## DEPARTMENT OF MICROBIOLOGY STUDENT ACTIVITIES 2020-2021

#### **Alumni Webinar Series**

The Departments of Microbiology, Hindusthan College of Arts and Science organized four day Alumni Webinar series from 18th May 2020 - 21th May 2020. The first day session entitled "A newly invented Vit A enriched Golden Rice" on 18th May 2020 between 5.00 PM -6.00 PM. Dr. Lali Growther, Professor and Head of Microbiology welcomed the participants and introduced the resource person and alumni of our department Ms. Varsha, Project Assistant Grade III, Microbial Processing and Technology Department, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum. She addressed the gathering with valuable notes and gave a detailed insight on the basic concepts and steps involved in rDNA technology. The second day session entitled "Agro waste utilization-Waste to Taste" on 19th May 2020 between 11.00 AM –12.00 PM. The resource person and alumni Dr. Ayyappan Palaniappan, Post Doctoral Fellow, Department of Consumer and Food Science, University of Pretoria, South Africa elaborated on food waste and by-products in food industry. The third day session entitled "Distribution of Kinorhyncha in South Andaman Islands" on 20<sup>th</sup> May 2020 between 2.00 PM -3.00 PM. The resource person and alumni Dr.C.Jeeva, Project fellow (MoEF&CC), Pondicherry University Port Blair Campus, A&N Islands elaborated on his research area on Kinorhyncha and its applications. The fourth day session entitled "Scope of Jobs in Food Industry" on 21st May 2020 between 11.00 AM -12.00 PM. The resource person and alumni Miss. Nancy, QA Executive Microbiologist, Casino air caterers and Flight services elaborated on job opportunities in the area of Food Microbiology. Nearly 40 participants attended all the sessions which includes our college Microbiology final year students.





## "Plant Genetic Engineering towards CRISPR Genome Editing"

The PG and Research Department of Microbiology, Hindusthan College of Arts and Science organized a Live Webinar on "Plant Genetic Engineering towards *CRISPR* Genome Editing" on 23<sup>rd</sup> June 2020 at 11.00 AM – 12.00 PM. Dr. Lali Growther, Professor and Head, Department of Microbiology welcomed the participants and introduced the alumni and guest of the day Dr. Navveenarani M, Research Scholar, Genetic Transformation Laboratory, Division of Crop Improvement, ICAR Sugar Breeding Institute, Coimbatore. The Chief Guest addressed the gathering with valuable notes on types of gene editing technology followed by CRISPR Genome Editing. Our students actively participated and attended the webinar. The session was very interactive and student's doubts were cleared as well.



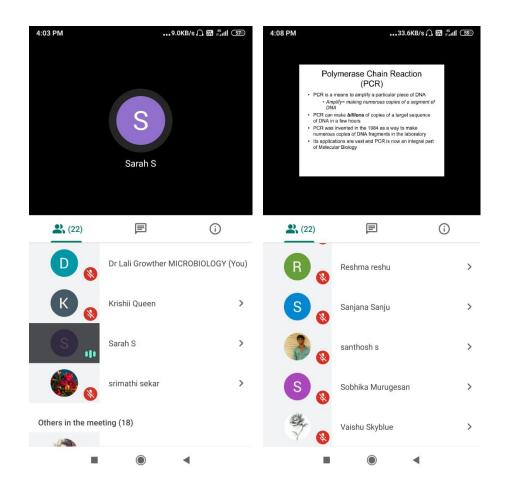
Webinar on "How to Read Scientific Literature and Introduction to MANAV The Human Atlas Initiative"

The PG and Research Department of Microbiology, Hindusthan College of Arts and Science organized a Live Webinar on "How to Read Scientific Literature and Introduction to Manav the Human Atlas Initiative" on 13<sup>th</sup> July 2020 at 02.30 PM. Dr. Lali Growther, Professor and Head of Microbiology welcomed the participants and introduced the Chief Guest Dr. Anupma Harshal W, Consultant, Science Communication and Public Engagement, Manav-Human Atlas Initiative, IISER, Pune. The Chief Guest addressed the gathering with valuable notes on how to read Scientific literature and gave detailed insight on Manav, Human Atlas Initiative. She shared two assessments link to the attended students on post webinar questionnaire and English proficiency test during the session. Our students actively participated and attended the assessment done under Manav and received e certificate. The session was very interactive and student's doubts were cleared as well. Nearly 105 participants attended the session.



