



Stony Brook University

Chapter of the National Academy of Inventors

*Stony Brook University Chapter of
The National Academy of Inventors*

*Young Academic Inventor's
Award Symposium*

Tuesday, September 11, 2018

*Charles B Wang Center
Stony Brook University*



Stony Brook University

The State University of New York



Stony Brook
University



SBU Chapter of the National Academy of Inventors

Young Academic Inventor's Award Symposium Tuesday, September 11, 2018

- 1:00 - 1:10 pm** **Opening Remarks**
Moderator: Peter Donnelly, M.B.A., Executive Director, NAI-SBU Chapter
Iwao Ojima, Ph.D., President, NAI-SBU Chapter
- 1:10 – 1:50 pm** **Keynote Lecture**
Lorne Golub., NAI-SBU Chapter Board, Fellow of the National
Academy of Inventors
*“Host-Modulation Therapy: A Novel Approach to the treatment of Periodontitis
(dental) and Other Chronic (medical) Diseases”*
- Invited Lectures**
- 1:50 - 2:10 pm** Jarrod French, Assistant Professor, Department of Chemistry
*“An Acoustofluidic Device to Manipulate and Pattern Fragile Protein Crystals
for X-ray Crystallography”*
- 2:10 - 2:30 pm** Mehdi Namazi, Postdoctoral Research Associate, Yale University, Department of
Physics; Co-Founder and CEO, Qunnect L.L.C.
*“The Next Generation of Quantum Information Technologies at Room
Temperature”*
- 2:30 – 3:00 pm** **Coffee Break**
- Award Lectures**
- 3:00 – 3:40 pm** Amirhossein Goldan, Research Assistant Professor, Department of Radiology, SOM
“Avalanche Selenium Detectors for Medical Imaging”
- 3:40 – 4:20 pm** Ming-Yu Ngai Assistant Professor, Department of Chemistry
“Development of Novel Chemical Tools for Accessing Unexplored Chemical Spaces”
- 4:20 – 5:00pm** Dmytro Gudkov, Research Scientist, Department of Electrical Engineering
*“Integrated Microfluidic Platform for Detection, Isolation and Molecular analysis of
CTCs”*
- 5:00pm** **Closing Remarks**
Peter Donnelly, M.B.A., Executive Director, NAI-SBU Chapter
- 5:10 – 7:00 pm** **Reception**

Speakers



Dr. Lorne Golub is a Distinguished Professor in the Department of Oral Pathology and Biology. He received his D.M.D. (1963) and M.Sc. degrees (1965) from the University of Manitoba, Canada. With support from the National Research and Medical Research Councils (Canada), he completed his clinical specialty training (Periodontics) at the Harvard School of Dental Medicine, with additional research training at the Mass. Gen. Hospital, Harvard Medical School (1968). He returned to Manitoba to co-develop the first specialty training program (Periodontics) combined with a Ph.D. in Oral Biology. He was a founding member of the faculty when the S.U.N.Y. Stony Brook School of Dental Medicine opened in 1973. He served as Associate Dean for Research (1993-2003) and Interim-Dean of the Dental School (2008-2009). In 2006, his research was highlighted in "Technology Transfer Stories - 25 Innovations that Changed the World." AUTM, The Better World Report, Chapter 24. He has generated innovations on matrix-metalloproteinases and their therapeutic inhibition by inventing FDA (and internationally)-approved novel NON-antibiotic tetracycline formulations as inhibitors of collagenolysis during a variety of oral and systemic diseases. More recently, he, and his colleague, Francis Johnson, developed and patented novel chemically-modified curcumins as pleiotropic MMP-inhibitors. He is the recipient of the American Dental Association Gold Medal for Research. He holds 55 U.S. and 104 international and is the co-founder of two start-up companies. He has published more than 300 scientific articles in various dental, medical, pharmacology, and biology journals.



