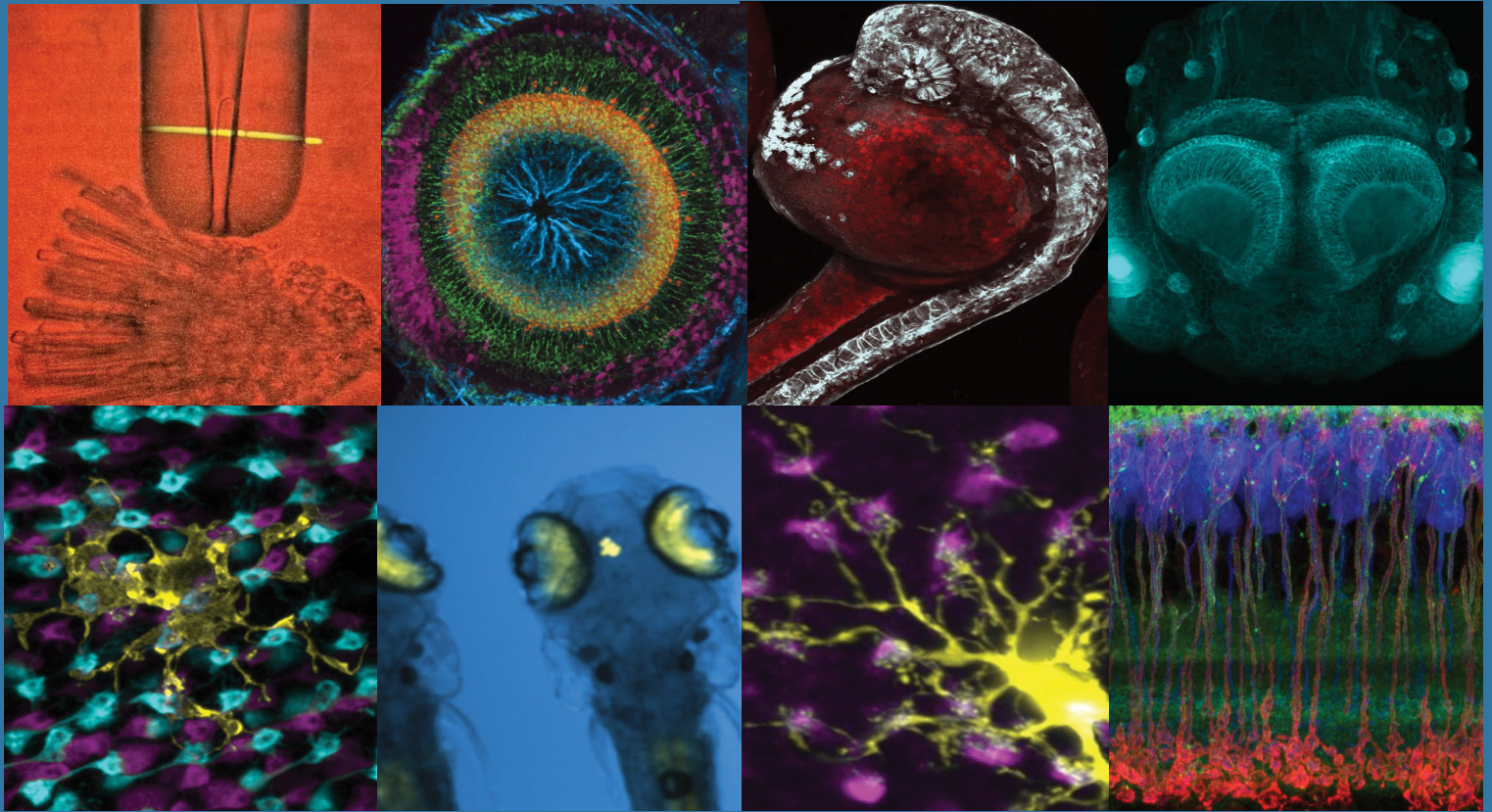


# Joram Piatigorsky Basic Science Lecture & Award



## Light Detection by Retinal Rods and Cones

**King-Wai Yau, PhD**

Johns Hopkins University

APRIL 21, 2026  
3:00 – 4:30 PM ET

*A reception will be held in the lobby following the lecture*

Lipsett Amphitheater  
National Institutes of Health  
Clinical Center, Bethesda, Maryland



# AGENDA

**3:00 PM**

Welcome and Opening Remarks

Michael F. Chiang, M.D., *Director, NEI*

**3:05 PM**

Building Philanthropic Partnerships in Science

Steve Hoffmann, *Vice President, Science Partnerships, FNIH*

**3:10 PM**

Envisioning the Joram Piatigorsky Basic Science Lecture and Award

Joram Piatigorsky, Ph.D., *NIH/NEI Scientist Emeritus, Founding Director, Laboratory of Molecular and Developmental Biology*

**3:15 PM**

Introduction of King-Wai Yau, Ph.D.

