

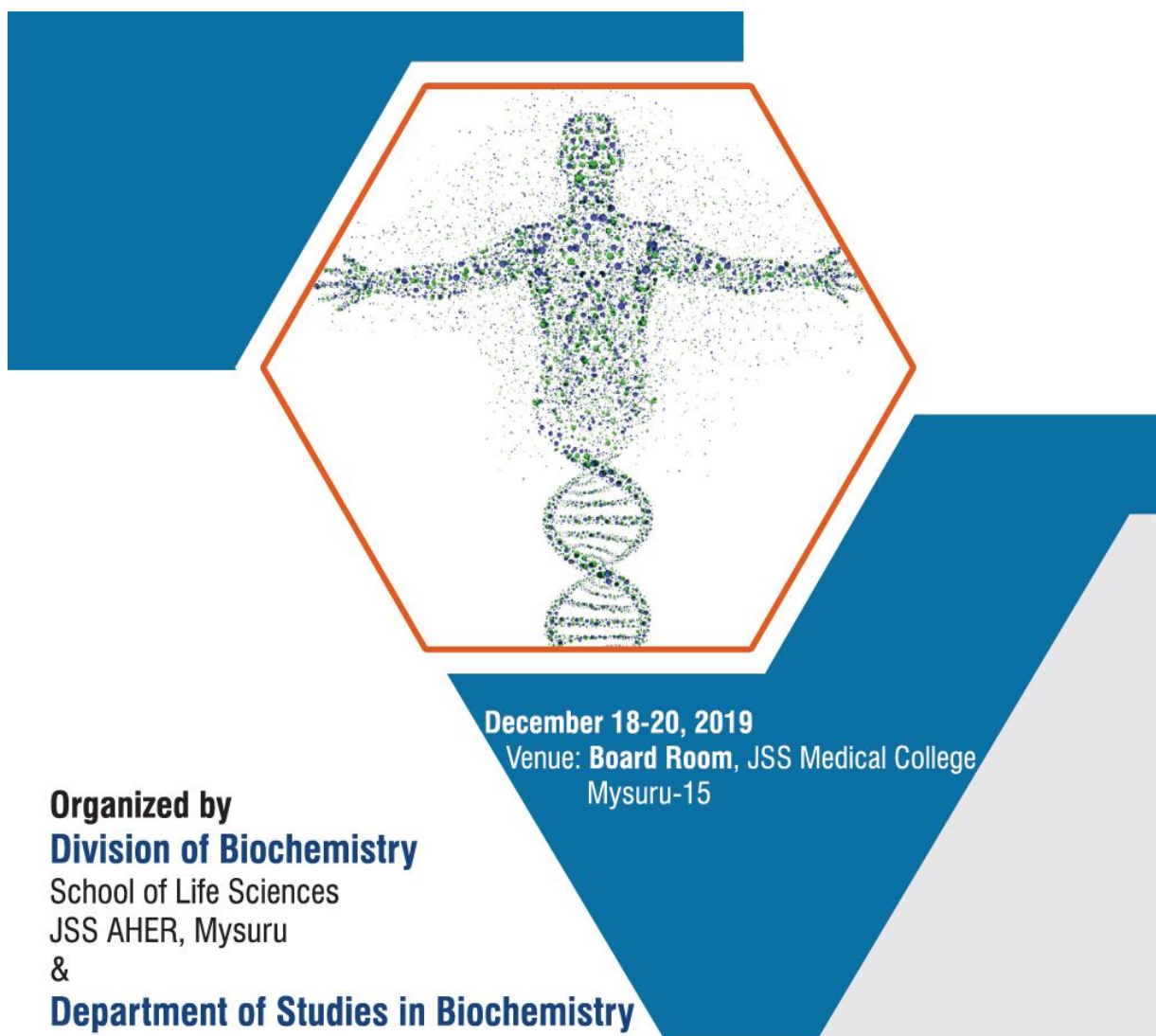


## JSS Academy of Higher Education & Research

(Deemed to be University)  
(Accredited A+ Grade by NAAC)  
Sri Shivarathreeswara Nagar  
Mysuru-570 015, Karnataka, India

### Report

# International Workshop on Borderless Biology: From Basics to Business



December 18-20, 2019  
Venue: Board Room, JSS Medical College  
Mysuru-15

**Organized by**  
**Division of Biochemistry**  
School of Life Sciences  
JSS AHER, Mysuru  
&  
**Department of Studies in Biochemistry**  
University of Mysore, Mysuru



