Analytical Lab of Nutraceuticals, Antibiotics, Mycotoxins & Beverage analyses.

2011– 2017 **Senior Scientist**, Food Safety and Analytical Quality Control Laboratory, CSIR-CFTRI, Mysore, Karnataka, India

Food Safety and Analytical Quality Control Laboratory – Research supporting ‘Foodomics’ and ‘Nutritional Research’ in various aspects of food quality, safety and security. **Group Leader:** Analytical Lab of Confectionery, Fruits, Vegetable and Spice Products, and Toxins & Beverage analyses.

- 2007 - 2011 **Research Assistant Professor**, Arkansas Bioscience Institute (ABI), Arkansas State University (ASU), Jonesboro, AR, USA
- Protein chemistry and plant cell wall biochemistry laboratory – Research supporting plant-based protein production and biochemical technologies for food processing and biomass utilization. Continuing appointment under the direction of Dr. Brett J. Savary, Associate Research Professor. Conducted laboratory technique courses for graduate students;
1. Essential tools for protein analysis and purification
 2. Protein analysis by MALDI-TOF Mass Spectrometry
- 2006 - 2007 **Research Associate**, Arkansas Bioscience Institute, Jonesboro, AR, USA
- Protein chemistry and plant cell wall biochemistry laboratory – Research supporting plant-based protein production and biochemical technologies for food processing and biomass utilization. Under the direction of Dr. Brett J. Savary, Associate Research Professor.
- 2006 - 2006 **Post Doctoral Research Scientist**, ERRC, USDA, Wyndmoor, PA, USA
- Research project: “Preparation of *Citrus* pectinases for commercial evaluation” under the direction of Dr. Brett J. Savary, Research Plant Physiologist, ERRC, United States Department of Agriculture (USDA).
- 2004 - 2006 **Post Doctoral Fellow**, Oklahoma State University, Oklahoma, USA
- Research project: “Production of monocomponent *Aspergillus nidulans* carbohydrate-active enzymes for cell wall analysis” under the direction of Dr. Andrew J. Mort, Department of Biochemistry and Molecular Biology.
- 2002 - 2004 **Assistant Professor**, Dept of Biotechnology, MITS, Madanapalle, India
- Taught Fundamental Biology, Biochemistry, Cell and Tissue Culture Technology, Genetic Engineering, Cell Biology, Plant and Animal Biotechnology. Designed and planned the building structure with relevant laboratories required for Biotechnology Department. Set purchasing priorities, selecting and procuring laboratory instrumentation.
- 1995 - 1998 **R&D Officer**, Ballarpur Industries Ltd. Nanjangud, Karnataka, India
- Spirulina* production farm - Designed and executed low cost culture media for growing *Spirulina* in small-scale open ponds. Optimized production of phycocyanin and decolourised spirulina powder. Developed improved cultivation of *Dunaliella* for β -carotene production.

Ph. D. Advisory Activities (Guiding/guided 6 Ph. D. Students)

1. Ninni Sutradhar (DBT-JRF) – working on honey proteins and authentication
2. Parvati Huded (ICMR-SRF) – working on donkey milk proteins and fats
3. Megha M (CSIR-JRF), working on natural BCAA rich plant proteins
4. Mithuna K. M. (UGC-JRF), working on LNAA rich peptides.
5. Vinayashree S. (INSPIRE-SRF), working on pumpkin seed proteomics.

6. Prakruthi Appaiah (ICMR-SRF) (Ph. D. in Biological Sciences, Awarded, 2020)

Thesis Title: Designing, Expression and Characterization of Large Neutral Amino Acid Rich Protein for Possible Application in Phenylketonuria

7. Sunil L (ICMR-SRF) (Ph. D. in Biological Sciences, Awarded, 2019)

Thesis Title: *In silico* Designing, Expression, Characterization of Protein Enriched with Branched-Chain Amino Acids and In-vitro Digestibility Studies for its Probable Utilization in the Dietary Treatment of Chronic Liver Disease

Advisory Activities (Masters Dissertation Work, Guided 13 students)

1. Ms. Preethi Mishra., M. Sc. Biotechnology, 'Development of LC-MS/MS Method for Analysis of Antibiotics Using Ionic Liquid/Salt Aqueous Two Phase System' Jan 2014 – May 2014.
2. Ms. Neha Singh, B. Tech Biotechnology, 'Development of a Simple LC-MS/MS Method for the Analysis of Macrolides and Lincosamide in Different Food Matrices' Jan 2015 – May 2015.
3. Mr. Vinay, H. K., M. Sc. Food Technology, 'Development of a simple LC-MS/MS method for analysis of sulfonamides in different food matrices' Jan 2015 – May 2015.
4. Ms. Sushma, K., B. E. Biotechnology, 'Development of LC-MS/MS method for the analysis of Nitrofurans using Ionic Liquid/Salt Aqueous Two Phase System' Dec 2015 – April 2016.
5. Ms. Kadiyam Sridevi, B. E. Biotechnology, 'Development of LC-MS/MS method for the analysis of Nitrofurans using Ionic Liquid/Salt Aqueous Two Phase System' Dec 2015 – April 2016.
6. Ms. Anu Singh, M. Sc. Food technology, 'Development of a simple LC-MS/MS method for analysis of aminoglycosides using ionic liquid/organic solvent two phase system in different food matrices' Jan 2016 – April 2016.
7. Mr. Abhishek Chattopadhyay, M. Sc. in Bio-Technology, 'Development of LC-MS/MS method for the analysis of Nitrofurans Metabolites in Food Samples using Ionic Liquid- Aqueous Two Phase System' Dec 2016 – March 2017.
8. Ms. Parvathy Premraj, M. Sc. Food Technology and Quality Assurance 'Development of an LC-MS/MS Method for the Analysis of Aflatoxins in food' Feb 2018 – April 2018.

