

Annual
Dictyostelium
Conference
2018

Dicty-at-sea

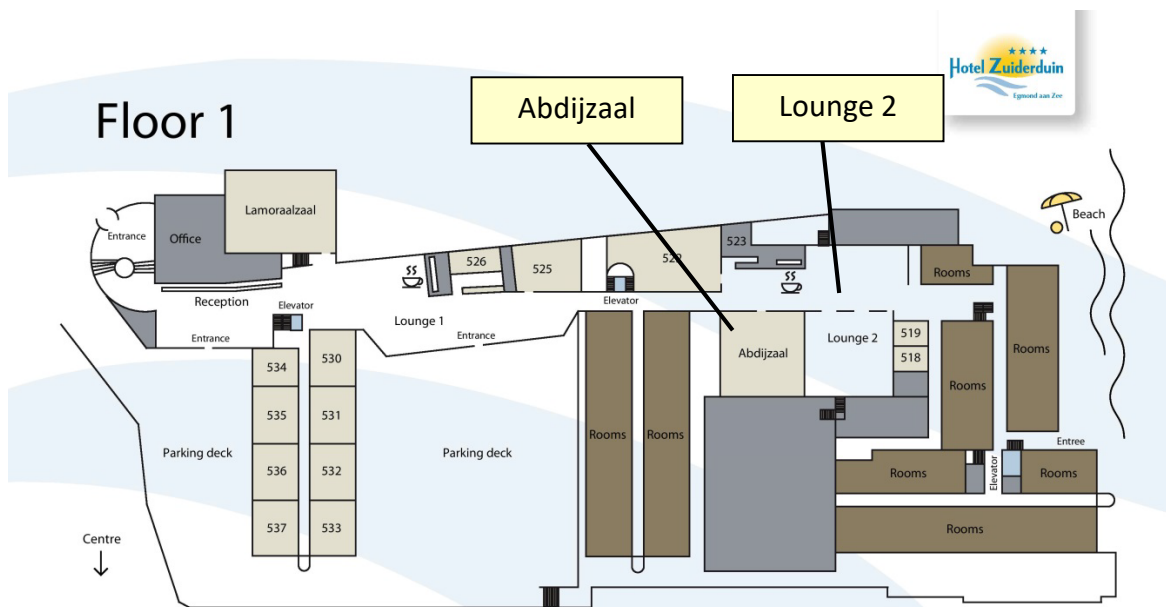
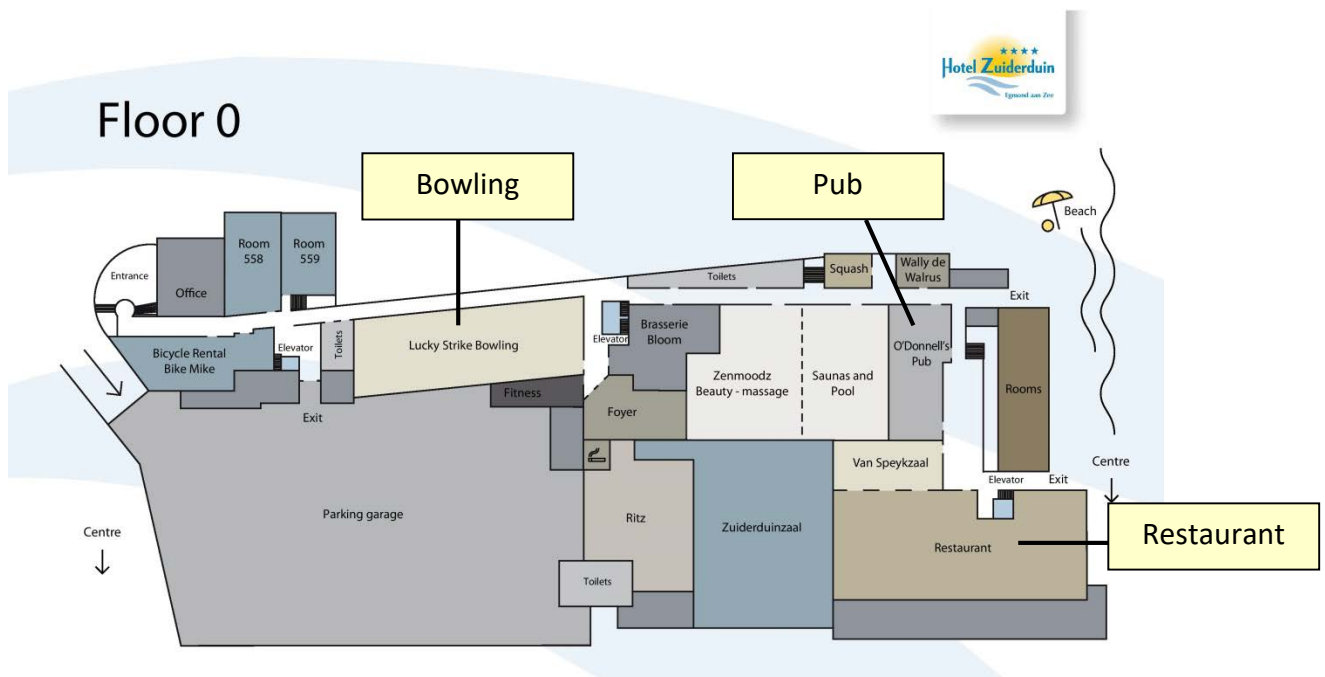
August 12 – 16

