


Oral Program

Sunday, January 28, 2018

- 12:00-14:15 Registration | Promenade
14:15-14:30 Welcome and Opening Remarks | Jasmine Room
14:30-17:55 **Session 1: Reprogramming** | Jasmine Room
Chairs: Angelo Azzi and Claes Wahlestedt
14:30-15:10 **Feodor Lynen Lecture**
[K01] The emerging role of pluripotent stem cells in translational studies of tissue repair: Emphasis on cardiac injury
J. Hare, *University of Miami Miller School of Medicine, USA*
15:10-15:25 **[SL01] Treatment of diabetes and obesity with engineered epidermal stem cells**
X. Wu*¹, J. Yue¹, X. Gou¹, C. Li¹, B. Wicksteed², ¹*University of Chicago, USA*, ²*University of Illinois at Chicago, USA*
15:25-16:00 **[INV01] Nudt21 controls cell fate by connecting alternative polyadenylation to chromatin signaling**
K. Hochedlinger, *Harvard University, USA*
16:00-16:30 Coffee Break | Hibiscus Room/Promenade
16:30-17:05 **[INV02] Interspecies organogenesis for generation of autologous, functional organs**
H. Nakauchi, *Stanford University, USA & The University of Tokyo, Japan*
17:05-17:20 **[SL02] Viral vector mediated gene editing eliminates the C9ORF72 repeat expansion mutation from induced pluripotent stem cell derived neurons and cerebral brain organoids**
N.S. Andrade¹, R. Esanov¹, G.T. Cabrera², R.H. Brown², M. Benatar¹, C. Wahlestedt¹, C. Mueller², Z.R. Zeier*¹, ¹*University of Miami, USA*, ²*University of Massachusetts, USA*
17:20-17:55 **[INV03] Specification and programming of human primordial germ cells**
A. Surani, *Wellcome Trust Cambridge Research UK Gurdon Institute: University of Cambridge, UK*
17:55-19:00 Welcome Drinks Reception | Riverwalk Terrace

Monday, January 29, 2018

- 09:00-09:15 Welcome Remarks | Jasmine Room
Dr. Carl Schulman, Executive Dean for Research and Graduate and Postgraduate Education, *Miller School of Medicine, University of Miami*
Dr. Dushyantha Jayaweera, Senior Associate Dean for Research and Graduate and Postgraduate Education, *Miller School of Medicine, University of Miami*
09:15-12:25 **Session 2: Differentiating Stem Cells** | Jasmine Room
Chairs: Joshua Hare and Jonathan Saxe
 **Sponsored by Agilent**
09:15-09:55 **Lifetime Achievement Award**
[K02] The formation of stem cells from somatic cells by nuclear transfer to eggs
J.B. Gurdon, *The Wellcome Trust/Cancer Research UK Gurdon Institute: University of Cambridge, UK*
09:55-10:30 **[INV04] Generation of atrial and ventricular cardiomyocytes from human pluripotent stem cells**
G.M. Keller, *McEwen Centre for Regenerative Medicine University Health Network & Princess Margaret Cancer Centre, Canada*
10:30-11:00 Coffee Break | Hibiscus Room/Promenade
11:00-11:35 **[INV05] Stem cell approaches to treat Age-Related Macular Degeneration**
S. Temple, *Neural Stem Cell Institute, USA*
11:35-11:50 **[SL03] Designer culture substrates based on laminin E8 fragments for robust expansion and differentiation of human pluripotent stem cells**
K. Sekiguchi, *Osaka University, Japan*
11:50-12:25 **[INV06] Mechanisms of quiescence, activation and differentiation in adult mesenchymal stem cells of the liver**
D. Häussinger, *Heinrich Heine Universität, Germany*
12:25-13:55 Lunch and Poster Session 1 | Hibiscus Room/Promenade

