

---

## Sunday, August 27

16:30 Registration

18:00 Opening and keynote lecture 1

**Iva Tolić** (Croatia)

The quest for perfection: spindle assembly and mitotic (in)fidelity in healthy and cancer cells

19:30 Welcome reception

---

## Monday, August 28

Bacterial interactions

*Chair:* Monica Hagedorn

9:00 **Monica Hagedorn** (Germany)

Recruitment of both the ESCRT and autophagic machineries to ejecting *Mycobacterium marinum*

9:25 **Joseph Oddy** (Switzerland)

Discovering new effectors of bacterial killing in *Dictyostelium*: CPRD

9:50 **Jordi van Gestel** (Germany)

Putative mutational hotspot underlies predation defense in *Bacillus subtilis* against *Dictyostelium discoideum*

10:15 **Davide D'Amico** (Switzerland)

Unraveling function and ligands of *Dictyostelium discoideum* lectins during *Mycobacterium marinum* infection

10:40 Break

Development/collective behavior

*Chair:* Jordi van Gestel

11:15 **Jan Faix** (Germany)

Cell sorting and development are controlled by the Ras-regulated bundling protein ForC

11:40 **Allyson Sgro** (USA)

Understanding the emergence of microbial collective behaviors

12:05 **Hugh Ford** (UK)

Cells swarm as an active droplet

12:30 Lunch

## Motility

Chair: Xuehua Xu

- 14:15    **Jinqiang Yu** (China)  
Amoeboid jumping: a novel evolutionary conserved migration mode
- 14:40    **Annette Müller-Taubenberger** (Germany)  
Adaptive pathfinding by nucleokinesis in migrating *Dictyostelium* amoebae
- 15:05    **Marko Šoštar** (Croatia)  
Oscillatory dynamics of Rac1 in *Dictyostelium* motility: an integrated theoretical and experimental study
- 15:30    Break

## Flash Talks

Chair: Huaqing Cai

- 16:00    **Kazutoshi Takebayashi** (Japan)  
Field model for multistate lateral diffusion of various transmembrane proteins observed in living cells
- Anja Privara** (Croatia)  
The emerging role of *Dictyostelium discoideum* IQGAP-related protein IqgD in large-scale endocytosis
- Matthew Wielgat** (USA)  
Harnessing dictyostelids to combat *Staphylococcus aureus* and *Pseudomonas aeruginosa* biofilm infections
- Antonia Ramos Guzmán** (Chile)  
DNA extracellular trap production in response to *Klebsiella pneumoniae* and its lipopolysaccharide by vegetative *D. discoideum* cells
- Lyudmil Raykov** (Switzerland)  
A TRAF-like E3 ubiquitin ligase TrafE coordinates ESCRT and autophagy in endolysosomal damage response and cell-autonomous immunity to *Mycobacterium marinum*
- Nina Sey Sey Ng** (Japan)  
Chemical communications that exist between dictyostelids and the free-living nematode *C. elegans*
- Kana Hayashi** (Japan)  
Nematode repellent active substance derived from *Dictyostelium discoideum*

- 17:00    **Petra Fey & Siddhartha Basu**  
Dicty community resource presentation

18:00    Free time

20:00    Joint dinner

---

## Tuesday, August 29

### Cell Biology A

Chair: Davide D'Amico

- 9:00     **Darija Putar** (Croatia)  
Small GTPases RasG and Rab5A regulate IqgC localization during macropinocytosis
- 9:25     **Huaqing Cai** (China)  
Regulation of macropinocytosis in response to changing nutrient conditions
- 9:50     **Robert Huber** (Canada)  
Mechanisms regulating the trafficking of Cln5 and cathepsin D in *Dictyostelium discoideum*
- 10:15    **Tian Jin** (USA)  
How *Dictyostelium* amoebae recognize and hunt bacteria as food
- 10:40    Break

### Chemotaxis

Chair: Tian Jin

- 11:15    **Richard Gomer** (USA)  
An endogenous chemorepellent inhibits Ras signaling to bias movement of *Dictyostelium* cells
- 11:40    **Peter van Haastert** (The Netherlands)  
A complete cGMP signaling complex associated with G<sub>βγ</sub> mediates both local and global information for directed cell movement
- 12:05    **Satomi Matsuoka** (Japan)  
Sphingomyelin metabolism underlies Ras excitability for efficient cell migration and chemotaxis
- 12:30    Lunch

### Ecology

Chair: Catherine Pears

- 14:15    **Sandrine Adiba** (France)  
Single-cell phenotypic plasticity modulates social behavior in *Dictyostelium discoideum*
- 14:40    **Tsuyoshi Araki** (Japan)  
Chemical communications between dictyostelids and soil nematodes
- 15:05    **Imen Ayadi** (Switzerland)  
Predator-prey relationships between *D. discoideum* and *P. aeruginosa*
- 15:30    Break

## Flash Talks

Chair: Marko Šoštar

16:00 **Yihong Yang** (China)

GxcM-Fbp17/RacC-WASP signaling regulates polarized cortex assembly in migrating cells via Arp2/3

**Vlatka Antolovic** (UK)

Collective signalling drives rapid jumping between cell states

**Kateryna Maslova** (UK)

Investigating therapeutic mechanisms and targets of non-psychotropic cannabinoids in the model system *Dictyostelium discoideum*

**Masaki Muromoto** (Japan)

$\beta$ -arrestin orchestrates the extension of the concentration ranges in eukaryotic chemotaxis

**Tetsuya Muramoto** (Japan)

The bioresource project of cellular slime molds in Japan (NBRP Nenkin)

**Pundrik Jaiswal** (USA)

Metabolic changes during the development of *Dictyostelium*

**Koji Iwamoto** (Japan)

RasGEF B and X break the symmetry of Ras activation to drive spontaneous cell migration

17:00 Poster Session

18:00 Free time

---

## Wednesday, August 30

### Cell Biology B

Chair: Robin S.B. Williams

9:00 **Ludwig Eichinger** (Germany)

Proteasomes of autophagy-deficient cells exhibit alterations in regulatory proteins and a marked reduction in activity

9:25 **Yousef Alhammad** (UK)

Unveiling the identity of *Dictyostelium discoideum* peroxisomes. A walking plant or talking amoeba?

9:50 **Hui Tu** (China)

The PripA-TbcrA complex-centered Rab GAP cascade facilitates macropinosome maturation in *Dictyostelium*

10:15    **Xuehua Xu** (USA)  
C2GAP2 is a common regulator of Ras signaling for chemotaxis, phagocytosis,  
and macropinocytosis

10:40    Break

Signalling and gene expression  
*Chair: Jonathan Chubb*

11:15    **Christian Hammann** (Germany)  
Distinct mechanisms keep Skipper-1 under control

11:40    **Robin S.B. Williams** (UK)  
Investigating molecular mechanisms of the Chinese herbal remedy, tanshinone  
2A, in *Dictyostelium* identifies a new approach to treat brain cancer  
(glioblastoma multiforme)

12:05    **Bart Edelbroek** (Sweden)  
Evolution of microRNAs in Amoebozoa

12:30    Lunch

14:15    Keynote lecture 2  
**Tomislav Domazet-Lošo** (Croatia)  
Evolution of complexity: gene family gain and loss in eukaryotes

15:30    Opatija walking tour

17:00    Free time

19:15    Bus departure for conference dinner

19:30    Conference dinner