Hotel Zuiderduin,
Zeeweg 52, 1931VL Egmond aan Zee,
the Netherlands

contact hotel
+31 (0)72-7502000
info@zuiderduin.nl

contact organizers
dicty-at-sea@rug.nl





All talks:
 Poster session and coffee:
 Breakfast, lunch and dinner:
 Reception and buffet Sunday:
 Party on Wednesday evening

Abdijsaal, floor 1
 Lounge 2, floor 1
 Restaurant, floor 0
 Pub, floor 0
 Luckystrike Bowling, floor 0

Conference program Dicty-at-sea

Time slots (approximate)	Sunday	Monday	Tuesday	Wednesday
7:30 – 9:00 breakfast		breakfast	breakfast	breakfast
9:00 – 10:40		Keynote lecture Geert Kops	Keynote lecture Sahar El Aidy	Keynote lecture Jan-Willem Borst
9:40 – 10:30		Cell division	Host microbe interactions	Microscopy and techniques
10:30 – 11:00 break		break	break	break
11:00 -12:30		Development and Evolution	Host microbe interactions	Chemotaxis, signal transduction
12:30 – 13:30 Lunch		Lunch	Lunch	Lunch
13:40 – 15:30		Cell Biology	Excursion	Chemotaxis, signal transduction
15:30 – 16:00 break	15:00 Registration	break		break
16:00 – 17:30		Disease		Chemotaxis, signal transduction
18:00 – 19:30 Dinner	Keynote lecture Kees Weijer	Dinner	Dinner	Conference Dinner
20:00 – 22:00	19:30 Welcome reception with dinner buffet In Pub bar	Poster session	Poster session Workshops	
22:00 - end				

Sunday, August 12

12:00 – 18:00 Arrival and Check-in

Chairperson: Peter van Haastert

18:00 – 18:05 Welcome and foreword: Peter van Haastert and Arjan Kortholt

18:05 – 18:45 Keynote Lecture: Kees Weijer (*University of Dundee, UK*)
Dictyostelium a model system to study emergent behaviours of multicellular development.

19:00 Reception and buffet (Pub bar)

Monday, August 13

7:30 – 9:00 Breakfast

Cell division

Chairperson: Arjan Kortholt

9:00 – 9:40 Keynote Lecture: Geert Kops (*Hubrecht Institute, the Netherlands*)
How chromosomes capture microtubules for correct segregation in mitosis

9:40 – 10:10 Ralph Gräf (*University of Potsdam, Germany*)
Permeabilization of the *Dictyostelium* nuclear envelope in semi-closed mitosis

10:10 – 10:30 Christina Oettmeier (*University of Bremen, Germany*)
Back in the spotlight: *Physarum polycephalum*, the other slime mold

10:30 – 11:00 Coffee Break

Chairperson: Joseph Brzostowski

Development and Evolution

11:00 – 11:20 Pauline Schaap (*University of Dundee, UK*)
Why the *Dictyostelium* stalk is always formed at the tip

11:20 – 11:40 Jonathan R.Chubb (*University College London, UK*)
Signatures of cell decision-making in development and dedifferentiation

11:40 – 12:00 Taihei Fujimori (*University of Tokyo, Japan*)
How do prestalk and prespore cells segregate?

