

PAG XXXII: 2025

17 Phytomedomics and Nutriomics 1

Details

Location: Pacific E

Date: Tuesday, Jan 14 10:30 AM

Duration: 2 hours 10 minutes

About

The International Consortium on Phytomedomics and Nutriomics (ICPN) was established in 2010. ICPN organized 16 workshops during the International Conference on the Status of Plant and Animal Genome Research in 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2023 and 2024. Deliberations in these workshops were focused on the concepts, strategies, tools and techniques of genomics for elucidation of the genomes of medicinal plants and nutraceutical crops, the genes underlying the production of phytomedicines and nutraceuticals and utilization of these information for improvement of production and quality of their contents. The 17th and 18th ICPN Workshop will include presentations on the recent developments in the fields of proteomics and breeding in medicinal plants and nutraceutical crops. Comprehensive discussions during the interaction meetings among the participants will emphasize on the development of a roadmap for collaborative research including formulation of the precise plan of actions for future research at global level on the ICPN platform and drafting of a white paper for that purpose.

Presentation

10:30 AM Characterization of Genetic Factors Influencing Flavor, Pungency, and Carotenoid Metabolite Profiles in Capsicum chinense Collections
Padma Nimmakayala

West Virginia State University

10:45 AM Genomic Analysis of Mulberry Genetic Resources Toward Applications to Medicinal Use and Functional Foods
Hideo Matsumura

Shinshu University

11:00 AM Genome-Assisted Cytogenetics and Molecular Breeding for Panax Species
Hyeonah Shim

Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)

11:15 AM Genetic Factors and Mechanisms Underlying Phytonutrient Carotenoid Accumulation in Crops

Li Li

USDA-ARS

11:30 AM Molecular Characterization of DcMYB11 Promoter in Regulating Anthocyanin Biosynthesis in Carrots

Muhammad Ali Abid

Plants for Human Health Institute, NC State University

11:45 AM Genomic and Pathway Resources for Salvia in the Salviagdb and the Plant Reactome

Sushma Naithani

Department of Botany and Plant Pathology, Oregon State University

Co-organizers

Yong Pyo Lim

Human Friendly Agricultural Research Institute

Co-organizers

Phullara Kole

Prof. Chittaranjan Kole Foundation for Science and Society

PAG XXXII: 2025

18 Phytomedomics and Nutriomics 2

Details

Location: Pacific E

Date: Tuesday, Jan 14 1:30 PM

Duration: 2 hours 10 minutes

About

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Presentation

1:30 PM Molecular Characterization of Capsicum spp. Fruit Color Regulators

Byoung-Cheorl Kang

Department of Agriculture, Forestry and Bioresources, Research Institute of Agriculture and Life Sciences, Plant Genomics Breeding Institute, College of Agriculture and Life Sciences, Seoul National University

1:48 PM Map-Based Cloning of Sweetness Gene in Peanut Seed and Its Breeding

Application

Yong Pyo Lim

Human Friendly Agricultural Research Institute

2:06 PM Understanding the Genetic Basis of Anthocyanin Variation during Blueberry Post-Harvest

Estefania Tavares Flores

Blueberry Breeding Program, University of Florida

2:24 PM Metabolic Engineering to Enhance Provitamin D3 Accumulation in Edible
Tomatoes

Sunghwa Choe

Seoul National University

2:42 PM Revolutionizing Sustainable Agriculture: Leveraging Genomics and CRISPR/Cas9-
Based Genome Editing Technology to Re-Design Rice for Enhancing Iron and Zinc and
Nutrient- Use Efficiency in Starchy Grain Endosperms

Tanushri Kaul

International Centre for Genetic Engineering and Biotechnology

3:00 PM TBA

Carlos Ortiz

West Virginia State University

Co-organizers

Yong Pyo Lim

Human Friendly Agricultural Research Institute

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Phullara Kole

Prof. Chittaranjan Kole Foundation for Science and Society