

Dr. Sinosh Skariyachan, Ph. D

Contact: +91 9739654015

Email: sinoshskariya@gmail.com, sinoshmicro@stpius.ac.in

Assistant Professor

Department of Microbiology

St. Pius X College Rajapuram

(A Govt Aided College Affiliated to Kannur University, Kerala)

Kasaragod, Kerala, India-671532

Personal webpage: <https://www.drsinoshskariya.com>**PubMed:** <https://www.ncbi.nlm.nih.gov/pubmed/?term=Skariyachan>**GenBank:** <https://www.ncbi.nlm.nih.gov/nucleotide/?term=Skariyachan>**ORCID:** <https://orcid.org/0000-0003-0950-7513>**Vidwan:** <https://vidwan.inflibnet.ac.in/profile/225685/MjI1Njg1>**Google Scholar:** <https://scholar.google.co.in/citations?user=BWu626YAAAAJ&hl=en>**Research Gate:** https://www.researchgate.net/profile/Sinosh_Skariyachan**Publon:** <https://publons.com/researcher/359811/sinosh-skariyachan-phd/>**LinkedIn:** <https://www.linkedin.com/in/sinosh-skariyachan-ph-d-216a0245/>**Institute website:** <http://stpius.ac.in/departments/microbiology/faculty/faculty-profile/?id=53>**Objective**

To achieve excellence in the field of academics, research and development in life sciences and engineering with commitment towards the team and the organization and expand my horizons to the scientific community

Educational qualifications

Certificate/ Course	Board/ University	Month and year of passing	Class/ Division
Ph. D	Visvesvaraya Technological University, Belagavi, Karnataka, India	May 2016	First
M. Sc. Bioinformatics	Bharathiar University Coimbatore, Tamilnadu, India	June 2008	First
M. Sc. Microbiology	Bharathiar University Coimbatore, Tamilnadu, India	April 2005	First
B. Sc. Microbiology	Kannur University, Kerala, India	April 2003	First
Higher Secondary	Board of Higher Secondary Examinations, Govt. of Kerala	May 2000	First
SSLC	Department of General Education, Govt. of Kerala	May 1998	First

- ❖ **Ph. D Thesis:** Molecular characterization of microorganisms present in Cauvery River and *in silico* analysis for probable drug targets.
- ❖ **M. Sc (Bioinformatics) Dissertation:** Predictive bioinformatics and *in silico* modeling of *Clostridium perfringens* delta enterotoxin.
- ❖ **M. Sc (Microbiology) Dissertation:** Isolation, identification and characterization of *Clostridium perfringens* from meat and poultry samples and their enterotoxin study.

National Eligibility Test (NET)

- ❖ Qualified the National Eligibility Test (NET) Conducted by Indian Council of Agricultural Research (ICAR) for the discipline Agricultural Microbiology

Area of expertise

- Medical (antimicrobial resistance), Environmental and Food Microbiology
- Bioinformatics and Computational Biology, Genomics and Proteomics
- Molecular Modeling, Computational Drug Designing, Chemo-informatics and Computational Systems Biology

Major research contributions

- Identified several potential natural lead molecules against prospective molecular targets of multidrug-resistant bacteria and viruses by structure-based virtual screening approaches.
- Modeled and validated novel drug targets of several pathogenic bacteria and viruses by computational biology approaches.
- Screened novel chromophoric and fluorophoric therapeutic metabolites from symbiotic bacteria associated with marine sponges towards drug-resistant bacteria.
- Isolated several thermophilic bacterial consortia from extreme environments and formulated novel microbial consortia that showed enhanced degradation to low and high-density polyethylene and polypropylene.

Professional experiences

Teaching: **17 years**, Research: **14 years**

Duration	Institution	Position	Responsibilities
October 2019- Till Date	St. Pius X College Rajapuram, Kasaragod, Kerala.	Assistant Professor , Department of Microbiology.	1. Handling theory and laboratory sessions for undergraduate students in B. Sc Microbiology
July 2016- October 2019	Dayananda Sagar College of Engineering, Bangalore, Affiliated to Visvesvraya Technological University, Karnataka.	Associate Professor , Department of BE Biotechnology.	2. Handling theory and laboratory sessions for undergraduate students in BE Biotechnology and post graduate students in M. Tech. Bioinformatics
Dec 2012- June 2016	Dayananda Sagar College of Engineering, Bangalore, Affiliated to Visvesvraya Technological University, Karnataka.	Assistant Professor Department of BE Biotechnology.	3. Mentoring students for their project works (both BE & M. Tech) 4. Coordinating various development activities

March 2008- Nove 2012	Dayananda Sagar College of Engineering, Bangalore, Affiliated to Visvesvraya Technological University, Karnataka.	Lecturer Department of BE Biotechnology.	for students in the department.
June 2005- February 2008	St. Pius X College Rajapuram, Kasaragod, Kerala.	Lecturer (On contact), Department of Microbiology.	Handling theory and laboratory sessions for undergraduate students in B. Sc Microbiology
2006-07	Deepa Nursing College Kanhangad, Kerala.	Guest Lecturer, General nursing & midwifery.	Handling theory and laboratory sessions for students in general nursing & midwifery.

Publications Summary

Research papers:

- ❖ Number of citations: 1502 (As of 20 August 2023)
- ❖ *h*-index-21
- ❖ *i10*-index-35
- ❖ Number of international publications-76
- ❖ Cumulative impact factor (SCI indexed journals): 242.129
- ❖ Text book: 01
- ❖ Book chapters: 14
- ❖ Articles in Scientific magazines and periodicals: 03
- ❖ Conference abstract (National & International)-87

Publications (International journals): SCI Indexed journals

1. Jayan N, **Skariyachan S**, Sebastian D (2023). The escalated potential of the novel isolate *Bacillus cereus* NJD1 for effective biodegradation of LDPE films without pre-treatment. *J Hazard Mater.* 455: 2023.131623. doi.org/10.1016/j.jhazmat.2023.131623. (**Impact Factor 14.7**)
2. Rana S, **Skariyachan S***, Uttarkar A, Niranjana V (2023). Carboxymuconolactone decarboxylase is a prospective molecular target for multi-drug resistant *Acinetobacter baumannii* - computational modeling, molecular docking and dynamic simulation studies. *Comput Biol Med.* 157. 2023, 106793. https://doi.org/10.1016/j.combiomed.2023.106793 (**Impact factor 6.698**). *Joint first author, equal contribution
3. **Skariyachan S**, Praveen PKU, Uttarkar A, Niranjana V (2023). Computational design of prospective molecular targets for *Burkholderia cepacia* complex by molecular docking and dynamic simulation studies. *Proteins.* doi: 10.1002/prot.26462. (**Impact Factor: 4.008**)
4. Niranjana V, Setlur AS, Karunakaran C, Uttarkar A, Kumar KM, **Skariyachan S** (2022). Scope of repurposed drugs against the potential targets of the latest variants of SARS-CoV-2. *Struct Chem.* 33: 1585–1608; https://doi.org/10.1007/s11224-022-02020-z (**Impact Factor 1.795**)

5. **Skariyachan S** (2022). Scope of computational biology and bioinformatics towards the discovery of potential therapeutic agents against viral diseases. *Future Virology*. <https://doi.org/10.2217/fvl-2021-0281> (**Impact Factor 3.015**)
6. **Skariyachan S**, Taskeen N, Kishore AP, Krishna BV (2022). Recent advances in plastic degradation - From microbial consortia-based methods to data sciences and computational biology driven approaches. *J Hazard Mater*. 426:128086. doi: 10.1016/j.jhazmat.2021.128086. (**Impact Factor 14.7**)
7. **Skariyachan S**, Gopal D, Deshpande D, Joshi A, Uttarkar A, Niranjana V (2021). Carbon fullerene and nanotube are probable binders to multiple targets of SARS-CoV-2: Insights from computational modeling and molecular dynamic simulation studies. *Infect Genet Evol*. 96:105155. doi: 10.1016/j.meegid.2021.105155. (**Impact Factor 4.393**)
8. **Skariyachan S**, Deshpande D, Joshi A, Subramanya N, Kale S, Narayanappa R (2021). Physicochemical and microbial pollution of a reservoir in South India and role of bacteriophage treatment to curtail drug-resistant bacterial pollution in water. *Environmental Technology & Innovation*. 24: 10, <https://doi.org/10.1016/j.eti.2021.102012>. (**Impact factor: 7.758**)
9. Khangwal I, **Skariyachan S**, Uttarkar A, Muddebihalkar AG, Niranjana V, Shukla P (2021). Understanding the xylooligosaccharides utilization mechanism of *Lactobacillus brevis* and *Bifidobacterium adolescentis*: Proteins involved and their conformational stabilities for effectual binding. *Mol Biotechnol*. doi: 10.1007/s12033-021-00392-x. (**Impact Factor 2.860**)
10. Liji P, **Skariyachan S**, Thamp HBS (2021). Cytotoxic effects of butyric acid derivatives through GPR109A receptor in Colorectal Carcinoma cells by *in silico* and *in vitro* methods. *J. Mol. Struct.* . (**Impact Factor 3.841**)
11. **Skariyachan S**, Gopal D, Muddebihalkar AG, Uttarkar A, Niranjana V. (2021). Structural insights on the interaction potential of natural leads against major protein targets of SARS-CoV-2: Molecular modelling, docking and dynamic simulation studies. *Comput Biol Med*. 132:104325. doi: 10.1016/j.compbimed.2021.104325. (**Impact Factor 6.69**)
12. **Skariyachan S**, Taskeen N, Kishore AP, Venkata Krishna B, Naidu G (2021). Novel consortia of *Enterobacter* and *Pseudomonas* formulated from cow dung exhibited enhanced biodegradation of polyethylene and polypropylene. *Journal of Environmental Management*. 284, 112030. doi.org/10.1016/j.jenvman.2021.112030 (**Impact Factor 8.910**)
13. Sennappan M, **Skariyachan S**, Managutti PB, Gunaga SS (2020). C-demethylation and 1, 2-amino shift in (E)-2-(1-(3-aminophenyl) ethylidene) hydrazinecarboxamide to (E)-2-(2-aminobenzylidene) hydrazinecarboxamide and their applications. *Sci Rep*. 10(1): 21913. doi: 10.1038/s41598-020-79027-1. (**Impact Factor 4.996**)1243: 130832. doi.org/10.1016/j.molstruc.2021.130832
14. **Skariyachan S**, Gopal D, Chakrabarti S, Kempanna P, Uttarkar A, Muddebihalkar AG, Niranjana V (2020). Structural and molecular basis of the interaction mechanism of selected

drugs towards multiple targets of SARS-CoV-2 by molecular docking and dynamic simulation studies- deciphering the scope of repurposed drugs. *Comput Biol Med.* 126:104054. doi: 10.1016/j.combiomed.2020.104054. **(Impact Factor 6.69)**

