



WORKSHOP PROGRAM

DAY 1: Sunday, June 16

17.00-19:00 registration at the Welcome Desk
19:30 Welcome cocktail and dinner

DAY 2: Monday, June 17

08:45 – 09:00 WORKSHOP INTRODUCTORY

Session 1: MERISTEM IDENTITY & INFLORES ARCHITECTURE

09:00 – 10:30 Chair: Robert Sablowski
John Innes Centre, Norwich Research Park, UK

Invited lectures:

Maria von Korff (25')
Institute of Plant Genetics, Heinrich-Heine-Universität Düsseldorf, Germany
“Inflorescence development and floral abortion under stress in barley”

Teva Vernoux (25')
RDP laboratory, ENS de Lyon
“Lateral organs or internodes? Let the hormones decide”

Communications:

Rüdiger Simon (12')
Heinrich Heine University, Institute for Developmental Genetics, Düsseldorf, Germany
“Plant Stem Cell Niches”

Peilin Chen (12')
Institute of Biology, Humboldt-Universität zu Berlin, Berlin, Germany
“The role of FRUITFUL controlling cell division programs during early flower development revealed by time series snRNA-seq experiments”

Francesca Caselli (12')
University of Milan, Department of Biosciences, Milan, Italy
“Behind phyllotaxis, within the meristem: a REM-ARF complex shapes inflorescence in Arabidopsis thaliana”

10:30 – 11:10 Coffee break

11:15 – 12:45 Chair: Martin Kater
University of Milan, Department of Biosciences, Milan, Italy



Invited lectures:

Jorge Dubcovsky (25')

University of California, Davis, Distinguished Professor, DAVIS, United States

"Illuminating wheat spike development"

François Parcy (25')

Laboratoire Physiologie Cellulaire et Végétale, IRIG-DBSCI-LPCV, Université Grenoble Alpes, CEA, CNRS, INRAE, Grenoble, France

"The LFY-UFO interaction beyond Arabidopsis"

Communications:

Scott Boden (12')

University of Adelaide, School of Agriculture, Food and Wine, Glen Osmond, Australia

"PHOTOPERIOD-1 allelism modifies the inflorescence transcriptome of bread wheat to alter spikelet architecture and flowering time"

Gwen Swinnen (12')

University of Lausanne, Department of Plant Molecular Biology and Center for Integrative Genomics, Lausanne, Switzerland

"Characterizing cryptic modifiers of flower production in tomato"

Flash talks:

Veronica Maria Beretta (5')

University of Milan, Department of Biosciences, Milan, Italy

"Characterization of the ALOG gene family in Arabidopsis thaliana"

Ton Winkelmolen (5')

Wageningen University & Research, University, Wageningen, Netherlands

"VRS5 (HvTB1) binds to the promoter of tillering and floral developmental genes to regulate their expression in barley"

Federico Gentile (5')

Institute of Molecular Biology and Pathology (IBPM), National Research Council, Rome, Italy

"The anti-florigen TERMINAL FLOWER 1 promotes cell proliferation in the inflorescence stem vascular cambium"

12:45 – 15:55

Lunch/beach/Poster view Group 1 : # **9, 15, 17, 27, 31, 51, 52, 57, 58, 61, 62, 67, 69, 70, 73, 78, 80, 84, 86, 87, 90, 93, 95, 96, 97, 99, 101, 102**



Session 2: FLOWER AND FRUIT DEVELOPMENT

16:00 – 17:30

Chair: Natalia Lucia Pabon Mora
University of Antioquia Medellín, Colombia

Invited lectures:

Barbara Ambrose (25')

New York Botanical Garden, USA

“The evolution and development of sporangia – the fundamental reproductive organ of land plant sporophytes”

Mohammed Bendahmane (25')

INRAE-CNRS-UCBL-ENSL, France

“Initiation, development and diversity of flower organs in roses”

Communications:

Yves Deveaux (12')

Université Paris-Saclay, UMR Génétique Quantitative et Evolution-Le Moulon, Gif-sur-Yvette, France

“Unravelling the role of AP3-3 regulation in specifying petal development in Ranunculaceae”

Humberto Herrera-Ubaldo (12')

University of Cambridge, Department of Plant Sciences, Cambridge, United Kingdom

“Characterisation of the cuticle striation patterns in Hibiscus trionum petals”

Fernando Juan Yuste-Lisbona (12')

Universidad de Almería, Centro de Investigación en Biotecnología Agroalimentaria (CIAIMBITAL), Almería, Spain

“Unraveling the role of the tomato FALSIFLORA gene in floral meristem determinacy through allelic series analysis”

17:30–18:10

Coffee break

18:15–19:05

Chair: Stefan de Folter

Center for Research and Advanced Studies, National Polytechnic Institute of Mexico

Invited lecture:

Cristina Ferrandiz (25')

Instituto de Biología Molecular y Celular de Plantas (IBMCP), Valencia, Spain

“Enough is enough: How annual plants decide when to stop flowering”

Communications:

Véronique Hugouvieux (12')

CEA Grenoble, Laboratoire de Physiologie Cellulaire et Végétale, UMR 5168, France



Workshop on Molecular Mechanisms Controlling Flowering 2024

“Structure function of MADS complexes in Arabidopsis: In vivo evidence for SEPAPLLATA-driven MADS tetramerization requirement for flower development”

Rainer Melzer (12')

University College Dublin, School of Biology and Environmental Science, Dublin, Ireland

“Analysis of the sex determination system in Cannabis sativa”

19:05 – 20:00 **Poster session Group 1 and Free Drink**

20:00 Dinner

DAY 3: Tuesday, June 18

Session 3: FLOWER AND FRUIT DEVELOPMENT

09:00–10:30

Chair: Marta Mendes

University of Milan, Department of Biosciences, Italy

Invited lectures:

Lars Ostergard (25')

Department of Biology, University of Oxford, Oxford, United Kingdom

“Origin and mechanism of a non-canonical auxin signalling mechanism in gynoecium development”

Stefan de Folter (25')

Center for Research and Advanced Studies, National Polytechnic Institute of Mexico

“The cell cycle during gynoecium development in Arabidopsis”

Communications:

Federico Valverde (12')

Consejo Superior de Investigaciones Científicas (CSIC), Institute for Plant Biochemistry (IBVF), Sevilla, Spain

“Photoperiodic control of fertility in Arabidopsis thaliana”

Diarmuid O'Maoileidigh (12')

Maynooth University, Department of Biology, Maynooth, Ireland, University of Liverpool, Department of Biochemistry and Systems Biology, Liverpool, United Kingdom

“How to build a photosynthetic fruit”

Lisa Rotasperti (12')

University of Milan, Department of Biosciences, Milan, Italy

“GERAS a novel regulator of silique senescence”

10:30–11:10

Coffee break

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Session 4: PLANT REPRODUCTION

11:15 – 12:45

Chair: Lucia Colombo

University of Milan, Department of Biosciences, Milan, Italy

Invited lectures:

Thomas Dresselhaus (25')

University of Regensburg, Germany

“Understanding GRNs in the egg apparatus to trigger parthenogenesis”

Arp Schnitger (25')

University of Hamburg, Germany

“Control of entry and progression through the plant germline”

Communications:

Blanca Salazar-Sarasua (12')

Institute of Molecular and Cellular Biology of Plants (IBMCP), Consejo Superior de Investigaciones Científicas (CSIC) - Universitat Politècnica de València (UPV), Valencia, Spain

“Parthenocarpy and domestication in tomato”

Maurizio Di Marzo (12')

University of Milan, Department of Biosciences, Milan, Italy

“Maternal regulation of starch metabolism plays a pivotal role upon fertilization”

Silvia Manrique (12')

Center for the Conservation and Improvement of Agrodiversity of Valencia (COMAV) - Polytechnic University of Valencia, Spain

“Induction of andromonoecy in eggplant by heat: unraveling the crosstalk between reproduction and stress”

12:45 – 15:45

Lunch/beach/Poster switch Group 1 → Group 2 : # **8, 10, 11, 18, 20, 23, 25, 28, 29, 33, 38, 39, 40, 42, 44, 45, 59, 64, 68, 75, 76, 81, 82, 83, 85, 92, 98, 108**

Session 5: EVO-DEVO OF THE REPRODUCTIVE STRUCTURES

15:45 – 17:25

Chair: Barbara Ambrose

New York Botanical Garden, USA

Invited lectures:

Annette Becker (25')

Justus Liebig University - Gießen - Germany

“Variation galore – comparative flowerOmics in the hyperdiverse Ranunculales”

Natalia Lucia Pabon Mora (25')

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Workshop on Molecular Mechanisms Controlling Flowering 2024

University of Antioquia Medellín, Colombia

“A plant living inside a plant: growth and flowering in the holoparasitic Apodanthaceae”

Communications:

Marian Bemer (12')

Wageningen University & Research, Biosystematics group/Plant Developmental Systems, Wageningen, Netherlands

“An ultra-conserved regulatory motif drives the expression of FRUITFULL-like genes in eudicots”

Teng Zhang (12')

University of Helsinki, Department of Agricultural Sciences, Helsinki, Finland

“From spirals to whorls to spirals – how phyllotactic transitions occur in flowers?”

