

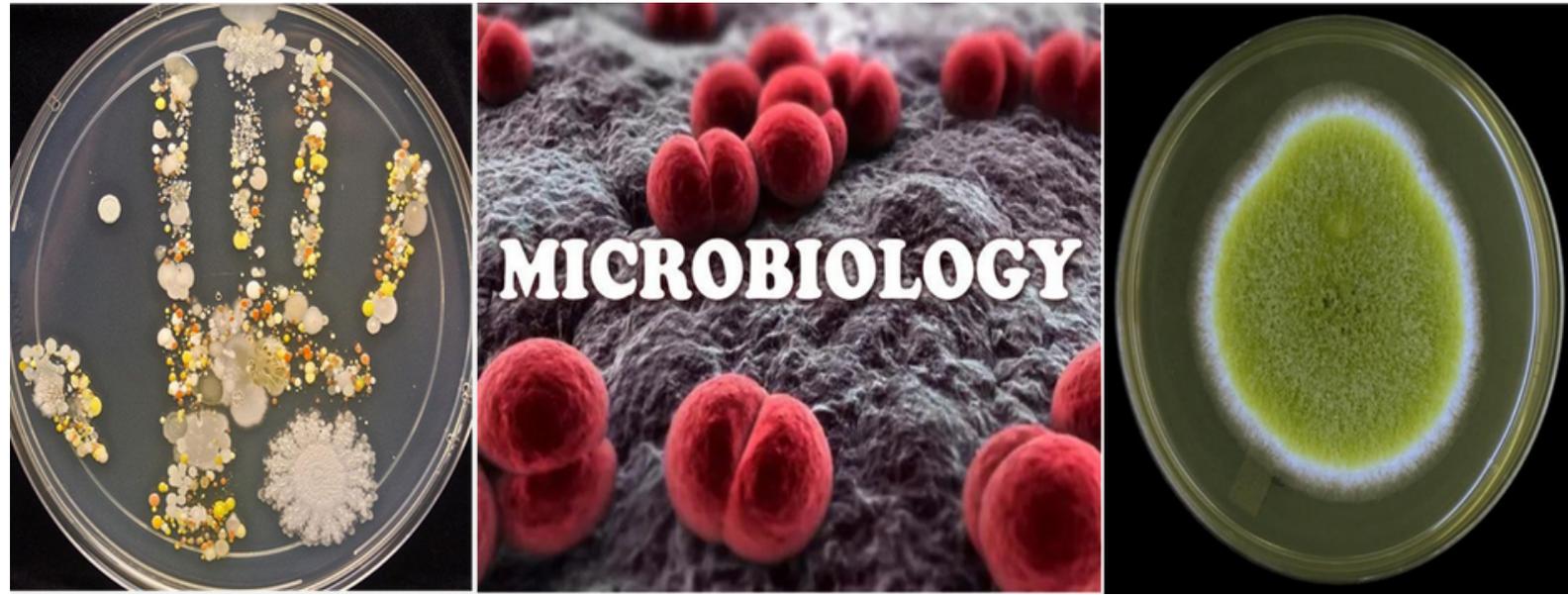


MICROBIOLOGY INSIGHTS

Department of Microbiology, MSR College of Arts, Science and Commerce, Gate Number: 8, MSR Nagar, MSRT Post, Bangalore-54

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Dr. Manikandan A

Dr. Bhanupriya CH

DR. Nimitha Venugopal C

Dr. Akshata G Athreya

Vision of the Department

To Prepare Men and Women For the Service of the Country

Mission of the Department

Ramaiah College of Arts, Science and Commerce shall deliver global quality educations by nurturing a conducive learning environment for a better tomorrow through continuous improvement and customization

Objectives of the Department

- To Provide Skill based Scientific and Technical Knowledge to Students.
- To Train Students in the Field of Microbiology, Provide Value-based Education with Innovative Research.
- To Undertake Research Activities Relevant to Present Day Needs.