12:00– 12:15 Balint Stewart (*University College London, UK*)
Strategic investment as an Evolutionary Stable Strategy explains patterns of cooperation and cheating in *D. discoideum*

12:15 – 12:30 Rosa Herbst (*Hans-Knöll-Institute, Germany*)
Polyketide synthases expressed during late developmental stages of *Dictyostelium discoideum*

12:30 – 13:30 Lunch Break

Chairperson: Rob Kay

Cell Biology

- 13:40 – 14:00 Alan R. Kimmel (*National Institutes of Health, USA*)
Nutrient-Starvation Sensing for Reciprocal mTORC1/AMPK Responses Defines Networks at the Junction between Growth and Development
- 14:00 – 14:20 Yann Desfougères (*University College London, UK*)
Polyphosphate secretion in *Dictyostelium discoideum* occurs through a vesicular intermediate and requires the autophagy machinery
- 14:20 – 14:40 Markus Maniak (*Kassel University, Germany*)
The skinny supermodel AX2 gains fat
- 14:40 – 15:00 Jinqiang Yu (*Tsinghua University, China*)
***Dictyostelium* tune cell-substratum adhesion by shedding migrasome**
- 15:00 – 15:15 Nadine Kamprad (*MPI for Dynamic and Self-Organization, Germany*)
Adhesion of *Dictyostelium discoideum* under the influence of Van der Waals forces
- 15:15 – 15:30 Mona Saad (*Univ. Bordeaux France & Lebanese University, Lebanon*)
G-quadruplexes in the Social Amoeba *Dictyostelium discoideum*
- 15:30 – 16:00 Coffee Break

Chairperson: Arjan Kortholt

- 16:00 – 16:20 Thomas Winckler (*Friedrich Schiller University Jena, Germany*)
Glorin-based intercellular communication is common among social amoebae

Disease

- 16:20 – 16:40 Robin SB Williams (*Royal Holloway University of London, UK*)
Cannabidiol (CBD) targets the glycine cleavage system to regulate the one carbon cycle as a therapeutic mechanism for epilepsy treatment
- 16:40 – 17:00 Robert J. Huber (*Trent University, Canada*)
***Dictyostelium* as a model system for studying Batten disease**
- 17:00 – 17:20 Bernd Gilsbach (*German Center for Neurodegenerative Diseases, Germany*)
Parkinson's disease: From *D. discoideum* Roco4 to human LRRK2
- 17:20 – 17:40 Petra Fey (*Dictybase, USA*)
First glimpses into the new dictyBase
- 18:00 – 19:30 Dinner
- 20:00 – 22:00 Poster session

Tuesday, August 14

7:30 – 9:00 Breakfast

Host microbe interactions

Chairperson: Arjan Kortholt

9:00 – 9:40 Keynote Lecture: Sahar El Aidy (*University of Groningen, The Netherlands*)
Uncovering bacterial metabolites of neuromodulators

9:40 – 10:10 Gad Shaulsky (*Baylor College of Medicine, USA*)
Cooperative predation in the social amoebae *Dictyostelium discoideum*

10:10 – 10:30 Adam Kuspa (*Baylor College of Medicine, USA*)
***Dictyostelium* CadA functions as a lectin to optimize bacterial predation during growth and bacterial killing during development**

10:30 – 11:00 Coffee Break

Chairperson: Peter Devreotes

11:00 – 11:20 Thierry Soldati (*University of Geneva, Switzerland*)
Full metal jacket: Chemical warfare at the amoeba-bacteria interface

11:20 – 11:40 Pierre Stallforth (*Hans Knöll Institute, Germany*)
Synergy, Biosynthesis, and Ecological Relevance of Microbial Natural Products from Amoeba–Bacteria Interactions

11:40 – 12:00 Miao Pan (*National Institutes of Health, USA*)
A G-protein-coupled chemoattractant receptor recognizes lipopolysaccharide for bacterial phagocytosis

12:00 – 12:20 Jason King (*University of Sheffield, UK*)
TBA

12:30 – 13:30 Lunch Break

14:30 – 18:00 Excursion; start beach activity at 14:45, start city tour at 15:00

18:00 – 19:30 Dinner

20:00 – 22:00 Poster session

Wednesday, August 15

7:30 – 9:00 Breakfast

Microscopy, techniques

Chairperson: Peter van Haastert

9:00 – 9:40 Keynote Lecture: Jan-Willem Borst (*Wageningen University, the Netherlands*)
Microspectroscopy; functional imaging of biological systems

