

## Detailed CV

Name: **B. S. Gunashree**

Educational Qualification: MSc., PhD.

Designation: Assistant Professor



Address for Correspondence: **Department of Studies and Research in Microbiology**

**Jnana Kaveri Post Graduate Centre**

**Chikka Aluvara, Kodagu- 571232**

E-mail: **gunashree\_bs@yahoo.co.in**

Phone: **9986006067**

Research Areas: **Food Microbiology and Industrial Microbiology**

Isolation, identification and strain improvement of fungi. Production, Characterization and Purification of extracellular enzymes through fermentation. Scale up of fermentation.

Food Compositional analysis for proximate and antinutritional content. Reduction or elimination of antinutrients through probiotic fermentation and other traditional processes for food formulation.

Professional Teaching Experience: **8 years**

Research Guidance (M.Phil. /Ph.D.):

Ongoing Registered Students' list:

**1. Ms. Gowthami G. A. MSc, (Microbiology), Provisional Registration number: 188135403**

**2. Mr. Basavaraju M, MSc, (Microbiology), Provisional Registration number: 188135405**

Research Projects (List) (if applicable)

**Completed:** Minor Research project entitled “**Development of dephytinized composite food through microbial fermentation to combat malnourishment**” from August 2014 to Aug 2016

**Ongoing:** Major Research Project funded by **DST- SERB (File No. EEQ/ 2017/ 000030)** entitled “**Antinutrients free Tamarindus indica seeds based composite food formulation**”

Amount sanctioned: **Rs. 43,23,409/- (Rs. Forty three lakhs twenty three thousand four hundred and forty nine only)**

Duration: **3 years from May 2019 to May 2022**

Professional Collaboration (if applicable)

International

National: **Central Food Technological Research Institute, Mysuru- 570020**

Research Journal Publications (list)

International: **14**

1. **B. S. Gunashree** and G. Venkateswaran (2008). Effect of different cultural conditions for phytase production by *Aspergillus niger* CFR 335 in submerged and solid-state fermentations. *Journal of Industrial Microbiology and Biotechnology* 35(12):1587-1596. **(Citation 48) IF 3.103** (UGC Sl. No 21040)
2. **Gunashree B. Shivanna** and Venkateswaran Govindarajulu (2009). Screening of asporogenic mutants of phytase producing *Aspergillus niger* CFR 335 strain. *Microbial Ecology in Health and Disease* 21: 57-63. **(Citation 13) (ISSN 0891-060X)** (UGC Sl. No 26040)
3. **B. S. Gunashree** and G. Venkateswaran (2010). Enhanced phytase production through interspecific protoplast fusion of *Aspergillus niger* CFR 335 and *Aspergillus ficuum* SGA 01 auxotrophic mutants. *Enzyme and Microbial Technology* 46(7): 562-567 **(Citation 19) IF 2.287** (UGC Sl. No 11200)
4. **Gunashree B. Shivanna** and Venkateswaran Govindarajulu (2013) Phytase production by *Aspergillus niger* CFR 335 and *Aspergillus ficuum* SGA 01 through submerged and solid-state fermentation *The Scientific World Journal* vol. 2014, Article ID 392615, <http://dx.doi.org/10.1155/2014/392615> **(Citation 29)** (UGC Sl. No 36114)
5. **B.S. Gunashree**, R. Selva Kumar, R. Roobini and G. Venkateswaran (2014) Nutrients and antinutrients of ragi and wheat as influenced by traditional processes. *Int. J. Curr. Microbiol. App. Sci* 3(7) 720-736 **(Citation 11) (IF 2.939) ISSN:2319-7706**
6. **B. S. Gunashree** and G. Venkateswaran. (2014) Extracellular phytase from *Aspergillus niger* CFR 335: Purification and characterization. *Journal of Food Science and Technology* 52(7): 4558–4564 **(Citation 5) (IF 1.849) ISSN: 0022-1155(Print) ISSN: 0975-8402 (online)** (UGC Sl. No 20625)