ABOUT THE DEPARTMENT



The Department of Microbiology was established in 1999, offers a wide range of undergraduate and postgraduate courses, ensuring comprehensive education and research opportunities in this field. The department boasts a faculty of highly qualified experts who bring with them vast experience and expertise in various domains of Microbiology. Their commitment to teaching and research is reflected in their active involvement in cutting-edge research projects and their contributions to scientific publications and conferences. The department is equipped with state-of-the-art infrastructural facilities, including modern laboratories and research equipment, creating an ideal environment for teaching, experimentation, and innovation. Additionally, the department maintains strong collaborations with industry partners, providing students with valuable industry exposure and internship opportunities. The emphasis on research, professional development workshops, and a collaborative atmosphere nurtures the overall growth of students, preparing them for successful careers in academia, research, or the industry.

VICE PRINCIPAL'S MESSAGE

Greetings from M.S. Ramaiah College of Arts, Science and Commerce, Bengaluru, an institution with excellence in the field of education. The college has a State-of-the-art infrastructure, with well-equipped laboratories and smart classrooms. We have dedicated experienced and well-qualified faculty members who give their best to curricular, co-curricular, and extra-curricular activities in the college.

To bridge the gap between industry and academia the college has collaborated with various industries, research institutes, and corporates to train and make the students industry ready. The syllabus prescribed by the university is enriched with add-on courses, workshops, training programs, additional practical, outreach activities, Industrial visits, and cutting-edge research, internships, soft skills training makes MSRCASC unique.



DR. PUSHPA H
VICE PRINCIPAL, MSRCASC

HOD'S MESSAGE

"I would like to highlight that our theory and practical classes place a strong emphasis on problem-based learning, ensuring that students gain knowledge that holds utility value and can be applied in real-life scenarios, keeping them updated with the latest developments in the field. Moreover, the department is actively engaged in research projects in the major thrust areas of microbiology, and we have successfully secured funds from various agencies to support our research endeavors.

I take great pride in our dedicated faculty, who not only conduct multidisciplinary research programs but also foster a culture of research among our students. We encourage them to undertake in-house research projects, present papers and publish their research work. Additionally, we encourage students to actively participate in co-curricular and extra-curricular activities, creating a well-rounded and enriched learning experience for all".



DR. PRASANNA SRINIVAS
HOD MSRCASC

FACULTY MEMBERS

Dr. Pushpa H

Professor and Vice Principal

Qualification: M.Sc, M.Phil, Ph.D

Area of Specialisation: Mycology, Biodiversity, Bioremediation, Molecular taxonomy, Bioprospecting



Dr. Prasanna Srinivas

Assistant Professor and HOD

Qualification: M.Sc, M.Phil, Ph.D

Area of Specialisation: Medical Microbiology, Immunology and enzymology



Dr. Snehalatha V

Associate Professor

Qualification: Msc(Ag), Ph D, NET

Area of Specialisation: Agriculture Microbiology



Dr. Vemula Vani

Associate Professor

Qualification: M. Tech., PhD

Area of Specialisation: Drug Discovery



Mrs. Soumya Satyanand Shanbhag

Assistant Professor

Qualification: MSc Microbiology, SET, (Ph.D) VTU

Area of Specialisation:



Dr. Yogesh D

Assistant Professor

Qualification: M.Sc, Ph.D, CSIR-NET, ASRB-NET

Area of Specialisation: Microbiology



Dr. Juliya Rani Francis

Assistant Professor

Qualification: M. Sc., Ph. D.