9. Ms. Sneha Sunil, M. Sc. Food Technology and Quality Assurance 'Development of an HPLC based Analytical Method for the Quantification of Deoxynivalenol in food' Feb 2018 – April 2018.
10. Ms. Sansriti Raj, M.Sc. Food Tech 'Development of a sensitive LC-MS/MS method for analysis of Patulin in Food' from Jan. 2019 – May. 2019.
11. Ms. M. Yogitha Chowdary, B. Tech Food Tech. 'Development and validation of LC-MS/MS method for aflatoxin analysis in food matrices using ionic liquid/salt aqueous two-phase system' from July – Nov. 2019.
12. Ms. Apoorva S. M. HPLC & LC-MS/MS instrumentation and Analysis of Aflatoxin in Food Samples' June 2019 – July 2019.
13. Ms. Beenishree Singha, Honey adulteration techniques. Mar. 2021 – July 2021.

Advisory Activities (Ph. D committee member)

1. Siddique I. Aboobucker: Ph. D in Molecular Biosciences
(Arkansas State University, Jonesboro, Arkansas, USA)

Thesis Title: Identification and characterization of a functional L-gulonolactone oxidase (GLOase) in *Arabidopsis* (August 2007 – July 2014).

Training and Workshops attended

1. 5-day Training of Trainers (ToT) programme on 'Analysis of Veterinary Drug Residues including Antibiotics' organized by FSSAI, New Delhi, at Waters India Private Limited, Bangalore, from 19/02/2018 to 23/02/2018.
2. 4-day Training of Trainers (ToT) programme on 'Analysis of Mycotoxins' organized by FSSAI, New Delhi, at Waters India Private Limited, Bangalore, from 29/05/2017 to 01/06/2017.
3. 2-day Food Safety Workshop at CSIR-CFTRI, organized by CSIR-CFTRI and Bangladesh CSIR. September 10-11, 2015
4. Leadership Development Programme for Scientists, at CSIR-HRDC, Ghaziabad, UP. February 10-20, 2014
5. FSSAI Sponsored workshop on 'Analytical Issues on Imported Food Samples by the Testing Laboratories' at CSIR-CFTRI, Mysore. April 23-24, 2012
6. Induction Training Programme for Scientists, at CSIR-HRDC, Ghaziabad, UP. March 18-27, 2012
7. ISO-17025: 2005 Internal Auditing Training Programme, at CSIR-CFTRI, Mysore. August 4 - 5, 2011

List of Projects being Implemented as Project Investigator

1. Project No.: MLP0265 (FTT, CSIR-Mission mode project)

Title: Development of rapid honey adulteration detection system

Funding Period: November, 2020 – March, 2022 **Status:** On-going

2. Project No.: MLP0232 (FBR, CSIR-Mission mode project)

Title: Establishment of National Analytical Facility for analysis of nutraceuticals and chemical markers in food products (NAFANC)

Funding Period: November, 2018 – March, 2020 **Status:** Completed

3. Project No.: HCP016 (CSIR- Mission mode project)

Title: Risk assessment and mitigation of Acrylamide towards food safety

Funding Period: July, 2018 – July, 2020 **Status:** Completed

4. Project No.: MLP0212

Title: Detection and Quantification of Food adulterants and contaminants

Funding Period: April, 2017 – September, 2019 **Status:** completed

5. Project No.: MLP 0191

Title: Optimization and validation of analytical methods for Food Quality and Safety

Funding Period: April, 2016 – March, 2017 **Status:** Completed

6. Project No.: MLP 0153

Title: Harnessing proteins and micro-constituents of flax (*Linum usitatissimum*) seed and pumpkin (*Cucurbita* sp.) seed and peel for health benefits

Funding Period: April, 2014 – March, 2016 **Status:** Completed

7. Project No.: MLP 0108

Title: Development of high throughput analytical methods for quality and safety

Funding Period: April, 2012 – March, 2014 **Status:** Completed

List of Projects being Implemented as co-Project Investigator

1. Project No.: MLP 0125

Title: Essential amino acids from plant sources

Funding Period: Feb. 2013 – Dec. 2013 **Status:** Completed

List of Projects being Implemented as member

1. Project No.: MLP 0160

Title: Freshness of fruits and vegetables

Funding Period: April, 2014 – March, 2016 **Status:** Completed

2. Project No.: MLP 0122

Title: Value Added Products from Moringa leaves

Funding Period: Jan. 2013 – Dec. 2013 **Status:** Completed

List of external project completed (as Co-Project Investigator in USA)

Title: Mapping structural and functional changes in esterase treated pectin and characterizing enzyme mode of action.

Funding Amount: \$ 318,396.00

Funding Period: Jan, 2009 – Jan, 2011 **Status:** Completed

Outcome of the project: Purified and characterized a papaya (*Carica papaya* L.) pectin methylesterase (PME) from Liquipanol - a commercial papain preparation. Using simple orthogonal chromatographies (like hydrophobic, ion-exchange and affinity), the enzyme was purified 92-fold (specific activity of 1,200 U/mg) with 38% recovery. The high optimal temperature & thermostability, broad pH optima and stability, and processive action of this enzyme have high implications in tailoring nanostructure of pectins for food applications.