## **Report on Three Days International Workshop on “Borderless Biology: From Basics to Business” and CME session on “Snakebite Treatment”**

Three Days International Workshop on “Borderless Biology: From Basics to Business” and a half day CME session on “Snakebite Treatment” was inaugurated on 18.12.2019 (Day 1) at JSS Academy of Higher Education & Research by Dr. P.A. Kushalappa, Director-Academics and Prof. Manjunatha R. Kini, Professor, National University of Singapore, Singapore, in the presence of Dr. Balasubramanian. S, Director-Research and Dean-FLS, Dr. K.A. Raveesha, Head, School of Life Sciences, JSS AHER; Dr. B.S. Vishwanath, Professor and Chairman, Department of Studies in Biochemistry, University of Mysore and Dr. J.R. Kumar, Assistant Professor, School of Life Sciences, JSS AHER. In his presidential address, Dr. P.A. Kushalappa emphasized on the importance of snakebite treatment in rural areas. He shared his experience as a dermatologist about the cases of snakebite and the treatment involved.



**BL(L-R) Dr. Balasubramanian. S, Director-Research and Dean-FLS, Dr. K.A. Raveesha, Head, School of Life Sciences, JSS AHER; Dr. Manjunatha R. Kini, Professor, National University of Singapore; Dr. P.A Kushalappa, Director- Academics, JSS AHER; Dr. J.R. Kumar, Assistant Professor, School of Life Sciences, JSS AHER; Dr. B.S. Vishwanath, Professor and Chairman, Dept. of Studies in Biochemistry, University of Mysore. Dr. Manjunatha R. Kini, Chief Guest is seen lighting the lamp while others look on.**

Later, Prof. Manjunatha R. Kini addressed the gathering about the theme of the workshop and shared his views about the importance of interdisciplinary approach in research. Dr. Balasubramanian S spoke about the initiatives of JSS AHER in ensuring Borderless approach in Health Sciences education and research. Dr. K.A. Raveesha conveyed his gratitude towards the speakers from various reputed institutes. Prof. B.S. Vishwanath emphasized on the need to conduct such session about snakebite management to create awareness among the clinicians and researchers. Dr. J.R. Kumar, Organizing Secretary gave an overview of the workshop and CME session and its outcomes for the participants.



**Speakers and Participants during the inauguration.**



**Inauguration**

Dr. Jaideep. C. Menon, Cardiologist, Amrita Institute of Medical Sciences and Research Centre, Cochin, Kerala initiated CME session on Snakebite Treatment and elaborated on the deadly venomous snakes in India and snakebite episodes in rural parts of India, stressing upon the need of proper management of snakebite victims across India.



**Dr. Jaideep Menon delivering the talk on Snakebite Treatment.**

Dr. Joseph K. Joseph, Senior Physician and Nephrologist, Little Flower Hospital, Angamaly, Kerala emphasized on the signs, symptoms and treatment of snakebite, with several incidences/case reports of snakebite in India.



**Dr. Joseph K Joseph exhibiting the case reports of snake bite.**



**Participants interacting with the speakers.**

Dr. D.C. Patel, Private Practitioner Doctor, Sainath Surgical & Maternity Hospital, Dharampur, Gujarat shared his experience in treating the snakebite and associated complications, by displaying many case reports of snakebite victims in Gujarat.



**Dr. D.C. Patel being feliciatated by Dr.J.R Kumar.**

Ms. Priyanka Kadam, President and Founder, Snakebite Healing and Education Society, Mumbai, Maharashtra exhibited an advocacy film to create awareness on the snakebite burden in India, THE DEAD DON'T TALK. Ms. Kadam considers snakebite incidents as a human right issue and focuses to create awareness around this challenge through advocacy and community engagement.



**Ms. Priyanka Kadam being felicitated by Dr. Vijaya Vageesh.**

**The workshop on “Borderless Biology: From Basics to Business” started soon after the lunch and the inaugural lecture was delivered by Dr. Surinder Singh, Vice Chancellor, JSS AHER, Mysuru.**

Dr. Surinder Singh enlightened the audience about the avenues in Bio-entrepreneurship and educated the participants on the various funding opportunities and recognitions for the innovations and startups in the field of Life Sciences.

