Stony Brook University

REPORT TO THE UNIVERSITY SENATE

TO: University Senate

FROM: Minghua Zhang, Interim Provost and Senior Vice-President for Academic Affairs
Distinguished Professor in School of Marine and Atmospheric Sciences

DATE: Monday, October 7, 2019

October Provost's Lecture Series

Indigenous Historians in Colonial Mexico

Camilla Townsend is Distinguished Professor of History at Rutgers University. She is a leading scholar in Nahuatl, the Aztec language and culture of the central valley of Mexico, as well as the complex colonial mixing of native and European traditions during the early modern period in the Americas. Professor Townsend has won major scholarly grants and prizes, such as the National Endowment for the Humanities, Guggenheim Fellowship, and Fulbright Commission grant. Among her published books are *Here in This Year: Seventeenth-Century Nahuatl Annals of the Tlaxcala-Puebla Valley* (Stanford, 2010); *Malintzin's Choices: An Indian Woman in the Conquest of Mexico* (New Mexico, 2006); *Pocahontas and the Powhatan Dilemma* (Hill & Wang, 2004); and her recent *Annals of Native America: How the Nahuas of Colonial Mexico Kept their History Alive* (Oxford, 2016). Professor Townsend's lecture was part of the MEXICO 500+: Indigenous and Global Cultures in Colonial Mesoamerica mini-colloquium.

Abstract: Professor Townsend described her recent work on sixteenth century Nahuatl "year counts," traditional storytelling performances that were transcribed into Roman letters after the alphabetization of young Nahuas by Spanish friars. These Mexican annals were written by Indians to be consumed by Indians and stand out as great examples of the vitality of Indigenous cultures. Her research has recovered the identities and contexts of generations of indigenous writers that narrated their own history in a highly complex colonial context.

This event took place on October 2. It was co-sponsored by the Department of Hispanic Languages and Literature, the Humanities Institute, and the Latin American and Caribbean Studies Center

Cognition on the Go: The Opportunities and Challenges for Mobile Cognitive Health Research

Dr. Martin Sliwinski is Director of the Center for Healthy Aging, Gregory H. Wolf Professor of Aging Studies, and Professor of Human Development & Family Studies at the Pennsylvania State University. His expertise is in topics of cognition, aging, stress, and mobile assessment. He is lead investigator on large National Institute on Aging grants, including Mobile Monitoring of Cognitive Change (M2C2) and the Einstein Aging Study (EAS). Dr. Sliwinski and his team develop and validate cognitive assessments that can be delivered via smartphones in order to

obtain high precision measurements of cognitive function and to assess subtle variations and changes in cognitive performance in the context of everyday life. Dr. Sliwinski is a Fellow of the Gerontological Society of America and the American Psychological Society.

Abstract: Dr. Sliwinski described his recent work on developing mobile assessments of cognitive performance. Cognitive decline is a defining feature of mild cognitive impairment (MCI) and Alzheimer's disease (AD). Tracking cognitive change is also central to clinical and research applications focused on normative cognitive aging and other health applications. Traditional approaches to measuring cognition are, however, hampered by retrospective reporting biases and inaccuracies, unmeasured sources of within-person variability, and the artificial nature of the testing environment. Additionally, ambulatory methods allow the study of 'real-time' relationships between risk exposures (e.g., stress, pain, poor sleep) and cognitive function in daily life, which can provide novel opportunities for developing personalized and time-sensitive interventions.

This event took place on October 4. It was co-sponsored by the Stony Brook University Aging Interest Group, the Department of Psychology, and the Program in Public Health.

Reticular Chemistry Leading to Carbon Capture and Water Harvesting from Air

Omar Yaghi is the James and Neeltje Tretter Chair and Professor of Chemistry at UC Berkeley. He received a BS in Chemistry from SUNY Albany and a PhD in Chemistry from the University of Illinois-Urbana. He was an NSF Postdoctoral Fellow at Harvard University, and has held professorial positions in chemistry at Arizona State University, the University of Michigan-Ann Arbor, and UCLA. Professor Yaghi has received numerous awards, including the Materials Research Society Medal, the American Chemical Society Award in Chemistry of Materials, the King Faisal International Prize in Science, the Albert Einstein World Award of Science, the BBVA Frontiers of Knowledge Award in Basic Sciences, the Wolf Prize in Chemistry, the Eni Award for Excellence in Energy, and the Royal Swedish Academy of Sciences Aminoff Prize. Professor Yaghi was elected to the National Academy of Sciences in 2019.

