MEMORANDUM

TO: University Senate

FROM: Paul M. Goldbart, Executive Vice President and Provost

DATE: October 4, 2021

SUBJECT: Provost's Report

Provost's Office Initiatives

The Provost will discuss the role of the Vice Provost for Research and Infrastructure, emphasizing its strong connection with the Office of the Vice President of Research. The Provost will also report on his experiences connecting with faculty and staff at *Connections at the Wang Center*. He will sketch the University's plans in connection with the Middle States Commission on Higher Education and the forthcoming Reaffirmation process. If time permits, he will touch upon a new program, the Provost Emerging Leaders Group, and his hopes for it as a vehicle to help foster leadership capacity at Stony Brook.

Awards and Accolades

SBU Research Team Wins National Engineering Industrial Practice Award

A team of Stony Brook University researchers were honored by the American Institute of Chemical Engineers (AIChE) with its Sustainable Engineering Forum Industrial Practice Award.

The national award was given for self-cleaning solar panels made by SuperClean Glass Inc. The team included Alexander Orlov, founder and CEO of SuperClean Glass and professor of the Department of Materials Science and Chemical Engineering; Shrish Patel, doctoral candidate in the Department of Materials Science and Chemical Engineering; Victor Veerasamy, research professor of Materials Science and Chemical Engineering; and Jim Smith, board member at the Clean Energy Business Incubator Program at Stony Brook University.

The award recognizes individuals or teams who have made outstanding contributions over a long-term basis pertinent to sustainable engineering development in the practice of industrial chemical process and product design or manufacturing.

PhD Candidate Wins NIH Neuroscience Award to Support Research

Noele Certain, a fifth-year PhD candidate in the Molecular and Cellular Pharmacology PhD Program at Stony Brook University, was awarded the NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award from the National Institute of Neurological Disorders and Stroke of the National Institutes of Health (NIH). The NIH D-SPAN Award will support up to six years of funding during two critical stages of her career, including completion of her doctoral dissertation and transition into a research-intensive postdoctoral position.

NSF Awards Stony Brook Nearly $3 Million for Graduate Research Training in Data Science and AI

A new National Science Foundation Research Traineeship (NRT) award of nearly $3 million will fund interdisciplinary cross-training to Stony Brook PhD students in the data sciences and human-centered sciences to detect and address biases in data, models, people and institutions.

This innovative five-year training project spans eight departments in Stony Brook's College of Arts and Sciences (Departments of Psychology, Linguistics, Economics, Sociology, Political Science, and Neurobiology and Behavior) and the College of Engineering and Applied Sciences (Departments of Computer Science and Applied Mathematics and Statistics). Human-centered scientists will master cutting-edge computational methods that empower their research; they will take bridge courses in computer science as well as data science graduate courses and will earn a graduate certificate in AI. Data science students will earn a certificate in the human-centered sciences; they will learn theories and practices within these disciplines including study designs, associated limitations and ethical issues.

Together, trainees from both tracks will collaborate on convergent research projects that unite deep disciplinary knowledge in human-centered sciences with techniques in data science and AI.

The project will fund qualifying trainees with NSF-level stipends of $34K. It will be led by principal investigator Susan Brennan, Department of Psychology, with co-PIs C.R. Ramakrishnan, Department of Computer Science; Wei Zhu, Department of Applied Math and Statistics and IACS affiliate faculty; Bonita London, Department of Psychology; and Jeffrey Heinz, Department of Linguistics and IACS core faculty.

Marci Lobel Receives Excellence in Health Psychology Mentoring Award

Marci Lobel, a professor in the College of Arts and Sciences Department of Psychology and the Renaissance School of Medicine Department of Obstetrics, Gynecology and Reproductive Medicine, was awarded the 2021 Excellence in Health Psychology Mentoring Award from the Society for Health Psychology at the annual conference of the American Psychological Association.

Professor Lobel is director of the Stress and Reproduction (STAR) Lab, and past director of the doctoral program in Social and Health Psychology. Her research focuses on stress, coping, and their effects on health, particularly reproductive health, including studies to address public health problems in the U.S. such as racial disparities in maternal health and opioid addiction in pregnancy. She is now investigating the impact of the COVID-19 pandemic on pregnant women and their offspring in the U.S. and six other countries.

