



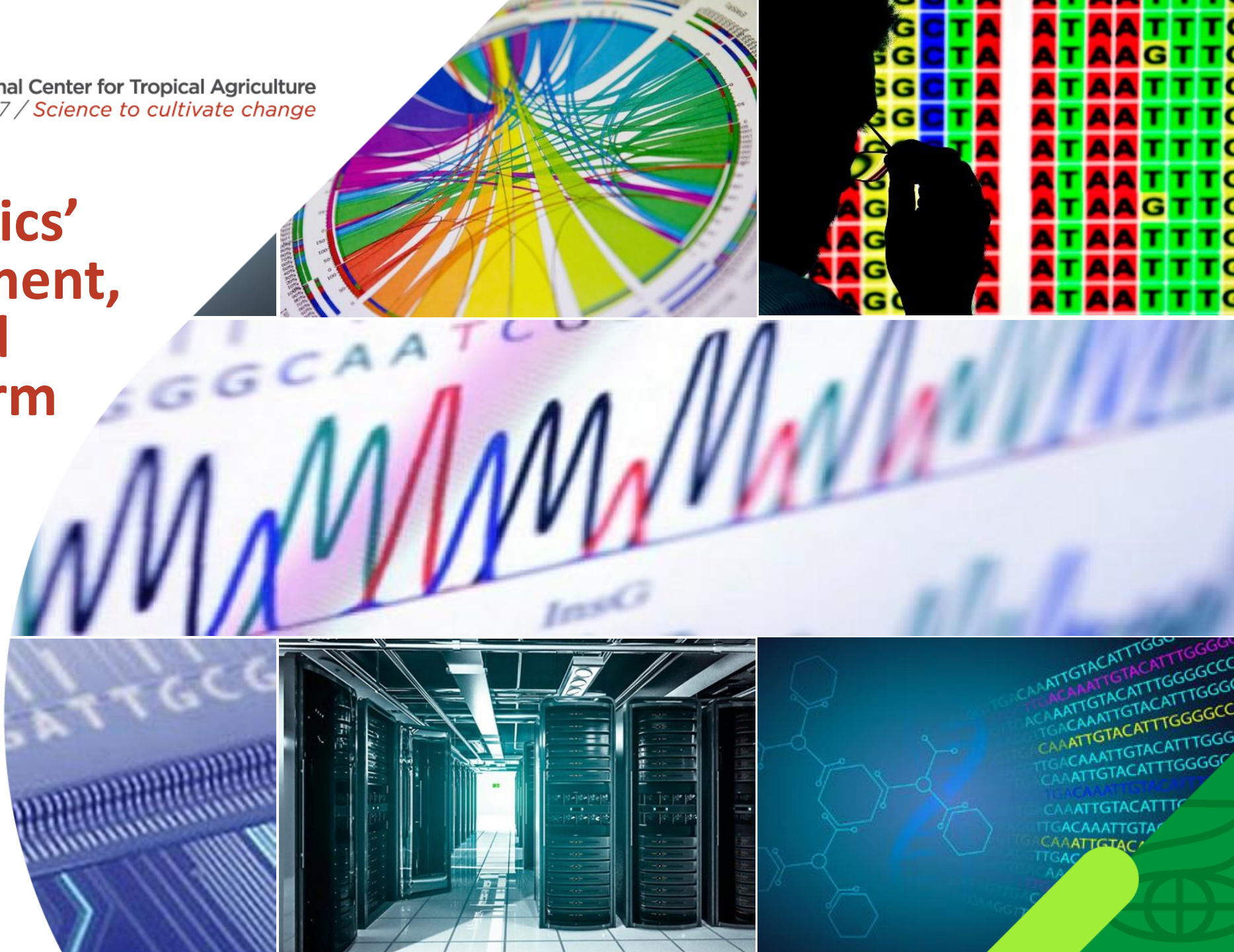
International Center for Tropical Agriculture
Since 1967 / *Science to cultivate change*