15. **Skariyachan S**, Ravi Shankar R, Gopal D, Muddebihalkar AG, Uttarkar A, Uluvangada Praveen PK, Niranjana V (2020). Response regulator GacA and transcriptional activator RhIR proteins involved in biofilm formation of *Pseudomonas aeruginosa* are prospective targets for natural lead molecules: Computational modelling, molecular docking and dynamic simulation studies. *Infection, Genetics and Evolution*, 85 (2020): 104448. <https://doi.org/10.1016/j.meegid.2020.104448> **(Impact Factor 4.393)**
16. **Skariyachan S**, Khangwal I, Niranjana V, Kango N, Shukla P (2020). Deciphering effectual binding potential of xylo-substrates towards xylose isomerase and xylokinase through molecular docking and molecular dynamic simulation. *J Biomol Struct Dyn.* 2020 1-10. doi: 10.1080/07391102.2020.1772882. **(Impact factor 5.235)**
17. **Skariyachan S**, Muddebihalkar AG, Badrinath V, Umashankar B, Eram D, Uttarkar A, Niranjana V. (2020). Natural epiestriol-16 act as potential lead molecule against prospective molecular targets of multidrug-resistant *Acinetobacter baumannii* -Insight from *in silico* modelling and *in vitro* investigations. *Infect Genet Evol.* 5:104314. doi: 10.1016/j.meegid.2020.104314. **(Impact factor 4.393)**
18. **Skariyachan S**, Challapilli SB, Packirisamy S, Sridhar VS, Kumargowda ST (2020). Monitoring and assessment of the therapeutic impact of metabolites extracted from sponge-associated bacteria screened from Gulf of Mannar, southeast coast of India. *Environ Monit Assess.* 192(4): 241. doi: 10.1007/s10661-020-8201-x. **(Impact factor 3.420)**
19. Suresh M, **Skariyachan S**, Narayanan N, Pullampara Rajamma J, Panickassery Ramakrishnan MK (2020). Mutational Variation Analysis of oprD Porin Gene in Multidrug-Resistant Clinical Isolates of *Pseudomonas aeruginosa*. *Microb Drug Resist.* doi: 10.1089/mdr.2019.0147. **(Impact factor 3.431)**
20. **Skariyachan S**, Gopal D, Kadam SP, Muddebihalkar AG, Uttarkar A, Niranjana V (2020). Carbon fullerene act as potential lead molecule against prospective molecular targets of biofilm-producing multi-drug resistant *Acinetobacter baumannii* and *Pseudomonas aeruginosa*: Computational modeling and MD simulation studies. *J Biomol Struct Dyn.* doi.org/10.1080/07391102.2020.1726821 **(Impact factor 5.235)**
21. Gopal D, Muddebihalkar AG, **Skariyachan S**, C AU, Kaveramma P, Praveen U, Shankar RR, Venkatesan T, Niranjana V. (2019). Mitogen activated protein kinase-1 and cell division control protein-42 are putative targets for the binding of novel natural lead molecules: a therapeutic intervention against *Candida albicans*. *J Biomol Struct Dyn.* 29:1-16. doi: 10.1080/07391102.2019.1682053. **(Impact factor 5.235)**
22. **Skariyachan S**, Taskeen N, Ganta M, Venkata Krishna B (2019). Recent perspectives on the virulent factors and treatment options for multidrug-resistant *Acinetobacter baumannii*. *Crit Rev Microbiol.* 45(3): 315-333. **(Impact Factor: 7.391)**

23. **Skariyachan S**, Challapilli SB, Packirisamy S, Kumargowda ST and Sridhar VS (2019). Recent aspects on the pathogenesis mechanism, animal models and novel therapeutic interventions for Middle East Respiratory Syndrome Coronavirus Infections. *Front. Microbiol.* 10: 569. doi: 10.3389/fmicb.2019.00569 (**Impact Factor: 6.064**)
24. Manjunath M, **Skariyachan S** (2019). Screening of natural lead molecules against putative molecular targets of drug resistant *Cryptococcus* spp: an insight from computer aided molecular design. *Curr Top Med Chem.* 18: 31, 2681-2701. (**Impact factor 3.57**)
25. **Skariyachan S**, Govindarajan S (2019). Biopreservation potential of antimicrobial protein producing *Pediococcus* spp. towards selected food samples in comparison with chemical preservatives. *Int J Food Microbiol.* 291 (16): 189-196. (**Impact Factor 5.911**)
26. Keramagi AR, **Skariyachan S** (2018). Prediction of binding potential of natural leads against the prioritized drug targets of chikungunya and dengue viruses by computational screening. *3 Biotech.* 8:274. doi: 10.1007/s13205-018-1303-2 (**Impact Factor 2.893**)
27. **Skariyachan S**, Manjunath M, Bachappanavar N (2018). Screening of potential lead molecules against prioritized targets of multi-drug-resistant-*Acinetobacter baumannii* - insights from molecular docking, molecular dynamic simulations and *in vitro* assays. *J Biomol Struct Dyn.* 37(5):1146-1169. (**Impact Factor 5.235**)
28. **Skariyachan S**, Patil AA, Shankar A, Manjunath M, Bachappanavar N, Kiran S (2018). Enhanced polymer degradation of polyethylene and polypropylene by novel thermophilic consortia of *Brevibacillus* sps. and *Aneurinibacillus* sp. screened from waste management landfills and sewage treatment plants. *Polym. Degrad. Stab.* 149:52-68 (**Impact Factor 5.204**)
29. **Skariyachan S**, Sridhar VS, Packirisamy S, Kumargowda ST, Challapilli SB (2018). Recent perspectives on the molecular basis of biofilm formation by *Pseudomonas aeruginosa* and approaches for treatment and biofilm dispersal. *Folia Microbiol.* 63(4):413-432. (**Impact factor 2.629**)
30. Shankar A, Patil AA, **Skariyachan S** (2017). Recent perspectives on genome, transmission, clinical manifestation, diagnosis, therapeutic strategies, vaccine developments, and challenges of Zika virus research. *Front. Microbiol.* 8:1761. doi: 10.3389/fmicb.2017.01761 (**Impact factor 6.064**)
31. **Skariyachan S**, Garka S, Puttaswamy S, Shanbhogue S, Devaraju R, Narayanappa R (2017). Environmental monitoring and assessment of antibacterial metabolite producing actinobacteria screened from marine sediments in south coastal regions of Karnataka, India. *Environ Monit Assess.* 189(6):283. doi: 10.1007/s10661-017-5999-y. (**Impact factor 3.307**)
32. **Skariyachan S**, Setlur AS, Naik SY, Naik AA, Usharani M, Vaisist KS (2017). Enhanced biodegradation of low- and high-density polyethylene by novel bacterial consortia formulated from plastic contaminated cow dung under thermophilic conditions. *Environ Sci Pollut Res Int.* 24 (9): 8443–8457 (**Impact factor 5.190**).

33. Kamath S, **Skariyachan S** (2017). Novel insight from computational virtual screening depicts the binding potential of selected phytotherapeutics against probable drug targets of *Clostridium difficile*. *Interdiscip Sci*. doi:10.1007/s12539-017-0215-x (**Impact factor 3.492**)
34. **Skariyachan S**, Parveen A, Garka S (2016). Nanoparticle Fullerene (C60) demonstrated stable binding with antibacterial potential towards probable targets of drug resistant *Salmonella typhi* - A computational perspective and in vitro investigation. *J Biomol Struct Dyn*. 6:1-53. (**Impact factor 5.235**).
35. **Skariyachan S**, Manjunatha V, Sultana S, Jois C, Bai V, Vasist KS (2016). Novel bacterial consortia isolated from plastic garbage processing areas demonstrated enhanced degradation for low density polyethylene. *Environ Sci Pollut Res Int*. 23(18):18307-18319. (**Impact factor 5.190**).
36. **Skariyachan S**, Prasanna A, Manjunath SP, Karanth SK, Nazre A (2016). Exploring the Medicinal Potential of the Fruit Bodies of Oyster Mushroom, *Pleurotus ostreatus* (Agaricomycetes), against Multidrug-Resistant Bacterial Isolates *Int J Med Mushrooms*. 18(3): 245–252. (**Impact factor 1.921**).
37. **Skariyachan S** (2016). Assessment of antibiotic resistance patterns of the fecal coliforms isolated from Cauvery River and screening of novel herbal lead molecules against probable drug targets of MDR pathogens by computational virtual screening. *Int J Infect Dis*. 45 (S1): 116 doi:10.1016/j.ijid.2016.02.294 (**Impact factor 3.623**).
38. Setlur AS, Naik SY, **Skariyachan S** (2016). Herbal lead as ideal bioactive compounds against probable drug targets of Ebola virus in comparison with known chemical analogue: A computational drug discovery perspective. *Interdiscip Sci*. doi 10.1007/s12539-016-0149-8. (**Impact factor 3.492**)
39. **Skariyachan S**, Prasanna A, Manjunath SP, Karanth SS, Nazre A (2016). Environmental assessment of the degradation potential of mushroom fruit bodies of *Pleurotus ostreatus* (Jacq.: Fr.) P. Kumm. towards synthetic azo dyes and contaminating effluents collected from textile industries in Karnataka, India. *Environ Monit Assess*. 188(2):121. doi: 10.1007/s10661-016-5125-6. (**Impact factor 3.307**)
40. **Skariyachan S**, Acharya A, Subramaniyan S, Babu S, Kulkarni S, Narayanappa R (2015). Secondary metabolites extracted from marine sponge associated *Comamonas testosteroni* and *Citrobacter freundii* as potential antimicrobials against MDR pathogens and hypothetical leads for VP40 matrix protein of Ebola virus: An *in vitro* and *in silico* investigation. *J Biomol Struct Dyn*. 34(9):1865-1883. (**Impact factor 5.235**).
41. **Skariyachan S**, Mahajanakatti AB, Grandhi NJ, Prasanna A, Sen B, Sharma N, Vasist KS, Narayanappa R (2015). Environmental monitoring of bacterial contamination and antibiotic resistance patterns of the fecal coliforms isolated from Cauvery River, a major drinking water source in Karnataka, India. *Environ Monit Assess*. 187(5):279. doi: 10.1007/s10661-015-4488-4(**Impact factor 3.307**)

42. **Skariyachan S**, Pachiappan A, Joy J, Bhaduri R, Aier I, Vasist KS (2015). Investigating the therapeutic potential of herbal leads against drug resistant *Listeria monocytogenes* by computational virtual screening and *in-vitro* assays. *J Biomol Struct Dyn*. 33(12):2682-94. **(Impact factor 5.235)**.
43. Patil P, **Skariyachan S**, Mutt E, Kaushik S (2015). Computational analysis of the domain architecture and substrate-gating mechanism of prolyl oligopeptidases from *Shewanella woodyi* and identification probable lead molecules. *Interdiscip Sci Comput Life Sci*. (doi: 10.1007/s12539-014-0244-7). **(Impact factor 3.492)**.
44. **Skariyachan S**, Megha M, Kini MN, Mukund MK, Rizvi A, Vasist K (2014). Selection and screening of microbial consortia for efficient and ecofriendly degradation of plastic garbage collected from urban and rural areas of Bangalore, India. *Environ Monit Assess*. 187 (1): 4174. **(Impact factor 3.307)**
45. **Skariyachan S**, Narayan NS, Aggimath TS, Nagaraj S, Reddy MS, Narayanappa R (2014). Molecular modeling on streptolysin-O of multidrug resistant *Streptococcus pyogenes* and computer aided screening and in vitro assay for novel herbal inhibitors. *Curr Comput Aided Drug Des*. 10 (1): 59-74. **(Impact factor 1.639)**
46. **Skariyachan S**, Rao AG, Patil MR, Saikia B, Bharadwaj KNV, Rao GSJ (2014). Antimicrobial potential of metabolites extracted from bacterial symbionts associated with marine sponges in coastal area of Gulf of Mannar Biosphere, India. *Lett Appl Microbiol*. 58(3): 231-241. **(Impact factor 2.813)**.
47. Mahajanakatti AB, Murthy G, Sharma N, **Skariyachan S** (2014). Exploring inhibitory potential of curcumin against various cancer targets by *in silico* virtual screening, *Interdiscip. Sci*. 6(1): 13-24. **(Impact factor 3.492)**.
48. **Skariyachan S**, Lokesh P, Rao R, Kumar AU, Vasist K, Narayanappa R (2013). A pilot study on water pollution and characterization of multidrug resistant superbugs from Byramangala tank, Ramanagara district, Karnataka, India. *Environ Monit Assess*. 185(7): 5483-5495. **(Impact factor 3.307)**.
49. **Skariyachan S**, Jayaprakash N, Bharadwaj N, Narayanappa R (2013). Exploring insights for virulent gene inhibition of multidrug resistant *Salmonella typhi*, *Vibrio cholerae*, and *Staphylococcus aureus* by potential phytoligands via *in silico* screening. *J Biomol Struct Dyn*. 32(9): 1379-1395. **(Impact factor 5.235)**.
50. **Skariyachan S**, Prakash N, Bharadwaj N (2012). *In silico* exploration of novel phytoligands against probable drug target of *Clostridium tetani*. *Interdiscip Sci Comput Life Sci* (2012) 4: 1-10. **(Impact factor 3.492)**.
51. Shrinivasan M, **Skariyachan S**, Aparna V & Kolte VR (2012). Homology modelling of CB1 receptor and selection of potential inhibitor against Obesity. *Bioinformation* 8 (11): 523-528.

