

OKLAHOMA SCHOOL OF SCIENCE AND MATHEMATICS

Oklahoma stands out among other states in our dedication to providing extraordinary academic challenge in science and mathematics education to our gifted students at a time when our nation falls behind other countries in these areas.

With just 24 classes graduated, OSSM alumni/alumnae are already bringing substantial benefits to our state as they complete their degrees and move into their professions.

- **Eighty-five percent of OSSM alumni are remaining in scientific, technology, engineering, and mathematics (STEM) fields for their careers!**
- The fields of study and careers most chosen by OSSM graduates are engineering (aerospace, biomedical, chemical, civil, computer, electrical, mechanical, petroleum); medicine, medical research, and other health sciences; and other fields including computer science, technology, education, scientific research, business, and law.
- Many OSSM alums are employed in many of Oklahoma's finest corporations, hospitals and technical firms such as AT&T, Artificial Lift Company, Baptist Hospital, Benham Companies, Boeing, Chesapeake Energy, C. H. Guernsey, Cardinal Engineering, Chevron Phillips, Devon Energy, Ditch Witch, Dobson Communications, FAA, Hall Estill, LexisNexis, Mercy Hospital, MidFirst Bank, OG&E, Oklahoma Cardiovascular Associates, Oklahoma Center for Neuroscience, Oklahoma Heart Hospital, Oklahoma Medical Research Foundation, Oklahoma State Bureau of Investigation, the *Oklahoman*, SAIC, St. John Hospital, Standard Aero, Stillwater Medical Center, Tinker Air Force Base, University of Oklahoma and OU College of Medicine, University of Tulsa, World Telemetry, and many more.
- A full fourth of Tulsa's most successful start-up companies in 2012 were begun by OSSM alumni.
- Of the more than 100 students who have earned M.D. degrees (another 100 are currently in medical school), more than half have done so in Oklahoma medical schools.
- OSSM students are actively recruited by the finest universities, colleges and technical institutes from across the states; however, more than half choose to pursue their higher education in Oklahoma.
- Some 60% of OSSM graduates are living/working in Oklahoma.

OSSM
Senator Penny Williams Distinguished Lecture Series
Presents

2016 Capra Scholar

Judith A. James, M.D., Ph.D.

MEMBER, AND PROGRAM CHAIR, LOU C. KERR ENDOWED CHAIR IN BIOMEDICAL RESEARCH
ARTHRITIS & CLINICAL IMMUNOLOGY RESEARCH PROGRAM
OKLAHOMA MEDICAL RESEARCH FOUNDATION
AND
ASSOCIATE VICE PROVOST FOR CLINICAL AND TRANSLATIONAL SCIENCE
PROFESSOR OF MEDICINE AND GEORGE LYNN CROSS RESEARCH PROFESSOR
DEPARTMENT OF MEDICINE, UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER

“Impaired Immune Regulation in Transition from Preclinical Autoimmunity to Clinical Lupus”



March 1, 2016

Kirkpatrick Auditorium
Oklahoma School of Science and Mathematics

JUDITH A. JAMES, M.D., PH.D.

B.S., Oklahoma Baptist University (summa cum laude with honors), 1989
Ph.D., University of Oklahoma Health Sciences Center, 1993
M.D., University of Oklahoma Health Sciences Center, 1994



Judith A. James, MD, PhD, is Chair of the Arthritis and Clinical Immunology Program and holds the Lou Kerr Chair in Biomedical Research at the Oklahoma Medical Research Foundation. Dr. James is also the Associate Vice Provost for Clinical and Translational Science, Professor of Medicine, Adjunct Professor of Pathology, Microbiology & Immunology and George Lynn Cross Research Professor at the University of Oklahoma Health Sciences Center.

Dr. James' research interests focus on understanding the etiology and pathogenesis of lupus, Sjogren's syndrome and related disorders, the evolution and pathogenic mechanisms of autoantibodies in systemic rheumatic disease, and the interplay of genetic risk and environmental responses in systemic autoimmunity. Her work has made seminal contributions to understanding how autoimmune diseases start and the concept of humoral epitope spreading. She has published over 235 articles in journals such as the New England Journal of Medicine, Nature Medicine, Journal of Experimental Medicine, Annals of Rheumatic Disease and Arthritis and Rheumatology for example. Dr. James currently serves as the principal investigator for several large, multi-investigator NIH-funded grants, such as the U54 Oklahoma Shared Clinical & Translational Resources from NIGMS, U19 Autoimmunity Center of Excellence from NIAID, P30 Rheumatic Disease Research Cores Center from NIAMS and a Center of Biomedical Research Excellence in Immunology from NIGMS. Dr. James has conducted lectures for the American College of Rheumatology, International Systemic Lupus Erythematosus Meetings, among others and has received several prestigious awards including the Presidential Early Career Award for Scientists and Engineers and the Dubois' Award from the American College of Rheumatology. She is the chair of the NIAMS Board of Scientific Counselors with the National Institutes of Health and recently served as the elected Secretary-Treasurer of the American Society of Clinical Investigation. She has served on several other NIH advisory committees and chaired an NIH Roundtable regarding preclinical autoimmunity. Dr. James also was selected to provide testimony supporting the NIH at the Nobel Laureates' Hearing for the US Senate Appropriations Subcommittee. Dr. James received her medical degree and PhD in Immunology from the Oklahoma Health Sciences Center and is a board certified adult Rheumatologist. She continues to practice adult rheumatology, focusing on SLE, incomplete lupus, Sjogren's syndrome and related rheumatic diseases.

SENATOR PENNY WILLIAMS DISTINGUISHED LECTURE SERIES

Senator Penny Williams, Tulsa, former Chair of the Senate Education Committee as well as the Legislative Arts Caucus, has been a leader in education, science and technology, and arts and humanities issues in the Oklahoma legislature. After serving four terms in the State House of Representatives, she was elected to the State Senate in 1988 where she served until 2004. In 1983, then State Representative Williams introduced House bill 1286 which created the Oklahoma School of Science and Mathematics. Marshaling co-authors and battling for scarce funds, her tireless advocacy secured the passage of the bill and continuing support of OSSM.

In appreciation for the far-sighted vision of this special public servant, and in tribute to her role as the sine qua non of OSSM, her friends and friends of the school have created and begun the endowment of these lectures that will bring national and international figures in the arts and sciences to the Oklahoma School of Science and Mathematics. The contribution of ideas of speakers like Dr. Judith James to our state's intellectual milieu is the greatest and most appropriate gratitude that we can offer Senator Williams.

MUSICAL OPENING

Bing Chen

Matt Baier

OSSM Class of 2017 (Stillwater H.S.) OSSM Class of 2017 (Edmond North H.S.)

WELCOME & INTRODUCTION OF SPECIAL GUESTS

Dan Little, Esq.

Chairman, Board of Trustees, Oklahoma School of Science and Mathematics

INTRODUCTION OF DR. JAMES

Emily Dial

OSSM Class of 2016 (Blanchard High School)

LECTURE

Judith A. James, M.D., Ph.D.

REMARKS

The Honorable Penny Williams

Oklahoma State Representative 1981-1988; Oklahoma State Senator 1989-2004

CLOSING

Frank Y. H. Wang, Ph.D.

President, Oklahoma School of Science and Mathematics

SPECIAL THANKS TO

THE ZARROW FOUNDATION * MR. RALPH SPENCER
DRS. J. DONALD AND PAT CAPRA