# Dr. M.Y. Sreenivasa

Designation	Professor and Chairman		
Email Id	sreenivasamy@gmail.com, mys@microbiology.uni-mysore.ac.in		
Phone No	+91-821-2419733 M: +91 9449054480		
Qualification	M. Sc., Ph. D., Post Doc in USA		
Area of Specialization	Mycotoxicology, Mycology and Probiotics.		
Research recognition	H index: 30, i10 index: 60, Total citations: 2132 Cumulative impact factor - 255		
Visiting Scientist	University of Ottawa, Ottawa, Canada University of Arkansas, Arkansas, USA University of Kennesaw, Atlanta, USA		
Professional Responsibilities from University			
Address for Communication	<b>Dr. M Y Sreenivasa</b> Professor Dept. of Studies in Microbiology University of Mysore Mysore - 570006, Karnataka, INDIA		
Awards			

2017- Shastri Indo Canada fellowship awarded by Shastri Indo-Canadian Institute, MHRD, India to visit University of Ottava, Ottava, Canada.

- 2014- Raman Post Doctoral Fellowship awarded by UGC, India to carry out post doctoral research in University of Arkansas, USA.
- 2011-QEP International Faculty Development award 2010 awarded by the Kennesaw State University, Kennesaw, Georgia, USA in recognition of Indo – US Research collaboration.
- 2010-Young Scientist awarded by the Department of Science & Technology, New Delhi, India.

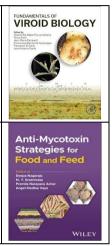
#### **Patents granted**

Indian patent entitled "COMPOSITION AND METHOD FOR BIODEGRADATION OF CHEMICALS AND APPLICATIONS THEREOF" Patent No 366109, Chennappa G., Naik M.K., Patil B.V., Adkar C.P., Vidya M., <u>MY Sreenivasa</u>, Amaresh Y.S. 2021.

## **Books published**

Editors: Charith Raj Adkar-Purushothama, Teruo Sano, Jean-Pierre Perreault, **Sreenivasa Marikunte Yanjarappa**, Francesco Di Serio, José-Antonio Daròs. 2024. Fundamentals of Viroid Biology, Academic Press, Pages 85-107, ISBN 9780323996884, Copyright © 2024 Elsevier Inc. All rights reserved. https://doi.org/10.1016/B978-0-323-99688-4.00004-3.

Editors: Deepa Nagaraju, <u>Sreenivasa Marikunte Yanjarappa</u>, Premila N. Achar, Angel Medina Vaya. 2024. Anti-Mycotoxin Strategies for Food and Feed. 288 pages. John Wiley & Sons publishers, Print ISBN:9781394160792 |Online ISBN:9781394160839 Copyright © 2000-2023 by John Wiley & Sons, Inc. |DOI:10.1002/9781394160839



### Prizes and Recognition

- 2022-First prize for the research paper presentation at the AMI International Conference on 22<sup>th</sup> September, 2022 organized by AMI, New Delhi.
- 2017-First prize for the research paper presentation at the UPE-Sponsored National Symposium on 12<sup>th</sup> May, 2017 on "Trends in Microbiology" organized by Department of Studies in Microbiology, University of Mysore, Mysuru.
- 2016-First prize for the research poster presentation at Indian Phytopathological Society (IPS-2016, Southern Division)-January 5-6, 2016, University of Agricultural Sciences, Raichur, Karnataka, India.
- 2015-Third prize for the research paper presentation in UGC Sponsored National Symposium held at JSS college of Arts, Commerce and Science, March 23-24, Mysore, Karnataka, India.
- 2014-First prize for the research poster presentation at Indian Biodiversity Congress (IBC-2014)-December 18-20, School of Public Health, SRM University, Kattankulathur, Chennai, India.
- 2009-Second prize for the research paper presentation at National conference on Plant Biodiversity and Bioprospecting, March 16-17, DOS in Botany, University of Mysore, Mysore, Karnataka.

2009-Second prize for the poster presentation at National conference on Plant Biodiversity and Bioprospecting, March 16-17, DOS in Botany, University of Mysore, Mysore, Karnataka.

### **Research Projects Ongoing**

- Principal Investigator, 2021-2024, **Grant amount Rs 40.93 Lakhs** Bioformulation of poultry feed with potential probiotics as mycotoxin binders funded under Core Research Grant by Science and Engineering Research Board, Govt of India, India.
- Mentor for WOS A, 2023-2026, **Grant amount Rs 33.13 Lakhs** Development of probiotic based nutraceutical feed for enhanced nutrition and anti-mycotoxin properties in poultry funded by Department of Science and Technology, India.
- Co-Principal Investigator, 2023-2025, **Grant amount Rs 15.00 Lakhs** Design and synthesis of potential JAK2 inhibitors via organic substrates from Di thioesters funded under K FIST Level 1, VGST, Govt of Karnataka, India.

## **Research Projects Funded**

- Co-Principal Investigator, 2010-**Grant amount USD \$3500** -Evaluation and characterization of essential oils for antifungal activity against mycotoxigenic *Aspergillus flavus* and *Aspergillus parasiticus* in peanuts funded by Kennesaw State University, Kennesaw, Georgia, USA.
- Principal Investigator, 2011-2014 **Grant amount Rs 11.65 Lakhs** -Microbiological Screening and Molecular Characterization of Potential Probiotic strains from Traditional Fermented Food/Products used in Karnataka, India funded by UGC, India.
- Principal Investigator, 2012-2015, **Grant amount Rs 19.45 Lakhs** Development of Multiplex PCR for the Early Detection of Fumonisin-producing *Fusarium verticillioides* occurring on Cereals and Their Molecular characterization funded by Department of Science and Technology, India.
- Mentor for WOS A, 2012, **Grant amount Rs 18.40 Lakhs** Molecular detection and characterization of phytoplasma associated with little leaf of brinjal in South India funded by Department of Science and Technology, India.
- Principal Investigator, 2017-2020, **Grant amount Rs 30.01 Lakhs** Probiotic based broad spectrum anti-fungal technology for the total control of mycotoxigenic Fusarium species to increase the safety and shelf-life of cereal-based foods funded by Science and Engineering Research Board, India.

Student's funded project

Research Guide, 2013, Saccharification of complex carbohydrates by bacteria isolated from the region of pests infesting *Jatropa curas* and bioethanol production funded by KSCST, Indian institute of Science, Bangalore, India.

#### **Professional experience**

Twenty years of teaching experience at post-graduation level from 07/02/2003 - to date. Working as a Professor in Microbiology.

#### Editor (Research topic) and Guest Associate Editor- Frontiers in Microbiology

- Research Topic– 2023: **Microbiota Biodiversity of Traditional Fermented Products** launched and published from Frontiers in Microbiology under the section Food Microbiology.
- Research Topic 2023: **One Health Approach to Improve Food Safety**" launched and published from Frontiers in Microbiology under the section Food Microbiology.
- Research Topic 2023: **Probiotics: Mediators in Health and Disease**" launched and published from the journal Fermentation.

Whole genome sequencing

- Rakesh S, Walid M, Riad Hammami and <u>M Y Sreenivasa</u>. 2022. *Levilactobacillus brevis* MYSN105, Isolated from an Indian Traditional Fermented Food. The assembled genome was deposited in GenBank under bioproject accession number PRJNA679667.
- Rakesh S, Walid M, Riad Hammami and <u>M Y Sreenivasa</u>. 2023. *Lactobacillus casei* MYSN98, Isolated from an Indian Traditional Fermented Food. The assembled genome will be deposited in GenBank under bioproject.

**Research Publications with impact factor (\* Corresponding author)** 

- Adithi G, S. Divyashree, B. Shruthi, N. Deepa & <u>M Y Sreenivasa\*</u>. 2024. Evaluation of Limosilactobacillus fermentum MYSAGAM1 isolated from herbal Amla juice as a probiotic candidate with antifungal characteristics against *Fusarium equiseti*. Food Bioscience, 103843. DOI: https://doi.org/10.1016/j.fbio.2024.103843 IF 5.6 (Elsevier)
- Josna Joy, Savitha, AS, Mahadevakumar, S, Ajithkumar, K, Mahesh, M, <u>M Y Sreenivasa\*</u>, and Lakshmidevi, N. 2024. First report of Candidatus Phytoplasma australasia (16SrIIsubgroup D) associated with virescence of Chia (Salvia hispanica L.) from India. Plant diseases Journal IF 4.438 (American Phytopathological Society, USA).
- Suo B, Castro MP and <u>MY Sreenivasa</u>\*. 2024. Editorial: Microbiota biodiversity of traditional fermented products. Front. Microbiol. 15:1380205. doi: 10.3389/fmicb.2024.1380205 IF 5.2 (Frontiers)
- Vasundaradevi R, Sarvajith M, Somashekaraiah R, Adithi G and <u>M Y Sreenivasa\*</u>. 2024. Antagonistic properties of Lactiplantibacillus plantarum MYSVB1 against Alternaria alternata: A putative probiotic strain isolated from the banyan tree fruit. Frontiers in Microbiology 15. doi: 10.3389/fmicb.2024.1322758 IF 5.2 (Frontiers)
- Shruthi JB, KR Kiran, Gunashree KT, S Divyashree, <u>M Y Sreenivasa</u>, MP Sadashiva, Rangappa KS. 2024. Synthesis of Piperidine Conjugated Quinoxalines as Potential Antibiofilm Agents. Letters in Drug Design & Discovery, 21 (4), 701-708. https://doi.org/10.2174/1570180820666221226152736 IF 1.099 (Bentham Science)