52. **Skariyachan S**, Mahajanakatti AB, Sharma N, Karanth S, Rao S and Rajeswari N (2012). Structure based virtual screening of novel inhibitors against multidrug resistant superbugs, *Bioinformation* 8(9): 420-425.
53. **Skariyachan S**, Krishnan RS, Siddapa SB, Salian C, Bora P and Sebastian D (2011). Computer aided screening and evaluation of herbal therapeutics against MRSA infections. *Bioinformation* 7(5): 222-233.
54. **Skariyachan S**, Mahajanakatti AB, Sharma N, Sevanan M (2011). Selection of herbal therapeutics against deltaxoin mediated clostridial infections. *Bioinformation* 6(10): 375-379.

Publications in other peer reviewed journals

1. Satyanarayan V, Mohan D, **Skariyachan S**, Narayanappa R (2015). Computational virtual screening and preliminary cytotoxicity assay of novel herbal therapeutics on MCF-7 cell lines (2015). *International Journal of Applied Sciences & Engineering (IJASE)*. 1 (1): 65-71.
2. Showmy KS, **Skariyachan S**, Yusuf A (2014). Comparative modelling of pathogenesis related 4b protein (Q6T5J8) of *Oryza sativa* subsp. *indica* with the three-dimensional structure of barley1BW3. *International Journal of Plant, Animal and Environmental Sciences*. 4(4): 41-50
3. **Skariyachan S**, Bharadwaj N, Prakash N (2012). Computer aided virtual screening and selection of novel phytoligands against shigellosis, *International Journal of Current Research*. 4(5): 84-90.
4. Reddy DMS, **Skariyachan S**, Palanivel B, Anish DT, Kiran J, Gopal R (2011). Viro-informatics: Finding a herbal remedy for AIDS and blocking the translation pathway of HIV glycoproteins by RNAi technique, *Int J Pharm Sci Rev Res*. 10 (1): 142-146.
5. Arpitha BM, Sharma N, **Skariyachan S** (2011). *In silico* investigation and docking simulations of CagA of *Helicobacter pylori*: A rational drug design for gastroduodenal cancer. *Journal of Carcinogenesis*, 10 (1): pp S2.
6. Rao SK, Biradar UB, **Skariyachan S** (2011). Discovery and evaluation of potential inhibitors for prostate and breast cancer. *Journal of Carcinogenesis*, 10 (1): pp S15.
7. **Skariyachan S**, Sharma N, Arpitha BM (2011). An integrative *in silico* characterization and docking studies of β - enolase: a novel therapeutic insight for β -enolase deficiency. *Int J Pharm Biosci* 2(1): 153-165.
8. **Skariyachan S**, Jagadeesh A, Kumar MS, Shetty MR, Singh VS (2010). Fermentative production and downstream characterization of single cell protein from food wastes. *Int J Pharm Sci Bio*. 1(4): 294-300.
9. **Skariyachan S**, Krishnan RS, Biradar UB (2010). *In silico* investigation and docking studies of E2F3 tumor marker: Discovery and evaluation of potential inhibitors for prostate and breast cancer. *Int J of Pharma Sci & Drug Res*. 2(4): 254-260.

10. **Skariyachan S**, Mahajanakatti AB, Biradar UB, Sharma N, Abhilash M (2010). Isolation, Identification and characterization of *Clostridium perfringens* from cooked meat poultry samples and *in silico* biomodeling of its delta enterotoxin. *Int J Pharm Sci Rev Res.* 4(2): 164-172.
11. **Skariyachan S**, Ashwini MP, Hina CHA, Jain DM, Abhilash M (2010). Design and discovery of novel therapeutic drugs against *Helicobacter pylori* gastroduodenal cancer by *in silico* approach, *Res J Pharm Biol Chem Sci.* 1(4): 1005-1016.
12. Arpitha BM, Sharma N, **Skariyachan S** (2010). *In silico* biomodelling and docking studies of claudin 1: A rational approach of drug design for enteropathogenic *E. coli* infections. *Int J Pharm Sci Res.* 9(1): 421-429.

Text book

- ❖ **Sinosh Skariyachan**, Abhilash M (2012). Introduction to Food Biotechnology, CBS publishers and distributors, New Delhi (ISBN: 9788123922072).

Book chapters

1. Niranjana V, Setlur AS, Chandrashekar K, Uttarkar A, **Skariyachan S** (2023). Deciphering the scope of *in silico* screening of novel natural lead molecules against putative molecular targets of multidrug-resistant bacterial pathogens. Nanotechnology and *In Silico* Tools, Mital Kaneria, Kalpna Rakholiya, Chukwuebuka Egbuna (eds), Chapter-19: pp-269-284, Elsevier (*Invited Chapter*).
2. Niranjana V, Setlur AS, **Skariyachan S**, Chandrashekar K (2023). Applications of microbial consortia and microbiome interactions for augmenting sustainable agrobiotechnology. In: Maheshwari, D.K., Dheeman, S. (eds) Sustainable agrobiotechnology. Microorganisms for sustainability: Design and development of microbial consortia (pp. 275-316). Springer Nature, Singapore (*Invited Chapter*).
3. Ramesan CKV, Vinod NV, **Skariyachan S*** (2022). Antimicrobial peptide resistance and scope of computational biology in antimicrobial peptide research. Antimicrobial peptides. Challenges and future perspectives, (Eds: K. Ajesh and K. Sreejith). Chapter 14, pp. 261-295. Academic Press, Elsevier. *Equally contributed. (*Invited Chapter*).
4. Gopal D, **Skariyachan S**, and Melappa G (2022). Molecular interaction modeling of carbon nanotubes and fullerene toward prioritized targets of SARS-CoV-2 by computer-aided screening and docking studies. Functionalized carbon nanomaterials for theranostic applications. Micro and nano technologies (Eds: Shadpour Mallakpour, Chaudhery Mustansar Hussain), Chapter-8, pp. 157-180. Elsevier (*Invited Chapter*).
5. Gopal D, **Skariyachan S** (2021). Applications of computational intelligence and predictive analytics in screening potential lead molecules towards COVID-19: Scope of repurposed drugs. Computational Intelligence & predictive analytics for medical Science: A Pragmatic Approach. Tanwar, P., Kumar, P., Rawat, S., Mohammadian, M. and Ahmad, S.

Computational Intelligence & Predictive Analysis for Medical Science. De Gruyter. (*Invited Chapter*).

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59. Arpitha BM, Narasimha Sharma, **Sinosh Skariyachan** (2013). Prioritizing the anticancer properties of curcumin by computer aided virtual screening and molecular docking. International symposium on "recent advances in computational drug design". Jointly organized by Schrodinger & Indian Institute of Science. 16-17 September 2013.
60. Vikram Bharadwaj KN, Bagmita Saikia, Mamatha R Patil, Aditya G Rao, **Sinosh Skariyachan**, Jagannatha Rao GS (2013). Screening and characterization of potential therapeutic metabolites from symbiotic bacteria associated with marine sponges. International conference on convergence of science & management in education and research-A global perspectives, II edition, Organized by Centre for post graduate studies, Dayananda Sagar Institutions. 26-27 September 2013.
61. Jyothsna S, Savitri SN, Suchetha Pathalam, Aishwarya Gogate, **Sinosh Skariyachan**, Rajeswari Narayanappa (2013). *Lactobacillus* spp as biopreservative: Comparative analysis and optimization of preservation efficiency with chemical preservatives. International conference on convergence of science & management in education and research-A global perspectives, II edition, Organized by Centre for post graduate studies, Dayananda Sagar Institutions. 26-27 September 2013.
62. **Sinosh Skariyachan**, Kiran S, Rajeswari Narayanappa (2013). Selection of potential inhibitors against multidrug resistant pathogens by structure based virtual screening, 38th Annual conference of environmental mutagen society of India (EMSI), National conference on current perspectives on environmental mutagenesis and human health. Radiation Biology & Health Sciences Division, Bhabha Atomic Research Centre, Trombay, Mumbai, 26-30 January 2013
63. Nisha GJ, **Sinosh Skariyachan**, Narasimha Sharma, Arpitha BM, Navya CP, Reshma Rao, Priyanka L, Kiran S, Rajeswari Narayanappa (2013). Structure based rational design of novel herbal inhibitors towards multidrug resistant pathogenic bacteria present in River Cauvery, Biotech for a better tomorrow". 13th Bangalore India Bio: International conference cum trade show: Organized by Vision Group on Biotechnology, Govt of Karnataka, 4-6 February, 2013.
64. Reshma Rao, **Sinosh Skariyachan**, Arpitha BM, Narasimha Sharma, Shruthi Rao, Shraddha Karanth, Nisha GJ, Navya CP, Priyanka L, Sagar Goyal, Akshatha Prasanna, Ballari Sen,