Stefanie Sprunck (12')

Cell Biology and Plant Biochemistry, Universität Regensburg, Germany

“EGG CELL 1 proteins: new insights into their evolutionary origin and function during male-female gamete interactions”

Emanuela Talarico (12')

University of Calabria, Department of Biology, Ecology and Earth Sciences (DiBEST), Arcavacata of Rende, Italy

“The pollen arrival induces several changes in the transcriptomic profiles and distribution of plant hormones in Ginkgo biloba pollinated and unpollinated ovules”

17:43-18:10

Coffee break

18:15-19:00

Flash talks:

Flower and Fruit

Angelique Lauschke (5')

Institute of Biology, Plant Cell and Molecular Biology, Humboldt-Universität zu Berlin, Berlin, Germany

“Regulation of the APETALA3 (AP3) transcription factor”

Sam W. van Es (5')

SLU, Department of Plant Biology, Uppsala, Sweden

“Using CUT&Tag to identify targets of LEAFY”

Yoonkeum Oh (5')

Max-Planck-Institute for Plant Breeding Research, Cologne, Germany

“Analysis of floral bud arrest and flowering time along a latitudinal gradient in perennial Arabis alpina”

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Evo-Devo

Lea Rambaud-Lavigne (5')

Laboratory of plant reproduction and development, ENS de Lyon, CNRS, INRAe, Lyon, France

"Evo-devo of the ovule outer integument in flowering plants"

Francesca Bellinazzo (5')

Wageningen University and Research, Wageningen, Netherlands

"Evolutionary origin and functional investigation of the widely conserved plant PEBP gene STEPMOTHER OF FT AND TFL1 (SMFT)"

Vojtech Hudzieczek (5')

Institute of Biophysics of the Czech Academy of Sciences, Czech Republic

"Developmental consequences of sexual antagonism: floral MADS-box gene SLAP3 exhibits functional divergence dependent on sex linkage"

Plant reproduction

Joaquín Sánchez-Matilla (3')

IBMCP (CSIC), CSIC-UPV, Valencia, Spain

"DELLA proteins positively regulate seed size in Arabidopsis and related crops"

Cecilia Zumajo-Cardona (3')

University of Milan, Department of Biosciences, Milan, Italy

"Triploid block in plants, a postzygotic barrier full of twists yet to be revealed"

Silvia Moschin (3')

University of Padova, Department of Biology, Padova, Italy

"Insights into pollen recognition and pollen-ovule cross-talk in Ginkgo biloba"

Martina Balboni (3')

University of Hamburg, Developmental Biology, Hamburg, Germany

"Control of entry into the female germline in maize"

19:00 – 20:00 **Poster session Group 2 and Free Drink**

20:00 Dinner

DAY 4: Wednesday, June 19

Session 6: FLORAL TRANSITION

09:00 – 10:30 Chair: Markus Schmid

Swedish University of Agricultural Sciences, Sweden

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Invited lectures:

Richard Immink (25')

Wageningen University and Research, Molecular Biology, Wageningen, Netherlands

“The art of multitasking: PEBP genes and their role in seed dormancy and seed size determination”

Communications:

Vítor da Silveira Falavigna (12')

Max Planck Institute for Plant Breeding Research, Department of Plant Developmental Biology, Cologne, Germany

“The FT–FD module recruits the bZIP transcription factor bZIP13 to regulate floral transition and stem width in Arabidopsis”

Vittoria Brambilla (12')

University of Milan, Department of Agricultural and Environmental Sciences, Milan, Italy

“PINE1 coordinates stem elongation with florigenic signals”

Sarah Duveneck (12')

Kiel University, Botanical Institute, Kiel, Germany

“Impact of FLC genes on flowering time in spring oilseed rape”

Damiano Martignago (12')

University of Milan, Department of Biosciences, Milan, Italy

“Exploring Allelic Diversity in Arabidopsis Ecotypes: Implications for Drought Adaptation”

Jesús Praena Tamayo (12')

MPIPZ, Max Planck Institute for Plant Breeding Research, Köln, Germany

“From Arabidopsis thaliana to Arabis alpina: Deciphering the Role of Trehalose 6-Phosphate in Annual vs. Perennial Plants”

10:30–11:10

Coffee break

11:15 – 12:45

Chair: Lucio Conti

University of Milan, Department of Biosciences, Milan, Italy

Invited lectures:

Takeshi Izawa (25')

The University of Tokyo, Graduate School of Agricultural and Life Sciences, Tokyo, Japan

“Molecular mechanisms of floral repression by Ghd7 in rice”



Communications:

Haoran Zhou (12')

Max Planck Institute for Plant Breeding Research, Epigenetic control of plant development, Köln, Germany

“Two distal enhancers guarantee FLOWERING LOCUS T a robust response to long-day floral signal in Arabidopsis thaliana”

Manuel Piñeiro (12')

Centro Nacional Instituto de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC), Centro de Biotecnología y Genómica de Plantas, UPM – INIA-CSIC, Pozuelo de Alarcon, Madrid, Spain