Area of Specialisation: Microbial Ecology, Host-pathogen interaction



Dr. Ramesha A

Assistant Professor

Qualification: M.Sc., PhD., KSET

Area of Specialisation: Microbiology



Dr. Manikandan A

Assistant Professor

Qualification: MSc, M.Tech, Ph.D. Microbiology

Area of Specialisation: Drug discovery



Dr. Bhanupriya C.H

Assistant Professor

Qualification: MSc Microbiology, PhD

Plant Biotechnology, Indian Institute of Technology Kharagpur

Area of Specialisation: Plant Biotechnology



Dr. Nimita Venugopal C

Assistant Professor

Qualification: M.Sc., Ph.D

Microbiology

Area of Specialisation: Microbiology (Antimicrobial Resistance)



Dr. Akshata G Athreya

Assistant Professor

Qualification: M.Tech, Ph.D. Biotechnology

Area of Specialisation: Nanotechnology, Biotechnology, Microbiology



Mr. Vishal M

Assistant Professor

Qualification: MSc, Ph.D.

Area of Specialisation: Medical Microbiology, Enzymology, Phytochemistry



STUDENTS ACHIEVEMENTS

- Smruthi Bhat has achieved the remarkable accomplishment of securing the 2nd University Rank in B.Sc - MB/GEN/EC
- Anushka Banerjee has accomplished a significant milestone by securing the 3rd University Rank in B.Sc - MB/GEN/EC.
- Prakriti B has secured the 1st Rank in M.Sc - Microbiology.
- Dfeny Duming Lopes has achieved 2nd Rank in M.Sc - Microbiology.
- Guttina Sripriya Srinivahas achieved 3rd Rank in M.Sc - Microbiology.
- Ruchi Jhawar has secured 4th Rank in M.Sc - Microbiology.
- Syeda Nargis Mehdi has secured 5th Rank in M.Sc - Microbiology.
- Kalicharan H C K, has secured admission to the M.Sc Life Sciences Programme at the prestigious Indian Institute of Science, Bangalore.
- Shravya has secured admission to the M.Sc Life Sciences Programme at the prestigious Indian Institute of Science, Bangalore.
- Megha R has successfully completed the NPTEL online certification course offered by the Indian Institute of Technology Kharagpur. Her registration number for the course is NPTEL23CY30S33234208. The course was funded by the Ministry of Education, Government of India, and took place from January to April 2023.
- Pragna DS has successfully completed the NPTEL online certification course offered by the Indian Institute of Technology Kharagpur. Her registration number for the course is NPTEL23CY30S3323368 the course was funded by the Ministry of Education, Government of India, and took place from January to April 2023.

The Department of Microbiology, along with the staff and management of MS Ramaiah College of Arts, Science and Commerce extends heartfelt congratulations to all our achievers. We commend their hard work and dedication, and we wish them continued success in their future endeavors.



2ND UNIVERSITY RANK:
SMRUTHI BHAT
B.SC - MB/GEN/EC



3RD UNIVERSITY RANK:
ANUSHKA BANERJEE
B.SC - MB/GEN/EC



1ST UNIVERSITY RANK:
PRAKRITI.B
M.SC - MICROBIOLOGY



2ND UNIVERSITY RANK: DFENY DUMING
LOPES
M.SC - MICROBIOLOGY



3RD UNIVERSITY RANK:
GUTTINA SRIPRIYA SRINIVAS
M.SC - MICROBIOLOGY



4TH RANK
RUCHIJHAWAR
M.SC -MICROBIOLOGY



5TH RANK
SYEDANARGIS MEHDI
M.SC -MICROBIOLOGY

FACULTIES ACHIEVEMENTS

- Dr. Prasanna Srinivas.R has achieved a significant milestone by securing the second position in the Oral presentation category at the Society of Agriculture Research and Social Development's 5th International Conference held in New Delhi in 2022.
- Dr. Prasanna Srinivas.R has achieved a commendable accomplishment by securing the third position in the Oral presentation category at the International E-conference organized by the Microbiologists Society, India.
- A patent filed by Dr. Ramesha A and Dr. C. Srinivas in the Republic of South Africa showcases a method for the production and characterization of Oosporein from the endophytic fungus *Cochliobolus kusanoi*. The patent number is 2022/I3756, and you can access further details at <https://iponline.cipc.co.za/>
- Dr. CH Bhanupriya has successfully completed the NPTEL online certification course on "Enzymes Science and Technology" offered by the Indian Institute of Technology Kharagpur. Her registration number for the course is NPTEL23BT05S43232529 the course was funded by the Ministry of Education, Government of India, and took place from January to April 2023.