Teaching Activities

1. Conducted laboratory technique course on “**Essential tools for protein analysis and purification**” for MBS students, ABI-ASU, USA. March 25 – April 24, 2008
2. Conducted laboratory technique course on “**Protein analysis by MALDI-TOF Mass Spectrometry**” for MBS students, ABI-ASU, USA. June 8 – 12, 2009
3. Conducted laboratory technique course on “**Protein identification by MALDI-TOF Mass Spectrometry**” for MBS students, ABI-ASU, USA. Oct. 6 – 21, 2010
4. Performed practical/laboratory class demonstration of Waters LC-MS/MS instrument operation and antibiotic analysis for the short term training course participants, on the topic **LC-MS and its applications**. CFTRI. July 27, 2011
5. Delivered a lecture class to short term training course participants, on the topic “**Veterinary drug residues in animal products**” under the training programme ‘Approaches to Safety and Quality in Food Processing’. CFTRI. Feb. 15, 2012
6. Delivered a lecture class and performed instrument demonstration (practical) class to the technical staff from Quality Assessment Laboratory, Hyderabad, on the topic “**Veterinary drug residues in animal products**”. CFTRI. May. 17-18, 2012
7. Delivered a lecture class and performed instrument demonstration (practical) class to the short term training course participants, on the topic “**LC-MS/MS for Food Analysis**” under the training programme ‘Advances in HPLC in Food Science and Technology’. CSIR-CFTRI. Aug. 09, 2012

8. Delivered AcSIR lecture classes on the topic 'Structural characterization of potent biomolecules by state-of-the-art instrumental methodologies – HPLC and LC-MS', to the Ph. D. Students under BIO-CFTRI- 2-171, Instrumental Techniques. CSIR-CFTRI, Mysore.
9. Delivered AcSIR lecture classes on the topic 'Enzymes and its food applications' to the Ph. D. Students under 1003 - Basic Chemistry, CSIR-CFTRI, Mysore.
10. Delivered Biochemistry theory/lecture classes for M.Sc. Food Technology (II semester) students on the topic: Enzymes, Elements of Photosynthesis and Oxidative phosphorylation, and elements of bioenergetics. CSIR-CFTRI, Mysore.
11. Delivered lecture & conducted practical classes for M.Sc. Food Technology (II semester, Principles of Food Processing) students on the topic: Chemical preservatives; antioxidants, antibiotics and newer preservatives. CSIR-CFTRI, Mysore.

Services

1. **Alternate Director to Referral Food Laboratory, FSSAI** (Dec. 23, 2014 – Dec.31, 2017).
2. **Chairperson, Technical Committee for Procurement of Major Equipment-** Procurement of Equipment to the Government Analyst Laboratories, Commissioner of Food Safety, Government of Kerala. Since December 1, 2016.
3. **Member (& Rapporteur) in the FSSAI Scientific Panel** for Sweets, Confectionery, Sweeteners Sugar and Honey, Government of India, since Aug. 12, 2015.
4. **Member in the FAD 28 'Test Methods for Food Products Sectional Committee,'** Food and Agriculture Department, Government of India, since Jan. 12, 2015.
5. **Member in the FAD 6 'Stimulant Foods Sectional Committee,'** Food and Agriculture Department, Government of India, since Feb. 5, 2013.
6. **Course Coordinator** for the subject '**Food Quality, Safety & Analysis**' for the IV semester M.Sc. Food Technology.
7. **Course Coordinator** for the subject '**Advances in Food Sciences**' for the IV semester M.Sc. Food Technology. Feb. 16, 2014 – Jun 15, 2014.
8. Conducted the **ISO 17025: 2005 Internal Auditing** of the FMBCT Department CSIR-CFTRI, on Jan. 27, 2012.
9. Served as **Reviewer** to review research articles for publications in 'Food Chemistry' and 'Journal of Food Science and Technology'

US Patents

1. Brett J. Savary, Randall G. Cameron, Gary A. Luzio, Thomas G. McCollum, **Prasanna Vasu**, and Alberto Nuñez. Thermally-Tolerant Pectin Methyltransferase. **United States Patent No. US 7803597 B2, dated 28th Sep, 2010. Granted**

