ICAR 2018 Programme (detailed)

Monday June 25

12:00 Registration starts 14:00-15:30 Workshops

Introducing INDEPTH: Impact of nuclear domains on gene expression and plant traits

Organizer: Geraint Parry

Reach-out with the Arabidopsis movie and symphonic score

Organizer: Sander van der Krol

Chemical regulation in plant stress Tolerance Organizers: Ryuong Shin, Khurram Bashir

16:00	Welcome Conference chair Michael Wrzaczek and co-chair Jaakko Kangasjärvi Laura Raaska, PhD, Academy of Finland
16:30-17:30	16:30 Keynote lecture Alison Smith (John Innes Centre Norwich, UK) Chair: Jaakko Kangsjärvi
17:30-18:30	17:30 Keynote lecture Dominique Bergmann (Stanford University, USA) Chair: Ykä Helariutta
19:00	Welcome reception

Tuesday June 26

09:00-10:30 Plenary Session I: Growth and Development 1: Shoot

Session chairs: Doris Wagner, John Bowman

09:00-09:25	Michael Lenhard (Potsdam University, Germany)	
09:25-09:50	Doris Wagner (University of Pennsylvania, USA)	
09:50-10:15	John Bowman (Monash University, Australia)	
10:15-10:30	Tom Bennett (University of Leeds, UK)	
	[442] Cong regulatory network of anidermal and sub or	

[443] Gene regulatory network of epidermal and sub-epidermal cell population enriched transcription factors revealed regulatory hierarchies underlying cell

proliferation and differentiation

10:30-11:00 Coffee break

11:00-12:30 Plenary Session II: Environmental Interactions I: Abiotic

Session chairs: Jim Whelan, Jian-Kang Zhu

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11:00-11:25	Jim Whelan (LaTrobe University, Australia)
11:25-11:50	Caroline Dean (John Innes Centre Norwich, UK)
11:50-12:15	Jian-Kang Zhu (Shanghai Centre for Plant Stress Biology, China)
12:15-12:30 Takashi Hirayama (Okayama University, Japan)	
	[57] A novel short peptide regulates the iron-deficiency response genes in
	Arabidopsis

12:30-14:00 Lunch and poster viewing

14:00-16:00 Concurrent sessions:

Organelle Biology

Organelle Biology	
Chairs: Toshiharu S	Shikanai, Julian Hibberd
14:00-14:20	Toshiharu Shikanai (Kyoto University, Japan)
14:20-14:40	Julian Hibberd (Cambridge University, UK)
14:40-14:55	Bernhard Grimm (Humboldt University Berlin, Germany)
	[623] Multiple posttranslational mechanisms of glutamyl-tRNA reductase
	to control 5-aminolevulinic acid synthesis for the appropriate supply of chlorophyll
14:55-15:10	Chun Pong Lee (University of Western Australia, Australia)
14.55-15.10	
	[228] DIC2 is mitochondrial malate carrier that regulates cellular 2-oxoglutarate homeostasis
15:10-15:25	Tom Theeuwen (Wageningen University, Netherlands)
	[696] A new approach to study cyto-nuclear interactions in Arabidopsis thaliana
15:25-15:40	Magda Grabsztunowicz (University of Turku, Finland)
	[562] Novel chloroplast acetyltransferase nsi is involved in state transition in
	Arabidopsis thaliana
15:40-15:45	Peter Gollan (University of Turku, Finland)
	[593] Understanding the effects of photosystem I photoinhibition on
	photosynthesis, metabolism and signalling
15:45-15:50	Boon Leong Lim (University of Hongkong, Hong Kong)
	[293] Mature Chloroplasts of Arabidopsis thaliana do not import ATP efficiently
15:50-15:55	Moona Rahikainen (University of Turku, Finland)
	[618] Abundance of Arabidopsis Aconitase 3 is modulated by phosphorylation of
	serine 91 and connected to accumulation of alternative oxidase in mitochondria
15:55-16:00	Alexey Shapiguzov (University of Helsinki, Finland)

 $\left[635\right]$ Nuclear protein RCD1 on the crossroads of mitochondrial and chloroplastic signalling pathways

