



Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

MEDICAL TECHNOLOGIES & HEALTHCARE INNOVATIONS

SYMPOSIUM • MARCH 28, 2017

CEWIT, the Center for Biotechnology and Henry Schein, Inc., have joined forces to host an expert symposium presenting cutting-edge advances in biomedical and clinical-related technologies, digital health, and smart medical devices, focusing on the technology as well as the joint industry, academic, and R&D partnerships that are integral to major innovations in the healthtech domain — at Stony Brook University.

WELCOME



Recognizing the dominant role of medical and biotechnological innovations, healthcare applications, and information technologies in modern medicine, the Center of Excellence in Wireless and Information Technology (CEWIT) and the Center for Biotechnology at Stony Brook University teamed with Henry Schein, Inc., will bring researchers, technologists, healthcare providers, and biomedical companies under one roof for a symposium that relates recent advancements and forward predictions in medical and healthcare domains. Equally important, the benefits of reducing the burden of disease through better diagnosis, prevention, treatment, and cures will be a leading priority.

We welcome you to the Symposium to participate in the critical discussion on the opportunities and barriers to wider adoption of wireless medical and healthcare technologies and to listen to expert perspectives on emerging healthcare needs.

Dr. Shmuel Einav
Symposium Chair

Director of Medical Technologies,
Center of Excellence in Wireless
and Information Technology (CEWIT),
Stony Brook University

SYMPOSIUM AGENDA

- 9:30am - 9:55am **Registration & Refreshments**
- 9:55am - 10:05am **Welcome & Opening Remarks**
Dr. Yacov Shamash, Vice President for Economic Development, Stony Brook University
Dr. Fotis Sotiropoulos, Dean of Engineering and Applied Sciences, Stony Brook University
- 10:05am - 10:25am **Keynote Address: *Innovation Trends in Healthcare***
Dr. Bruce Lieberthal, Vice President, Chief Innovation Officer, Henry Schein, Inc.
- 10:25am - 10:45am ***Non-Coagulant, Implantable Medical Devices***
Dr. Danny Bluestein, Professor, Department of Biomedical Engineering, Stony Brook University;
Established Investigator, American Heart Association
- 10:45am - 11:05am ***Technology and The Aging Population***
Dr. Craig Lehmann, Dean, School of Health Technology and Management;
Professor, Department of Clinical Laboratory Sciences, Stony Brook University
- 11:05am - 11:25am ***The Accelerate NY Seed Fund***
Peter Donnelly, Co-Director, The Accelerate NY Seed Fund; Director, Technology Commercialization,
Stony Brook University
- 11:25am - 11:45am ***Facing the Silver Tsunami: The Future of Senior Care***
Raymond King, Director of Business Development,
Baycrest and Canadian Centre for Aging and Brain Health Innovation
- 11:45am - 12:00pm **Morning Session Discussion and Q&A**
- 12:00pm - 12:45pm **Lunch**
- 12:45pm - 1:05pm ***On Demand and Distance Care Technologies***
Ari Sonesh, Founder & CEO, Meditel360
- 1:05pm - 1:25pm ***The Role of Northwell Health Ventures in Clinical and Healthcare Operations of Northwell Health Medical***
Dr. Thomas Graham, Senior Vice-President & Chief, Strategic Alliances and Partnerships,
Northwell Health Ventures
- 1:25pm - 1:45pm ***Biomedical Imaging and Image Processing***
Dr. Arie Kaufman, Chief Scientist,
The Center of Excellence in Wireless and Information Technology, Stony Brook University
- 1:45pm - 2:05pm ***The Impact of Innovation on Healthcare Technology Transformation***
Dr. Purna Prasad, Vice President & Chief Technology Officer,
Northwell Health Ventures
- 2:05pm - 2:25pm ***Wearables to Smart Homes – IoT, BigData, Machine Learning and Microservices are Redefining Healthcare Delivery***
Eugene Sayan, Founder & CEO, Softheon
- 2:25pm - 2:45pm ***Supply Chain Integrity in the Pharmaceutical Industry***
Dr. Satya Sharma, Executive Director,
The Center of Excellence in Wireless and Information Technology, Stony Brook University
- 2:45pm - 3:05pm ***Biotech CAT and REACH***
Dr. Li Liu, Assistant Director, Technology and Business Development,
Center for Biotechnology, Stony Brook University
- 3:05 - 3:25pm ***Aging in Place***
Dr. Fan Ye, Director of Communications & Devices,
The Center of Excellence in Wireless and Information Technology, Stony Brook University
- 3:25pm-4:00pm **Afternoon Session Discussion and Q&A**
Conclusion & Adjournment

HOSTS



Center of Excellence WIRELESS AND INFORMATION TECHNOLOGY AT STONY BROOK UNIVERSITY

The New York State Center of Excellence in Wireless and Information Technology (CEWIT) at Stony Brook University is a next generation research and educational facility whose mission is three-fold: become recognized as a world leader in interdisciplinary research in the emerging, critical technologies of the information age, address the skilled technology worker shortage, and foster new enterprise development.

