

**FACULTY PROFILE**

**NAME: Dr Gayathri Devaraja**

*Designation: Professor &Registrar (Administration)*

*Department: Microbiology*

*Qualification :M Sc., Ph D*

*Areas of Specialization : Medical Microbiology and Environmental Biotechnology*

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**Vision**

To make the department and research laboratories enriched with knowledge, as research centers with facilities reachable to societal needs.

**Educational Qualifications**

Sl. No.	Degree	Specialization/ Subjects	University	Year of Award/ Passing
1	<b>PhD.,</b>	Microbiology	Dept. of Biosciences, Mangalore University, Mangalore.	2004
<b>NET/SLET1996</b>				
3	<b>PG</b>	M Sc Microbiology	Post-graduate Centre, Kuvempu University, Davanagere.	1996
4	<b>UG</b>	Botany Zoology Chemistry	JCBM College, Sringeri, Kuvempu University.	1993

**Professional Details (Academic/Research Experience)**

Sl. No.	Designation	Institution/University	UG/PG	From	To
1	<b>Professor</b>	Department of studies in Microbiology, Davanagere University, Shivagangothri, Tholahunase, Davanagere 577002	<b>PG</b>	29 <sup>th</sup> August 2012	tilldate
2	<b>Associate Professor</b>	<b>Professor</b> Department of studies in Microbiology, Davanagere University,	PG	29 <sup>th</sup> August 2009	28 <sup>th</sup> August 2012

		Shivagangothri, Tholahunase, Davanagere 577002			
3	<b>Reader</b>	Department of studies in Microbiology, Davanagere University, Shivagangothri, Tholahunase, Davanagere 577002, India.	PG	6 August 2008	2 Dec 2009
4	<b>Reader</b>	Department of studies in Microbiology, Kuvempu University, Jnana Sahyadri, Shankaraghatta 577451,	PG	29 August 2006	5 August 2008
5	<b>Lecturer (Senior Scale)</b>	Department of Microbiology, University College, Mangalore	UG	8 August 2003	28 August 2006
6	<b>Lecturer</b>	Department of Microbiology, University College, Mangalore,	UG	Dec 1996	7 Aug '03

Areas of Research Interest:

1.	Bioremediation for sustainable environment
2.	Use of monoclonal antibodies for detection of animal and human pathogens
3.	Probiotics for healthcare. Conjugated/multi-targeted Vaccine development for pathogenic bacteria using hybridoma and nano technology.

Academic/Administrative responsibilities:

	<ul style="list-style-type: none"> <li>• <b>Registrar (Administration)</b> Davangere University, 08<sup>th</sup> February 2021 totill date</li> <li>• <b>Registrar (Evaluation)</b> Davangere University, 15 September 2019 to 8<sup>th</sup> Nov 2019</li> <li>• <b>Syndicate member: Davangere University</b>, 18<sup>th</sup> January 2018 toJan 2019, Sept 2020 to Feb 2021</li> <li>• <b>Dean, Faculty of Science and Technology</b>, Davangere University 1 April 2017 to 30 sept 2019.</li> <li>• <b>Chairperson</b>, Dept of Microbiology, Davangere University. 18<sup>th</sup> January 2018 to 17<sup>th</sup> Jan 2020</li> <li>• <b>Coordinator, Dept of Yogic science, Davangere University, 2018 to till date</b></li> </ul>
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- **Co-ordinator**, Dept. of Biotechnology, Davangere University, since July 2017-2019
- **Co-ordinator**, Dept. of Botany, Davangere University, 2011-12, 2012-13. 2013-14.
- **Co-ordinator**, Dept. of Zoology, Davangere University. 2013-14.
- **Chairperson, BoS**, Dept of Biotechnology, Davangere University, since February 2018
- **Chairperson, BoS**, Dept of Microbiology, Davangere University. 2014-2018
- **Chairperson, BoS**, Dept of Botany, Davangere University. 2014-2018
- **Warden**, Ladies Hostel, Davanagere University, Davanagere, December 2011 to Jan 2014. October 2014 to till date.
- **Chairperson**, Department of studies in Microbiology, Kuvempu University P G Centre, Tholahunase, Davanagere-577002, 20 September 2008 to 2 Dec 2009.
- **Chairperson, P G BOE.** 2008-09. 2011-12
- **Warden**, Ladies Hostel, P G Centre, Davanagere, December 2008-09.
  
- **Chairperson**, Department of studies in Microbiology, Kuvempu University, Jnana Sahyadri, Shankaraghatta 577451, September 2006 to 5 August 2008.
- **Member**, Board of Examiners for Microbiology (PG), Kuvempu University, Jnana Sahyadri, Shankaraghatta. 2006-07, 2007-08, 2008-09
- **Member**, Board of Examiners for Microbiology (PG), Davangere University, Shivagangothri, Tholhunse, Davanagere. 2009-10, 2010-11, 2011-2012. 2012-13
- **Member**, BoE for Microbiology (PG), Karnatak University 2011-12,
- **Member**, BoE for Microbiology (PG), Bangalore University 2011-12. 2016-17, 18
- **Member**, BoS for Microbiology (UG), Karnatak University 2013-14,
- **Head**, Department of Microbiology, University College, Mangalore. August 1997 to 28 August 2006.
- **Coordinator**, Microbiology Practical Examination (UG) 2003-04, Mangalore University, Mangalagangothri.
- **Member**, Board of Examiners for Microbiology Examination (UG), Mangalore University, 1998-99, 1999-2000, 2001-2002, 2002- 2003, 2003-2004, 2004-2005. 2002-06
- **Chairperson**, Board of Examiners for Microbiology Examination, Mangalore University, 2005-2006.
- **Head, Water Testing Centre**, Microbiological examination of water, Department of Microbiology, University College, Mangalore. September 2004 to 28 August

Research Projects:

