

SCIENTIFIC AND ETHICAL

Frontiers in Understanding Human Development

WEDNESDAY, NOVEMBER 4, 2020

 <https://irm.med.upenn.edu/event/frontiers/>



AM Schedule

9:00 AM

Welcome and Introductions

Jonathan Epstein, MD, Executive Vice Dean and Chief Scientific Officer, Perelman School of Medicine
Ralph Brinster, VMD, PhD, Richard King Mellon Professor of Reproductive Physiology, Penn Vet
Ken Zaret, PhD, IRM Director

Session 1

"Frontiers of embryonic development research"

Moderator: Ken Zaret, PhD, IRM Director

9:15- 9:35

Janet Rossant, PhD (University of Toronto/Hospital for Sick Kids)

Lineage commitment in the mouse blastocyst and its derived stem cells

9:35-9:45

Discussion

9:45-10:05

Magdalena Zernicka-Goetz, PhD (University of Cambridge/Caltech)

Building embryos from stem cells in vivo and in vitro

10:05-10:15

Discussion

10:15-10:27

Nicolas Plachta, PhD (University of Pennsylvania)

Imaging how the mouse embryo forms

10:27-10:35

Discussion

10:35-10:50

Break

10:50-11:02

Kurt Barnhart, MD (University of Pennsylvania)

Fetal tissue use in OBGYN: Hurdles and opportunities

11:02-11:10

Discussion

11:10-11:45

Panel Discussion with Session 1 Speakers and Audience

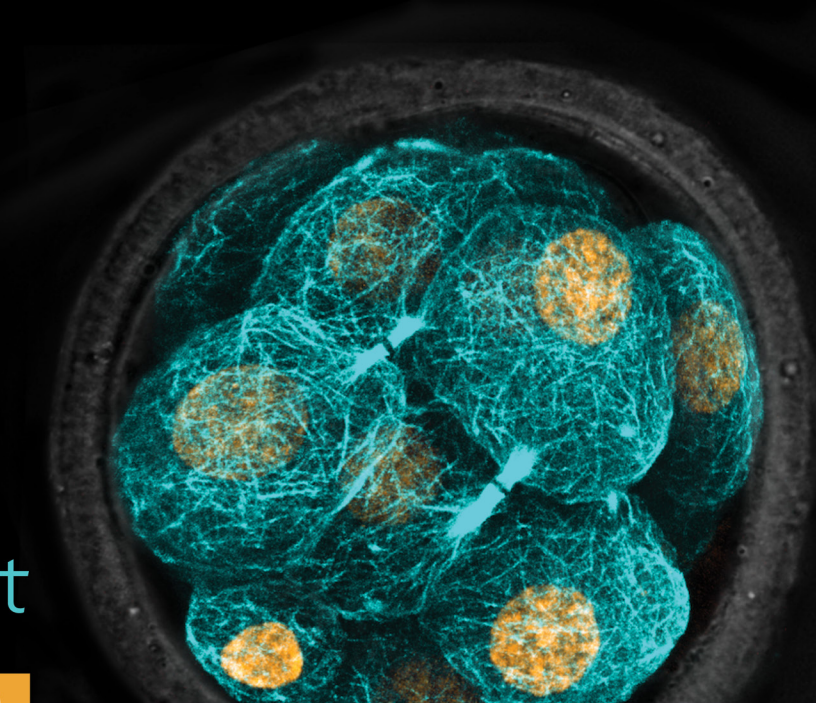
11:45-12:00

Lightning Talks from Graduate Students & Postdocs

Akshata Almad, PhD- A RETRO look at the inherited neurodevelopmental diseases Aicardi Goutières Syndrome

Louis Prah, PhD- Spatial patterning of Ret-GDNF signaling in model ureteric epithelial tissues

Wenchao Qian- A spatial gradient of cell size regulates genome activation and vertebrate early development



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PM Schedule

Session 2

"Approaches & Ethics for the Future of Developmental Biology"

Moderator: Chris Lengner, PhD

1:00-1:20

Jianping Fu, PhD (University of Michigan)

Bottom-up synthetic embryology for understanding early human development

1:20-1:30

Discussion

1:30-1:42

Kathleen O'Neill, MD, MTR (University of Pennsylvania)

Exploring scientific and ethical questions in uterus transplantation

1:42-1:50

Discussion

1:50-2:02

Kotaro Sasaki, MD, PhD (University of Pennsylvania)

Germ cell derivation from pluripotent stem cells

2:02-2:10

Discussion

2:10-2:25

Break

2:25-2:37

Guo-li Ming, MD, PhD (University of Pennsylvania)

Modeling human hippocampal neurogenesis using brain organoids

2:37-2:45

Discussion

2:45-3:05

Insoo Hyun, PhD (Case Western University/Harvard School of Medicine)

Why does ethics matter for the future of developmental biology?

3:05-3:15

Discussion

3:15-3:50

Panel Discussion with Session 2 Speakers and Audience

3:50-4:00

Closing Remarks

Chris Lengner, PhD, IRM Associate Director

4:00-4:30

Informal "Happy Hour"