Abstract: Since the first report of metal-organic frameworks in the mid-1990s and covalent organic frameworks in 2005, the chemistry of these frameworks has rapidly developed to become one of the fastest growing field of chemistry. It is reticular chemistry, which is defined as linking of molecular building blocks by strong bonds into crystalline extended structures. In this lecture the challenges and solutions to making crystalline, truly porous frameworks, and the 'grammar' of linking organic and inorganic building blocks by strong bonds into MOFs will be described. The flexibility with which these structures can be varied and modified has led to a plethora of structures and applications especially in catalysis, carbon capture, and water harvesting from desert air. The lecture will conclude by showing how multivariate structures of MOFs may very well lead to sequence-dependent materials properties.

This event will take place on Friday, October 18 at 3:30 pm in the Simons Center for Geometry and Physics Della Pietra Family Auditorium. It is co-sponsored by the Department of Chemistry.

Morphometrics, Macroevolution, and An Effect Size Measure for Multivariate Data

Dean Adams is Professor of Evolutionary Biology at Iowa State University, where he is also the Director of Graduate Education in Ecology and Evolutionary Biology. His research focuses on the development of new analytical tools for quantifying multivariate phenotypes (morphometrics), methods for characterizing patterns of phenotypic evolution, and the use of statistical permutation approaches for evaluating high-dimensional datasets. He is the primary author of the popular software R-package geomorph, which facilitates shape analysis and phylogenetic comparative analyses of high-dimensional data. He is also an author of the R-package RRPP for high-dimensional data analysis. He has taught many workshops that have brought advanced morphometric techniques and phylogenetic comparative tools to scientists throughout the world. Dr. Adams's empirical work focuses on morphological evolution in vertebrates, with an emphasis on plethodontid salamanders. Professor Adams is an elected Fellow of the American Association for the Advancement of Science (AAAS). He received his PhD from Stony Brook University's Department of Ecology and Evolution in 1999.

Abstract: Understanding how phenotypes evolve at macroevolutionary scales is a major goal in evolutionary biology and lies within the purview of phylogenetic comparative methods. However, while comparative evolutionary biology provides a paradigm for characterizing patterns of phenotypic evolution, much of this toolkit is univariate, allowing only single-valued traits to be evaluated. By contrast, the field of geometric morphometrics provides a rich analytical framework for quantifying complex traits in a multivariate context, yet these approaches have been typically applied to non-phylogenetic questions. To decipher evolutionary patterns in complex traits, the best of both analytical toolkits is required. Our work has attempted to bridge this gap by providing new analytical theory and methods that merge and advance these two fields. In this talk, Dean Adams will review some of the developments that underlie the mathematical merger of multivariate shape theory and phylogenetic comparative methods. He argues that the unification of geometric morphometrics with phylogenetic comparative methods provides a path forward to addressing many recalcitrant issues in the macroevolution of multivariate phenotypes and has revealed several unexpected patterns not appreciated from a univariate perspective alone. His work has also lead to the emergence of an effect size measure for multivariate data, which has surprisingly broad application across a wide range of research questions. He anticipates this new effect size measure will have wide utility in morphometrics, evolutionary biology, and beyond.

This event will take place on Thursday, October 24 at 4:00 PM in Charles B. Wang Center Lecture Hall 2. It is co-sponsored by the Department of Anthropology and the Department of Ecology and Evolution.