Sl. No.	Title of the Project	Funding Agency	Project Budget	Period	Status
1.	“Efficacy of monoclonal antibody based immunodot test for the	UGC. N. Delhi.	Rs. 1,00,000/	March 2005 to	<b>Completed.</b>

	detection of <i>A. invadans</i> of EUS of culture ponds”.			2008.	
2.	Investigation on indigenous bacteria for biodegradation of polychlorinated biphenyls from industrial effluents..	UGC Major Research Project. New Delhi	<b>Rs. 9, 03, 300</b>	May 2009 to April 2012.	<b>Completed.</b>
3.	Irradiation effect on lichensymbionts for the improvement of soil fertility fromChitradurga fort area Karnataka.	DAE-BRNS	<b>Rs. .Rs.16, 36, 025</b>	April 2013 to June 2016.	<b>Completed.</b>
4.	Development of gluten free wheat foods using potential indigenous Lactobacillus spp.,.	DBT R&D Project, N Delhi	<b>Rs. 23, 00, 000</b>	14 <sup>th</sup> November 2013 to 14 November 2016,	<b>Completed.</b>
5.	Evaluation of restorative effect and Tight junction barrier strengthening in Caco-2 celllines using Probiotic cells for celiac disease,	<b>Research Fund for Talented Teachers: Vision Group Science and Technology, Govt of Karnataka</b>	<b>.Rs. 3.00 Lakhs</b>	<b>2016-17</b>	<b>Completed.</b>
6.	1)Effect of Pongemia cake on beneficial soil microorganisms in Areca nut plantation. April 2013-July 2013, Karnataka State Council for Science and Technology (KSTA), <b>Rs. 15, 000.</b> 2)Composition of methanotrophs in paddy field and effect of pongemia cake, a by product of biofuel production. March to May 2017, Rs. 10,000, 3)Efficacy of Pongamia oil based soap against conventional soaps	<b>Student Projects: sponsored by KSCST, Govt of Karnataka, Indian Institute of Science, Bangalore</b>			<b>Completed.</b>

<p>with respect to antibacterial activity to encourage hygiene practice among rural folk. March to July 2018, Rs. 12,500, (41<sup>st</sup> series</p> <p>4)Efficacy of pongamia oil and herbal based formulation soap against conventional-To encourage hygiene practice among rural folk for enteropathogens. <b>Rs 8, 500.</b> (42<sup>nd</sup> series)</p>				
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Research Publications:

a) International/National Journals

1. Vasudha, M., Gayathri, D., Gurum, S. S., Kavya, M. R., Nagaswarupa, H. P., Surendra, B. S., ... & Prathap Kumar, C. (2021). Synthesis of BMA NPs using aloe vera gel for their electrochemical, biological and photocatalytic studies. *Journal of Photochemistry and Photobiology*, 6, 100017.
2. Swamy, C. T., & Gayathri, D. (2021). High throughput sequencing study of foliose lichen-associated bacterial communities from India. *Molecular Biology Reports*, 1-9.
3. Vasudha, M., Khan, A. A., Bhumika, K. M., Gayathri, D., Nagaswarupa, H. P., Raghavendra, N., ... & Surendra, B. S. (2021). Facile chemical synthesis of Ca<sub>3</sub>MgAl<sub>10</sub>O<sub>17</sub> nanomaterials for photocatalytic and non-enzymatic sensor applications. *Sensors International*, 2, 100082.
4. Rashmi, B. S., Gayathri, D., Vasudha, M., Prashantkumar, C. S., Swamy, C. T., Sunil, K. S., ... & Prakash, P. (2020). Gluten hydrolyzing activity of Bacillus spp isolated from sourdough. *Microbial cell factories*, 19(1), 1-11.
5. Tanvi, D. A., Pratam, K. M., Lohit, R. T., Vijayalakshmi, B. K., Devaraja, T. N., Vasudha, M., ... & Gayathri, D. (2020). Biosorption of heavy metal arsenic from Industrial Sewage of Davangere District, Karnataka, India, using indigenous fungal isolates. *SN Applied Sciences*, 2(11), 1-7.
6. Kumara, S. S., Gayathri, D., Hari Prasad, P., Venkateswaran, G., & Swamy, C. T. (2020). In vivo AFB<sub>1</sub> detoxification by Lactobacillus fermentum LC5/a with chlorophyll and immunopotentiating activity in albino mice. *Toxicon*, 187, 214-222.
7. Priyanka, V., Ramesha, A., Gayathri, D., & Vasudha, M. (2020). Molecular characterization of non-biogenic amines producing Lactobacillus plantarum GP11 isolated from traditional pickles using HRESI-MS analysis. *Journal of Food Science and Technology*, 1-11.
8. Gayathri, D., & Ramesha, A. (2020). Gluten-hydrolyzing probiotics: An emerging therapy for patients with celiac disease. *World Academy of Sciences Journal*, 2(5), 1-1.

