



Stony Brook University

Chapter of the National Academy of Inventors

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

# Annual Meeting

**NAI Member Induction  
Award Ceremony and Reception**

**Tuesday, May 2, 2023**

**4:30-5:00, 6:30-7:00PM Reception  
5:00-6:30PM Annual Meeting**

*Charles B. Wang Center  
Stony Brook University*



Stony Brook University

The State University of New York



**STONY BROOK UNIVERSITY CHAPTER  
of  
THE NATIONAL ACADEMY OF INVENTORS**



*Imagination is more important than knowledge, for imagination embraces the world.* – Albert Einstein

In universities across the nation and around the world, great scientists, scholars and educators are teaching the next generation of researchers and inventors.

The **National Academy of Inventors** (NAI) was founded at the University of South Florida to recognize and encourage inventors who have a patent issued from the U.S. Patent and Trademark Office (USPTO); enhance the visibility of university technology and academic innovation; encourage the disclosure of intellectual property; educate and mentor innovative students; and translate the inventions of its members to benefit society.

A researcher's contribution reaches the benchmark of inventorship as recognized by the USPTO because its discovery had no significant prior art, was not obvious to someone else skilled in the field, and had a specific use. Although every invention and every inventor is unique, some things are common to all. It takes imagination and ingenuity to be an inventor.

Without inventors we would not have our iPads, smart phones, automobiles or new sources of energy. As a society, we are eager in anticipation of the cure for cancer, HIV, diabetes, and neurological disorders such as Alzheimer's or Parkinson's disease. An inventor feels a sense of pride when the years of hard work come to fruition with either a miraculous discovery in medicine or the next generation of information technology.

Inventors truly should be recognized for their imagination and accomplishments, and called upon to share their special translational talents within the university and the wider community.

Therefore, the **Stony Brook University Chapter of the National Academy of Inventors** has been established to recognize the contributions of scientist-inventors across all disciplines in our university community.

The Stony Brook University Chapter of the National Academy of Inventors (NAI-SBU Chapter) is open to all members of the university community, including faculty, staff, alumni and affiliates, who have received an issued patent from the USPTO. An annual meeting and recognition ceremony will be held during the academic year and a list of members will be published, in order to enhance networking, recognition, and the opportunity to share your experiences.

Membership in the NAI is available through local university chapters only. Chapter members are automatically enrolled as members of the NAI, with all rights and privileges thereof.

The NAI-SBU Chapter is looking forward to working with the campus community and affiliated institutions for encouraging and bolstering academic inventions and entrepreneurship, as well as education cultivating the next-generation of academic inventors.

Sincerely yours,

Iwao Ojima, Ph.D.  
President, NAI-SBU Chapter,  
NAI Fellow

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### **NAI-SBU Chapter**

*Chapter President: Iwao Ojima, Executive Director: Sean Boykevisch*

*Executive Committee: Arie Kaufman, Roger Johnson, Wei Zhao, Patrick Hearing, Anurag Purwar*

*Chapter Board: Ester Takeuchi, Benjamin Hsiao, Iwao Ojima, Jahangir Rastegar, Lorne Golub, Arie Kaufmann, Clinton Rubin, Stanislaus Wong, Sean Boykevisch*

*Administrator: Roxanne Brockner, Treasurer: Linda Galvin, Secretary: Maureen Case, Public Relations: Olga Kaufman*