- Divyashree, S., Ramith Ramu & <u>M Y Sreenivasa</u>\*, 2023. Evaluation of new candidate probiotic lactobacillus strains isolated from a traditional fermented food- multigrain-millet dosa batter. Food Bioscience, 103450. DOI: https://doi.org/10.1016/j.fbio.2023.103450 IF 5.6 (Elsevier)
- Fereidoun Forghani, <u>M Y Sreenivasa</u>, Byeonghwa Jeon. 2023. Editorial: One Health Approach to Improve Food Safety. Frontiers in Microbiology 14:1192449. DOI: 10.3389/fmicb.2023.1269425. IF 5.2 (Frontiers)
- Bhaskar S., Manoj A., Resmi S. R., Divyashree S., <u>M Y Sreenivasa</u>. 2023. Process design and optimization of EDTA-biojarosite – a treatment approach in the Box–Behnken framework. *Water Practice and Technology*, 18 (12): 3109–3123. doi: https://doi.org/10.2166/wpt.2023.205 IF 1.6 (IWA Publishers)
- Sukrutha KP, KR Kiran, Gunashree KT, Prerana P, S Divyashree, <u>M Y Sreenivasa</u>, MP Sadashiva. 2023. An Efficient Copper-Mediated Route for the Synthesis of 2- Substituted Benzothiazoles from Dithioesters and Investigation of Their Antibacterial Activities. Synthesis. DOI: 10.1055/a-2193-5436; Art ID: SS-2023-09-0389-OP. IF 3.00 (Thieme)
- Pruthviraj, Naik MK, Naik GR, Nandish M, Ekabote SD, & <u>M Y Sreenivasa\*</u> 2023. Antibacterial and Plant growth promoting attributes of *Limosilactobacillus* sp. MYSN3 isolated from Noni fruit. South African Journal of Botany, 162 (559-567). DOI: https://doi.org/10.1016/j.sajb.2023.09.041 IF 3.11 (Elsevier)
- Bhaskar, S., Manu, B., <u>M Y Sreenivasa</u>, Manoj, A. 2023. Synthesis of plant-based biogenic jarosite nanoparticles using *Azadirachta indica* and *Eucalyptus gunni* leaf extracts and its application in Fenton degradation of dicamba, Water Science and Engineering, https://doi.org/10.1016/j.wse.2023.08.003. IF 4 (Elsevier)
- Vanitha PR, Somashekaraiah R, Divyashree S, Pan I and <u>M Y Sreenivasa\*</u>. 2023. Antifungal activity of probiotic strain *Lactiplantibacillus plantarum* MYSN7 against Trichophyton tonsurans. Frontiers in Microbiology 14:1192449. doi:10.3389/fmicb.2023.1192449 IF 5.2 (Frontiers)
- Suresha D.E, Kousalyadevi, Pruthviraj, Mahadevakumar S and <u>M Y Sreenivasa\*</u> 2023. First report of *Fusarium incarnatum* associated with fruit rot disease of drumstick (*Moringa oleifera* L.) in India. Plant diseases Journal DOI: 10.1094/PDIS-01-23-0102-PDN IF 4.438 (American Phytopathological Society, USA).
- Divyashree, S., G. Adithi, & <u>M Y Sreenivasa</u>\*, 2023. Isolation, evaluation and in-vitro characterization of *Lactobacillus* isolated from traditional fermented food- Finger Millet (*Eleusine coracana*) Batter for their probiotic attributes. Food Biotechnology. DOI 10.1080/08905436.2023.2267121 IF 2.1 (Taylor and Francis)
- Divyashree, S., Shruthi, B., Vanitha, P., & <u>M Y Sreenivasa</u>\*, 2023. Probiotics and their postbiotics for the control of opportunistic fungal pathogens: A review. Biotechnology Reports, e00800. https://doi.org/10.1016/j.btre.2023.e00800 CiteScore 12.8 (Elsevier)
- Pruthviraj, Naik MK, Naik GR, Naik GB, Nandish M, Ekabote SD, & <u>M Y Sreenivasa\*</u> 2023. Investigation on antibacterial, probiotic and plant growth promoting attributes of *Enterococcus faecium MYSBC14* from Blue Cherry. Journal of the Saudi Society of Agricultural Sciences. 22 (7), 439-448. https://doi.org/10.1016/j.jssas.2023.04.003 CiteScore 11.4 (Elsevier)
- Savitha AS, Ajithkumar K, Mahadevakumar S, Maharachchcikumbura SSN, <u>M Y</u> <u>Sreenivasa\*</u> 2022 *Didymella naikii* Savitha, Ajithk., Mahadevak., Maharachch. & Sreenivasa, sp. nov. Persoonia- Fungal Planet. Vol 49, 1443.

DOI: https://doi.org/10.3767/persoonia.2022.49.08 IF 10.66 (Fungal Biodiversity Institute, Netherlands)

- Adithi G, Rakesh Somashekaraiah, S. Divyashree, B. Shruthi, <u>M Y Sreenivasa</u>\* 2022. Assessment of probiotic and antifungal activity of *Lactiplantibacillus plantarum* MYSAGT3 isolated from locally available herbal juice against mycotoxigenic *Aspergillus* species. Food Bioscience. 102118. https://doi.org/10.1016/j.fbio.2022.102118 IF 5.6 (Elsevier)
- Deepa, N., Chennappa, G., Deepthi, B.V., Naik, M.K., Ramesha, K.P., Amaresh, Y.S., Satish, S. and <u>M Y Sreenivasa</u>\*. 2022. Antifungal potential of *Azotobacter* species and its metabolites against *Fusarium verticillioides* and biodegradation of fumonisin. Journal of Applied Microbiology. https://doi.org/10.1111/jam.15709 IF 4.06 (Wiley Publishers)
- Divyashree S, Anjali P.G., Deepthi, B.V., Rakesh Somashekaraiah, Walid M, Riad Hammami, <u>M Y Sreenivasa</u>\*. 2022. Black cherry fruit as a source of probiotic candidates with antimicrobial and antibiofilm activities against *Salmonella*. South African Journal of Botany, 150: 861-872. https://doi.org/10.1016/j.sajb.2022.08.045 IF 3.11 (Elsevier)
- Bhaskar M, Basavaraj M and <u>M Y Sreenivasa\*</u>. 2022. Catalytic role of bioleached copper obtained from e-waste in non-ferrous Fenton's degradation of herbicide Ametryn in water. Journal of Sustainable Metallurgy, https://doi.org/10.1007/s40831-022-00589-7 IF 4.0 (Springer)
- Preetham R, MS Vijaya Kumar, TR Swaroop, S Divyashree, KR Kiran, <u>M Y Sreenivasa</u>, MP Sadashiva, KS Rangappa. 2022. An Efficient Route for the Synthesis of 1,5-Disubstituted Tetrazoles and their Anti-Microbial Activity Against Salmonella Paratyphi. ChemistrySelect, 7:45. https://doi.org/10.1002/slct.202203079 IF 2.3 (Wiley Publishers)
- Kumari VBC, Huligere SS, Ramu R, Naik Bajpe S, <u>M Y Sreenivasa</u>, Silina E, Stupin V and Achar RR. 2022. Evaluation of Probiotic and Antidiabetic Attributes of *Lactobacillus* Strains Isolated From Fermented Beetroot. Frontiers in Microbiology, 13:911243. doi: 10.3389/fmicb.2022.911243 IF 5.2 (Frontiers)
- Nagaraja H, Chennappa Gurikar, Deepa N, Naik MK, Ajith Kumar K, Amaresh YS, Premila N Achar\*, <u>M Y Sreenivasa</u> \*. 2022. Antifungal potential of *Azotobacter salinestris* strain Azt 31 against phytopathogenic *Fusarium* spp. associated with cereals. Journal of Fungi; 8, 473. https://doi.org/ 10.3390/jof8050473 IF 5.724 (MDPI)
- Bhaskar M, Rashmishree KN, Basavaraj M and <u>M Y Sreenivasa</u>. 2022. Sustainable replacement of EDTA Biojarosite for commercial iron in the fenton's and UV Fenton's degradation of Rhowedamine B a process optimization using Box Behnken method. Water Science and Technology, https://doi.org/10.1007/s40831-022-00589-7 IF 1.6 (IWA Publishers)
- 26. Ajithkumar K, Savitha A.S, Mahadevakumar S, Sujatha M, Maharachchcikumbura S.S.N., <u>MY Sreenivasa\*</u>, Renuka M and Yenjarappa ST. 2022. First Report of Powdery Mildew Caused by *Erysiphe diffusa* on Cluster Bean in India. Plant diseases Journal. https://doi.org/10.1094/PDIS-03-22-0622-PDN IF 4.438 (American Phytopathological Society, USA)
- Shruthi JB, KR Kiran, S Divyashree, <u>M Y Sreenivasa</u>, MP Sadashiva. 2022. Synthesis, characterization and antibacterial evaluation of N-(2-Morpholinoethyl)-3-phenylquinoxalin-2-amine derivatives. Journal of Heterocyclic Chemistry, https://doi.org/10.1002/jhet.4608 IF 2.03 (Wiley Publishers)
- Shruthi B., N. Deepa, Rakesh Somashekaraiah, G. Adithi, S. Divyashree, <u>M Y</u> <u>Sreenivasa</u>\*, 2022, Exploring biotechnological and functional characteristics of probiotic

yeasts: A review, Biotechnology Reports, e00716, https://doi.org/10.1016/j.btre.2022.e00716. CiteScore 12.8 (Elsevier)