9. Jolad Shivali, U., Devaraja, T. N., Swamy, C. T., & Gayathri, D. Effect of Pongamia cake on beneficial soil microorganisms in Areca nut plantation.
10. Sunil Kumar S AmbikaBashisht, G. Venkateswaran, P. Hariprasad and **Devaraja Gayathri (2018)** Characterization of novel *Lactobacillus fermentum* from curd samples of indigenous cows from Malnad region, Karnataka, for their Aflatoxin B1 binding and probiotic properties. *Probiotics and Antimicrobial Proteins J, SpringerNature*.doi.org/10.1007/s12602-018-9479-7
11. C T Swamy ,**D Gayathri**, TN Devaraja and G Sanjeev (2019) Low dose e-beam irradiation Consequence on Plant Growth Promoting Properties of Lichenized Bacteria, *Enterobacter cloacae* and *Providencia rettgeri*. **Ind J Exp Biol.** 57(5), 353-361.
12. Sunil K S and **D Gayathri** (2018) Screening of Probiotic Potential of *Lactobacillus* Strains Isolated using Homemade Curd from Mysore District, Karnataka. *EC Microbiology.* 14(7):361-383.
13. Devaraja Gayathri and Vasudha M (2018) Lactose Intolerance with Special Emphasis on Probiotics for Management.13(5):325-332.
14. Rashmi BS and **Gayathri D** (2017) Draft genome sequence of gluten ydrolysing bacterium *Bacillus subtilis* GS 188. *GenomeA, (American society of Microbiology)* DOI:10.1128/genomeA.00952-17
15. Rashmi BS and **Gayathri D** (2017) Molecular characterization of gluten hydrolyzing *Bacillus* sp. And their efficacy and biotherapeutic potential as probiotics using Caco-2 cell line. *J ApplMicrobiol (Wiley online)*, 123(3)DOI: 10.1111/jam.13517. *IF;2.1*
16. Rashmi BS and **Gayathri D** (2017) Evaluation and Optimization of Extracellular Digestive Enzymes from *Bacillus* spp. Isolated from Curds.*MaternPediaterNutr*, 3:1 DOI: 10.4172/2472-1182.1000118
17. Somaraja PK and **Gayathri D** (2016) Biodegradation study of a novel Biphenyl degrading bacterial isolate GS-008. *IndJSci Tech.*9(S1), DOI: [10.17485/ijst/2016/v9iS1/109813](https://doi.org/10.17485/ijst/2016/v9iS1/109813),
18. **Gayathri D** and Rashmi BS (2017) Mechanism of Development of Depression and Probiotics as Adjuvant Therapy for its Prevention and Management. *J Mental Health Prev(Elsevier)* [10.1016/j.mhp.2017.01.003](https://doi.org/10.1016/j.mhp.2017.01.003) (Elsevier)
19. **Devaraja Gayathri** and Jayanna K Shobha (2016) Bioremediation of 2,4dichlorobiphenyl (Ortho chlorinated) by the consortium of *Pseudomonas* isolates GSa and GSb - A lab scale study. *Int J AdvLifSci*9(4):438-444. ISSN 2277-758X
20. Swamy CT, **Devaraja Gayathri**,Devaraja TN (2016) Antibacterial activity of lichens *Parmotrema tinctorum* and *Pyxinesorediata* and their secondary metabolites. *Int J AdvLif Sci.* 9(3):373-380. Online ISSN:2277-758X. Print ISSN:2320-1827.
21. **Devaraja Gayathri** and Rashmi BS (2016) Anti-Cancer Properties of Probiotics; A Natural Strategy for Cancer Prevention and Management. *EC Nutrition*5(4): 1191-1202.

22. Shobha K Jayanna, **Devaraja Gayathri**, Somaraja Palegar Krishnappa (2016) Diversity of 2, 4 Dichlorobiphenyl degrading consortium of *Pseudomonas* isolates GSa and GSb for degradation of Poly Chlorinated Biphenyl congeners. *Ind J Biotech Bioinform* 4(3) ISSN (online): 4(3), 1-5. ISSN (Online) 2319-6599 ISSN (Print): 2319-6580
23. **Gayathri Devaraja**, Bhavyashree G and Rashmi BS (2016) Food Allergy: Immunological Mechanisms and Prevention Strategies. *EC Nutrition*. 5(1): 1058-66
24. Gayathri D and Rashmi BS (2016) Critical analysis of wheat as food. *J Matern Pediatr Nutr*. 2:3. DOI:10.4172/2472-1182.1000115
25. Gayathri D and Rashmi BS (2016) Microbial Diversity in Different Organs of Human System. *J Food Microbiol*. 1(1). DOI: <http://dx.doi.org/10.20936/JFM/160101>
26. **Gayathri D** (2016). Short note on Probiotics for Mental health and Anxiety. *J Matern Pediatr Nutr* 2: 114. doi:10.4172/mpn.1000114
27. Chidanandamurthy Thippeswamy Swamy, **Devaraja Gayathri**, Thimmalapura Neelakantiah Devaraja, Mandar Bandekar, Stecy Elvira D'souza, Ram Murti Meena and Nagappa Ramaiah (2016) Plant growth promoting potential and phylogenetic characteristics of a lichenized nitrogen fixing bacterium, *Enterobacter cloacae*. *J Basic Microbiol*: DOI 10.1002/jobm.201600197 IF: 1.585 (Wiley online)
28. **Gayathri D** (2016) Probiotics for total health: Better today and tomorrow. *J Matern Pediatr Nutr* 2(1) <http://dx.doi.org/10.4172/mpn.1000107>
29. Shobha K Jayanna and **Devaraja Gayathri** (2015) Degradation of 2,4-dichlorobiphenyl via metacleavage pathway by *Pseudomonas* spp. Consortium. *Curr Microbiol* 70(6):871-876. DOI:10.1007/s00284-015-0800-3 IF: 1.519 (Springer)
30. **Devaraja Gayathri** and Rashmi BS (2014) Development of Celiac Disease; pathogenesis and Strategies to Control; A Molecular Approach. *J Nutr Food Sci* 4: 310 doi: [10.4172/2155-9600.1000310](http://dx.doi.org/10.4172/2155-9600.1000310) IF: 3.48
31. **Devaraja Gayathri** and KJ Shobha (2015) 2,4 Dichlorobiphenyl, a congener of polychlorinated biphenyl degradation by *Pseudomonas* spp. GSa and GSb. *Ind J Exp Biol* 53(8) 536-542 IF: 1.165
32. Shobha K Jayanna and **Devaraja Gayathri** (2014) Optimization of 2,4-dichlorobiphenyl (PCB Congener) degradation by *Pseudomonas* spp. *Bulletin of Environ and Scientific Res*. 3(2-3) 1-7.
33. **Devaraja Gayathri**, Swamy CT, Devaraja TN (2014) Role of Cyanolichens in biological Nitrogen fixation, *Angewandten Biologie Forschung*, 2(1): 17-23.
34. Rashmi BS and **Devaraja Gayathri** (2014) Partial Purification, Characterization of *Lactobacillus* sp G5 Lipase and their Probiotic Potential. *Int Food Res J*. 21(5) 1737-1743.
35. **Gayathri Devaraja** and S Sunil Kumar (2014) Anti-adhesion therapy: a potential alternate approach to overcome drug resistance among infectious microorganisms. *World J Pharm Res*. 3(3):3890-3903.