7. **Gunashree B. Shivanna** and Govindarajulu Venkateswaran (2015) Dephytinization of Cereals and Pulses by Phytase Producing Lactic Acid Bacteria. *International Journal of Current Research and Academic Review* 3(12): 61-69 (**IF 2.519**) **ISSN No. 2347-3215**
8. **Gunashree B Shivanna** and Govindarajulu Venkateswaran (2016) Traditional processes influencing nutritional and antinutritional factors of horse gram (*Macrotyloma uniflorum*). *International Journal of Food and Nutritional Sciences* 5(1):15-22. **ISSN 2320-7876 (IF 1.202)**
9. Sumaiya Ahmed Ali and **Gunashree B. Shivanna** (2017) Physico- chemical characteristics of russian tea fungus: kombucha. *International Journal of Pharmacy and Pharmaceutical Sciences* 9(4): 161-165. **ISSN 0975- 1491 (Online) ISSN: 2656-0097 (Print)**
10. Ali Mohammed Abdullah Bawazir, **Gunashree B. Shivanna** and Manjula Shantaram (2018) Isolation and Characterization of Nocardia from Laiha Cave Soil in Hadhramout of Yemen as a Source of Antibiotic *International Journal of Science and Research Methodology* 9(3): 121-130 **ISSN 2454-2008**
11. Ali Mohammed Abdullah Bawazir, **Gunashree B. Shivanna** and Manjula Shantaram (2018) Impact of different media for growth and production of different soluble pigments in actinomycetes isolated from soils of Hadhramout- Yemen. *European Journal of Biomedical and Pharmaceutical Sciences* 5(7): 615-619 **ISSN No. 2349- 8870** (UGC Sl. No. 44779)
12. Harish Nayaka M.A, Lava Chikkappaiah, Manohar M.P, **Gunashree B.S**, Vasant Kumar M Koraddi (2018) Storage studies of jaggery prepared using aloe vera. Pursalane and Malabar spinach mucilage clarificants. *International Journal of Biosciences* 13(1): 196-205 **ISSN No. 2222-5234 (Print) ISSN 2220-6655 (online)** (UGC Sl. No. 48663) (**IF 0.553**)
13. Harish Nayaka M.A, Lava Chikkappaiah, Venkatesh K. S, **Gunashree B. S** and Sudharshan. S. (2018). Evaluation of bioactivity of jaggery prepared using plant mucilage as clarificant. *Asian Journal of Pharmaceutical and Clinical Research* 11(11): 294-299 **ISSN 2455-3891** (online) **ISSN: 0974-2441 (Print)** (UGC Sl. No. 20) (**IF 0.492**)
14. Rajani M and **Gunashree B. Shivanna** (2020). Development of a composite food using dephytinized grains through probiotic fermentation. *Biomedicine* Accepted

National: **01**

1. **B. S. Gunashree**, G. Venkateswaran and R. Jagannatha Rao (2007). Efficacy of *Aspergillus niger* phytase on the availability of phytate phosphorus. *Indian Journal of Poultry Sciences* 42(3): 251-256. (**Citation 2**) **ISSN 0974-8180** (UGC Sl. No 15634)

Books / Book chapters / Translations published

Papers / poster presentations in Conferences / Seminars / Symposia (list)