- Ajithkumar K, Savitha AS, Mahadevakumar S, Maharachchcikumbura S.S.N., <u>M Y</u> <u>Sreenivasa\*</u>, Rathnakumar A.L and Sujatha M. 2021. First report of molecular detection of *Leveillula taurica* associated with powdery mildew of linseed (*Linum usitatissimum*) from India. Plant diseases Journal. https://doi.org/10.1094/PDIS-09-21-1937-PDN IF 4.438 (American Phytopathological Society, USA)
- Ajithkumar K, Savitha AS, Mahadevakumar S, <u>M Y Sreenivasa\*</u>, Naik MK, Rajanna B, Sathyanarayana R and Singh PK. 2021. A new host record for *Candidatus Phytoplasma cynodontis* (16Sr XIV-A) associated with phyllody and fasciation of linseed (*Linum usitatissimum*) from India. Letters in Applied Microbiology, doi: 10.1111/lam.13561, IF 2.852 (Wiley Publishers)
- Divyashree S, P.G. Anjali, Rakesh Somashekaraiah, <u>M.Y. Sreenivasa</u>\*. 2021. Probiotic properties of Lactobacillus casei MYSRD 108 and Lactobacillus plantarum-MYSRD 71 with potential antimicrobial activity against *Salmonella paratyphi*. Biotechnology Reports, 32, e00672. https://doi.org/10.1016/j.btre.2021. e00672 IF 4.92 (Elsevier)
- Deepa N, Achar PN, and <u>M Y Sreenivasa</u>\*. 2021. Current perspectives of biocontrol agents for management of Fusarium verticillioides and Its Fumonisin in cereals—A Review. Journal of Fungi 2021, 7, 776. https://doi.org/10.3390/jof7090776 IF 5.816 (MDPI)
- Rakesh S, Walid M, Adithi G, Udith J, Riad H and <u>M Y Sreenivasa</u>\*. 2021. Probiotic and Antifungal Attributes of Levilactobacillus brevis MYSN105, Isolated From an Indian Traditional Fermented Food Pozha. Frontiers in Microbiology. 12:696267. doi: 10.3389/fmicb.2021.696267, IF 5.2 (Frontiers)
- 34. Poornachandra Rao K, Hemanth Kumar N K Rakesh S, Murali S, Shobha Jagannath and <u>M Y Sreenivasa\*</u>. 2021. Probiotic attributes and inhibitory effects of *Lactobacillus plantarum* MYS84 against the growth and biofilm formation of Pseudomonas aeruginosa. Microbiology 90, 361–369. https://doi.org/10.1134/S0026261721030103 IF 1.55 (Springer)
- Achar PN, Quyen P, Adukwu EC, Sharma A, Msimanga HZ, Nagaraja H, <u>M Y Sreenivasa</u>.
   2020. Investigation of the Antifungal and Anti-Aflatoxigenic Potential of Plant-Based Essential Oils against *Aspergillus flavus* in Peanuts. Journal of Fungi; 6(4): 383. doi.org/10.3390/jof6040383 IF 5.816 (MDPI)
- 36. Bhaskar M, Basavaraj M and <u>M Y Sreenivasa</u>\*. 2020. Bioleaching of iron from laterite soil using an isolated Acidithiobacillus ferrooxidans strain and application of leached laterite iron as Fenton's catalyst in selective herbicide degradation. Plos One, 16(3): e0243444. https://doi.org/10.1371/journal.pone.0243444 IF 3.752
- Bhaskar M, Basavaraj M and <u>M Y Sreenivasa</u>. 2020. Bioleaching of iron from fly ash using a novel isolated *Acidithiobacillus ferrooxidans* strain and evaluation of catalytic role of leached iron in the Fenton's oxidation of Cephelaxin. Journal of Indian Chemical Society, 97: 360-367. IF 0.243 (Elsevier)
- Deepa N and M Y Sreenivasa. 2019. Molecular methods and key genes targeted for the detection of fumonisin producing *Fusarium verticillioides* - An updated review. Food Bioscience. 32-100473 https://doi.org/10.1016/j.fbio.2019.100473 IF 5.240 (Elsevier)
- Rakesh S, Shruthi S, Deepthi BV, and <u>M Y Sreenivasa</u>\*. 2019. Probiotic properties of lactic acid bacteria isolated from Neera: a naturally-fermenting coconut palm nectar, 10:1382. Frontiers in Microbiology, DOI: 10.3389/fmicb.2019.01382, IF 5.2 (Frontiers)

- Bhaskar M, Basavaraj M and <u>M Y Sreenivasa</u>\*. 2018. Bacteriological Synthesis of Iron hydroxysulphate using an isolated *Acidithiobacillus ferrooxidans* strain and its application in ametryn removal by fenton's oxidation process Journal of Environmental Management. IF 8.9 (Elsevier)
- Deepa N, Rakesh S and <u>M Y Sreenivasa</u>\*. 2018. Morphological, pathological and mycotoxicological variations among *Fusarium verticillioides* isolated from cereals. 3 Biotech 8:105 https://doi.org/10.1007/s13205-018-1136-z IF 3.44 (Springer)
- Deepthi BV, Rakesh S, Poornachandra Rao K, Deepa N, Dharanesha NK, Girish K S and <u>M Y Sreenivasa</u>\*. 2017. *Lactobacillus plantarum* MYS6 ameliorates fumonisin B1induced hepatorenal damage in broilers. Frontiers in Microbiology, doi: 10.3389/fmicb.2017.02317 IF 5.2 (Frontiers)
- Poornachandra Rao K, Deepti B V, Rakesh S, Ganesh T, Premila Achar, <u>M. Y.</u> <u>Sreenivasa</u>\*. 2017. Anti-aflatoxigenic potential of cell free supernatant from Lactobacillus plantarum MYS44 against *Aspergillus parasiticus*. Probiotics and Antimicrobial proteins. DOI: 10.1007/s12602-017-9338-y IF 5.256 (Springer)
- 44. Viveka S, Dinesha, Nagaraja GK, Shama P, Guru B, Poornachandra Rao K, <u>M Y</u> <u>Sreenivasa</u>. 2017. One pot synthesis of thiazolo[2,3-b]dihydropyrimidinone possessing pyrazole moiety and evaluation of their antiinflammatory and antimicrobial activities. Medicinal Chemistry Research. DOI 10.1007/s00044-017-2058-8 IF 2.3 (Springer)
- Adkar-Purushothama C.R., Chennappa G., Poornachandra R.K., <u>M.Y. Sreenivasa</u>, PK Maheshwar., M N Nagendra Prasad., Sano T. 2017. Molecular diversity among viroids infecting chrysanthemum in India. Virus Genes. DOI 10.1007/s11262-017-1468-5. IF 2.1 (Springer)
- Deepthi BV, Gnanaprakash AP and <u>M Y Sreenivasa</u>\*. 2017. Effect of c-irradiation on fumonisin producing Fusarium associated with animal and poultry feed mixtures. 3 Biotech 7:57 DOI 10.1007/s13205-017-0693-x IF 3.44 (Springer)
- Lingaraju GS, Rakesh S, Vinay Kumara KS, Poornachandra Rao K, <u>M Y Sreenivasa</u> and Sadashiva MP. 2017. Synthesis of New Benzofuran-Pyrazole Hybrids as Potential Antibiofilm Agents. Letters in Drug Design & Discovery, 14 (2), 186-194. DOI:10.2174/1570180813666160923170414 IF 1.09 (Bentham Science)
- Deepthi BV, Rao KP, Chennapa G, Naik MK, Chandrashekara KT, <u>M Y Sreenivasa\*</u>. 2016. Antifungal Attributes of *Lactobacillus plantarum* MYS6 against Fumonisin Producing *Fusarium proliferatum* Associated with Poultry Feeds. PLoS ONE 11(6): e0155122. DOI:10.1371/journal.pone.0155122. IF 3.752 (Public Library of Science, USA)
- Viveka S, Dinesha, Shama P, Nagaraja GK, Deepa N, and <u>M Y Sreenivasa</u>. 2016. Design, synthesis, and pharmacological studies of some new Mannich bases and S-alkylated analogs of pyrazole integrated 1,3,4-oxadiazole. Research on Chemical Intermediates. 42:2597–2617. DOI 10.1007/s11164-015-2170-7 IF 3.134 (Springer)
- Deepa N, Charith Raj A P, and <u>M Y Sreenivasa</u>\*. 2016. Multiplex PCR method for the early detection of fumonisin producing *Fusarium verticillioides*. Food Bioscience. 13:84-88. IF 5.240 (Elsevier)
- Nagaraja H., Chennappa G., Rakesh S, Naik MK, Amaresh YS and <u>M. Y. Sreenivasa</u>\*. 2016. Antifusarial activity of *Azotobacter nigricans* against trichothecene-producing *Fusarium species* associated with cereals. Food Science and Biotechnology. 25(4): 1197-1204. DOI 10.1007/s10068-016-0. IF 3.231 (Springer)
- 52. Chennappa G., Naik, M K., Adkar-Purushothama C.R., Amaresh Y.S., <u>M.Y. Sreenivasa</u>\*, 2016. PGP, Abiotic Stress Tolerant and Antifungal activity of *Azotobacter* sp. Isolated

from Paddy Soils. Indian Journal of Experimental Biology, 54(5) 322-331. IF 0.818 (NISCIR, India)

