WASHINGTON STATE
Academy of Sciences
Science in the Service of Washington State

Press Release

Date: July 15, 2019
Subject: New Members Elected to WSAS

The Washington State Academy of Sciences (WSAS) is pleased to announce 28 new members, recognizing their outstanding record of scientific and technical achievement and their willingness to work on behalf of the Academy to bring the best available science to bear on issues within the state of Washington.

The 2019 class of new members is composed of 17 new elected members and 11 new members from the National Academies of Science, Engineering, and Medicine who live or work in Washington State. These new members bring diverse expertise and experience to WSAS.

New members will be inducted at the 12th Annual Symposium on September 12, 2019.

Individuals directly elected by the WSAS membership:

Celestina Barbosa-Leiker, Associate Dean, School of Nursing, Washington State University

For exceptional work to improve quality of life for women, children and their families by bringing science to bear on issues related to maternal addiction.

Li Deng, Chief Artificial Intelligence Officer, Citadel America LLP

For outstanding and pioneering contributions to artificial intelligence, speech recognition, deep learning, natural language processing, and financial engineering, as well as for leadership in signal and information processing technology.

Elaine M. Faustman, Professor of Environmental and Occupational Health Sciences, University of Washington

For risk assessment of chemical hazards and for contributions in neurodevelopmental toxicology.

Thomas Kawula, Professor, Paul G. Allen School for Global Animal Health, Washington State University

For international leadership in zoonotic infectious disease research that informs biodefense and emerging disease policy in the U.S. and globally.

Christopher John Keane, Vice President for Research and Professor of Physics, Washington State University

For outstanding research leadership and scientific accomplishment, including development of x-ray spectroscopic plasma diagnostic techniques and x-ray lasers, leadership of the DOE inertial confinement fusion program, creating new programs for support of academic research in high energy density science, and enhancing multidisciplinary research, strategic partnerships, and research infrastructure at WSU.

Julie A. Kmec, Edward R. Meyer Distinguished Professor in the Liberal Arts, Department of Sociology, Washington State University

For significant contributions that have advanced our understanding of organizational and cultural sources of sex differences in employment outcomes, including the role of workplace policy and context in shaping job attainment, career choice, and prevalence of discrimination, and of the structural and socio-cultural barriers to women's participation in engineering.

Mark C. Long, Professor of Public Policy and Governance and Adjunct Professor of Economics, University of Washington

For distinguished research into cost-effective public policies and programs to promote social and economic opportunity in American society.

Anne Bowen McCoy, Professor, Department of Chemistry, University of Washington

For development of novel theoretical and computational approaches that are crucial for the investigation of molecules that undergo large-amplitude vibrations.

Mari Ostendorf, Endowed Professor of System Design Methodologies, Department of Electrical and Computer Engineering and Associate Vice Provost of Research, University of Washington

For pioneering work in speech and natural language processing; leadership developing methods for using prosodic information in automatic speech recognition, parsing and language modeling, topic modeling, and speech search; and internationally recognized student mentoring.

Per G. Reinhall, Professor and Chair, Department of Mechanical Engineering, University of Washington

For innovative research leadership and seminal contributions to science and technology in the area of acoustics and biomechanics with a focus on the development of biomedical devices.

Kevin M. Rosso, Laboratory Fellow, Physical Sciences Division, Pacific Northwest National Laboratory

For furthering the field of geochemistry, particularly with respect to discoveries related to reactivity and electron exchange at the mineral-water interface, with impacts in elemental cycling, environmental remediation, and carbon sequestration in the subsurface.

Martin J. Savage, Professor, Institute for Nuclear Theory, University of Washington

For contributions and leadership in computational physics.

Maureen Schmitter-Edgecombe, Professor, Department of Psychology, Washington State University

For research that significantly improves the functional independence and life satisfaction of individuals with neurological disorders.

Michael K. Skinner, Eastlick Distinguished Professor, School of Biological Sciences, Washington State University

For research demonstrating that environmental toxins can promote epigenetic transgenerational inheritance of disease and phenotypic variation.

John D. Stark, Professor of Ecotoxicology, Department of Entomology, Washington State University

For expertise on the protection of endangered species and ecological risk assessment of pollutants with emphasis on the effects of pollutants on salmon and their food.

Nephi Stella, Professor of Pharmacology and Behavioral Sciences, School of Medicine, University of Washington

For significant research on cannabis, with major discoveries on endocannabinoid signaling molecules, degrading enzymes, and functional roles in brain health and disease.

Juming Tang, Regents Professor and Department Chair, Department of Biological Systems Engineering, Washington State University

For forward-thinking research in the field of food engineering.

WASHINGTON RESIDENTS SELECTED BY VIRTUE OF THEIR ELECTION TO THE NATIONAL ACADEMIES OF SCIENCES (NAS), ENGINEERING (NAE), OR MEDICINE (NAM):

Peter John Bethell, Senior Principal Mineral Processing, CARDNO MM&A; NAE, 2014

For contributions to advanced separation technologies for coal processing.

Christopher Bretherton, Professor, Department of Atmospheric Sciences, University of Washington; NAS, 2019

For contributions to atmospheric science, the study of cloud formation and turbulence, and global climate and weather forecast modeling.

John Geyman, Professor Emeritus, University of Washington; NAM, 1985

For contributions to the field of family medicine.

Susan Kieffer, Professor Emerita, University of Illinois Urbana-Champagne; NAS, 1986

For furthering the fields of fluid dynamics as it pertains to volcanoes, geysers, rivers, and modelling the thermodynamic properties of minerals, as well as advancing the scientific understanding of meteorite impacts.

Ann Lee, Executive Vice President of Technical Operations, Juno Therapeutics; NAE, 2007

For innovation and development of large-scale effective production of vaccines that have saved lives worldwide.

Donald Liu, Executive Vice President and Chief Technology Officer (retired), American Bureau of Shipping; NAE, 2011

Alfred MacRae, Consultant, MacRae Technologies; NAE, 2003

For advancing our understanding of ion implantation, its application to the fabrication of electronic devices, and its introduction into manufacturing.

Harmit Malik, Co-Associate Director, Basic Sciences Division, Fred Hutch Cancer Research Center; NAS, 2019

For research in the fields of genome sciences and evolutionary biology.

Cornelius Rosse, Professor Emeritus, Department of Biomedical Informatics and Medical Education; University of Washington; NAM, 2001

For advances in the field of anatomy through pioneering the generation of 3D computer graphics models of the human body,

Marla Salmon, Professor of Nursing and Global Health, University of Washington; NAM, 1996

For contributions in health workforce policy and capacity building in the United States and internationally.

Harry Shum, Executive Vice President, Microsoft Corporation; NAE, 2017

For contributions to computer vision and computer graphics, and for leadership in industrial research and product development.