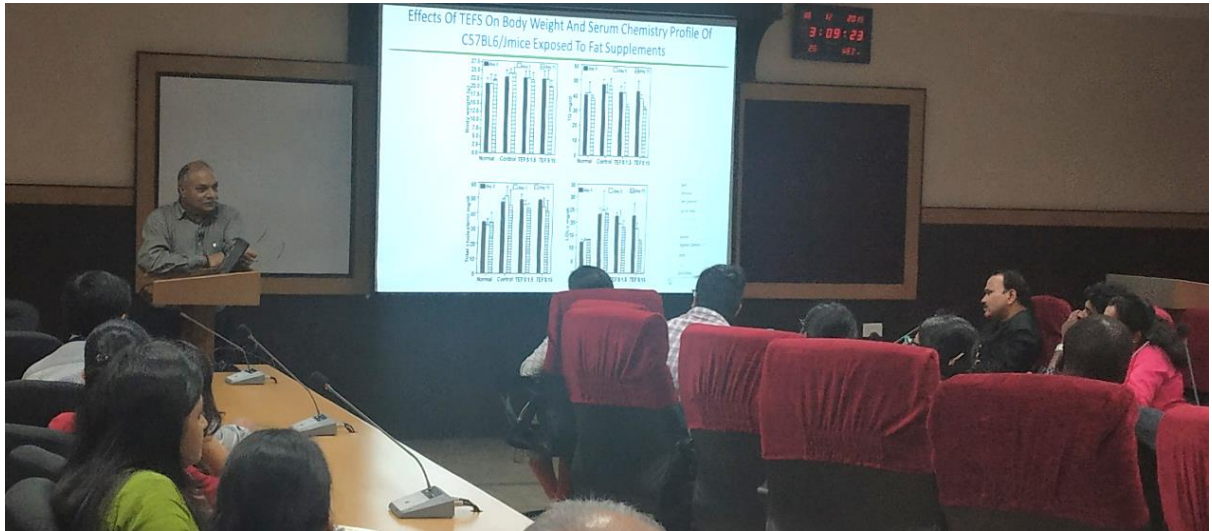


**Hon’ble Vice Chancellor, Dr. Surinder Singh delivering a talk on avenues in Bio-entrepreneurship.**



**Group Photo with the participants.**

Later, Dr. Manoj Kumar Bhat, The Director, National Centre for Cell Science, Pune, addressed the gathering about the possible opportunities for researchers in product development and patenting, with few examples of research carried out in his institute in the management of obesity and diabetes.