- Deepa N, Charith Raj A P and <u>M Y Sreenivasa</u>\*. 2016. Nested PCR method for the early detection of fumonisin producing *Fusarium verticillioides* in pure cultures, cereal samples and plant parts. Food Biotechnology. 30(1): 18-29. IF 1.564 (Taylor and Francis)
- Nagaraja H., Chennappa G., Poorna Chandra Rao K., Mahadevprasad G., and <u>M Y</u> <u>Sreenivasa</u>\*. 2016. Diversity of toxic and phytopathogenic Fusarium species occurring on cereals grown in Karnataka state, India. 3Biotech. 6:57. IF 3.44 (Springer)
- Vandana Yadav, Mahadevakumar S., Tejaswini, Shilpa N., Amruthavalli C., Janardhana G.R. and <u>M Y Sreenivasa.</u> 2016. First report of 16SrII-D phytoplasma associated with eggplant big bud (*Solanum melongena L.*) in India. Plant diseases Journal. 100(2): 517. IF 4.438 (American Phytopathological Society, USA)
- Deepa N, H Nagaraja, <u>M Y Sreenivasa</u>\*. 2016. Prevalence of fumonisin producing Fusarium verticillioides associated with cereals grown in Karnataka (India). Food Science Human Wellness, 5:156-162. http://dx.doi.org/10.1016/j.fshw.2016.07.001. IF 8.022 (Elsevier)
- Adkar-Purushothama C.R., Poornachandra R.K., Chennappa G., <u>M Y Sreenivasa</u>, M N Nagendra Prasad., PK Maheshwar., Sano T. 2015. Molecular identification of Chrysanthemum chlorotic mottle viroid Infecting Chrysanthemum in Karnataka, India. Plant diseases Journal. 99(12):1868. IF 4.438 (American Phytopathological Society, USA)
- Vandana Yadav, Mahadevakumar S, <u>M Y Sreenivasa</u>, Janardhana G.R. 2015. First report on the occurrence of virescence of *Chrysanthmum* associated with 16Sr II-A group *phytoplasma* in India. Plant diseases Journal. 99(11):1641. IF 4.438 (American Phytopathological Society)
- Poornachandra Rao K, Chennappa G, Suraj U, Nagaraja H, Charith Raj A P, and <u>M Y</u> <u>Sreenivasa</u>\*. 2015. Probiotic potential of *Lactobacillus* strains isolated from sorghum based traditional fermented food. Probiotics and Antimicrobial proteins. 7:146–156. IF 5.256 (Springer)
- Adkar-Purushothama C.R., Poornachandra R.K., and <u>M Y Sreenivasa</u>, Sano T. 2014. Detection, distribution and genetic divergence of *Australian grapevine viroid* (AGVd) in grapevines in India. Virus Genes. 49 (2), 304-311. IF 2.1 (Springer)
- Sahana A.B., Nagaraja H, Maheshwar P.K., and <u>M Y Sreenivasa</u>, Nagendra Prasad M.N., Adkar-Purushothama C.R. 2014. Affordable and reliable plant sap-mediated template preparation for the detection of various phytopathogens by PCR assay. Phytoparasitica. 42 (4), 519-527. IF 1.80 (Springer)
- Chennappa G., C. R. Adkar-Purushothama, Umdale Suraj, K. Tamilvendan, and <u>M Y</u> <u>Sreenivasa</u>\*, 2014. Pesticide tolerant Azotobacter isolates from paddy growing areas of northern Karnataka, India. World Journal of Microbiology and Biotechnology, 30, 1-7. IF <u>4.253.</u> (Springer)
- Sahana Bhaskara A., Jawad Ahmed B.N., Adkar-Purushothama C.R., Nagendra Prasad M.N., and <u>M Y Sreenivasa</u>, Maheshwar P.K. 2013. Evaluation of efficiency of heminested PCR assay for the detection of "Candidatus Liberibacter' infecting citrus. Journal of Plant diseases and Protection. 120 (5/6), 189-193. IF 1.847 (Springer)

- Sahana AB, Adkar-Purushothama Charith Raj, Chennappa G, and <u>M Y Sreenivasa</u>, Teuro Sano, 2013. First report of Grapevine yellow speckle viroid-1 and Hop stunt viroid infecting grapevines (Vitis vinifera) in India. Plant Disease, 97(11), 1517. IF 4.438 (American Phytopathological Society)
- Adkar-Purushothama Charith Raj, Nagaraja H, and <u>M Y Sreenivasa</u>, Teuro Sano, 2013. First report of *Coleus blumei viroid* infecting coleus in India. Plant Disease 97(1), 149. IF
   4.438 (American Phytopathological Society)
- Achar, P.N., Galdo and <u>M Y Sreenivasa</u>. 2012. Comparative studies on the changes of total soluble proteins and protease activity in commercial peanuts contaminated by *Aspergillus flavus*. Archives of Phytopathology and Plant Protection, 45(2), 220–227. IF 0.290 (Taylor and Francis)
- 67. <u>M Y Sreenivasa</u>, Regina S. Dass, Adkar-Purushothama Charith Raj, Mysore N. Nagendra Prasad, Premila N. Achar, Gotravalli R. Janardhana, 2011. Assessment of the growth inhibiting effect of some plant essential oils on different *Fusarium* species isolated from sorghum and maize grains. Journal of Plant diseases and Protection, 118 (6), 208–213. IF 1.847 (Springer)
- Charith Raj A. P., <u>M Y Sreenivasa</u>, P. K. Maheshwar and G. R. Janardhana. 2011. First report on *Citrus tristeza virus* associated with stem-pitting disease of *Citrus decumana* in India. Journal of Plant Pathology, 93 (4), S4.63-S4.89. IF 2.643. (Italian Phytopathological Society)
- Okwu G. I., P. N. Achar, M. J. Ikenebomeh and <u>M Y Sreenivasa</u>. 2011. Studies of food thickeners used in Nigeria for contamination by aflatoxigenic forms of *Aspergillus* and their detection by PCR. African Journal of Biotechnology. 10(43) 8641-8646. IF 0.57. (Springer)
- 70. Regina Sharmila Dass, <u>M Y Sreenivasa</u>, A.P. Charith Raj and G. R. Janardhana. 2009. PCR-based assay for the rapid detection of Fumonisin-producing *Fusarium* species in Maize-based animal and poultry feeds in Karnataka, India. Archives of Phytopathology and Plant Protection 42(8): 796-804. IF - 0.290 (Taylor and Francis)
- Nagendraprasad M.N., S.S. Bhat, N.Haraprasad, <u>M Y Sreenivasa</u>, K.A. Raveesha and. G.R. Janardhana. 2008. Study of die-back disease incidence of neem in Karnataka, India and PCR based identification of the isolates. Archives of Phytopathology and Plant Protection 43(5): 446-453. IF - 0.290 (Taylor and Francis)
- 72. <u>M Y Sreenivasa</u>, M. T. Gonzalez Jaen, Regina Sharmila Dass, A.P. Charith Raj, and G. R. Janardhana. 2008. PCR-based assay for the detection and differentiation of potential fumonisin producing *F. verticillioides* isolated from Indian maize kernels. Food Biotechnology, 22: 160-170. IF 2.1 (Taylor and Francis)
- 73. <u>M Y Sreenivasa</u>, Regina Sharmila Dass, A. P. Charith Raj and G. R. Janardhana. 2008. PCR-based detection of genus *Fusarium* and Fumonisin-producing isolates from freshly harvested Sorghum grains grown in Karnataka, India. Journal of Food Safety, 28: 236-237. IF- 2.449. (Wiley Publications)

 M Y Sreenivasa, Regina Sharmila Dass, A. P. Charith Raj and G. R. Janardhana. 2006. Molecular Detection of Fumonisin Producing Fusarium Species of freshly harvested maize kernels using Polymerase Chain Reaction (PCR), Taiwania, 51 (4): 251-257. IF-0.925.

**Research Publications in peer reviewed journals** 

- 75. Deepthi B.V., N. Deepa, P.R. Vanitha, <u>M.Y. Sreenivasa</u>, 2022. Stress responses on the growth and mycotoxin biosynthesis of *Fusarium proliferatum* associated with stored poultry feeds, Applied Food Research, 2 (1), 100091. https://doi.org/10.1016/j.afres.2022.100091 (Elsevier)
- Bhaskar M, Basavaraj M and <u>M Y Sreenivasa.</u> 2022. Bioleached laterite nano iron catalyst (BLaNFeCs)-based Fenton's degradation of selective dyes in water. H2Open Journal, 5 (4): 713–721.https://doi.org/10.2166/h2oj.2022.045.
- Sumalatha P., <u>M.Y. Sreenivasa</u> and P.K. Maheshwar. 2021. Diversity of fungi associated with Onion (Allium cepa) and Ginger (Zingiber officinale) produced from Karnataka, India. Eco. Env. & Cons. 27: 2021; pp. (S302-S311).
- Bhaskar M, Basavaraj M and <u>M Y Sreenivasa.</u> 2019. Evaluation of catalytic efficiency of extracted iron from biosynthesized jarosite in the Fenton's oxidation of an herbicide Dicamba. International J. of Science and Innovative Engineering & Technology. 7: 1-7.
- 79. Ajithkumar K, Naik MK, <u>M Y Sreenivasa</u>, Gangadhar Naik, Amaresh YS and Girijesh GK. 2019. Evaluation of maize hybrids and inbred lines for resistance to pre-harvest aflatoxin and fumonisin producing fungal contamination in the field. International Journal of Chemical Studies. 7(4): 809-818.
- Deepa N and <u>M Y Sreenivasa</u>. 2017. Fumonisins: A Review on its Global Occurrence, Epidemiology, Toxicity and Detection. Journal of Veterinary Medicine and Research 4(6): 1093.
- Deepa N and <u>M Y Sreenivasa</u>. 2017. Fusarium verticillioides, a Globally Important Pathogen of Agriculture and Livestock: A Review. Journal of Veterinary Medicine and Research 4(4): 1084.
- Poornachandra Rao K, Hemanth Kumar N K and <u>M Y Sreenivasa</u>. 2017. Characterization of Probiotic *Lactobacillus plantarum* MYS14 Isolated from Sannas, a Traditional Fermented Food for its Therapeutic Potential. Current Nutrition & Food Science, (13) 1-11. (Bentham Science)
- Poornachandra Rao K. and <u>M.Y. Sreenivasa</u>. 2017. Probiotic *Lactobacillus* Strains. The Future Biological Missiles to Treat Autism Spectrum Disorder: A Short Communication. Current Nutrition & Food Science. (13) 1-3. (Bentham Science)
- Poornachandra Rao K. and M.Y. Sreenivasa. 2016. Probiotic *Lactobacillus* Strains and Their Antimicrobial Peptides to Counteract Biofilm- Associated Infections- A Promising Biological Approach. SM Journal of Bioinformatics and Proteomics. 1(2): 1009. (SM Open Access Journals)