- Lamiya Ali, Kiran S, Rajeswari Narayanappa (2013). Cauvery River has become cesspool of multidrug resistant Pathogenic Coli forms: A major health concern in Karnataka State. Biotech for a better tomorrow". 13th Bangalore India Bio: International conference cum Trade show: Organized By Vision Group on Biotechnology, Govt of Karnataka, 4-6 February, 2013.
65. **Sinosh Skariyachan**, Kiran S, Rajeswari Narayanappa (2012). A study on the prevalence of multidrug resistant pathogens in River Cauvery: a major health concern in Karnataka, South India. 53rd Annual conference of Association of Microbiologists of India (AMI), International conference on microbial world: Recent innovations and future trends, KIIT University, Bhubaneswar, Odisha, India. November 22-25, 2012.
 66. **Sinosh Skariyachan** and Jagannatha Rao GS. International conference on biomolecular forms and functions, a celebration of 50 years of the Ramachandran Map. Indian Institute of Science, Bangalore, 8-11 January 2013.
 67. Akshatha Prasanna, Ballari Sen, **Sinosh Skariyachan**, Kiran S , Rajeswari Narayanappa, Jagannatha Rao GS (2012). Computer aided virtual screening and *in vitro* evaluation of herbal therapeutics against Streptococcal infections, UGC and DBT sponsored National conference on "computational biology, pharmaceutical & life sciences, Maharani Lakshmi Ammanni College for Women, Bangalore, 23 – 24 November.
 68. Naik Soumyalaxmi Narayan, Monika S, Sushmitha N, Tejaswini S, **Sinosh Skariyachan**, Kiran S, Rajeswari Narayanappa, Jagannatha Rao GS (2012). Structure based virtual screening of natural therapeutics against Streptococci mediated outbreaks and inhibition of their virulence potential. 5th Annual KSTA Conference-2012, State level conference on "Science and technology for societal transformation" Jointly organized by Karnataka Science and Technology Academy and Dayananda Sagar Institutions, 19-20 December 2012.
 69. Usha BN, Divya Nethravathi R, Vinutha A, **Sinosh Skariyachan**, Sudhanva M Desai (2012). Microbial characterization of Nickel and Chromium degrading bacteria from electroplating industries in Bangalore and study of their biodegradation efficiency. 5th Annual KSTA Conference-2012, State level conference on "Science and technology for societal transformation" Jointly organized by Karnataka Science and Technology Academy and Dayananda Sagar Institutions, 19-20 December 2012.
 70. **Sinosh Skariyachan** (2012). Structure prediction and computer aided modeling. UGC sponsored national seminar cum workshop on Bioinformatics-Current trends in Bioinformatics. Organized by Educational Multimedia Research Centre, University of Calicut. 08-09 August 2012.
 71. Navya Bharadwaj, Nisha Prakash and **Sinosh Skariyachan** (2012). Selection and screening of novel herbal remedies against Shigellosis: An *in silico* virtual screening. National conference on green technologies, "fight pollution", Organized by VTU, Karnataka State Pollution Control Board and Acharya Institute of Technology, 4-5 April 2012.
 72. Priyanka L, Reshma Rao, **Sinosh Skariyachan** (2012). A pilot study of water pollution and characterization of multi-Drug resistant superbugs from Byramangala tank, Ramanagara district. National conference on green technologies, "fight pollution", Organized by VTU, Karnataka State Pollution Control Board and Acharya Institute of Technology, April 4-5, 2012.
 73. Divya Nethravathi R, Usha BN, Vinutha A, **Sinosh Skariyachan**, Sudhanva M Desai (2012). Microbial characterization of Nickel and Chromium degrading microorganisms from industrial effluents and study their efficiency of biodegradation. BIOCADENCE-2012, a national level symposium, Organized by Department of Biotechnology, KLE college of Engineering and Technology, Belgaum, 30 -31 March 2012.
 74. Nisha GJ, Navya CP, **Sinosh Skariyachan** (2011). Design and discovery of novel therapeutic drugs against tetanolysin O toxin of *Clostridium tetani*: a novel pharmacological approach

- against tetanus. National conference on biopharmaceuticals and health care, Organized by Sir M Visvesvaraya Institute of Technology, Bangalore on 0⁴th and 05 November 2011.
75. Priyanka Lokesh, Reshma Rao, **Sinosh Skariyachan**, Kiran S (2011). Prudent elucidation of physiochemical and bacterial characteristics of Byramangala tank, Ramanagara district. "Aarohan 2011"- State level symposium and inter-collegiate Biotechnology fest. Organized by Department of Biotechnology, New Horizon College of Engineering, Bangalore. 31 October, 2011.
 76. Nisha GJ, Navya CP, **Sinosh Skariyachan** (2011). Computer aided drug design of novel therapeutic agents against Tetanus. National level conference CHEMEXCEL-2011, Organized by Department of Chemical Engineering, Bapuji Institute of Technology, Davanagere. 21 October 2010.
 77. Priyanka Lokesh, **Sinosh Skariyachan**, Reshma Rao, Arushi Umeshkumar Gupta, Kiran S. Physiochemical and bacteriological characterization of Byramangala tank, Ramanagara district, Karnataka, India. Under the track water resources (SDEWES11-0645). Sponsored by UNESCO, 6th DUBROVNIK Conference on Sustainable Development of Energy Water and Environment System, Dubrovnik, Croatia. 25 – 29 September, 2011.
 78. Narasimha Sharma, Arpitha BM, **Sinosh Skariyachan**, Kiran S (2011). Microbial characterization of *Clostridium perfringens* from cooked meat-poultry samples and *in silico* simulations of delta enterotoxin, Bangalore India Bio-2011, An international symposium. Organized by Vision group on Biotechnology, Department of IT & BT, Govt. of Karnataka, 04- 06 May, 2011.
 79. Rao Shruti Krishnan, Usha B Biradar, **Sinosh Skariyachan** (2011). *In silico* investigation and docking studies of E2F3 tumor marker: Discovery and evaluation of potential inhibitors for prostate and breast cancer. National symposium on instrumentation (NSI-35), Jointly organized by Visvesvaraya Technological University, Belgaum and Instrumentation Society of India, Indian Institute of Science, 7-9 January, 2011.
 80. Arpitha BM, Sharma N, **Sinosh Skariyachan** (2011). *In silico* investigation and docking simulations of CagA of *Helicobacter pylori*: A rational drug design for gastroduodenal cancer. International conference on frontiers in carcinogenesis and cancer prevention: Scientific advances and public health initiatives, Jointly organized by Carcinogenesis Foundation of USA and Dayananda Sagar College of Engineering, Bangalore, India. 16 – 18 February 2011.
 81. Narasimha Sharma, Arpitha BM, **Sinosh Skariyachan** and Kiran S. Microbial characterization of *Clostridium perfringens* from cooked meat-poultry samples and *in silico* simulations of Delta enterotoxin ,16th National Conference on aerobiology & National Symposium on Applications of Biotechnology in Environment Management & Medicine. Bapuji Institute of Engineering & Technology, Davanagere. 19- 21 November 2010.
 82. Narasimha Sharma, Arpitha BM, **Sinosh Skariyachan**. An integrative *in silico* characterization and docking studies of β - enolase: a novel therapeutic insight for β -enolase deficiency, National level conference CHEMEXCEL-2010, Organized by Department of Chemical Engineering, Bapuji Institute of Technology, Davanagere. 21-22 October 2010.
 83. Arpitha BM, Narasimha Sharma, **Sinosh Skariyachan**, Kiran S (2010). *In silico* biomodelling and docking studies of Claudin 1: A rational approach of drug design for enteropathogenic *E. coli* infections, National conference on molecular medicine and nanobiotechnology, NIMHANS Convention Center, Bangalore. Organized by Sir MVIT & Reva Institute of Science and Management. 13- 14 October 2010.
 84. **Sinosh Skariyachan**, Arpitha BM, Usha B Biradar (2010). Isolation, identification and characterization of *Clostridium perfringens* from cooked meat poultry samples and *in silico*

- biomodeling of its delta enterotoxin. International conference on convergence of science & engineering in education and research a global perspective in the new millennium, ICSE - 2010, Dayananda Sagar Institutions, Bangalore. 21-23 April 2010.
85. Vimala Bharadwaj, **Sinosh Skariyachan** (2009). Production of arachidonic acid from filamentous fungi *Mortierella alpine*, Symposium on emerging trends in nanobioscience and workshop on nanoscience and engineering, Dayananda Sagar Institutions, Bangalore. 19- 20 November, 2009.
86. **Sinosh Skariyachan**, Murugan S (2005). Adult and embryonic stem cells: scope and applications, National symposium on “recent trends in life science” organized by Oxford college of Arts & Science, Bangalore from 02-04 March 2005.
87. **Sinosh Skariyachan**, Murugan S (2004). Consumer’s attitude towards GM Foods. National seminar on “emerging trends in Microbiology” organized by Sri Ramakrishna College of Arts and Science for Women, Coimbatore from 24-25 August 2004.

Awards and honors

- ❖ **Best Microbiology Teacher Award (National Level):** Microbiologists Society, India (MBSI) (2022).
- ❖ **Best Research Paper Award:** DBT and CSIR Sponsored International Virtual Conference on Biological innovations & Computational Exploration for Pandemic Challenges (CICPAC'22) organized by Department of Biotechnology and Bioinformatics, Bishop Herber College, Tiruchirappalli, Tamil Nādu. (2022)
- ❖ **EMBO-EMBL Symposia fellowship** to attend EMBL Symposium: Multiomics to Mechanisms: Challenges in Data Integration (2021)
- ❖ **Bill and Melinda Gates Foundation Abstract Award** for Scientists to attend World Microbe Forum 2021 by ASM Microbe 2021 and FEMS2021 (2021)
- ❖ **Conference grant from EMBO-EMBL** to attend EMBL Symposium: New Approaches and Concepts in Microbiology (2021)
- ❖ **Best Oral Presentation Award.** Technical Education Quality Improvement Program (TEQUIP)-III. Two Days National Symposium on “Recent Developments in Infectious Diseases” (2019).
- ❖ **Conference attendance grant from Federation of European Microbiological Society** to attend FEMS 2019, Glasgow, Scotland, UK (2019).
- ❖ **Travel grant award from Science and Engineering Research Board (SERB), DST, Govt. of India** to attend FEMS 2019, Glasgow, Scotland, UK (2019).
- ❖ **Publon Peer Review Award-2019-** Top 1% of reviewers in (1) Biology and Biochemistry (2) Computer Science (3) Cross-Field on Publons global reviewer database by Web of Science group, Clarivate Analytics on September 2019.
- ❖ **Publon Peer Review Award-2018:** World's Top 1 % of Reviewer in Biology & Biochemistry in 2017-18 year awarded by Publon (2018).
- ❖ **Outstanding Faculty Award in Biotechnology** (2018): Centre for Advanced Research and Design, Vinus International Foundation.
- ❖ **Outstanding Reviewer** (2017). Journal of Genetic Engineering & Biotechnology (Elsevier)
- ❖ **Young Scientist Award:** Association of Microbiologists of India (AMI), under the category Medical & Veterinary Microbiology, 57th Annual meeting and International Symposium on Microbes and Biosphere; what is new what is next (2016)
- ❖ **Outstanding Reviewer** (2016). Journal of Molecular Catalysis. B, Enzymatic (Elsevier)

- ❖ **Travel grant award from Association of Microbiologist of India (AMI)** to attend the AMI 57th Annual conference and international Symposium (2016).
- ❖ **Young Investigator Award from India and South East Asia:** Society for Infectious Disease, 17th International Congress for Infectious Disease (2016).
- ❖ **Travel grant award from International Society of Infectious Disease (ISID)** to attend 17th International Congress for Infectious Disease (2016).
- ❖ **Best Poster Award:** National Symposium on Next Generation Sequencing and Microarray Data Analysis (2016).
- ❖ **Young Scientist Award Presentation (Organizers Award):** Association of Microbiologist of India, 56th Annual symposium and International Conference (2015).
- ❖ **Best poster award:** Metabolomics-2015. Indian Institute of Science, Bangalore (2015).
- ❖ **Travel grant award from American Society for Microbiology (ASM)** to attend the Culture Responsibility workshop (2014).
- ❖ **Best research project award,** 37th SPP program, Karnataka State council for Science and Technology, IISc, Bangalore (2014).
- ❖ **Best poster award:** National conference on recent advances, career prospects and entrepreneurial opportunities in Bioengineering and Biotechnology (2014).
- ❖ **Best poster award.** 38th EMSI Conference, Bhabha Atomic Research Centre, Mumbai (2013).
- ❖ **Special recognition award** for Poster. Bangalore India Bio-13 (2013).
- ❖ **Second prize** in Poster Presentation, National conference on computational biology (2012).
- ❖ **Best paper award** in R & D category, National conference on green technology (2012).
- ❖ **First prize** in poster presentation, National conference on green technology (2012).
- ❖ **Third prize** in oral presentation. State level symposium (2011).
- ❖ **First prize** in poster presentation. 16th National conference on aerobiology (2010).
- ❖ **First prize** in paper presentation. National level conference CHEMEXCEL-2010 (2010).
- ❖ **Second prize** in paper presentation. National conference on molecular medicine and nanobiotechnology (2010).
- ❖ **First prize** in poster presentation, Symposium on emerging trends in nanobioscience (2009).
- ❖ **Best outgoing student award,** St. Pius X College Rajapuram, Kasargod, Kerala (2003).
- ❖ **Best NSS volunteer** (2003).
- ❖ **Best NSS volunteer** of the year (2002).
- ❖ **Best Camper** in NSS ten-day special camp (2001).