Stony Brook  
University



SBU Chapter of the National Academy of Inventors

## NAI Annual Meeting, Award Ceremony and Reception Tuesday, May 2, 2023

- 4:30 - 5:00 pm**      **Annual Meeting Reception**
- 5:00 - 5:20 pm**      **Opening Remarks**  
Sean Boykevisch, Ph.D., Executive Director, NAI-SBU Chapter  
Peter Donnelly, M.B.A., Associate Vice President for Technology Partnerships Stony Brook University  
Iwao Ojima, Ph.D., President, NAI-SBU Chapter, “State of NAI-SBU Chapter”
- 5:20 – 5:40 pm**      **Induction of New NAI Members and NAI Honorary Members**  
(Moderator: Sean Boykevisch)  
Presenter: Iwao Ojima, President, NAI-SBU Chapter  
Message from NAI President, Paul Sanberg to New Inductees and Pin Ceremony
- 5:40 – 6:00 pm**      **Keynote Lecture**  
(Moderator: Iwao Ojima)  
Yuanyuang Yang Ph.D., Distinguished Professor, NAI-Fellow  
“Switching Networks: from theory to practice”
- 6:00 – 6:15 pm**      **Award Ceremony for Young Academic Inventors**  
(Moderator: Sean Boykevisch)  
Presenter: Iwao Ojima, President, NAI-SBU Chapter  
Winners:      *Sima Mofakham, Ph.D.*  
                    *Jann Stavro, Ph.D.*  
                    *Yifan Zhou, Ph.D*
- 6:15 – 6:30 pm**      **Words from New NAI Members, NAI Honorary Members, Young Academic Inventors and NAI Chapter Members**  
(Moderator: Sean Boykevisch)
- 6:30 pm**              **Closing Remarks**  
Sean Boykevisch, Ph.D., Executive Director, NAI-SBU Chapter
- 6:30 – 7:00 pm**      **After Ceremony Reception**

## NAI Fellows

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**Dr. Iwao Ojima** received his B.S., M.S., and Ph.D. (1973) degrees from the University of Tokyo, Japan. He joined the Sagami Institute of Chemical Research and held a position of Senior Research Fellow until 1983. He joined the faculty in the Department of Chemistry, State University of New York at Stony Brook first as Associate Professor (1983), was promoted to Professor (1984), Leading Professor (1991), and then to Distinguished

Professor (1995). He served as the Department Chairman from 1997 to 2003. He has been serving as the founding Director for the Institute of Chemical Biology and Drug Discovery (ICB&DD) from 2003. He has a wide range of research interests in synthetic organic and medicinal chemistry as well as chemical biology, including discovery and development of anticancer agents and antimicrobials, targeted drug delivery, catalytic methodologies and asymmetric synthesis. His awards and honors include Arthur C. Cope Scholar Award (1994), E. B. Hershberg Award for Important Discoveries of Medicinally Active Substances (2001), the Medicinal Chemistry Hall of Fame (2006), ACS Award for Creative Work in Fluorine Chemistry (2013) from the American Chemical Society; the Chemical Society of Japan Award (1999); Outstanding Inventor Award (2002) from the Research Foundation of the State University of New York; Elected Fellow of J. S. Guggenheim Memorial Foundation, the American Association for the Advancement of Science, the New York Academy of Sciences, the American Chemical Society and the National Academy of Inventors.



**Dr. Esther Takeuchi** received her B.S. from the University of Pennsylvania in Chemistry and History and completed her Ph.D. in Chemistry at Ohio State University. She completed her post-doctoral research at the University of North Carolina and the State University of New York at Buffalo. Upon completing her post-doctoral research, Dr. Takeuchi was employed at Greatbatch, Inc. in Clarence, NY where she conducted research on batteries for unique environments, including implantable applications. She led the battery research team and was involved in the development of several battery systems including the lithium/silver vanadium oxide (Li/SVO) battery, which powers the majority of implantable cardiac defibrillators (ICDs). Dr. Takeuchi began her academic career at SUNY Buffalo where she held joint appointments in the Department of Chemical and Biological Engineering and the Department of Electrical Engineering. Dr. Takeuchi was awarded the National Medal of Technology and Innovation by President Obama (2009). She was inducted into the National Inventors Hall of Fame (2011), elected as a Charter Member of the National Academy of Innovation (2013), received the E. V. Murphree Award and the Astellas Award from the American Chemical Society and the Battery Division Technology Award from the Electrochemical Society. She is a Fellow of the Electrochemical Society (ECS) and the American Institute of Medical and Biological Engineering and a member of the National Academy of Engineering. A prolific inventor, Dr. Takeuchi holds over 150 patents.



**Dr. Benjamin S. Hsiao** received his B.S. degree from National Taiwan University, Ph.D. from the University of Connecticut, and post-doctorate training at the University of Massachusetts. He joined the DuPont Company as a staff scientist and spent 8 years in R&D before coming to Stony Brook University. He served as Chair of the Chemistry Department and as Vice President for Research at Stony Brook

University. Currently, Dr. Hsiao is a Founding Co-Director of Innovative Global Energy Solutions Center, aiming to prototype 'sustainability for off-grid communities of tomorrow', using the Turkana Basin Institute in northern Kenya as a living laboratory. He is also the Director of Center for Advanced Technology in Integrated Electric Energy Systems, with the mission to enhance the development and integration of advanced technologies into electric energy systems on multiple scales. Dr. Hsiao has a distinguished reputation in polymer science, and his research interests are mainly focused on the development of sustainable nanostructured materials for energy and water purification applications. He was elected as Fellow of American Association for the Advancement of Science, Fellow of American Chemical Society, Fellow of the American Physical Society, Fellow of Materials Research Society, Fellow of National Academy of Inventors, and received SUNY Distinguished Professor, Honorary Professor from University of Queensland in Australia, Chang-Jiang Scholar from Education Ministry of China, Co-operative Research Award from Division of Polymeric Materials Science and Engineering of American Chemical Society, NSF Special Creativity Award and DuPont Young Faculty Award.



