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### Address for Correspondence

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Organizing Secretary

Department of Biotechnology

Periyar University, Salem – 636 011

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## National Conference on “Genomics and Genetic Engineering Strategies for Crop Improvement”

(GGES-2012)

27 & 28 February 2012



Organized by

DEPARTMENT OF BIOTECHNOLOGY  
PERIYAR UNIVERSITY  
SALEM – 636 011, TN, India  
[www.periyaruniversity.ac.in](http://www.periyaruniversity.ac.in)



Venue: **Senate Hall, PU, Salem-636 011**

**Sponsored by**



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## National Conference on “Genomics and Genetic Engineering Strategies for Crop Improvement”

27 & 28 February 2012

Registration form

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Mobile: \_\_\_\_\_

Email ID: \_\_\_\_\_

Title of Paper: \_\_\_\_\_

Payment Details

Registration Fee: \_\_\_\_\_

DD. No. & Date: \_\_\_\_\_

Name of Bank: \_\_\_\_\_

(Mail registration fee to: **Dr.P.Venkatachalam**

Organizing Secretary, Department of Biotechnology

Periyar University, Salem – 636011, Ph.No.09952609915,

E-mail: [gges2012@gmail.com](mailto:gges2012@gmail.com))

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Signature \_\_\_\_\_

For Office Use: \_\_\_\_\_

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## Background

Genomics and genetic engineering research promises to promote continued and enhanced genetic improvement of biological organisms rapidly in the past few years. The recent advances in genomics and genetic engineering research with conventional practices have created the foundation for development of genetically engineered organisms, DNA/molecular markers, and biological synthesis of nanodrugs an interdisciplinary science that is revolutionizing 21st century crop improvement programmes.

Tissue culture techniques are part of a large group of strategies and technologies, ranging through molecular genetics, recombinant DNA studies, genome characterization, gene-transfer techniques, RNAi techniques and aseptic growth of cells, tissues, organs, and *in vitro* regeneration of plants that are considered to be biotechnologies for crop improvement. The introduction of combinations of different beneficial genes into an elite variety through the transgenic approach is also likely to provide an important direction in crop improvement. Because stress conditions, such as salinity and drought, vary depending on local climates and geographical features, the fine tuning of gene activities will be required for practical application in each area. Transgenes or marker-assisted selection may assist in the development of high yielding crops, which will be needed to feed the world population of the next millennium.

Genome sequencing projects are providing novel approaches for identifying plant/marine organism biosynthetic genes of nutritional importance. Plant and marine foods provide almost all essential vitamins and minerals and a number of other health-promoting phytochemicals. Because micronutrient concentrations are often low in staple crops, research is under way to understand and manipulate synthesis of micronutrients in order to improve crops and marine organism's nutritional quality. The term nutritional genomics is used to describe work at the interface of biochemistry, genomics, and human nutrition. Nanobiotechnology is having an impact on several aspects of the food industry, from how food is grown to how it is packaged. Companies are developing nanomaterials that will make a difference not only in the taste of food, but also in food safety, and the health benefits food delivers.

Genetic engineering offers significant potential for improved seed and food quality, pharmaceutical products and nanodrugs. Transgenomics is a program that focuses on developing novel traits and agriculturally relevant characteristics where novel phenotypes are generated through changes in gene regulation. This conference provides a recent genomic tools and novel genetic engineering strategies in different views and ideas from different aspects for crop improvement.

## About the University

The Periyar University was established in September 1997 and it imparts value based education in four districts of Tamil Nadu Viz, Salem, Namakkal, Dharmapuri and Krishnagiri. There are 21 Departments functioning under Periyar University, Salem. In all the Departments, specialized courses are offering the Post graduate level, M.Phil and Ph.D research programmes. The Department of Biotechnology was started in 2008 and state of the art facilities have been established. Currently, Faculty members are operating various Research Projects from different funding agencies.

## Purpose of the Conference

An innovative step taken by the Department of Biotechnology is to make the learners to understand the modern genomics and genetic engineering strategies for crop improvement. In recent years, advances in genomics and genetic engineering technology have greatly enhanced our understanding of structural and functional aspects of genomes but at the same time have challenged us with many compelling avenues of investigation. The main goal of this conference is to create awareness on the recent trends and developments in this particular field. Both the researchers and students will get feedback from different scientific community about their research work. By attending other sessions they will come to know about what scientists are doing in this domain and current state of the art technology. Hopefully, academicians and scientists from various universities as well as research institutions across the country will participate and exchange their meaningful research outcomes and share their views on aforesaid theme.

## Themes/Topics

1. Plant Tissue culture & Genetic manipulation
2. DNA & Molecular marker assisted selection
3. Genetic Engineering & Molecular Biology
4. Agricultural, Food & Marine Biotechnology
5. Nanobiotechnology

## Call for Abstracts

The abstracts with an emphasis on genomics and genetic engineering in crop plants/marine organisms falling under improvement programme are invited from the scientific community for oral and poster presentations. The participants should submit a hardcopy of the abstract not exceeding 300 words including title, authors and affiliation typed in Times New Roman 12 font with double line spacing.

The name of the presenting author should be underlined. The abstracts forwards should be submitted before the deadline along with electronic version in CD and registration fee on or before Jan, 27, 2012 to the Organizing Secretary (E-mail: gges2012@gmail.com). For poster presentation boards are available 90cms×120cms. The registered participants can participate and present their work in the conference.

## Awards

Two best papers for oral and poster presentations in each theme will be selected for award. Beside these awards, five young scientists will be selected for "scientist award" in this conference.

## Accommodation

Accommodation will be arranged in the hotels on request and hotel charges have to be paid by the participants. Indicate your preference in the registration form. The rooms are available for faculty members in University Guest House according to availability. Students will be accommodated in the hostels according to availability with nominal charges. No TA/DA will be paid for the participants.

## Registration Fees

The registration fee can be paid in the form of bank draft drawn in favour of "The Organizing Secretary" and can be sent to Dr.P.Venkatachalam, Organizing Secretary, Department of Biotechnology, Periyar University, Salem-636 011, Tamil Nadu, along with filled-in registration form and abstract before the deadline. Registration fee covers attendance for all the technical sessions, conference kit, working lunch and high tea.

Category	On or Before
For Students/Scholars	Rs.500/-
For Faculty/Scientists	Rs.1000/-
For the Spot Registration	Rs. 1250/-

## Important Dates

Submission of Abstracts/Papers : 27<sup>th</sup> January 2012  
Last Date for Registration Fee : 27<sup>th</sup> January 2012  
Notification of Acceptance of papers : 30<sup>th</sup> January 2012