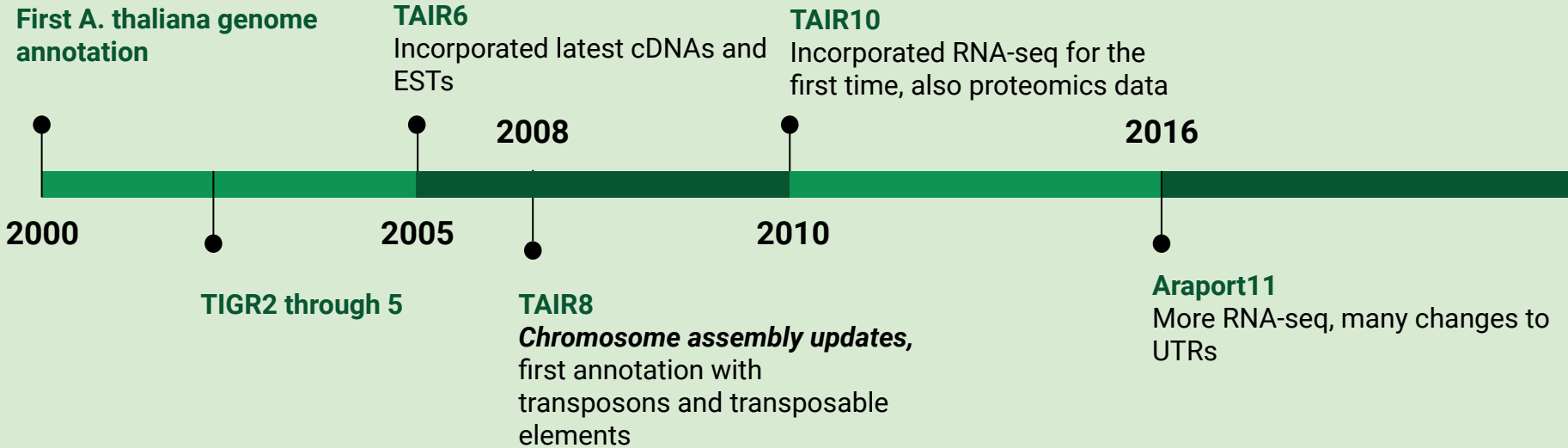


A. thaliana genome annotation v.12

A community effort coordinated by TAIR



Timeline



What has changed over the past 20 years?



- Greater amounts of supporting data
- Increased kinds of supporting data
- Improved sequencing technology, longer reads
- Improved genome assembly software
- Improved automated annotation pipelines

