

Genomes & Diversity

Gramene currently hosts 67 complete reference genomes. In collaboration with Ensembl Genomes, for each reference genome, we incorporate community annotation from primary sources and enrich this information with a series of standardized functional analyses (e.g., InterProScan, GO and PO assignments). Evolutionary histories are provided by Compara phylogenetic gene trees and complemented by analyses of whole genome alignments. Gramene has also positioned itself as a resource for genome variation data in food crops including three *Arabidopsis* species, rice, maize, sorghum, wheat, and barley.

Pathways & Networks

The Plant Reactome (<http://plantreactome.gramene.org>) is a new platform for the comparative analysis of plant metabolic and regulatory networks, produced in collaboration with the Human Reactome Project. The October release of Plant Reactome includes 305 metabolic and signaling pathways for 97 plant species including maize, rice, three *Arabidopsis* species, grape, tomato, Brassicas, and other crucifers.

Gramene also produces and hosts or mirrors metabolic pathways databases and visualization tools in the BioCyc collection. These are now hosted at CyVerse (<http://pathway.iplantcollaborative.org>).



Outreach

Meet us at key scientific meetings including Plant Biology, PAG, and Maize Genetics. We also participate in several Research Coordination Networks to understand community needs, and to establish and promote common data exchange formats.



Web Services

- Gramene Mart for custom data dumps
- Public MySQL & DAS servers
- RESTful APIs

Cite Us

Tello-Ruiz *et al* (2018). Gramene 2018: unifying comparative genomics and pathway resources for plant research. NAR 46 (D1): D1181

Contact us

feedback@gramene.org

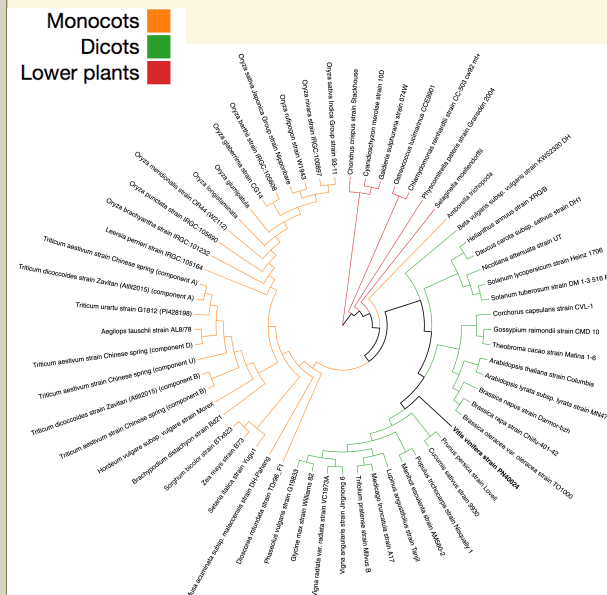
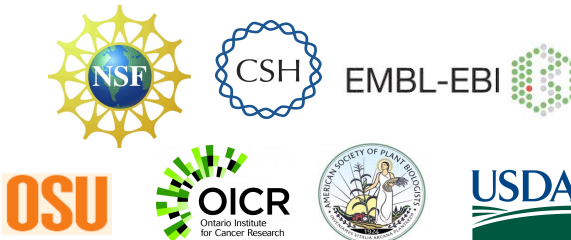
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New: Coffee, hot pepper, artichoke, liverwort, tef & durum wheat. **Updated:** Chocolate tree.

Comparative Genomics Across the Plant Kingdom

<http://www.gramene.org>

Gramene continues to grow! Now at 67 reference genomes and pathways for 97 species, including crops, model organisms and lower plants (build 62). Together these serve as a reference resource for comparative analyses, for the broad scientific community, in support of basic and translational research which impact societal interests in food security, energy production, and mitigating the effect of climate change.

