



THE HEBREW UNIVERSITY OF JERUSALEM

THE ISRAEL INSTITUTE FOR ADVANCED STUDIES

The 21st Jerusalem School in Life Sciences
Stem Cells and Regenerative Biology

21-25 July, 2013

All lectures will take place at the Feldman Building,
on the Edmond J. Safra, Givat Ram Campus

Directors: Roger Kornberg (Stanford University)
Yuval Dor, Eli Keshet, Eran Meshorer (The Hebrew University)

Program

Sunday, 21 July

09:00-09:45 Arrival and registration

09:45-10:15 Opening Remarks:
Roger Kornberg (Stanford University)

- 10:15-11:00 **Thomas Rando** (Stanford University)
Stem Cells and Aging
- 11:05-11:30 Coffee break
- 11:30-12:15 **Yuval Dor** (The Hebrew University)
Physiologic Determinants of Pancreatic Beta Cell Fate
- 12:15-13:00 **Markus Grompe** (Oregon Health and Science University)
Aneuploidy in the Liver: A Genetic Resource for Injury Responses
- 13:05-14:30 Lunch
- 14:30-15:15 **Eli Keshet** (The Hebrew University)
Manipulating Vascular Stem Cell Niches in Adult Organs
- 15:15-16:00 **Pedro Herrera** (University of Geneva Medical Center)
Pancreas Reconstitution: Translational Applications of Plasticity
- 16:00-16:30 Coffee break
- 16:30-17:15 **Steve McKnight** (UT Southwestern)
A Solid State Conceptualization of Information Transfer in Eukaryotic Cells: Transcriptional Side of the Story
- 18:00 Opening Reception at IIAS lobby

Monday, 22 July

- 09:00-09:45 **Sean Morrison** (UT Southwestern)
The Strengths and Weaknesses of the Cancer Stem Cell Model
- 09:45-10:30 **Eran Meshorer** (The Hebrew University)
Learning From Endogenously Labeled Fluorescent Proteins in Embryonic Stem Cells
- 10:30-11:00 Coffee break
- 11:00-11:45 **Deepak Srivastava** (UCSF)
In Vivo Cellular Reprogramming for Cardiac Regeneration
- 11:45-12:30 **Ken Zaret** (University of Pennsylvania)
Programming and Reprogramming Cell Fate
- 12:30-14:00 Lunch
- 14:00-14:45 **Howard Cedar** (The Hebrew University)
Programming DNA Methylation in Stem Cells
- 14:45-15:30 **Kirsty Spalding** (Karolinska Institute)
Radiocarbon Dating and the Turnover of Adipose Tissue in Man
- 15:30-16:00 Coffee break
- 16:00-16:45 **Nissim Benvenisty** (The Hebrew University)
Modeling Genetic Disorders using Human Pluripotent Stem Cells

16:45-17:30 **Fred Gage** (Salk Institute)
Modeling Human Neurodevelopmental Disorders with hiPS Cells

17:30-20:00 Poster Session

Tuesday, 23 July

09:00-09:45 **Sean Morrison** (UT Southwestern)
Stem Cells and Leukemia

09:45-10:30 **Jacob Hanna** (Weizmann Institute)
Mechanisms of Pluripotency Maintenance and Epigenetic Reprogramming

10:30-11:00 Coffee break

11:00-11:45 **Benjamin Dekel** (Sheba Medical Center)
The Human Kidney: From Developmental Biology to Normal and Neoplastic Stem/Progenitor Cells

11:45-12:30 **Thomas Rando** (Stanford University)
Molecular Regulation of Stem Cell Quiescence

12:30-14:00 Lunch

14:00 Departure to Old City Tour (from campus main pedestrian gate)

Wednesday, 24 July

- 09:00-09:45 **Hans Clevers** (Hubrecht Institute)
Intestinal Tract Stem Cells in Self-Renewal and Cancer
- 09:45-10:30 **Yaakov Nahmias** (The Hebrew University)
Liver Tissue Engineering: From 3D Culture Models to Developing Buds
- 11:30-11:00 Coffee break
- 11:00-11:45 **Yehudit Bergman** (The Hebrew University)
Allelic Plasticity and Commitment in the Hematopoietic System
- 11:45-12:30 **Deepak Srivastava** (UCSF)
Reprogramming Approaches to Cardiovascular Disease Modeling
- 12:30-14:00 Lunch
- 14:00-14:45 **Yair Reisner** (Weizmann Institute)
Committed Embryonic Precursor Tissue for Diabetes and Lung Repair
- 14:45-15:30 **Kirsty Spalding** (Karolinska Institute)
Neurogenesis in the Adult Brain
- 15:30-16:00 Coffee break
- 16:00-16:45 **Markus Grompe** (Oregon Health and Science University)
Liver Stem Cells and Therapeutic Liver Repopulation

- 16:45-17:30 **Steve McKnight** (UT Southwestern)
A Solid State Conceptualization of Information Transfer in Eukaryotic Cells: RNA Side of the Story
- 18:00 Dinner and Poster Award Announcement at IAS lobby

Thursday, 25 July

- 09:30-10:15 **Ken Zaret** (University of Pennsylvania)
Chromatin Factors Modulating Cell Fate Decisions in the Liver and Pancreas Lineages
- 10:15-10:45 Coffee break
- 10:45-11:30 **Shulamit Levenberg** (Technion)
Vessel Network Formations in Engineered Tissues: Effect on Stem Cell Differentiation and Tissue Maturation
- 11:30-12:15 **Pedro Herrera** (University of Geneva Medical Center)
Islet Cell Fate Interconversion after Injury
- 12:15-13:45 Lunch
- 13:45-14:30 **Benjamin Reubinoff** (Hadassah Medical Center)
Human Embryonic Stem Cells - from Bench to Bedside

- 14:30-15:15 **Fred Gage** (Salk Institute)
Neural Plasticity and Neural Diversity
- 15:15-15:45 Coffee break
- 15:45-16:30 **Hans Clevers** (Hubrecht Institute)
*Growing Self-Organizing Mini-Guts from a
Single Lgr5 Stem Cell: Mechanism and
Applications*
- 16:30-17:00 Concluding Remarks