Webinar on "Molecular Diagnostics"

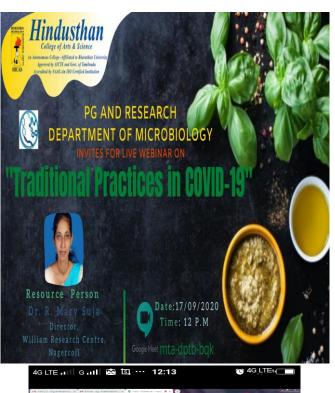
The Department of Microbiology, Hindusthan College of Arts and Science organized a webinar on "Molecular Diagnostics" on 24<sup>th</sup> July 2020 (4.00 pm) for II B Sc Microbiology students. . Dr. Lali Growther, Professor and Head of Microbiology welcomed the participants and introduced the Chief Guest Mrs. S.Sarah, Associate Professor and Head, Department of Biotechnology, Dr. R.V. College of Arts and Science, Mettupalayam. The Chief Guest addressed the gathering with valuable notes and gave a detailed insight on PCR technique. She insisted students the importance of Microbiology, Molecular Biology, PCR techniques and Diagnostics. The session was very interactive and student's doubts were cleared as well. Nearly 30 participants actively participated and attended the session.

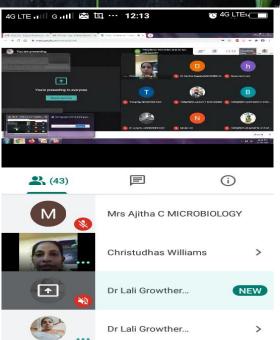


TRADITIONAL PRACTICES IN COVID-19

**Date & Time -** 17.09.2020 - 12:00 PM

The PG and Research Department of Microbiology organized a Live Webinar on Traditional Practices in COVID-19 on 17.09.2020, 12 P.M. Dr.Lali Growther, Professor and Head, Department of Microbiology, welcomed the gathering. Dr.N.Vanitha, Professor, Department of Microbiology introduced the resource person Dr.R.Mary Suja, Director, Willian Research Centre, Nagercoil. The resource person gave a brief on the natural products that can be used to prevent COVID-19. The plants which have medicinal properties and the dosage given for children and adult was clearly elaborated by the resource person. The participants queries were clarified as well. Around 43 participants including students and faculty members actively participated in the webinar. The session ended with vote of thanks given by Dr.R.Manju, Associate Professor, Department of Microbiology.



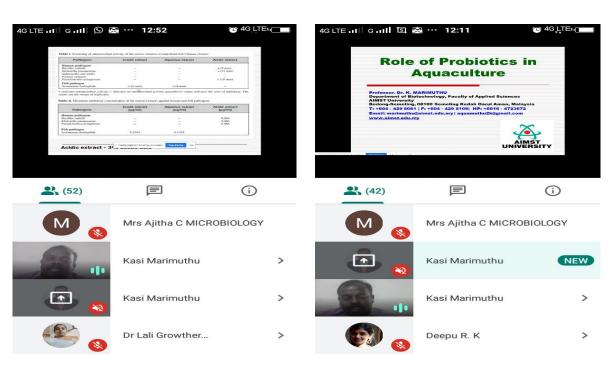


### WEBINAR ON ROLE OF PROBIOTICS IN AQUACULTURE

#### **Date & Time -** 24.09.2020 - 12:00 PM

The PG and Research Department of Microbiology conducted Live Webinar in association with AMIST University, Malaysia on 24.09.2020. Dr. Lali Growther, Professor and Head, Department of Microbiology welcomed the resource person and the participants. Dr.K.Marimuthu, Professor, Department of Biotechnology, Faculty of Applied Sciences, Malaysia was the resource person who gave a detailed insight on his research areas, importance of fish and aquaculture, challenges faced by aquaculture industry, chemotherapy and vaccination in aquaculture, probiotics and its applications, mode of action of probiotics in fish. Around 52 participants including students and faculty members of Microbiology and Food Processing Technology actively participated in the webinar. The session was interactive and the participants queries were clarified by the resource person. The session ended with vote of thanks given by Pragatheesh Singh K, Research Scholar of Microbiology department.



