

5TH

ANNUAL SYMPOSIUM

Better Science through Convergence



DAY 1: DEC. 7

8:30 A.M. TO 2:00 P.M. EST

OPENING REMARKS

08:30	08:40	Welcome remarks	Ted Sargent – Vice-President, Research and Innovation, and Strategic Initiatives, and University Professor, Edward S. Rogers Sr. Department of Electrical and Computer Engineering, University of Toronto (U of T)
08:40	08:50	Opening remarks	Michael Sefton – Executive Director, Medicine by Design, and University Professor, Department of Chemical Engineering & Applied Chemistry and Institute of Biomedical Engineering, U of T

SESSION 1: Lessons Learned in Translation

Moderator: Omar F. Khan – Assistant Professor, Institute of Biomedical Engineering, U of T

08:50	09:25	Creating and implementing convergence based technologies	Robert Langer – David H. Koch Institute Professor, Department of Chemical Engineering, Massachusetts Institute of Technology
09:25	10:00	Process development for cell & gene therapies: Building on academic foundations	Kim Warren – Co-Founder and past Chief Manufacturing and Technology Officer, AVROBIO

10:00 10:20 BREAK

SESSION 2: The Age of Inflammation

Moderator: Stephanie Protze – Scientist, McEwen Stem Cell Institute, University Health Network (UHN)

10:20	10:50	Killer clones: Clonal hematopoiesis and age-associated disease	Kenneth Walsh – Lockhart B. McGuire Professor, Department of Internal Medicine, University of Virginia
10:50	11:10	Linking stemness control of human HSC with inflammatory heart disease	John Dick – Senior Scientist, Princess Margaret Cancer Centre, UHN
11:10	11:15	Utilizing embryonic-derived macrophages to improve cardiac repair	Sarah Dick – Post-Doctoral Fellow, Toronto General Hospital Research Institute, UHN

11:15 11:25 BREAK

11:25	11:45	The tissue micro-environment as regulator of monocyte/macrophage abundance and function in arterial health and disease	Clinton Robbins – Senior Scientist, Toronto General Hospital Research Institute, UHN
11:45	12:05	Lungs by design	Dr. Shaf Keshavjee – Surgeon-in-Chief & Senior Scientist, Toronto General Hospital Research Institute, UHN
12:05	12:15	Medicine by Design updates	Allison Brown - Director, Strategy and Translation, Medicine by Design

12:15 2:00 LUNCH / POSTER SESSION

DAY 2: DEC.8

10:30 A.M. TO 2:30 P.M. EST

SESSION 3: Grand Questions in Regenerative Medicine

Moderator: Michael Sefton – Executive Director, Medicine by Design, U of T

10:30	10:35	Introduction	Michael Sefton – Executive Director, Medicine by Design, U of T
10:35	11:20	National Academy of Medicine: Charting the future of healthy longevity	Dr. Victor Dzau – President, United States National Academy of Medicine of the United States National Academy of Sciences

SESSION 4: Biomaterials to Renew Tissues

Moderator: Penney Gilbert – Associate Professor, Institute of Biomedical Engineering, U of T

11:20	11:50	Recombinant biomaterials for treatment of spinal cord injury	Sarah Heilshorn – Associate Professor, Department of Materials Science and Engineering, Stanford University
11:50	12:10	Restoring vision: Endogenous repair through exogenous cell transplantation	Molly Shoichet – University Professor, Department of Chemical Engineering & Applied Chemistry and Institute of Biomedical Engineering, U of T
12:10	12:15	Transplanted photoreceptors deliver intracellular proteins and mitochondria to the host retina through nanotubes	Arturo Ortin Martinez – Post-Doctoral Fellow, Krembil Research Institute, UHN

12:15 1:00 LUNCH BREAK

SESSION 5: Immunoengineering to Induce Tolerance

Moderator: Hyun Kate Lee – Assistant Professor, Department of Biochemistry, U of T

1:00	1:30	Engineering regulatory T cells	Megan Levings – Professor, Department of Surgery and School of Biomedical Engineering, University of British Columbia
1:30	1:50	Better tolerance through a convergence of immuno-regulatory cells	Juan Carlos Zúñiga-Pflücker – Senior Scientist, Sunnybrook Health Sciences Centre, and Chair, Department of Immunology, U of T
1:50	1:55	Using hESC to model pancreatic patterning and specification	Emily McGaugh – PhD Candidate, Department of Physiology, U of T
1:55	2:15	Making cell therapy safe from global source	Andras Nagy – Senior Investigator, Lunenfeld-Tanenbaum Research Institute, Sinai Health System

2:15 2:30 CLOSING REMARKS & POSTER AWARDS Michael Sefton – Executive Director, Medicine by Design, U of T

Thank you to our poster prize sponsors