Publications

1. Sunil L, Prakruthi Appaiah, Asha Martin and **Prasanna Vasu**. 2021. Characterization of in silico modeled synthetic protein enriched with branched-chain amino acids expressed in *Pichia pastoris*. ***International Journal of Biological Macromolecules***, 168: 518 - 525.
2. S. Vinayashree and **Prasanna Vasu**. 2021. Biochemical, nutritional and functional properties of protein isolate and fractions from pumpkin (*Cucurbita moschata* var. Kashi Harit) seeds. ***Food Chemistry*** 340. <https://doi.org/10.1016/j.foodchem.2020.128177>
3. Prakruthi Appaiah and **Prasanna Vasu**. 2020. Improvement, cloning and expression of an in silico designed protein enriched with large neutral amino acids in *Pichia pastoris* for possible application in phenylketonuria. ***Journal of Food Biochemistry*** 44(3): e13151. <https://doi.org/10.1111/jfbc.13151>
4. Sunil L and **Prasanna Vasu**. 2020. Cloning and Expression of In silico Modeled Protein Enriched with Branched Chain Amino Acids in *Pichia pastoris*. ***International Journal of Biological Macromolecules*** 146: 739 – 745.
5. Priyanka Rose Marya, K.V. Harish Prashanth, **Prasanna Vasu**, and Mukesh Kapoor. 2019. Structural diversity and prebiotic potential of shortchain β -manno oligosaccharides generated from guar gum by endo- β -mannanase (ManB-1601). ***Carbohydrate Research***. 486: 107822.
6. Bhavya Kotnala, Shashirekha M. N and **Prasanna Vasu**. 2018. Purification and Characterization of a Salt-dependent Pectin Methyltransferase from *Carica papaya* Fruit Mesocarp-Exocarp Tissue. ***Journal of Food Science*** 83(8): 2062–2070.
7. Sunil L and **Prasanna Vasu**. 2017. *In silico* Designing of Therapeutic Protein enriched with Branched-Chain Amino Acids for the Dietary Treatment of Chronic Liver Disease. ***Journal of Molecular Graphics and Modelling*** 76: 192 – 204.
8. Prakruthi Appaiah and **Prasanna Vasu**. 2016. *In silico* Designing of Protein Rich in Large Neutral Amino Acids Using Bovine α 1 Casein for Treatment of Phenylketonuria. ***Journal of Proteomics and Bioinformatics*** 9 (11): 287 – 297.
9. **Prasanna Vasu**. 2014. Antibiotic residues in Foods – Analysis and challenges. **Spinco Biotech Cutting Edge**, September 2014, pp 7-12 (*Newsletter*)
10. Brett J. Savary, **Prasanna Vasu**, Randall G. Cameron, T. Gregory McCollum, and Alberto Nuñez. 2013. Structural Characterization of the Thermally Tolerant Pectin Methyltransferase Purified from *Citrus sinensis* Fruit and Its Gene Sequence. ***Journal of Agriculture and Food Chemistry*** 61(51): 12711-12719
11. Yang Kim, Martin A. Williams, Ashley L. Galant, Gary A. Luzio, Brett J. Savary, **Prasanna Vasu**, Randall Cameron. 2013. Nanostructural Modification of a Model Homogalacturonan with a Novel Pectin Methyltransferase: Effects of pH on

Nanostructure, Enzyme Mode of Action and Substrate Functionality. **Food Hydrocolloids** 33: 132-141

12. **Prasanna Vasu**, Brett J. Savary, and Randall G. Cameron. 2012. Purification and characterization of a papaya (*Carica papaya* L.) pectin methylesterase isolated from a commercial papain preparation. **Food Chemistry** 133: 366-372
13. **Prasanna Vasu**, Stefan Bauer and Brett J. Savary. 2012. Cloning and expression of hemicellulases from *Aspergillus nidulans* in *Pichia pastoris*. **Methods in Molecular Biology. Recombinant Gene Expression: Reviews and Protocols, 3rd ed.; Lorence, A., Ed.; Humana Press/Springer: New York.** 824: 393 - 416.
14. Brett J. Savary and **Prasanna Vasu**. 2012. Routine identity confirmation of recombinant proteins by MALDI-TOF mass spectrometry. **Methods in Molecular Biology. Recombinant Gene Expression: Reviews and Protocols, 3rd ed.; Lorence, A., Ed.; Humana Press/Springer: New York.** 824: 37 – 50
15. Randall G. Cameron, Gary A. Luzio, Yang Kim, **Prasanna Vasu**, Brett J. Savary, and Martin A. K. Williams. 2011. Characterization of nanostructural modification introduced into a model pectic homogalacturonan by esterase or chemical saponification and modeling of enzyme mode of action. **NSTI-Nanotech** 3: 275-278.
16. Randall G. Cameron, Gary Luzio, **Prasanna Vasu**, Brett J. Savary and Martin Williams. 2011. Enzymatic Modification of a Model Homogalacturonan with the Thermally Tolerant Pectin Methylesterase from Citrus: I. Nanostructural Characterization, Enzyme Mode of Action and Effect of pH. **Journal of Agriculture and Food Chemistry** 59 (6): 2717–2724.
17. Brett J. Savary, **Prasanna Vasu**, Alberto Nuñez, and Randall G. Cameron. 2010. Identification of thermolabile pectin methylesterases from sweet orange fruit by Peptide Mass Fingerprinting. **Journal of Agriculture and Food Chemistry** 58 (23): 12462-12468.
18. **Prasanna, V.**, T.N. Prabha and R.N. Tharanathan, 2007. Fruit ripening phenomena-An overview. **Critical Reviews in Food Science and Nutrition** 47(1): 1-19.
19. Bauer, Stefan, **Prasanna Vasu**, Staffan Persson, Andrew J. Mort and Chris R. Somerville, 2006. Development and application of a suite of polysaccharide degrading enzymes for analyzing plant cell walls. **Proceedings of the National Academy of Sciences (United States of America)** 103 (30): 11417-11422.
20. **Prasanna, V.**, T. N. Prabha and R.N. Tharanathan, 2006. Multiple forms of polygalacturonases from mango (*Mangifera indica* L. cv Alphonso) fruit. **Food Chemistry** 95 (1): 30-36.
21. Bauer, Stefan, **Prasanna Vasu**, Andrew J. Mort and Chris R. Somerville, 2005. Cloning, expression and characterization of an oligoxyloglucan reducing end-specific xyloglucanobiohydrolase from *Aspergillus nidulans*. **Carbohydrate Research** 340: 2590-2597.
22. **Prasanna, V.**, T.N. Prabha and R.N. Tharanathan, 2005. Multiple forms of β -galactosidase from mango (*Mangifera indica* L. Alphonso) fruit pulp. **Journal of the Science of Food and Agriculture**, 85 (5): 797- 803.