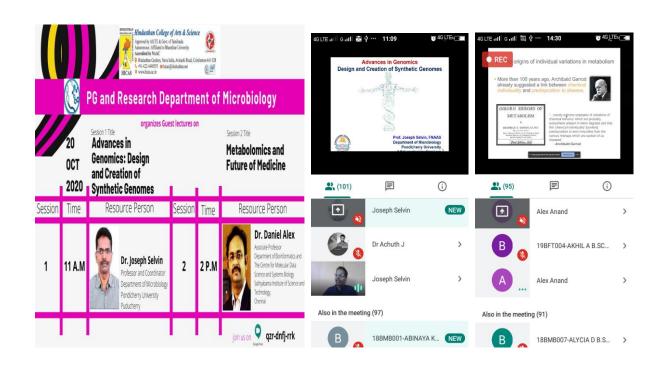


# Guest Lecture on "Advances in Genomics: Design and creation of synthetic genomes" and "Metabolomics and Future of Medicine"

**Date, Time:** 20.10.2020

Session I - 11:00 AM – 12:00 PM Session II - 2:00 PM – 4:00 PM

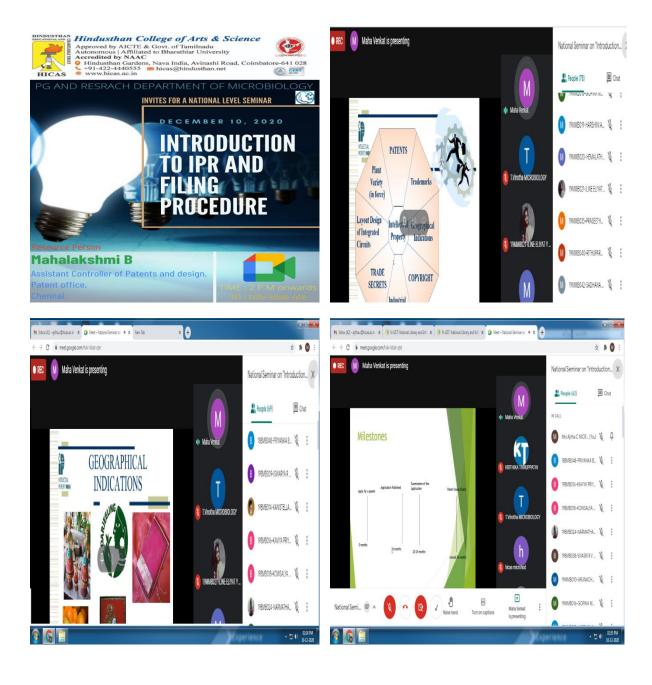
The PG and Research Department of Microbiology organized one day guest lecture on 20th October 2020. The session I started by 11:00 AM with welcome address and chief guest introduction by Dr.Achuth J, Assistant professor, PG and Research Department of Microbiology. The resource person Dr. Joseph Selvin, Professor and Coordinator, Department of Microbiology, Pondicherry University gave an insight on "Advances in Genomics: Design and creation of synthetic genomes" The session was interactive and participants doubts were cleared by the resource person. Vote of thanks was given by Ms. Krithika T, Assistant Professor, PG and Research Department of Microbiology. Around 110 participants including faculty members and students actively participated. The session II started by 2.00 PM with welcome address and chief guest introduction by Dr.Lali Growther, Professor and Head, PG and Research Department of Microbiology. The resource person Dr. Daniel Alex, Associate Professor, Department of Bioinformatics, The Centre for Molecular Data Science and Systems Biology, Sathyabama institute of Science and Technology, Chennai gave an insight on "Metabolomics and Future of Medicine" The session was interactive and doubts raised by students and faculty members were clarified by the resource person. Vote of thanks was given by Mrs. Vinotha T, Assistant Professor, PG and Research Department of Microbiology. Around 100 participants including faculty members and students actively participated in the second session of the guest lecture.