International: **06**

1. **B. S. Gunashree** and G. Venkateswaran (2003). **Bioavailability of phosphorus in poultry feed by phytase enzyme.** 5<sup>th</sup> International Food Convention (IFCON- 2003), 5<sup>th</sup>- 8<sup>th</sup> December 2003, CFTRI, Mysore, Karnataka state, India.
2. V. Sudarshana Deepa., **B. S. Gunashree** and G. Venkateswaran (2003). **Studies on asporulation of *Aspergillus niger* for enzyme production.** 5<sup>th</sup> International Food Convention (IFCON- 2003), 5<sup>th</sup>- 8<sup>th</sup> December 2003, CFTRI, Mysore, Karnataka state, India.
3. **B.S.Gunashree**, Sweta Srivastava and G. Venkateswaran (2013) Bacterial Fermentation: A tool for reducing phytic acid in cereals and legumes. IFCON- 2013, Dec- 2013, CSIR- CFTRI, Mysore, Karnataka, India.
4. G.R. Sharmila, **B. S. Gunashree** and G. Venkateswaran (2013) Reversible activation of trypsin inhibitor in soy bean and wheat upon pH flux. IFCON- 2013, Dec- 2013, CSIR- CFTRI, Mysore, Karnataka, India.
5. **B.S.Gunashree** and G. Venkateswaran (2011) Effect of processing parameters on the retention of carotenoids in green gram (*Vigna radiate*) and black gram (*Vigna mungo*). 5<sup>th</sup> International Conference of SASNET. 15<sup>th</sup>- 16<sup>th</sup> Dec 2011 at CSIR- CFTRI, Mysore, Karnataka, India
6. Arya Raj and **Gunashree B. Shivanna** (2018) Screening of gluten degrading strains for food applications. IFCON- An International Conference held between 12<sup>th</sup> and 15<sup>th</sup> December 2018 at CSIR- Central Food Technological Institute, Mysuru.

National: **15**

1. **B. S. Gunashree** (2004) **Oral Presentation:Phytase: Its potential application in animal feed industry.** National Seminar on Microbial Diversity: A source of innovation in Biotechnology, 27<sup>th</sup>- 29<sup>th</sup> May 2004 at Tropical Botanic Garden Research Institute, Thiruvananthapuram, Kerala, India.
2. **B. S. Gunashree**, Joby Thomas and G. Venkateswaran (2004) Phytase enzyme and its purification from *Aspergillus niger* CFR 335. National Seminar on Microbial Diversity: A source of innovation in Biotechnology, 27<sup>th</sup>- 29<sup>th</sup> May 2004 at Tropical Botanic Garden Research Institute, Thiruvananthapuram, Kerala, India. (Best poster award)

3. **B. S.Gunashree** and G. Venkateswarn (2004). Interspecific protoplast fusion for improved phytase production. 45<sup>th</sup> Annual Conference of AMI, 23<sup>rd</sup>- 25<sup>th</sup> November 2004 at National Dairy Research Institute, Karnal, Haryana, India.
4. **B. S.Gunashree** and G. Venkateswarn (2005). Molecular characterization of hybrid strains for phytase enzyme production. 46<sup>th</sup> Annual Conference of AMI, 8<sup>th</sup>-10<sup>th</sup> December 2005 at Osmania University, Hyderabad, Andhra Pradesh, India.
5. **B.S.Gunashree** and G. Venkateswaran (2006). Phytase production by *Aspergillus niger* CFR 335: Effect of temperature and pH. 47<sup>th</sup> Annual Conference of AMI, 6<sup>th</sup>- 8<sup>th</sup> December 2006 at Barkatullah University, Bhopal, Madhya Pradesh.
6. **B.S.Gunashree** and G. Venkateswaran (2006). Efficacy of phytase enzyme in the bioavailability of calcium by phytase enzyme. 16<sup>th</sup> Indian Convention for Food Scientists and Technologists. 9-10<sup>th</sup> December 2006 at Defence Food Research Laboratory, Mysore, India.
7. **B.S.Gunashree** and G. Venkateswaran (2011) Fermentative production of phytase by *Aspergillus niger* CFR 335 and *Aspergillus ficuum* SGA 01: A comparative study 52<sup>nd</sup> Annual Conference of AMI, Nov 3<sup>rd</sup>- 6<sup>th</sup> at Panjab University, Chandigarh
8. **B.S.Gunashree** and G. Venkateswaran (2011) Studies on the elimination of phytic acid from green gram (*Vigna radiate*) and black gram (*Vigna mungo*) 21<sup>st</sup> Indian Convention of Food Scientists and Technologists (ICFOST), Jan 20<sup>th</sup>- 21<sup>st</sup> at Pune, India.
9. **B.S.Gunashree**, R. Roobini and G. Venkateswaran (2012) Antioxidant and antinutrient levels of ragi (*Eleusine coracana*) and wheat (*Triticum sps*) as influenced by domestic processes 53<sup>rd</sup> Annual Conference of AMI, 22<sup>nd</sup>- 25<sup>th</sup> Nov 2012 at Bhubaneswar, Orissa
10. **B.S.Gunashree**, K. Sivashankari and G. Venkateswaran (2012) Influence of domestic processes on antioxidant and antinutrient levels of horse gram (*Macrotyloma uniflorum*) and bengal gram (*Cicer arietinum*) XXII ICFoST., CSIR- CFTRI, Mysore, Karnataka, India
11. **B. S. Gunashree** (2014) **An Oral Presentation** on Fermentation: A tool for phytase production by probiotic strains. National Seminar, 28<sup>th</sup> February & 1<sup>st</sup> March 2014, Department of Studies and Research in Microbiology, P G. Centre, Chikka Aluvara, Mangalore University. (**Awarded Best Oral Presentation- Consolation**)
12. Sumaiya Ahmed Ali and **Gunashree B. Shivanna** (2016) Physico- Chemical characteristics of Russian Tea Fungus: KOMBUCHA in a National Seminar on Production and Applications of Microbial Products in Diverse Sectors (PAMPDS-2016) held between 6<sup>th</sup> and 7<sup>th</sup> April 2016 at The Department of Microbiology, Selvamm Arts and Science College, Namakkal, Tamil Nadu.

