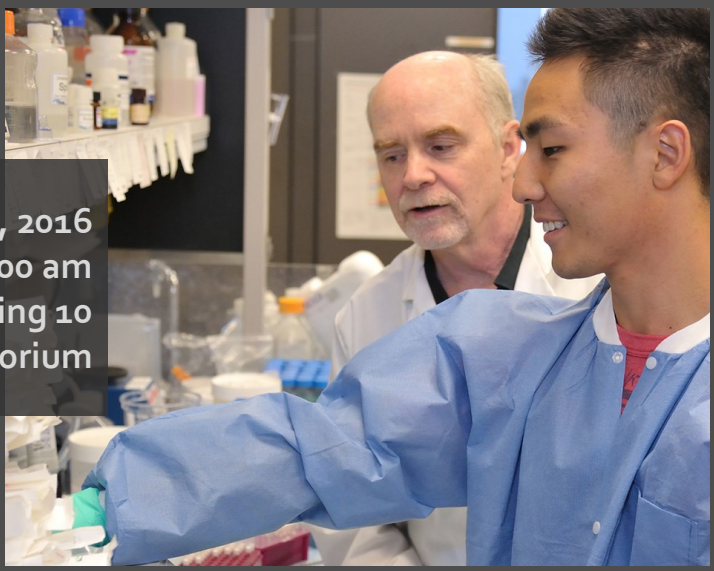
11th Annual Philip S. Chen, Jr.
Distinguished Lecture on
Innovation and Technology Transfer

Cytokine Signaling: Genes, Genomes and Drugs

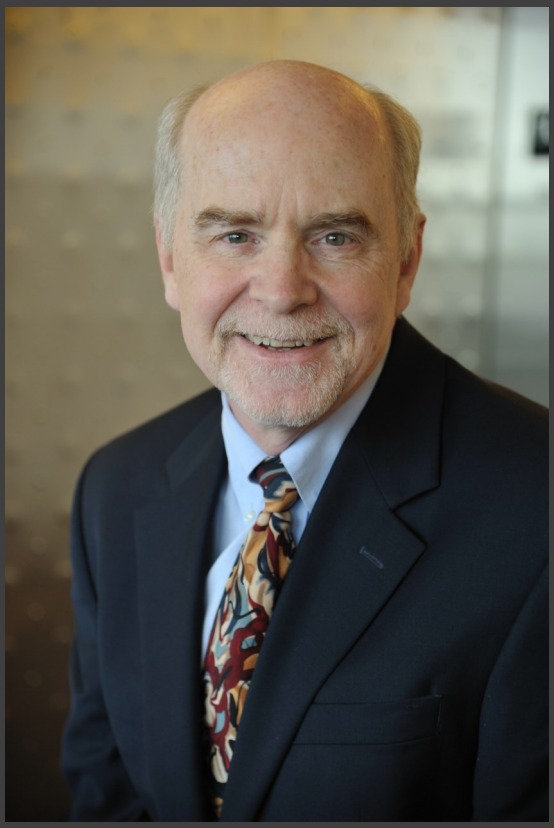


October 14, 2016
10:00 am
Building 10
Masur Auditorium

presented by:

John J. O'Shea, M.D.
Senior Investigator
Molecular Immunology and Inflammation Branch
and Scientific Director
NIAMS

Cytokine Signaling: Genes, Genomes and Drugs



John J. O'Shea, M.D.
Senior Investigator
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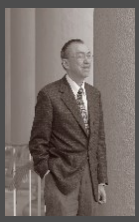
John J. O'Shea graduated Phi Beta Kappa from St. Lawrence University with a Bachelor of Science degree, and then gained a Doctor of Medicine degree from the University of Cincinnati. He carried out a residency in Internal Medicine at the State University of New York Upstate Medical University and did subspecialty training at the National Institute of Allergy and Infectious Diseases, NIH.