Biotic Interactions

Chairs: Clara Sanc	hez-Rodriguez, Kirk Overmyer
14:00-14:20	Clara Sanchez-Rodriguez (ETH Zurich, Switzerland)
14:20-14:40	Suayib Üstün (Swedish University of Agricultural Sciences SLU, Sweden)
	[321] Autophagy: Both friend and foe in Pseudomonas infection
14:40-14:55	Rosa Lozano-Duran (Shanghai Center for Plant Stress Biology, Chinese Academy of Sciences, China)
	[624] Pathogen effectors as probes for plant functions: a multifunctional viral
	protein sheds light on the cell-to-cell spread of RNAi and chloroplast-mediated defences
14:55-15:10	Stefanie Ranf (Technical University of Munich, Germany)
	[423] LORE-mediated immune sensing of bacterial lipopolysaccharide
15:10-15:25	Simon Stael (VIB Ghent, University of Ghent, Belgium)
	[377] Damage activates calcium-dependent metacaspases for release of plant
	immunomodulatory peptides
15:25-15:40	Thorsten Hamann (NTNU, Norway)
	[436] Plant cell wall integrity maintenance and immune signalling cooperate to
	control defence respsonses in Arabidopsis thaliana
15:40-15:45	Maria Derkacheva (The Sainsbury Laboratory, UK)
	[663] Dynamic interplay between phosphorylation and ubiquitination during
	plant receptor kinase-mediated immunity
15:45-15:50	Ido Vlaardingerbroek (University of Copenhagen, Denmark) To be confirmed
	[258] Plants produce distinct populations of exosomes
15:50-15:55	Daniel Lüdke (Georg-August-University Goettingen, Germany)
	[313] The truncated nlr protein TN13 interacts with importin-α3 and is required
	for disease resistance in Arabidopsis
15:55-16:00	Sachie Kimura (University of Helsinki, Finland)
	[685] functional analysis of <i>Arabidopsis thaliana</i> Cysteine-rich receptor-like kinase CRK2

Systems Biology

PIPPA

Chairs: Siobhan Br	ady, Andrew Millar
14:00-14:20	Siobhan Brady (University of California Davis, USA)
14:20-14:40	Andrew Millar (University of Edinburgh, UK)
14:40-15:00	Wolf Frommer (Heinrich-Heine University, Germany)
15:00-15:15	Ammarah Anwar (Universitz of Wuerzburg, Germany)
	[604] Natural variation of gene regulatory networks in Arabidopsis thaliana
15:15-15:30	Melina Altmann (Helmholtz Centre Munich, Germany)
	[52] Extensive crosstalk between phytohormone signaling pathways revealed by
	a systematic network map
15:30-15:45	Kristiina Himanen (University of Helsinki, Finland)
	[430] Phenomic screens for ubiquitin signaling upon perturbations
15:45-15:50	Anna Klepikova (The Institute for Information Transmission Problems, Russia)
	[477] The detailed analysis of meristem and leaf transcriptome of <i>Arabidopsis</i>
	thaliana during transition to flowering
15:50-15:55	Maja Ilievska (University of Helsinki, Finland)
	[671] Data integration for inference of gene regulatory networks
15:55-16:00	Stijn Dhondt (VIB Ghent, Ghent University, Belgium)
	[512] Taking the next hurdle: management of Arabidopsis phenotypic data with

16:00-16:30 Coffee break

16:30-18:00 Workshops:

Stress and CO₂ perception and signaling in guard cells

Organizers: Maija Sierla, Hannes Kollist

Microscopy methods for multiscale functional imaging in Arabidopsis

Organizers: Alexis Maizel, Yvonne Stahl

Construction of Gene Regulatory Networks in Arabidopsis

Organizer: Wen-Hsiung Li

Beyond Arabidopsis: advantages and challenges of emerging plant models

Organizers: Kaisa Kajala, Michael T. Raissig Energy organelle functions and signalling

Organizers: Olivier van Aken, Alexey Shapiguzov

Publishing for Posterity: How to make your published data Findable, Accessible, Interoperable and

Reusable

Organizer: Leonore Raiser

18:00-18:30 Coffee break

18:30-21:00 Poster session I with refreshments

Wednesday June 27

09:00-10:30 Plenary Session III: Growth and Development 2: Root

Session chairs: Sabrina Sabatini, Tom Beeckmann

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09:00-09:25	Tom Beeckmann (VIB Ghent, Belgium)
09:25-09:50	Ken Birnbaum (New York University, USA)
09:50-10:15	Sabrina Sabatini (Sapienza University, Italy)
10:15-10:30 Tonni Andersen (University of Lausanne, Switzerland)	
	[185] The Endodermal Passage Cell - Just Another Brick in The Wall?

