

VIRTUAL PANGENOME WORKSHOP

Language: English

Date: October 1st, 2025

US Time: 9 am to 4 pm

Colombia Time: 8 am to 3 pm

Organizing Institutions:

- Colombian Corporation for Agricultural Research – AGROSAVIA, Colombia
- Boyce Thompson Institute – BTI, USA

Introduction:

Genomics has evolved into a new era of sequencing innovations, enabling the simultaneous exploration of multiple genomes within the same clade—pangenomes. Pangenomes are now being generated for a wide range of plants, animals, and microorganisms to mine genes and genetic variation from diverse germplasm collections. This approach highlights their value in identifying missing genetic components and uncovering their impact on economically important traits. These insights have enhanced our understanding of domestication, biology, and evolution, while also enabling practical applications in breeding.

The workshop aims to introduce the transition from individual genomes to pangenomes, emphasizing their advantages and applications in breeding and agriculture through case studies of key crops.

The event is intended for students, postdocs, and researchers in plant genetics and breeding, plant physiology, plant biology, agronomy, phytopathology, microbiology, and related fields, from BTI, AGROSAVIA, and Colombian universities or institutions with an interest in the topic.

Chairs: Luz Stella Barrero and Silvia Restrepo

Program:

Time (US)	Title	Speaker
9:30-9:40 am	Welcome to the workshop AGROSAVIA BTI	Carolina González, Head of the Agrobiodiversity Department, AGROSAVIA Silvia Restrepo, President, Boyce Thompson Institute (BTI)
	<i>Section 1. Case Studies in Single-Genome Sequencing at AGROSAVIA and BTI</i>	Chairs
9:40- 10:30 am	Harnessing plant genetic diversity at Agrosavia: from genome sequencing to agricultural innovation	Luz Stella Barrero, Senior PhD Researcher, AGROSAVIA Valeria Velasquez, Postdoctoral Fellow, AGROSAVIA
10:30-11:20 am	Genomic data from microorganisms to understand compatible and incompatible plant-microbe interactions	Paola Zuluaga, Associate PhD Researcher, AGROSAVIA Silvia Restrepo
	<i>Section 2. From Single Plant Genomes to Pangenomes: Advances at BTI</i>	Chairs
11:20 am-12:10 pm	Pangenomes of horticultural crops	Fei Zhangjun, Professor, BTI
	LUNCH BREAK	
1:30-2:20 pm	Pangenomes in breeding and in Breedbase	Lukas Mueller, Professor, BTI
2:20-3:10 pm	Mining and exploitation of tomato pan genome data.	James Giovannoni, Scientist, USDA

3:10-4:00 pm	Using the <i>Solanum</i> pangenome to advance crop bioengineering	Joyce Van Eck, Professor, BTI
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Workshop Program Notes:

- Each presentation will be **40 minutes**, followed by **10 minutes for questions**.
- From **9:00-9:30 am** speakers of the morning section and organizers will join the virtual room for audio and video check
- From **1:10-1:30 pm** speakers of the afternoon section and organizers will join the virtual room for audio and video check

Sign up here:

<https://events.teams.microsoft.com/event/4e70c4f2-5a0c-4ce3-80b3-06223d7a4fa5@7aa54085-0f23-494a-ae0a-8d363a77c11b/registration>