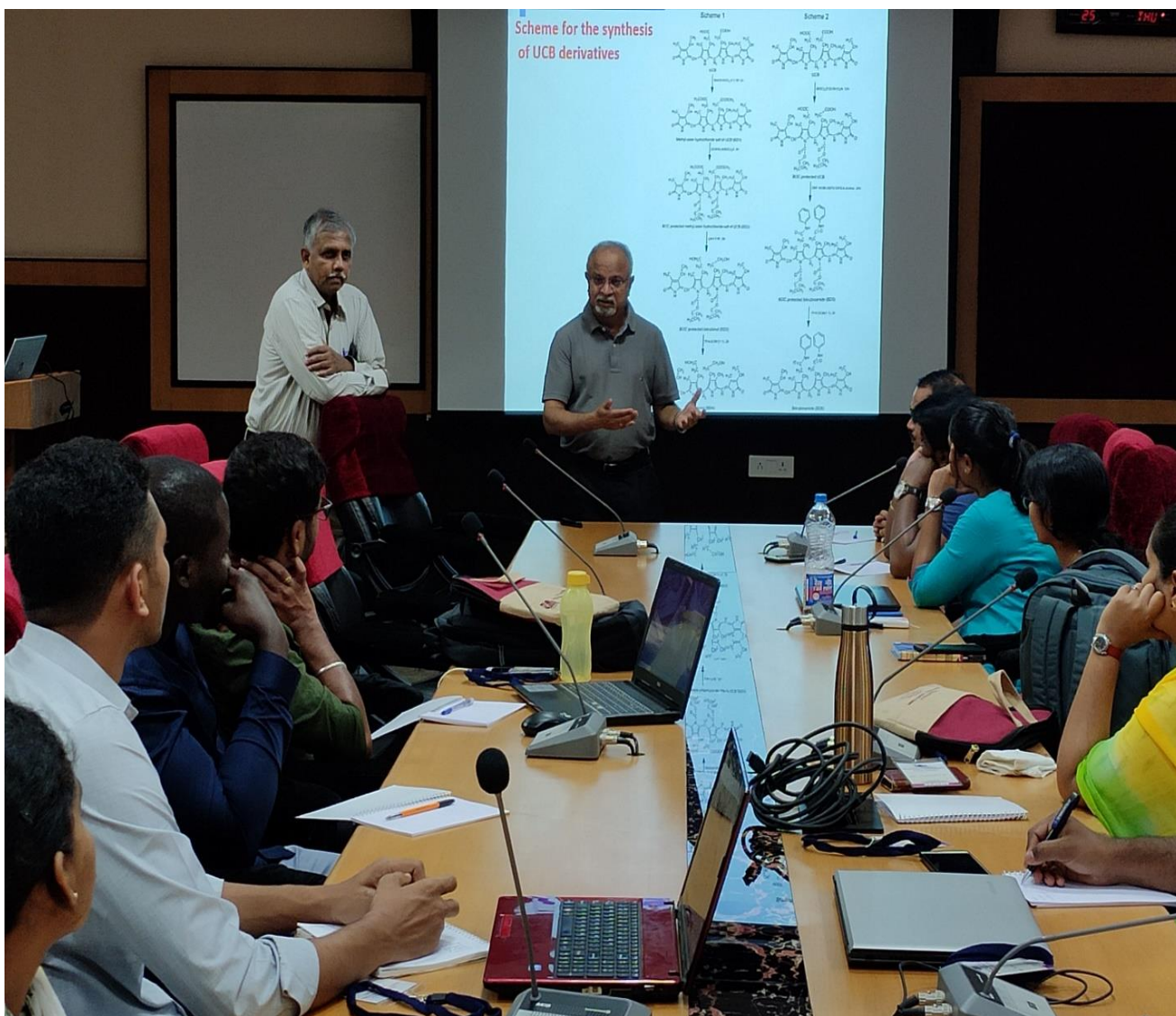
**Dr. Manoj Kumar Bhat, Director, National Center for cell sciences, Pune product development and patenting.**

The last lecture of the day was by Dr. K. Kemparaju, Professor and Chairman of DOS in Molecular Biology, University of Mysore, Mysuru, wherein he stressed upon the process of thinking out of the box and illustrated the scenarios of its fruitful output in research.



**Prof .K Kemparaju shared his realtime research experience of thinking out of the box.**

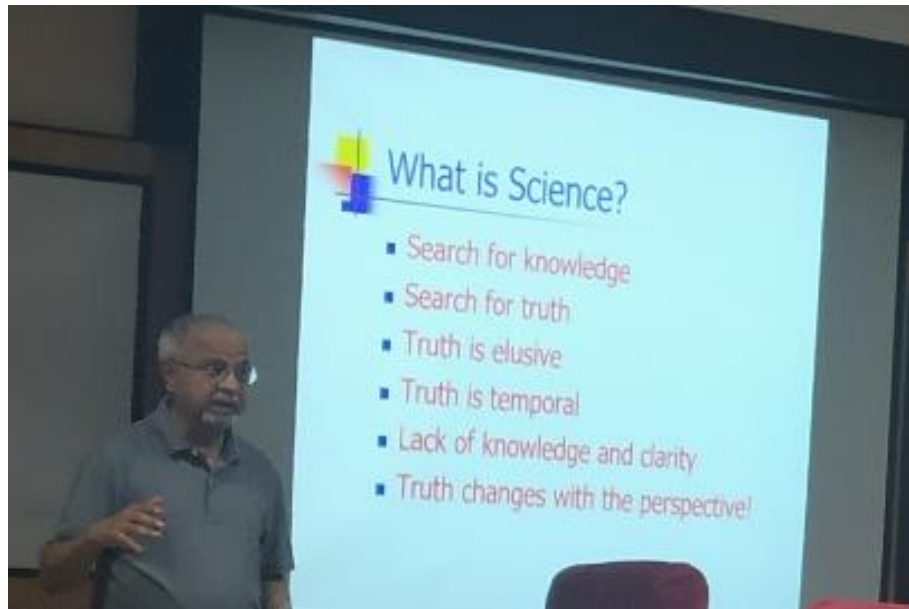




**Prof. B S Vishwanath and Prof. R Manjunatha Kini, can be seen interacting with the participants.**

On day two, Dr. R Manjunatha Kini, Professor, National University of Singapore, Singapore had interactive and group activity session with the participants. To begin with, Dr. B.S. Vishwanath, Professor and Chairman, DOS in Biochemistry, University of Mysore, Mysuru shed light on Drug Discovery process and highlighted the importance of various drug targets with examples.