36. Shobha K Jayanna and **Devaraja Gayathri** (2013) Biodegradation of Methoxychlor derivative, 2, 2 dichloro 4 methoxyphenyl by *Bacillus* sp. *Global J Appl Environ Sci*. 3(2): 101-110, ISSN 2248-9932
37. **P. K. Somaraja, D. Gayathri, N. Ramaiah** (2013) Molecular Characterization of 2-Chlorobiphenyl Degrading *Stenotrophomonasmaltophilia* GS-103. *Bulletin Environ ContaToxicol*. 91(2):148-153(DOI) [10.1007/s00128-013-1044-1](https://doi.org/10.1007/s00128-013-1044-1). (Springer) Impact factor; 1.255
38. Eramma N and **Devaraja Gayathri** (2013) Antibacterial potential and phytochemical analysis of *Flacourtiaindica*(Burm.f.) Merr. root extract against human pathogens. *Indo-Amer J Pharmaceu Res*. 3(5). 3832-3846 ISSN NO: 2231-6876.
39. **Gayathri D**, P.K.Somaraja, K.J.Shobha (2013) Biological effects of Polychlorinated biphenyls and its bioremediation. *EnvSci J*, 8(1):14-21.ISSN 0974 – 7451 IF:0.56
40. Nagaraj K, Suvarna VC and **Gayathri D** (2012) *In-vitro* Antibacterial Activity of Honey on Health Hazardous Microorganisms. *Res J Pharmaceutical, Biol and ChemSci* 3(2):382-387. ISSN:0975-8585
41. Asha and **Gayathri D** (2012) Synergistic impact of *Lactobacillus fermentum* and *L. plantarum* in 1, 2- dimethylhydrazine induced colorectal cancer in mice. *Experimental and therapeutics in Medicine*. DOI: [10.3892/etm.2012.536](https://doi.org/10.3892/etm.2012.536)Print ISSN: 1792-0981, Online ISSN: 1792-1015, Impact factor;1.269
42. Asha and **Gayathri D** (2012) Antagonistic properties of *Lactobacillusfermentum* and *L. plantarum*with potential intestinal pathogens; Purification and characterization of bacteriocin isolated from curd and fecal samples. *Adv J Food Sci Tech*, 4(5): 265-269. ISSN (Online): 2042-4876,ISSN (Print):2042-4868
43. **Gayathri D** and Swamy CT (2012) Lichens: A novel and potential source of antimicrobials for human use. *J of Phytology*, 4(1): 38-43. ISSN: 2075-6240
44. **Gayathri Devaraja**, Eramma NK, TN Devaraja (2012) New Delhi metallo beta-Lactamase-1; Incidence and threats. *Int J of Biological and Medical research* 3(2): 1870-1874. ISSN/EISSN: 0976-6685
45. Asha, **Gayathri D**andBatish V (2012) Molecular characterization and variation of *Lactobacillus* sp. of remote malnad regions of Karnataka, India. *Adv in Env. Biol*. 6(1): 481-486. ISSN 1995-0756, EISSN 1998-1066
46. **Gayathri D**, Asha and T. N. Devaraja (2011)Lactobacillus sp. as probiotics for human health with special emphasis on colorectal cancer. *I. J of Sci and Tech*. 4 (8) 1008-



1014. ISSN: 0974-6846 EISSN: 0974-5645 DOI: [10.17485/ijst/2011/v4i8/30912](https://doi.org/10.17485/ijst/2011/v4i8/30912)

47. **Gayathri Devaraja**, KM. Shankar, CV Mohan, TNDevaraja, TM Anil, P Keshavanath (2008) Antigen characterization and epitope analysis of *Aphanomyces invadans* of epizootic ulcerative syndrome pathogen by monoclonal antibodies. *J.Asian fisheries sci*21(2) 215-227. ISSN : 0116-6514
48. **Gayathri D**, Shankar K M, Mohan C V (2008) Determination of specific sampling site on EUS affected fish for diagnosis of *Aphanomyces invadans* by immunodot using monoclonal antibodies. *Research J of Agri and BiologSci*, 4(6). 757-760.ISSN 1816-1561.
49. PK. Pradhan, CV Mohan, KM. Shankar, B. Mohana Kumar and **Gayathri Devaraja** (2007) Yearlingsof Indian major carps resist infection against the epizootic ulcerative syndrome pathogen, *Aphanomyces invadans*. *Current Science* 92 (10) 1430-1434. ISSN No:0011-3891, Impact Factor:0.935.
50. **Gayathri Devaraja**, Shankar KM and Mohan CV (2004) Monoclonal antibody- based immunodot test for epizootic ulcerative syndrome pathogen, *Aphanomyces invadans*.*Current Science* 87 (3) 289-291. ISSN No:0011-3891, Impact Factor:0.935
51. Devaraja TN and **Gayathri D** (2004). Organic wastes and bioremediation in relation to water quality management in aquaculture. *Fishing Chimes*24(4) 27-30.ISSN, 0971-4529.