HENRY SCHEIN®

Henry Schein, Inc. is the world's largest provider of health-care products and services to office-based dental, animal health and medical practitioners. With 2015 sales of \$10.4 billion, Henry Schein is a Fortune 500® Company with more than 18,000 Team Schein Members and more than one million customers.



CENTER FOR BIOTECHNOLOGY A New York State Center for Advanced Technology

Located on the campus of Stony Brook University, The Center for Biotechnology serves as an important catalyst in the development of new biomedical technologies and emerging companies in New York State. Through groundbreaking initiatives, we support the advancement of biomedical innovation by helping to bridge the gap between discovery and commercial success and by training the next generation of biomedical leaders.

Economic Development



AT STONY BROOK UNIVERSITY

Stony Brook University's Office of Economic Development links the academic and research resources of the campus with the economic needs of Long Island and New York State. Through the extensive incubation program offered at the many Economic Development facilities, innovative-driven companies are given the opportunity of intangible benefits of mentorship, advice, expertise, practical training on idea-pitching and fundraising, and templates for successful business practices.



Stony Brook University

Stony Brook University is one of America's most dynamic public universities, a center of academic excellence and an internationally recognized research institution that is changing the world. After less than 60 years of existence, it's ranked among the top 100 universities in the nation.

SPEAKER PROFILES

Dr. Yacov Shamash

Vice President for Economic Development, Stony Brook University



Dr. Shamash supervises Stony Brook University (SBU)'s four incubators, three New York State Centers for Advanced Technology (Medical Biotechnology, Sensor Systems and Integrated Electric Energy Systems); two New York State Centers of Excellence (Wireless and Information Technology [CEWIT], and the Advanced Energy Research and Technology Center [AERTC]); the Small Business Development Center; and the workforce development programs of the Center for Emerging Technologies. In 1995, Dr. Shamash led SUNY's colleges of engineering to create the statewide Strategic Partnership for Industrial Resurgence (SPIR) program. SBU's cumulative results include more than 3,100 projects completed with more than 490 companies, helping company partners win more than \$105.9 million in federal awards.

Dr. Fotis Sotiropoulos

Dean, College of Engineering and Applied Sciences, Stony Brook University



Dr. Fotis Sotiropoulos is the Dean of the College of Engineering and Applied Sciences (CEAS) at Stony Brook University. Prior to joining SBU in October 2015, Dr. Sotiropoulos was the James L. Record Professor of Civil, Environmental and Geo-Engineering, Director of the St. Anthony Falls Laboratory, and Director of the EOLOS wind energy research consortium at the University of Minnesota, Twin Cities. His research focuses on simulation-based engineering science for fluid mechanics problems in renewable energy, environmental, biological, and cardiovascular applications. Dr. Sotiropoulos has raised over \$37M in externally-sponsored funds for research and research facility development and renovation and has authored over 170 peer-reviewed journal papers and book chapters. He is a two-time recipient of the APS Division of Fluid Dynamics Gallery of Fluid Motion and of the CAREER Award from the National Science Foundation.

Dr. Shmuel Einav

Director of Medical Technologies, CEWIT, Stony Brook University



Dr. Shmuel Einav is a world-renowned expert in the cardiovascular circulatory system and the field of biomedical engineering. He is known for his studies on blood flow through heart valves, coronary circulation, blood-tissue interaction, and flow characteristics in occluded arteries. The focus of his research is Hemodynamics in the initiation of atherosclerosis, the dynamics of cardiovascular flows, and the influence of flow and shear stress on vascular endothelial biology. In recognition of his significant

achievements and important contributions to science, biomedicine and technology, he has been elected as a Fellow of the American Institute for Medical and Biological Engineering (AIMBE), Fellow of the Biomedical Engineering Society (BMES), Fellow of the International Federation for Medical and Biological Engineering (IFMBE) and a Fellow of the American Society of Mechanical Engineers (ASME).

Dr. Bruce Lieberthal

Vice President, Chief Innovation Officer, Henry Schein, Inc.



Dr. Bruce Lieberthal serves as the Chief Innovation Officer for Henry Schein, Inc (HSI). Bruce also has oversight responsibility for Henry Schein Medical Systems (MicroMD) and the DDX business. He led the ConnectDental team and currently works closely with the Corporate Business Development Group, and the Global Prosthetics Solutions team. He started at HSI as the Director of Product Management in Utah when Discus Dental Software was acquired in May 2007. He was promoted in 2008, to Vice-President of Product Management and Development. Bruce was the founder of Direct Vision Software, the General Manager of Discus Dental Software and has been a leader in dental technology for more than 30 years. He practiced dentistry for 14 years between 1984 and 1997, and brings much knowledge to the Henry Schein team.