Dr. Mehdi Namazi is a postdoctoral fellow at Yale Quantum Institute working at Jack Harris lab. He is also the Chief Executive Officer of Qunnect LLC, specialized in developing ultra-secure communication technologies based on quantum physics. He received his B.Sc. in Physics from Urmia University (2010) and his M.Sc. in Nanotechnology from University of Tehran (2012), Iran. He received his Ph.D. in physics from Stony Brook University (2018), working at Figueroa QIT lab. His Ph.D. work set the foundation for scalable room-temperature quantum devices, such as portable quantum memories, which are now being developed at Qunnect for commercial applications.



Dr. Jarrod French is an Assistant Professor in the Department of Biochemistry and Cell Biology as well as Department of Chemistry. The long term goal of his research is to characterize the structure, functions and control mechanisms of these protein assemblies and to exploit this information to develop novel treatments for cancer and inflammatory diseases such as rheumatoid arthritis. He has employed a variety of techniques including X-ray crystallography, mechanistic enzymology, microscopy and chemical biology. He received his Ph.D. (2010) in Chemical Biology from Cornell University, NY. He was the recipient of a Canadian Institutes of Health Research Postdoctoral Fellowship and completed his postdoctoral research fellowship in the laboratory of Dr. Stephen Benkovic in the Department of Biochemistry at the Pennsylvania State University. (2011-2013). He has been faculty at SBU since 2014.



Dr. Amirhossein Goldan is currently a Research Assistant Professor of Radiology at Stony Brook University School of Medicine. Dr. Goldan is working on the development and fabrication of medical imaging detectors for positron emission tomography (PET) and digital mammography. He received his B.A.S.(2005) and M.A.S.(2007) degree in electrical engineering from Simon Fraser University, Vancouver, BC, Canada, Ph.D. (2011) in electrical and computer engineering from the University of Waterloo, Canada. Dr. Goldan has successfully built the first a-Se UTD detector using the patented field-shaping multi-well technology and demonstrated more than two orders-of-magnitude improvement in temporal performance. The National Academy of Inventors, Stony Brook University Chapter awarded her the Young Academic Inventor's Award for *his innovative development and fabrication of medical imaging detectors for positron emission tomography (PET) and digital mammography*.

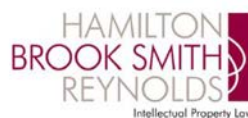


Dr. Ming-Yu Ngai is an Assistant Professor in the Department of Chemistry. Dr. Ngai's research focuses on developing novel and practical synthetic methodologies to address unmet challenges in organic synthesis and medicinal chemistry, and (ii) identifying and developing new radiotracers for Positron Emission Tomography (PET) imaging to elucidate disease mechanisms, identify drug targets, assess treatment efficacy, and accelerate drug discovery and development. Dr. Ngai's research interests are multidisciplinary, covering organic and organometallic chemistry, photochemistry, radiochemistry, and biomedical imaging. Dr. Ngai received his Ph.D. (2008) in Chemistry from University of Texas, Austin. He was awarded a Croucher Foundation Postdoctoral Research Fellowship at Stanford University and worked in the laboratory of Professor Barry M. Trost (2009). He also performed postdoctoral research at Harvard University in the laboratory of Professor Tobias Ritter (2011). He joined the Department of Chemistry in 2013. The National Academy of Inventors, Stony Brook University Chapter awarded her the Young Academic Inventor's Award *For his inventions of highly efficient synthetic methods for pharmaceuticals and agrochemicals, as well as radiopharmaceuticals for PET imaging*



Dr. Dymitro Gudkov is a Research Scientist in the Department of Electrical Engineering at Stony Brook University. He received his B.S. (2004) in electrical engineering from the Kharkov National University of Radio Electronics in Kharkov, Ukraine, M.S. (2011) and Ph.D. (2013) in electrical engineering from Stony Brook University. Dr. Gudkov developed a novel circuit for detecting single photons with high efficiency. His innovative design and development concerns with the development of ultra-sensitive single and multi-channel fluorescent detectors for application in the field of life sciences. The National Academy of Inventors, Stony Brook University Chapter awarded her the Young Academic Inventor's Award for *his innovative design and development of ultra-sensitive single and multi-channel fluorescent detectors for application in the field of life sciences*.

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the National Academy of Inventors
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NAI-SBU Chapter

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