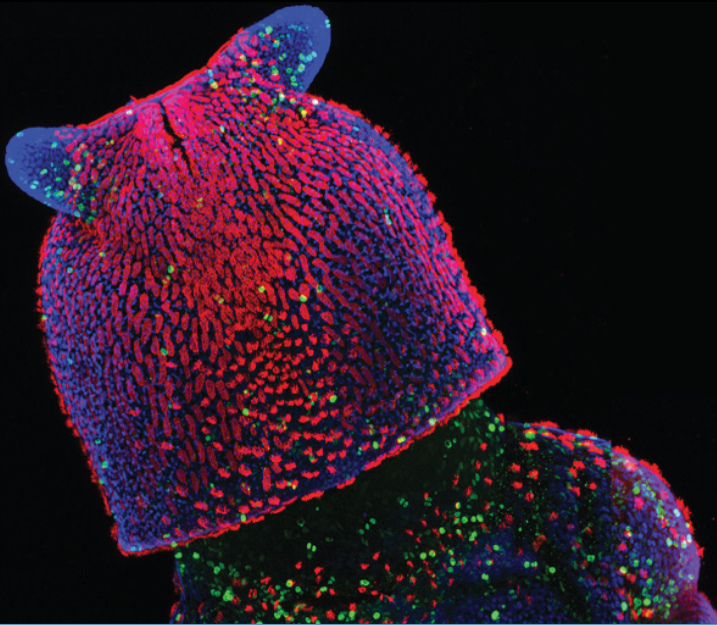


Programme

Unconventional and Emerging Experimental Organisms in Cell and Developmental Biology



Wotton House, Surrey, UK, 17 – 20 September 2023



Development

Unconventional and Emerging Experimental Organisms in Cell and Developmental Biology

Programme

Sunday 17 September 2023

- 12:00** **Registration opens**
- 12:30** **Lunch**
- 14:30** **Welcome: James Briscoe & Katherine Brown**, Development, UK
- Session 1**
- 14:40** **Iñaki Ruiz-Trillo**, Institut de Biologia Evolutiva, CSIC, Spain
Cells, genes, and the unpredictability of animal origins
- 15:10** **Thibaut Brunet**, Institut Pasteur, France
The unusual multicellularity of *Choanoeca flexa*
- 15:30** **Susana Coelho**, Max Planck Insitute for Biology, Germany
The brown alga *Ectocarpus*: a model to study the origin and evolution of multicellular development
- 16:00** **Coffee break**
- 16:30** **Eva Pillai**, EMBL, Germany
Surface mechanics in the emergence of animal multicellularity
- 16:50** **Magdalena Bezanilla**, Dartmouth College, USA
How *P. patens* has provided a single cell perspective of tissue patterning
- 17:20** **Erik Kalinka**, University of Massachusetts Amherst, USA
Genetic transformation of the frog-killing chytrid fungus *Batrachochytrium*
- 17:40** **Pre-dinner drinks – Speed networking**
- 19:00** **Dinner**

Monday 18 September 2023

From

07:00

Breakfast

Session 2

09:30

Aissam Ikmi, EMBL, Germany

Design principles of early animals: insights from Cnidaria

10:00

Paula Miramon-Puertolas, Michael Sars Centre (University of Bergen), Norway

A shared post-larval origin of germinal and neuronal lineages in a sea anemone

10:20

Alexander Klimovich, Christian-Albrechts University Kiel, Germany

Phylogeny-ontogeny relations in the cell type evolution across Metazoa

10:40

Sponsor Talk: Parse Biosciences

10:50

Coffee break – Exhibitions

11:20

Annika Guse, LMU Munich, Germany

Mechanisms of intracellular coral-algal symbiosis – a model systems' approach

11:50

Viraj Doddihal, Stowers Institute for Medical Research, USA

Functional integration of the body axes during animal regeneration

12:10

Mansi Srivastava, Harvard University, USA

The power of panther worms: insights into development, regeneration, and stem cells from the acoel *Hofstenia miamia*

12:40

Lunch

14:00

Free time

15:45

Coffee break

Session 3

16:00

Ehab Abouheif, McGill University, Canada

Ants, eco-evo-devo, and the evolution of biological complexity

16:30

Kim Cooper, UC San Diego, USA

Evolution of extreme skeletal proportion in bipedal jerboas

17:00

Discussion session

Why we need to study unconventional models in the light of climate and biodiversity challenges

Chair: Cassandra Extavour

Panel: Ehab Abouheif, Kim Cooper, Michael Raissig, Iñaki Ruiz-Trillo

18:00

Poster session 1 and pre-dinner drinks in the Evelyn Suite

20:00

Dinner

Tuesday 19 September 2023

From
07:00

Breakfast

Session 4

09:30

Pauline Schaap, University of Dundee, United Kingdom

Evolution of developmental signalling in the multicellular Dictyostelia from stress pathways in their unicellular ancestors

10:00

Giovanna Capovilla, MIT, USA

Interactions between marine picocyanobacteria and particulate chitin

10:20

Matthew Butnaru, Harvard University, USA

Expanding pooled CRISPR screens in Arthropods

10:40

Sponsor Talk: Vizgen

10:50

Coffee break – Exhibitions

11:20

Ashley Albright, University of California, San Francisco, USA

RNA localization and the microtubule cytoskeleton in *Stentor coeruleus*

11:40

Ivan Radin, University of Minnesota, USA

Mechanosensing and calcium signaling behind sundew plant carnivory

12:10

Michael Raissig, University of Bern

A model systems' approach to studying the grasses' innovative "breathing pores"

12:40

Lunch

Session 5

14:00

Peter Dearden, University of Otago, New Zealand

Adventures in insect plasticity and sociality

14:30

Steffen Lemke, University of Hohenheim, Germany

Cellular innovations in development: Insights from comparative studies in flies

14:50

Nadia Monesi, University of São Paulo, Brazil

Pseudolycorella hygida Hox genes

15:10

Amro Hamdoun, Scripps Institution of Oceanography, USA

Building a better sea urchin

15:30

Coffee break – Exhibitions

16:00

Andrew Gillis, Marine Biological Laboratory, USA

Embryology of the little skate (*Leucoraja erinacea*) and evolution of the vertebrate skeleton

- 16:30** **Ali Elagoz**, KU Leuven, Belgium
Cephalopod molecular approach of evolving the largest invertebrate nervous system
- 16:50** **Victoria Shabardina**, Institute of Evolutionary Biology UPF-CSIC, Spain
Challenging our views on the origin of cell differentiation in animals
- 17:10** **Poster session 2 and pre-dinner drinks in the Evelyn Suite**
- 19:00** **Dinner**

Wednesday 20 September 2023

From

07:00

Breakfast

Session 6

09:30

Hanh Vu, EMBL, Germany

Mechanisms of body size control: lessons from planarian flatworms

10:00

Anna Czarkwiani, Center for Regenerative Therapies TU Dresden, Germany

De novo thymus regeneration in a vertebrate, the axolotl

10:20

Emily Dong, University of Toronto, Canada

Transmuting the stereotypes of rod and cone photoreceptor identity

10:40

Coffee break

11:10

Lenka Gahurova, University of South Bohemia, Czech Republic

African mole-rats an emerging model of long-term female fertility in mammals

11:30

Joanna Hagen, Johns Hopkins University, UK

The evolution of cell fate specification mechanisms in primate retinal organoids

11:50

Ricardo Mallarino, Princeton University, USA

The developmental basis of biological diversity: patterning mechanisms in mammalian skin

12:20

Closing remarks

12:30

Lunch

Depart