23. **Prasanna, V.**, T.N. Prabha and R.N. Tharanathan, 2004. Pectic polysaccharides of mango (*Mangifera indica* L): Structural studies. ***Journal of the Science of Food and Agriculture*** 84 (13): 1731-1735.
24. **Prasanna, V.**, H.M. Yashoda, T.N. Prabha and R.N. Tharanathan, 2003. Pectic polysaccharides during ripening of mango (*Mangifera indica* L.). ***Journal of the Science of Food and Agriculture*** 83 (11): 1182-1186.
25. N. Bhagyalakshmi, T.N. Prabha, H.M. Yashoda, **V. Prasanna**, B.H. Jagadeesh, and R.N. Tharanathan, 2002. Biochemical studies related to textural regulation during banana and mango fruit. ***Acta Horticulturae*** 575: 717-724.
26. H.M. Yashoda, **V. Prasanna**, B.H. Jagadeesh, and T.N. Prabha, 2001. *In situ* depolymerization of carbohydrate polymers with reference to fruit ripening; Its implication. ***Trends in Carbohydrate Chemistry*** 7: 97-102.
27. T.N. Prabha, H.M. Yashoda, **V. Prasanna**, B.H. Jagadeesh, and M.V. Bimba Jain, 2000. Carbohydrate metabolism in relation to textural softening during fruit ripening. ***Trends in Carbohydrate Chemistry*** 6: 89 - 95.

Presentations at Conferences/Symposia, and Invited talks

1. The Webinar on “Role of technologies and automation in food processing and preservation” In the Food Processing Automation Centre of CAAST DFSRDA, VNMKV, Parbhani, delivered a Webinar on ‘Chromatographic Based Analytical Techniques to Ensure Food Quality And Safety Issues’ on May 19, 2020.
2. The National Seminar on ‘Innovative approaches for sustainable food safety and food security’ In the the Department of Food Processing Technology & Food Processing Centre, PSG College of Arts and Science, Coimbatore, delivered an **Inaugural Address** on food safety, and an **Invited Talk** on ‘Food Processing Strategies for Food Safety’ on March 26, 2019.
3. The 8th International Food Convention (IFCON-2018), CSIR- Central Food Technological Research Institute, Mysuru, Karnataka, India. **Poster presentation** on “Development of a sensitive LC-MS/MS method for the accurate quantification of Aflatoxins in Food matrices”. Harshitha M, Parvathy Premraj and Prasanna Vasu. December 12 - 15, 2018 (AQCS-009)
4. The 8th International Food Convention (IFCON-2018), CSIR- Central Food Technological Research Institute, Mysuru, Karnataka, India. **Poster presentation** on “Development of a sensitive method for the quantification of Deoxynivalenol in Food matrix”. Maheswari H. M, Sneha Sunil and Prasanna Vasu. December 12 - 15, 2018. (AQCS-008)
5. The 8th International Food Convention (IFCON-2018), CSIR- Central Food Technological Research Institute, Mysuru, Karnataka, India. **Poster presentation** on “Method validation for the quantitative analysis of Ochratoxin A in wheat by HPLC” Vanajakshi V, Varshini L. Shreedipti Sahoo and Prasanna Vasu. December 12 - 15, 2018. (AQCS-006)
6. The 8th International Food Convention (IFCON-2018), CSIR- Central Food Technological Research Institute, Mysuru, Karnataka, India. **Poster presentation**

- on “Proteins from Pumpkin seeds: Nutritional properties and protein identification”. Vinayashree S. and Prasanna Vasu. December 12 - 15, 2018. (FBFM-017)
7. The 8th International Food Convention (IFCON-2018), CSIR- Central Food Technological Research Institute, Mysuru, Karnataka, India. **Poster presentation** on “Mango pectin methyl esterase: Biochemical characterization”. Amrita Ray and Prasanna Vasu. December 12 - 15, 2018. (FBFM-036)
 8. Centre for Advanced Faculty Training Programme on “Food Safety and Quality Management Systems for a Farm to Fork Approach” In the Department of Agricultural Microbiology, Tamil Nadu Agricultural University, Coimbatore, **Invited talk** on ‘Food Processing Strategies for Food Safety’, on November 17, 2017.
 9. The 5th Asia-Pacific Bioinformatics conference, City University of Hong Kong, Shenzhen Research Institute, Shenzhen, China. **Poster presentation (Travel Grant, DST-SERB)** on ‘ In silico designing of protein enriched with Branched – chain Amino acids for the dietary treatment of chronic liver disease. January 16 – 18, 2017
 10. The 85th Annual meeting of Society of Biological Chemists, CSIR - Central Food Technological Research Institute, Mysore, Karnataka, India. **Poster presentation** on “Development of Ionic Liquid Aqueous Two-Phase System (IL-ATPS) Assisted LC-MS/MS Method for the Analysis of Antibiotics – Path towards Safe and Healthy Food.” November 21 - 24, 2016
 11. The 85th Annual meeting of Society of Biological Chemists, CSIR - Central Food Technological Research Institute, Mysore, Karnataka, India. **Poster presentation** on “Functional Characterization of Pumpkin Seed Proteins for Health-food Applications”. Vinayashree S. and Prasanna Vasu. November 21 - 24, 2016
 12. The 7th International Conference on Proteomics and Bioinformatics. Rome, Italy. Prakruthi Appaiah and Prasanna Vasu. **Invited Talk** on ‘Designer Protein Enriched with Large Neutral Amino Acids: A New Approach for Treating Phenylketonuria’. October 24-25, 2016
 13. Two-day UGC sponsored National Conference organized on “Recent Analytical Trends in Quality Control of Food, Beverages and Natural Products” by Shri. S.H. Kelkar College of Arts, Commerce and Science, Devgad, Dist. Sindhudurg, Maharashtra, **Invited talk** on ‘Recent Advances and Applications of Mass Spectrometry in Quality Control of Food and Beverages.’ December 18th – 19th, 2015
 14. Two-day Food Safety Workshop at CSIR-CFTRI, organized by CSIR-CFTRI and Bangladesh CSIR, **delivered lecture** on ‘Antibiotic residues in food: Analysis and method development.’ September 10-11, 2015
 15. Faculty Development Programme on Current Advances in Bioanalytical Techniques, at Dept. of Biotechnology, M. S. Ramaiah Institute of Technology, Bangalore, **Invited talk** on “Recent Advances and Applications of Bioanalytical Mass Spectrometry.” May 26, 2015
 16. Karnataka Science and Technology Academy (KSTA) and DST sponsored Open Lecture Series on Science, at Sri Mahadeswara Govt. First Grade College, Kollegala, Chamarajanagar, Karnataka, India, **Invited talk** on “Biochemistry of enzymes and its food applications.” Jan. 24, 2015