#### c) International/National Conference

1. Prashantkumar S Chakra and Gayathri Devaraja (2021) Biosynthesis of Zinc oxide nanoparticles from lactic acid bacteria from milk sample. Electrochemical Science and Technology NEST-2020 held on 21 and 22 January 2021 IISC Bengaluru.
2. Vasudha M and Gayathri Devaraja, (2019) Probiotic Bacteria and Lactose Intolerance. 15<sup>th</sup>Kannada VijnanaSammelanaheld on 15-09-2019 to 16-09-2019 at Davangere University Davangere.
3. Prashantkumar S Chakra and Gayathri Devaraja, (2019) Emerging role of Lactic Acid

- Bacteria in Prevention of Colorectal Cancer. 15<sup>th</sup>Kannada VijnanaSammelanaheld on 15-09-2019 to 16-09-2019 at Davangere University Davangere.
4. Swamy CT and Gayathri Devaraja, (2019) Lichenised bacteria: Nextgeneration sequence analysis for unexplored bacterial diversity of lichens. UGC Sponsored two day national seminar on “Sustainable Environment through Biological Sciences and. Technology” held on 07-02-2019 to 08-02-2019 at Davangere University Davangere.
  5. Vasudha M and Gayathri Devaraja, (2019) Production of  $\beta$ -galactosidase by indigenous Lactic acid bacteria. UGC Sponsored two day national seminar on “Sustainable Environment through Biological Sciences and. Technology” held on 07-02-2019 to 08-02-2019 at Davangere University Davangere.
  6. Prashantkumar S Chakra and Gayathri Devaraja, (2019) Bio-degradation of reactive red 120 azo dye by beneficial bacterial isolated from industrial effluents. UGC Sponsored two day national seminar on “Sustainable Environment through Biological Sciences and. Technology” held on 07-02-2019 to 08-02-2019 at Davangere University Davangere.
  7. Swamy CT and Devaraja Gayathri, (2018), Next generation sequence analysis for unexplored bacterial diversity of lichenized bacteria isolated from foliose lichens with plant growth-promoting properties. 59th Annual Conference of Association of Microbiologists of India and International Symposium on Host Pathogen Interactions December 09-12, 2018.
  8. Vasudha M and Devaraja Gayathri, (2018), Potentiality of probiotic indigenous Lactic acid bacteria for gluten and lactose intolerance. 59th Annual Conference of Association of Microbiologists of India and International Symposium on Host Pathogen Interactions December 09-12, 2018.
  9. Sunil Kumara S, D Gayathri, P Hariprasad and G. Venkateswaran (2018) Evaluation of probiotic *Lactobacillus fermentum*, for *in vivo* Aflatoxin B1 binding and elimination using Swiss Albino mice. In: International J of Biotechnology and Biomedical SciencesJan-June- 2018. P. 19. KrishiSanskriti publications.
  10. Sunil Kumara S, D Gayathri, G. Venkateswaran, P Hariprasad, ArtiTewari, andSujeet Kumar Singh (2018) Oral administration of *Lactobacillus fermentum*modulates cytokine production in AflatoxinB<sub>1</sub> induced mice. 16<sup>th</sup> National Conference of IAAM, JSS Academy of Higher Education & Research, Mysuru. 27-28 September. 2018. p 53
  11. Sunil Kumara S, D Gayathri, P Hariprasad and G. Venkateswaran (2018) Screening of *Lactobacillus fermentum*for AflatoxinB<sub>1</sub>: binding trait: isolated using homemade curd from Chickmagalur District, Karnataka. International Conference on Agriculture, allied and applied sciences (ICAAAS-2018), Biologix Research and Innovation Centre Pvtlts, India, JNU, N Delhi, April 28-29, 2018.p 308
  12. Vasudha M and Devaraja Gayathri (2018) Indigenous lactic acid bacteria to overcome lactose intolerance: A preliminary study. In:National conference on:Science & Technology for inclusive development, organized by KSTA and Gulbarga University, India, on 6-7 March 2018. p 19-20.
  13. Vasudha M and Devaraja Gayathri (2018) Antibacterial effect of indigenous lactic acid bacteria for lactose intolerance isolated from curd samples. In:National

- conference on :Current microbial challenges in the environment, organized by the DEPT OF Microbiology, Kuvempu University, India, on 9-10 March 2018. p 50-51.
14. Swamy CT and D Gayathri (2016) Molecular characterization and plant growth potential of Lichenized bacteria from crustose lichens from Chitradurga fort. *In: International symposium on "Understanding the molecules of life in the era of New Biology, organised by the Depts of Life sciences. Davangere University. India, on 20-22 October 2016. p99-100.*
  15. Rashmi BS and D Gayathri (2016) Molecular characterization of gluten hydrolyzing *Bacillus* sp and evaluation of probiotic potential in Caco-2 cellines. *In: International conference on Science and technology: Future challenges and solutions, Organised by JSPS and University of Mysore. August 8-9, 2016. Held at University of Mysore. P.135.*
  16. Swamy CT and D Gayathri (2016) Molecular characterization and plant growth potential of Lichenized bacteria from crustose lichens of stone fort Chitradurga, Karnataka, India. *In: International conference on Science and technology: Future challenges and solutions, Organised by JSPS and University of Mysore. August 8-9, 2016. Held at University of Mysore. p.164.*
  17. Sunil Kumara S, D Gayathri, G. Venkateswaran, P Hariprasad and Ambika Vasist (2016) Evaluation of *Lactobacillus* spp isolated from curd for aflatoxin B1 binding properties. *In: International conference on Science and technology: Future challenges and solutions, Organised by JSPS and University of Mysore. August 8-9, 2016. Held at University of Mysore. P. 148.*
  18. Swamy CT and D Gayathri (2015) Antibacterial activity of different solvent extracts of Lichen, *Parmotrematinctorum* and *Pyxinesorediata*. *In: 11<sup>th</sup> Karnataka Science Congress, Organised by Swadeshi vijnanaandolana-Karnataka. September 13-15, 2015. Held at Laxmi Venkatesh Desai College, Raichur. p. 154*
  19. Rashmi BS and D Gayathri (2015) Screening and characterisation of probiotic indigenous gluten degrading bacteria- An attempt for preliminary development of gluten reduced food for celiac disease patients. *In: NABS National Seminar on 'Biological products for crop, animal and human health-problems and prospects'. Organised by the Dept of Biotechnology, University of Mysore and National Academy of Biological Sciences, Chennai, August 21-22, 2015. p 71.*
  20. Somaraja PK and Gayathri D (2015) A novel *Stenotrophomonas maltophilia* degrading 2 chlorobiphenyl. *In: International conference on 'Bioactive chemicals for reproduction and human health' organised by the Depts of Life sciences. Davangere University. India, on 26-28 Feb 2015. p 79.*
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  22. National Seminar: Gayathri D and Shobha KJ (2013) Biodegradation of Methoxychlor derivative, 2,2dichloro 4 methoxyphenyl by *Bacillus* sp. *In: National seminar on 'Trends in environmental Biotechnology and its applications', organized by Dept of Biotechnology and Botany. St Aloysius College, Mangalore, India, on 10-11 Dec 2013. p 52.*