**Dr. Benjamin Chu** received his B.S. degree, magna cum laude from St. Norbert College (1955) and his Ph.D., from Cornell University (1959). At the University of Kansas, he served as Assistant Professor of Chemistry (1962-1965) and Associate Professor of Chemistry (1965-1968). At the State University of New York at Stony Brook, he served as Chairman of the Department of Chemistry (1978-1985),

Professor of Chemistry (1968-1988), Professor of Materials Science and Engineering (1982-1992), Leading Professor of Chemistry (1988-Present) and Distinguished Professor (1992-Present). Dr. Chu has been awarded the Alfred P. Sloan Research Fellow (1966-1968), John Simon Guggenheim Fellow (1968-1969), Humboldt Award for Senior U.S. Scientists (1976-1977, 1992-1993), American Physical Society Fellow, American Institute of Chemists Fellow, High Polymer Physics Prize of the American Physical Society (1993), Langmuir Distinguished Lecturer Award, Division of Colloid and Surface Chemistry of the American Chemical Society (1994), Award for Distinguished Service in Advancement of Polymer Science by the Society of Polymer Science, Japan (1997), Gutenberg Lecture Award, Johannes Gutenberg University (2007), and National Academy of Inventors Fellow (2013). He is an Honorary Member of the Society of Polymer Science, Japan (2008). Dr. Chu has 650 publications, 41 patents/patent applications and written 6 books. His research is focused on environmental problems, especially those related to water and air.

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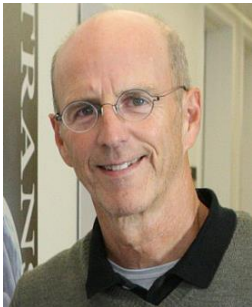
## NAI Fellows

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**Dr. Jahangir Rastegar** received his B.S. from SMU in 1969 and his M.S. and Ph.D. degrees from the Mechanical Engineering Department of Stanford University in 1972 and 1977 respectively. He joined the General Engineering and Bioengineering faculty at the University of Illinois at Urbana-Champaign. He then worked five years in engineering firms designing

machinery for the steel industry. In 1987, he joined the Mechanical Engineering Department at SUNY at Stony Brook. His current research interests include the optimal design of structures for machinery and devices, kinematics, dynamics, biomechanics, vibration and control as related to high speed and precision machinery and robotics, passive and active vibration isolation and damping, the development of smart materials based actuators and systems, sensor and actuation devices. He is a co-founder of Omnitek Partners, LLC. He has published over 240 journal and conference papers. He is former Associate Editor of the ASME Journal of Mechanical Design for Mechanisms and Robotics and Associate Editor of the ASME Journal of Medical Devices. He has 206 U. S. and seven foreign patents issued and over 90 pending. He is a Fellow of the American Society of Mechanical Engineers (ASME). He is the recipient of the American Society of Mechanical Engineers (ASME) "2010 Machine Design Award," for "eminent achievements as an inventor and scholar in the field of machine design, particularly in the area of smart actuation and control." He is a fellow of the National Academy of Inventors.



**Dr. Clinton Rubin** received his B.A. in Physiology from Harvard University and a Ph.D. in Anatomy from University of Bristol, United Kingdom. Dr. Rubin is a SUNY Distinguished Professor of Biomedical Engineering, and Director of the Center for Biotechnology at Stony Brook University in Stony Brook, New York. Rubin's research is targeted towards understanding the cellular mechanisms responsible for the growth,

healing, and homeostasis of bone, and how mechanical stimuli mediate these responses through the control of mesenchymal and hematopoietic stem cell differentiation and proliferation, to establish non-drug treatment strategies for osteoporosis, obesity and diabetes. Dr. Rubin holds ~30 patents in the area of wound repair, stem cell regulation, and treatment of metabolic disease, and is a founder of Exogen, Juvent, and Marodyne Medical, which use physical signals to regulate biologic processes. He has published over 300 articles, has been cited ~24,000 times, with an H-index of 80. He is a fellow of AAAS and AIMBE, and a recipient of the Presidential Young Investigator Award from the NSF.