9:40 – 10:00 Laura Nederveen-Schippers (*University of Groningen, The Netherlands*)
The use of fluorescence correlation spectroscopy to study homo-dimerization of proteins *in vivo*

10:00 – 10:20 Tetsuya Muramoto (*Toho University, Japan*)
CRISPR/Cas9 mediated targeting of multiple genes

10:20 – 10:50 Coffee Break

Chemotaxis, signal transduction

Chairperson: Jason King

10:50 – 11:10 Chris Thompson (*University College London, UK*)
Single cell transcriptome analysis of gene expression changes during cell differentiation

11:10 – 11:30 Robert Insall (*Beatson Institute for Cancer Research, UK*)
Understanding chemotaxis by combining *Dictyostelium*, mammalian cells and mathematical modelling

11:30 – 11:50 Satoshi Sawai (*University of Tokyo, Japan*)
Comparative analysis of amoeboid cell morphology based on phase-field simulations

11:50 – 12:10 Annette Müller-Taubenberger (*LMU Munich, Germany*)
Ate1-mediated post-translational arginylation plays a role in *Dictyostelium* cell migration

12:10 – 12:30 Marjon Kamp (*University of Groningen, the Netherlands*)
LrrA is a scaffold that coordinates heterotrimeric and monomeric G protein signaling

12:30 – 13:30 Lunch Break

Chairperson: Douwe Veltman

13:40 – 14:00 Xiaoguang Li (*Johns Hopkins University, USA*)
Mutually Inhibitory Ras-PI(3,4)P2 Feedback Loops Mediate Cell Migration

14:00 – 14:20 Yulia Artemenko (*Johns Hopkins University, USA*)
Investigation of the Interaction between Tumor Suppressor Hippo/MST1/2 Kinase and Rap1

14:20 – 14:40 Richard H. Gomer (*Texas A&M University, USA*)
An endogenous chemorepellent uses Ras and a PTEN-like protein to direct cell movement without inducing new pseudopods

14:40 – 15:00 Thomas D. Williams (*MRC-Laboratory of Molecular Biology, UK*)
PIP3 and PKB/Akt regulate *Dictyostelium* macropinosome size

15:00 – 15:20 Peggy Paschke (*MRC-Laboratory of Molecular Biology, UK*)
How are micropinosomes formed?

15:30 – 16:00 Coffee Break

Chairperson: Tian Jin

16:00 – 16:20 Zully Santiago (*Hunter College, USA*)
Paxillin regulates bleb-based motility in *Dictyostelium Discoideum*

16:20 – 16:40 Xuehua Xu (*National Institutes of Health, USA*)
The Function of G2GAP2 in Macropinocytosis, Phagocytosis, and Chemotaxis in *Dictyostelium discoideum*

16:40 – 17:00 Yoichiro Kamimura (*Osaka, Japan*)
Structural basis of Gip1-mediated G protein shuttling which regulates broad dynamic range chemotaxis

17:00 – 17:20 Jan Faix (*Hannover Medical School Germany*)
Functional integrity of the contractile actin cortex is safeguarded by multiple RacE-regulated formins

17:20 – 18:00 Break

18:00 – 19:30 Conference Dinner

22:00 – end Bowling Party

Thursday, August 16

7:30 – 9:00 Breakfast

9:00 Departure

Keynote speakers

Sunday 18:05 – 18:45

Dictyostelium a model system to study emergent behaviours of multicellular development



Kees Weijer
University of Dundee, UK

<http://www.lifesci.dundee.ac.uk/people/kees-weijer>

Monday 9:00 – 9:40

How chromosomes capture microtubules for correct segregation in mitosis



Geert Kops
Hubrecht Institute, the Netherlands

<http://hubrecht.eu/onderzoekers/kops-group/>

Tuesday 9:00 – 9:40

Uncovering bacterial metabolites of neuromodulators



Sahar El Aidy
University of Groningen, The Netherlands

<http://www.rug.nl/research/microbial-physiology/>

Wednesday 9:00 – 9:40

Microspectroscopy; functional imaging of biological systems



Jan-Willem Borst
Wageningen University, the Netherlands

<https://www.wur.nl/en/Research-Results/Chair-groups/Agrotechnology-and-Food-Sciences/Laboratory-of-Biochemistry/Research/Plant-Development/Team/Laboratory-of-Biochemistry-Biomolecular-Imaging.htm>

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