Funded research projects

1. Prudent elucidation of physiochemical & bacterial characteristics of Byramangala Tank, Ramanagara District. Vision Group of Science and Technology, Department of Science and Technology, Govt of Karnataka (No.VGST/ P-10/ SPiCE/ 2011-12/ 1069).
2. Selection and screening of microbial consortia for efficient and eco-friendly degradation of plastic wastes in Urban and Rural Areas of Bangalore, Sponsored by Karnataka State Council for Science and Technology, Indian Institute of Science Campus, Bangalore – 560012 (Reference No. 37S0835) (2014).
3. Formulation and characterization of novel plastic degrading microbial consortia isolated from various places of Bangalore city and study of their bio degradation potential. Sponsored by Karnataka State Council for Science and Technology, Indian Institute of Science Campus, Bangalore – 560012 (Reference No. 38S0142) (2015).
4. Application of novel thermophilic bacterial consortia screened from cow dung as an eco-friendly approach for the degradation of plastic garbage in Bengaluru City Sponsored by

Karnataka State Council for Science and Technology, Indian Institute of Science Campus, Bangalore – 560012 (Reference No. 39_BE_0074) (2016).

5. Prioritizing the plastic degradation potential of novel thermophilic consortia screened from various waste management landfills and sewage treatment plants in selected areas of Karnataka state: an eco-friendly biotechnological intervention for plastic waste management. Sponsored by Karnataka State Council for Science and Technology, Indian Institute of Science Campus, Bangalore – 560012 (Reference No. 40S_BE_2123) (2017).

Accession numbers of the molecular sequences deposited in GenBank, NCBI, NIH

Number of sequences deposited: **34**

- MN431238, MN431232, MN251628, MN211551, MN108025, MH576917, MF359596, MF359595, MF359594, MF359592, MF359591, KY673793, KX788166, KX462782, KX462781, KX462780, KX462779, KX462778, KF225564, KF225563, KF225562, KF225561, KF225560, KT334809, KT334808, KT334807, KT334806, KT334805, KF225557, KF225556, KF225555, KF225554, KF225559

Professional body membership

1. Member, American Association for the Advancement of Science (AAAS) (Membership No. 60538399).
2. Member, American Society for Microbiology (No. 100007570).
3. Life Member, The Indian Science Congress Association (No. L31638).
4. Life Member, National Academy of Biological Sciences (No. LM- 067-18)
5. Life Member, Association of Microbiologist of India (No. AMI/LM-212/2012).
6. Life Member, Bioinformatics and Drug Discovery Society (No. LMBIDDS17-431)
7. Life Member, Environmental Mutagen Society of India (No. LM-460).
8. Life Member, Indian Biophysical Society (No. 1266)
9. Life Member, Society of Biological Chemist, Indian Institute of Science (No. 2442).
10. Life Member, Microbiologists Society, India (No. MS/LM/695)
11. Life Member, Indian Network for Soil Contamination Research (INSCR)- (No. 2022-186)
12. Life Member, Society for Biotechnologists (India) (No. L-912)
13. Life Member, IAENG Society of Bioinformatics (No. 117844).
14. Life Member, IAENG Society of Artificial Intelligence (No. 117844).
15. Life Member, International Association of Computer Science and Information Technology (IACSIT) (No.80345946).
16. Life Member, Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES) (No-201763)
17. Affiliate Member, Microbiology Society (No. C037890)
18. Member, European Federation of Biotechnology
19. Member, International Association of Advanced Materials, Sweden (No.826291911931)
20. Member, The Science Advisory Board (SAB), USA
21. Member, International Society for Environmental Information Sciences.
22. Member, International Society for Infectious Diseases.

Academic and scientific society member

- ❖ Member, Board of Studies (UG), Biochemistry & Bioinformatics, Kannur University, Kerala (June 2021-till date)
- ❖ Member, Board of Studies (Combined), Microbiology, Kannur University, Kerala (June 2021-till date)
- ❖ Member, Board of Studies (UG), Microbiology, University of Calicut (Feb 2020- till date)
- ❖ Member, Board of Studies, Kondu Arts and Science College (Autonomous), Erode, TN (2022-till date)
- ❖ Chairman, Board of Question Paper Setters, B. Sc Microbiology (CUCBCSS), Calicut University, Kerala (August 2021-till date)
- ❖ Member, Board of Examiner (UG), Department of Biotechnology, Siddaganga Institute of Technology, Tumkur (2018-2019)
- ❖ Member, Board of Examiner (PG), Department of Food Technology, Jain University, Bangalore (2018-2019)
- ❖ Member, Board of Examiners (PG), Dept of Life Sciences, University of Calicut (2009- till date)
- ❖ Member, Board of Examiners (UG & PG), Biotechnology Board, Visvesvaraya Technological University, Belagaum (2016—2017)
- ❖ Member, Panel of Examiners (PG & UG), Biotechnology & Bioinformatics, Visvesvaraya Technological University, Belagaum (2008 –2019).
- ❖ Member, Board of Examiners (UG), University of Kannur (2005-2008; 2019-till date)
- ❖ Executive committee member, Society for Biotechnologist of India (SBT (I)- (2018-2019)

Editorial Board -International Journals

- ❖ **Associate Editor:** Computers in Biology and Medicine (Elsevier)
- ❖ **Academic Editor:** Plos One (Plos)
- ❖ **Guest Editor:** Frontiers in Microbiology (Frontiers)
- ❖ *Editorial Board Member:* Journal of Medicine, Surgery, and Public Health (Elsevier)
- ❖ *Editorial Board Member:* Informatics in Medicine Unlocked (Elsevier)
- ❖ *Review Editor:* Frontiers in Microbiology (Frontiers)
- ❖ *Editorial Board Member:* Current Biotechnology (Bentham Science)
- ❖ *Editorial Board Member:* Current Indian Science (Bentham Science)
- ❖ *Editorial Board Member:* Recent Patents on Food, Nutrition & Agriculture (Bentham Science)

Reviewer for international journals

Nature Group

1. Emerging Microbes and Infections (Nature)
2. Scientific Report (Nature)

American Chemical Society

3. ACS Nano
4. ACS Omega

FEMS group

5. Pathogens and Disease

Frontiers

6. Frontiers in Bioengineering and Biotechnology
7. Frontiers in Microbiology
8. Frontiers in Chemistry

Elsevier

9. Journal of Hazardous Materials
10. Environmental Pollution
11. Chemosphere
12. Ecotoxicology and Environmental Safety
13. Science of the Total Environment
14. Journal of Environmental Management
15. Archives of Biochemistry and Biophysics
16. Archives of Medical Research
17. Journal of Molecular Graphics and Modelling
18. Biomedical and Environmental Sciences
19. Biomedicine & Pharmacotherapy
20. Saudi Pharmaceutical Journal
21. Microbial Pathogenesis
22. International Dairy Journal
23. Phytomedicine
24. Pedosphere
25. Process Biochemistry
26. Journal of Molecular Catalysis B-Enzymatic
27. Journal of Molecular Structure
28. Journal of Molecular Liquids
29. Journal of Genetic Engineering and Biotechnology
30. Informatics in Medicine Unlocked
31. Computers in Biology and Medicine
32. Computational Biology and Chemistry
33. Journal of King Saud University – Science
34. Journal of Infection and Chemotherapy

Springer

35. Biomass Conversion and Biorefinery
36. Applied Microbiology and Biotechnology
37. Applied Biochemistry and Biotechnology
38. Bulletin of Environmental Contamination & Toxicology
39. Environmental Science and Pollution Research
40. Journal of Polymers and the Environment
41. Structural Chemistry
42. Molecular Biology Reports
43. International Journal of Peptide Research and Therapeutics
44. Interdisciplinary Sciences: Computational Life Sciences
45. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences
46. Chemical Research in Chinese Universities
47. 3Biotech
48. International Journal of Environmental Research
49. SN Applied Sciences

Plos

50. Plos One

Taylor & Francis

- 51. Critical Reviews in Microbiology
- 52. Expert Opinion on Drug Discovery
- 53. Expert Opinion on Drug Metabolism and Toxicology
- 54. Journal of Enzyme Inhibition and Medicinal Chemistry
- 55. Journal of Molecular Recognition
- 56. Journal of Receptors and Signal Transduction
- 57. Natural Product Research
- 58. Environmental Technology
- 59. SAR and QSAR in Environmental Research
- 60. Journal of Experimental Nanoscience
- 61. Molecular Physics
- 62. Polycyclic Aromatic Compounds
- 63. Journal of Taibah University for Science
- 64. Journal of Biomolecular Structure and Dynamics
- 65. Journal of Plant Interactions
- 66. Inorganic and Nano-Metal Chemistry
- 67. Aquatic Ecosystem Health & Management
- 68. Archives of Agronomy and Soil Science
- 69. Drug and Chemical Toxicology
- 70. Chemistry and Ecology
- 71. Journal of Herbs, Spices & Medicinal Plants

Wiley

- 72. Journal of Cellular and Molecular Medicine
- 73. Proteins: Structure, Functions, and Bioinformatics
- 74. Medicinal Research Reviews
- 75. Clinical and Experimental Pharmacology and Physiology
- 76. Drug Development Research
- 77. Nordic Journal of Botany
- 78. Journal of Applied Microbiology
- 79. Letters in Applied Microbiology
- 80. Molecular Simulation
- 81. Nordic Journal of Botany Archiv der Pharmazie
- 82. Journal of Pharmacy and Pharmacology
- 83. Journal of Food Processing and Preservation
- 84. Journal of Food Biochemistry
- 85. Journal of Basic Microbiology
- 86. Environmental Quality Management
- 87. Archives of Insect Biochemistry & Physiology
- 88. Vietnam Journal of Chemistry

BioMed Central

89. BMC Bioinformatics

- 90. BMC Microbiology
- 91. BMC Biotechnology
- 92. Infectious Diseases of Poverty
- 93. Global Health Research and Policy
- 94. Gut Pathogens

Royal Society

- 95. RSC Medicinal Chemistry
- 96. Green Chemistry
- 97. New Journal of Chemistry
- 98. Chemical Communications
- 99. Royal Society Open Science
- 100. RCS Advance

MDPI

- 101. Genes
- 102. Marine drugs
- 103. Food

IEEE

- 104. IEEE Journal of Biomedical and Health Informatics

Mary Ann Liebert, Inc.