**Dr. Lorne Golub** 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 SUNY Stony Brook School of Dental Medicine opened in 1973. He was promoted to Professor in 1977, and SUNY Distinguished Professor in 2003. 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, Ch.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 (periodontitis, arthritis, cancer, diabetes, heart and lung diseases). More recently, he, and his Department of Chemistry colleague, developed and patented novel chemically-modified curcumins as pleiotropic MMP-inhibitors. He holds 55 U.S. and 104 international patents which were licensed to and marketed by several corporations and is scientific co-founder of two start-up companies. He has published more than 300 scientific articles .



**Dr. Arie Kaufman** received his B.S. in Mathematics and Physics from the Hebrew University of Jerusalem, M.S. in Computer Science from the Weizmann Institute of Science, Israel, and a Ph.D. in Computer Science from Ben-Gurion University, Israel. He is a Distinguished Professor of Computer Science and Radiology, the Director of the Center of Visual Computing (CVC), the Chief

Scientist of the Center of Excellence in Wireless and Information Technology (CEWIT) at Stony Brook University (SBU). He joined the faculty at SBU in 1985 and served as Chair of Computer Science for 18 years (1999-2017). He also held posts at the Hebrew University, Tel-Aviv University, Florida International University, Ben-Gurion University, Columbia University and Harvard University. Dr. Kaufman is most well-known for developing virtual colonoscopy for colon cancer screening that has been licensed, FDA approved and commercialized; the Cube hardware for real-time volume rendering that has been licensed and commercialized, enabling 3D medical imaging on PCs; and the Reality Deck, the largest resolution immersive visualization facility, enabling visual analytics of big data. He received the prestigious IEEE Visualization Career Award and was inducted into the LI Technology Hall of Fame. He holds 99 patents, 52 of which have been licensed to 9 companies. He is the co-founder of Viatronix, Inc. He has published in excess of 330 refereed papers/books/chapters, and more than 300 conference presentations, and was the founding Editor-in-Chief of IEEE Transaction on Visualization and Computer Graphics (TVCG), 1995-98. He is a member of the European Academy of Sciences, IEEE Fellow, ACM Fellow, and NAI Fellow.

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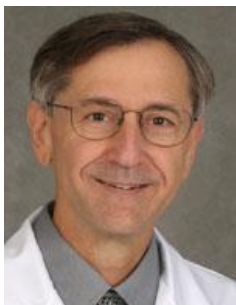
## NAI Fellows

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**Dr. William Studier** earned a B.S. in biophysics from Yale in 1958, followed by a Ph.D. from the California Institute of Technology in 1963. He worked as a postdoctoral fellow in the Department of Biochemistry at Stanford University School of Medicine, and then joined Brookhaven Lab's Biology Department in 1964 as an assistant biophysicist. Over the years, Studier rose through the department's ranks, receiving tenure in 1971 and becoming a tenured senior

biophysicist in 1974. He served as chair of the Biology Department from 1990 to 1999 and then returned to research. His achievements have been recognized by election to the American Academy of Arts and Sciences in 1990, the National Academy of Sciences in 1992, and as a Fellow of the American Association for the Advancement of Science in 2007. Retired from Brookhaven Lab in 2015, he retains the title of Senior Scientist Emeritus. He holds 15 patents of which 9 patents have been licensed and commercialized, including those on the T7 system, which is the most successful Brookhaven Lab technology invented to this day.



**Dr. Kenneth Kaushansky** Dean, Stony Brook School of Medicine, is a physician-scientist specializing in hematology, is known internationally for his seminal research on the molecular biology of blood cell production. He began his clinical and research career at the University of Washington, where he rose to become Section Chief of Hematology and received several NIH grants. While at the University of Washington, and subsequently at the