10:30-11:00 Coffee break

11:00-12:30 Plenary Session IV: Environmental Interactions 2: Biotic

Session chairs: Joy Bergelson, Cyril Zipfel

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11:00-11:25	Juliette de Meaux (University of Cologne, Germany)
11:25-11:50	Joy Bergelson (University of Chicago, USA)
11:50-12:15	Cyril Zipfel (The Sainsbury Laboratory, Norwich, UK/University of Zurich,
	Switzerland)
12:15-12:30	Brian Rutter (Indiana University, USA)
	[280] Arabidopsis extracellular vesicles mediate the interkingdom transport of
	proteins and RNA

12:30-14:00 Lunch and poster viewing

14:00-16:00 Concurrent sessions

Evolution and Ecology

Chairs: Angela Hancock, Marcus Koch

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Photobiology Chairs: Stacev Ha	rmer, Christian Fankhauser
14:00-14:20	Stacey Harmer (University of California Davis, USA)
14:20-14:40	Christian Fankhauser (University of Lausanne, Switzerland)
14:40-14:55	Theresa Wiessner (University of Tuebingen, Germany)
	[403] The central energy sensor SNRK1 affects light- and sugar-mediated alternative splicing
14:55-15:10	Matt Jones (University of Essex, UK)
	[79] The accumulation of 3'-phosphoadenosine 5'-phosphate delays circadian period
15:10-15:25	Ullas Pedmale (Cold Spring Harbor Laboratory, USA)
	[426] Vegetative shade controls root growth by activating stress responses
15:25-15:40	Takato Imaizumi (University of Washington, Seattle, USA)
	[93] Molecular mechanisms of florigen induction in photoperiodic flowering under natural long-day conditions
15:40-16:00	Julin Maloof (University of California Davis, USA)
	[711] Multiple salicylic acid pathway components are required for Arabidopsis shade avoidance

Genomes and Chromatin

Chairs: Franziska	Turck	Crisanto Gutierrez
CHallo, Halleloka	TUICK,	CHSanto Gatichez

14:00-14:20	Franziska Turck (Max Planck Institute for Plant Breeding Research, Germany)
14:20-14:40	Cristanto Gutierrez (Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Spain)
14:40-15:00	Kevin Mayer (University of Wisconsin-Madison, USA)
	[393] A core histone deacetylase complex directs pleiotropic development and regulates stress-responsive gene expression
15:00-15:15	Kalyanikrishna Kalyanikrishna (Free University of Berlin, Germany)
	[451] Role of epigenetic regulation at the nuclear envelope in Arabidopsis
15:15-15:30	Orit Shau (Bar-Ilan University, Israel)
	[621] Control of RNA stability in Arabidopsis by the nonsense-mediated mRNA
	decay (NMD) pathway
15:30-15:45	Veronique Hugovieux (University Grenoble Alpes, CNRS, INRA, France)
	[611] Investigating the molecular mechanisms of SEPALLATA3 in flower development
15:45-15:50	Kyuha Choi (Postech, Korea)
	[645] Sequencing of SPO11-1-oligonucleotides in h2a.z deposition mutant in Arabidopsis
15:50-15:55	Xiuli Bi (University of Tuebingen, Germany)
	[262] Plant lamin-like proteins and non-CG methylation mediate chromatin
15.55 16.00	tethering at the nuclear periphery
15:55-16:00	Maria Luz Annacondia Lopez (Swedish University of Agricultural Sciences SLU, Sweden)
	[320] Epigenetic sensitive expression of ALTERED MERISTEM PROGRAM 1 (AMP1) links translational repression and epigenetic regulation
16:00-16:05	Ana Sofia Madeira (Centro de Biología Molecular Severo Ochoa, CSIC, Spain) [108] Role of Histone HTR6 in the abiotic stress response of <i>Arabidopsis thaliana</i>