- 105. Microbial Drug Resistance
- 106. Foodborne Pathogens and Disease

Future Science Group

- 107. Nanomedicine

Bentham Science

- 108. Combinatorial Chemistry & High Throughput Screening
- 109. Letters in Drug Design & Discovery
- 110. Current Enzyme Inhibition
- 111. Current Bioactive Compounds
- 112. Infectious Disorders - Drug Targets
- 113. The Open Conference Proceeding Journal

Dove Medical Press

- 114. Infection and Drug Resistance
- 115. Drug Design, Development and Therapy

DeGruyter

- 116. Journal of Integrative Bioinformatics
- 117. Turkish Journal of Biochemistry
- 118. e-Polymers
- 119. Journal of Basic and Clinical Physiology and Pharmacology

Karger

120. Journal of Innate Immunity

Thieme

121. Planta Medica

Hindawi

87. International Journal of Microbiology

88. Evidence-Based Complementary and Alternative Medicine

89. BioMed Research International

Indian Council of Medical Research

122. Indian Journal of Medical Research

123. Experimental and Therapeutic Medicine

Spandidos Publications

124. Molecular Medicine Reports

125. Oncology Reports

126. Oncology Letters

Inderscience

127. International Journal of Bioinformatics Research and Applications

Other Publishers

128. Journal of the Brazilian Chemical Society

129. SYDOWIA - An International Journal of Mycology

130. Expert Opinion on Environmental Biology (International Publisher of Science, Technology and Medicine)

131. Family Medicine and Community Health

132. American Journal of Food Science and Nutrition

133. Journal of Microbial & Biochemical Technology (Omics Group)

134. Journal of Microbiology, Biotechnology and Food Sciences

135. Journal of Biophysics and Structural Biology (Academic journals)

136. African Journal of Food Science (Academic journals)

137. African Journal of Microbiology Research (Academic journals)

138. African Journal of Agricultural Research (Academic journals)

139. Microbiology Indonesia

140. Bioinformation

141. Journal of Natural Science, Biology and Medicine

Scientific/ academic meetings

- ❖ Grantee, EMBO-EMBL Symposium-New Approaches and Concepts in Microbiology (2021)
- ❖ Grantee, World Microbe Forum, Jointly Organized by ASM and FEMS (2021)
- ❖ Resource Person, 61th Annual Meeting of Association of Microbiologist of India (2021).
- ❖ Grantee, 8th Congress of European Microbiologists-FEMS2019.
- ❖ Delegate, 59th Annual Meeting of Association of Microbiologist of India (2018).
- ❖ Awardee, 4th Contemporary Academic Meet-VAM 2018-VIFA 2018
- ❖ Delegate, 58th Annual Meeting of Association of Microbiologist of India (2017).

- ❖ Young Scientist Awardee, 57th Annual Meeting of Association of Microbiologist of India (2016).
- ❖ Faculty coordinator, 39th SPP Program, Karnataka State Council for Science and Technology (2016).
- ❖ Delegate, 17th International Symposium of International Society for Infectious Disease (2015).
- ❖ Delegate, 56th Annual Meeting of Association of Microbiologist of India (2015).
- ❖ Invited delegate, CoE Biomolecular interaction meeting (2015).
- ❖ Invited delegate, ASM Culture Responsibility Workshop (2014).
- ❖ Staff coordinator, 37th SPP Programm, Karnataka State Council for Science and Technology (2014).
- ❖ Delegate, 55th Annual Meeting of Association of Microbiologist of India (2014).
- ❖ Delegate, 54th Annual Meeting of Association of Microbiologist of India (2013).
- ❖ Delegate, 38th Annual Meeting of Environmental Mutagen Society of India (2013).
- ❖ Delegate, 53rd Annual Meeting of Association of Microbiologist of India (2012).
- ❖ Delegate, Workshop on Finalization of the Syllabus for M. Tech in Bioinformatics and Biotechnology of VTU for the year 2012-13 held at Department of Biotechnology, RV College of Engineering, Bangalore (2012).
- ❖ Delegate, Workshop on Finalization of the Syllabus for BE in Biotechnology of VTU for the year 2010-13 held at Department of Biotechnology, Dayananda Sagar College of Engineering, Bangalore (2010)
- ❖ Delegate, Syllabus discussion workshop on Bioinformatics for BE Biotechnology of VTU, Belgaum, held at CMRIT Institute of Technology, Bangalore (2009).

Teaching: Subjects handled

1. Graduate Level: BE and B. Sc

- ❖ *Theory*: Microbiology, Microbial diversity, Molecular biology, Cell biology & Genetics, Structural biology, Biochemistry, Microbial biotechnology, Environmental Microbiology, Food Biotechnology, Bioinformatics, Gene chip and microarray technology, Genetic engineering, Genomics and proteomics, Protein engineering and *in silico* drug design, Gene chip and micro array technology and Biophysics and computer applications, Research Methodology, Biosafety and Bioethics, Molecular modeling and drug discovery
- ❖ *Practical*: Microbiology lab, Cell & Molecular biology lab and Bioinformatics lab, Genetic Engg & Immunotechnology Lab

2. Post Graduate level: M. Tech & M. Sc

- ❖ *Theory*: Bioinformatics and Computational Biology, Molecular modeling and Computer aided drug discovery, Chemoinformatic, Genomics and Proteomics, Systems Biology, Research methodology & IPR
- ❖ *Practical*: Computational Biology, Molecular modeling and computer aided drug discovery

Number of Projects Guided

- ❖ Post graduate level (M. Tech) : 12
- ❖ Graduate level (B. E/B.Sc) : 60

Research Guide ship- PhD/M. Sc (Engg. Res.)

- ❖ Visvesvaraya Technological University, Belagavi (RSRI: VTU081783) (2017-present)
Number of students: 02

Session chair/moderator in Conferences and Symposium (National/International)

- ❖ **Session moderator** on day third session 3 in the AICTE ATAL sponsored online Faculty development program on "Recent developments in sustainable processes" organized by Indian Institute of Carpet Technology, Bhadohi from 31 May to 4 June 2021.
- ❖ **Session chair** for the oral presentations on themes-Cancer Biology in the National Virtual Conference on Recent Breakthroughs in Biotechnology (NCRBB-2021)' organized by Organized by Department of Human Genetics and Molecular Biology Bharathiar University, Coimbatore, Tamil Nadu in association with Society for Biotechnologists (India) during January 22 and 23, 2021.
- ❖ **Session chair.** AMI-INSCR Innovative Research (Students/Scholars). 61th Annual International Conference of the Association of Microbiologists of India (AMI) & Indian Network for Soil Contamination Research (INSCR) in Association with The Energy and Resources Institute (TERI), University of Delhi (DU), Indian Agricultural research Institute (IARI) and Indian National Science Academy (INSA): Microbial World: Recent Development in Health, Agriculture and Environmental Sciences. 05 February 2021.

FDPs/Refresher Courses/ Orientation program/ Workshops/ Entrepreneurship training programs

- ❖ **Delegate:** UGC sponsored Refresher Course in Life Sciences (ID) on "Recent advance in Life Sciences" conducted by the UGC – Human Resource Development Centre (HRDC), Madurai Kamaraj University, Madurai, TN. 17- 30 March 2023 (14 Days).
- ❖ **Delegate:** Hands on Training on Learning Management System (Moodle) Institution Level Cluster Programme under Let's Go Digital initiative of the Government of Kerala organized by Kerala State Higher Education Council in association with the Digital University of Kerala. 11-17 May 2022.
- ❖ **Delegate:** Four Week Induction/ Orientation program for Faculty in University/ Colleges/ Institute of Higher Education, organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Govt. of India from 19 July 2021-17 August 2021.
- ❖ **Delegate:** All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy Online FDP on "Genome Engineering for Environment" from 23 August 2021 to 27 August 2021 at Indian Institute of Technology Guwahati, India.
- ❖ **Delegate:** All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy Online FDP on " Technological advancement and manufacturing of Biosimilars for Cancer therapy: Present hurdles and Future prospects" from 21 June 2021 to 25 June 2021 at National Institute of Pharmaceutical Education and Research, Hajipur, Bihar, India
- ❖ **Delegate:** All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy Online FDP on " Recent developments in Sustainable Processes-Green Technology & Sustainability Engineering" from 31 May 2021 to 04 June 2021 at Indian Institute of Carpet Technology, Bhadoda, UP, India
- ❖ **Delegate:** Science Academies Science Leadership Workshop, India's First Science Leadership Program organized by Central University of Punjab, Bathinda, India in association with Indian

National Science Academy (INSA), Indian Academy of Sciences (IAS), National Academy of Sciences (NAS) from 22-28 June 2020.

- ❖ **Delegate:** All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy Online FDP on "Data Sciences" from 11 to 15 May 2020 at National Institute of Technology Nagaland, India
- ❖ **Delegate:** Work shop on "Art of Publication and Communication" Jointly Organized by International Society for Microbial Ecology (ISME) and Association of Microbiologists of India (AMI) on 11 December 2018 at University of Hyderabad.
- ❖ **Special invitee:** 4th Contemporary Academic Meet and Vinus International Faculty Awards-2018 organized by the Centre For Advanced Research and Design, Vinus International Foundation, Chennai on 07 July 2018.
- ❖ **Delegate:** Seven Days Faculty Development Programme on "Recent Advances in Nanotechnology for Sustainable World-2018" Jointly Organized by Department of Biotechnology Dayananda Sagar College of Engineering, School of Basic and Applied Sciences, Dayananda Sagar University, Centre for Incubation, Innovation, Research & Consultancy, Jyothy Institute of Technology, Association of Microbiologists of India (AMI), Bengaluru Chapter, from 19 to 26 June 2018.
- ❖ **Selected Delegate:** CoE Workshop on biomolecular interactions. Jointly Organized by NCBS, IISc. & DBT, Govt. of India at National Centre for Biological Sciences, Bangalore. November 25-28, 2015.
- ❖ **National trainer** (ASM culture responsibility): Selected as invited delegate to participate "Train the Trainers" workshop on ASM's new training series on "Culture of Responsibility." Organized American Society for Microbiology (ASM), in collaboration with Jawaharlal Nehru University (JNU) and Society for Biosafety, October 13-14, 2014.
- ❖ **Delegate:** ASM special workshop on "Art of science communication", 55th AMI Annual conference, TNAU, Coimbatore, India, 13th November 2014.
- ❖ **Delegate:** ASM special workshop on "Scientific writing and publishing", 53rd Annual conference, KIIT University, Bhubaneswar, India, 22nd November, 2012.
- ❖ **Delegate:** UGC sponsored workshop for teachers "Promotion of ethics and human values" and completed the certificate course "Value based dynamic parenting". November 2005 to March 2007.
- ❖ **Delegate:** UGC sponsored workshop for teachers "Promotion of ethics and human values" and completed the certificate course "Development of human values". November 2005 to March 2007.
- ❖ **Delegate:** Two-day workshop on "Research methodologies and latex" Organized by Visvesvaraya Technology University, Belgaum, 05 & 06 August 2011.
- ❖ **Delegate:** National workshop on "Chromatographic techniques" Organized by Amrita Institute of Medical Science & Research Centre, Cochin. 08-09 September 2005.
- ❖ **Delegate:** National seminar/workshop on "recent trends in industrial Biotechnology" conducted by Vivekananda College of Engineering for women, Trichencode from 14-15 February 2005.
- ❖ **Diploma:** Completed a diploma in MS Office from Bharathiar University, Coimbatore with first class (2004-05).

E- content development

- Developed E content for a Two Week Online Short-Term Course on " Emerging Infectious Diseases" organized by Sree Narayana College, Kannur in collaboration with Kerala State Council for Science Technology and Environment, Trivandrum from 17 to 30 October 2020.
- **Content reviewer:** Bioinformatics, E-content development, Educational Multimedia Research Centre (EMMRC), University of Calicut, Kerala.

