

BAR ThaleMine

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BAR: Bio-Analytic Resource

About us:

- ▶ One of the largest Plant Biology Resources
- ▶ Paper published in 2005
- ▶ Based in University of Toronto, Canada
- ▶ Free to access

Resources Include:

- ▶ Web applications, web services, databases
- ▶ Gene Expression data (eFP, ePlant)
- ▶ Protein-Protein, Protein-DNA Interactions (AIV2)
- ▶ Protein structures (ePlant)

Araport: Arabidopsis Information Portal

A centralized resource for Arabidopsis data

- ▶ Started in 2013 under the leadership of Prof. Chris Town (JCVI)
- ▶ JCVI, TACC, University of Cambridge
- ▶ Drupal 7 based araport.org page
- ▶ ThaleMine (InterMine instance)
- ▶ App store on araport.org
- ▶ JBrowse
- ▶ Araport11 reannotation project
- ▶ Single Sign on to all Araport resources
- ▶ RESTful API for scientific data
- ▶ Community outreach (workshops, conferences, etc)

Araport: Arabidopsis Information Portal

BAR contibution to Araport

- ▶ Provided gene expression database used by BAR eFP Arabidopsis Browser
- ▶ Attended Araport workshop/hackathon in November 2014
- ▶ Interactions Viewer - the first community app published on Araport.org
- ▶ Contributed serveral apps and APIs over the next few years.
- ▶ Biggest contribution: BAR ePlant app.

Araport: Arabidopsis Information Portal

Funding status

- ▶ Lost all funding in 2016
- ▶ Lost almost all staff
- ▶ New application for funding failed

Future of Araport team

- ▶ JCVI, TACC, BAR, TAIR, NCGR
- ▶ First meeting at JCVI in March, 2019
- ▶ BAR got ThaleMine, TAIR got JBrowse, NCGR contributed GCV
- ▶ Every thing else was deprecated
- ▶ News Update: araport.org

Araport ThaleMine to BAR ThaleMine

Araport ThaleMine: A few minor problems

- ▶ Not maintained since 2017
- ▶ Based on InterMine 1.8.5
- ▶ Used modified data
- ▶ Used several custom loader and displayers
- ▶ Some InterMine core and biosource changes where never made upstreams
- ▶ Too difficult to upgrade to InterMine 3.1.2

BAR ThaleMine: Principles

No initial funding. So we follow these rules

Simplicity Keep code to minimum possible lines and contribute as many changes to InterMine (upstream) as possible.

Least Surprise Test and upgrade every minor release (Principle of least astonishment)

Clarity No modification to data

Extensibility Build for the future (Java 11, etc)

Parsimony Write loaders and displays only when we have to.