- 85. K. Poornachandra Rao, N.K. Hemanth Kumar and M.Y. Sreenivasa. 2016. Therapeutic Potential of Probiotic Lactobacillus plantarum MYS94 against *Campylobacter jejuni*. International Journal of Current Microbiology and Applied Sciences. 5(12): 869-883.
- Yooussef M M, Quyen Pham, P N Achar and <u>M Y Sreenivasa</u>. 2016. Antifungal activity of essential oils on *Aspergillus parasiticus* isolated from peanuts. Journal of Plant Protection and Research, 56 (2), 139–142. DOI: 10.1515/jppr-2016-0021
- Vandana Yadav, Mahadevakumar S., Janardhana G.R., Amruthavalli C. and <u>M.Y.</u> <u>Sreenivasa.</u> 2015. Association of a new 16SrVI subgroup phytoplasma with Little Leaf of Brinjal (*Solanum melongena*) Grown in Karnataka State (India). International Journal of Microbiology Research. 7(6): 703-709.
- Vandana Yadav, Mahadevakumar S., Janardhana G.R., Amruthavalli C. and <u>M.Y.</u> <u>Sreenivasa.</u> 2015. Molecular detection of *Candidatus* Phytoplasma trifolii associated with Little Leaf of Brinjal from Kerala State of Southern India. International Journal of Life Science. 9(6):109-112. (IJLS, Nepal)
- Chennappa G., C. R. Adkar-Purushothama, Umdale Suraj, K. Tamilvendan, <u>M.Y.</u> <u>Sreenivasa</u>, 2014. Impact of Pesticides on PGPR Activity of Azotobacter sp. Isolated from Pesticide Flooded Paddy Soils. Greener Journal of Agricultural Sciences, 4 (4), 117-129. (Greener Journals)
- 90. <u>M.Y. Sreenivasa</u>, Diwakar BT, Adkar-Purushothama Charith Raj, Regina Sharmila Dass, K A Naidu, G R Janardhana. 2013. Toxigenic *Fusarium* species and Fumonisin B1 and B2 associated with freshly harvested Sorghum and Maize grains produced in Karnataka, India. Annals Food Science and Technology, 14(1), 100-107.
- 91. <u>M.Y. Sreenivasa</u>, Adkar-Purushothama Charith Raj, Regina Sharmila Dass, Janardhana GR, 2012. Diversity of Fusarium species associated with Maize and Sorghum grains grown in Karnataka, India. Fungal science. 26(2) 111-123.
- 92. <u>M.Y. Sreenivasa</u>, Diwakar BT, Adkar-Purushothama Charith Raj, Regina Sharmila Dass, K A Naidu, G R Janardhana, 2012. Determination of toxigenic potential of *Fusarium* species occurring on sorghum and maize grains produced in Karnataka, India by using Thin Layer Chromatography. International Journal of Life Sciences, 6(1), 31-36.
- M.Y. Sreenivasa, Regina Sharmila Dass, A. P. Charith Raj and G. R. Janardhana. 2011. Mycological evaluation of Maize grains produced in Karnataka (India) for the post harvest fungal contamination. World Applied Sciences Journal, 13(4), 688 – 692.
- 94. <u>M.Y. Sreenivasa</u>, Regina Sharmila Dass, and G. R. Janardhana. 2010. Post harvest fungi associated with sorghum grains produced in Karnataka (India). Journal of Plant Protection Research, 50(3): 335-339.
- 95. Nagendra Prasad M.N., S. Shankara Bhat and <u>M.Y. Sreenivasa</u>. 2010. Antifungal activity of essential oils against *Phomopsis azadirachtae* the causative agent of die-back disease of neem. Journal of Agricultural Technology, 6 (1): 127-133.
- 96. <u>M.Y. Sreenivasa</u>, P.K. Maheshwar, K.R. Sanjay, B.T. Diwakar, K.A. Naidu and G.R. Janardhana, 2009. Effect of gamma irradiation on the incidence and fumonisins

production by *Fusarium* species occurring on maize and sorghum grains. Journal of Agricultural Technology, 5 (2): 325-335.

Regina Sharmila Dass, <u>M.Y. Sreenivasa</u> and G.R. Janardhana 2007. High incidence of *Fusarium verticillioides* in animal and poultry feed mixtures produced in Karnataka, India. Plant Pathology Journal, 6(2): 174- 178.

## Popular articles in global websites

- 98. Deepthi BV and <u>M Y Sreenivasa</u>. 2020. Fumonisins The underrated mycotoxins in poultry, livestock and humans. mycotoxinsite. com <u>https://mycotoxinsite.com/home/?lang=en</u>
- 99. <u>M Y Sreenivasa</u>. 2020. Facing the global mycotoxins challenge. mycotoxinsite. com <u>https://mycotoxinsite.com/home/?lang=en</u>
- 100. Divyashree S and <u>M Y Sreenivasa</u>. 2022. "Probiotics: Next-generation therapeutics against mycotoxicosis and other microbial complications in the poultry industry" mycotoxinsite. com <u>https://mycotoxinsite.com/probiotics-next-generation-therapeutics-mycotoxicosis-microbial-complications-poultry-industry/?lang=en</u>

## **Editorial article**

101.<u>M.Y. Sreenivasa</u>, 2012. Fumonisin – A potential carcinogen is of global concern. Research Journal of Biotechnology. Vol. 7 (4), 1-2. IF. 0.26

## Book Chapters published

102.G. Vadamalai, Charith Raj Adkar-Purushothama, S.S. Thanarajoo, Y. Iftikhar, B. Shruthi, <u>M Y Sreenivasa</u>, Teruo Sano, 2024. Chapter 5 - Viroids diseases and its distribution in Asia, Editor(s): Charith Raj Adkar-Purushothama, Teruo Sano, Jean-Pierre Perreault, Sreenivasa Marikunte Yanjarappa, Francesco Di Serio, José-Antonio Daròs, Fundamentals of Viroid Biology, Academic Press, Pages 85-107, ISBN 9780323996884, https://doi.org/10.1016/B978-0-323-99688-4.00004-3.

(https://www.sciencedirect.com/science/article/pii/B9780323996884000043)

- 103.Hemanth Kumar N.K., K. Poornachandra Rao, Rakesh Somashekaraiah, Shobha Jagannath, <u>M.Y. Sreenivasa</u>\*, 2023, 15 Recent advances and challenges in peptide drug development, Editor(s): K. Ajesh, K. Sreejith, Antimicrobial Peptides, Academic Press, Pages 297-310, ISBN 9780323856829, <u>https://doi.org/10.1016/B978-0-323-85682-9.00001-5</u>
- 104.Chennappa G, <u>M.Y. Sreenivasa</u>, N.A. Nanje Gowda, A.C. Lokesh, 2022. Azotobacter—A potential symbiotic rhizosphere engineer, Editor(s): Ramesh Chandra Dubey, Pankaj Kumar, Rhizosphere Engineering, Academic Press, Pages 97-112, ISBN 9780323899734, <u>https://doi.org/10.1016/B978-0-323-89973-4.00010-7</u>