Dr. O'Shea has made fundamental discoveries related to the basic mechanisms underlying cytokine signal transduction, molecules that are critical for the development and functioning of the immune system. He and his colleagues first cloned the human tyrosine kinase JAK3 and discovered its role in signaling by interleukin-2. These insights led to the discovery of JAK3 mutations as a cause of severe combined immunodeficiency. The demonstration of the role of Janus kinases in cytokine signaling led Dr. O'Shea and his colleagues to propose that targeting JAKs would represent a new class of immunomodulatory drugs. He was awarded a U.S. patent for his work on Janus family kinase inhibitors and developed a Cooperative Research and Development Agreement with the pharmaceutical company Pfizer, which generated one such compound. This drug, tofacitinib, is now approved for the treatment of rheumatoid arthritis and is the first oral therapy for rheumatoid arthritis approved in a decade.

Dr. O'Shea has received numerous awards, including: the NIH Director's Award four times, the US Public Health Service Physician Researcher of the Year Award, the Irish Immunology Public Lecture Award, the Arthritis Foundation's Howley Prize, the Ross Prize in Molecular Medicine, the Daniel Drake Prize, as well as Danny Thomas, Lockey, Cochrane, Talmadge and Stone lectureships. He was nominated to give a lecture at the Nobel Forum and was a Distinguished Lecturer at this year's American Association of Immunology annual meeting. He was designated as one the "The World's Most Influential Scientific Minds 2003-2014" by Thompson Reuters. Dr. O'Shea is a member of the American Association of Physicians, a Fellow of the American Association for the Advancement of Science (AAAS) and a member of the National Academy of Medicine. He has published more than 300 peer-reviewed articles and has been on the editorial boards of many journals including the Journal of Biological Chemistry, Blood, Journal of Immunology, Immunity and the Journal of Experimental Medicine. Dr. O'Shea is a founding Director of the NIH/Oxford Graduate Program in Biomedical Science and a Professor of Pathology at the University of Pennsylvania.



Philip S. Chen, Jr.

The Philip S. Chen, Jr. Distinguished Lecture on Innovation and Technology Transfer was established in 2006 by the NIH Deputy Director for Intramural Research and the NIH Office of Technology Transfer on the occasion of Dr. Chen's retirement after over 41 years of service to the NIH. The lectureship honors Dr. Chen's remarkable, diverse, and creative contributions to the NIH, especially to its Intramural Research Program and to the field of technology transfer.

After receiving his Ph.D. in Pharmacology from the University of Rochester, Dr. Chen had a distinguished research career, including primary authorship in one of the most cited publications of all time, describing an analytical technique for determination of inorganic phosphorus. Dr. Chen served under eight NIH Directors from 1956 to 1959 and from 1967 to 2005. He held positions in the National Heart Institute, the Division of Research Grants, the National Institute of General Medical Sciences, and the Office of the Director, NIH, that ranged from that of research investigator to Associate Director for Intramural Affairs; he also served as Acting Deputy Director for Science from 1982-1983. As a science administrator he championed novel pay and personnel systems for scientific researchers, programs for the training of foreign scientists at NIH, novel endeavors such as arctic research, and many other areas.

In 1986 Dr. Chen established the NIH Office of Technology Transfer to implement the provisions of the Federal Technology Transfer Act. He formulated the guiding principles upon which technology transfer functions today, including the creation of the Cooperative Research and Development Agreement, known as the CRADA. Above all, Dr. Chen offered NIHers wise, trusted, and compassionate counsel in diverse areas; this earned him the respect, admiration, and gratitude of the scientific and administrative communities at the NIH.

Past Lecturers:

2006: Maria Freire, Ph.D., Global Alliance for TB Drug Development
2007: Douglas R. Lowy, M.D., NCI
2008: Robert S. Balaban, Ph.D., NHLBI
2009: Harvey Alter, M.D., MACP, CC; Robert Purcell, M.D., NIAID
2010: Robert C. Gallo, M.D., Univ. of Maryland School of Medicine
2011: Ira Pastan, M.D., NCI
2012: Hynda Kleinman, Ph.D., NIDCR
2013: Clifton Barry, Ph.D., NIAID; Carol Nacy, Ph.D., Sequella, Inc.
2014: Kenneth A. Jacobson, Ph.D., NIDDK
2015: Robert Kotin, Ph.D., Voyager Therapeutics

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