Cassava Genetics' Data Management, Processing and Sharing Platform

14th of October 2015
Cali, Colombia

**Luis Augusto Becerra
Lopez-Lavalle**

E-mail l.a.becerra@cigar.org



Cassava Genome Hub:

Cassava Genome Hub

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*genomics, transcriptomics, proteomics,
metabolomics, genetics
and breeding resources for cassava*

[Home](#) [Genetic Map](#) [Organism Details](#) [JBrowse](#) [Gene expression](#) [SNPs](#) [Cassava Resources](#)



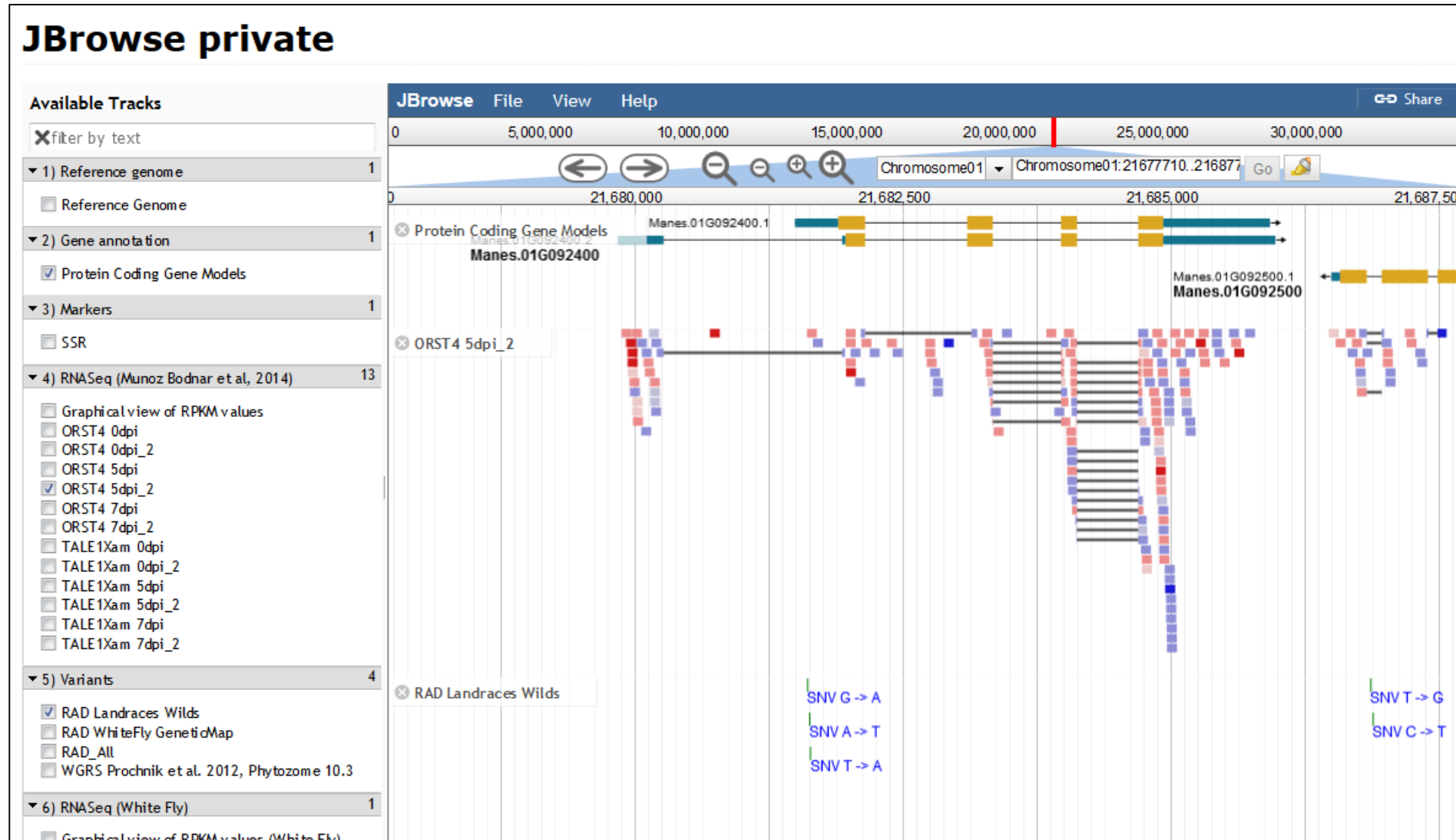
Home

CassavaOmic is a community of practice for communicating and sharing genomic, transcriptomic, metabolomic, genetic and breeding resources to enable basic, as well as transformational research in cassava for genetic improvement.

These Omic resources are sponsored by the CGIAR Research Program on Root, Tubers and Bananas.



