# ICGI 2001 WORKSHOP, JUNE 5-7, 2001 MONTPELLIER, FRANCE

At the request of the ICGI, CIRAD agreed to host the ICGI 2001 Workshop that took place on the CIRAD campus in Montpellier, France from June 5th to June 7th. Recognizing the importance of holding such a workshop, CIRAD offered to host it, and the Department of External Relations of CIRAD provided support to organize it. The workshop was meant to bring together a significant number of cotton researchers, from different countries and representing various types of institutions (public, academic, and private).

The goal was to discuss openly the organization of the ICGI, in order to give the network more visibility and to render it attractive to cotton genome

researchers worldwide. The schedule of the workshop was organized to reach the goals that were put forth. After presentations on CIRAD and its Cotton Program by host institution representatives, a presentation of the Global Forum on Agricultural Research (GFAR), its goals and mode of functioning was given. This introduction was followed by a first session, in which presentations devoted to background information on existing networks (PROMUSA, ITMI), that could serve as models for the ICGI, were given. The following sessions were devoted to "the current state of research on cotton genome analysis" as well as the organization of the ICGI.

#### Sponsors of the ICGI-2001 Workshop

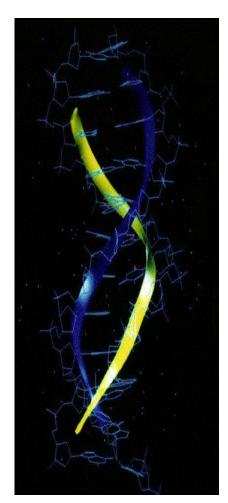
To fund this meeting, Roy Cantrell approached cotton breeding, genetics, and biotechnology stakeholders for modest support. Because we hoped to invite key researchers, we needed funds to pay for their travel.

The response was overwhelming. All the contacted stakeholders contributed, and the amount of money generated approached US\$60,000. While this

carries a tremendous responsibility and obligation, it emphasizes the timeliness of the ICGI. The monies were deposited into a research foundation account at New Mexico State University. The funds are available to the ICGI Steering Committee to defray the expenses of ICGI activities and functions. It must be noted that the funds are not available for sponsored research activities.

| ICGI 2001 Workshop Sponsors |             |                            |                           |  |
|-----------------------------|-------------|----------------------------|---------------------------|--|
| Aven                        | tis         | Cotton Research &          | Monsanto                  |  |
| CIRA                        | Dev         | elopment Corporation (AUS) | Stoneville Pedigreed Seed |  |
| Cotton Founda               | ation (USA) | Delta & Pineland Co.       | Syngenta                  |  |
| Cotton Incorpo              | rated (USA) | Dow AgroSciences           |                           |  |

# International Cotton Genome Initiative



# **ICGI 2001 WORKSHOP**

June 5-7, 2001 Montpellier, France

# Meeting Announcement and Final Program Details



# ICGI Introduction and Background

The last decade has seen unprecedented advances in the use of DNA technology to unravel the genetic secrets of plants and animals. International collaborative efforts are underway to map and characterize the genomes of many important organisms. The study of the complex allopolyploid cotton genome is scientifically challenging and requires a coordinated multidisciplinary research effort. The International Cotton Genome Initiative (ICGI) was created at a meeting of cotton genetics/genomics researchers in Canberra, Australia in February 2000. An International Steering Committee was formed and a letter to cotton science community was published in the Journal of Cotton Science (http://www.jcotsci.org/2000/issue02/toc.html). Cotton is viewed as one of the world's most important cash crop, and sustains the agricultural economies of many nations by providing a sustainable fiber product for the textile industries. Unfortunately, many challenges face cotton production at the present and in the future. Concerns over fiber/textile novel properties, water use and pesticide inputs abound. In some important growing regions of the world, a production plateau has been reached and stability of production is a serious concern. With the advent of genomic technologies, the scientific community has an unprecedented opportunity to make significant genetic improvements in cotton.

# **Objectives of ICGI**

- 1. Reduce redundancy of research effort and maximize rate of progress in research to understand the cotton genome.
- 2. Foster tool development to begin integrating genetic and physical maps.
- 3. Accelerate development of portable cotton linkage map.
- 4. Foster rapid application of new genomic tools to cotton improvement.
- 5. Develop comprehensive forum for exchange and communication within cotton scientific community and with the *Arabidopsis* model genome community.
- 6. Develop standardized nomenclature for DNA markers, maps and etc.

