

Twenty-third lecture in the series

James P. Holland Memorial Lecture

Monday, October 31, 2022
3:30 to 4:30 p.m.

Attend in person in Biology Bldg. 009
Or register to attend via Zoom at
https://iu.zoom.us/webinar/register/WN_ZJ0fwnUhRCWwZYtCrC36Dg

From Puerto Rico to NYC to dissect the tug of war between *Staphylococcus aureus* and the host

Víctor Torres, Ph.D.

(<https://www.torreslab.org>)

C.V. Starr Professor of Microbiology
New York University Grossman School of Medicine

Infections by antimicrobial resistance (AMR) pathogens are on the rise while the development of novel antimicrobials has been stalled for some time now. This perfect storm highlights the need for new strategies aimed at combating AMR pathogens. Víctor J. Torres and his research team seek to understand the intricate dance between human pathogens and their mammalian host to identify vulnerabilities that could lead to the development of novel therapeutics. Amongst AMR pathogens, the team has focused most of their efforts on *Staphylococcus aureus*, a bacterium that has proven to be a formidable challenge for vaccine and drug developers. *S. aureus* is a multifaceted bacterium that subverts many of the host's immune defenses required for pathogen eradication. In this seminar, Professor Torres will share his journey as an URM in science and provide an update on the team's efforts in dissecting *S. aureus* pathogenesis and host-mediated control of this pathogen.



Thanks to our generous Indiana University Holland lecture sponsors:

Office of the Vice President for Diversity, Equity, and
Multicultural Affairs
Office of the Vice Provost for Faculty and Academic Affairs
Office of the Vice Provost for Research
College of Arts and Sciences
Department of Biology
School of Medicine



About Víctor Torres

Víctor Torres is an engaging speaker. His lab focuses on understanding host-bacterial pathogen interactions with a special interest in drug-resistant bacteria. Professor Torres and his team have contributed extensively to the field of bacterial pathogenesis, publishing over 100 scientific manuscripts. He also contributes to the scientific community by serving as an editor for the American Society for Microbiology journals *Infection and Immunity* and *mBio* and as an associate editor for the American Association for the Advancement of Science journal *Science Advances*.

Professional Experience

C.V. Starr Professor of Microbiology, New York
University Grossman School of Medicine

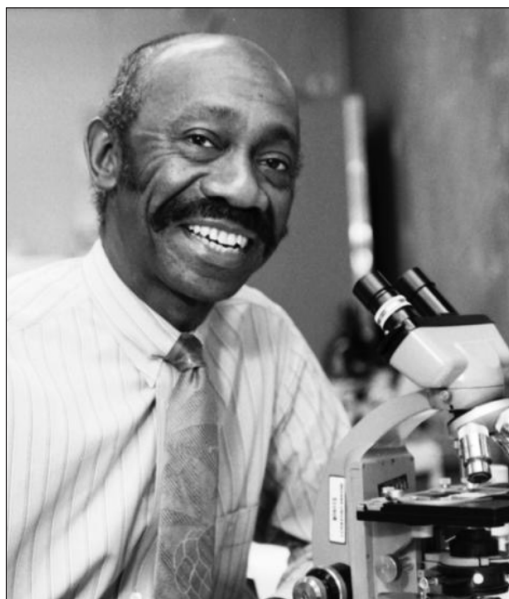
Education

Postdoctoral Fellow: Dept. of Microbiology and
Immunology, Vanderbilt University School of
Medicine, Nashville, TN, 2006-08
Postdoctoral Fellow: Division of Infectious Diseases,
Vanderbilt University School of Medicine, Nashville,
TN, 2005
Ph.D.: Microbiology and Immunology, Vanderbilt
University School of Medicine, Nashville, TN, 2004
B.S.: Concentration in Industrial Microbiology
University of Puerto Rico, Mayagüez, PR, 2000

Honors

MacArthur Fellow, 2021
Fellow, American Academy of Microbiology, 2021
Irma T. Hirschl Career Scientist Award, 2018
Burroughs Wellcome Fund: Investigator in the
Pathogenesis of Infectious Disease, 2014

About James Holland and the Lecture Series



Professor James P. Holland, 1934–1998

The James P. Holland Memorial Lecture Series was initiated in the fall of 2000, and is now organized by the Herman C. Hudson and the James P. Holland Scholars Program and the Department of Biology. The lectures honor the memory of one of the most beloved faculty members on the Bloomington campus. Professor Holland had a passion for teaching that earned him virtually every teaching award offered on campus, including the President's Award for Distinguished Teaching. This lecture series honors his legacy and is designed to bring awareness of and support to diversity in the life sciences.

Professor Holland worked tirelessly to address the needs of minority students. He created Biology's summer enrichment program, which brings Indiana minority high school students to campus to attend science lectures and participate in hands-on laboratories. The program is designed to spark their interest in science and provide a taste of college life. Holland and the late Herman C. Hudson joined forces to found IU's Minority Achievers Program (MAP) and the Mathematics and Science Scholarship Program (MASS). In 2003 the programs were named after Hudson and Holland to honor the efforts of these two men.

James Holland came to Indiana University to study zoology, earning a master's degree in 1958 and a doctorate three years later. Holland was on the Howard University faculty until 1967, when he returned to IU as an associate professor in the Department of Biology, advancing to full professor in 1974. His research involved reproductive endocrinology, and he examined the mechanism by which thyroid hormones influence female reproductive physiology.

From recruiting and mentoring students to serving as associate dean and interim dean of the graduate school, Professor Holland's commitment to the university was exceptional. He was a recipient of IU's Distinguished Service Award, the Herman B Wells Lifetime Achievement Award, and the Distinguished Alumni Service Award. Jim Holland taught over 11,000 undergraduates during his IU career, and his talent for teaching earned him a FACET award, given to exceptional teachers who inspire both students and colleagues. He was the first to receive the Chancellor's Medallion for his "transcendent efforts on behalf of the university."

About the Holland Teaching Award

It was Holland's wife, Constance, who created the **James Philip Holland Teaching Award for Exemplary Teaching and Service to Students**. Mrs. Holland—a highly respected, award-winning secondary school teacher—established the award to recognize others who shared the Hollands' passion for teaching. **Steven Tait (Chair, Professor, Department of Chemistry) is this year's recipient.**

About the Holland Fellowship

Biology established the James P. Holland Graduate Fellowship in Biology to honor Professor Holland, a member of our faculty for 31 years. He was a truly dedicated teacher and mentor who loved science.

The Holland Fellowship supports the training of a first-year Ph.D. graduate student from groups underrepresented in the life sciences. It provides stipend, tuition, and health insurance during the first year of graduate training for the Ph.D. degree.

Jonathan Enriquez Madrid, the 2022–23 Holland Fellow, is a Ph.D. student in the IU Evolution, Ecology, and Behavior Graduate Program in the lab of Farrah Bashey. His interests center around evolutionary behavior. Enriquez Madrid is a first-generation Mexican-American from Espanola, NM. He has an A.S. in chemistry and B.S. in biology from Northern New Mexico College. Enriquez Madrid has worked on research projects from mate preference, social preference, and mating tactics in the Bahamian pupfish, to how diet affects hormone concentrations in non-human primates through the REU CISAB program at Indiana University, Bloomington. Visit <https://go.iu.edu/252c> for more information about the Holland Graduate Fellowship and Enriquez Madrid.