12:45-13:45 **Workshop: An Army Marches on Its Metabolism in Vitro** | Jasmine Room
A.D. Henn, *BioSpherix, Ltd., USA*

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13:55-18:00 **Session 3: Hematopoietic Stem Cells** | Jasmine Room
Chairs: Flavia Fontanesi and Antoni Barrientos

13:55-14:35 **Special Achievement Award**
[K03] Normal and neoplastic stem cells
I.L. Weissman, *Stanford University, USA*

14:35-14:50 **[SL04] Loss of ASXL1 in the bone marrow niche dysregulates hematopoietic stem cell fates through RNA polymerase II complex**
P. Zhang*, Y. Guo, H. Yang, S. Chen, M. Xu, F-C. Yang, *University of Miami, USA*

14:50-15:30 **Special Achievement Award**
[K04] Stemness properties in AML: Are they relevant?
J. Dick, *Princess Margaret Cancer Centre & University of Toronto, Canada*

15:30-16:15 Coffee Break and Poster Session 1 | Hibiscus Room/Promenade

16:15-16:50 **[INV07] Nerves at the forefront of the aging HSC niche and cancer microenvironment**
P.S. Frenette, *Albert Einstein College of Medicine, USA*

16:50-17:25 **[INV08] Building cancer in organoids**
M. van de Wetering, *Hubrecht Institute, The Netherlands*

17:25-18:00 **[INV09] Bringing mesenchymal stem cells into the clinic**
K. Le Blanc, *Karolinska Institutet, Sweden*

19:00-22:00 Conference Dinner (separate ticket required) | The Rusty Pelican

Tuesday, January 30, 2018

09:00-12:05 **Session 4: Cancer Stem Cells** | Jasmine Room
Chairs: Stephen Nimer and Angelo Azzi [09:00-09:40]
Chairs: Kerry Burnstein and Angelo Azzi [09:40-12:05]

09:00-09:40 **IUBMB Award**
[K05] Perturbations in stem cell self-renewal pathways in degenerative disease and cancer
M.F. Clarke, *Stanford University, USA*

09:40-09:55 **[SL05] The role of melanocyte stem cell activation and translocation in melanoma development**
H. Moon¹, L.R. Donahue¹, E. Choi¹, P.O. Scumpia², W.E. Lowry², J.K. Grenier¹, J. Zhu¹, A.C. White*¹, ¹Cornell University, USA, ²UCLA, USA

09:55-10:30 **[INV10] Regulation of stem cell fate in mammalian epidermis'**
F. Watt, *King's College London, UK*

10:30-11:00 Coffee Break | Hibiscus Room/Promenade

11:00-11:15 **[SL06] Lgr5-expressing chief cells drive epithelial regeneration and cancer in the oxyntic stomach**
M. Leushacke*¹, S. Tan¹, A. Wong¹, Y. Swathi¹, A. Hajamohideen¹, L. Tan¹, J. Goh¹, E. Wong¹, K. Murakami², N. Barker^{1,2}, ¹A*STAR Institute of Medical Biology, Singapore, ²Kanazawa University, Japan, ³The University of Edinburgh, UK

11:15-11:50 **[INV11] Fat Cell: Cancer stem cell expansion and increased tumor metastasis**
J.M. Slingerland, *Sylvester Comprehensive Cancer Center, USA*

11:50-12:05 **[SL07] KSHV tumorigenesis occurs by environmentally-induced epigenetic adaptation to viral oncogenic gene expression and signaling in pdgfra+ve mesenchymal cancer stem cells**
J. Naipauer*, L. Cavallin, S. Rosario, C. Premer, V. Ponzinibbio, D. Salyakina, M. Abba, J. Hare, P. Goldschmidt-Clermont, E. Mesri et al, *University of Miami, USA*

12:05-13:35 Lunch and Poster Session 2 | Hibiscus Room/Promenade

13:35-17:40 **Session 5: Cell Engineering** | Jasmine Room
Chairs: Guy Howard and Marilyn Glassberg