University of California, San Diego, Dr. Kaushansky and his research team cloned several of the genes important in the growth of differentiation of blood cells, including thrombopoietin, a key regulator of stem cell and platelet production. He and colleagues then established that thrombopoietin exerts a profound influence on hematopoietic stem cells and affects the expression of a number of transcription factors that influence stem cell fate decisions. This work also led to a better understanding of the pathobiology of several congenital disorders of platelet and stem cell production. Prior to coming to Stony Brook in 2010, Dr. Kaushansky was the Helen M. Ranney Professor and Chair of the Department of Medicine at the University of California, San Diego School of Medicine, where he grew the department's research, educational and clinical impact. During his tenure at Stony Brook thus far, Dr. Kaushansky has spearheaded the expansion of academic programs and training within the School of Medicine and Health Sciences and has overseen the development of the Medical and Research Translation (MART) Building. With its opening next month, the MART will serve as an incubator for new approaches to understanding the causes for, and treatments of cancer, using sophisticated imaging and informatics, work that is expected to lead to many more Stony Brook Medicine inventions.



**Dr. Israel Kleinberg** earned his Doctor of Dental Surgery degree from the University of Toronto and his Doctor of Philosophy degree from the University of Durham. Dr. Kleinberg founded Stony Brook School of Dental Medicine's Department of Oral Biology and Pathology. Dr. Kleinberg's devotion to discovery has informed and inspired his immense success which includes over 300 scientific publications, over 60 years of continuous research

funding, and the issuance of 21 patents and numerous foreign patents. Dr. Kleinberg's countless accolades include the William J. Gies Award for Vision, Innovation and Achievement of the ADEA Gies Foundation, ADEA, and Outstanding Inventor Award, State University of New York. Through innovative translational research and pioneering partnerships across the field of oral biology, Dr. Kleinberg developed and helped bring to market multiple products with the potential for the enhancement of human health and wellbeing. Of note, his inventions include Smartmouth™ Mouthwash and BasicBites® soft chews, both dentifrice products purchased by Colgate®, and the Ortek Electronic Caries Detector, an FDA-approved device for the early detection of caries. (Deceased 2021).



**Dr. Stanislaus Wong** earned a B.Sc. in Chemistry from McGill University, Canada in 1994 followed by an A.M. in Chemistry from Harvard University in 1996. He earned a Ph.D. degree in Chemistry from Harvard University in 1999. He worked as a postdoctoral fellow in the Department of Chemistry at Columbia University. He then joined the Department of Chemistry at Stony Brook University as an Assistant Professor in 2000 with a joint appointment with

Brookhaven National Laboratory in the Condensed Matter Physics & Materials Sciences Division (9/1/2000 - 8/31/2017). He is currently a full Professor in the Department of Chemistry. Dr. Wong's work is characterized by impressive productivity and creativity. His inventions in the functionalization of carbon nanotubes, the synthesis of new multi-metallic metal oxide nanostructures, and the preparation of metal nanowires have enabled delivery of tailored 'nano' materials useful in energy storage, solar energy harvesting, catalysis, magnetism, and medical diagnostics and to further the development of innovative carbon nanotube enhanced products in industries such as aerospace, automotive, industrial, marine, and sports. Dr. Wong is a fellow of the American Association for the Advancement of Science and the Royal Society of Chemistry, Dr. Wong has received the American Chemical Society Inorganic Award, a Sloan Fellowship, the Buck-Whitney Award, and a National Science Foundation CAREER Award. In 2018 SUNY granted him the SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities and in 2019, he was named a SUNY Distinguished Professor.

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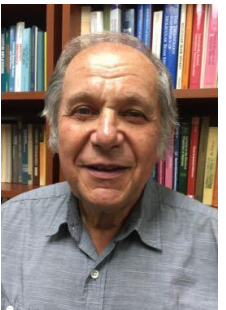


## NAI Fellows



**Dr. Craig Lehmann** is a registered clinical chemist and a Fellow in the National Academy of Clinical Biochemistry. He is also Dean of the School of Health Technology and Management at Stony Brook University. As Dean and Professor, Dr. Lehmann leads Undergraduate and Graduate Programs for Clinical Laboratory Sciences; Respiratory Care; Physician Assistant; Cytotechnology; Occupational Therapy; Physical Therapy; Health