13. Jonel Anisha Nazareth and **Gunashree B Shivanna** (2017) Antinutrients and *In-vitro* Protein Digestibility in Various Processed Horse gram (*Macrotyloma uniflorum*) in a National Seminar on Malnutrition: Challenges, success stories and way forward held between 3<sup>rd</sup> and 4<sup>th</sup> March 2017 at CSIR- Central Food Technological Institute, Mysuru.
14. Rajani M and **Gunashree B.S** (2017) Development of dephytinized composite functional food through probiotic fermentation in a National Conference on Science and Technology: Reaching the Outreached held between 6<sup>th</sup> and 8<sup>th</sup> Sep 2017 at Mangalagangothri, Mangalore University, Mangalore Karnataka, India.
15. Rakshitha M. P. and **Gunashree B. Shivanna** (2019) Screening of Alkaline Phosphatase Producing Bacteria 7<sup>th</sup> Bioprocessing India Conference, a National Conference held between 14<sup>th</sup> and 16<sup>th</sup> December 2019 at CSIR- Central Food Technological Institute, Mysuru.

#### Regional

Invited / plenary talks delivered (list) (if applicable)

**Resource Person** for an Hands on Training program on Molecular Techniques at GENESPY Research Services, Mysuru- 02 and delivered a lecture on “**Methods in Protein Purification**” on 8<sup>th</sup> August 2016.

Impact of publications in terms of (Non-science faculty can leave out this item, if unable to fill up).

h-index:

i10 index:

**Citation index: 119**

Conferences / Seminars / Workshops / Symposia organized (if applicable):

1. **Organizing and Food Committee Convener** of a National Seminar on “**Microbes in the present Scenario**” held on 28<sup>th</sup> February & 1<sup>st</sup> March 2014, Department of Studies and Research in Microbiology, P G. Centre, Chikka Aluvara, Mangalore University.
2. **Organizing and Finance Committee member** of a National Conference on “Industry-Institute Collaboration” held in April 2007 at the Department of Biotechnology, Bannari Amman Institute of Technology, Satyamangalam, Tamilnadu.