23. National Seminar: Rashmi BS and Gayathri D (2013) Optimisation and probiotic potential of Lipase producing *Lactobacillus* sp G5, isolated from goat curd of migrant Shepherd population of North Karnataka region, India. *In*; National seminar on 'Trends in environmental Biotechnology and its applications', organized by Dept of Biotechnology and Botany. St Aloysius College, Mangalore, India, on 10-11 Dec 2013. p 49.
24. National Seminar: Swamy CT, Gayathri D and Devaraja TN (2013) Diversity of Lichen species in Chitadurga Fort region, Karnataka, India *In*; National seminar on 'Trends in environmental Biotechnology and its applications', organized by Dept of Biotechnology and Botany. St Aloysius College, Mangalore, India, on 10-11 Dec 2013.
25. Seminar and Exhibition: Gayathri D and Shivali JD (2013) Effect of Pongamia cake on beneficial soil microorganisms in areca plantation. *In*: 36<sup>th</sup> series, 2012-13 Biofuel Projects selected for seminar and exhibition held at Angadi Institute of Technology and Management, Belgaum, on 30-31 August 2013, In Biofuel Technical Record: 2012-13, p 65-66.
26. National conference: Somaraja PK and Gayathri D (2012) PCB degrading potential of aerobic bacteria from oil contaminated soil. *In*: National conference on environmental sciences and health hazards & XIV annual meeting of society for science and environment, Dept of Biotechnology and Microbiology, Karnatak University, Dharwad, India, 19-21 Nov 2012, p 7
27. National conference: Somaraja PK, Gayathri D, Eramma N (2012) Evaluation of potential of *Fluocortia indica* against some human pathogenic bacteria. *In*: UGC sponsored national conference on "Biotechnological prospecting in herbal antiviral and anticancerous drug development", Sri Dharmastala Manjunatheswara College (Autonomous), Ujire. Feb 17-18, 2012, p52-53.
28. National symposium: Chaired session: Renewable energy and sustainable development (UGC innovative program), Dept of Social Work, Davangere University, 19-20 March 2012.
29. Special Lecture: Gayathri D (2011) Role of environmental Biotechnology in sustainable development. Two days national symposium on 'Governance, social justice and sustainable development', 30-31 March 2011. Dept. Of Social Work. Davanagere University. Davanagere, India.
30. Indo-US work shop: On Global intracellular pathogens. Jawaharlal Nehru University, New Delhi. 30 Jan-5 Feb 2011.
31. Conference: Gayathri D, Somaraja PK, and Shobha K J (2010) Indigenous bacteria for bioremediation of Polychlorinated biphenyls from industrial effluents. 16<sup>th</sup> National conference and symposium on 'Applications of Biotechnology in environment management and medicine, 19-21 Nov. 2010. Bapuji institute of Engineering and technology, Davanagere, India.
32. Conference: Gayathri D, Somaraja PK, and Shobha KJ (2010) Microbiological degradation of Polychlorinated biphenyls. 8-10 Nov. Women's Science Congress, Davanagere University, Davanagere.

33. Conference: Gayathri Devaraja and Asha (2010) Synergistic effect of *Lactobacillus* sp and *Catheranthusroseus* for potential intestinal pathogens. 8-10 Nov. Women's Science Congress, Davanagere University, Davanagere.
34. International Symposium – Asha and Gayathri Devaraja (2010) Microbial interaction study of *Lactobacillus* sp, against infectious intestinal pathogens. 11<sup>th</sup> Sir Dorabji Tata Symposium on ‘Diagnostics in infections’, Indian Institute of Science, Bangalore. 10-11 March 2010 p. 48
35. National conference – Shivakumar PS and Gayathri Devaraja (2008) Isolation and evaluation of Nitrogen waste degrading bacteria from domestic sewage. 24<sup>th</sup> National conference of ISCAP on ‘Biotechnological strategies for biodiversity conservation, 13-15 March 2008 p. 13.
36. National conference- Bhargavi Prabhushwamy, Gayathri Devaraja and Sanjay KN (2008) A study on distribution of human blood group antigen in and around Shivamogga dist. 24<sup>th</sup> National conference of ISCAP on ‘ Biotechnological strategies for biodiversity conservation’, 13-15 March 2008 p. 124-125.
37. International Conference Paper: Shankar KM, Mohan CV and Gayathri S (2002) Monoclonal antibodies for antigen characterization and detection of *Aphanomyces invadans* – causative agent of EUS. The sixth Indian Fisheries forum, Asian fisheries society, Indian branch, Mumbai. 17-20 December, 2002. P. 146.
38. International conference (Poster): Gayathri Devaraja and Shankar KM (2005) A novel method of detection of fungal pathogen *Aphanomyces invadans* having zoonotic potential by IgG1 monoclonal antibody. Indo-Australian conference on “Biotechnology of Infectious Diseases”, Kasturba Medical College, Manipal. 1-3 March, 2005 p.99.
39. National conference (Poster): Gayathri Devaraja and Shankar KM (2003) Field application of monoclonal antibodies for the detection of *Aphanomyces invadans*, the causative agent of EUS in fish.. 44<sup>th</sup> All India Microbiologists Conference, UAS, Dharwad. 12-14 November 2003 p 95-96.
40. Conference paper: Gayathri Devaraja, Shankar KM and Devaraja TN (2007) A molecular tool for the detection of *Aphanomyces invadans* in culture Ponds. 3<sup>rd</sup> Kannada Science conference, SVAK, Kuvempu University 15-17 sept 2007. p 73-74.
41. Conference paper: Devaraja TN and Gayathri Devaraja (2007) Scientific integrated fish farming- a boon to small farmers. 3<sup>rd</sup> Kannada Science conference, SVAK, Kuvempu University 15-17 sept. 2007. p 72-73.
42. Special Lecture: Ozone depletion: Health effects. 15 September 2008. Economics Forum, Dept. of Economics, P G Centre,