Invited talks as resource person

1. **Chief Guest and Plenary Speaker:** Department of Biotechnology (DBT), Govt of India sponsored Star College Scheme program at Department of Biotechnology, Kongu Arts and Science College, Erode (Autonomous Institution affiliated to Bharathiar University, Coimbatore), Tamil Nadu. Talk Title: Bioinformatics Based Approaches for Discovering Novel Drugs Against Emerging Infectious Diseases. 03 August 2023.
2. **Invited Speaker.** First National Conference of Microbiologists Society of India (MBSI) on "Biotechnology for Better Tomorrow" 22-24 January 2023. Organized by MBSI & Department of Microbiology, Shri Sachhidanand Shikshan Santha's Taywade College, Mahadula- Koradi, Nagpur. Topic: Computational medicinal chemistry and virtual screening aided approaches of discovering potential molecular targets and natural lead molecules towards multidrug resistant *Pseudomonas aeruginosa*. 21-24 January 2023.
3. **Invited Speaker.** Gifted Children Program 2022-23 of the General Education, Govt. of Kerala. Title: nurturing the future career in post Covid era- Scope of microbial aided interdisciplinary sciences. Organized by the Education District of Kannur, Kerala. 19 November 2022.
4. **Invited speaker.** 7th Annual International Conference of Indian Network for Soil Contamination Research (INSCR): Modulating the environment with microbes organized by INSCR and Phixgen Pvt. Ltd, Gurugram. Title: Computational modelling and virtual screening decipher that response regulator GacA and transcriptional activator RhIR proteins of biofilm associated *Pseudomonas aeruginosa* are prospective molecular targets for natural lead molecules. 08-14 November 2022.
5. **Invited speaker.** Two Day National Seminar on Challenges of Emergent and Resurgent Infectious Diseases in a Changing World. Jointly organized by Department of Microbiology, Sree Narayana College, Kannur and Kerala State Council for Science - Technology and Environment, Govt. of Kerala. Topic: Computational Biology and Data Science Driven Approaches for New Generation Drug Discovery Towards Emerging and Re-emerging Infectious Diseases. 13-14 October 2021
6. **Lead invited speaker.** 62nd Annual meeting and International Conference of Association of Microbiologists of India Organized by University of Mysore in association with CSIR-CFTRI, DRDO-DFRL, KSTA and JSS AHER, Mysuru. Topic: Computational discovery of prospective molecular targets and potential natural lead molecules against multidrug resistant *Acinetobacter baumannii*. 21-23 September 2022.
7. **Invited speaker.** Two-day seminar on Emerging trends in Computational Biology and Bioinformatics organized by Department of Biotechnology, Sir Visvesvaraya Institute of Technology, Bangalore. Topic: Bioinformatics and Computer Aided Drug Discovery: Cutting Edge Perspectives in Post Pandemic Era. 01 July 2022.
8. **Invited speaker.** National Webinar on World Malaria Day. Jointly organized by Microbiologists Society, India, Jharkhand Unit and St. Xavier's College, Ranchi, Jharkhand. Topic: Scope of Computational Biology and Omics Sciences for the Discovery of Novel Antimalarial Agents. 25 April 2022.

9. **Invited speaker.** Ten-Day Hands-on Training on Advanced Molecular Docking. Jointly organized by SIAS Research Forum, Calicut University and The Directorate of Research, SAFI Institute of Advanced Study, Vazhayur, Kerala. Topic: Scope of Molecular Docking in Drug Design on 18th October 2021, Ligand Protein Docking with AutoDock Software on 19 October 2021, Ligand Protein Docking with AutoDock Vina Software on 24 October 2021.
10. **Invited speaker.** Third Refresher Course in Biotechnology-16-29 September 2021.UGC-Human Resource Development Centre, University of Calicut. Applications of Bioinformatics in Biotechnology.17 September 2021.
11. **Invited speaker.** International Webinar on Clinical Microbiology and Infectious Diseases “Modern research and technologies of microbiology. Organized by Logdom Publishers, Belgium. Natural molecules are plausible therapeutic leads to the major protein targets of SARS-CoV-2: Insights from computational modelling and molecular dynamic simulation studies. 29 June 2021.
12. **Invited speaker.** Two Days Online Webinar on Recent Trends in Plant Sciences. Organized by Department of Studies in Botany, Davangere University. Discovery of potential molecular targets and promising lead molecules towards SARS-CoV-2: prioritizing the scope of computational biology and chemoinformatics resources. 26-27 June 2021.
13. **Invited Speaker.** 61th Annual International Conference of the Association of Microbiologists of India (AMI) & Indian Network for Soil Contamination Research (INSCR) in Association with The Energy and Resources Institute (TERI), University of Delhi (DU), Indian Agricultural research Institute (IARI) and Indian National Science Academy (INSA): Microbial World: Recent Development in Health, Agriculture and Environmental Sciences. Computer Assisted Virtual Screening of Potential Therapeutic Targets and Putative Lead Molecules for SARS CoV-2: Insight for COVID19 lead discovery. 04 February 2021.
14. **Invited Speaker.** Special Lecture Under Star College Scheme, Department of Biotechnology, Govt. India. Department of Biotechnology, RVS College of Arts and Science, Coimbatore. Molecular modeling and computer assisted screening of potential lead candidates against SARS-CoV-2: Insights for COVID-19 drug discovery. 17 December 2020.
15. **Invited Speaker.** Five Day Faculty Development Program (Virtual) on Trends in Computational Biology. Computer Assisted Virtual Screening of Potential Therapeutic Targets of SARS CoV-2: Screening of Putative Lead Molecules Against COVID19. Department of Biotechnology, Sapthagiri College of Engineering, Bangalore. 12 December 2020.
16. **Invited Speaker.** National Webinar Series COVID 19 - What you need to know. Organized by the Department of Microbiology, Sree Narayana College, Kannur, Kerala in association with IQAC. 19 September 2020. Topic: Computational Virtual Screening of Potential Drug Targets of SARS CoV-2: Insight for Therapeutic Developments against COVID19.
17. **Invited Speaker.** Antibiotics 2020: 2nd International Webinar on Antibiotics and Antimicrobial Resistance. Theme: Antibiotics: Use Wisely; Take Precisely. Meetings International. 30 August, 2020. Topic: Computational aided virtual screening of natural epiesteriol as probable lead molecules towards prospective targets of multidrug resistant *Acinetobacter baumannii*.
18. **Invited Speaker.** Young Science Leader Series. Organized by Dr. Felix Bast, Associate Professor, Department of Botany, Central University of Punjab, Bathinda, Punjab. 11 July 2020. Topic: My journey as teacher, researcher and science communicator.
19. **Invited Speaker.** Webinar organized by Department of Microbiology, in collaboration with IQAC, Gurudev Arts and Science College, Mathil, Payyanur, Kerala. 17 July 2020. Topic: Scope of molecular modeling and computational drug discovery in the era of COVID-19.
20. **Invited Speaker.** One Week Live Webinar Series of International E-Conference in Plant Sciences. Organized by Department of Studies in Botany, Davangere University, Karnataka, in

association with Ciencias Agrogenómicas, León-Universidad Nacional Autónoma De México, León, Guanajuato, México. 25-30 May 2020. Topic: Deciphering the relevance of computer-aided drug discovery: Prediction of three-dimensional structures and folding patterns of molecular drug targets.

21. **Invited Speaker.** FEMS 2019. 8th Congress of European Microbiologists. Organized by Federation of European Microbiological Society. Glasgow, Scotland, UK. 07-11 July 2019. Topic: Computational modeling, molecular dynamic simulation and *in vitro* studies suggested that natural epiesteriol is a potential inhibitor against Omp38, RecA, PyrE and PyrF targets of multi-drug resistant *Acinetobacter baumannii*.
22. **Invited speaker.** DBT-HRD sponsored training programme on synthetic and molecular approaches for crop improvement. Department of Biotechnology. University of Agricultural Sciences, GKVK Campus, Bangalore-560 065. 11-16 March 2019. Topic: Computer aided molecular modeling: prediction of three-dimensional structures and folding patterns of protein targets.
23. **Invited speaker.** National Conference on Recent Trends in Microbiology, Department of Life Sciences, University of Calicut, Kerala. 26-27 September 2017. Topic: Curtailing antimicrobial resistance by molecular modeling and computer aided lead discovery: A paradigm shift in Medical Microbiology.
24. **Invited speaker.** DBT Sponsored National Workshop in Chemoinformatics- *In silico* Craft Innovation. Bioinformatics infrastructure Facility (BIF), Department of Biotechnology, Calicut University, Kerala, 6-8 December 2016. Topic: Molecular modeling and macromolecular docking- new insights for cheminformatics analysis.
25. **Young Scientist Award Presentation** (Medical & Veterinary Microbiology). 57th Annual conference of Association of Microbiologist of India (AMI) and International Symposium on Microbes and Biosphere; what is new what is next" held on 24-27 November 2016 at Guwahatti University, Guwahatti, Assam. Topic: Antibiotic resistance patterns of the fecal coliforms in fresh water ecosystem and screening of novel herbal lead molecules against probable drug targets of MDR pathogens by computational virtual screening.
26. **Invited speaker.** Training program to Bioinformatics (09-12 August 2016). School of Applied Animal Production and Biotechnology, College of Veterinary and Animal Sciences, Kerala Veterinary and Animal University, Mannuthy, Thrissur, Kerala, 10 August 2016. Topic: Molecular modeling in drug designing.
27. **Invited speaker under Young Scientist category.** 56th Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on "Emerging Discoveries in Microbiology". School of Life Science, Jawaharlal Nehru University, New Delhi, 7-10 December 2015. Topic: Environmental monitoring of antibiotic resistance patterns of the fecal coliforms isolated from Cauvery River, major drinking water source in Karnataka, India and screening of novel herbal lead molecules against probable drug targets of MDR pathogens by computational virtual screening.
28. **Invited speaker.** DBT Sponsored workshop on Bioinformatics Tools & Applications, Organized by Department of Biotechnology, University of Calicut. 18-19 February 2015. Topic: Phylogenetic analysis-The phylome: Evolutionary foundations of Bioinformatics.
29. **Invited speaker.** ICAR Winter School: 2015. Bioinformatics Centre (DIC), Kerala Agricultural University, Thrissur, Kerala, 15 January 2015. Topic: Molecular modeling and its emerging dimensions in agriculture.
30. **Invited speaker.** UGC sponsored national workshop on recent trends in Bioinformatics. Organized by Department of Microbiology and Biochemistry, Pazhassiraja College Pulpally, Wayanad, Kerala. 15-17 December 2014. Topic: Phylogenetic analysis and primer design.

31. **Invited speaker:** Two-day seminar cum workshop on computational biology applications. Sponsored by DBT, jointly organized by Maharani Lakshmi Ammanni College for women, Bangalore and forum for excellence in education, Bangalore. February 14 & 15, 2014. Topic: Prevalence of multidrug resistant bacteria in river Cauvery and computational virtual screening for natural inhibitors against MDR genes.
32. **Plenary speaker:** TM's 3rd world drug discovery online conference. Organized by GD Target Meeting: A leading online life science conference organizer, October 15-17, 2013. Topic: Computer aided virtual screening and designing of novel therapeutic leads against virulent targets of multi-drug resistant bacterial isolates.
33. **Invited speaker:** UGC sponsored national seminar on Bioinformatics: Applications in modern Science. Jointly organized by Department of Zoology, Mercy College, Palakkad, Kerala & Bioinformatics centre, Kerala Agricultural University, Kerala. 26 September 2013. Topic: Exploration of Structural insights towards functional studies of biomolecules- Emerging trends and future perspectives.
34. **Subject expert:** Food Biotechnology, Edusat Programme, Visveswarya Technological University, Belgaum, India
35. **Invited speaker:** UGC sponsored national seminar on Bioinformatics- Current trends in Bioinformatics. 08-09 August 2012, Organized by Educational Multimedia Research Centre, University of Calicut. Topic: Structure prediction.
36. **Invited speaker:** UGC sponsored national workshop on current trends in Bioinformatics. 09-10 August 2012, Organized by Educational Multimedia Research Centre, University of Calicut. Topic: Computer aided modeling and simulation.
37. **Invited speaker:** Inauguration of association of Microbiology, St. Pius X College Rajapuram, Kasaragod, Kerala. 25 October 2011. Topic: Emerging trends in protein engineering and application.