Awards / Fellowship / Recognition (Specify) (if applicable):

1. Recipient of **Post Doctoral Fellowship** under the scheme UGC Post Doctoral Fellowship for Women 2011

2. Recipient of **Junior and Senior Research Fellowships** from the University of Mysore, Mysore for 2002-2006
3. Qualified **State Level Eligibility Test (SLET) - 2006** for Lectureship conducted by the Government of Karnataka.
4. **Best Poster Award: “Phytase enzyme and its purification from *Aspergillus niger* CFR 335”**. National Seminar on Microbial Diversity: A source of innovation in Biotechnology, 27<sup>th</sup>- 29<sup>th</sup> May 2004 at Tropical Botanic Garden Research Institute, Thiruvananthapuram, Kerala, India.
5. **Best Oral Presentation- Consolation** B. S. Gunashree (2014) **An Oral Presentation on “Fermentation: A tool for phytase production by probiotic strains”**. National Seminar, 28<sup>th</sup> February & 1<sup>st</sup> March 2014, Department of Studies and Research in Microbiology, P G. Centre, Chikka Aluvara, Mangalore University.

#### Membership of Professional Bodies:

1. Association of Microbiologists of India, **Annual Member**
2. Life member of Association of Food Scientists and Technologists of India, **AFST/LM/9-2018/ZON/2414**
3. Life member of Society of Biological Chemists (INDIA), **No. 3372**
4. Life member of Indian Science Congress, **No. L33051**

#### Any other Information:

1. Participated in the **4<sup>th</sup> National Pre-Conference Workshop of SOBSICON-2014** organized by the Department of Studies and Research in Biochemistry, Mangalore University PG Centre, Chikka Aluvara, Kodagu on Recent Advances in Research Methodologies in Biological Sciences at Mangalore University, Mangalagangothri, Mangalore, Karnataka, India on 17<sup>th</sup> Nov 2014.
2. Participated in the **106<sup>th</sup> Orientation program** between 24<sup>th</sup> Dec 2014 and 20<sup>th</sup> Jan 2015 held at UGC- Academic Staff College, University of Mysuru, Mysuru.
3. Participated in Training program on **Online Examination process** held on 22<sup>nd</sup> Sep 2015 at Mangalagangothri, Mangalore University
4. Participation in **1<sup>st</sup> Refresher Course** in Basic Sciences (Life Sciences) held between 8<sup>th</sup> and 28<sup>th</sup> March 2018 at UGC-Human Resource Development Centre, University of Mysore, Mysore
5. I was the **Convener**, Guest Faculty at PG Centre, Chikka Aluvara, Kodagu from August 2015 June 2016.

6. Being the Convener, Guest Faculty I **Chaired the Inauguration** program of **Commerce Association and PAN card Mela**, Organized by the Dept of Studies in Commerce, PG Centre, Chikka Aluvara, Kodagu on 4<sup>th</sup> Nov 2015.
7. I was the **Chief Guest** for an awareness program on “Physically Challenge and the facilities that is given to Physically Challenged people and senior Citizens” jointly organized by the Dept of Studies in Social Work PG Centre, Chikka Aluvara, Kodagu, and Swastha Rehabilitation Centre, Madikeri held at Gram Panchayat Office, Hebbale, Kushalnagar, Kodagu on 10<sup>th</sup> March 2016. I rendered a Speech which has appeared in two dailies “**Prajavani**” and “**Kaveri Times**”.
8. **Delivered a lecture** in Kannada for humanities students under the program **Varada Atithi** on 14<sup>th</sup> March 2016 at Humanities Block PG Centre, Chikka Aluvara, Kodagu on the topic entitled “**Sukshma jeevigalu manukulakke varavo athava shaapavo**”(Microorganisms- A Boon or Bane to human kind).
9. I was assigned to set syllabi for five theory papers: **Molecular Biology, Genetic Engineering, Food Microbiology, Fermentation Technology** and **Applied Microbiology** that are included under CBCS-CGPA, MSc, Microbiology, for the year 2016.
10. I was In-charge, Chief Superintendent to conduct two sessions of semester exams on 03-06-2016 and 04-06-2016.
11. I was the **Warden, Ladies hostel**, PG Centre, Chikka Aluvara, Kodagu since 9<sup>th</sup> Sep 2015 to 29<sup>th</sup> Oct 2018.