An Introduction to Apollo 3

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What to expect

- Brief introduction to Apollo 3

- Hands-on demonstration with test data

- Try with your data

APOLLO

Hopefully I can answer for you

- What even is Apollo anyway?

- Why is it "3", and how is it different?

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What is Apollo 3?

- A JBrowse 2 plugin
- A way to edit data that's in JBrowse
- A server that works with the plugin

What is it used for?

- Usually used for "manual annotation" or "curation" of genes

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"Incorrect annotations poison every experiment that makes use of them … Worse still, the poison spreads because incorrect annotations from one organism are often unknowingly used by other projects to help annotate their own genomes."
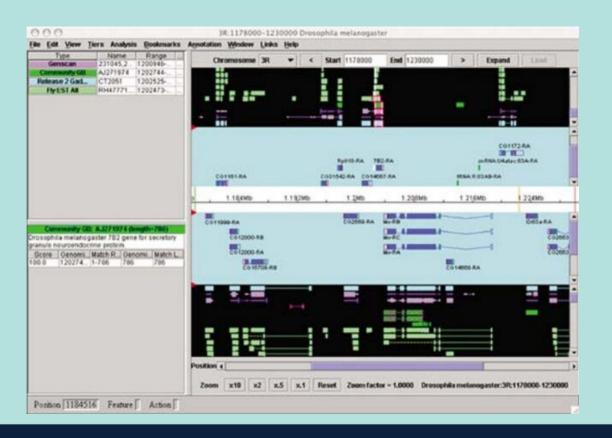
– Yandell and Ence 2012, doi:10.1038/nrg3174
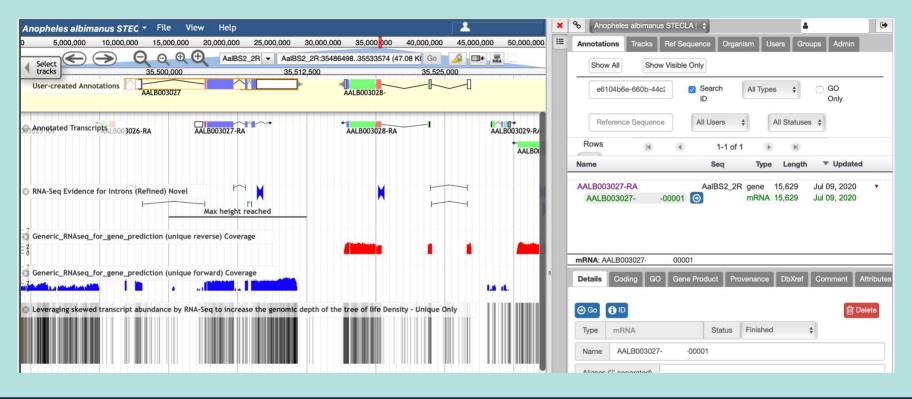
Why Apollo "3"?

Apollo 1

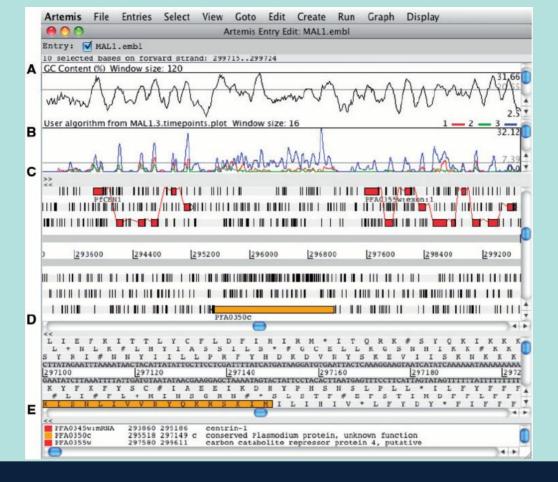# Apollo 2, aka "Web Apollo"

Otter

Artemis

Apollo 3

Apollo 1 → Apollo 2 → Apollo 3
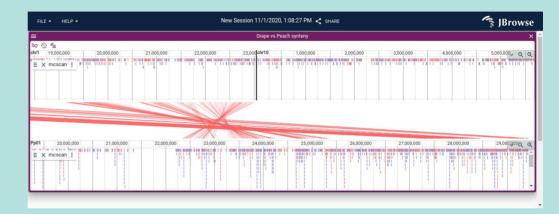
OR

Apollo + Artemis + Otter = Apollo 3

Apollo 3 in JBrowse 2

New features in JBrowse 2

- Linear syntenty view (pictured)
- Sort and filter alignments tracks
- Flip linear views
- View multiple regions at once

Status

- Beta release
- Many new UI features coming
- Install on server with Node.js and MongoDB
- Or use Docker

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Acknowledgements