13:35-14:10 **[INV12] Human organs on chips**
D. Ingber, *Wyss Institute for Biologically Inspired Engineering at Harvard University & Harvard Medical School & Boston Children's Hospital, USA*

14:10-14:25 **[SL08] Modular tissue engineering of bone microenvironment for propagating circulating tumor cells**
V. Mayo*, A. Agarwal, R. Cote, S. Rawal, D. Correa, A. Bowles, *University of Miami, USA*

14:25-14:40	[SL09] Allogeneic mesenchymal stem cells in the treatment of deep second degree burns A. Candanedo, L. Rodriguez-Menocal, W. Guzman, J. McBride, L. Pizano, N. Namias, O. Orozco, C.I. Schulman, E.V. Badiavas*, <i>University of Miami, USA</i>	
14:40-15:15	[INV13] Modeling human tumorigenesis de novo reveals an unexpected program of changes C. Eaves, <i>Terry Fox Laboratory, BC Cancer Agency & University of British Columbia, Canada</i>	
15:15-16:00	Coffee Break and Poster Session 2 Hibiscus Room/Promenade	
16:00-16:35	[INV14] Disease in a dish concept using iPS cells J. Wu, <i>Stanford School of Medicine, USA</i>	
16:35-16:50	[SL10] The role of wnt-signaling and the epigenetic control of liver to pancreas transdifferentiation S. Ferber* ^{1,2} , I. Meivar-Levy ^{1,2} , H. Cohen ^{1,2} , H. Barash ^{1,2} , A. Har-Zahav ^{1,2} , ¹ <i>Sheba Medical Center, Israel</i> , ² <i>Sackler Faculty of Medic, Israel</i>	
16:50-17:05	[SL11] Benefits of young donor mesenchymal stem cells in the management of fibrotic lung disease M.K. Glassberg*, P. Catanuto, G. Rubio, S. Pereira-Simon, X. Xia, S. Elliot, <i>University of Miami Miller School of Medicine, USA</i>	
17:05-17:40	[INV15] Regenerative approaches to post-MI heart failure using engineered cardiac patch J. Zhang, <i>University of Alabama at Birmingham (UAB), USA</i>	
19:00-23:00	Student Party (invite only) Frost Museum of Science	
Wednesday, January 31, 2018		
09:00-12:20	Session 6: Stem Cell and Gene Therapy Clinical Trials Jasmine Room Chairs: Michal Toborek and Claes Wahlestedt	
09:00-09:35	[INV16] Mutant IDH1 downregulates ATM and alters DNA repair in AML stem cells T. W. Mak, <i>University of Toronto & Princess Margaret Cancer Centre & Ontario Cancer Institute, Canada</i>	
09:35-10:10	[INV17] Advanced genetic engineering of hematopoiesis to treat inherited diseases and cancer L. Naldini, <i>IRCCS San Raffaele Scientific Institute & Vita-Salute San Raffaele University, Italy</i>	
10:10-10:20	Poster Prize Presentation	
10:20-10:50	Coffee Break Hibiscus Room/Promenade	
10:50-11:25	[INV18] Cell based therapies for Parkinson's disease - past, present and future R.A. Barker, <i>University of Cambridge, UK</i>	
11:25-11:40	[SL12] Stem Cell Therapy for stroke: Optimal routes of delivery and therapeutic time-window D. Yavagal, <i>University of Miami Miller School of Medicine, USA</i>	
11:40-12:20	UBMB Award [K06] Primary immunodeficiencies gene therapy M. Cavazzana, <i>Hospital Necker, France</i>	Sponsored by WILEY
12:20-12:30	Closing Remarks	
12:30-13:30	Lunch Hibiscus Room/Promenade	
13:30-15:00	Author Workshop: An Introduction to Scholarly Publishing Jasmine Room J. Saxe, <i>Scientific Editor, Cell Stem Cell</i>	