**Book Published / Book Chapters Published:**

- **Gayathri Devaraja\*, Prashantkumar S Chakra and M Vasudha (2021). Current Insights on the Modulation of Gut Microbiome and Its Effect on Human Health. In: Springer Nature, Editor: Mahejibin Khan CFTRI.**
- **Gayathri Devaraja\*, M Vasudha, and Prashantkumar S Chakra. (2021). Gut-brain axis: Probiotic interactions and Implications for Human Mental health. In: Springer**

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- Gayathri D. and Devaraja TN. (2003) Hybridoma technology in aquaculture health management with an emphasis on *Aphanomyces invadans* of epizootic ulcerative syndrome in fish. In: *Biotechnology in Environmental Management*, ed. T Chakrabarti, T K Ghosh, G.Tripathi. APH Publishers, New Delhi, p. 361-373.
- Devaraja TN and Gayathri D. (2003). A review on microbial products for disease management and improved production in aquaculture. In: *Biotechnology in environmental management*, ed T Chakrabarti, T K Ghosh, G Tripathi. APH Publishers, New Delhi, p. 325-337.
- Gayathri Devaraja and Devaraja TN (2012). Antigen: specificities and types. In: *Cellular and Biochemical Science*, Ed. G Tripathi. I K International Publishers, New Delhi.p.537-548.
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- Gayathri D & BS Rashmi (2018) Diversity of Microorganisms in Human System. In: *Biodiversity conservation (Applications and implications*, Ed. BB Hosetti&Bharathi, Write and Print publications, New Delhi. p 33-41
- E Chapter: Rashmi BS and Gayathri D (2017) Celiac Disease - A Chronic Enteropathy, Its Management with an Emphasis on Probiotics. <http://openaccessebooks.com/probiotics-chronic-diseases-prevention.html>
- Paper Published at Technical record: Gayathri Devaraja (2013) Effect of pomgamia cake on

beneficial soil microorganisms in areca plantation. KSCST:SPP: Biofuel projects compendium, 2012-13 page no.65-66

Popular articles,

1. Swamy CT and Gayathri Devaraja (2020) Kalluhoovugalallina Bacteria gala adhyayanadallimundinathalemarinaanvayikaadhyayanagalathanthrajnanadapath ra. *VijnanaLoka*. KASTA, Govt of Karnataka, 13(6):16-18
2. Devaraja TN and Gayathri Devaraja (2020) Jalashakthi, jaladashakthi, jalaveshakthi, *VijnanaLoka*. KASTA, Govt of Karnataka, 13(5):3-5
3. Gayathri Devaraja (2018) Probiotics yembamayasookshmanujeevikarulina cancer thadegattuvallinapatra. *VigjnanaLoka*, KASTA, Govt of Karnataka, 12(3):14-15
4. Gayathri Devaraja (2018) Cancer roogadaviruddahoradalunisargadattajeevasamrakshakasookshmanujeevigalu (probiotics) *VijnanaLoka*, KASTA, Govt of Karnataka, 11(6):31-32
5. Gayathri Devaraja (2017) VajinikasamshodhanematthuSamshodhaka. *VijnanaLoka*, KASTA, Govt of Karnataka, 10(6) 20-21.
6. Gayathri D, Swamy CT, Devaraja TN and SanjeevaNayaka (2016) Kalluhoovugalasamshodhanalokadallonduinuku nota. *VijnanaLoka*, KASTA, Govt of Karnataka, 10(1), Decennial Edition, 33-36

7. Gayathri Devaraja (2016) AhaaramathuuArogyavardhane: JapaneyaraArogyadaguttu, *Janatavani Daily*, 25<sup>th</sup> March, 2016, 42(312):3
8. Gayathri Devaraja (2015) Janmajanmadaanubandhaeesookshmanujeevigalasalambhanda, *Janatavani Daily*, 18<sup>th</sup> Nov 2015.184(184):3
9. Gayathri Devaraja and Swamy CT (2015) Refrigerator, ahaarasurakshathematthunammanambike, *Janatavani Daily*, 5<sup>th</sup> August 7, 2015, 42(83):4.
10. Gayathri Devaraja (2014) SookshmanujeevigalumatthuNavu, *Janatavani daily*, 11<sup>th</sup> June 2014, 41(28); 4.
11. Gayathri D, Swamy CT, Devaraja TN and SanjeevaNayaka (2014) Kalluhoovu:Dehaondu, Jeevayeradu.Feb 2014, *Hosatu*, (monthly magazine) Navakarnataka Publications. Bangalore, Karnataka. 15(7):43-46.
12. Gayathri Deavaraja (2012). Hesarallenide, iruvudellamosalinalli-Badukinamosaru. *Janatavani daily*, 28 Nov, 39(195):5.
13. Gayathri Devaraja (2012) Lasikegalaprapanchadalliondugiraki. *Janatavani daily*, 13<sup>th</sup> July 2012, 39(60):6.
14. Devaraja TN, Gayathri Devaraja and Pradeep HM (2011) Dharehatthiuridode. *Sahaja Saguvai*, 9(6) 17-19.
15. Devaraja TN and Gayathri Devaraja (2006). Krishipooraka – Kolagalallimeenukrishi. *Sujatha Sanchike*, October '06, 12-14.
16. Devaraja TN, Gayathri Devaraja and Mamatha HR (2006) Krishibadukinallisusthirathemyembaneralubelakinahoydata. *Janatha Vani (daily)*Sapthahikasanchaya, 8 October '06, 3-4.
17. Gayathri S (2001) AIDS, Arivumatthu Hone, *Savitha Vani* (Kannada monthly magazine), South Canara, March 2001, 7(5): 7-10.