- 105.Deepa N., Charith Raj Adkar-Purushothama, <u>M.Y. Sreenivasa</u>. 2021. Molecular technologies for the early detection of fungal phytopathogens associated with cereal crops, Editor(s): Jay Shankar Singh, Shashank Tiwari, Chhatarpal Singh, Anil Kumar Singh, Microbes in Land Use Change Management, Elsevier, 2021, Pages 137-154, ISBN 978012824448-7, <u>https://doi.org/10.1016/B978-0-12-824448-7.00009-7</u>.
- 106.Hemanth Kumar N.K., Murali M., Gowtham H.G., <u>M Y Sreenivasa</u>, Amruthesh K.N., Jagannath S. 2021. Application of Microbial Nanotechnology in Agriculture. In: Ansari M.A., Rehman S. (eds) Microbial Nanotechnology: Green Synthesis and Applications. Springer, Singapore. <u>https://doi.org/10.1007/978-981-16-1923-6\_13</u>
- 107.Bhaskar S., Manu B., <u>M.Y. Sreenivasa</u>. 2021. Green Synthesis of Bioleached Flyash Iron Nanoparticles (GBFFeNP) Using *Azadirachta Indica* Leaves and Its Application as Fenton's Catalyst in the Degradation of Dicamba. In: Das B.B., Nanukuttan S.V., Patnaik A.K., Panandikar N.S. (eds) Recent Trends in Civil Engineering. Lecture Notes in Civil Engineering, vol 105. Springer, Singapore. <u>https://doi.org/10.1007/978-981-15-8293-6 31</u>
- 108.Hemanth Kumar N.K., M. Murali, H.V. Girish, S. Chandrashekar, K.N. Amruthesh, <u>M.Y.</u> <u>Sreenivasa</u> and Shobha Jagannath. 2020. Impact of climate change on biodiversity and shift in major biomes. Editor(s): Suruchi Singh Pardeep Singh S. Rangabhashiyam K.K. Srivastava. **eBook ISBN:** 9780128230978. **Paperback ISBN:** 9780128229286, Elsevier.
- 109.Deepa N and <u>M.Y. Sreenivasa</u>. 2019. Sustainable approaches for biological control of mycotoxigenic fungi and mycotoxins in cereals, Editor(s): Jay Shankar Singh, New and Future Developments in Microbial Biotechnology and Bioengineering, Elsevier, 149-161, ISBN 9780128182581, <u>https://doi.org/10.1016/B978-0-12-818258-1.00009-1</u>.
- 110.Deepa N and <u>M.Y. Sreenivasa</u>. 2019. Biocontrol Strategies for Effective Management of Phytopathogenic Fungi Associated With Cereals, In: Singh JS., Singh DP. (eds) New and Future Developments in Microbial Biotechnology and Bioengineering, Elsevier, pp, 177-189, ISBN 9780444641915, <u>https://doi.org/10.1016/B978-0-444-64191-5.00013-4</u>
- 111.Chennappa G., Naik M.K., Nidoni Udaykumar, Vidya M., <u>M.Y. Sreenivasa</u>, Amaresh Y.S. and Mathad P.F. 2019 Plant growth promoting microbes: a future trend for environmental sustainability, Editor(s): Jay Shankar Singh, New and Future Developments in Microbial Biotechnology and Bioengineering, Elsevier, 149-161, ISBN 9780128182581, <u>https://doi.org/10.1016/B978-0-12-818258-1.00009-1</u>.
- 112.Chennappa G., Udaykumar N, Vidya M, Nagaraja H, Amaresh YS, <u>M.Y. Sreenivasa</u>, 2019. Azotobacter—A Natural Resource for Bioremediation of Toxic Pesticides in Soil Ecosystems, In: Singh JS., Singh DP. (eds) New and Future Developments in Microbial Biotechnology and Bioengineering, Elsevier, pp. 267-279, ISBN 9780444641915, <u>https://doi.org/10.1016/B978-0-444-64191-5.00019-5</u>.
- 113.Amaresh, Y. S., Chennappa, G., Avinash, S., Naik, M. K., <u>M Y Sreenivasa</u>, (2019). *Trichoderma—a new strategy in combating agriculture problems. New and Future Developments in Microbial Biotechnology and Bioengineering, 235–* 244. doi:10.1016/b978-0-12-818258-1.00015-7

- 114.Chennappa G., Nagaraja H., <u>M.Y. Sreenivasa</u> 2018. Azotobacter salinestris: A Novel Pesticide-Degrading and Prominent Biocontrol PGPR Bacteria. In: Panpatte D., Jhala Y., Vyas R., Shelat H. (eds) Microorganisms for Green Revolution. Microorganisms for Sustainability, vol 2. Springer, Singapore. <u>https://doi.org/10.1007/978-981-10-7146-1</u>.
- 115.Chennappa G., Naik M.K., Amaresh Y.S., Nagaraja H., <u>M.Y. Sreenivasa</u> 2017.
   *Azotobacter*: A Potential Biofertilizer and Bioinoculants for Sustainable Agriculture.
   In: Panpatte D., Jhala Y., Vyas R., Shelat H. (eds) Microorganisms for Green Revolution. Microorganisms for Sustainability, vol 1. Springer, Singapore.
- 116.Poornachandra Rao and <u>M. Y. Sreenivasa</u>. 2017. Insights on the role of probiotic strains in the prevention of chronic diseases. In Probiotics and Diet for Chronic Diseases Prevention. Open Access E-Books, 919 North Market Street Suite 425 Wilmington, DE 19801.
- 117.Chennappa G., Naik M.K. and <u>M Y Sreenivasa</u> 2016. *Azotobacter*: PGPR activities with special reference to effect of pesticides and biodegradation. In: Singh DP, Singh HB, Prabha R (eds) Microbial inoculants in sustainable agricultural productivity, vol 1. Springer, New Delhi, pp 229–244.
- 118.Achar P.N. and <u>M Y Sreenivasa</u>. 2015. Aspergillus species, Carcinogenic mold in peanuts

  A global health treat. In Women, Technology and Development. Ed. P Vasudevan et al.
  Narosa Publishing House, New Delhi
- 119.Janardhana G. R., Regina Sharmila Dass and <u>M Y Sreenivasa</u>. 2009. Fumonisins A new class of Fusarial toxins. In Frontiers in Fungal Ecology, Diversity and Metabolites. Ed: K A Sridhar et al. I. K. International Publishing House Pvt. Ltd. New Delhi.

## Editorial/review editor responsibilities from peer reviewed journals

- Review editor Frontiers in Microbiology, IF 5.640, Frontiers, Switzerland
- Review editor Frontiers in Pharmacology, IF 5.8, Frontiers, Switzerland
- **Reviewer** Plant disease, IF 4.3, American Phytopathology Society, USA
- Reviewer Journal of Environmental Management, IF 6.6, Elsevier
- Reviewer Journal of the Science of the Total Environment, IF 10.2, Elsevier
- Reviewer Scientific Reports, IF 4.2, Nature publications
- Reviewer Food BioScience, IF 3.9, Elsevier
- Reviewer World Journal of Microbiology, IF 2.4, Elsevier
- Reviewer World Journal of Microbiology, IF 2.4, Elsevier
- Reviewer Journal of Applied Microbiology, IF 4.2 Wiley publications
- **Reviewer** Letters in Applied Microbiology, IF 2.8 Wiley publications
- **Reviewer** Probiotics and antimicrobial proteins, IF 4.3, Springer
- Reviewer PLOS ONE, IF 2.7, PLoS Publishers, USA
- Reviewer Food Biotechnology, IF 1.01, Taylor & Francis

Research experience: Thirteen years of research experience in the field of Microbiology

No. of thesis awarded: 07

No. of Scholars currently working: 08

No. of Research Associates currently working: 02

No. of Ph D Thesis evaluated: 28

No. of Foreign Ph D/ Master Thesis evaluated: 02

No. of M Sc Project students guided: 44

SI.	Name of the Research	With/ Without	Enrolment	Remarks
No	Student	Fellowship	Year	
1	Nagaraja H	RGNF Fellowship	2009	Ph D Awarded
2	Chennappa G	Without Fellowship	2010	Ph D Awarded
3	Vandana Yadav	DST-WOS-A	2011	Ph D Awarded
4	Poornachandra Rao K	UGC and ICMR SRF	2012	Ph D Awarded
5	Deepthi B V	RGNF Fellowship	2012	Ph D Awarded
6	Deepa N	ICMR SRF Fellowship	2012	Ph D Awarded
7	Rakesh S	ICMR SRF Fellowship	2016	Ph D Awarded
8	Divyashree S	ICMR SRF Fellowship	2018	
9	Vasundara Urs	Without Fellowship	2018	
10	Adithi D	SERB SRF Fellowship	2019	
11	Vanitha Ramachandran	Without fellowship	2019	
12	Shruthi	ICMR SRF Fellowship	2020	
13	Spoorty	Without fellowship	2022	
14	Dhanuja S	Without fellowship	2023	
15	Mohammed	Without fellowship	2024	

# **MOOCS / SWAYAM E-learning content development and delivery**

SI.	Title of the Topic	Course/Subject	E-	Video	E content
No.			Script	Presenter	developed
			writing		
1	Photophosphorylation	Microbial	Yes	Yes	-
2	Photosynthetic pigments and	Physiology	Yes	Yes	-
	apparatus in bacteria	(M. Sc. <i>,</i> in			
3	Difference between oxygenic	Microbiology)	Yes	Yes	-
	and anoxygenic				
	photosynthesis				
4	C3 and C4 pathways		Yes	Yes	-
5	Enzymes - Structure and		Yes	Yes	-
	classification				
6	Mechanism of action of		Yes	Yes	-
	enzymes				
7	Factors affecting rates of		Yes	Yes	-
	Enzyme mediated reactions				