16:00-18:00 Poster session II

18:30 Boat trip

Thursday June 28

09:00-10:30 Plenary Session V: Signal transduction

Session chairs: Elizabeth Haswell, Ildoo Hwang

09:00-09:25	Elizabeth Haswell (Washington University In St. Louis, USA)
09:25-09:50	Edward Farmer (University of Lausanne, Switzerland)
09:50-10:15	Ildoo Hwang (Postech, Korea)
10:15-10:30	Kris Hill (University of Tuebingen, Germany)
	[109] Gating of small RNA movement at defined cell-cell interfaces governs their
	impact as positional signals

10:30-11:00 Coffee break

11:00-12:30 Plenary Session VI: Plant hormones

Session chairs: Eva Benkova, Ottoline Leyser

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11:00-11:25	Eva Benkova (IST Austria, Austria)
11:25-11:50	Ottoline Leyser (Sainsbury Laboratory Cambridge, UK)
11:50-12:15	Caren Chang (University of Maryland, USA)
12:15-12:30	Debora Gasperini (Leibniz Institute of Plant Biochemistry, Germany)
	[629] Wound-induced shoot-to-root transport of jasmonates

12:30-14:00 Lunch and poster viewing

14:00-16:00 Concurrent sessions

Abiotic stress		
Chairs: Inhwan Hwang, Saijaliisa Kangasjärvi		
14:00-14:20	Inhwan Hwang (Postech, Korea)	
14:20-14:40	Venkatesh Periyakavanam Thirumalai Kumar (Max-Planck Institute of Molecular Plant Physiology, Germany)	
	[59] Investigating the regulatory role of NBR1 for thermomemory in <i>Arabidopsis thaliana</i>	
14:40-14:55	Amnon Lers (Volcani Center, Israel)	
	[316] MiR827 and GeBP-like alpha factor are involved in a regulatory circuit of	
	senescence and phosphate homeostasis in Arabidopsis	
14:55-15:10	Ping Lan (Institute of Soil Science, Chinese Academy of Sciences, China) To be confirmed	
	[364] Ectopic expression of ACYL CARRIER PROTEIN5 enhances salt stres tolerance in Arabidopsis	
15:10-15:25	Estee Tee (Australian National University, Australia)	
	[323] The role of the chloroplast signal 3'phosphoadenosine 5'phosphate, in	
	stomatal closure	
15:25-15:40	Maija Sierla (University of Helsinki, Finland)	
	[600] The receptor-like pseudokinase GHR1 regulates stomatal closure	
15:40-15:45	Sho Takahashi (Kyushu University, Japan)	
	[197] Characterization of a mutant, pist1, that has increased stomatal response	
	to CO ₂ when treated with phosphatidylinositol 4-kinase inhibitor, PAO	
15:45-15:50	Jong-Myong Kim (Kanto Gakuin Univ. College of Science and Engineering, Japan)	
	[482] Acetate-jasmonate signalling network is a novel essential mechanism for	
	plant drought tolerance	
15:50-15:55	Julia Richter (University of Natural Resources and Life Sciences, Austria)	
	[592] The role of catharanthus roseus receptor like kinases in growth adaptation triggered by metal ions	

15:55-16:00 Laura Martins (Université de Perpignan, France)