17. The 5th ASIAHORC Joint Symposium on Food Sciences, Nusa Dua, Bali, Indonesia. **Invited talk** on "Functional Foods: Recent Research and Future Prospects." November 26-28, 2013.
18. Institute of Food Technologists (IFT-2013) Annual meeting & Food Expo, Chicago, Illinois, USA. "Nanostructural Modification of a Model Homogalacturonan with a Novel Pectin Methyltransferase: Effects of pH on Nanostructure, Enzyme Mode of Action and Substrate Functionality." Y. Kim, M. A. K. Williams, A. L. Galant, G. A. Luzio, B. J. Savary, **P. Vasu**, and R. G. Cameron. July 13-16, 2013
19. The 3rd Annual Meeting Indian Chitin and Chitosan Society (ICCS) & National Symposium on Emerging Issues in Chitin and Chitosan Research, CSIR –IHBT, Palampur-176061, Himachal Pradesh. "A haemagglutinin from Field bean (*Dolichos lablab*) seed exhibits catecholase activity." Yashavanth L. V., Prasanna Vasu., & Lalitha R. Gowda. June 7 – 8, 2013
20. CARBO-XXVII (2012), National Carbohydrate Conference at the CSIR-CFTRI, Mysore, India. **Technical Talk** on "Plant pectin methyl transferase and its role in modifying pectin functionality." December 13 - 15, 2012
21. ICFoST-XXII (2012) at the CSIR-CFTRI, Mysore, India. "Optimization and validation of a simple LC-MS/MS method for analysis of tetracyclines, and its stability evaluation in honey." **Prasanna Vasu** and P. Umamaheshwari. December 6 - 7, 2012
22. FOODLYTICA 2012, at the Westin Gurgaon, New Delhi, India. **Invited Talk** on "Examining the latest technologies for food analysis to ensure efficient and cost effective testing of your F & B products." November 01, 2012.
23. Council of Scientific and Industrial Research (CSIR), New Delhi, sponsored National conference on "Dissecting the complexities of plant biotechnology in the post-genomic era" at Department of Biotechnology and Centre for Bioinformation, Tumkur University, Tumkur, Karnataka, India. **Invited talk** on "Cloning and expression of plant cell wall-active enzymes in *Pichia pastoris*." Sep. 21, 2011.
24. PLANTBIOLOGY 2011, Annual Meeting of American Society of Plant Biologists, Minneapolis, MN, USA. "Purification and characterization of *Carica papaya* pectin methyl esterases – isolation from "Liquipanol" and fruit tissues". **Prasanna Vasu**, Brett J. Savary, Randall G. Cameron and Robert E. Paull. August 6 -10, 2011.
25. Institute of Food Technologists (IFT-2011) Annual meeting, New Orleans, Louisiana, USA. "Mapping structural and functional changes in esterase-treated pectin and characterizing enzyme mode of action." Randall G. Cameron, Brett J. Savary, Gary A. Luzio, **Prasanna Vasu** and Martin A. K. Williams. June 11-14, 2011
26. The 241st American Chemical Society Meeting and Exposition (Spring 2011), Anaheim, CA, USA. "Purification and characterization of a *Carica papaya* pectin methyl esterase isolated from the commercial enzyme extract Liquipanol." **Prasanna Vasu**, Brett J. Savary and Randall G. Cameron. March 27-31, 2011.
27. PacifiChem 2010, ACS meeting, Honolulu, Hawaii, USA. "Investigating the Diversity of Pectin Methyltransferases for Biobased Products Processing." Brett J. Savary, **Prasanna Vasu** and Randall G. Cameron. December 15, 2010.