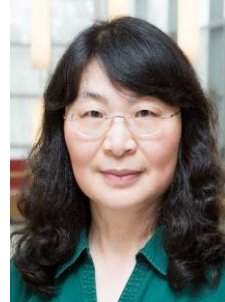
Sciences and Healthcare Policy and Management. Under his direction, the School of Health Technology and Management is now the largest of all of the health professions schools at Stony Brook University. For the past several years, Dr. Lehmann has participated in national and international conferences, lecturing on emerging technologies that improve the aging experience. Dr. Lehmann presented at Capitol Hill in Washington, D.C., where he led President Bush's Advisor for Science and Technology in discussions that focused on the benefits of e-technology and the major disease states suited for application; principally, diabetes, cardiovascular disease and congestive heart failure. To that end, he invented a medication management device that assists clients and caregivers managing complex medication regimens and may help reduce the \$100-300 billion spent in the U.S. each year for medication non-adherence issues. Dr. Lehmann has also served as a United States delegate for the American Society for Clinical Laboratory Sciences at three world congresses in Holland, Sweden, and Australia. He is the recipient of many awards including the "Outstanding Contributions in Education Award from the American Association for Clinical Chemistry, and the Stony Brook University Provost's Award for "Exceptional Service to Undergraduate Education" at Stony Brook University.



**Dr. Serge Luryi** is a Distinguished Professor of the SBU department of Electrical and Computer Engineering. He is also a Fellow of the American Physical Society, and a Fellow of the Optical Society of America. Dr. Luryi joined the faculty of Stony Brook University in 1994. From 1994 to 2016 he served as Chair of the Department of Electrical and Computer Engineering. Since 1998, he has been the Founding Director of the New York State Center for

Advanced Technology in Sensor Systems (Sensor CAT). The Sensor CAT was driven by needs of New York State industries that develop, manufacture, or employ sensors and supported science-based start-ups, especially those connected with university research. This support included universal modern prototyping facilities, assistance by the CAT's Entrepreneur-in-Residence, and the CAT's connections with the New York investment community. The Sensor CAT has developed an "All in One" Electrical Engineering Educational Kit, including laboratories, which allowed Stony Brook University to become the first research institution to offer a Bachelor of Science in Electrical Engineering online degree. Most of this activity was based on the patented inventions of Dr. Luryi and his associates in such diverse sensor-related fields as DNA sequencing and high-energy radiation detection. A preeminent research scientist, Dr. Luryi was elected to the Fellow of the IEEE *for contributions in the field of heterojunction devices*, Fellow of the American Physical Society *for theory of electron transport in low-dimensional systems and invention of novel electron devices*, and Fellow of the Optical

Society of America *for outstanding and pioneering contributions to semiconductor optoelectronics, especially to the physics and photonic applications of low-dimensional semiconductor structures*. In 2006, he received the IEEE Long Island Section's Papoulis Award for Excellence in Engineering and Technology Education with the citation: " *For pioneering contributions to include entrepreneurial skills in engineering education on Long Island.* " Dr. Luryi's most impactful invention to industry and society is the endowment of silicon chips with various capabilities, e.g. optoelectronics. In his impressive career, Dr. Luryi has been a pioneer in semiconductor research and its commercial application by translating research discoveries into new technologies.



**Dr. Yuanyuan Yang** received her Ph.D. and M.S. degree in computer science from Johns Hopkins University. She graduated from Tsinghua University in China and obtained her M.S. in computer science and engineering and her B.Eng. in computer science and engineering. She is currently a SUNY Distinguished Professor in the Department of Electrical & Computer Engineering and Department of Computer Science at Stony Brook University, where

she joined in 1999. From 2018-2022, she served as a program director in the National Science Foundation's Directorate of Computer and Information Science and Engineering. She directed the core computer architecture program and was on the management team of several cross-cutting programs. At Stony Brook, she served as the Associate Dean for Diversity and Academic Affairs of College of Engineering and Applied Sciences from 2016-2018, a Division Director of New York State Center of Excellence in Wireless and Information Technology (CEWIT) from 2007-2016 and the Graduate Program Director of Electrical & Computer Engineering Department from 2001-2016. Prior to joining Stony Brook in 1999, she held a tenured faculty position at University of Vermont. Dr. Yang is internationally recognized for her contributions in parallel & distributed computing systems and networking. She was named an IEE Fellow through Computer Society in 2009 and in 2022 she won the Outstanding Service Award of the IEE Computer Society Technical Committee on Distributed Processing. In over 30 years, Yuanyuan Yang has been credited with many breakthrough results and innovative inventions in the field of interconnection networks. In particular, her series of work on non-blocking Clos multicast networks has made foundational contributions to the interconnection network field. Her seminal patents/papers on this work along with subsequent work have opened up new areas of innovations and research in multicast interconnection networks with direct applications to many today's emerging areas, such as voice/video switching, optical networking, parallel computer interconnecting and data center networking. This series of work has been extensively cited and included in many books on the subject that are widely used by researchers and teachers. Based on the patented idea in her patent US 8,107,468, Media Global Links built "MD10000" IP video router, which was adopted by a major Japanese broadcaster FUJI Television Network in 2008. The video router has been running by FUJI for 14 years, generating tremendous lasting impacts on quality of life, economic development, and the welfare of society, and has been reported in multiple media channels.