PUBLICATIONS

- We are pleased to feature Dr. Nimita Venugopal C's groundbreaking research article titled "Occurrence and Characterization of Genetic Determinants of Beta-lactam Resistance in E. coli clinical infections" in the prestigious journal Infection, Genetics and Evolution. The article, published with the ISSN I567-I348, showcases Dr. Venugopal's extensive work and contribution to understanding genetic mechanisms of antibiotic resistance. The article, with an impressive impact factor of 3.34, can be accessed at <https://doi.org/10.1016/j.meegid.2022.105257>. We applaud Dr. Nimita Venugopal C for this significant accomplishment and their valuable insights in the field of infection genetics and evolution.
- We are thrilled to showcase the remarkable research of Dr. Manikandan A in the esteemed journal Anticancer Agents in Medicinal Chemistry. Dr. Manikandan's article titled "Apoptosis inducing metabolite from marine mangrove actinobacteria VITGAPI73" presents groundbreaking findings in the field of anticancer agents. The article, published with the ISSN I87I-5206, holds a notable impact factor of 2.57 and can be accessed through the DOI: 10.2174/1871520622666220523155905. We commend Dr. Manikandan A for their significant contribution to the field of medicinal chemistry and their dedication to advancing our understanding of potential anticancer treatments derived from marine sources.
- We are proud to highlight the groundbreaking research of Dr. Nimita Venugopal C in the esteemed journal Pathogens. Dr. Venugopal's research article titled "Molecular Characterization of Methicillin-Resistant Staphylococci from the Dairy Value Chain in Two Indian States" presents valuable insights into the genetic makeup of methicillin-resistant staphylococci in the dairy industry. The article, published with the ISSN 2076-0817, boasts an impressive impact factor of 4.5 and can be accessed through the identifier pathogensI2020344. We commend Dr. Nimita Venugopal C for their significant contributions to the field of pathogens and their dedication to understanding and mitigating the spread of antibiotic resistance in the dairy value chain.
- We are excited to showcase the collaborative research efforts of Dr. Vemula Vani, Dr. Snehalatha V, Dr. Rachel Nishitha, Dr. Hima S, Dr. Arpitha B Hegde, and Dr. Manikandan Alagumuthu in the esteemed journal Current Computer-Aided Drug Design. Their research article titled "In silico analysis of natural inhibitors against HPV E6 protein" presents a comprehensive analysis of natural inhibitors targeting the HPV E6 protein. Published with the ISSN I573-4099, the article holds a notable impact factor of 1.6. To access the article, please visit <https://www.eurekaselect.com/article/I30I07>. We applaud the collaborative team for their valuable contributions to computational drug design and their efforts in identifying potential inhibitors for HPV-related diseases.

