Sunday, March 15

3:00 pm Check-in

6:00 pm Reception *(Lobby)*

7:00 pm Dinner

8:00 pm **Welcome and Opening Remarks**

8:05 pm **Keynote Lecture:**
Monica Bettencourt-Dias, Instituto Gulbenkian de Ciencia
Evolution of microtubule organizing centers

8:50 pm **Keynote Lecture:**
Rebecca Heald, University of California, Berkeley
Mechanisms of mitosis and size control in Xenopus

9:35 pm Refreshments available at Bob's Pub

NOTE:
Meals are in the **Dining Room**
Talks are in the **Seminar Room**
Posters are in the **Lobby**

Monday, March 16

7:30 am Breakfast *(service ends at 8:45am)*

9:00 am **Session 1: Population Dynamics and Genetic Evolution**
Chair: Frances Brodsky

9:00 am **Ginger Armbrust**, University of Washington
Marine microbial interactions

9:25 am **Nels C. Elde**, University of Utah
Escape from pathogens through retrotransposition of genes encoding essential cellular functions

9:50 am **Andrew Murray**, Harvard University
How yeast adapts to a strong genetic perturbation: One function at the time

10:15 am **Michael Lynch**, Indiana University Bloomington
Mutation, drift, and the origin of subcellular features

10:45 am Break

11:15 am **Session 2: Molecular Evolution**
Chair: Holly Goodson

11:15 am **Ajit Varki**, University of California, San Diego
Evolutionary variations and conflicts in the cell biology of sialic acids

11:40 am **Harmit Malik**, HHMI/Fred Hutchinson Cancer Research Center
Evolutionary innovations in insect centromeric proteins

12:05 pm **D. Allan Drummond**, University of Chicago
Stress-triggered RNA/protein granule assembly and its imprint on molecular evolution

12:30 pm Lunch *(services ends at 1pm)*

2:00 pm **Session 3: Cell Division I**
Chair: Joseph Thornton

2:00 pm **Daniel Needleman**, Harvard University
Genetic architecture of cell division

2:25 pm **Shelley Sazer**, Baylor College of Medicine
Deciphering the evolutionary history of open and closed mitosis

2:50 pm **Michael B. Eisen**, HHMI/University of California, Berkeley
tbd

3:15 pm Break

3:45 pm **Poster Blitz!** *(poster highlights - 5 min / 3 slides each)*
Chair: Harmit Malik

Needhi Bhalla, University of California, Santa Cruz
Marcus Dillon, University of New Hampshire
Idan Frumkin, Weizmann Institute of Science
Victor Hanson-Smith, University of California, San Francisco
Victor Luria, Harvard University
Mary Munson, University of Massachusetts Medical School
Samson Obado, Rockefeller University
Berend Snel, Utrecht University
Natalia Wesolowska, European Molecular Biology Laboratory (EMBL)
Athula Wikramanayake, University of Miami

5:00 pm Poster Reception

6:30 pm Dinner

7:45 pm **Session 4: Cell Division II**
Chair: Nicole King

7:45 pm **Scott Dawson**, University of California, Davis
Kinetochore proteins not widely distributed in diverse eukaryotic lineages

8:10 pm **Mukund Thattai**, National Centre for Biological Sciences
Using ancient dynamins to probe the earliest steps of eukaryote evolution

8:35 pm **Abby Dernburg**, HHMI/University of California, Berkeley
Diversity in meiotic chromosome pairing mechanisms

9:00 pm Refreshments available at Bob's Pub

Tuesday, March 17

7:30 am Breakfast *(service ends at 8:45am)*

9:00 am **Session 5: Membrane Trafficking I**
Chair: Daniel Needleman

9:00 am **Mark Field**, University of Dundee
The ongoing evolution of cellular complexity in eukaryotic cells

9:25 am **Frances Brodsky**, University of California, San Francisco
Evolution of clathrin functions

9:50 am **Margaret S. Robinson**, University of Cambridge
Adaptor evolution

10:15 am Break

10:45 am **Session 6: Membrane Trafficking II**
Chair: Michael Lynch

10:45 am **Joel Dacks**, University of Alberta
Evolution of Golgi stacking and unstacking in microbial eukaryotes

11:10 am **Natasha Raikhel**, University of California, Riverside
Small molecule endosidin2 targets evolutionary conserved exo70 proteins to affect exocytosis

11:35 am **Alexander R. Paredez**, University of Washington
Giardia: A window into evolutionarily deep cellular mechanisms

12:00 pm Lunch *(services ends at 1pm)*

1:00 pm Tour *(optional – meet at reception)*

2:00 pm **Session 7: Multicellularity**
Chair: Dyche Mullins

2:00 pm **Nicole King**, HHMI/University of California, Berkeley
Choanoflagellates and the origin of animal multicellularity

2:25 pm **Joseph Thornton**, University of Chicago
Mechanisms for the evolution of a protein function required for mitotic spindle orientation and organized multicellularity

2:50 pm **James Nelson**, Stanford University
Adhesive mechanisms in multicellularity across organisms and scales

3:15 pm **Scott A. Nichols**, University of Denver
Cellular innovations for adhesion in the animal stem lineage

3:40 pm Break

4:10 pm **Session 8: Developmental Patterning**
Chair: Nels Elde

4:10 pm **Wallace Marshall**, University of California, San Francisco
Regeneration and morphogenesis in single cells

4:35 pm **François Schweisguth**, Institut Pasteur
Regulation and dynamics of notch signaling

5:00 pm Reception

6:30 pm Dinner

8:00 pm Refreshments available at Bob's Pub

Wednesday, March 18

7:30 am	Breakfast *(service ends at 8:45am)*
9:00 am	**Session 9: Evolution of Organelles I** **Chair: Harmit Malik**
9:00 am	**José Pereira Leal**, Instituto Gulbenkian de Ciencia *Variation and ancestral states in cellular evolution*
9:25 am	**Joseph Pogliano**, University of California, San Diego *Evolution of a simplified bipolar spindle*
9:50 am	**Holly Goodson**, University of Notre Dame *Using evolutionary perspectives to study cytoskeletal cell biology… and vice versa*
10:15 am	Break
10:45 am	**Session 10: Evolution of Organelles II** **Chair: Mark Field**
10:45 am	**Damien P. Devos**, Universidad Pablo de Olavide *Microbiology's platypus*
11:10 am	**David S. Roos**, University of Pennsylvania *Big ideas in small packages: Apicomplexan parasites and the evolution of eukaryotic organelles*
11:35 am	**Magdalena Bezanilla**, University of Massachusetts Amherst *Insights into the evolution of cell division plane specification in plants*
12:00 pm	Conclusion and Final Remarks
12:15 pm	Lunch & Departure
12:45 pm	First shuttle to Dulles
1:45 pm	Second shuttle to Dulles
2:45 pm	Last shuttle to Dulles