8	Role of ATP in metabolism		Yes	Yes	-
9	Structure of viruses	Virology	Yes	Yes	-
10	Discovery, nature, origin and	(M.Sc. <i>,</i> in	Yes	Yes	-
	evolutionary importance of	Microbiology)			
	viruses				
11	Viral taxonomy, classification		Yes	Yes	-
	and nomenclature of				
	different groups of viruses				
12	Isolation, purification and		Yes	Yes	-
	cultivation of viruses				
13	Virus replication strategies		Yes	Yes	-
14	Viral nucleic acid and protein		Yes	Yes	-
	synthesis				
15	Intracellular trafficking,		Yes	Yes	-
	assembly, maturation and				
	release				
16	Host response to viral		Yes	Yes	-
	infection				
17	Probiotics and prebiotics	NME- ICT	Yes	Yes	Yes
18	Traditional fermented foods	project of CEC-	Yes	Yes	Yes
19	Mycotoxins in poultry	UGC	Yes	Yes	Yes
20	Genetically Modified Foods	_	Yes	Yes	Yes
21	Issues in Genetic Engineering	Food	Yes	Yes	Yes
22	Food poisoning	Technology	Yes	Yes	Yes
23	Microorganisms in Food		Yes	Yes	Yes
24	Food as substrate for		Yes	Yes	Yes
	microbes				
25	Food laws and controlling		Yes	Yes	Yes
	agencies				
26	Food borne diseases		Yes	Yes	Yes
27	History and development of		Yes	Yes	Yes
	food microbiology				
28	Fermentors – design. Types		Yes	Yes	Yes
	and media				
29	Downstream processing of		Yes	Yes	Yes
	fermented foods				
30	HACCP and ISO		Yes	Yes	Yes
31	GMP and GLP		Yes	Yes	Yes
32	Yeast fermentation		Yes	Yes	Yes
33	Single cell protein		Yes	Yes	Yes

34	Beer	Yes	Yes	Yes
35	Wine	Yes	Yes	Yes
36	Vinegar	Yes	Yes	Yes
37	Cheese	Yes	Yes	Yes
38	Butter milk	Yes	Yes	Yes
39	Yogurt	Yes	Yes	Yes
40	Acidophilus milk	Yes	Yes	Yes
41	Distilled spirits	Yes	Yes	Yes
42	Poultry	Yes	Yes	Yes
43	Sterilization equipments	Yes	Yes	Yes
44	Laminar Air Flow	Yes	Yes	Yes
45	Microbial spoilage of fish,	Yes	Yes	Yes
	meat and egg			
46	Importance of fats and oils	-	Yes	Yes
47	Rice bran oil extraction	-	Yes	Yes
48	Sources of fats and oils	-	Yes	Yes
49	Food and its nutrients	Yes	Yes	Yes
50	Food groups	Yes	Yes	Yes
51	Food adulteration and its	Yes	Yes	Yes
	detection			
52	Food regulatory agencies and	Yes	Yes	Yes
	their laws			
L	•			

**Resource person:** Actively involved in reviewing the E contents developed by the other subject experts for different E courses developed for MOOCS and SWAYAM.

# **Host Scientist**

Hosted a DBT Raman fellow for African Dr. Abraham Yirgu from Ethiopia for the research work on fungal diversity between Ethiopia and India.

## **Professional Recognition**

- Chairman- Board of Examination (BOE) Post Graduate Microbiology, University of Mysore, Mysore. Karnataka. (2008-09, 2013-14, 2017-18, 2022-23)
- Chairman- Board of Examination (BOE) Post Graduate Embryology, Asia Pacific Institute of Embryology, Mysore. Karnataka. (2020-21)
- Member- Board of Studies (BOS) Post Graduate Microbiology, University of Mysore, Mysore. Karnataka (2017-19, 2019-20, 2020-21)

- Member- Board of Studies (BOS) Post Graduate Embryology, Asia Pacific Institute of Embryology, Mysore. Karnataka (2020-23)
- Member- Board of Studies (BOS) Post Graduate Yoga, University of Mysore, Mysore. Karnataka (2020-23)
- Member- Board of Studies (BOS) Post Graduate Microbiology, University of Mysore, Mysore. Karnataka (2017-19, 2019-20, 2020-21)
- Member- Board of Studies (BOS) Post Graduate Environmental Science, KSOU University, Mysore. Karnataka (2017-20)
- Member- Board of Studies (BOS) Under Graduate Microbiology, Gulbarga University, Shimoga, Karnataka (2017-20)
- Member- Board of Studies (BOS) Under Graduate Microbiology, YCM, University of Mysore, Mysore. Karnataka (2018-20, 2022-23)
- Member- Board of Studies (BOS) Under Graduate Microbiology, St. Joseph's College, Mysore. Karnataka (2018-20)
- Member- Board of Studies (BOS) Under Graduate Microbiology, Mahajana Degree College, Mysore. Karnataka (2018-20, 2021-23)
- Member- Board of Studies (BOS) Under Graduate Environmental Science, University of Mysore, Mysuru. Karnataka (2016-18)
- Member- Board of Studies (BOS) Under Graduate Microbiology, University of Mysore, Mysuru. Karnataka (2019-21)
- Member- Board of Studies (BOS) Post Graduate Biological Sciences, Bangalore University, Bangalore, Karnataka (2020-23).
- Member- Board of Examination (BOE) Post Graduate Microbiology, University of Mysore, Mysore. Karnataka (2010-11, 2011-12, 2013-14, 2014-15, 2017-18, 2018-19, 2019-20)
- Member- Board of Examination (BOE) Post Graduate Microbiology, Kuvempu University, Shimoga. Karnataka (2013-14, 2015-16, 2017-18, 2019-20, 2022-23)
- Member- Board of Examination (BOE) Post Graduate Biotechnology, Gulbarga University, Gulbarga. Karnataka (2017-18, 2019-20)
- Member- Board of Examination (BOE) Post Graduate Microbiology and Biotechnology, Karnatak University. Dharwad, Karnataka (2017-18)
- Member- Board of Examination (BOE) Post Graduate Microbiology, Mangalore University, Mangalore, Karnataka (2022-23)
- Member- Board of Examination (BOE) Post Graduate Microbiology, Davangere University, Davangere, Karnataka (2017-18, 2019-20, 2022-23).
- Member- Board of Examination (BOE) Post Graduate Biotechnology, Bangalore City University, Bangalore, Karnataka (2020-21, 2022-23).
- Examiner for M.Sc., (Microbiology, Biotechnology and Biochemistry), Mangalore University, Medikere, Examiner for M.Sc., (Microbiology and Biotechnology), Bangalore University, Bangalore, Examiner for M.Sc., (Microbiology and

Biotechnology), Gulbarga University, Gulbarga, Examiner for M.Sc., (Microbiology, Biotechnology), Kuvempu University, Shimoga, Examiner for M.Sc., (Microbiology), Davangere University, Davangere, Examiner for M.Sc., (Microbiology and Biotechnology), Karnataka University, Dharwad.

## **Resource Person at Workshop**

Workshop on Solutions to Microbiological Problems in Food Processing Industry, organized by asian Institute of Food Safety and Management on 3<sup>rd</sup> May 2008 at hotel Abad plaza, M G Road, Ernakulam.

## Participative Experience in Academic Meetings

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SI	Orientation/Refresher	Sponsors	Duration and	Organized/
No	Course, Workshop, etc		Year	Participated
1	Orientation Programme	UGC Academic Staff	08/10/2003	Participated
		College, Mysore.	to	
			04/11/2003	
2	Orientation Programme	INFLIBNET & UOM	15/01/2005	Participated
			to	
			16/01/2005	
3	Workshop on Intellectual	UGC, New Delhi, India	15/01/2005	Participated
	Property Rights		to	
			16/01/2005	
4	Refresher course in	UGC Academic Staff	13/02/2006	Participated
	Microbiology	College, Jaipur.	to	
			04/03/2006	
5	Regional Sensitization	Intellectual Property,	31/03/2007	Participated
	Workshop on How to	India; NRDC, India and		
	Protect & Promote	SJCE, Mysore.		
	Traditional Products			
6	Regional Workshop on	DOS in Botany, UOM,	26/03/2008	Attended as
	Techniques in Molecular	Mysore.	to	а
	Biology		28/03/2008	Demonstrato
				r
7	Refresher course in	UGC Academic Staff	03/09/2010	Participated
	Microbiology	College, Mysore.	to	
			23/09/2010	
8	Refresher course in	UGC Academic Staff	12/02/2013	Participated
	Microbiology	College, Mysore.	to	-
			04/03/2013	
9	Refresher course in	UGC Academic Staff	02/12/2014	Participated
	Microbiology	College, Mysore.	to	
			22/12/2014	
10	Fungal Genomics	JGI, Walnut Creek,	18/03/2014.	Participated

	Workshop	California 94598, USA		
11	Workshop on Molecular	Dept of Plant	29/02/2016	Resource
	tools in Agricultural	Pathology, University	and	person for
	Research	of Agricultural	01/03/2016	two days
		Sciences, Raichur		

Paper presented at Conference

- M.Y. Sreenivasa, Regina Sharmila Dass, and G. R. Janardhana. 2007. Occurrence of potential mycotoxigenic Fusarium species on maize and sorghum from Karnataka, India, and their detection by PCR. National seminar on Molecular Plant Pathology and Biotechnology for Sustainable Crop Protection, Nov 28-29, Indian Phytopathological Socity and University of Mysore, Mysore, Karnataka.
- <u>M.Y. Sreenivasa</u>, Regina Sharmila Dass, Maheshwar P K and G. R. Janardhana. 2009. Diversity of Fusarium species occurring on maize and sorghum grains produced in Karnataka, India. National conference on Plant Biodiversity and Bioprospecting, March 16-17, DOS in Botany, University of Mysore, Mysore, Karnataka.
- Janardhana G. R., <u>M.Y. Sreenivasa</u>, P.K. Maheshwar. 2010. Diversity and fumonisin producing Fusarium species in cereals and their molecular detection. National Symposium on Perspective in the Plant health management. Indian Phytopathological Society, India and Department of Plant pathology, Anand Agricultural University, Gujarath, India. December 14 16, 2010.
- Janardhana G. R., <u>M.Y. Sreenivasa</u>, P.K. Maheshwar and R. S. Dass. 2010. Molecular detection and differentiation of fumonisin producing Fusarium verticillioides and Fusarium proliferatum isolated from cereals and cereal based feeds. National Symposium on Molecular approaches for Management of fungal diseases of crop plants. Indian institute of Horticultural Research, Bangalore, India. December 27-30, 2010.
- Nagaraja H and <u>M.Y. Sreenivasa</u>. 2011. Mycological studies on diversity of Fusarium species occurring on cereals produced in Karnataka, India. International conference on Biodiversity and its conservation. Progressive Education society's Modern college of Arts and Science and Commerce, Pune, India. 28-30 January, 2011.
- Quyen Pham, <u>M.Y. Sreenivasa</u> and Pramila N. Achar. 2011 Histopathological changes due essential oils, antifungal agents, against Aspergillus flavus in Peanuts. The 72nd Annual Meeting, The Association of Southeastern Biologists Huntsville, AL, USA. April 13-16, 2011.
- Deepthi B.V., K. Poornachandra Rao, <u>M.Y.Sreenivasa.</u> 2015. Antifungal activity of LAB inhibiting *Fusarium* species in animal and poultry feed mixtures. The 102<sup>nd</sup>Indian Science Congress January 3-7, 2015, University of Mumbai, Santacruz East, Mumbai-400098, Maharashtra, India.