In continuation, Prof. Kini put forward the above topic for open discussion and extracted the questions from the participants, followed by the finding answers by themselves through discussion within groups and motivated them to come up with literature search, research plan, research methodology to answer the research problems.



**Prof. Manjunatha Kini addressing the gathering about science and research.**

Each group worked on different research problems and presented their research plan and methodology. The two sessions before lunch on group activities and tasks helped the participants to orient themselves towards successful research, which could be certainly translated into entrepreneurship.

During the post lunch session, Dr. Upendra Nangthomba, Associate Professor, Indian Institute of Science, Bengaluru emphasized on Basics to Business with his informative lecture quoting examples of his own research milestones. In his lecture, he highlighted the value of Zebra fish and *Drosophila* as the best model systems to study the disease mechanisms and to test the therapeutic effects of various druggable molecules.



**Dr. Upendra Nangthomba, interacting with students in groups.**

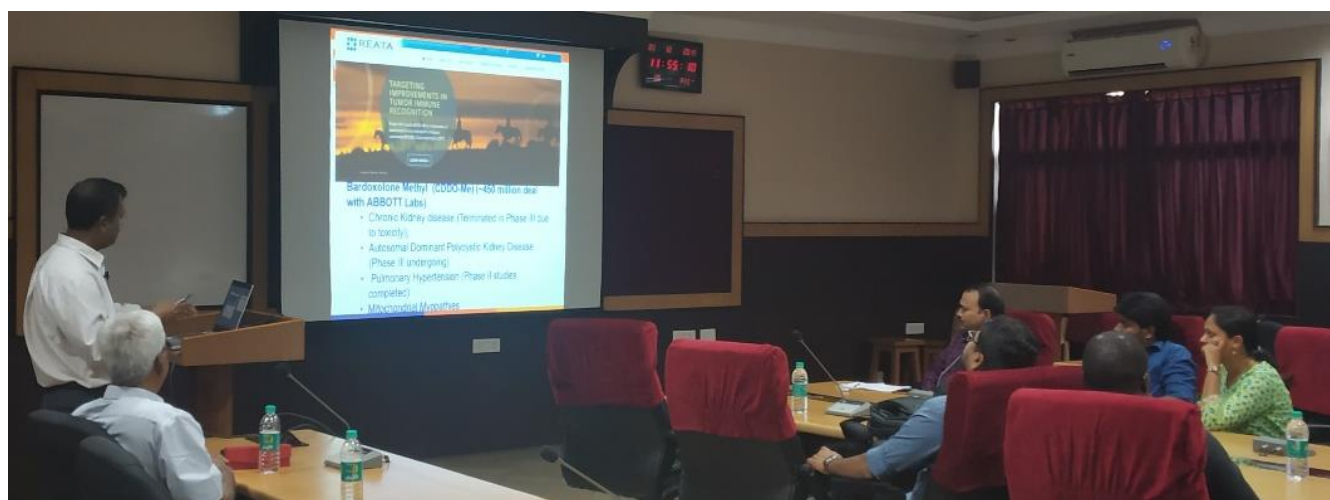
The day three sessions were launched by Dr. Siddarama Gowda, Emeritus Professor, Citrus Research and Education Center, University of Florida, Florida, USA.

Dr. Gowda addressed the audience with his research on CRISPR technology to combat the diseases of citrus fruits and motivated the participants to utilize the advanced technologies to boost the research and thus aiding the expansion of entrepreneurship through basic science.



**Prof. Siddarama Gowda addressed the audience with his research on CRISPR technology.**

Dr. Rajesh Kumar T, Associate Professor, JSS AHER, Mysuru emphasized on the entrepreneurship using nutraceuticals to cure chronic obstructive pulmonary disease (COPD).



**Dr. Rajesh Kumar T addressing about entrepreneurship using nutraceuticals.**

Dr. Raghavendra P. Rao, Scientist, The Himalaya Drug Company, Bengaluru throwing light on different stages of drug discovery and clinical trials, focusing on the transformation of basic science into business.



**Dr. Raghavendra Rao addressing about the stages of drug discovery and clinical trials,**

Later, Dr. Dharma Prasad, Managing Director, Prosetta Bioconformatics Pvt Ltd., Mysuru highlighted the importance of processes during drug discovery and IPR in developing novel antimicrobial agents.



