

Fifteenth Lecture in the Series

James P. Holland Memorial Lecture

Monday, October 20, 2014, at 4:00 p.m.

Myers Hall 130 (915 East Third Street)
Indiana University Bloomington campus

Taming the p53 Network for Effective Cancer Therapies

Joaquín M. Espinosa

Associate Professor of Molecular, Cellular, and
Developmental Biology at the University of Colorado
Boulder and Howard Hughes Medical Institute Early
Career Scientist

Research Conducted by the Espinosa Team

Joaquín Espinosa and his research team seek to understand how gene networks control cell behavior. Cancer is their core paradigm, but their discoveries often lead them into other areas of biology. They define cancer as a disease of gene networks gone awry. Their research focuses on the molecular mechanisms by which cancer-relevant genes regulate the networks in which they are embedded. They believe that this type of basic research is a requisite step in the development of effective cancer therapeutics. Much of their research focuses on the p53 gene network. p53 is the most commonly mutated gene in human cancer, and their research may enable effective cancer therapies.



Indiana University 2014 Holland Lecture Sponsors:

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and Multicultural Affairs
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College of Arts and Sciences
Department of Biology and its National Institutes
of Health GCMS Training Grant
Medical Sciences Program

About Joaquín M. Espinosa



Professional Experience

Associate Professor, Department of Molecular, Cellular, and
Developmental Biology, University of Colorado Boulder,
2011–
Co-Leader, Molecular Oncology Program, University of Colorado
Cancer Center, 2010–
Director, The Functional Genomics Facility, University of
Colorado Boulder, 2010–
Assistant Professor, University of Colorado Boulder, 2004–2011
Co-Editor in Chief, *Transcription*, 2013–
Editorial Board, *eLife*, 2012– ; *Cell Reports*, 2011– ; *Molecular
and Cellular Biology*, 2009– ; and *Transcription*, 2010–2013
Member, Cancer Molecular Pathology (CAMP) NIH Study
Section, 2012–2013
Instructor, American Society for Cell Biology (ASCB), Africa
Teaching Team, 2011
Instructor (Eukaryotic Gene Expression course), Cold Spring
Harbor Laboratories, 2008–2012
The Leukemia and Lymphoma Society Special Fellow, The Salk
Institute for Biological Studies, La Jolla, CA, 2003–2005
The PEW Charitable Trusts Latin American Fellow, 2000–2002
Postdoctoral Research Associate, 1999–2004

Education

Universidad de Buenos Aires, Argentina
Ph.D., Biology, 1999
Universidad Nacional de Mar del Plata, Argentina
B.S., Biology, 1994

Honors

Howard Hughes Medical Institute Early Career Scientist, 2009
The Mortar Board Society Teaching Award, 2007
The March of Dimes Basil O'Connor Award, 2005

Holland Lecturers

2000	Homer A. Neal
2001	S. Allen Counter
2002	Tyrone B. Hayes
2003	Scott V. Edwards
2004	Maydianne Andrade
2005	Ivette Perfecto
2006	Erich D. Jarvis
2007	Paul Turner
2008	Rick Kittles
2009	Harmit M. Singh
2010	Carlos Bustamante
2011	Adriana D. Briscoe
2012	Cassandra G. Extavour
2013	Paul Barber
2014	Joaquín M. Espinosa

Holland Teaching Award Recipients

Michael Tansey
Akwas B. Assensoh
Robert B. Affe
Massimo Scalabrini
George Malacinski
Georgia K. Strange
Albert Ruesink
Bruce Solomon
Richard B. Miller
James H. Madison
James M. Walker
Christoph Irmscher
P. David Polly
Anne Pyburn
Eric Sandweiss
Constance Furey

Holland Fellows

1998-99	Liana Bulmer
2000-01	Antiño Allen
2001-02	Jan Lee Santos
2002-03	Christopher Boston
2003-04	Leleña Avila
2004-05	Adrian Land
2005-06	Kyle Wayne
2006-07	Adrienne Jones
2007-08	Samuel Miller
2008-09	Lesley Weaver
2009-10	Sheya Martin
2010-11	Nikki Rendon
2011-12	Delawrence Sykes
2012-13	David Thoms
2013-14	Aisha Burton and Amilcar Perez
2014-15	Lekeah Durden

About James Holland and the Lecture Series

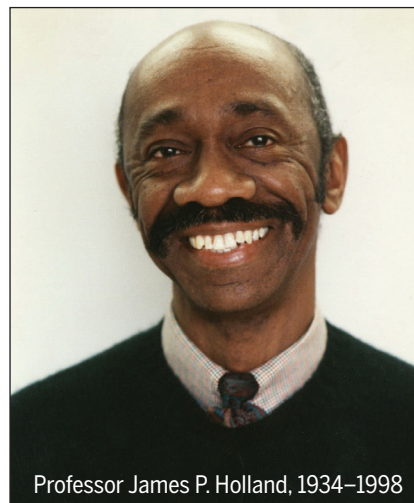
The James P. Holland Memorial Lecture Series was initiated in the fall of 2000, and is now organized by the Herman C. Hudson and the James P. Holland Scholars Program and the Department of Biology. The lectures honor the memory of one of the most beloved faculty members on the Bloomington campus. Professor 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."

It was his 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. Constance Furey, Associate Professor of Religious Studies, is this year's recipient.



Professor James P. Holland, 1934–1998



Lekeah Durden

About the Holland Fellowship

Biology established the James P. Holland Graduate Fellowship in Biology to honor Professor Holland, who died of cancer at the age of 63. He was a member of our faculty for 31 years, loved science, and—as indicated above—was a truly dedicated teacher and mentor.

The Holland Fellowship supports the training of a first-year Ph.D. graduate student from groups underrepresented in the life sciences. This fellowship provides stipend, tuition, and health insurance during the first year of graduate training for the Ph.D. degree. The total support package amounts to a minimum of \$52,225 per year. Lekeah Durden is the 2014–15 recipient of the James P. Holland Graduate Fellowship in Biology.

Make a gift that lasts a lifetime! An endowment of \$750,000 is required to generate the necessary interest for such an annual award. Help the James P. Holland Graduate Fellowship in Biology reach its goal. Promising science students like Lekeah can launch their careers with your support. Fill out the enclosed form and return it with your check, made out to the IUF/Holland Fellowship, in the envelope provided. Or visit www.bio.indiana.edu/alumni/support/holland.shtml to make a secure online gift.