# **Program Description**

# ICGI2001 Workshop June 5-7, 2001

#### June 5,2001

08:30-12:00

Introductions and general comments

Welcome (CIRAD)

Cotton as part of GFAR (Global Forum for Agricultural Research)

Examples of International consortia in plants (INIBAP, Arabidopsis, other)

#### 1:30-6:00

Current state of research activities on cotton genetics and genomics

- -Genetic mapping, QTL analysis
- -Physical mapping
- -Functional genomics (including *Arabidopsis* as a model system)
- -Genetic resources, cytogenetics of Gossypium
- -Bioinformatics

## June 6,2001

08:30-12:00 ICGI functional business

- -ICGI presentation (summary of Canberra meeting)
- -Collaborative efforts
- -Public/private interactions

1:30-5:00 ICGI functional business (cont.)

- -Sharing of resources
- -ICGI future funding (NSF-RCN, EU)
- -ICGI global recruitment

**WORKSHOP DINNER** 

#### June 7,2001

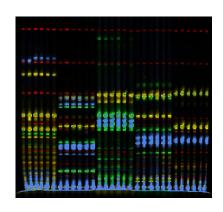
08:30-12:00 ICGI Structural business

- -Year one accomplishments
- -ICGI funding
- -ICGI Steering Committee membership
- -ICGI Advisory Committee
- -Publications (website, newsletter, proceedings)
- -Planning 2002 meetings and beyond (PAG, WCRC3 and etc.)

1:30-5:00 Visits and tours

Tour 1 – CIRAD Cotton Technology Laboratory

Tour 2 - Plant Biotechnology and Genetic Resources Laboratories



ICGI2001
Workshop is open
to all public and
commercial
scientists with an
interest in cotton
genetics/genomics

# ICGI2001 Workshop June 5-7, 2001



Centre de Cooperation
Internationale en Recherche
Agronomique pour
Developpement
Avenue Agropolis
BP5035
34032 Montpellier
Cedex 1, France

# ICGI International Steering Committee Members:

C Brubaker (CSIRO, Australia) RG Cantrell (NM State Univ, USA)

T Wilkins (UC Davis USA) M Giband (CIRAD, France) B Lyon (Univ Sydney, Australia)

# **Workshop Venue and Accomodations**

The ICGI2001 workshop will be held at CIRAD Research Center in Montpellier, France. The conference hotel for lodging is listed below (this hotel is at walking distance from CIRAD):

Hotel Heliotel.

Rond-Point Agropolis,

Route de Mende, 34980 Montferrier sur Lez, FRANCE FAX: (+33) 4 67 41 54 54 PHONE: (+33) 4 67 41 54 00

Email: heliot@wanadoo.fr

Internet: http://www/heliotel.fr

To be eligible for the preferential rate (299FFr/night, including breakfast) mention CIRAD-CA/Cotton Program at time of booking.

Questions regarding local arrangements can be directed to:

Marc Giband (Email marc.giband@cirad.fr)

Phone: (+33) (0) 4 67 61 57 35 Fax: (+33) (0) 4 67 61 56 05

If planning to attend workshop please RSVP to M Giband (above) or RG Cantrell (email rcantrel@nmsu.edu).

# **ICGI Steering Committee and Facilitators**

In addition to the ICGI Steering Committee, who will act as workshop facilitators, a number of key public cotton participating scientists (CPS) have agreed to attend. These include: R Kohel (US), S Saha (US), L May (US), D Gessler (US), A Paterson (US), L Dennis (AUS), JM Lacape (FRANCE).

# **ICGI2001 Sponsors**

Generous financial support from the following made ICGI2001 possible: Monsanto, Delta and Pineland Co., Stoneville Pedigreed Seed Co., CIRAD, Cotton Research and Development Corporation (AUS), Cotton Incorporate (USA), Cotton Foundation (USA), Syngenta, Aventis, and Dow AgroSciences.

