

FORTHem Winterschool**Cellular Signaling – perception, transduction and response**

Location of the event: *Online and in person: University of Valencia, Spain*

Organisers:

- Ismael Mingarro: Universitat de València, **Spain** (mingarro@uv.es)
- Benoit Poinssot: Université de Bourgogne, **France** (benoit.poinssot@u-bourgogne.fr)
- Dirk Schneider: Johannes Gutenberg-Universität Mainz, Faculty of Biochemistry, **Germany**
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- Stefan Jacob: Institut für Biotechnologie und Wirkstoff-Forschung (IBWF), Mainz, **Germany**
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- Helen May-Simera: Johannes Gutenberg-Universität Mainz, Faculty of Biology, **Germany**
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Project description:

This Winter School is addressing advanced Master and PhD students. During the two days, talks will be given online, thus students from all universities will be able to join. In four sessions, diverse topics related to cellular signaling will be presented and discussed by researchers from the FORTHem universities. The sessions will cover topics such as signal recognition at and transduction across membranes, signaling within the cell and the initiation of a cellular response across various organisms. Each speaker will give a broad introduction of his/her topic, but will also highlight a few examples of current research projects. At the end of each session, 20 minutes will be provided for a short quiz, in which the students can use an app to answer questions as to the session talks, furthermore they will thus get inspired for the discussion breaks.

Programme:

Time	Wed 17 Nov	Thur 18 Nov	Fri 19 Nov	Sat 20 Nov
9:30-10:00		Welcome and Introduction		
10:00-13:00		<i>Session 1</i> Mechanisms of signal transduction	<i>Session 3</i> Signaling across membranes	Depart
13.00-14:30		<i>Lunch and collaborative exchange</i>	<i>Lunch and collaborative exchange</i>	
14:30-17:30	<i>Arrival</i>	<i>Session 2</i> Signaling concepts in microorganism	<i>Session 4</i> Cell signaling in complex systems, development, and disease	
17:30-18:30			<i>Wrap Up discussion & Closing Remarks</i>	
18:30-22:00	<i>Get together for the speakers</i>	<i>Dinner and Discussion: Current topics in scientific Education</i>	<i>Dinner and Discussion: Next steps and future prospects</i>	

Session 1: Mechanisms of signal transduction

Name: Patricia Casino

Title: Molecular and structural bases of signal transduction systems based on His-Asp phosphorelay

Affiliation: Valencia

Name: Benoit Poinssot & Thibault Roudaire

Title: Role of Lys-M Receptor Kinases in the perception of chitooligosaccharides to trigger signaling events and immune responses in grapevine (*Vitis vinifera*)

Affiliation: Dijon

Name: Eckhard Thines

Title: Signaling in filamentous fungi with special emphasis to secondary metabolite production

Affiliation: Mainz

Name: Gérard Manière

Title: Chemoreception, signaling and central nervous integration in *Drosophila*.

Affiliation: Dijon



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Session 2: Signaling concepts in microorganism

Name: Valeria Alduina

Title: Bacterial signalling among soil bacteria: are antibiotics weapons or signalling molecules

Affiliation: Palermo

Name: Stefan Jacob

Title: Molecular mechanisms of fungal signaling: the enigma of multiple signals and a limited number of signaling pathways

Affiliation: Mainz

Name: Janis Liepins

Titel: Signalling of nutrient deprivation in budding yeast

Affiliation: Latvia

Name: Ralf Heermann

Title: Small Talk-Bacterial quorum sensing and its applications.

Affiliation: Mainz

Session 3: Signaling across membranes

Name: Maria J. Garcia-Murria

Title: Protein-Protein Interactions and topological studies within the membrane

Affiliation: Valencia

Name: Dirk Schneider

Title: Biophysical principles of transmembrane signaling

Affiliation: Mainz

Name : Nathalie Leborgne Castel

Title: Membrane trafficking in immune signaling of plants

Affiliation: Dijon

Name: Luis Martinez-Gil

Title: Bcl2's Transmembrane domain a new actor in apoptosis signaling

Affiliation: Valencia



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Session 4: Cell signaling in complex systems, development, and disease

Name: Stephan Collins

Title: Signalling in the developing mouse brain

Affiliation: Dijon

Name: Helen May-Simera

Title: The primary cilium-the ultimate signaling organelle

Affiliation: Mainz

Name: Alberto Yañez

Title: A Candidate vaccine for “splendid” hematopoietic progenitors to protect against infection

Affiliation: Valencia

Name: Jari Yläñne

Title: Actin cytoskeleton-associated mechanical signaling in cells and tissues

Affiliation: Jyväskylä



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