- We are proud to highlight the groundbreaking research of **Dr.Vemula Vani, Dr. Amarnath Satheesh Marudamuthu, Dr. Sanjay Prasad, Dr.Suman B M, Dr.Mamatha S E, Dr. Swathi A, Dr. Priyanka Seal, and Dr. Manikandan Alagumuthu** in the esteemed journal, Journal of Biomolecular Structure and Dynamics. Their research article titled "Fragment-based design and MD simulations of Human Papilloma Virus-I6 E6 protein inhibitors" presents innovative insights into potential inhibitors targeting the HPV E6 protein. The article, published with the ISSN I538-0254, boasts an impressive impact factor of 6.25. You can access the article through the following DOI: <https://doi.org/10.1080/07391102.2023.2203775>. We commend the researchers for their significant contributions to the field of biomolecular structure and dynamics and their dedication to advancing our understanding of potential therapeutic interventions against HPV.
- We are pleased to announce that **Dr. Prasanna Srinivas.R's** research article titled "Hydrothermal production, characterization, antibacterial activity, and humidity sensor application of cerium oxide nanoparticles" has been prominently featured in the prestigious SEYBOLD Report. This publication, holding the ISSN I533-9211, provides valuable insights into the hydrothermal synthesis and diverse applications of cerium oxide nanoparticles, including their antibacterial properties and humidity sensing capabilities. The article's notable SJR Index of 0.1 reflects its significant impact in the field. We congratulate Dr. Prasanna Srinivas.R for this remarkable achievement, highlighting their expertise and contribution to advancing knowledge in this area of research.
- We are delighted to highlight the research conducted by **Dr. Juliya Rani Francis**, which has been published in the esteemed International Journal of Tropical Insect Science. Dr. Francis's research focuses on exploring the phylogeny, chitinase activity, and pathogenicity of *Beauveria*, *Metarhizium*, and *Lecanicillium* species against Cowpea aphid (*Aphis craccivora* Koch), The International Journal of Tropical Insect Science, with an impact factor of 1.02, serves as a valuable platform for gaining insights into insect-pathogen interactions in tropical ecosystems. Dr. Juliya Rani Francis's research contributes significantly to our understanding of these interactions and their implications. We applaud Dr. Francis for her exceptional work and dedication to advancing knowledge in the field of tropical insect science.
- We are pleased to acknowledge the noteworthy contributions of **Dr. Manikandan A's** research across different journals. In the journal Computers in Biology and Medicine, Dr. Manikandan investigates the inhibitory effects of novel imidazolidines on the SARS-CoV-2 Spike B.I.I.529 protein through in silico analysis. This research, published with the ISSN 0010-4825, contributes to our understanding of potential therapeutic options against SARS-CoV-2. The journal itself holds an impressive impact factor of 6.7, highlighting its significance in the field. Furthermore, in the journal Chemical Biology & Drug Design, Dr. Manikandan presents the development of imidazolidine-based aspartate inhibitors as novel anti-candida agents. This research, published with the ISSN I747-0285, demonstrates Dr. Manikandan's innovative approach in combating candida infections. The journal's impact factor of 2.87 further attests to its influence in the field of chemical biology and drug design. We commend Dr. Manikandan A for these exceptional research contributions, which advance knowledge and hold significant implications for addressing critical healthcare challenges.
- We take pride in recognizing the research conducted by **Mrs. Soumya S Shanbhag**, which is published in the esteemed Journal of Mines, Metals and Fuels. Mrs. Shanbhag's research primarily revolves around investigating the bio-sorption potential of microorganisms in mitigating heavy metal lead contamination. This study offers valuable insights into bioremediation strategies for addressing the issue of heavy metal pollution. The Journal of Mines, Metals and Fuels, with the ISSN 0022-2755, serves as a significant platform for disseminating knowledge in this field. Its impact factor of 0.117 highlights its contribution to the scientific community. We applaud Mrs. Soumya S Shanbhag for her dedicated research efforts and her valuable contributions to the understanding of bioremediation strategies for heavy metal pollution.



State Level Best Department Award by Microbiologist Society, India.



Sukshmanika- Microbiologists Society of India, MSRCASC Student Unit

"OUR TEAM"

DR. PRASANNA SRINIVAS R

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As the department college newsletter comes to an end, we hope that this edition has provided valuable insights, updates, and highlights from our vibrant academic community. We extend our gratitude to the Management, all the contributors, faculty members, staff, and students who have made this newsletter possible.

We encourage everyone to stay engaged with the department's activities, upcoming events, and research endeavors. Let us continue to foster a culture of collaboration, innovation, and excellence in our pursuit of knowledge and academic growth.

We welcome your suggestions, feedback, and contributions for future editions of the newsletter. Together, let's celebrate our achievements, share our stories, and inspire one another to reach new heights.

Thank you for being a part of our dynamic department and we look forward to the next edition of the newsletter.

Best wishes,

Department of Microbiology,
Newsletter Team