# ICGI 2001 WORKSHOP PARTICIPANTS

| David Anderson          | Phytogen Seed Co.   | USA       |
|-------------------------|---|-----------|
| Tony Arioli             | Aventis Crop Science  | Australia |
| Fermin Azanza           | Syngenta Seeds  | France    |
| Claire Billot           | CIRAD-Amis  | France    |
| Curt L. Brubaker        | CSIRO Plant Industry  | Australia |
| Roy G. Cantrell         | New Mexico State University   | USA       |
| Stefano A Cerri         | Univ. Montpellier   | France    |
| Hana Chair              | CIRAD-CA  | France    |
| Brigitte Courtois       | CIRAD-Amis  | France    |
| Liz Dennis              | CSIRO Plant Industry  | Australia |
| Jean-Vincent Escalant   | International Network for the Improvement of Banana and Plantain (INIBAP) | France    |
| Deqiu Fang              | Delta and Pine Land Company   | USA       |
| Damian Gessler          | National Center for Genome Resources                                      | USA       |
| Marc Giband             | CIRAD-CA  | France    |
| Bernard Hau             | CIRAD-CA  | France    |
| William V. Hugie        | Delta and Pine Land Company   | USA       |
| Russell J. Kohel        | USDA/ARS  | USA       |
| Jean-Marc Lacape        | CIRAD-CA  | France    |
| Philippe Leroy          | Institut National de la Recherche Agronomique                             | France    |
| Bruce R. Lyon           | The University of Sydney  | Australia |
| O. Lloyd May            | University of Georgia   | USA       |
| Swarup K. Mukharjee     | Mahyco Life Sciences Research Center,<br>Maharashtra Hybrid Seeds Co.Ltd  | India     |
| Trung-Bieu Nguyen       | CIRAD-CA  | France    |
| Hubert Omont            | IPGRI c/o INIBAP  | France    |
| Catherine Pannetier     | Laboratoire de Biologie Cellulaire, INRA                                  | France    |
| Andrew Paterson         | Plant Genome Mapping Laboratory, University of Georgia                    | USA       |
| Valasubramanian Ramaiah | Mahyco Life Sciences Research Center,<br>Maharashtra Hybrid Seeds Co.Ltd  | India     |
| Ange-Marie Risterucci   | CIRAD-Amis  | France    |
| Sukumar Saha            | USDA/ARS  | USA       |
| Ivan Schuster           | Instituto de Bioteecnologia Aplicada a Agroopecuaria,<br>BIOAGRO          | Brazil    |
| Frank Shotkoski         | Syngenta  | USA       |
| Mauricio Ulloa          | USDA-ARS  | USA       |
| Thea A. Wilkins         | University of California-Davis  | USA       |
| Robert Wright           | Aventis Crop Science  | Belgium   |

# **ICGI 2001 WORKSHOP AGENDA**

#### June 5,2001

#### INTRODUCTIONS AND GENERAL COMMENTS

Marc Giband/Jean-Marc Lacape Welcome

CIRAD and it's Annual Crops Department Jean-Luc Khalfaoui CIRAD's Cotton Program Jean-Philippe Dequine

#### **EXAMPLES OF INTERNATIONAL CONSORTIA IN PLANTS**

Cotton as part of GFAR **Hubert Omont** 

(Global Forum for Agricultural Research)

INIBAP Jean-Vincent Escalant

ITMI Philippe Leroy

#### **CURRENT STATE OF RESEARCH ACTIVITIES ON COTTON GENETICS AND GENOMICS**

Genetic mapping, QTL analysis Andy Paterson Physical mapping Russ Kohel Functional genomics (including Arabidopsis as a Liz Dennis

model system)

Genetic resources, cytogenetics of Gossypium Lloyd May & Sukamar Saha

**Bioinformatics** Damian Gessler

June 6,2001

#### **ICGI FUNCTIONAL BUSINESS**

Summary of Canberra meeting Curt Brubaker Public/private interactions Open discussion Collaborative efforts Open discussion Sharing of resources Open discussion ICGI future funding (NSF-RCN, EU) Roy Cantrell ICGI global recruitment Thea Wilkins

June 7,2001

#### **ICGI STRUCTURAL BUSINESS**

Year one accomplishments Bruce Lyon ICGI funding Roy Cantrell ICGI Steering Committee membership Open discussion **ICGI Advisory Committee** Open discussion Publications (website, newsletter, proceedings) Thea Wilkins Planning 2002 meetings and beyond Open discussion

(PAG, WCRC3 and etc.)

### **VISITS AND TOURS**

Tour 1 – CIRAD Cotton Technology Laboratory **CIRAD** Tour 2 – Biotrop CIRAD