28. PacifiChem 2010, ACS meeting, Honolulu, Hawaii, USA. "Nanostructural characterization of enzyme and base modified pectin." Randall G. Cameron, Gary A. Luzio, Brett J. Savary, **Prasanna Vasu** and Martin A. K. Williams. December 15, 2010.
29. 2010 Pacific Rim Summit on Industrial Biotechnology and Bioenergy, Washington DC, USA. "Development of a thermostable pectinesterase for plant biomass modification and processing." Brett J. Savary, **Prasanna Vasu**, Jose C. Tovar and Jianfeng Xu. December 11, 2010.
30. Arkansas NSF EPSCoR Project Annual Conference, LittleRock, AR, USA. "Development of a thermostable pectinesterase for Biomass processing." Brett J. Savary, **Prasanna Vasu** and Jose Carlos Tovar. October 4 - 5, 2010.
31. Arkansas Biosciences Institute Fall Research Symposium, LittleRock, AR, USA. "Development of a thermostable pectinesterase for Biomass processing." Brett J. Savary, **Prasanna Vasu** and Jose Carlos Tovar. September 29, 2010.
32. Arkansas P3 Center Summer Symposium, Winthrop Rockefeller Institute, Petit Jean, Arkansas, USA. "Development of a thermostable enzyme for biomass processing." Brett J. Savary, **Prasanna Vasu** and Jianfeng (Jay) Xu. August 15 – 17, 2010.
33. Citrus and Subtropical Products Research Laboratory, **USDA-ARS**, Winter Haven, Florida, USA. Invited talk, "Preparation of papaya (*Carica papaya* L.) pectin methylesterase." April 23, 2010.
34. The 32nd Symposium on Biotechnology for Fuels and Chemicals, Clearwater Beach, Florida, USA. "A thermally-tolerant pectinesterase for plant biomass modification and processing." Brett J. Savary and **Prasanna Vasu**. April 19 - 22, 2010.
35. 2010 CPBR Symposium, Consortium for Plant Biotechnology Research, Washington DC, USA. "A thermally tolerant pectinesterase for plant biomass modification and processing." Brett J. Savary and **Prasanna Vasu**. February 9, 2010.
36. The 9th International Congress on Plant Molecular Biology, St. Louis, MO, USA. "Preparation of recombinant reagent enzymes for use in evaluating plant cell wall polysaccharide structure and function." **Prasanna Vasu**, Alejandra Ratti, Tanika Arora, Esha Das, Brett J. Savary, and Andrew J. Mort. October 25 – 30, 2009.
37. The 9th International Congress on Plant Molecular Biology, St. Louis, MO, USA. "Biochemical and proteomic profiling of polysaccharide-modifying enzymes in sugar beet root cell walls." Brett J. Savary, **Prasanna Vasu**, Dayanandan Anandan, James Miller, Ann C. Smigocki, and Alberto Nuñez. October 25 – 30, 2009.
38. Arkansas Biosciences Institute Fall Research Symposium, Jonesboro, AR, USA. "Protein and plant cell wall chemistry laboratory: Research to produce valuable co-products from Bioenergy crops and food processing residues." Brett J. Savary and **Prasanna Vasu**. September 25, 2009.

39. The 238th American Chemical Society Meeting and Exposition (Fall 2009), Washington DC, USA. "Preparation of reagent enzymes from *Aspergillus nidulans* for use in manipulating plant cell wall polysaccharide structure." Brett J. Savary, **Prasanna Vasu**, Alejandra Ratti, and Andrew Mort. August 16 - 20, 2009.
40. The 238th American Chemical Society Meeting and Exposition (Fall 2009), Washington DC, USA. "Functional characterization of pectin enzymatically modified with a thermally-tolerant pectin methylesterase." Gary A. Luzio, Randall R. Cameron, Brett J. Savary and **Prasanna Vasu**, August 16 - 20, 2009.
41. The 238th American Chemical Society Meeting and Exposition (Fall 2009), Washington DC, USA. "Nanostructural characterization of enzymatically modified pectin." Randall R. Cameron, Gary A. Luzio, Brett J. Savary, **Prasanna Vasu** and Martin A. K. Williams, August 16 - 20, 2009.
42. The 31st Symposium on Biotechnology for Fuels and Chemicals, San Francisco, CA, USA. "Production and characterization of recombinant cell wall-active enzymes from *Aspergillus nidulans* for use in plant-biomass utilization" **Prasanna Vasu**, Alejandra Ratti, Brett J Savary and Andrew Mort. May 3 – 6, 2009.
43. Arkansas ASSET Initiative: P3 centre and P3 Advisory Committee meeting, Little Rock, AR, USA. "Biomolecule analysis with MALDI-TOF mass spectrometry". Brett J Savary and **Prasanna Vasu**. April 2, 2009.
44. Arkansas Biosciences Institute Fall Research Symposium, Little Rock, AR, USA. "Protein chemistry and plant cell wall Biochemistry laboratory - Resources." Brett J Savary and **Prasanna Vasu**. October 7, 2008.
45. The Pacific Rim Summit on Industrial Biotechnology and Bioenergy, Vancouver, British Columbia, Canada. "Prospecting for polysaccharide modifying enzymes useful for generating biobased products from plant cell walls." Brett J Savary and **Prasanna Vasu**. September 10-12, 2008.
46. American Chemical Society Meeting and Exposition (Spring 2008), New Orleans, LA, USA. "Characterization of a polgalacturonase-inhibitor protein purified from sweet orange pulp." **Prasanna Vasu**, Brett J. Savary, Michael G. Bausher, Alberto Nuñez, and Randall G. Cameron. April 6 – 10, 2008.
47. American Chemical Society Meeting and Exposition (Spring 2008), New Orleans, LA, USA. "Prospecting in sugar beet roots for defense-related proteins and cell wall-active enzymes." Brett J. Savary, Dayanandan Anandan, **Prasanna Vasu**, Ann C. Smigocki, and Alberto Nuñez. April 6 – 10, 2008.
48. World Congress on In Vitro Biology, Tucson, Arizona, USA. "Prospecting in sugar beet roots for defense-related proteins and cell wall-active enzymes." Brett J. Savary, **Prasanna Vasu**, Dayanandan Anandan, Ann C. Smigocki, and Alberto Nuñez. June 14 – 18, 2008.
49. Arkansas Biosciences Institute Fall Research Symposium, Little Rock, AR, USA. "Bioanalytical chemistry resources applied in protein and carbohydrate research at the ASU Biosciences Institute." Brett J. Savary, **Prasanna Vasu**, and Dayanandan Anandan. October 23, 2007.
50. The 24th Annual Missouri Plant Biology - Interdisciplinary Plant Group (IPG)-Symposium, Missouri-Columbia, MO, USA. **Attended** the Mini-symposium on Plant Proteomics. May 24 -25, 2007.

