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We also wish to thank the School of Medicine and Public Health at the University of Wisconsin-Madison for its support!

Schedule

7:30–8:30 REGISTRATION AND CONTINENTAL BREAKFAST

8:30–8:40 **Welcome**
Timothy J. Kamp, M.D.

MORNING SESSION MODERATOR: Krishanu Saha, Ph.D.

8:40–9:25 Human Pluripotent Stem Cells in Understanding Genetic Cardiovascular Disease and Effects of Drugs
Christine L. Mummery, Ph.D.

9:25–10:10 Integrated, Multi-Scale & Spatial-Temporal Stem Cell Biology-A Next Step in the Post Genomic Era
Rick Horwitz, Ph.D.

10:10–10:55 BREAK AND POSTER SESSION

10:55–11:40 Using Human Pluripotent Stem Cells to Model Gastrointestinal Development and Disease
James M. Wells, Ph.D.

11:40–12:00 Rapid-Fire Poster Presentations

12:00–1:15 LUNCH AND POSTER SESSION

AFTERNOON SESSION MODERATOR: Sean Palecek, Ph.D.

1:15–2:00 Engineering Multicellular Organization
Peter Zandstra, Ph.D.

2:00–2:45 Blood-Brain Barrier Modeling Using Human Pluripotent Stem Cells
Eric V. Shusta, Ph.D.

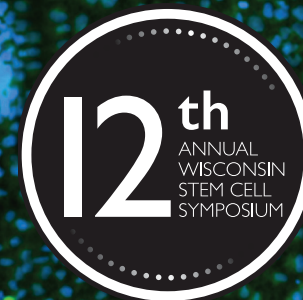
2:45–3:15 BREAK AND POSTER SESSION

3:15–3:45 Precise Gene Editing in Human Pluripotent Stem and T Cells
Krishanu Saha, Ph.D.

3:45–4:30 The Promise of T-Cell Engineering
Michel Sadelain, M.D., Ph.D.

4:30–4:40 Presentation of Poster Awards and Closing Remarks
William L. Murphy, Ph.D.

4:40–6:00 RECEPTION
Sponsored by Michael Best & Friedrich LLP



Engineering Cells and Tissues

For Discovery and Therapy

April 19, 2017

BioPharmaceutical Technology Center
5445 East Cheryl Parkway | Fitchburg/Madison, WI 53711
www.btoi.org

Highlighted Issues

- Cell and tissue patterning with stem cell derivatives
- Genomic and epigenomic engineering, editing and integration of synthetic biology into human cells
- *In vivo* and *in vitro* models of human disease for drug discovery and toxicology
- Mammalian organoid development and engineering
- Regenerative medicine using implanted human cells and tissues

Key Topics

The Symposium is coordinated by the Stem Cell & Regenerative Medicine Center at the University of Wisconsin-Madison and the BioPharmaceutical Technology Center Institute. It brings together leading researchers investigating human biology and disease with engineered human cells, organoids and tissues. Speakers will review genomic and epigenomic engineering of human cells for modeling and therapeutic purposes (morning session) and then focus on patterning stem-cell derived multicellular constructs into defined architectures, organoids and tissues for modeling and regenerative medicine applications (afternoon session).

Moderators

Timothy J. Kamp, M.D.

Professor, Medicine; Co-director, Stem Cell and Regenerative Medicine Center, University of Wisconsin-Madison, Madison, WI (Welcome)

William L. Murphy, Ph.D.

Professor, Biomedical Engineering, Orthopedics & Rehabilitation; Co-director, Stem Cell & Regenerative Medicine Center, University of Wisconsin-Madison, Madison, WI
(Presentation of Poster Awards & Closing Remarks)

Sean Palecek, Ph.D.

Milton J. and Maude Shoemaker Professor, Chemical and Biological Engineering, University of Wisconsin-Madison, Madison, WI

Krishanu Saha, Ph.D.

Assistant Professor, Biomedical Engineering & Wisconsin Institute for Discovery, University of Wisconsin-Madison, Madison, WI

Speakers

Rick Horwitz, Ph.D.

Executive Director, Allen Institute for Cell Science, Seattle, WA

Christine L. Mummery, Ph.D.

Professor, Developmental Biology, and Chair, Department of Anatomy and Embryology, Leiden University Medical Center, Leiden, The Netherlands

Michel Sadelain, M.D., Ph.D.

Director, Center for Cell Engineering, Memorial Sloan Kettering Cancer Center, New York, NY

Krishanu Saha, Ph.D.

Assistant Professor, Biomedical Engineering & Wisconsin Institute for Discovery, University of Wisconsin-Madison, Madison, WI

Eric V. Shusta, Ph.D.

Howard Curler Distinguished Professor, Department of Chemical and Biological Engineering, College of Engineering, University of Wisconsin-Madison, Madison, WI

James M. Wells, Ph.D.

Director, Basic Research, Division of Endocrinology; Director, Pluripotent Stem Cell Center; Professor, UC Department of Pediatrics; Cincinnati Children's Hospital Medical Center, Cincinnati, OH

Peter Zandstra, Ph.D.

University Professor, Institute of Biomaterials & Biomedical Engineering; Canada Research Chair in Stem Cell Bioengineering, University of Toronto, Toronto, Ontario, Canada

Poster Contest Judges

Randolph S. Ashton, Ph.D.

Assistant Professor, Biomedical Engineering, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Madison, WI

Christian M. Capitini, M.D.

Assistant Professor, Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI

Wan-Ju Li, Ph.D.

Associate Professor, Department of Orthopedics and Rehabilitation, University of Wisconsin School of Medicine and Public Health, Madison, WI

Rupa Sridharan, Ph.D.

Assistant Professor, Cell and Regenerative Biology, Epigenetics, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Madison, WI

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