## NAI New Members

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**Dr. Paul Bingham**

Associate Professor  
Department of Biochemistry  
And Cell Biology



**Dr. Kenneth Shroyer**

Professor and Chair  
Department of Pathology



**Dr. Anatoliy Borodin**

Research Scientist  
Department of Physics  
Astronomy



**Dr. Zuzana Zachar**

Research Assistant Professor  
Department of Biochemistry  
And Cell Biology



**Dr. Maurizio Del Poeta**

Distinguished Professor  
Department of Microbiology  
And Immunology

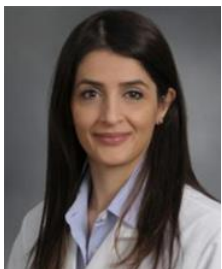
### Honorary Members



**Paul Ackerman, Esq.**

Attorney at Law  
ACKnowledge IP I.C.

## Young Academic Inventor's Award Recipients



• **Dr. Sima Mofakham**

Assistant Professor Department  
of Neurosurgery, Stony Brook  
Renaissance School of Medicine.  
(Ph.D. 2016, Biophysics,  
University of Michigan). *“For  
her inventions of an automated  
method to measure the level of*

*consciousness, as well as on the neuromodulatory  
approaches to restore consciousness in brain injury  
patients”.*



**Dr. Anil Dhundale**

Interim Executive Director  
Long Island High Tech  
Incubator



• **Dr. Jann Stavro**

Medical Physics Resident,  
Department of Radiology, Stony  
Brook Renaissance School of  
Medicine.  
(Ph.D. 2020, Biomedical  
Engineering, Stony Brook

University). *“For his inventions on the development  
of novel amorphous selenium sensors for medical  
imaging applications”.*



• **Dr. Yifan Zhou**

Assistant Professor,  
Department of Electrical and  
Computer Engineering, Stony  
Brook University. (Ph.D.  
2019, Electrical Engineering,  
Tsinghua University).

*“For her inventions on the development of a series  
of quantum computing algorithms that can be  
successfully implemented on today’s quantum  
computers to solve large scale power system  
problems”.*