#### Poster presented at Conference

- **M.Y. Sreenivasa**, B. T. Diwakar, K. A. Naidu and G. R. Janardhana. 2007. Occurrence of fumonisin B<sub>1</sub> and B<sub>2</sub> on maize and sorghum grains collected from different regions of Karnataka, India. 77<sup>th</sup> Annual Session and Symposium on Novel Approaches for Food and Nutritional Security. CFTRI, Mysore, Karnataka.
- P.K. Maheshwar, <u>M. Y. Sreenivasa</u>, and G. R. Janardhana. 2009. Diversity of Fusarium species occurring on paddy produced in Karnataka, India. National conference on Plant Biodiversity and Bioprospecting, March 16-17, DOS in Botany, University of Mysore, Mysore, Karnataka.
- Mina Youssef, <u>M.Y. Sreenivasa</u> and Pramila N. Achar. 2011 Plant based Essential Oils as antifungal agents against A.flavus and A. parasiticus in peanuts. The 72nd Annual Meeting The Association of Southeastern Biologists Huntsville, AL, April 13-16, 2011.
- P.N. Achar, , <u>M.Y. Sreenivasa</u>, and Peris Mungai. 2011. Screening Of Essential Oils As Antifungal Agents Against A.flavus in peanuts. 111th ASM 2011 General Meeting, New Orleans, Louisiana, USA, May 2011.
- P.N. Achar, and <u>M.Y. Sreenivasa</u>, 2012. Detection of Aflatoxigenic forms of *Aspergillus flavus* and *A. parasiticus* in Georgia peanuts using multiflex PCR. 112th American Society of Microbiology 2012 General Meeting, San Fransisco, USA, June 16-19 2012.
- P.N. Achar, <u>M.Y. Sreenivasa</u>, and Peris Mungai. 2012. Microscopy study on the effect of essential oils on growth and germination of Aspergillus species in peanuts. IAFP 2012, Advancing Food Safety Worldwide. Providence, Rhode Island, USA, July 22-25.
- M.Y. Sreenivasa, A.P. Charithraj, Regina Sharmila Dass, Nagaraja .H and G.R. Janardana. 2012. Determination of Fumonisin Producing Ability of Fusarium Species by Thin Layer Chromatography. 3<sup>rd</sup> Global Conference on Plant Pathology For Food Security. Indian Society of Mycology and Plant Pathology, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajastan, India. January 10-13, 2012.
- Nagaraja H, P N. Achar and <u>M.Y. Sreenivasa</u>. 2012. Antifungal efficacy of four essential oils On the Mycelial Growth of Aspergillus flavus and Aspergillus parasiticus. International Conference On Mycology And Plant Pathology Biotechnological Approaches. Centre of Advanced Study in Botany, Banaras Hindu University, Varanasi, Uttarpradesh, India. February 27-29, 2012.
- K.P. Rao, P. Hariprasad, <u>M.Y. Sreenivasa</u> and G. Venkateshwaran. 2012. Extraction, purification and characterization of AFB1 from *A. flavus*. International Conference On Mycology And Plant Pathology Biotechnological Approaches. Centre of Advanced Study in Botany, Banaras Hindu University, Varanasi, Uttarpradesh, India. February 27-29, 2012.
- K.P. Rao, H. Nagaraja, V. Thamankar, <u>M.Y. Sreenivasa</u>. 2012. Isolation and Characterization of Bacteriocin Producing Lactic acid bacteria from Srikhand- an Indigenous fermented milk product. International Conference On Advances In Biological Sciences.

Department of Biotechnology and Microbiology Inter University Centre for Biosciences, on 15<sup>th</sup> to 17<sup>th</sup> March 2012, Kannur University, Kannur, Kerala, India.

- K.P. Rao, H. Nagaraja, <u>M.Y. Sreenivasa</u> 2012. Isolation and Preliminary Characterization of Potential Probiotic strains from a Traditional Sorghum based Fermented food products used in Karnataka. First Annual Conference of Probiotic Association of India and International Symposium on Probiotics for Human Health: New innovations and emerging trends on 27<sup>th</sup> & 28<sup>th</sup> August 2012, Gulmohar hall, India habitat Center, New Delhi, India.
- G. Chennapp, Adkar Purushothama C R, Naik M K, Amaresh Y S, <u>M Y Sreenivasa</u> 2012. Sequence and phylogenetic analysis of Azotobacter species isolated from paddy field soils of North Karnataka region-India,53<sup>rd</sup> Annual conference of AMI-ASM International Conference on "Microbial world: Recent Innovations and Future Trends" – Bhubaneshwar, Odisha on 22<sup>nd</sup> to 25<sup>th</sup> Nov-2012.
- G. Chennappa, Naik M. K, Mahadevaswamy, <u>M.Y. Sreenivasa</u> 2013. Effect of insecticides on nitrogen fixing ability of Azotobacter species isolated from paddy soils Karnataka, India. National symposium on Soil Biology and Ecology, GKVK, Bangalore.
- B.V. Deepthi, <u>M.Y. Sreenivasa</u> 2013. PCR analysis of mycotoxigenic *Fusarium verticillioides* and *Fusarium proliferatum* species occurring on animal and poultry feeds of Karnataka, India. 54<sup>th</sup> Annual Conference of Association of Microbiologists of India November 17-20, 2013, Department of Microbiology, Maharshi Dayanand University, Rohtak-124001, Haryana, India.
- K.P. Rao and <u>M Y Sreenivasa</u> 2013. Potential probiotic LAB strains from Sannas A traditional fermented food used in Karnataka, India. 54th Annual Conference of Association of Microbiologists of India (AMI-2013) & International Symposium on 'Frontier Discoveries and innovations in Microbiology and its interdisciplinary Relevance' (FDMIR-2013). November 17-20, 2013. Maharshi Dayanand University, Rohtak, Haryana, India.
- M.Y. Sreenivasa, J.B. Ridenour, B.H. Bluhm 2014. Identification of novel genes associated with pathogenicity and mycotoxin biosynthesis in *Fusarium verticillioides*. 9th Annual JGI Genomics of Energy & Environment Meeting- March 19-21, 2014, Hotel Marriot, Walnut Creek, California 94598, USA.
- M.Y. Sreenivasa, J.B. Ridenour, B.H. Bluhm 2014. Forward and Reverse genetics approach to Identify the novel fumonisin biosynthesis related genes in *Fusarium verticillioides*.AR P3 Center Annual Research Symposium, July 28-30, 2014 Winthrop Rockefeller Institute, Petit Jean, Morrilton, Arkansas 72110, USA.
- Vandana Yadav, Mahadevakumar, S., Janardhana, G. R., <u>M. Y. Sreenivasa</u> 2014. Molecular Detection of Phytoplasma Associated with the Little Leaf of Brinjal in South India . Indian Phytopathological Society (Southern Zone) National Symposium on "Plant Diseases: New Perspectives and Innovative Management Strategies" -December 11-12 ,2014 , College of Agriculture, UAS, Dharwad, Karnataka, India.

- Vandana Yadav, Mahadevakumar, S., Amruthavalli, C., Janardhana, G. R., <u>M. Y. Sreenivasa</u>
   2014. Genetic Diversity of Phytoplasma Associated with Little Leaf of Brinjal (LLB) from
   Karnataka (India). Indian Biodiversity Congress (IBC-2014)-December 18-20 2014,
   School of Public Health, SRM University, Chennai, India.
- Poornachandra Rao K, Hemanth Kumar N K, <u>M Y. Sreenivasa</u>. 2015. Antioxidant potential of Lactic acid bacteria isolated from traditional fermented foods of Karnataka. Indian Science Congress Association. Jan 3-7, 2015. University of Mumbai. Mumbai, India.

**Membership in Professional Societies** 

- Life member for Indian Phyotopathological society, New Delhi, India
- Life member for the Association of Food Scientists & Technologists, India
- Fellow member for the International Society of Biotechnology, Indore, India
- Life member for the Association of Microbiologists of India
- Life member for the Indian Science Congress, India
- Life member for the Mycology and Plant Pathology, India
- Annual member for the American Society for Microbiologists, USA.

# International and National Collaborations











**Industrial collaborations** 

