

AMRITA BIOQUEST 2013 being held at Kerala

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The growing impact of Biotechnology in all spheres has resulted in the active and focused pursuit of innovative applications that capitalize on novel approaches to enhance our strengths in frontier areas of Biotechnology.

AMRITA BIOQUEST 2013 will provide an ideal forum to discuss exciting and emerging multidisciplinary themes related to the use of biotechnology in addressing pertinent societal needs. The conference will focus on the ways in which research areas such as translational medicine, nanotechnology, neuroscience, genomics, proteomics, bioinformatics and bioengineering contribute to alleviating human suffering and improving the quality of life. This conference, which is being hosted by the Amrita School of Biotechnology, Amrita University, will serve as an ideal platform for distinguished experts from diverse areas of biotechnology to come together to discuss and deliberate on established as well as emerging platforms and strategies.

A significant feature of Amrita Bioquest 2013 is a live webcast interaction with Prof. Leland Hartwell, (2001 Nobel Laureate for Physiology and Medicine for his discovery of protein molecules that control cell division) who will address the conference delegates, live from his office in Seattle, USA, followed by a live question and answer session. Prof. Hartwell will focus on the theme "The Role of Science and Technology in Creating a Sustainable World."

Ten Talks is a Ph.D symposium selecting 10 novel papers from current PhD students. The goal of the "ten talks" event is to highlight their work in front of other academics than their supervisors. They will be able to present their work and get feedback on their topic and approach from leading scientists in the field and from fellow students.

Another interesting event being conducted at Amrita Bioquest 2013 is Pitchfest. This is a contest for entrepreneurial startups with innovative ideas in Biotechnology. Pitchfest offers the perfect platform for new business ideas to be presented with the potential for useful applications, to a panel of experts in the field.

Amrita Bioquest 2013 will thus provide an ideal forum to discuss and deliberate on established as well as emerging platforms and strategies and promises to be a very enriching, productive and rewarding experience.

Apart from that the seven tracks that have been organized as part of Amrita Bioquest 2013 are Genomics and Translational Medicine, Biomedical Engineering, Neurobiology and Computational Neuroscience, Bioinformatics and Computational Biology, Bioprospecting and Bioengineering, Bioanalytical Techniques and Biotechnology in India from a Global Perspective.

1. Genomics and Translational Medicine:

The rapidly evolving pace of biomedical research propelled by the major technological advances in basic research and health care have resulted in a new outlook on biotechnology and translational science.

With a large number of researchers contributing their information by way of invited talks and oral and poster presentations, that encompass target identification and validation; screening imaging and discovery platforms, cell-based therapies, RNAi and microRNA and disease genomics, the track on Genomics and Translational Medicine could be an extremely informative and invaluable session at Amrita Bioquest 2013.

2. Biomedical Engineering

This focus area involving the application of engineering principles and design concepts to medicine and biology for diagnostic and therapeutic interventions has been increasingly finding significant applications especially in the development of low cost biomedical devices. Prominent biomedical engineering applications, including biomedical imaging and signal processing, sophisticated drug delivery systems and novel diagnostics and detection systems involving biosensors and biomarkers are of paramount importance and are being actively pursued. Increasing the rate of biomedical innovation has come into prominence and Amrita Bioquest 2013 provides an ideal platform to explore approaches to influence that trajectory of development for a positive impact on health care.

3. Neurobiology and Computational Neuroscience

The goal of the Neurosciences track is to present the insights of experts on emerging fields and theoretical concepts in neuroscience by showcasing a plethora of ongoing and new research topics overlapping cellular neurophysiology, techniques in neuro-imaging, neurochemistry and computational neuroscience. A neuroscience pre-conference workshop titled "From Cellular to Circuit and Brain Functions: Passing through Mathematical Models" will also address issues in physiology via a context in computational modelling.

4. Bioinformatics and Computational Biology

As Biology and its multitude of applications in Biotechnology advances rapidly, the requirement for quantitative and digital analysis has also received significant attention and interest.

Another important aspect of this track at Bioquest 2013, will be the introduction to DELSA-- The Data Enabled Life Sciences Alliance. This group has the mission to tackle ongoing broad challenges and specific research projects that advance the impact of data-enabled life science research on the pressing needs of global society.

5. Bioprospecting and Bioengineering

A number of important areas focused on Bioprospecting and Bioengineering including evolving strategies in health care, agriculture and food sectors, intellectual property rights and biopiracy, current views on sustainable development as well as new approaches to biofuels and microbial fuel cells will be important topics for discussion in this track on Bioprospecting and Bioengineering at Amrita Bioquest 2013.

6. Bioanalytical Techniques

Significant advances in Bioanalytical technologies have emerged and are prominently contributing to developments in all frontier areas of Biotechnology. Analytical methods based on separation of particles or molecules including chromatography, electrophoresis and mass spectrometry as well as advanced methods based on spectroscopy, scattering and diffraction are important aspects of bioanalytical technologies that will be the subject of deliberation in the track on Bioanalytical technologies at Bioquest 2013.

7. Biotechnology in India from a Global Perspective

Although conventional Biotechnology has been practiced in India for a long time, modern Biotechnology did not find a foothold in India till the last decade. Today, India has tremendous potential to capitalize on the benefits of a vast pool of scientific talent, a distinctly superior information technology industry and a vibrant generic pharmaceutical sector which has positioned India to be a significant player in the global biotechnology map. From innovative approaches in Biotechnology, problems and prospects in the industry to patents, IPR and licensing issues, this track would provide an interesting outlook on the Indian Biotechnology scenario from a global perspective.

Some of the other interesting events at Amrita Bioquest 2013 include Amrita Pitchfest 2013, Ten Talks Ph.D. symposium and

over 300 poster presentations in the seven conference tracks.