An improved version is



Creating a new genome annotation

Assembly

Automated
Annotation

Manual Review

GenBank
Submission

Dissemination
/Integration

Past releases: specific grant funding for the entire process

Creating a new genome annotation

Assembly

Automated
Annotation

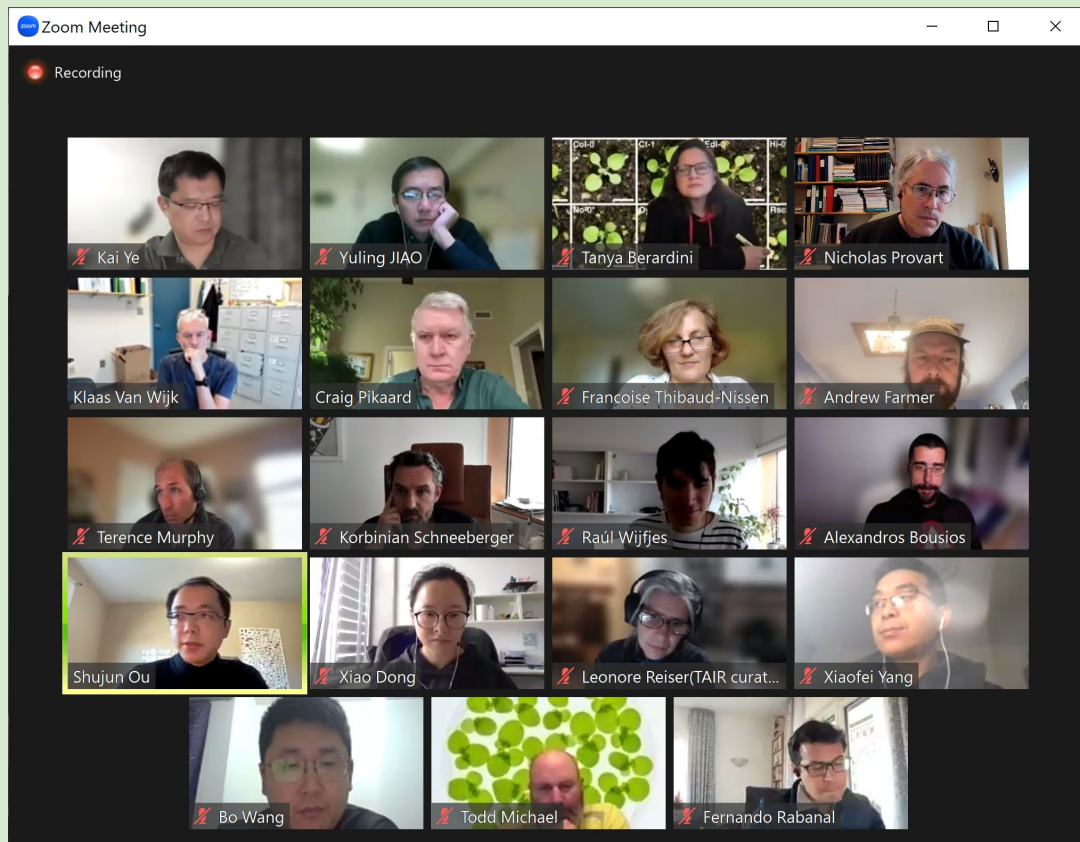
Manual Review

GenBank
Submission

Dissemination
/Integration

V12: Community effort, contributions of expertise and computing resources

October 27, 2022: First meeting



Creating a new genome annotation

Assembly

Who:
Schneeberger
lab (MPI)

Automated
Annotation

Who: NCBI (National
Center for
Bioinformatics)

Manual Review

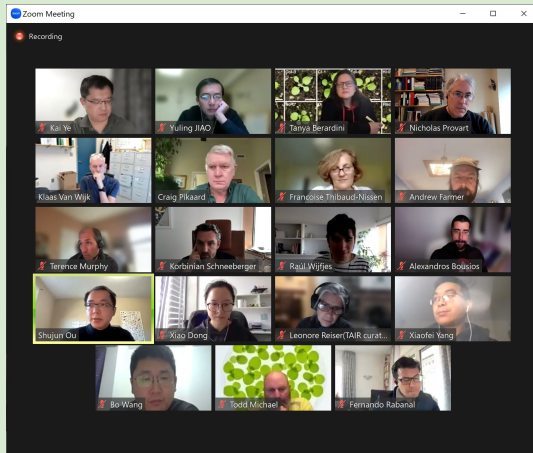
Who: Community
experts for review,
TAIR for
coordination and
WebApollo hosting

GenBank
Submission

Who: TAIR + NCBI

Dissemination
/Integration

Who: BAR, TAIR,
Ensembl Plants, NCGR
GCV, AtPeptide Atlas,
more



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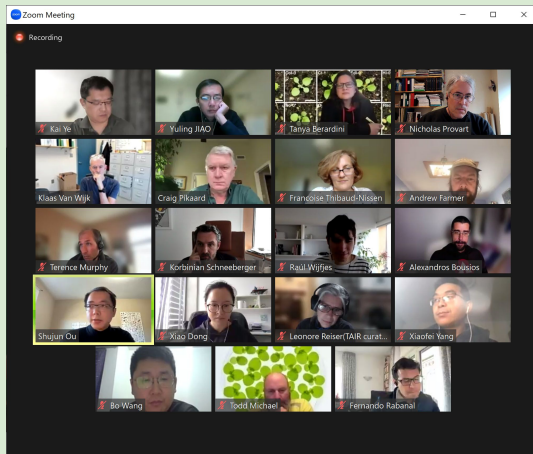
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experts for review,**
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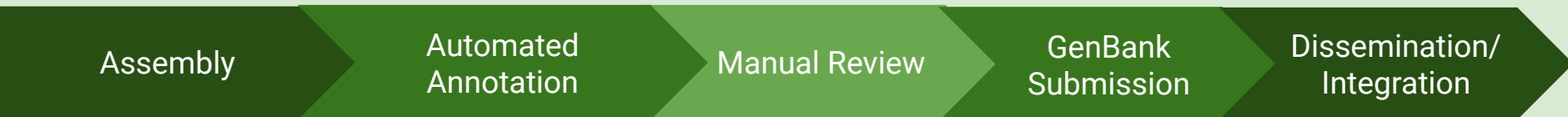
Who: TAIR + NCBI

Dissemination
/Integration

Who: BAR, TAIR,
Ensembl Plants, NCGR
GCV, AtPeptide Atlas,
more



Rough timeline: V12 publicly released by Jan. 2024



Dec 2022
(DONE, 12/23/22)

Currently in queue
for assembly review

Jan - March 2023?

April - Sept 2023?

Oct - Nov 2023?

Start: Jan 2024?

Manual Review: Join our volunteer team effort!