Cassava Genome Hub:



Cassava Genome Hub:



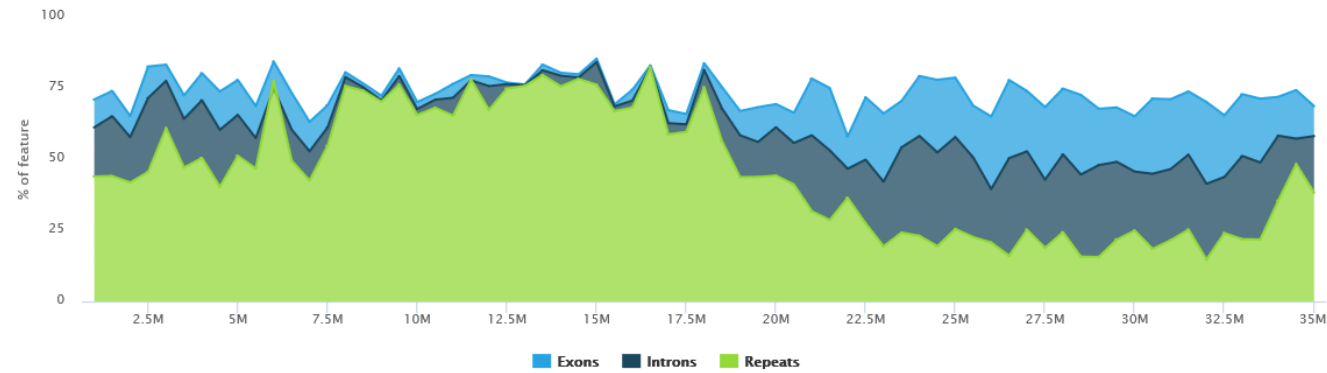
Cassava Genome Hub:

Chromosome viewer

Display: Chromosome:

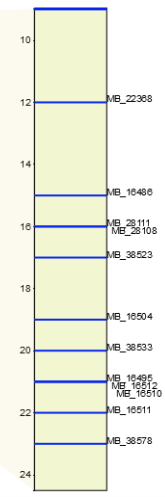
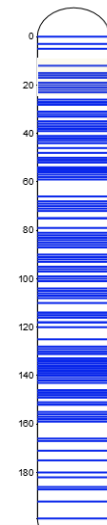
Gene and Repeat Density (Chromosome01)

Sliding window: 500kb



Genetic Map (quig Map)

Chromosome 1



Chr: 1
Position: 19
Marker: MB_16504
Protocol: MB_16504
[View on JBrowse](#)

Cassava Genome Hub:

SNPs private

Choose a species: Project: Level: Export:

1128 Individuals:

Individuals:

CM2087-101
CM2174-7
CM2177-2
CM2298-3
CM2452-5
CM2766-5
CM2772-3
CM2967-8
CM311-69
CM3277-1



8 Individual to be analyzed:

AGBELIFIA
ANTIOTA
B92033
C18
C4
CARICASS-I
CH92108
DOKUNBAHKYE

15 Chromosomes:

Genes:

Chromosome04
Chromosome05
Chromosome06
Chromosome07
Chromosome08
Chromosome09
Chromosome10
Chromosome11
Chromosome12
Chromosome13



