

REPORT TO THE UNIVERSITY SENATE

TO: University Senate

FROM: Paul Goldbart, Executive Vice President and Provost

DATE: Monday, May 3, 2021

Five SBU Faculty Rise to the Rank of SUNY Distinguished Professor

The Distinguished Professorship is conferred upon individuals who have achieved national or international prominence and a distinguished reputation within their chosen field. This distinction is attained through extraordinary contributions to, and impact on, the candidate's field of study, often evidenced by significant research and/or creative activity. The following five faculty members were appointed to the rank of SUNY Distinguished Professor:

- Anissa Abi-Dargham, Departments of Psychiatry and Radiology
- J. Kirk Cochran, School of Marine and Atmospheric Sciences
- Maurizio Del Poeta, Department of Microbiology and Immunology
- Yi-Xian Qin, Department of Biomedical Engineering
- Paul Shepson, School of Marine and Atmospheric Sciences

May Provost's Lecture Series

Amazon, Center of the World: Amazonia, the planet's largest tropical forest, is dangerously close to the point of no return

The Provost's Lecture Series will host Eliane Brum on Tuesday, May 4 at 1:15 PM. Ms. Brum is a prize-winning journalist, writer, and documentary filmmaker from Brazil. She has been actively engaged in projects with native populations from Amazonia and the great area of São Paulo for more than a decade. Ms. Brum has been a journalist for more than 30 years, reporting on the Amazon since 1998, and living there since 2017. Since 2013, she has written an op-ed column for Spain's daily newspaper, *El País*. She has also collaborated with *The Guardian* and *The New York Times*. Ms. Brum has published a novel and five non-fiction narratives, and has directed or co-directed four documentaries. Her last book translated into English is *The Collector of Leftover Souls - Field Notes on Brazil's Everyday Insurrections*, longlisted for the 2019 National Book Awards for Translated Literature.

Abstract: In an age of climate crisis and the sixth mass extinction, both prompted by the actions of the human species' dominant minority, we must shift our notion of what the center is and what periphery is -- not as a rhetorical argument, but as an imperative need to address the emergency we are now living through. As the planet's largest tropical forest, its biggest terrestrial carbon sink, and one of its most diverse regions, the Amazon is one of the centers of the world. And it is dangerously close to the point of no return. If we do not change power relations—in the realms of language, race, and gender as well—we will condemn the next generation to a hostile future. In this lecture, Brum will discuss the issues affecting this critical forest, and its impact on the global climate crisis and the future of humanity.

This event is co-sponsored by the Latin American and Caribbean Studies Center (LACS). The registration link is available [here](#).

The effect of age, sex and gender on the neurobiology of episodic memory: Midlife as a critical period in adulthood

The Provost's Lecture Series will host Natasha Rajah on Thursday, May 6 at 3:30 PM. Dr. Rajah is a professor in the Department of Psychiatry at McGill University and the Director of the Brain Imaging Centre at the Douglas Research Centre there. Her research program offers a unique window to the aging brain and mind, employing a lifespan approach by including participants beginning in midlife and into old age. Dr. Rajah's work has been published in top scientific journals including *Nature Reviews Neuroscience*, *Cortex*, *Journal of Cognitive Neuroscience*, *Cerebral Cortex*, *Psychology & Aging*, and *Neuroimage*. In recognition of her research on cognitive aging, cognitive reserve and resilience, and cognitive and neural developmental trajectories beginning in midlife, she has been elected to the Memory Disorders Research Society and the International Society for Behavioral Neuroscience.

Abstract: Our ability to encode, store and retrieve past experiences in rich contextual details declines with age and can be an early sign of Alzheimer's disease (AD). Rajah will present work from the Montreal Adult Lifespan study that shows episodic memory decline and associated brain changes arise by early midlife (40-59 years old), and middle-aged adults with known risk factors for AD and/or a family history of AD show differences in memory-related brain function compared to those without. This work highlights how midlife is a critical period in adult development when the early signs of pathological aging may first emerge.

Midlife is also the time when most women experience menopause, which is associated with decreased levels of endogenous estrogen 17 β -estradiol (E2). E2 receptors are densely localized in brain regions critical for memory function. Given that two-thirds of older adults with Alzheimer's disease are women, it's important to know whether women's neurocognitive experiences during menopause may help identify sex-specific early markers of pathological aging, which can be used to identify women at risk and provide early access to care. She will close her talk by presenting preliminary findings from this project.

This is co-sponsored by the Stony Brook Aging Interest Network. The registration link is available [here](#).

Department of Materials Science and Chemical Engineering Team Receives \$2.4 Million ARPA-E Award

The team in the Engineered Microstructures and Radiation Effects Laboratory (EMREL), led by Professor Lance Snead as the Principal Investigator (PI) and Professor Jason Trelewicz and Professor David Sprouster as co-PIs, has been awarded \$2.4 million from the U.S. Department of Energy Advanced Research Projects Agency–Energy (ARPA-E) program. This agency is tasked with promoting and funding research and development of advanced energy technologies. All three investigators are part of the Department of Materials Science and Chemical Engineering, and Professor Trelewicz is also a core faculty member of the Institute for Advanced Computational Science.

The award is part of a grant program focused on the development of fusion energy science and technologies that would lead to a safe, carbon-free, and abundant energy source for developed and emerging economies, specifically the joint Office of Fusion Energy and ARPA-E initiative Galvanizing Advances in Market-aligned Fusion for an Overabundance of Watts (GAMOW). The project, ENHANCED Shield: A Critical Materials Technology Enabling Compact Superconducting Tokamaks, addresses a key issue facing the next generation of small, high-field fusion reactors.

URECA Celebration: The annual SB campus-wide undergraduate research symposium

URECA's Celebration of Undergraduate Research & Creativity is an annual event organized by the URECA Program that showcases undergraduate research and is open to all SBU undergraduates conducting faculty-mentored research and creative projects. As the only university-wide research symposium, this event provides a way for faculty and students to see what's going on in their own and other departments. The success of URECA's Research Celebration relies on the efforts of faculty who provide time, resources and encouragement to participate. Students who have done research off campus may also present these projects at URECA. This year's event will take place virtually on Wednesday, May 5.

A link to the URECA poster exhibition/display (available on May 5) will provide opportunities for members of the university community to post comments/questions about a specific poster, and for undergraduate poster presenters to respond. Some departments/programs plan to host zoom events for presenters to give oral presentations and/or PowerPoint talks.

For more information, please visit <https://www.stonybrook.edu/commcms/ureca/>

Alan Alda Film Festival

The Alan Alda Center for Communicating Science and Stony Brook Film Festival are hosting the Alan Alda Film Festival from May 20-23. Participants will view films personally selected by acclaimed actor, author, and activist Alan Alda, and hear him recount stories and memories from each film. Proceeds from the Film Festival will support the Alda Center for Communicating Science, which Alda co-founded in 2009. The Center works to share the

wonder and joy of science by empowering scientists and other experts to communicate honestly and effectively about their work to others, including other scientists, policymakers, students, and members of the public.

Tickets for the Alan Alda Film Festival can be purchased [here](#).