Need: subject matter expertise, interest, and attention to detail

Scope: TBD after NCBI annotation run

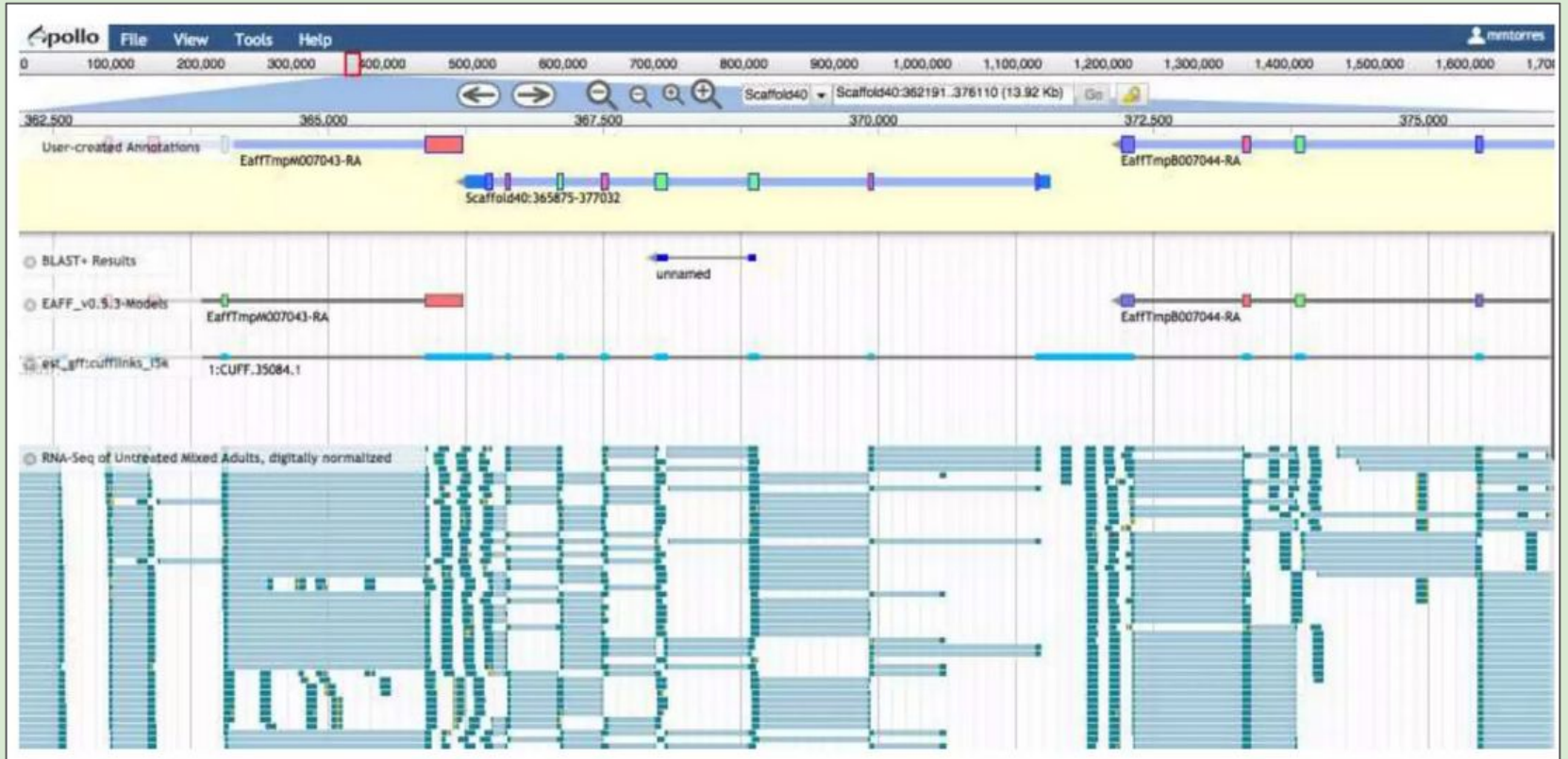
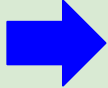
What would you be signing up for?

- WebApollo training session
- Reviewing a set of genes (clearly defined)
- Within a set time period, updates requested every two weeks after assignments are handed out
- Authorship in the reannotation paper

Contact: curator@arabidopsis.org



WebApollo



Distributing work

- By type of gene (protein coding, rRNA, transposable element, type of TE)
- By gene family
- By class of change to review (merge, split, removed, significantly changed)

Stay up to date

Website: <https://tinyurl.com/AthalianaV12>

Social media:

-  Mastodon: @TAIR@genomic.social
-  Twitter: @tair_news

In-person updates at:

-  **The 33rd International Conference on Arabidopsis Research**
- Plant Biology 2023



Contact: curator@arabidopsis.org