## **National Seminar-Introduction to IPR and Filing Procedure**

**Date, Time:** 10.12.2020 - 2:00 PM

The PG and Research Department of Microbiology organized a National Level Seminar on Introduction to IPR and Filing Procedure on 12<sup>th</sup> December 2020 between 2.00 PM-3.00 PM. Hemalatha of II M Sc Microbiology welcomed the gathering. Iline Eliyat of II M Sc Microbiology introduced the Resource person of the day Ms.Mahalakshmi B, Assistant Controller of Patents and Designs, Patent Office, Chennai. The resource person briefed on intellectual property rights and how to file for a patent, certain geographical indications and what is copy right and trademarks. .The session ended with vote of thanks given by Rithuparna of II M Sc Microbiology. Around 80 participants participated in the event and made the event susscessful



#### Guest Lecture on "Rare and Threatened Fauna of Western Ghats"

**Date, Time:** 20.01.2021 - 12:00 PM

The PG and Research Department of Microbiology organized Guest lecture on 20<sup>th</sup> Jan 2021 under DBT Star College Scheme. Ms. Jayasree of III B Sc Microbiology welcomed the gathering. Ms.Alycia of III B Sc Microbiology introduced the resource person Dr.G.Christopher, Scientist and Research Coordinator, Advanced Centre of Environmetal Studies Sustainable Development, Mahatma Gandhi University, Kottayam. gave a lecture on the topic "Rare and Threatened Fauna of Western Ghats". All the students of Microbiology department participated and gained knowledge. The resource person gave an insight on Western Ghats as storehouse of endemic flora and fauna. Endangered species are present and around 325 globally threatened species occurs in Western Ghats. Around 60 students participated in the session and their doubts were clarified. The session ended with vote of thanks given by Ms.Preethi of III B Sc Microbiology.

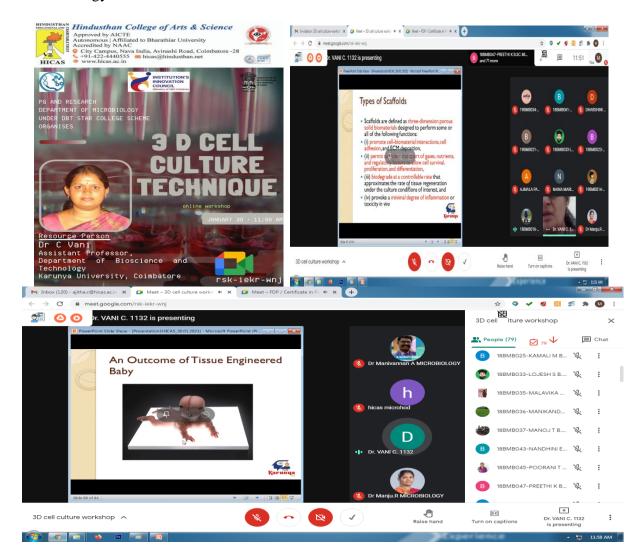




#### Online Workshop-3D Cell Culture Technique

**Date, Time:** 30.01.2021 - 11:00 AM - 1:00 PM

The PG and Research Department of Microbiology organized an Online workshop on 30<sup>th</sup> Jan 2021 under DBT Star College Scheme. Ms. Jayasree of III B Sc Microbiology welcomed the gathering. Ms.Alycia of III B Sc Microbiology introduced the resource person Dr.C.Vani, Assistant Professor, Department of Bioscience and Technology, Karunya University, Coimbatore who elaborated on the topic "3D Cell Culture Technique". All the students of Microbiology participated and gained knowledge. The resource person gave an insight on cell culture and how cells grown in controlled condition generally outside natural environment, on micropropogation and how it is done, MTT assay, 3D cell cultures technique, video clippings of heart makers Koyoto University, Japan, Spinach leaves can carry blood to grow human tissues and other techniques were shown. Around 90 participants including students and faculty members participated in the online workshop and their doubts were being clarified. The session ended with vote of thanks given by Ms.Preethi of III B Sc Microbiology.



#### Training on Biogenic Synthesis of Nanoparticle

**Date & Time:** 09.02.2021 - 10:00 AM

The PG and Research Department of Microbiology organized one day Training on biogenic synthesis of nanoparticle on 9<sup>th</sup> Feb 2021. Dr. Lali Growther, Professor & Head, PG and Research Department of Microbiology welcomed the gathering. Ms.Alycia of III B Sc Microbiology introduced the resource person Prof. Dr.R.Ragunathan, Ph D., FSAB., Director & Research Supervisor, Centre for Bioscience and Nanoscience Research, Coimbatore. The resource person elaborated on how to prepare sliver nitrate and zinc acetate nanoparticle synthesis, after the theoretical session, practical session was handled by the resource person till 4.00pm. Students of III B Sc and II B Sc Microbiology participated and benefited from the training program. Around 80 students and faculty members participated in the program. The session ended with vote of thanks given by Ms.Alycia of III B Sc Microbiology.