[260] The iron-sulfur glutaredoxin GRXS17 is a redox-dependent chaperone

Reproduction

Chairs: Gwyneth Ingram, Daphné Autran		
14:00-14:20	Gwyneth Ingram (ENS Lyon, France)	
14:20-14:40	Daphné Autran (Institut de Recherche pour le Développement, France)	
14:40-14:55	Chao Yang (University of Hamburg, Germany)	
	[458] Shifting the on-off balance-the role of ASY1 phosphorylation on	
	chromosome axis formation during meiosis	
14:55-15:10	Sergio Galindo-Trigo (University of Sheffield, UK)	
	[528] CrRLK1L receptor-like kinases ANJEA1 and ANJEA2 are female determinants	
	of pollen tube reception	
15:10-15:25	Dawit Girma Tekleyohans (University of Bremen, Germany)	
	[396] Three parentage as a cause of polyploidizaiton	
15:25-15:40	Martin Bayer (Max Planck Institute for Developmental Biology, Germany)	
	[326] A <i>Brassicaceae</i> -specific gene duplication event links fertilization with the	
	early embryonic patterning process in Arabidopsis.	
15:40-15:45	Guang-Yuh Jauh (Institute of Plant and Microbial Biology, Academia Sinica,	
	Taiwan)	
	[450] Mutation of Arabidopsis SAURs impairs the efficient translation of	
45 45 45 50	transcripts essential for pollen tube elongation	
15:45-15:50	Masahiro Kanaoka (Nagoya University, Japan)	
	[385] Structural and functional analysis of LURE proteins for species-specific	
15.50 15.55	pollen tube guidance	
15:50-15:55	Anja Schmidt (University of Heidelberg, Germany)	
	[468] Transcriptional analysis to study the acquisition of reproductive fate in	
15.55 16.00	sexual and apomictic <i>Boechera</i>	
15:55-16:00	Lucie Riglet (Ecole Normale Supérieure de Lyon, France)	
	[588] Alteration of the female microtubule/cell wall network affects pollen tube growth behavior	
	growth behavior	

Cell biology

Chairs: Karin Schumacher, Moritz Nowack

Chairs: Karin Schu	macher, Moritz Nowack
14:00-14:20	Karin Schumacher (University of Heidelberg, Germany)
14:20-14:40	Moritz Nowack (VIB Ghent, University of Ghent, Belgium)
14:40-15:00	Yoselin Benitez-Alfonso (University of Leeds, UK)
	[460] The role of callose and cell walls in the regulation of symplastic intercellular
	transport
15:00-15:15	Guido Grossmann (University of Heidelberg, Germany)
	[625] Spatiotemporal mapping of the growth machinery during polarization of
	root hairs reveals landmark for rop recruitment
15:15-15:30	Yan Gong (Stanford University, USA)
	[157] Discovery and characterization of asymmetric protein localization
	regulators in the stomatal lineage
15:30-15:45	Antia Rodriguez-Villalon (ETH Zurich, Switzerland)
	[126] Lipid signaling in root vascular differentiation
15:45-15:50	Yu Luo (Institute of Genetics and Developmental Biology, Chinese Academy of
	Sciences, China)
	[312] CP gene regulates cytokinesis in Arabidopsis root cells
15:50-15:55	Kai Dünser (University of Natural Resources and Life Sciences, Austria)
	[535] LRX- and FER-dependent extracellular sensing coordinates vacuolar size for
	cytosol homeostasis

15:55-16:00 **Hugo Zheng** (McGill University, Canada)

[669] A kinesin protein REN9 links the ER to microtubules for generation of fine

ER in growing root hair cells

16:00-16:05 Chen Liu (Swedish University of Agricultural Sciences, Sweden)

[659] Joint force:a plasma membrane-cytoskeleton nexus involving the Kinesin-

Separase Complex(KISC) linking proteolysis with plant development

16:00-16:30 Coffee break

16:30-18:00 Workshops

Findable, Accessible, Interoperable and Reusable, aca. FAIR Arabidopsis phenotyping data?

Organizers: Roland Pieruschka, Markku Keinänen, Kristiina Himanen

Seeing the invisible – young researchers presenting fluorescent based sensors as potent analytical tools

Organizers: Maike Breiden, Vilde Olsson **Modeling of Plant Metabolic Networks** Organizers: Samuel Seaver, Zoran Nikoloski

Vascular Development

Organizers: Ari Pekka Mähönen, Laura Ragni

Communicating Science in the Age of Fake News: Broadening Your Impact

Organizers: Roger Innes

Friday June 29

09:00-10:30 Plenary Session VII: Epigenetic regulation

Session chairs: Claudia Köhler, Fred Berger

09:00-09:25	Claudia Köhler (University of Uppsala, Sweden)
09:25-09:50	Fred Berger (Gregor-Mendel-Institute Vienna, Austria)
09:50-10:15	Steven Jacobsen (University of California Los Angeles, USA)
10:15-10:30	German Martinez Arias (Swedish University of Agricultural Sciences, Sweden)
	[378] Uncovering the Role of tRNA-derived small RNAs in Pollen Development