**Dr. Dharma Prasad addressing about drug discovery and IPR.**

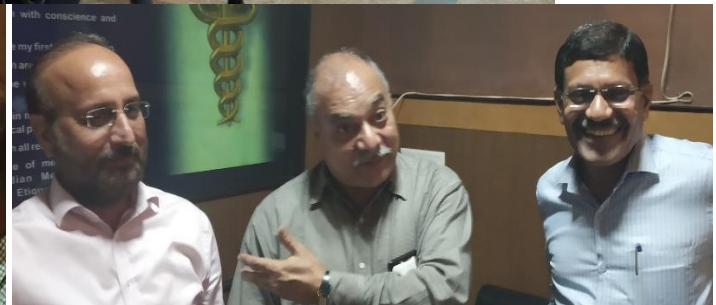
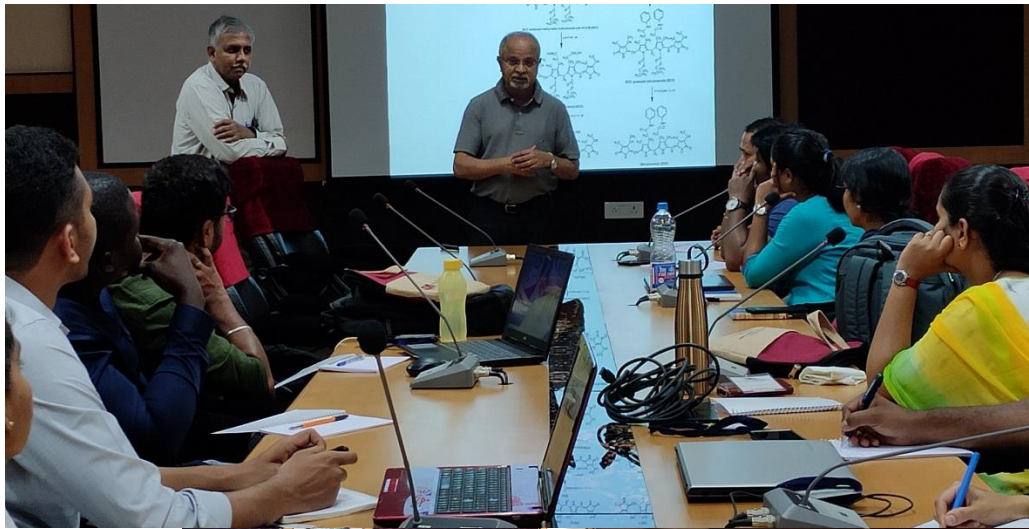
In the post-lunch session, Dr. Subba Rao MVSST, Professor, JSS AHER focused on cell signaling associated with cancer and stressed upon anticancer drugs, which can be patented in the process of drug development.



**Dr. Subba Rao being felicitated by Dr. Kiran Kumar.**

The last session of workshop was dedicated to the discussion on present scenario of scientific research and funding opportunities for starting an industry or discovery unit to develop useful products for the overall wellbeing of public and society.

The workshop was concluded with valedictory programme in the presence of Dr. Siddarame Gowda, Dr. Raveesha KA, Dr. Subba Rao MVSST, Dr. J.R. Kumar, Dr. Raghu Ram Achar, Dr. Kiran Kumar MN and Dr. Siddesha JM. Dr. Siddarame Gowda delivered the concluding remarks on the outcomes of the three days' workshop and the need for research focusing on translating the basic research into entrepreneurship.



Glimpses of the Workshop



**Group Discussion at the end of the Workshop.**



**Group Photo with the participants during valedictory.**

### **Theme of the workshop**

**“Borderless Biology: From Basics to Business”** aims to orient the researchers towards outcome-based research in the real-time scenario of biological sciences. It focusses on providing substantial foundation and refinement for the research, with problem solving approach, integrating various fields of Science and Technology. The borderless approach in solving problem is effective in understanding the basics and encouraging innovations in biological research.

### **Outcomes**

The workshop persuades researchers to transcend their basic research towards translational research, boosting their research perspectives and widening the scope of career in Science & Technology. This workshop will motivate the participants to carry out problem-solving research, benefiting the health and society. Overall, the workshop provides insights of basic and applied research strategies that aided in successful transition of “Basic Research to Business”.