■ ☆ ♥ **♥ ♥ ☆ ☆ ☆ ◎** Ogy Nanoscience is presenting Ogy Nanoscience is presenting Reopie (50) Nanoparticles - Types and Applications Prof. Dr.R. Ragunathan., Ph.D., FSAB., 188MBO65-YUVASRI P.B., V 88MB007-ALYCIA Eachanari, Coimbatore - 21 В Mail: cbnrcindia@gmail.com c (B) (7 H (a) 12 d) (2 1 Ø O Ø 0 0 B 188MB010-ANUSHASB.. V + 

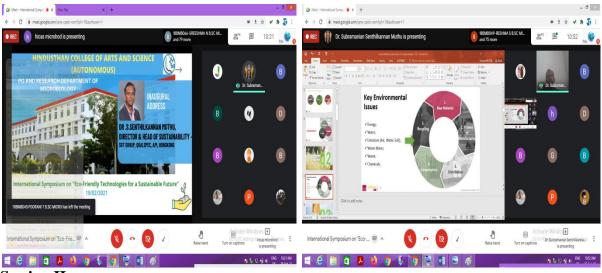
### International Symposium-Eco-Friendly Technologies for a Sustaniable Future

**Date:** 19.02.2021

The PG and Research Department of Microbiology, Hindusthan College of Arts and Science, Coimbatore, Tamil Nadu organized a one day International Symposium on "Eco-Friendly Technologies for a Sustaniable Future" on 19th Feb 2021. The programme started with prayer song by Ms.Priyanka of III B Sc Microbiology. Dr.Lali Growther, Professor and Head, Department of Microbiology welcomed the gathering. The Presidential address was given by Dr.A.Ponnusamy, Principal, Hindusthan College of Arts and Science, Coimbatore. Chief guest introduction was given by Dr.N.Hemashenpagam, Professor, Department of Microbiology. The inaugural address by Dr.S.Senthilkannan Muthu, Director & Head of Sustaniability-SgT Group, QualSpec, API, Hongkong. Vote of thanks was given by Dr.R.Manju, Associate Professor, Department of Microbiology.

#### **Session I:**

The technical session started around 10.30 am. The resource person, Dr.Subramanian Senthilkannan Muthu, Director & Head of Sustainability-Hongkong gave a talk on "Sustainability Assessments". Sir elaborated on the key environmental issues such as energy, water, emissions, waste water, wastes, and chemicals, how the raw materials are processed, consumed and recycled. Sustainability assessment has been called the third generation of impact assessment, following environmental impact assessment (EIA) and strategic environmental assessment (SEA). The session was informative and student's queries were clarified by the resource person. The session ended with vote of thanks by Dr. N.Vanitha, Professor, Department of Microbiology.



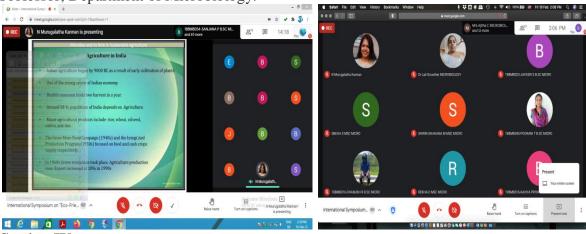
#### **Session II:**

The second session started around 11.45 am. Dr.Arun Kumar G, Assistant Professor, Department of Microbiology gave the welcome address and introduced the Chief Guest Dr.Sultan Ahmed Ismail, Director Ecoscience Research Foundation, Chennai. The resource person gave a talk on "Sustainablility Concepts for earth's sake". The session was quiet interesting in which sir gave many practical examples for sustainablility. We often hear people talk about sustainable alternatives, but how sustainable are these alternatives, really are was explained by the resource person. The students raised queries and their doubts were cleared by the resource person. The session ended with vote of thanks given by Mrs.Ajitha C, Assistant Professor, Department of Microbiology.



