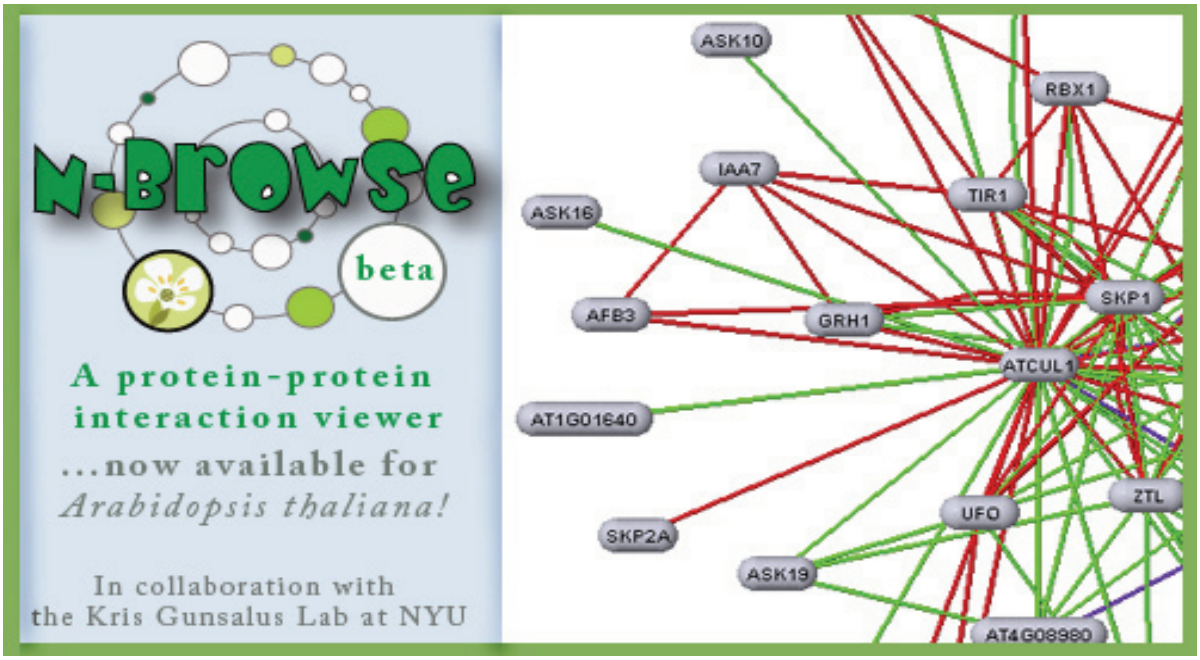
TAIR Spring 2010 Newsletter

New at TAIR: The Arabidopsis N-Browse, a Molecular Network Browser

The molecular interaction viewer N-Browse, developed by the Kris Gunsalus lab at NYU, is now available for Arabidopsis at TAIR:

http://www.arabidopsis.org/tools/nbrowse.jsp



Interactions displayed in this viewer originate from 3 datasets curated by BioGrid, IntAct and TAIR. The current TAIR protein-protein interaction (PPI) network contains 8,626 experimentally verified interactions. *In silico* predicted interactions will be added in a future version of the Arabidopsis N-Browse. This tool allows the viewer to find PPIs by searching for their gene of interest using AGI identifiers, symbols or full names. Users can also upload their own list of interactions and visualize them in N-Browse and overlay their network on the curated N-Browse set. All interactions are color-coded based on their detection method and links to the corresponding papers in Pubmed are provided. N-Browse also contains a Gene Ontology tree where GO terms associated to selected nodes in the network are highlighted. An N-Browse tutorial is also available from the above link. We encourage TAIR users to send us feedback regarding this brand-new tool. We would like to thank Kris Gunsalus and her team for all the help that they provided implementing N-Browse for TAIR.

TAIR Funding Update

Many thanks to those who took the time to fill out the recent TAIR survey or commented on the TAIR funding issue on our comments page! This public comment page is a way to make sure your voice is heard:
http://arabidopsis.org/doc/about/tair_funding/410
Three workshops will be held within the next 2 months to discuss the bioinformatics needs of the Arabidopsis research community:
- Discussion of data types, data uses and future needs (April 15-16 in Nottingham, UK)
- Discussion of technological and sustainability solutions (May 10-11 in Washington, DC)
- Results of the first two workshops presented for public comment (June 7 at the ICAR meeting in Yokohama, Japan)

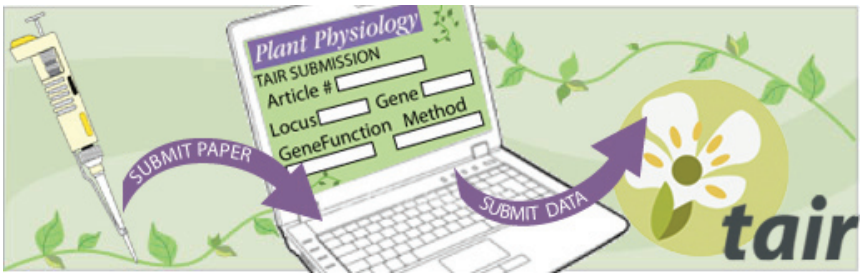
To maintain the current level of TAIR service to the community over the next three years in the face of steep budget cuts we are exploring some creative new ways to bring in additional funding. One of these, our new TAIR corporate sponsorship program, provides a way for companies using TAIR to support our work. We hope to announce our set of founding corporate sponsors within the next month. Please see our sponsorship page for further information:
http://arabidopsis.org/doc/about/tair_sponsorship/412

TAIR Tools Improvements

Revamped gene search tool
Tired of wading through long lists of genes? The TAIR gene search has been revamped so exact matches show up first before other results!
Symbol column added to most result pages
Haven't memorized locus codes for every gene? You no longer have to worry about that as we have introduced symbol columns (in addition to locus columns) to many search result pages!

