

# ORGAN BANKING SUMMIT 2015



## THE DEVELOPMENT OF LONG-TERM BANKING OF ORGANS AND OTHER COMPLEX TISSUES

TO CATALYZE A VITAL NEW INDUSTRY THAT PERFECTS THE ORGAN PRESERVATION PROCESS, SAVING AND ENRICHING MILLIONS OF LIVES

### PRESERVATION OF ORGANS WOULD ENABLE

- BETTER MATCHES
- FEWER REJECTIONS
- LESS IMMUNOSUPPRESSION
- MORE ORGANS
- LOWER COSTS
- LESS DISEASE TRANSMISSION
- MORE LIVES SAVED
- FERTILITY PROTECTION



**ELLEN, Age 38** is dying of organ failure; she may or may not receive an organ in time

ACCORDING TO THE WORLD HEALTH ORGANIZATION, ORGAN TRANSPLANTS ARE CURRENTLY MEETING LESS THAN 10% OF THE GLOBAL NEED

### A STEP TOWARDS AN APOLLO PROGRAM IN ORGAN BANKING

February 26-28, 2015 - Silicon Valley, California

- OPENING DAY CONFERENCE AT STANFORD'S BIO-X CAMPUS, HOSTED BY THE BIOMEDICAL ENGINEERING SOCIETY AT STANFORD
- SIDE ACTIVITIES AT SU LABS AT NASA RESEARCH PARK IN MOUNTAIN VIEW
- THE REST OF THE SUMMIT WILL TAKE PLACE AT THE SHERATON PALO ALTO

### SPEAKERS INCLUDE WORLD LEADING SCIENTISTS FROM:

HARVARD/MGH/MIT, STANFORD, BERKELEY, UOFM, CARNEGIE MELLON, 21ST CENTURY MEDICINE, CELL & TISSUE SYSTEMS AND OTHERS



**Organ Banking Summit Host Professor**

**UTKAN DEMIRCI**, Director of Bio-Acoustic MEMS in Medicine Labs at Stanford University

Creator of innovative high-throughput nanoliter cell manipulation technologies for cryopreservation



**MEHMET TONER**, Professor at Harvard/MGH and MIT

Co-founder of the Center for Engineering in Medicine and co-Author of 2014 rat liver preservation breakthroughs published in Nature



**GREGORY FAHY**, Chief Science Officer at 21st Century Medicine

Lead scientist behind the first successful transplant of a cryopreserved and vitrified mammalian organ (rabbit kidney)



**JANET ELLIOTT**, Canada Research Chair in Thermodynamics and Professor at University of Alberta

Inventor of engineering modeling derived protocols to vitrify human tissues; World expert on thermodynamics in cryobiology



**MICHAEL TAYLOR**, Adjunct Professor at Carnegie Mellon and VP for R&D, Cell & Tissue Systems

World leader in vitreous cryopreservation approaches of tissue systems



**BORIS RUBINSKY**, Professor at UC Berkeley

Discoverer of fish antifreeze proteins for cryopreservation solutions and innovative isochoric cryopreservation approach



**JOHN BISCHOF**, Director of Bioheat and Mass Transfer Lab at the University of Minnesota

Inventor of award-winning rewarming approach based on radio frequency heating of nanoparticles in cryoprotectant solutions



**GABOR FORGACS**, Scientific Founder of Organovo, Inc.

Authority in bio-mechanics, tissue engineering and inventor of the 3D bio-printer



**KELVIN BROCKBANK**, President and Chief Science Officer of Cell & Tissue Systems

Inventor of clinical cryopreservation methods currently employed for viable meniscal allografts, allogeneic heart valves, ligaments, and vascular grafts.



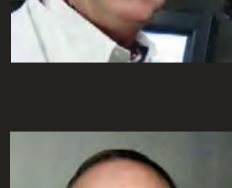
**KENNETH STOREY**, Canada Research Chair in Molecular Physiology and Professor in Biochemistry at Carleton University

Creator of new approaches of gene activation that allow organisms to endure and flourish under extreme conditions, such as the frozen "frog-sicles"



**ERIK WOODS**, President of the International Society of Cryobiology and CEO of Cook General BioTechnology and Genesis Bank

Developed enhanced methods for the preservation and banking of umbilical cord blood-derived stem cells



**IDO BRASLAVSKY**, Director Food-Biophysics and Cryobiology Laboratory and Professor at The Hebrew University of Jerusalem

Pioneer in the intersection between Antifreeze Proteins and ice, creator of devices that can monitor the fluorescently labeled proteins with high sensitivity



**YOED RABIN**, Professor at Carnegie Mellon University

World leader on thermo-mechanical stress and structural damage in cryopreservation; inventor of the cryomicroscope; developer of ultra-miniature, wireless, implantable "cryo sensors"



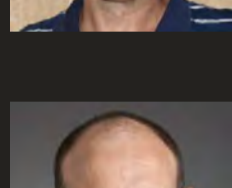
**BARRY FULLER**, Lead Global Professor at the UNESCO Chair in Cryobiology and Professor at UCL Medical School / Royal Free Hospital

Pioneer of bio artificial liver and preservation of the largest volume metric organoid bulk - 2 liters of liver spheroids



**GLORIA ELLIOTT**, Director of the Biostability Lab and Professor at University of North Carolina - Charlotte

Creator of next generation preservation agents for the stabilization of biologics and leader in applying molecular understanding to improve cryo processes



**ROBERT N. BEN**, Canada Research Chair in Medicinal Chemistry, Professor Organic and Bioorganic Chemistry at the University of Ottawa

Creator of novel small molecule ice recrystallization inhibitors as cryoprotectants for the long-term storage of biological samples and tissues



**JOHN G. BAUST**, UNESCO Professor, Chief Scientific Adviser at CPSI Biotech, Director of the Institute of Biomedical Technology at the State University of New York, Binghamton

Expert in the responses to low temperature exposure elicited by mammalian cells, tissues and organs with focus on cryopreservation, cancer biology and tissue engineering



**JASON ACKER**, President-Elect of the Society for Cryobiology and Professor at the University of Alberta

Creator of new methods for the long-term storage of a number of cell types and tissues



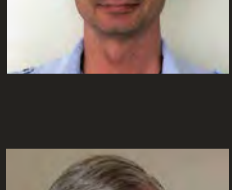
**ADAM HIGGINS**, Director of the Biotransport and Biomedical Process Engineering Lab and Professor at Oregon State University

Expert in mathematical modeling and optimization of cryopreservation procedures and high flow rate microfluidics for chemical processing



**JAMES BENSON**, Biomathematician predominantly focusing on cryobiology and Assistant Professor at Northern Illinois University

Expert biomathematician predominantly focusing on heat and mass transfer and cryoprotectant toxicity problems and optimization in cryobiology



**DAYONG GAO**, Director of the Center for Cryo-Biomedical Engineering and Artificial Organs and Professor at the University of Washington

World expert and inventor of novel technology and instruments for cryopreservation and biobanking



**BRIAN WOWK**, Cryobiologist and Senior Physicist at 21st Century Medicine

Discoverer and developer of synthetic ice-blockers; Leader in the solid organ cryopreservation field

... AND MANY OTHER LEADING SPEAKERS FROM CRYOBIOLOGY AND RELATED SCIENTIFIC FIELDS AS WELL AS FROM BIOTECH, VC, GOVERNMENT, MILITARY, STAKEHOLDER ORGANIZATIONS AND TRANSPLANT, TRAUMA AND GENERATIVE MEDICINE