GDR | genome database for rosaceae

Newsletter

Aug 2005

Welcome to the third issue of the GDR newsletter. This newsletter is issued quarterly to inform users about new or updated data and features in GDR and community related news. Please feel free to provide feedback and news either directly by email or via our online form. A PDF version of the newsletter is also available as are previous newsletters.

What's new at GDR?

1. GDR web address change.

GDR is now accessible at the following URL: http://www.rosaceae.org. At the current time this URL will be redirected to http://www.mainlab.clemson.edu/gdr while we move the database over to the new web address. In all future web references to GDR please use the http://www.rosaceae.org URL.

2. Updates to the peach transcriptome map.

Unique peach ESTs are being hybridized to peach BACs to map the ESTs onto the genetically anchored peach physical map. 569 peach unigenes are anchored to various Rosaceae genetic maps. 367 of them are anchored by direct hybridization to genetically anchored BACs and the rest (202) are anchored by hybridization to BACs that belong to genetically anchored BAC contigs. 375 unigenes are anchored to the TxE map. The GDR map viewer and the downloadable peach transcriptome data reflect the updated peach transcriptome map.

3. Anchored genes and ESTs are displayed in genetic maps in CMap.

The 25 major genes affecting agronomic characters which are anchored to TxE (Dirlewanger et al, 2004), are now displayed in TxE map in CMap. The peach ESTs are also displayed by the markers with which they share BACs or BAC contigs by hybridization in eight Prunus genetic maps. The anchored ESTs and markers in CMap are linked to the GDR detail pages. View an example CMap page.

4. New EST data

A new peach EST dataset sequenced by Elisa Vendramin from the CRA Istituto Sperimentale per la Frutticoltura is now publicly available. A total of 1667 clones from peach fruit mesocarp have been analyzed. Assembly of these ESTs produced 1116 putative peach unigenes within this dataset.

5. Run protein motif and domain searches using InterProScan

Users can now search ESTs against the European Bioinformatics Institutes InterPro database directly from GDR. InterPro is a database of protein families, domains and functional sites in which identifiable features found in known proteins can be applied to translated ESTs. Finding functional domains in a EST may corroborate the putative function obtained by sequence homology or provide more information for ESTs with no homology to other known proteins. Our site programmatically accesses EBI's InterProScan so users can query InterPro without uploading EST sequences at the EBI's site. To access an example EST page, go to (http://www.mainlab.clemson.edu/java/gdr/EST.jsp?CloneName_Result=PP_LEa0002H11f) and

run InterProScan.

6. Bulk search and download feature available in the EST search pages.
A bulk search is now available for peach, almond, strawberry, and GenBank rosaceae EST datasets. Users can upload a file with multiple clone names or Genbank accession numbers and have returned to them all the sequence and homology information associated with those sequences. Any bulk EST search query will now return downloadable files of fasta formatted sequence and homology results.

7. Abstracts and powerpoint presentations of NRI funded projects.
View and download all the abstracts and powerpoint presentations of the NRI funded projects presented at the recent ASHS meeting. Many thanks to the authors and Dr Ed Kaleiko for providing us with this information.

Community Conference News

1. International Symposium on Biotechnology of Temperate Fruit Crops and Tropical Species, Daytona Beach, FL USA, October 10-14, 2005.
2. Fruit and Nut Workshop, Saturday January 14, 8 am-12 pm. Plant and Animal Genome Conference XIV, San Diego, January 14-18, 2006. Conference organizer, Dr Amy Iezzoni.
3. 3rd International Rosaceae Genomics Conference in Napier, New Zealand, March 19-23, 2006

Subscription

Visit our mailing list site at GDR to be added/removed to the mailing list.
http://www.genome.clemson.edu/gdr/MailingList.shtml

Work in progress

- Processing new peach shoot ESTs, rose ESTs from vegetative apices and apices at floral transition and blackberry ESTs
- Extending the gene and QTL data available in CMap.
- Integrating data from the USDA CSREES NRI projects
- Developing a rosaceae EST unigene v2 with enhanced annotation