Member, organizing committee in National and International conferences

- **Organizing committee member:** UGC sponsored national seminar on “quality management systems and HACCP for food industries” organized by Dept. of Microbiology, St. Pius X College Rajapuram from 26-27 July 2000.
- **Organizing committee member:** National Conference on Genomics, proteomics and system biology” held at Indian Institute of Science, jointly organized by DSCE & Sir MVIT, Bangalore from 01-03 September 2008.
- **Organizing committee member:** Symposium on emerging trends in nanobioscience and workshop on nanoscience and engineering, Dayananda Sagar Institutions, Bangalore. 19- 20 November, 2009.
- **Organizing committee member:** International conference on frontiers in carcinogenesis and cancer prevention: Scientific advances and public health initiatives, Jointly organized by Carcinogenesis Foundation of USA and Dayananda Sagar College of Engineering, Bangalore, India. 16 – 18 February 2011.
- **Organizing committee member:** 5th Annual KSTA Conference-2012, State level conference on “Science and technology for societal transformation” Jointly organized by Karnataka Science and Technology Academy and Dayananda Sagar Institutions, 19-20 December 2012.
- **Organizing committee member:** One day Symposium on Advances in Microbiology for Human Welfare, Organized by AMI Bangalore chapter, DSI, 15 May 2013
- **Organizing committee member:** National Conference on “Utilization of Bio-diversity for Value Added Products: Food, Pharma, Nutraceuticals and Biofuels (NCUBD – 2015)”.

Organized by Dept. of Biotechnology, Chemical Engineering & Chemistry. 25 & 26 September 2015.

- **Joint Organizing Secretary:** Seven Days Faculty Development Programme on “Recent Advances in Nanotechnology for Sustainable World-2018” Jointly Organized by Department of Biotechnology Dayananda Sagar College of Engineering, School of Basic and Applied Sciences, Dayananda Sagar University, Centre for Incubation, Innovation, Research & Consultancy, Jyothy Institute of Technology, Association of Microbiologists of India (AMI), Bengaluru Chapter, from 19 to 26 June 2018.
- **Organizing Secretary:** National Conference on Advances & Innovations in Biotechnology: Multidisciplinary Approaches to Food, Health, Environmental and Energy Issues & Annual meeting of Society for Biotechnologist (India). Jointly Organized by School of Basic and Applied Sciences, Dayananda Sagar University (DSU), Department of Biotechnology, Dayananda Sagar College of Engineering (DSCE), Bengaluru and Society for Biotechnologist (India) (SBT (I)). Bangalore. 15 & 16 November 2018.
- **Organizing Secretary:** Five Days Faculty Development Programme on “Food and Fermentation Engineering” jointly Organized by Department of Chemical Engineering & Department of Biotechnology Dayananda Sagar College of Engineering, Bangalore from 05 to 09 August 2019.
- **Organizing secretary:** International Webinar on membrane transport biophysics in vitro to *in situ* investigations using electron spin resonance spectroscopy, Organized by Department of Microbiology, St. Pius X College, Rajapuram, 07 December 2020.
- **Organizing Committee Convenor:** ILLUMINISMO 2021-International Webinar Series on “The emerging trends in interdisciplinary sciences and social sciences”. Organized by St. Pius X College Rajapuram. 02-13 August 2021.
- **Organizing secretary:** Gracias Gurú – 2022: Two-day National Webinar on Emerging Trends and Frontiers in Applied Microbiology and Biotechnology jointly organized by the Department of Microbiology, St. Pius X College, Rajapuram, Kasaragod, Kerala and Microbiologists Society, India (MBSI). 10- 11 March 2022.

Scientific Professional Society

Association of Microbiologist of India -Bangalore Chapter (Headed by DSI, Bangalore)

- Took active role in the establishment of AMI Bangalore Chapter at DSI campus
- Periodically attended AMI Annual Conference sand Annual Meeting and represented DSCE and AMI Bangalore chapter (2012-2019)
- Executive Committee member (2012)
- Hon. Treasurer (2013-15)
- Hon. Secretary (2016- 2019)

Microbiologist Society, India (MSI) St. Pius X College, Rajapuram Unit)

- Initiated MBSI St. Pius X College unit (2022) and inducted 127 students’ members to MSI
- Faculty Coordinator MBSI chapter, St. Pius X College, Rajapuram
- State coordinator of MBSI, Kerala State (2020- till date)

Responsibilities undertaken (St. Pius X College, Rajapuram, Kasaragod, 2019- till date)

- Research committee coordinator, St. Pius X College, Rajapuram (2019- till date)
- Coordinator, Academic council, St. Pius X College, Rajapuram (2023-till date)
- Member, Academic council, St. Pius X College, Rajapuram (2019- 2023)
- Nodal officer, National Scholarship Scheme (2019- 2022)
- Fine arts advisor, St. Pius X College, Rajapuram (2019-2022)
- Class mentor (2020 admission undergraduates in Microbiology, St. Pius X College, Rajapuram)
- Member, NIRF accreditation committee, St. Pius X College, Rajapuram (2019-till date)
- Member, College website, St. Pius X College, Rajapuram (2019-till date)
- Member, PTA Executive committee, St. Pius X College, Rajapuram (2022-till date)

Responsibilities undertaken (Dayananda Sagar Institutions, Bangalore, 20098-2019)

PG Coordinator for M. Tech Bioinformatics

- Coordinated the PG activities in the dept (2015-2018)

Assistant Student Welfare Officer-DSI (2015- 2019)

- Periodic monitoring of the discipline in DSI hostels.

Member, Societies and Forum (2015-2019)

- Activities in the professional society of the college.

Department Website Coordinator (2015- 2017)

- **Responsibilities handled:** Maintaining the department website in a dynamic way with activities and periodic updates.

Department Proctor Coordinator (2011-2015; 2017- 2019)

- **Responsibilities handled:** Coordinated the mentoring/ proctorial activities in the department.

Program Coordinator-Short term Certificate Course in Computational Biology (2016)

- Conducted special hands-on training programs in computational Biology for the graduate students from Computer Science, Medical Electronics and Biotechnology, DSCE.

Department Alumni Coordinator (2010-2019)

Activities:

- Interacted with each alumnus from the department of Biotechnology (2010-2019) and to collect their suggestions and feedbacks about the vision, mission of the department and institutions
- Invited distinguished alumni and conducted exchange programs with third- and four-year students.
- Suggested the students for the internships/training programs/project works with the supports from the alumni

NAAC

- Actively participated in the NAAC and NBA activities in the college and department as per the directions from eth superiors.
- **Coordinator—Criteria-1**

NBA

- **Criteria Coordinator** (Criteria-3)
- **Module coordinator & Course Coordinator**

ISO & IQAC

- Faculty coordinator from the Department of Biotechnology

Coordinator (NPTEL, Online Courses)

- Encouraged the undergraduate students to enroll various online courses offer by National Programme on Technology Enhanced Learning (NPTEL, by Indian Institute of Technology), Swayam MOOCs (AICTE) and MITx.
- Coordinated and documented the online courses undertaken by undergraduate students in BE biotechnology.

Faculty Editor-Department Magazine (2018 & 2019)

- Faculty editor in department magazine – (1) “Chaperons: Helpers to serve the Society” released during the National Science Day, February 2018 (2) “Biohrome: A powerful challenge towards colourful inventions, released during the National Science Day, February 2019

BOS Member (DSCE Autonomous, Department of BT)

- Took lead role for the framing of the Syllabus for BE (Biotechnology) and M. Tech (Bioinformatics) by collecting the feedback from eth stake holders

NIRF Coordinator (Department of BT, DSCE Autonomous) (2018-2019)

- Coordinated the activities of Department of Biotechnology for NIRF ranking of DSCE

Other responsibilities undertaken

- Project coordinator (VII) Sem) (2014 & 2015)
- Seminar coordinator (VIII Sem) (2013, 2014, 2017, 2019)
- Time table coordinator (2013)
- Test coordinator (2011-13)
- Class teacher/Coordinator (2008-present in all the semester)
- Faculty Coordinator: Science Day (2018, 2019)

Co-curricular activities

National Service Scheme (NSS)

- ❖ **NSS State award-** Unit secretary, best NSS unit award from Govt. of Kerala (2003).
- ❖ Joined and served as an active NSS volunteer in St. Pius College Rajapuram (Unit No. 36 & 37) under the NSS cell, Kannur University, Kerala (2001 to 2003).
- ❖ National integration camp for NSS volunteers, Mangalore University (2002)

- ❖ Cultural Exchange for National Integration for, SDM College, Ujire, Mangalore University (2002).
- ❖ Three University leadership training camps for NSS volunteers, Kannur University (2001 – 2003)
- ❖ Three Ten-day special camping program for NSS volunteers (2001 – 2003).

Other activities

- ❖ **Secretary**-Alumni association, St. Pius X College Rajapuram, Kasaragod, Kerala (2009).
- ❖ **Editor in chief**- "*Blossomed ten years*"- Decennial souvenir of St. Pius X College Rajapuram, Kasargod, Kerala (2007).
- ❖ **Fine arts club secretary**- College Union, St. Pius X College Rajapuram, Kasaragod Kerala (2003).
- ❖ **Editor in chief**- "*Dhwani*" - Department magazine, Dept. of Microbiology, St. Pius X College Rajapuram, Kasaragod Kerala (2002).
- ❖ **Editor in chief**- "*Haritham*"-NSS Annual magazine, National Service Scheme, St. Pius X College Rajapuram, Kasaragod Kerala (2003).

Personal Profile

Permanent address : Vattakudiyil (House)
Panathady (P.O), Cherupanathady
Rajapuram (Via)
Kasaragod (Dist)
Kerala – 671532

Name of the father : Mr. V.V Skariyachan

Sex : Male

Marital status : Married

Nationality : Indian

Date of birth : 29-06-1982

Languages known : English, Hindi, Malayalam, Kannada and Tamil

References

Prof. Edward John Ciaccio, PhD

Former Editor-in-chief Computers in Biology & Medicine (Elsevier),
Present Editor-in-chief Informatics of Medicine Unlocked (Elsevier)
Department of Medicine - Division of Cardiology
Columbia University, NY, USA
E-mail: edwardciaccio@gmail.com, ciaccio@columbia.edu

Dr. N. Rajeswari, PhD

Professor & Head
Department of Biotechnology, Dayananda Sagar College of Engg., Bangalore, Karnataka
Email: rajeswari-bt@dayanandasagar.edu, nraja7@gmail.com, Ph: +91 9480648300

Declaration

I hereby declare that the above furnished details are true to the best of my knowledge and belief.

20^h Aug, 2023

(Sinosh Skariyachan, PhD)