Dr. Danny Bluestein

Professor, Department of Biomedical Engineering, SBU; Established Investigator, American Heart Association



Danny Bluestein, PhD, is Professor of Biomedical Engineering at SBU. He received his PhD in Biomedical Engineering from Tel Aviv University. His research interests include the elucidation of physical forces that regulate cellular function in flowing blood, and numerical and experimental strategies aimed at improving the design of blood recirculating devices such as prosthetic heart valves, ventricular assist devices and the total artificial heart. He is the author of 110 peer reviewed scientific articles, honors and awards including the Established Investigator Award from the American Heart Association and the Quantum award from the NIBIB, and was elected as a Fellow of the American Institute of Medical and Biological Engineering. He served as an associate editor of the ASME Journal of Medical Devices and is a member of the editorial board of Expert Review of Medical Devices and Heart International. His research has been sponsored by various federal agencies and private foundations including the National Institutes of Health, the National Science Foundation, and the American Heart Association.

SPEAKER PROFILES

Dr. Craig Lehmann

Dean, School of Health Technology and Management; Professor, Department of Clinical Laboratory Sciences, SBU



Craig Lehmann, PhD, is a Professor of Clinical Laboratory Sciences and Director for the Center of Public Health Education at Stony Brook Medicine.

He is a registered clinical chemist with the National Registry of Clinical Chemistry and a Fellow in the National Academy of Clinical Biochemistry. In addition to his more than 75 journal articles, he has edited and co-edited 5 clinical laboratory science textbooks and 14 book chapters. He is the editor and author "Saunders Manual of Clinical Laboratory Science." He has made more than 130 presentations nationally and internationally on a variety of health care topics. He has received the "President's Award for Excellence in Teaching" at SBU as well as the SUNY "Chancellor's Award for Excellence in Teaching." He presently has 4 patent/pending for healthcare.

Mr. Peter Donnelly

Co-Director, The Accelerate NY Seed Fund; Director, Technology Commercialization, SBU



In parallel to his role as Managing Director of the Accelerate NY Seed Fund, Peter Donnelly is the Director of Technology Commercialization at SBU. He has held

similar roles at Argonne National Laboratory and the University of Iowa. Peter led the innovation and product development consulting practice for Accenture in China. He was CEO of an early-stage biotech firm that raised venture capital and grants totaling \$20 million, and was also co-founder and COO of a thin film startup company that raised \$30 million in venture capital and reached \$10M in revenue. The founders of over 50 startups have engaged him as a consultant. He has an MS in Biotechnology and MBA from the Johns Hopkins University.

Mr. Raymond King

Director of Business Development, Baycrest and Canadian Centre for Aging and Brain Health Innovation (CC-ABHI)



Raymond King is Director of the CC-ABHI and serves as the focal point of contact for all existing and future partners. He brings to CC-ABHI over 25 years of

international business development and corporate finance experience as Director, Business Development with SickKids International. He was Head, Business Development for Global Diversified Industries with Toronto Stock Exchange. Raymond has an MBA, from McGill University. He has a BA in Modern European Political History from the University of Western Ontario and a Bachelor of Commerce in International Finance from the University of Calgary.

Mr. Ari Sonesh

Founder & CEO, Meditel360



Ari Sonesh is the CEO of Meditel360 and CTO of Medpod Inc. Ari founded Meditel360 in 2011 to address a market need for cost effective, feature rich cloud

based telemedicine technology service. His main objective is to develop technology to assist healthcare providers to help the chronically ill aging population. In 2013 Meditel360 partnered with Medpod Inc. to develop a Medpod – an HSI proprietary Telemedicine solution. Before Meditel360, in 1996 he founded CosmoCom Inc. Ari served as Vice President of Operations and Engineering at Comverse Technology, the largest supplier of voicemail system to telecoms. He has won several entrepreneurship awards, and in 2011 he was inducted into Long Island Technology Hall of Fame. Ari holds a BSc degree in Electrical Engineering from the Technion - Israel Institute of Technology.

Dr. Thomas Graham

Senior Vice-President & Chief, Strategic Alliances and Partnerships, Northwell Health Ventures



Preeminent hand surgeon, healthcare executive, inventor and entrepreneur, Thomas Graham, MD is the Senior Vice-President & Chief of Strategic Alliances and Partnerships at Northwell Health. He previously

served as the Cleveland Clinic's first chief innovation officer, as well as vice-chair of the Department of Orthopaedic Surgery. He also was the chief of the Congressionally-designated National Hand Center in Baltimore and served on the faculty of Johns Hopkins. With more than 50 worldwide patents to his name and having co-founded several medical device companies. He received his medical degree from the University of Cincinnati and completed a fellowship in hand / upper extremity surgery at the Indiana Hand Center and underwent training in elbow surgery at Mayo Clinic.