Radio Talks:

- Yuvavani, “Importance of probiotics” AIR, Chitradurga. Broadcasted on 28/7/2017
- Interview in KrishRanga on ‘Importance of microorganisms in agriculture’, AIR, Chitradurga. Broadcasted on 16/9/2014
- Interview in Yuvataranga on Educational & Employment opportunities for Microbiology Graduates. AIR, Chitradurga. Broadcasted on 4/7/2012.
- Farmer’s friendly and Rapid detection test for EUS. KrishiRanga, AIR, Bhadravathi, broadcasted on 10/1/2011.
- Job opportunities and Scope of Microbiology in Research for youth. YuvaVani, AIR, Bhadravathi, broadcasted on 17/7/2008.

Research Guidance Details (MPhil/PhD):

Sl.No	Name of the Scholar	University	Registration month & Year	Research Area
1.	Asha “Evaluation of	Kuvempu University,	AwardedPh D on 20 <sup>th</sup> February 2012.	Probiotics

	<b>Lactobacillus sp with vincristine for colorectal cancer in mice system”</b>			
2.	<b>Shobha K Jayanna</b> “Polychlorinated Biphenyl Degradation using indigenous bacteria from industrial effluents’,	<b>Kuvempu University</b>	Awarded Ph D on <b>3<sup>rd</sup> Nov 2014</b>	Environmental Biotechnology
3.	<b>Somaraja P K,</b> “Bioremediation of polychlorinated biphenyls; A nano biotechnological approach”	<b>Davangere University,</b>	awarded on <b>18<sup>th</sup> December 2017</b>	Environmental Biotechnology
4.	<b>Rashmi B S,</b> “Development of Gluten Reduced Wheat Product Using Indigenous Lactic Acid Bacteria for Celiac Disease”	<b>Davangere University</b>	awarded on <b>27<sup>th</sup> January 2018</b>	Probiotics
5.	<b>Swamy C T,</b> “Lichen associated bacteria and their role in plant growth promoting properties”	<b>Davangere University</b>	awarded on <b>3<sup>rd</sup> February 2018</b>	Lichen Biology
6.	<b>Sunil Kumara S,</b> Evaluation of probiotic Lactobacillus spp for control of aflatoxin B <sub>1</sub> mediated carcinogenesis	<b>Davangere University</b>	Awarded on <b>16/3/2019</b>	Probiotics
7.	<b>Vasudha M</b>	<b>Davangere University</b>	<b>On going</b>	Probiotics
8.	<b>Prashanth Chakra</b>	<b>Davangere University</b>	<b>On going</b>	Probiotics



9.	<b>ShilpaHosamani</b>	<b>Davangere University</b>	<b>On going</b>	Environmental Biotechnology
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Conference/ Workshops/Trainings attended/organized:

Attended: 20

Organised: National Seminars (4), National Science day (6), International women’s day (4)

Achievements/Awards / Abroad visit / Professional Membership

1. **Three stars Merit certificate:** By Ministry of Education and Culture, Govt of India. (1987)
2. **Best AMI research paper award- 2003** for “Field application of monoclonal antibodies for the detection of *Aphanomyces invadans*, the causative agent of EUS in fish”. **Best AMI (poster) paper award- 2003**
3. **State award: State Sadbhavana Award** (Best researcher) by Human rights commission (Bangalore, India)- **2011**
4. **Overseas fellowship:** International training course on vaccinology, International Vaccine Institute, Seoul, S. Korea. 14-19 May 2012.
5. **Project of the year:** Karnataka State Council for Science and Technology, IISc, Bangalore, SPP 36<sup>th</sup> series awarded **Outstanding Project** during Seminar and Exhibition held at Angadi Institute of Technology and Management, Belgaum on 30-31 August 2013. And also awarded the cash prize.
6. **Project Monitoring Committee Member:** Ministry of Environmental, Forestry and climate change, Govt. of India. New Delhi.
7. **Best project of the year 2018:** Efficacy of Pongamia oil based soap against conventional soaps with respect to antibacterial activity to encourage hygiene practice among rural folk. **KSCST, SPP Biofuel projects, IISc, Bangalore,** SPP 41st series awarded during Seminar and Exhibition held at BIET, College, Davangere on 10-11 August 2018. And also awarded the cash prize.
8. **Best project of the year 2019:** Efficacy of Pongamia oil based soap against conventional soaps with respect to antibacterial activity to encourage hygiene practice among rural folk. **KSCST, SPP Biofuel projects, IISc, Bangalore,** SPP 41st series awarded during Seminar and Exhibition held at BIET, College, Davangere on 10-11 August 2018. And also awarded the cash prize.
9. **Dr Kalpana Chawla young woman Scientist Award (2018) by Govt of Karnataka, for For excellent Research and academic contribution, outstanding achievement in the development of Science and technology.**
10. **Best International participant award:** International training course on vaccinology, International Vaccine Institute, Seoul, S. Korea. 14-19 May 2012.

Personal Details

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