TAIR's Journal Collaboration Program

TAIR's new journal collaboration program aims to gather Arabidopsis gene function data directly from authors whose articles have just been accepted for publication. The program was launched in early 2008 with the journal Plant Physiology, and in the last 12 months (March 09 - February 10) TAIR has received direct author submissions of gene function or expression information for 422 genes drawn from 104 articles, resulting in 609 new gene function annotations in TAIR. Although the rate of initial compliance by Plant Physiology authors was only 21% in the first year, we have clarified the author instructions resulting in an improvement to 50% compliance, with further improvement expected as authors gain familiarity with the submission process. The journal collaboration



program was expanded in the past year to include The Plant Journal and work is underway to include six additional plant journals. A new interactive web form and an improved pipeline for reviewing and loading community annotations are currently under development.

Recent TAIR Publications

Curators at TAIR contributed to several publications in the last few months:

+ Hirschman J, Berardini TZ, Drabkin HJ, Howe D.A (2010) *A MOD(ern) perspective on literature curation. Mol Genet Genomics*. 2010 Mar 11. [Epub ahead of print] http://www.springerlink.com/content/h24860543491530j/

+ Ramana Madupu, Lauren M. Brinkac, Jennifer Harrow, Laurens G. Wilming, Ulrike Böhme, Philippe Lamesch, and Linda I. Hannick *Meeting report: a workshop on Best Practices in Genome Annotation*; Database (2010) Vol. 2010, baq001; doi:10.1093/database/baq001 http://database.oxfordjournals.org/cgi/content/full/2010/0/baq001

+ Philippe Lamesch, Kate Dreher, David Swarbreck, Rajkumar Sasidharan, Leonore Reiser, and Eva Huala. *Using the Arabidopsis Information Resource (TAIR) to Find Information About Arabidopsis Genes Protocols in Bioinformatics* [Accepted for publication]

+ Nepusz T, Sasidharan R, Paccanaro A. *SCPS: A fast implementation of a spectral method for detecting protein families on a genome-wide scale.* BMC Bioinformatics. 2010 Mar 9;11:120. PubMed PMID: 20214776; PubMed Central PMCID: PMC2841596

New Protein Chip at ABRC

Approximately 400 copies of the Arabidopsis Protein Chip v1 ATPROTEINCHIP 1, developed by M. Snyder, S.P. Dinesh-Kumar, and M. Gerstein have been received at ABRC and are ready for distribution. Each chip contains a collection of 5,000 Arabidopsis proteins printed on a single array. Protein chips can be used in a variety of applications related to high-throughput functional analysis, including antibody screens, enzymatic or other functional assays, as well as interactions of proteins with DNA, RNA, lipids, small molecules or other proteins. You can order this chip through ABRC from the following page: http://www.arabidopsis.org/servlets/TairObject?type=stock&id=4001872756

New Cell Culture Resources at ABRC

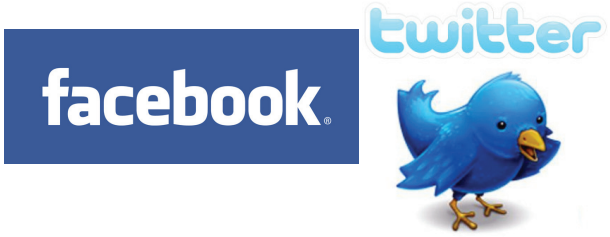
Cell line T87 (Stock number CCL84839) developed by M. Axelos in B. Lescure's lab (INRA) is now available. This line was derived from Columbia and donated by Allan Showalter (Ohio University). This stock can be found using the ABRC catalogue at http://www.arabidopsis.org/abrc/catalog/cell_lines_1.html

Meet the Curators at Conferences this Summer

TAIR and PMN curators will take to the road this summer to attend the ICAR meeting in Yokohama, Japan (6-10 June 2010) and the ASPB meeting in Montreal, Canada (31-4 July-August 2010). Please check the meeting schedules to find out about TAIR posters and workshops at

these meetings. Curators will also be available throughout the meeting to answer your questions on gene structure, gene function, and metabolic pathway annotation.

TAIR on Facebook and Twitter



TAIR has joined the social media scene. For updates on new features and the latest TAIR news, you can now follow TAIR on Twitter and Facebook!
To follow TAIR on Twitter please go to: *http://twitter.com/tair_news* and to follow TAIR on facebook please go to: *http://www.facebook.com/pages/TAIR-The-Arabidopsis-Information-Resource/175488372240?ref=ts*. Updates and tweets are generally sent out about once a week. See you out there!

Best wishes on your continuing research,
The TAIR Team