Dr. Arie Kaufman

Chief Scientist, CEWIT, SBU



Arie Kaufman is the Chief Scientist at CEWIT, the Director of the Center of Visual Computing (CVC), and Distinguished Professor of Computer Science and Radiology at SBU. Dr. Kaufman has conducted research

for over 40 years in visualization, graphics, virtual reality, user interfaces, multimedia, and their applications, especially in biomedicine. He has published in excess of 300 refereed papers, books, and book chapters, more than 250 conference presentations and non-refereed manuscripts, and has been awarded/filed more than 40 patents, most of which have been licensed. Dr. Kaufman received a PhD in Computer Science from the Ben-Gurion University, Israel, in 1977.

Dr. Purna Prasad

Vice President & Chief Technology Officer, Northwell Health Ventures



Dr. Purna Prasad is a recognized leader and researcher in the field of clinical information technology and biomedical engineering with three decades of experi-

ence, now serving as the Vice President and Chief Technology Officer for information technology at Northwell Health. Dr. Prasad has directed best-practice projects and enterprise change management efforts to ensure continuity of mission-critical clinical systems serving the highest caliber of patient diagnostic, monitoring, and therapeutic support. Purna's pioneering work in biomedical research resulted in the first networked physiological monitoring system for acute care, distant patient care using telemedicine, computerized brain monitoring system, sleeping brain monitoring and diagnosis, and application of robotics in medicine.

Mr. Eugene Sayan

Founder & CEO, Softheon, Inc.



As Softheon's Founder and Chief Executive Officer, Eugene Sayan leads the company's vision and strategic direction to help

achieve the goal of addressing ACA mandate challenges, implementing single and multi-carrier private exchanges, and integrating with Federal & State Based Marketplaces. Over the past 25 years, he has developed and nurtured innovative solutions that are adopted by many healthcare payers, providers, and government agencies, including Massachusetts Connector, the nation's first fully operational State Health Benefits Exchange.

Dr. Satya Sharma

Executive Director, CEWIT, SBU



Dr. Satya Sharma came to Stony Brook University as the Executive Director of CEWIT and a faculty member of Department of Mechanical Engineer-

ing in 2003. Before joining Stony Brook, Dr. Sharma was Senior Vice President at Symbol Technologies from 1995 to 2003, overseeing various divisions of the company including World-Wide Operations, Mobile Computing & Wireless Engineering, and Quality & Process Improvements. Dr. Sharma has managed technology, led product development, managed marketing and financial functions, led operations and taken a leadership role in organizational transformation. He led Lucent Technologies to win the Deming Prize in 1994, making it the first and still the only American manufacturing company to have this honor. While leading Symbol's Mobile Computing & Wireless Engineering, the company won the

National Medal of Technology in 2000. Dr. Sharma also led Lucent and Symbol to win the Shingo Prize in 1992 and 2003 respectively. Dr. Sharma has more than 70 technical publications and conducts research in a wide variety of disciplines including wireless and mobile computing, quality management, and materials science. He holds a Ph.D. degree in mechanical engineering from University of Pennsylvania and an MBA degree from Ohio State University.

Dr. Li Liu

Assistant Director, Technology and Business Development, Center for Biotechnology, SBU



Dr. Li Liu joined the Center for Biotechnology as a Technology Commercialization Fellow in September 2012 and now serves as the Assistant Director of

Technology and Business Development. He is actively engaged with early-stage biotechnology companies to identify and address critical business issues, driving the technology a step closer to the commercialization. In addition, he is also responsible for the corporate outreach and operation of the monthly biostategy session, while overseeing student teams from the college of business and Fundamental of Bioscience Industry program at Stony Brook University. Li received his PhD in Chemistry from Stony Brook University. He has passed three levels of CFA exams and is an alum of Fundamentals of the Biosciences Industry Program.

Dr. Fan Ye

Director of Communications & Devices, CEWIT, SBU



Fan Ye received his Ph.D. from the Computer Science Department of UCLA in 2004 and then joined IBM T. J. Watson Research Center. He is an Assistant Professor

in the ECE department of Stony Brook University. His research interests include mobile sensing platforms, systems and applications, Internet-of-Things, indoor location sensing, wireless and sensor networks. He has published over 60 peer reviewed papers and received over 7000 citations. He has 21 granted/pending US and international patents/applications. He was co-chair for the Mobile Computing Professional Interests Community at IBM Watson. He received IBM Research Division Award, and 5 Invention Achievement Plateau awards. He has served as panelist multiple times for NSF and Hong Kong Government Research Councils, on program and organizing committees for conferences including ACM Mobicom, ACM Sensys and IEEE Infocom.