



11th National Level Biological Congress On Bioscientific Technologies: “A Panacea for Human Health & Social Welfare”



Organized by

DEPARTMENTS OF BIOLOGICAL SCIENCE

MUTHAYAMMAL COLLEGE OF ARTS & SCIENCE
Rasipuram - 637 408, Namakkal Dt, Tamil Nadu, India.

6th & 7th January 2012

www.muthayammal.in

During the course of the last fifty years, great strides have been made in the sphere of biosciences which include Microbiology, Biochemistry, Biotechnology etc., Consequently, innumerable innovative technologies such as cloning, gene therapy, DNA technology, Bioremediation, Biomining, stem cell culture, immunotechnology have come to be introduced in the study and research of biosciences. These technologies have gone a long way in promoting human health and social welfare and in maintaining a happy, healthy and sustainable environment.

The cross cutting technologies embedded in biosciences have led many companies and institutions to pursue market-related opportunities in associated technologies using which they are able to produce highly useful products – foods, fuels and medicines. Man is capable of breeding healthier animals and plants. He has been successful in mapping human genome. Bioscientific technologies serve as powerful tools in the hands of man to wage a relentless war against the menace arising out of too much of human interference in nature such as pollution of air, water and soil, excessive rain or continued drought, abrupt appearance and endemic or pandemic spread of cruel diseases, global warming, natural calamities like tsunami, whirlwinds and earthquakes which take a very great toll of valuable human beings in their wake.

Applications of Biosciences are always non-polluting and, often, labour intensive. They make use of replenishable natural resources and help in their conservation. They help, directly or indirectly, in saving energy. The cost of products produced through a biotechnological process is almost always less than that of the same product produced, say, through a chemical synthetic route. Biotechnologies are less accident-prone. In spite of their high level of intellectual sophistication, it is easier to train people to handle biotechnologies than other technologies. Above all, they are interesting and exciting for all those involved with them.

Genetic Engineering of microbes, plants and animals including marine animals ensures that capabilities are converted into abilities. Genetically engineered microbes are today widely used for producing drugs and vaccines in large scale at low costs that are of great importance (human insulin, erythropoietin, and hepatitis-B vaccine). They will be available at a cost, three or more times lower than the current cost. Genetically engineered plants are likely to find wide applications in the production of human monoclonal antibodies. Also Genetically engineered animals are exploited for various model research studies. Cloning is a wonderful biotechnique which enables man to produce similar populations of genetically identical individuals. Gene Therapy is, in a way, genetic engineering of humans, which would allow a person suffering from a disabling genetic disorder to lead a normal life. Stem cell culture has the potential to develop into required organs which can be transplanted into diseased persons.

New DNA technologies including DNA fingerprinting, microarray, sequencing of genomes, development and use of new molecular markers for plant identification and characterization have been exploited. The development of DNA based probe enabled us to diagnose the inherited disorders. Likewise, by using antisense technology, we can find out where in a DNA, blockage of function occurs. Bioremediation of effluents or waste, using biological systems viz. phytoremediation, bioventing, bioleaching, landfarming, composting, bioaugmentation, rhizofiltration, and biostimulation help to maintain a sustainable environment. The use of genetic engineering to create organisms specifically designed for bioremediation has great prospective. Biomining is the process employed to extract the desired minerals from low-grade ores being explored by the mining industry. Bioinformatics, including genomics and proteomics is a newly emerging area which makes use of the enormous amount of data on biological systems that are becoming available. It is clear from the above account that the man, utilizing varied Bioscientific technologies, will be able to sustain a good environment conducive for happy and healthy life.

The 11th National Level Biological Congress will serve as a suitable platform where exhaustive discussions related to Bioscientific technologies will be held among the Participants, Students, Researchers, Professors, Scientists and Industrialists.

CALL FOR PAPERS

Participants can present their papers Orally or by Poster. They are requested to prepare their abstract with not exceeding 250 words which should be in CD using MS-Word along with one hard copy. Only selected papers can be presented orally while the rest by posters. A poster session will be specified, where all participants will have a chance to see the posters. Cash prizes will be awarded for the best paper and for the best poster.

REGISTRATION

Participants are requested to send the registration fee, as mentioned below, along with the completed registration form to confirm their participation. Please fill in the registration form with all the details and return the application form with the prescribed fee mentioned below.

Industrialists / Technologists	- ₹ 1000/-
Faculty from Academia	- ₹ 400/-
Students / Research Scholars	- ₹ 300/-

*DD shall be drawn in favour of Organizing Secretary, MCAS BIO-2012,
Payable at Rasipuram.

IMPORTANT DATES

Last Date for registration	- 9 th December 2011
Last Date for submission of abstract	- 23 rd December 2011
Last Date for request for accommodation	- 16 th December 2011
Announcement of accepted abstracts	- 26 th December 2011

FOOD / ACCOMMODATION

To all delegates, food and accommodation are provided free of cost.

ABOUT THE COLLEGE

Muthayammal College of Arts & Science was established in the year 1994, with the aim of bringing a new dimension to the study of Arts & Science. The college currently offers 16 programmes at UG Level and 15 at PG Level. Three departments viz. Biotechnology, Microbiology & Biochemistry have facilities for research leading to M.Phil and Ph.D., programmes. M.Phil programme is conducted by Commerce & Computer Science departments. Our institution with green-environment, excellent an infrastructural facility with able and experienced faculty makes it possible to impart the latest technological advancement in biological sciences. Conducting National / State level seminar is a regular feature of our college.

LOCATION

Muthayammal College of Arts & Science is located at Rasipuram, a small town in Tamil Nadu 250 KM away from Chennai, 240 KM from Bangalore, 165 KM away from Coimbatore, 60 KM away from Erode, 36 KM away from Salem, on the Rasipuram - Attur State highway. Rasipuram is well connected by bus transport with the rest of the country. Participants, after reaching Salem, Erode or Trichy by Train have to reach Rasipuram by bus. The climate at Rasipuram in January will be usually salubrious.

CONTACT

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THEMES

- Agricultural and food processing technologies
- Biofuels and bio-sourced chemicals
- Bioinformatics and health informatics tools
- Biomaterials and biocomposites development
- Biosecurity
- Drug development and manufacturing
- Gene therapy development
- Improved food animal species and enhanced animal health
- Laboratory and diagnostics development services
- Nanotechnology and Nano medicine
- Production of novel and useful compounds via plant pathways
- Seed and plant varietal development and production
- Tissue engineering and organ systems development
- Antibiotics, vaccine and hormone production
- Waste management and environmental clean-up and protection