Call for Nominations for the 2019-2020 SUNY Chancellor's Awards for Excellence in Teaching, Faculty Service, Librarianship, Professional Service, and Scholarship and Creative Activities

The 2019-2020 nominations for the Chancellor's Awards for Excellence in Teaching, Excellence in Faculty Service, Excellence in Librarianship, Excellence in Professional Service,

and Excellence in Scholarship and Creative Activities are now being accepted. The nomination form must be submitted electronically no later than Thursday, October 10, 2019. The complete nomination file must be sent to the Provost's Office no later than Thursday, November 14, 2019. Nomination files received by the Provost's Office either in person or by mail after the November 14, 2019 deadline will not be accepted. If students submit a nomination form, they must coordinate with the nominee's department to prepare the nomination file. The nomination form and complete guidelines for preparing the nomination files are located at https://www.stonybrook.edu/commcms/provost/resources/nomination_forms.php.

FACT2 Excellence Awards

Nominations for the FACT2 Excellence Awards opened on September 27, 2019 and will be accepted through December 8, 2019. The FACT2 Excellence in Instruction Awards; Excellence in Instructional Support Awards; and Excellence in Administrative Leadership Awards are system-level honors conferred to acknowledge and provide system-wide recognition for consistently noteworthy achievement and to encourage the ongoing pursuit of excellence. These awards underscore SUNY's commitment to the use of technology to support access to superior education, to advance the boundaries of knowledge, and to serve the public good. Through these awards, SUNY publicly proclaims its pride in the accomplishment and personal dedication of its Instructional Faculty, Technology Support Professionals and Administrative Leaders. Awards will be presented at CIT 2020.

For detailed information on the nomination process and criteria for each award, please visit https://innovate.suny.edu/fact2/awards/. For additional questions, please contact the FACT2 Awards Chair, Dr. Janet Nepkie, at Janet.Nepkie@oneonta.edu.

Researchers Receive $4.3 Million NIH Grant for Alzheimer's Research

A team of cross-disciplinary faculty in the Departments of Biomedical Engineering and Psychiatry have received a $4.3 million research grant to develop treatments that can potentially arrest and reverse memory loss in Alzheimer's sufferers. The team received an initial grant from the Alzheimer's Foundation of America to prove the potential of their approach. PI Christine DeLorenzo, Lorna Role, Ramin Parsey, David Talmage, Nikhil J. Palekar, and Mala Ananth lead this project.

Associate Professor Fusheng Wang Co-Recipient of $1.14 Million Grant for 3D Computational Pathology Research

Fusheng Wang, Associate Professor in the Departments of Biomedical Informatics and Computer Science, is part of a national team of collaborators that have received a $1.14 million grant from the National Cancer Institute (NCI) to research 3D computational pathology. The purpose of the research is to work toward revolutionizing digital pathology from 2D to 3D imagery, which would improve the efficiency and accuracy of clinical diagnosis, particularly in the context of cancer. Stony Brook will receive approximately $480,000 to conduct research for the 3D spatial analytics project, and its application to breast cancer research led by Patricia Thompson-Carino in the Renaissance School of Medicine.

The Future of Tamil Studies Symposium

The College of Arts and Sciences hosted The Future of Tamil Studies symposium from September 26-27. The interdisciplinary symposium joined scholars and Tamil experts in practice, language, history and culture. Its mission was to help the campus community learn about current and future Tamil research directions across the disciplines of music, art, history and linguistics. Events included a screening of the film *Sakthi Vibrations*, presentations, and panel discussions. For more information, please visit stonybrook.edu/tamil.

Memorial Service for Dr. William Arens, Founding Vice Provost for Global Affairs

The Office of Global Affairs hosted a memorial service for Dr. William Arens on Saturday, September 28. A member of the Stony Brook faculty for 46 years, Dr. Arens was the first Vice Provost for Global Affairs. He also served as Chair of the Department of Anthropology, Director of the Confucius Institute, and Director of the Tanzania Study Abroad Program. Under Dr. Arens's leadership, Stony Brook University's Visa and Immigration Services, Study Abroad Programs, Foreign Exchange Programs, and the Intensive English Center were reorganized under the umbrella of International Academic Programs and Services (IAPS). In addition to overseeing the expansion of IAPS, he contributed to the advancement of the global engagement mission of the University.