



## Scholarships for PUI Faculty to Develop Student Projects in Genome Annotation



Apply to join us in November 2018 for a

### **Maize Genome “Annotation Jamboree”**

and the CSHL Biological Data Science Meeting

We invite PUI faculty to apply to a Maize genome annotation jamboree on November 10-11, 2018 at Cold Spring Harbor Laboratory (CSHL). Faculty will learn how they can involve students in authentic research by making meaningful contributions to genome annotation while improving reference Maize genomes at PanMaize. We will introduce tools developed by MaizeCODE and Gramene and provide help and support for faculty bringing these tools into the classroom. Resources are available to support travel, room and board, and registration for interested faculty to the adjacent CSHL Biological Data Science meeting (November 7-10). See our website for more about our current outreach project in annotation and to learn more about MaizeCODE and Gramene.

Visit [www.maizecode.org/outreach](http://www.maizecode.org/outreach) to register your interest  
or send questions: [feedback@gramene.org](mailto:feedback@gramene.org)

[www.maizecode.org](http://www.maizecode.org)

[www.gramene.org](http://www.gramene.org)



fertilization independent endosperm2 (FIE2)

Conserved in maize gDNA

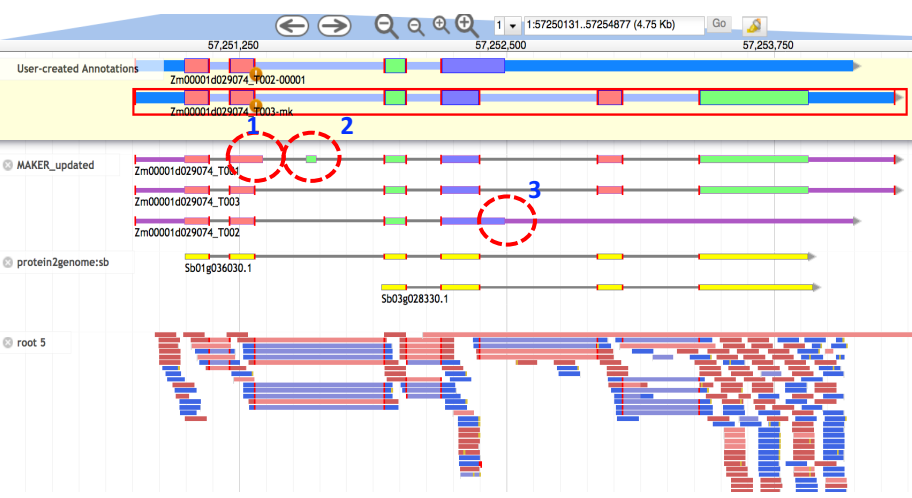


fertilization independent endosperm1 (FIE1)

Sorghum (FIE2)  
Genomic Maize

EVTVPVAAASNPKFRPPPPVQSKENQ	Gap	KYRPAPPEILPLPPA
	(16 aa; 49 nt)	
EVSVFPVAAASNPKFRFLPVHNKENQ		KYRABPEILPLPPA
B73 <a href="#">10:83,965,965-83,966,039</a>		B73 <a href="#">10:83,965,875-83,965,916</a>

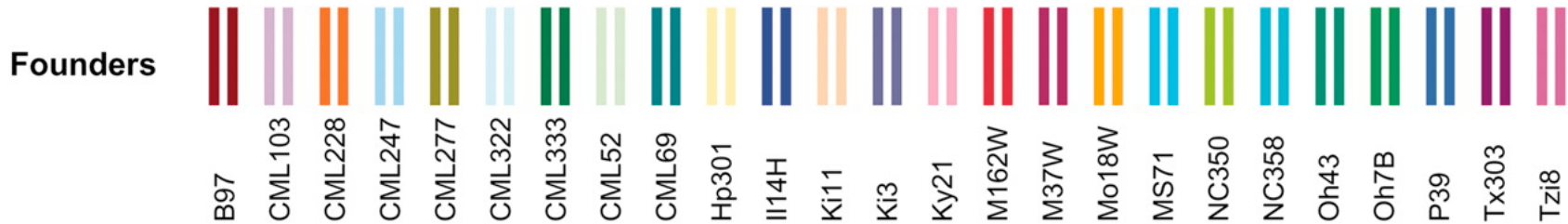
Conserved sequence missing in annotated gene



Annotation not supported by RNA-Seq evidence



# 24 Maize NAM Founder lines



Yu et al. (2008) *Genetics* 178:539-551; <https://doi.org/10.1534/genetics.107.074245>

- Chromosome-level assembly
- Uniform annotation protocol
- Compara gene trees—ortholog identification
- All pair-wise synteny maps
- Pan-genome analysis
- Variation: copy-number presence/absence

Pangenome site:  
B73, W22, PH207 maize  
+ outgroups

Preview at  
[maize-pangenome.gramene.org](http://maize-pangenome.gramene.org)

