

# M. S. Swaminathan Research Foundation

## GDEST India – U.S. Workshop Agricultural Biotechnology for the Global Public Good

*Co-sponsored by the National Academy of Agricultural Sciences of India  
and the U.S. National Academies*

*October 4-6, 2006  
Chennai, India*

**Venue: Triple Helix Auditorium  
Central Leather Research Institute  
(Council of Scientific & Industrial Research)  
Adyar, Chennai 600 020 India**

### **October 4**

Location: Auditorium

Venue:

#### **9:00 AM Opening Ceremony**

9:00 -9:10 **Welcome Remarks**

*Prof. V. L. Chopra. Member, Planning Commission, Govt. of India*

9:10-9:25 **Opening Remarks**

*Prof. M. S. Swaminathan, Chairman, MSSRF and President,  
National Academy of Agriculture Sciences, India*

9:25-9:40 **Opening Remarks**

*George Atkinson, Science and Technology Adviser to the Secretary of State,  
U.S. Department of State*

9:40-9:55 **Special Remarks**

#### **9:55 – 10:15 Tea Break**

10:15-10:20 **Panel I: Mechanisms of Plant Defense: Pathogens and Diseases**

*Moderator: Prof. V. L. Chopra. Member, Planning Commission, Govt. of India*

10:20-10:40 **Emerging Perspectives on Plant Innate Immune Response**

*Dinesh Kumar, Yale University*

- 10:40-11:00 **Engineering for biotic stress in Rice**  
*Bharat B. Chattoo, M. S. Univ., Baroda*
- 11:00–11:20 **HC-Pro Suppression of RNA Silencing: Mechanistic Studies**  
*Vicki Vance, University of South Carolina*
- 11:20-11:40 **Promoters and genes for biotic stress**  
*Rakesh Tuli, Director, NBRI, India*
- 12:00-12:30 **Q&A Panel Discussion**
- 12:30-1:30 **Lunch**
- 1:30 - 2:30 **Poster Session**
- 2:30-2:35** **Panel II: Comparative Genomics**  
*Moderator: Dinesh Kumar, Yale University*
- 2:35-2:55 **Rice genome and its application**  
*Akhilesh Tyagi, Univ. of Delhi, South Campus*
- 2:55-3:15 **Comparative Analysis and Genome Tool Development in Maize**  
*Brad Barbazuk, Donald Danforth Plant Science Center*
- 3:15 - 3:30 **Tea Break**
- 3:30–3:50 **Comparative genomics in drought stress studies**  
*A. R. Reddy, Univ. of Hyderabad, Hyderabad*
- 3:50-4:10 **From Model Systems to Crop Species: Using Genomics to Understand Legume Evolution and Advance the Study of Crop Legumes**  
*Doug Cook, University of California, Davis*
- 4:30-5:00 **Q&A Panel Discussion**
- 5:00-6:00** **Poster Session**
- 6:00-8:00** **Public Forum (For Media and General Public)**  
*Moderator: Prof. Swaminathan*

## **October 5**

### **9:00-9:05 Panel III: Abiotic Stress Environments**

*Moderator:*

#### **9:05-9:25 Understanding and Improving Plant Abiotic Stress Tolerance**

*Jian-Kang Zhu, University of California at Riverside*

#### **9:25-9:45 Engineering cotton and tomato for abiotic stress tolerance**

*K. C. Bansal, ICGEB, New Delhi*

#### **9:45–10:05 Wheels Within Wheels: Systems Approaches to Stress Tolerance Engineering**

*Hans J. Bohnert, University of Illinois, Urbana-Champaign*

#### **10:05-10:20 Tea Break**

#### **10:20-10:40 *Transgenics for Saline environments***

*Ajay Parida, MSSRF, Chennai*

10:40-11:00

#### **11:00-11:30 Q&A Panel Discussion**

#### **11:30-12:30 Poster Session**

#### **12:30-1:30 Lunch**

### **1:30-1:35 Panel IV: Bioenergy: Plants and Future Energy Prospects**

*Moderator: Nina Fedoroff, Pennsylvania State University*

#### **1:35-1:55 Bioenergy crops**

*Renu Swarup, Dept. of Biotechnology, Govt. of India*

#### **1:55-2:15 Biomass Conversion to Products via Thermo-Chemical Processes**

*Michael Roberts, Gas Technology Institute*

#### **2:15–2:35 Microbe mediated bioenergy production**

*Aditi Pant, NCL, Pune*

#### **2:35-2:55 A Research and Market Pathway to Realize the Potential of Biofuels**

*Thomas D. Foust, National Renewable Energy Laboratory*

#### **2:55-3:10 Tea Break**

3:10-3:30

3:30-4:00 **Q&A Panel Discussion**

**4:00-4:05 Panel V: Metabolic Engineering - Biofortification and Pharmacology**  
*Moderator:*

4:05-4:25 **Maize Genomics: New Tools and Complexities for Metabolic Engineering**  
*Patrick Schnable, Iowa State University*

4:25-4:45 **Nutritional Security through bioengineering**  
*Asis Datta, Director, NCPGR*

4:45-5:05 **Medicinal Plant Metabolic Engineering**  
*Toni Kutchan, Donald Danforth Plant Science Center*

5:05-5:20 **Tea Break**

**5:20-5:40 Biofortification of crops**  
*Vibha Dhawan, Vice Chancellor, TERI, New Delhi*

5:40-6:00

6:00 – 6:30 **Q&A Panel**

## **October 6**

**9:00-9:05 Panel VI: Biotechnology: Looking Toward the Future**  
*Moderator*

9:05-9:35 Dr. Swapan Datta, Univ. of Kolkata

9:35-10:05 **Promise and Paradox: The Future of Agricultural Biotechnology**  
*Nina Fedoroff, Pennsylvania State University*

10:25-11:00 **Q&A Panel Discussion**

11:00-12:00 Poster Sessions

12:00-1:00 Lunch

1:00-4.00 **Student Dialogue: Looking Toward the Future**  
*Moderator: George Atkinson, Science and Technology Adviser to the Secretary of State, U.S. Department of State*

## **Registration Details**

Registration Fees

: Rs.600/-

Payment Details

: Demand Draft to be drawn favouring “M.S.Swaminathan Research Foundation, Chennai”, payable at chennai and sent to Dr.Ajay Parida, M.S.Swaminathan Research Foundation, III Cross Street, Taramani Institutional Area, Taramani, Chennai 600 113. Outstation Cheques will not be Accepted.

Note: Limited number of registrations only and no spot registration