

Keystone Symposia: Receptors and Signaling in Plant Development and Biotic Interactions

March 14–19, 2010 • Granlibakken Resort • Tahoe City, California • USA

Scientific Organizers: Thomas Boller and Jen Sheen

PROGRAM FACULTY & TALKS

Tom Beeckman, Universiteit Gent, Belgium

A Receptor Kinase Controlling Lateral Root Formation

Philip Benfey, Duke University, USA

Signaling Networks in Root Development

Thomas Boller, University of Basel, Switzerland

The Flagellin Receptor FLS2

Steven D. Clouse, North Carolina State University, USA

Receptor Kinase Phosphorylation in Brassinosteroid Signaling

Mark A. Estelle, University of California, San Diego, USA

Structure and Function of the Auxin Receptor TIR1

Hiroo Fukuda, University of Tokyo, Graduate School of Science, Japan

Peptide Signals Governing Vascular Stem Cell Fates

Erwin Grill, Technical University Munich, Germany

Combinatorial Assembly of ABA Receptor Complexes

Ueli Grossniklaus, University of Zürich, Switzerland

Feronia: A Receptor Kinase Involved in Fertilization

Maria J. Harrison, Cornell University, USA

Signaling in the Mycorrhizal Symbiosis

Jules A. Hoffmann*, Institute of Cellular and Molecular Biology, France

Toll Receptor in Insect Immunity

Jian Hua, Cornell University, USA

Modulation of Plant Defense Responses by Temperature

Jonathan D.G. Jones, Sainsbury Laboratory, UK

Perception of Effectors by Receptor-Like Proteins

Sophien Kamoun, Sainsbury Laboratory, UK

Suppression of Plant Innate Immunity by Oomycete Effectors

Birgit Kemmerling, University of Tübingen, Germany

The Role of BAK1 in Innate Immunity

Cris J. Kuhlemeier, University of Bern, Switzerland

Hormonal Control of Phyllotaxis

Thomas Laux, Universität Freiburg, Germany

Stem Cells in Embryo Development

Gregory B. Martin, Boyce Thompson Institute for Plant Research, USA

Pto: A Receptor for Effector-Triggered Immunity

Sheila McCormick, USDA/ARS-University of California, Berkeley, USA

Receptor Kinases and Pollen Tube Growth

June B. Nasrallah, Cornell University, USA

Receptors Involved in Self-Pollen Rejection

Martin Parniske, University of Munich, Germany

Signal Perception and Transduction in Plant Root Symbiosis with Fungi and Bacteria

Ben Scheres, Utrecht University, Netherlands

Hormonal Control of Root Development

John W. Schiefelbein, University of Michigan, USA

Cell Specification and Patterning in the Root Epidermis

Jen Sheen, Harvard Medical School, MGH, USA

Signaling in Meristems

Naoto Shibuya, Meiji University, Japan

The Chitin Receptors of Rice and Arabidopsis

Roberto Solano, Centro Nacional de Biotecnología-CSIC, Spain

The Jasmonate Signalling Module

Jens Stougaard, Aarhus University, Denmark

The Role of LysM Type Receptors in Nod Factor Perception

Keiko U. Torii, University of Washington, USA

Cell-Cell-Communication and Stomatal Patterning

Zhenbiao Yang, University of California, Riverside, USA

Hormonal Control of Epidermal Cell Patterning

*Keynote speaker. Program subject to change. Current as of October 12, 2009.



Analyses of plant genomes have revealed an immense number of genes encoding putative receptors, e.g., in *Arabidopsis*, about 600 receptor-like kinases and 700 F-Box proteins. Although it has been firmly established for a few of them that they function in the perception and transduction of endogenous or exogenous signals, most of them are currently “orphan receptors” in quest of ligands and functions. In this meeting, leading scientists from the fields of plant development and plant biotic interactions join to present exciting new insights into the structure and function of known plant receptors and to approach ways to unravel the ligands and functions of the plant “orphan receptors.”

PROGRAM PLENARY SESSIONS:

- Growth Regulation
- Development
- Innate Immunity: PTI
- Receptors and Signaling in the Meristem
- Differentiation and Patterning
- Symbiosis
- Innate Immunity: ETI
- Reproduction

DEADLINES:

Abstract & Scholarship: November 16, 2009

Late-Breaking Abstract: December 14, 2009

Early Registration: January 14, 2010

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