10:30-11:00 Coffee break

11:00-13:00 Concurrent sessions

Development

Chairs: Reidunn Aalen, Ari-Pekka Mähönen

Chairs. Neldann Aaich, Arri ekka Wahohen		
11:00-11:20	Reidunn Aalen (University of Oslo, Norway)	
11:20-11:40	Marcus Heisler (University of Sydney, Australia)	
	[286] Organising the formation of leaves using dorsal-ventral cell type boundaries	
11:40-11:55	Laura Ragni (University of Tuebingen, Germany)	
	[266] Lateral root and periderm formation: two sides of the same coin?	
11:55-12:10	Anne Vatén (Stanford University, USA)	
	[682] Modulation of asymmetric division diversity through cytokinin and	
	speechless regulatory interactions	
12:10-12:25	Léa Rambaud-Lavigne (ENS de Lyon, France)	
	[40] The genetics and mechanics of shoot apical stem cells	
12:25-12:30	Hirokazu Tsukaya (University of Tokyo, Japan)	
	[29] Visualization of signaling molecules using genetically encoded fluorescent	
	indicators	

Model to crop

Chairs: Dave Jackson, Sean Cutler

11:00-11:20	Dave Jackson (Cold Spring Harbor Laboratories, USA)
11:20-11:40	Sean Cutler (University of California Riverside, USA)
11:40-11:55	Michael Raissig (University of Heidelberg, Germany)
	[370] A developmental innovation allows grasses to "breathe" more efficiently
11:55-12:10	Kaisa Kajala (Utrecht University, Netherlands)
	[107] Tomato roots in drought - from big data to regulation of cell type
	development
12:10-12:25	Judith van Dingenen (Max Planck Institute of Molecular Plant Physiology,
	Germany)
	[270] Limited N availability delays flowering in Arabidopsis and potato and
	has cultivar-dependent effects on tuber yield and quality traits
12:25-12:30	Marcos Egea-Cortines (Universidad Politécnica de Cartagena, Spain)
	[677] Commonalities and divergences between the Arabidopsis and petunia
	circadian clock

Post-translational control

Chairs: Waltraud Schulze, Michael Wrzaczek

11:00-11:20	Waltraud Schulze (University of Hohenheim, Germany)
11:20-11:40	Ive de Smet (VIB Ghent, Ghent University, Belgium)

	[339] High ambient temperature signalling network identifies novel regulators of
	thermomorphogenesis
11:40-11:55	Marie Boudsocq (Institute of Plant Sciences Paris-Saclay, France)
	[462] Deciphering CDPK functions through identification of substrates
11:55-12:10	Beatriz Orosa (University of Edinburgh, UK)
	[668] Specific ubiquitin linkages may regulate plant immunity
12:10-12:25	Hannah Tedds (University of Birmingham, UK)
	[133] VERNALIZATION2 is an oxygen- and nitric oxide- regulated substrate of the
	N-end rule pathway of proteolysis
12:25-12:30	Julia Krasensky (University of Helsinki, Finland)
	[563] Multiple signal integration - How light affects stress responses

13:00-14:00 Lunch and poster viewing

14:00-15:30 Plenary Session VIII: Metabolism and nutrients

Session chairs: Barbara Halkier, Wolf Frommer		
14:00-14:25	TBA	
14:25-14:50	Barbara Halkier (University of Copenhagen, Denmark)	
14:50-15:15	Cheng-Hsun Ho (Institute of Plant and Microbial Biology, Academia Sinica, Taiwan)	
	[446] Molecular diagnostics-identification of novel regulators for nitrogen transporters in Arabidopsis	
15:15-15:30	Saija Kangasjärvi (University of Turku, Finland) [627] Post-translational regulation of trans-methylation reactions and formation of deterring indole glucosinolates	
15:30-16:30	16:30 Keynote lecture Tetsuya Higashiyama (ITbM, Nagoya University, Japan) Chair: Michael Wrzaczek	
16:30-17:00	Announcement of ICAR2019 and ICAR2020, Poster Prizes, Farewell	