3 Chromosomes:

Chromosome01
Chromosome02
Chromosome03

Enter a list

Filter/Display:

Assign individuals to groups/populations

Apply filters

Localisation within gene:

Chromosome position: Min Max

Synonymous / non-synonymous:

Number of alleles: Bi-allelic Tri-allelic Tetra-allelic

Type of variants: All SNP only Indel only

Minor Allele Frequency (MAF) in %: Min Max

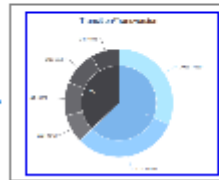
Discard positions having more than % missing data

Remove sites with a FILTER flag other than PASS

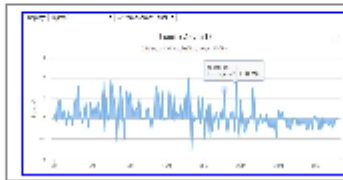
11301 polymorphisms found

==> [SNP.bcf](#) <==

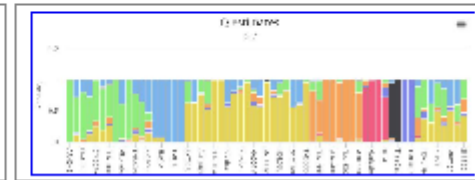
Statistics



Diversity analysis



Population structure



Send results to...

Cassava Genome Hub:

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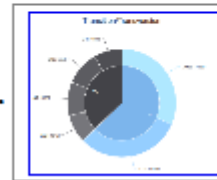
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Remove sites with a FILTER flag other than PASS