Michael Frohman Honored as American Society for Pharmacology and Experimental Therapeutics Fellow

Michael Frohman, distinguished professor and chair of Pharmacological Sciences in the Renaissance School of Medicine, has been named a 2021 American Society for Pharmacology and Experimental Therapeutics (ASPET) Fellow, an achievement given to its most distinguished members. Selection as a fellow of ASPET is an honor bestowed on members who have demonstrated excellence via their overall contributions to pharmacology and to the American Society for Pharmacology and Experimental Therapeutics.

Dr. Frohman's major research accomplishments include developing the 5′ RACE-PCR cloning protocol, the original publication of which has been cited more than 6,000 times, and cloning and characterizing the Phospholipase D (PLD) superfamily of lipid signaling enzymes, for which small molecule therapeutics are now in development to target thrombotic disease and cancer. The initial PLD cloning and inhibitor reports have been highly cited in connection to probing cellular, physiological and disease-impacting roles for PLD1 and PLD2. Recent publications involved collaborative efforts to determine the crystal structure of PLD1, which will facilitate inhibitor development, and identification of PLD1 mutations as a cause of congenital heart disease.

Continuously NIH-funded since 1993, Dr. Frohman has authored more than 200 reports and been recognized by election into the Association of American Physicians, as a fellow of the American Association for the Advancement of Science, as a member of the National Association of Inventors, and as a SUNY distinguished professor.

Marijean Buhse Receives Nurse of Excellence Award from Nassau-Suffolk Hospital Council

Marijean Buhse, a clinical professor in the School of Nursing (SON) at Stony Brook University, has received the Nassau-Suffolk Hospital Council Nurse of Excellence Award. Member hospitals and Long Island schools of nursing each year nominate one extraordinary candidate from their institutions, in accordance with the criteria established by the Council's Nurse Executives Committee.

Buhse served as chair of the Department of Graduate Studies in the SON for more than ten years. As a board certified adult nurse practitioner, her clinical practice focuses on the care of people with Multiple Sclerosis (MS).

$1.8M NSF Grant Helps SBU Team Explore Clean Energy Alternatives with Hydrogen

A team of researchers in Stony Brook's Department of Materials Science and Chemical Engineering, led by professor T.A. Venkatesh, has been awarded $1.8 million from the National Science Foundation's (NSF) Designing Materials to Revolutionize and Engineer our Future (DMREF) program. The award will advance the hydrogen knowledge frontier and help enable a marketplace for a clean hydrogen economy. Stony Brook will lead the project in partnership with Stanford University, MIT and Sandia National Lab, in addition to industry partners National Grid and Exxon Mobil.

Venkatesh, who leads the Smart Materials and Nanotechnology Research Group, is the team's principal investigator. Co-principal investigators are Mahajan; Clayton, a Fellow of the Electrochemical Society and past chair of the Corrosion Division; and Toshio Nakamura, professor in the Department of Mechanical Engineering and director of the Computational Solid Mechanics Laboratory.

Aruna Balasubramanian Wins ACM SIGMOBILE Rockstar Award

Aruna Balasubramanian, associate professor in the Department of Computer Science, has been selected for the 2021 ACM SIGMOBILE Rockstar award. The award recognizes an individual who has made recent outstanding research or product contributions to the field of mobile computing during the early part of their career.

Several of Balasubramaian's research projects have strong societal components. Her PhD dissertation was on improving Internet access under extreme disconnection — disconnections due to lack of infrastructure or due to natural disasters. She demonstrated how to modify the operating system to adapt smartphone interactions for blind users for significant power savings. She is currently studying the critical problem of sustainable Natural Language Processing (NLP) by modeling energy consumption of large NLP applications that require enormous amounts of energy.

Recent Events

Alda Center, School of Communication & Journalism Welcome First Science Communication Graduate Cohort

This fall, Stony Brook University's Master of Science in Science Communication program welcomed its first cohort of four students. The program, offered jointly by the School of Communication and Journalism and the Alan Alda Center for Communicating Science, helps scientists and researchers combine their subject-matter expertise with effective communication theory and practice to help increase public engagement with science.

Liliana Dávalos Featured in NOVA Documentary on 'Bat Superpowers'

Liliana Dávalos, professor of ecology and evolution in the College of Arts and Sciences, was featured in the NOVA documentary, "Bat Superpowers," which aired on PBS on September 15. The episode explores whether bats, suspected reservoirs of some of the world's deadliest viruses, hold the secret to a healthier and longer life.

The Dávalos lab at Stony Brook University focuses on what biotic and abiotic mechanisms produce species and trait diversity, and how growing human activities affect the old-growth forests where diversity concentrates; mammalian biodiversity is at the center of the lab's research mission.