### **Event Schedule**

## Igniting an immune response with cGAS

Zhijian "James" Chen, PhD

George L. MacGregor Distinguished Chair in Biomedical Science UT Southwestern Medical Center Dallas, Texas

May 11th, 2021

ZOOM: https://tulane.zoom.us/webinar/register/WN 13kQx1IUQAylxXpG2EdXEA

#### 10:00 a.m.

Opening Comments and Introduction to the George A. Adrouny Memorial Lectureship by Dr. William Wimley

Presentation of the George A. Adrouny Award for Outstanding Achievement in Medical Biochemistry to Medical students Robert D.E. Clark and Divya Dharmaraj, and Masters student Yuka Koyama by Dr. David Franklin

Introduction of Dr. Zhijian "James" Chen by Dr. Hua Lu

#### 10:20 a.m.

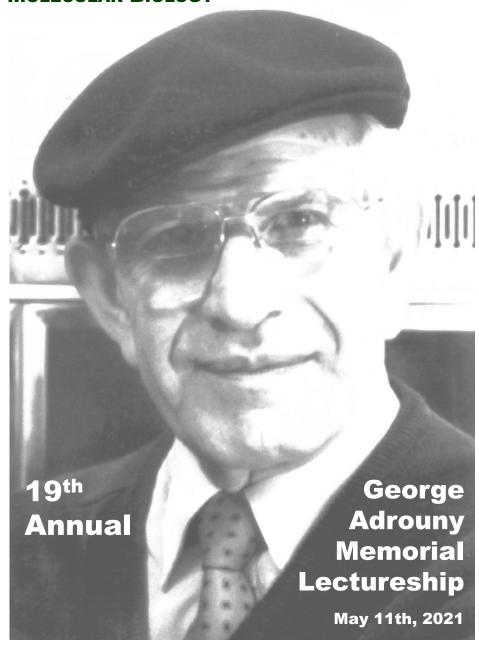
The 19th Annual George Adrouny Lecture presented by Dr. Zhijian "James" Chen

#### Credit

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# DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY



## **George Adrouny**



Photo: Victor Covaleski

George A. Adrouny was born of Armenian parents in Turkey on April 1, 1912. He received his BA in chemistry in 1934, and a Ph.C. with Distinction in pharmaceutical chemistry in 1940, both from the American University of Beirut. While working as a freelance pharmacist, he also taught chemistry and biology at Aleppo College in Aleppo, Syria. In 1951, a Smith-Mundt Fellowship from the United States government permitted him to begin graduate studies at Emory University where he earned a Ph.D. in Biochemistry in 1954. After two years as a Research Associate in Biochemistry at Emory, he was recruited to the Tulane University School of Medicine, Department of Biochemistry, where he ultimately rose to the rank of full professor. Professor Adrouny's research interests were diverse. In 1959, Science magazine reported on his identification and characterization of the fire ant venom. Other publications by Professor Adrouny were in the areas of cardiac glycogen metabolism; intestinal dextran-hydrolyzing enzymes; biochemical effects of

growth hormone; and the phylogenetic and evolutionary importance of hickory nut and pecan oils.

Professor Adrouny headed the Foreign Fellows Program, specially created for foreign graduate students studying at Tulane. He was also placed in charge of the Medical Biochemistry course, a post that he enjoyed until his retirement in 1981. He was recognized numerous times by the Owl Club for the teaching of this course and his devotion to the organization. Following retirement, Professor Adrouny was named Professor Emeritus.

Professor Adrouny was a member of The Society of Sigma Xi, The New York Academy of Sciences, and The American Chemical Society, and he was a Fellow of The American Association for the Advancement of Science. He was listed in Who's Who in American Education in 1967-68.

In 1987, a few years after the death of Alice Karamanoukian Adrouny, his wife of thirty-eight years. Professor Adrouny moved to Maryland to be near family where he lived until his death on November 24, 1999.



Photo: Courtesy of Robert

#### Robert D.E. Clark

Robert D.E. Clark was born and raised in Orange County, California, as the son of British émigrés Alan and Elisabeth Clark, After graduating from Mission Viejo High School, he attended the University of California, San

Diego, where he received a BS with Highest Distinction in Biochemistry/Chemistry. Robert worked for a brief time, first at the biotech company Q<sup>2</sup> Solutions and then at the University of Southern California, before starting at Tulane as an MD/PhD student. His interests in research and medicine are centered on gene therapy and immunology. Outside of medicine, Robert's biggest passion is for surfing. He also enjoys playing soccer, spending time with friends, reading a good book, and long walks on the beach.



Divya **Dharmara**j

Born in India. Divva Dharmaraj immigrated to the US with her parents and grew up near Boston with her younger sister. She always thought she'd be a paleontologist but after Photo: Courtesy of Divya Dharmara graduating from Lexington

High School, she studied biochemical engineering at Johns Hopkins University. In her gap years, she worked in clinical cancer research and volunteered in inner city schools before starting medical school at Tulane. Her long-term career goals involve addressing health disparities through education and working in the field of global medicine. In the meantime, when she isn't studying. Divva loves learning how to paint and exploring NOLA's art scene. She also loves kayaking and hiking, and she helps run a fun book club for fellow medical students.

## **Zhijian "James" Chen**

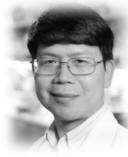


Photo: Zhijian Chen

Zhijian 'James' Chen is an Investigator of Howard Hughes Medical Institute, and Professor in the Department of Molecular Biology at the University of Texas Southwestern Medical Center at Dallas. He is also Director of Inflammation Research Center and George L. MacGregor Distinguished Chair in Biomedical Science at UT Southwestern. Prior to moving to Dallas, Chen was a senior scientist at ProScript Inc., where he helped discover the proteasome inhibitor VELCADE, a medicine used for the treatment of multiple myeloma. After joining UT Southwestern in 1997, Chen discovered the regulatory role of ubiquitination in protein kinase activation in the NF-kB and MAP kinase pathways. In addition, he discovered the

Mitochondrial Antiviral Signaling (MAVS) protein that reveals a new role of mitochondria in immunity. More recently, Chen discovered cyclic GMP-AMP synthase (cGAS) as a cytosolic DNA sensor and a new cyclic di-nucleotide signaling pathway that mediate innate immune responses in animal cells. For his work, Chen has received numerous honors including the National Academy of Science Award in Molecular Biology (2012), the American Society of Biochemistry and Molecular Biology (ASBMB) Merck Award (2015), the Lurie Prize in Biomedical Sciences from the Foundation of NIH (2018), the Breakthrough Prize in Life Sciences (2019), the Switzer Prize (2019) and the William B. Coley Award for Distinguished Research in Basic and Tumor Immunology (2020). Chen is a member of the National Academy of Sciences.



Yuka Koyama

Yuka Kovama is originally from Japan and grew up moving around the states. He is the oldest of five children and loves to enjoy outdoor activities with his family. He attended UNC Chapel Hill and earned his

BS Biology degree in 2018. After graduating, he worked in research until coming to Tulane to complete his MS Biochemistry Program from 2020 -2021. He will be applying to medical school this upcoming application cycle and hopes to continue his academic success at the next level.