51. Rice Utilization Workshop "Beneath the Hull", New Orleans, LA, USA. "Preparation of polysaccharide-modifying enzymes: New opportunities for application in rice utilization research." Brett J. Savary, **Prasanna Vasu**, and Alberto Nuñez. February 1 – 2, 2007.
52. Arkansas Biosciences Institute Fall Research Symposium, Little Rock, AR, USA. "Protein chemistry and proteomics applied to generating polysaccharide-modifying enzymes useful for food sciences and agriculture." Brett J. Savary, **Prasanna Vasu**, and Alberto Nunez. October 26, 2006.
53. Eastern Regional Research Center, **USDA-ARS**, Wyndmoor, PA, USA. Invited talk, "Polysaccharide modifying enzymes as new tools for elucidating cell wall architecture-Implication of xylanolytic enzymes." April 18, 2006.
54. Plant Cell Wall Biosynthesis Meeting, Asilomar, CA, USA. "Production of an extensive set of pure cell wall polysaccharide hydrolytic enzymes." Stefan Bauer, **Prasanna Vasu**, Andrew J. Mort and Chris R. Somerville. August 4-7, 2005.
55. PLANTBIOLOGY 2005, Annual Meeting of American Society of Plant Biologists, Seattle, WA, USA. "Xylanolytic enzymes as analytical tools in the study of plant cell wall architecture." **Prasanna Vasu**, Stefan Bauer, Christopher Somerville and Andrew J. Mort. July 16 -20, 2005.
56. Oklahoma Academy of Sciences, 94th Annual Technical Meeting, Oklahoma City, OK, USA. **Invited seminar**, "Use of High Specificity Enzymes in Plant Cell Wall Analysis." November 5, 2004.
57. Oklahoma State University, Stillwater, OK, USA. **Invited seminar**, "Pectin hydrolysis *in vivo* and its role in fruit softening during ripening in mango (*Mangifera indica* L.)." July 12, 2004,
58. International Symposium on Fruit Crops, Cairns, Australia. "Biotechnological approach for textural regulation in banana and mango fruit during ripening." Prabha T.N., Bhagyalakshmi, N., Yashoda H.M., **Prasanna, V.**, Jagadeesh B.H., and R.N. Tharanathan. November 26 – December 1, 2000.
59. The 69th Annual meeting of Society of Biological Chemists, Bose Institute, Calcutta, India. "Changes in pectic polymers and allied enzymes in ripening mango in relation to textural softening." **Prasanna, V.**, H.M. Yashoda, T.N. Prabha and R. N. Tharanathan. December 7 - 9, 2000.
60. The 14th Indian Convention of Food Science & Technologists (ICFOST 2000), Mysore, India. " α -D-Mannosidase isoforms in some important climacteric fruits: Implication in ripening phenomenon." Jagadeesh, B.H., Bimba Jain, M.V., **Prasanna, V.**, H.M. Yashoda, and T.N. Prabha. November 22 - 24, 2000.
61. International Conference on Life Sciences in the Next Millennium, University of Hyderabad, Hyderabad, India. " β -Galactosidase isoforms from Papaya fruit." **Prasanna V.** and T.N. Prabha. December 11-14, 1999.
62. The 67th Annual meeting of Society of Biological Chemists, Jawaharlal Nehru University, New Delhi, India. "Biochemical changes related to textural softening in Papaya (*Carica papaya*)." **Prasanna, V.** and T. N. Prabha. December 19-21, 1998.

Memberships and Honors

- Society of Biological Chemists (India) – Life member
- Association of Food Scientists & Technologists India (India) - Life member
- Association of Carbohydrate Chemists and Technologists (India) - Life member
- Society of Industrial Microbiology (USA)
- American Chemical Society (USA)
- All India Microbiology Society (India)
- Post Doctoral Fellowship (USA) – Oklahoma State University, Oklahoma, USA
- Senior Research Fellowship (CSIR-SRF) for Ph. D research (1998 - 2001)
- GATE-95 qualified in 1995
- SLET (State Level Entrance Test) qualified in 1995
- **Second prize** for the poster presentation at the 14th Indian Convention of Food Science & Technologists (ICFOST 2000), held at Central Food Technological Research Institute, Mysore, India. November 22 - 24, 2000.
- **Editor's Choice Article:** Prakruthi Appaiah and **Prasanna Vasu**. 2020. Improvement, cloning and expression of an *in silico* designed protein enriched with large neutral amino acids in *Pichia pastoris* for possible application in phenylketonuria. ***Journal of Food Biochemistry*** 44(3): e13151-13161. <https://doi.org/10.1111/jfbc.13151>