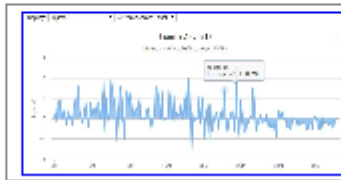
11301 polymorphisms found

==> [SNP.bcf](#) <==

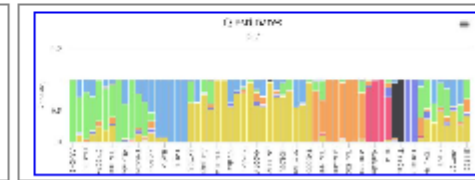
Statistics



Diversity analysis

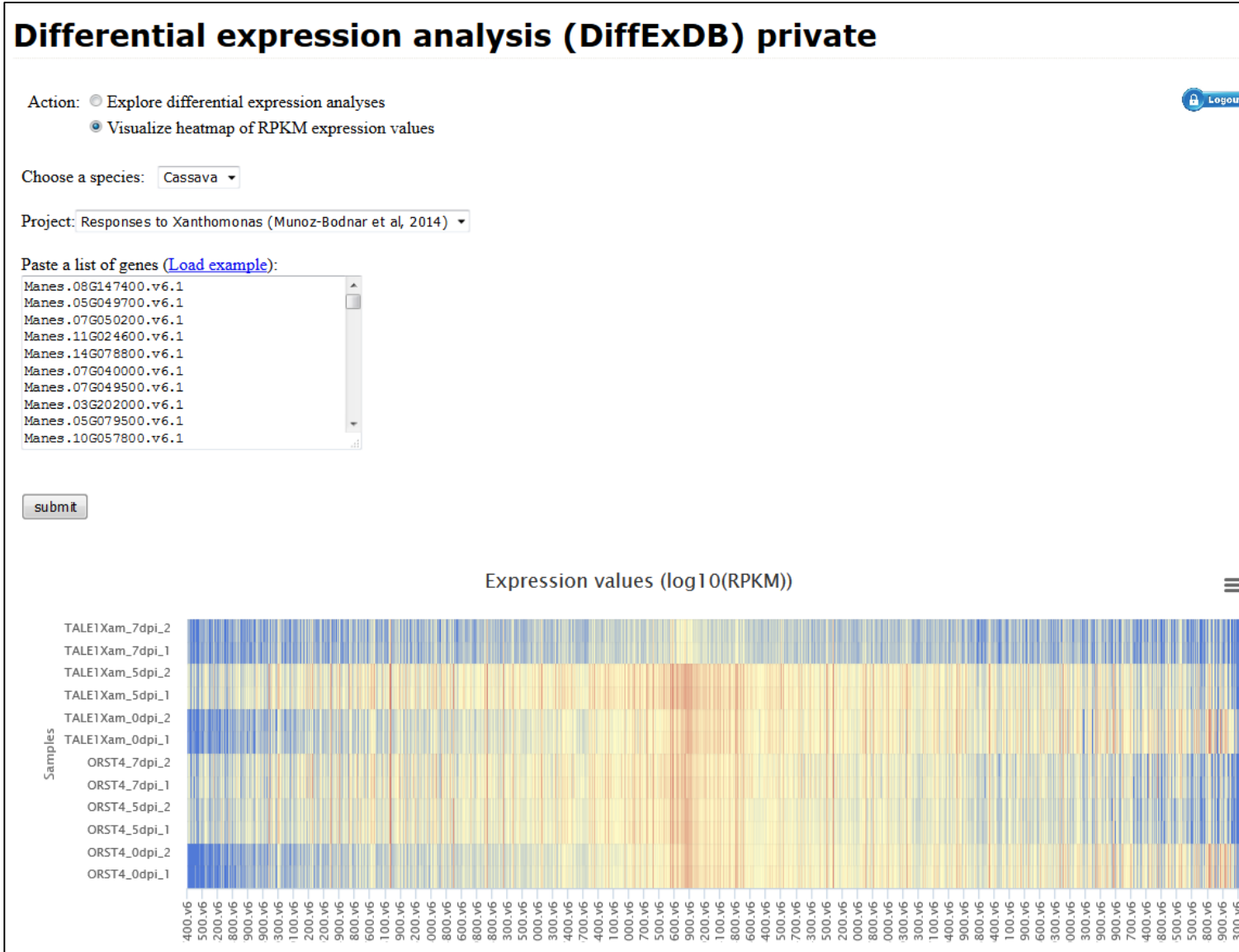


Population structure



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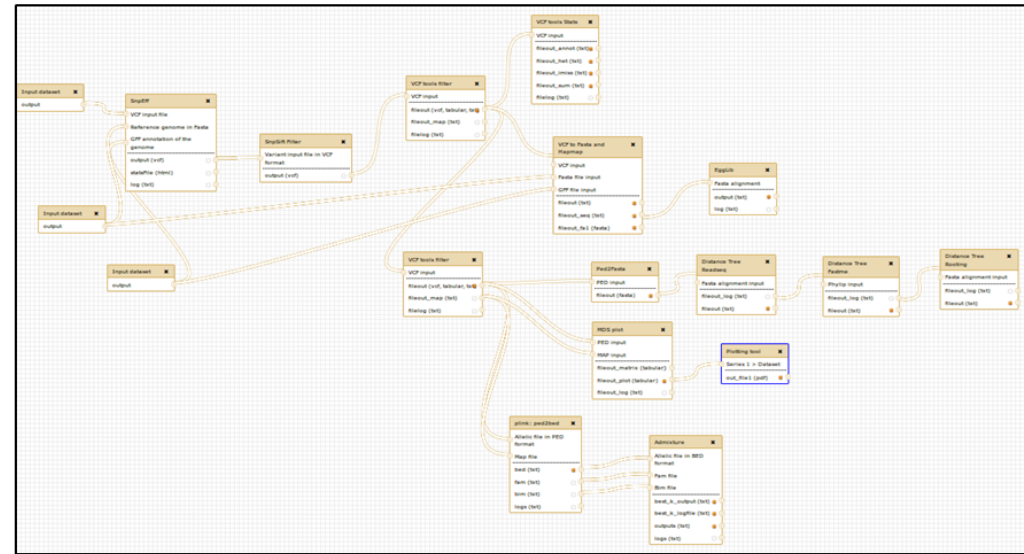
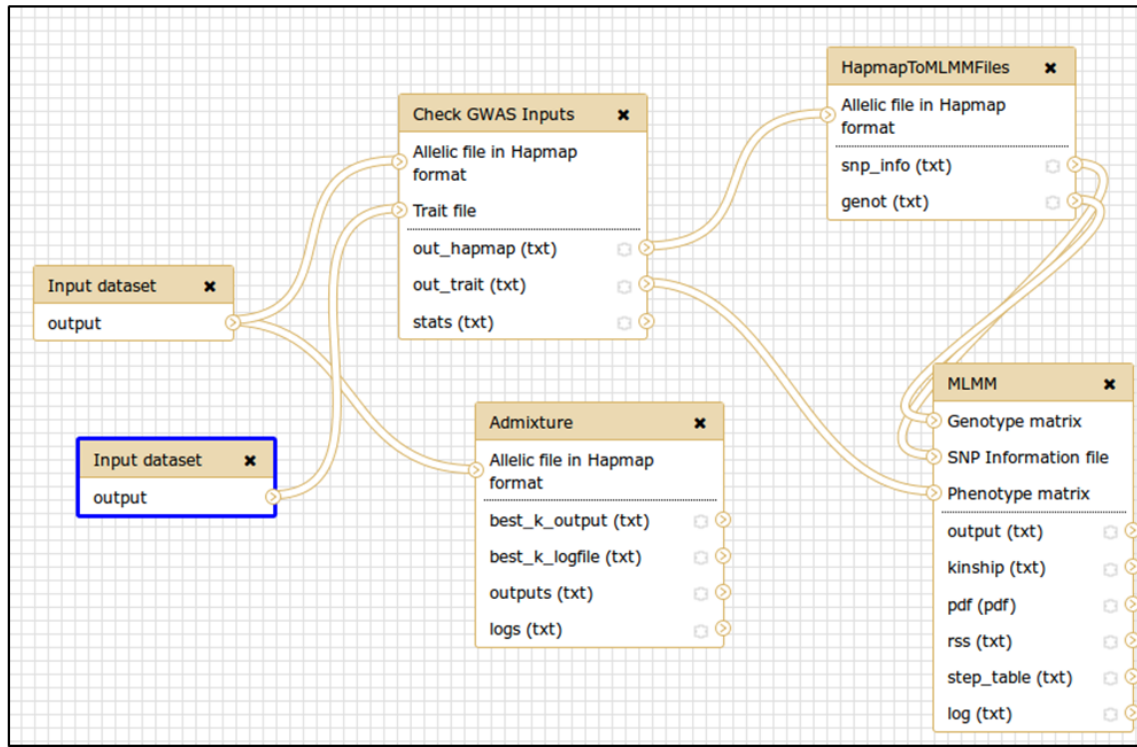


Cassava Genome Hub:

The screenshot shows the Galaxy web interface. At the top, the CIAT logo is displayed with the tagline "Science to cultivate change" and the text "International Center for Tropical Agriculture / Since 1967". Below the logo, a text block states: "Galaxy is an open, web-based platform for data intensive biomedical research. The Galaxy team is a part of BX at Penn State, and the Biology department at Johns Hopkins University. The Galaxy Project is supported in part by NHGRI, NSF, The Huck Institutes of the Life Sciences, The Institute for CyberScience at Penn State, and Johns Hopkins."

On the left, a "Tools" sidebar lists various categories: Get Data, Send Data, Lift-Over, Text Manipulation, Filter and Sort, Join, Subtract and Group, Convert Formats, Extract Features, Gene BED To Exon/Intron, Codon BED expander, and Fetch Sequences.

On the right, a "History" panel shows a list of datasets. The top entry is "30: blastn sequence(1).fasta vs sequence(1).fasta" with a size of 32.3 KB. Below it are entries "29: sequence(1).fasta" and "28: sequence(1).fasta".



Cassava Site:

<https://ciatnet.ciat.cgiar.org/sites/cassava/>



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CGIAR Consortium

www.ciat.cgiar.org
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CGIAR

Science for a food secure future