## REPORT OF THE UGC-SPONSORED NATIONAL SEMINAR ON RESEARCH TRENDS IN FRONTIER AREAS OF BIOLOGICAL SCIENCES, 20 MARCH 2019.

The Department of Biosciences which is currently under the UGC-SAP program (2016-2021) organized an UGC-sponsored National Seminar on RESEARCH TRENDS IN FRONTIER AREAS OF BIOLOGICAL SCIENCES on 20 MARCH 2019 at Mangala Auditorium. Prof. A. R. Reddy, Fellow-Indian Academy of Sciences and Founder and two-term Vice Chancellor of Yogi Vemanna University inaugurated and delivered the Keynote Address and released the book of abstracts. Prof. Kishori Nayak K. Vice Chancellor (I/c), Mangalore University presided over the program. Prof. Prashantha Naik, Chairperson, Department of Biosciences, Mangalore University welcomed, Prof. Chandrakala Shenoy, Coordinator, UGC-SAP Program delivered the vote of thanks.

Prof. A. R. Reddy spoke on plant genomics by explaining how the plant genome is obese but very fit, and at the same time demonstrates enormous variability that is not there in animals, even humans. The obesity of the plant genome comes from ploidy that is common across plants, particularly in grasses such as rice, sorghum, wheat etc. The variability comes from transposons or jumping genes. He also elaborated on how plant DNA has evolved mechanisms for regulation.

The second invited speaker was Prof. T. V. Ramachandra, renowned environmental scientist from Indian Institute of Science, Bengaluru who spoke of water mismanagement that had led to the current water crisis, that in some places there are floods, while in others there is drought, induced by encroachment on low lying lakes and on forests with unique flora and fauna. He also elaborated on the effects of untreated effluents on water bodies and how local experiments to create green patches with rainwater harvesting can generate clean air as well as much needed water.

Dr. Kajal Chakraborty, Marine biotechnology scientist from CMFRI Kochi gave a detailed overview on various bioactives that have been derived from the marine environment and their mode of action. He highlighted that these marine biomolecules could also be used as fortification and supplements in foods.

Dr. Bipasha Bose, Stem cell scientist from Yenepoya Research Centre, Yenepoya (deemed-to-be University) provided an overview on Stem Cells including Cancer stem cells and explained about her work with Vitamin influence on proliferation of cancer cells.

Highlight of the Seminar was participation by meritorious students from neighbouring colleges.

Highlight of the Seminar was 40 budding researchers who presented Posters in the Poster Symposium on Research Trends in Frontier Areas of Biological Sciences. 'Test your learning' was also organized for participants with attractive. Prizes. A total of 250 participants from Karnataka, Kerala and Telangana participated in the Seminar.

Prof. K. R. Chandrashekhar, Professor, Department of Botany and Coordinator, IQAC, Mangalore University was the Chief Guest. Prof. A. M. Khan, Registrar, Mangalore University presided over the valedictory and prize distribution ceremony. Prof. Prashantha Naik welcomed the gathering. Prof. Monika Sadananda, Convener of the National Seminar delivered the vote of thanks.