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# TOP 100 WORLDWIDE UNIVERSITIES GRANTED U.S. UTILITY PATENTS

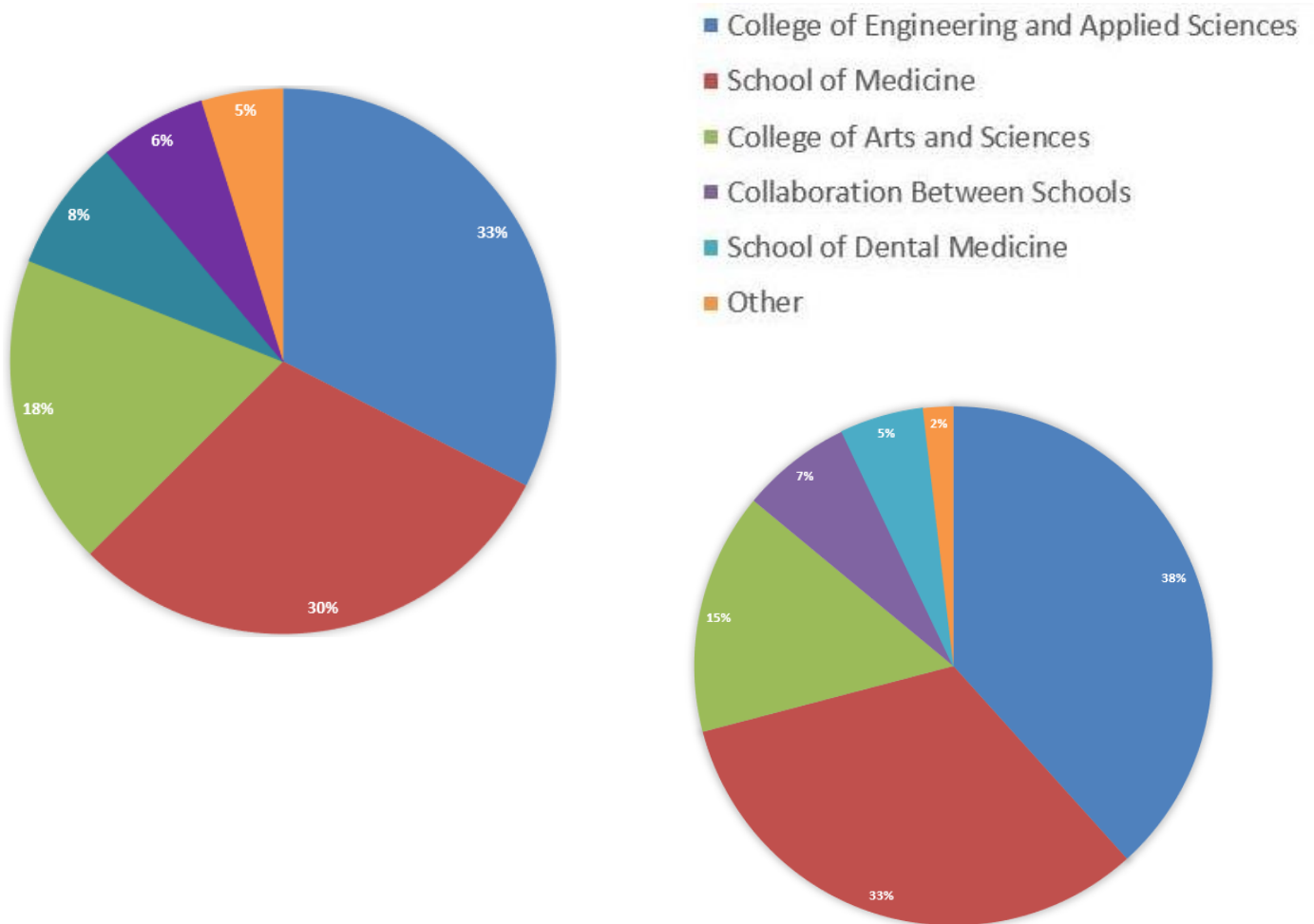
# 2022

INSTITUTION RANKING	# OF PATENTS
1 UNIVERSITY OF CALIFORNIA .....	570
2 MASSACHUSETTS INSTITUTE OF TECHNOLOGY .....	192
3 KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS .....	184
4 THE UNIVERSITY OF TEXAS .....	225
5 PURDUE UNIVERSITY .....	192
6 STANFORD UNIVERSITY .....	184
7 HARVARD UNIVERSITY .....	179
8 KING ABDULAZIZ UNIVERSITY .....	177
9 CALIFORNIA INSTITUTE OF TECHNOLOGY .....	164
10 ARIZONA STATE UNIVERSITY .....	160
11 JOHNS HOPKINS UNIVERSITY .....	159
12 KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY .....	147
13 UNIVERSITY OF MICHIGAN .....	145
14 SEOUL NATIONAL UNIVERSITY .....	144
15 ZHEJIANG UNIVERSITY .....	142
16 UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INC .....	139
17 WISCONSIN ALUMNI RESEARCH FOUNDATION (UNIVERSITY OF WISCONSIN) .....	132
18 DUKE UNIVERSITY .....	126
19 UNIVERSITY OF COLORADO .....	115
20 UNIVERSITY OF PENNSYLVANIA .....	108
21 DALIAN UNIVERSITY OF TECHNOLOGY .....	105
21 UNIVERSITY OF PITTSBURGH .....	105
23 CORNELL UNIVERSITY .....	103
24 NORTHWESTERN UNIVERSITY .....	101
24 UNIVERSITY OF MINNESOTA SYSTEM .....	101

INSTITUTION RANKING	# OF PATENTS
26 THE UNIVERSITY OF CHICAGO .....	96
27 SUNGKYUNKWAN UNIVERSITY .....	94
27 UNIVERSITY OF MASSACHUSETTS .....	94
29 UNIVERSITY OF ILLINOIS .....	92
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# Number of US Patents and Patent Applications Among Colleges and Schools at SBU (2023)

## Total US Patent Applications



Total US Patents: 827

Total US Patent Applications: 3,290



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**SYNERGY** *Working as a team to achieve greater results*

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