#### **Session III:**

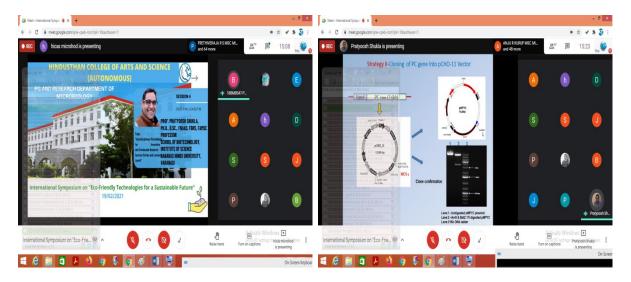
The third session started around 02.00 pm. Dr.T.Vinotha, Assistant Professor, Department of Microbiology gave the welcome address and introduced the Chief Guest Dr.N.Murugalatha, Coordinator, School of Agricultural Studies, Quantum University, Roorkee. The resource person gave a talk on "Microbes and its role in sustainable Agriculture". The resource person elaborated on the role of microbes in sustainable agriculture and biotechnology covers a research area with enormous untapped potential. Chemical fertilizers, pesticides, herbicides and other agricultural inputs derived from fossil fuels have increased agricultural production, yet growing awareness and concern over their adverse effects on soil productivity and environmental quality cannot be ignored. The resource person shared the research work carried out in this area. The students raised queries and their doubts were cleared by the resource person. The session ended with vote of thanks given by Ms. Krithika T, Assistant Professor, Department of Microbiology.



#### **Session IV:**

The fourth session started around 03.00 pm. Dr.A.Manivannan, Assistant Professor, Department of Microbiology Assistant Professor, gave the welcome address and introduced the Chief Guest Dr.Pratyoosh Shukla, Professor, School of Biotechnology, Institute of Science, Banaras Hindu University, Varanasi. The resource person gave a talk on "Interdiscipilinary Microbiology for Innovative and Sustainable Research-Success Stories and Lessons Learnt". The resource person elaborated on the Interdisciplinary research which integrates disciplinary knowledge to create new scientific understanding while transdisciplinary research also incorporates knowledge and participants from beyond science to engage in the research process and inform policy and practice. The resource person

shared many research works with innovative ideas in Microbiology and sustainablility research. The students raised queries and their doubts were clarified by the resource person. The session ended with vote of thanks given by Mr. J. Achuth, Assistant Professor, Department of Microbiology.



Parallel sessions on oral presentation was being conducted and all the prize winners and participants were issued e-certificate. The programme ended with national anthem.

# Guest Lecture on "Face Masks and Covid-19 Types, When and How to use?"

The PG and Research Department of Microbiology, Hindusthan College of Arts and Science organized a Live Guest Lecture on "Face Masks and Covid-19 Types, When and How to use?" on 10<sup>th</sup> September 2020 at 12.00 PM – 1.00 PM. Dr. Lali Growther, Professor and Head, Department of Microbiology welcomed the guest and the participants, Mrs. Ajitha C, introduced the Chief guest Dr. S.Jagannathan, Officer Incharge, TCARV Laboratory and QCD - Stability Team, Pasteur Institute of India, Coonoor. The Chief Guest addressed the gathering with valuable notes on using face masks and different types of Covid-19. He explained on how to use the mask and the scenario prevailing now. Around 64 participants attended the guest lecture. Our students actively participated and attended the webinar. The session was very interactive and student's doubts were cleared as well. Vote of Thanks was given by Dr.N.Hema Shenpagam, Professor, Microbiology Department.



# Webinar: "Challenges and Opportunities in Microbiology and Biotechnology"

The Departments of Biotechnology and Microbiology, Hindusthan College of Arts and Science organized a Live Webinar on "Challenges and Opportunities in Microbiology and Biotechnology" under DBT Star College Scheme, Ministry of Science and Technology, New Delhi on 5<sup>th</sup> May 2020 at 12.00 PM. Dr.G.Rajalakshmi, Professor and Head of Biotechnology welcomed the participants. Dr.Mohammed Rafiqkhan, Associate Professor of Biotechnology introduced the Chief Guest Dr. Gopikrishnan Venugopal, Scientist C, Bioprospecting Division, Centre for Drug Discovery and Development, Sathyabama Institute of Science and Technology, Chennai. The Chief Guest addressed the gathering with valuable notes on Opportunities for Bioscience in India and abroad. He insisted students to take up research projects, startups which will help them to become an Entrepreneur as well. He listed out the funding agencies too. The session was very interactive and student's doubts were cleared as well. Dr. Lali Growther, Professor and Head of Microbiology rendered the vote of thanks. Nearly 75 participants which included our college Biotechnology and Microbiology

final year students, Students from Dr.NGP Arts and Science College, Sri Ramakrishna College for Women and SNMV college of Arts and Science.

