

**CMD**

cotton microsatellite database

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## Newsletter April 2008

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Welcome to the April 2008 quarterly issue of the CMD newsletter. This issue will cover the progress made by the CMD Development Team through the first quarter of 2008. Please feel free to provide feedback and news directly by email to Anna Blenda [blenda@clermson.edu](mailto:blenda@clermson.edu). A PDF version of the newsletter will be available on the CMD Downloads page.

### CMD Work Summary

#### I. Conferences, Meetings and Presentations

1. CMD was presented as a poster at the Plant and Animal Genome (PAG-XVI) meeting in January 2008, San Diego, CA.
2. CMD was presented by Anna Blenda at Beltwide Cotton conference, on January 10, 2008, Nashville, TN.
3. A CMD Advisory Board meeting was held on January 10, 2008, during the Beltwide Cotton conference, Nashville, TN:
  - a) the CMD Advisory Board expanded by inviting 2 new members: Dr. Peng Chee from UGA, and Dr. Richard Percy from USDA-ARS;
  - b) progress made by CMD team in 2007 and further perspectives for the CMD development were discussed.
4. The CMD abstract for was submitted for possible oral presentation at the ICGI symposium to be held in summer 2008 (Bioinformatics section).

#### II. New Data.

1. A new genetic map was data was kindly provided by Dr. J-M. Lacape and M. Ruiz added to the Comparative Map Viewer for the cross:

**F2: *G. hirsutum* "CRI36" x *G. barbadense* "Hai7124", based on publication:**

Yu J, Yu S, Lu C, Wang W, Fan S, Song M, Lin Z, Zhang X, Zhang J. 2007. High-density linkage map of cultivated allotetraploid cotton based on SSR, TRAP, SRAP and AFLP markers. *Journal of Integrative Plant Biology* 49(5): 716-724.

2. The links to Publication info and CottonDB record were activated on the View and Search SSR marker pages for the **Gh** project.

3. An About SSR webpage has been updated with **1** new publication:

*Roratto PA, Buchmann D, Santos S, Bartholomei-Santos ML. 2008. Genetics and Molecular Biology 31(1): 58-63. PCR-mediated recombination in development of microsatellite markers: mechanism and implications.*

4. The Community page has been updated with the most current information on job opportunities, new technologies in cotton genomics research, upcoming conferences, and new publications included in CMD.

5. 13. The Links page has been updated with **12** new links directing CMD users to the websites related to cotton research, industry and other related areas.

6. The publications page has been updated in the first quarter with **8** new relevant publications from the start of 2008, totaling 108 publications available for View and Search in CMD.

7. The collection of the data of the genetically mapped cotton traits of breeding importance has been initiated and will be added to the CMD. Up-to-date, the information about **28** traits (both single gene and QTL) have been collected.

### III. Updated tools and searches

1. The CMD redesigned database schema incorporating data tables for the new type of cotton markers (SNPs), as well as fsa files of panel screened data for visual display, through automated upload into the CMD, was uploaded with all the CMD data and copied to the production site ([www.cottonmarker.org](http://www.cottonmarker.org)) in February 2008.

2. The BLAST, FASTA and CAP3 servers have been upgraded and now offer expanded parameter options so users can tailor their searches more precisely. These changes have caused the interface to change slightly. The significant similarity searches (BLAST/FASTA) are run on 32-node 1GHz dual-proc 1GB RAM Linux cluster, and is significantly faster.

3. The CMD web usage report tool Webalizer was replaced by a new tool Google Analytics that provides a more comprehensive report about the CMD web usage statistics. The new tool will be used for the second quarter CMD usage report.

4. In the first quarter of 2008, CMD was visited by users 6,615 times by users from 27 countries (data from Webalizer).

#### IV. On-going work

1. Data for the new SSR project PGML (Plant Genome Mapping Lab) is in the process of being organized for the display through the CMD.
2. Work is on-going for access to the original chromatograms (fsa files) containing the CMD standardized panel screened data. Links to the freely available software STRand and ABI's Peak Scanner are being made available for user to view the chromatograms.
3. Preparations are on-going to upload and display the first cotton SNP project data provided by Allen Van Deynze (UC Davis), on the CMD.
4. Work is on-going to implement SNPServer with AutoSNP program and make it available through the Tools page for CMD users to computationally mine for SNPs in their sequences of interest.
5. Preparations are on-going to present the CMD at the ICGI Symposium in China, 2008

#### **Coming conferences**

[2008 ICGI Research Conference](#) will be held in Anyang, China, July 8-11, 2008.

#### **Job Opportunities**

##### **RESEARCH LEADER, COTTON FIBER BIOSCIENCE UNIT SOUTHERN REGIONAL RESEARCH CENTER**

The USDA, Agricultural Research Service, Southern Regional Research Center, Cotton Fiber Bioscience Research Unit, New Orleans, LA, is seeking a Supervisory Research Biologist (Biochemist)/Molecular Biologist/Geneticist (Plants)/Plant Physiologist, GS-0401/0440/0435-14/15. The successful candidate will be the Research Leader responsible for leading a team of scientists and support personnel in conducting research to generate new knowledge relevant to the structure and function of cotton fiber. The ability to plan, conduct, and publish research in the area of bioscience is required. This is an interdisciplinary position. Salary is commensurate with experience (\$91,781-\$140,355). U.S. citizenship is required. For complete application instructions and specific information requirements to be included with your submission, candidates should visit <http://jobsearch.usajobs.gov/getjob.asp?JobID=69017681> to view the vacancy announcement ARS-X8S-0060-R or call: 301-504-1482 to copy/obtain complete instructions for applying. Applications must be postmarked by April 14, 2008.

##### **COTTON INCORPORATED FELLOWSHIPS**

Outstanding pre-doctoral and post-doctoral students are being recruited for research projects as part of the expanded initiative by Cotton Incorporated to develop the next generation of cotton fiber quality specialists. Research area will be adapted to the selected candidates background. In addition to topics such as statistics, plant biology, etc., the research will involve all the current textile technology tools (fiber and yarn mostly but also some fabric).

Successful Cotton Incorporated Fellows (CIF) must have a strong academic background in science (plant and soil science or biology or engineering or related disciplines). Fellows will be at the core of expanded cooperative research projects ongoing at public institutions as part of this initiative. This is an excellent opportunity for training in current and potentially new fiber quality testing systems.

Excellent stipends (\$30,000 for graduate fellows and \$42,000 for post-doctoral fellows), tuition, and full benefits packages are provided to CIF. All CIF applicants must be U.S. citizens and successful candidates will be required to meet the admission requirements of cooperative academic institutions and programs, primarily located in the Cotton Belt. Applications and enquiries should be directed to:

Vikki Martin, Director

Quality Research & Product Evaluation Fiber Competition

Cotton Incorporated

6399 Weston Parkway

Cary, NC 27513

Telephone: 919-678-2414

Fax: 919-678-2234

e-mail: [vmartin@cottoninc.com](mailto:vmartin@cottoninc.com)

The application should include a letter of interest, academic transcripts, and three letters of reference.

### **Subscriptions**

Visit our mailing list to be added/removed to the available [CMD mailing list](#). Once you have registered you may use the mailing list to send out relevant information the community and it will be stored in searchable web archives. If you have any difficulties please [contact us](#).

### **CMD Newsletter**

The next CMD Newsletter issue is tentatively scheduled for July 1, 2008.