“A role for the EAF6 subunit of the Arabidopsis NuA4 Histone Acetyltransferase complex in the control of reproductive development”

Alice Marcon (12')

Swedish University of Agricultural Sciences, Umeå Plant Science Centre, Umeå, Sweden

“The interplay between the FT-like genes and the TFL1-like genes (PtCENL1 and PtCENL2) in Populus trees in the control of phenology and flowering time”

Fernando Andrés (12')

AGAP Institute, UMR AGAP Institut, Univ Montpellier, CIRAD, INRAE, Institut Agro, Montpellier, France

“A genetic regulatory network controlling floral transition in apple”

Yesenia Madrigal (12')

Universidad de Antioquia, Medellín, Colombia

“Identification of major flowering transcription factors in neotropical orchids with different habits and storage organs”

12:45 – 15:55

Lunch/beach/Poster view Group 2

16:00 – 17:30

Chair: Markus Schmid

Swedish University of Agricultural Sciences, Sweden

Invited lectures:

He Gao (25')

Max Planck Institute for Plant Breeding Research, Department of Plant Developmental Biology, Cologne, Germany

“Arabidopsis 14-3-3 proteins versatilely boost FD activity for DNA binding to recruit florigen FT”

Communications:

Michael Lach (12')

Weizmann Institute of Science, Rehovot, Israel

“The gradual conversion of the apical tomato meristem into a flower”

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Workshop on Molecular Mechanisms Controlling Flowering 2024

Camila Pinto da Cunha (12')

Weizmann Institute of Science, Rehovot, Israel

"Exploring the Meristem Vegetativeness Continua in Flowering Transition"

Gabriel Rodríguez Maroto (12')

Max Planck Institute for Plant Breeding Research, Department of Plant Developmental Biology, Cologne, Germany

"Testing a bistable switch model for the floral transition"

Alba Lloret (12')

Max Planck Institute for Plant breeding research, MPIPZ, Köln, Germany

"SPL15 is a floral integrator that controls transcriptional activation and hormone homeostasis in Arabidopsis thaliana"

Flash talks:

Valeria Chiatti (5')

CNR - IBBA (Istituto di Biologia e Biotecnologia Agraria), University of Tuscia, Roma, Italy

"Unveiling the Genetic Control of Flowering Time in Cichorium endivia for Enhanced Crop Performance"

SPONSOR PRESENTATIONS (10')

BMK (5') and Macrogen (5')

17:30-18:10

Coffee break

Session 7: OMICS AND NEW TECHNOLOGIES

18:15-19:15

Chair: Aureliano Bombarely

Instituto de Biología Molecular y Celular de Plantas, Spain

Invited lectures:

Kerstin Kaufmann (25')

Humboldt-Universität zu Berlin, Germany

"Regulation of tissue patterning in Arabidopsis flower development"

Communications:

Reyes Benlloch (12')

Universidad de Valencia, Faculty of Pharmacy and Food Sciences. Department of Plant Biology, Burjassot (Valencia), Spain

"Lupinomics: integrated ribosome profiling, proteomics and metabolomics to characterize the vernalization response in white lupin"

Eilon Shani (12')

Tel Aviv University, School of Plant Sciences and Food Security, Tel Aviv, Israel

PALERMO, Italy – Saracen hotel / 16-20 June 2024



Workshop on Molecular Mechanisms Controlling Flowering 2024

“A multi-targeted genome-scale CRISPR toolbox to overcome functional redundancy and reveal hidden mechanisms in meristem identify and flowering”

Silvio Collani (12’)

Umeå University, UPSC, Department of Plant Physiology, Umeå, Sweden

“SoPPIs, Sequencing of Protein-Protein Interactions: a powerful solution to a remarkable problem”

19:15 – 19:20 Break

19:20 – 20:00 Chair: Kerstin Kaufmann
Humboldt-Universität zu Berlin, Germany

Invited lectures:

Aureliano Bombarely (25’)

Instituto de Biología Molecular y Celular de Plantas, Spain

“Application of Artificial Intelligence and Information Theory Methodologies for the Identification of Novel Genes involved in Floral Development in Non-Model Species”

Flash talks:

Chloe Zubieta (5’)

LPCV, CNRS, Grenoble, France

“Alphafuser - a structural prediction tool for multiprotein complexes”

Kea Ille (5’)

Kiel University, Plant Physiology, Botanical Institute, Kiel, Germany

“An efficient CRISPR-based method for mutational analyses of redundant gene functions in a polyploid crop”

Suze Blom (5’)

Wageningen University & Research, Laboratory of Molecular Biology, Wageningen, Netherlands

“DNA methylation quickly responds to changes in ambient temperature in Arabidopsis thaliana”

20:00 – 20:20

Concluding remarks

20:30 Dinner followed by a party