Jeremy Nathans, M.D., Ph.D., *Professor of Molecular Biology and Genetics, Johns Hopkins University School of Medicine*

**3:20 PM**

2026 Joram Piatigorsky Basic Science Lecture: Light detection by retinal rods and cones

King-Wai Yau, Ph.D., *Professor of Neuroscience, Johns Hopkins University School of Medicine*

**4:15 PM**

Q&A and Closing

**4:30 PM**

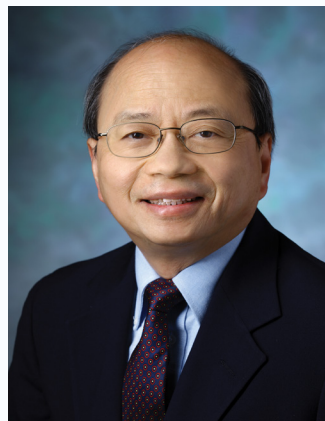
Post-lecture Reception

## About Joram Piatigorsky

A molecular biologist and eye researcher who in 1981 founded the Laboratory of Molecular and Development Biology at the NEI, Dr. Joram Piatigorsky served as its chief until 2009. There, he established the concept of gene sharing based on the institute's research on lens crystallins in various vertebrates and invertebrates, such as scallops and jellyfish, that even few knew had an eye.

He generalized and extended the gene-sharing concept, an example of basic research focused on the eye with applications to genetics, development, and evolution in general. Now retired, Dr. Piatigorsky retains the title of Scientist Emeritus at the NIH.

## About King-Wai Yau



King-Wai Yau was born in Guangzhou, China in October, 1948 and grew up in Hong Kong. After high school in St. Paul's Co-Educational College in Hong Kong, he enrolled in Hong Kong University Faculty of Medicine in 1967, but left for the U.S. in 1968. He received an A.B. in physics from Princeton University in 1971 and a Ph.D. in neurobiology from Harvard University in 1975, working under Dr. John G. Nicholls. He did postdoctoral work with Denis A. Baylor at Stanford University and with Sir Alan L. Hodgkin at Cambridge University, United Kingdom. From 1980-86, he was on the faculty at the

University of Texas Medical Branch at Galveston, becoming Professor of Physiology and Biophysics in 1985.

Since 1986, he has been Professor of Neuroscience at Johns Hopkins University School of Medicine. He also was an investigator of the Howard Hughes Medical Institute from 1986 to 2004.

He is a Fellow of the American Academy of Arts and Sciences, a member of the U.S. National Academy of Sciences, U.S. National Academy of Medicine, and a member of Academia Sinica, Taiwan. His research interests lie in photoreception in the retina and olfactory reception in the nose.

For more information about the Foundation for the National Institutes of Health (FNIH), visit: <https://www.fnih.org>

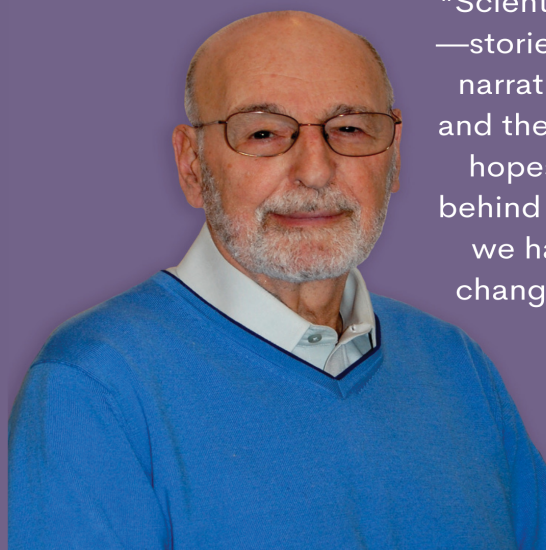
For more information about the National Eye Institute (NEI), visit: <https://www.nei.nih.gov>

Dr. Joram Piatigorsky and his wife Mrs. Lona Piatigorsky have established an endowment to award annually eye and vision scientists doing basic research exploring little-studied species and imaginative ideas.

Managed by the Foundation for the National Institutes of Health (FNIH) and bestowed at the National Eye Institute (NEI) of the National Institutes of Health (NIH), the Joram Piatigorsky Basic Science Lecture and Award aims to bring attention to notable basic science advancements by researchers in vision and the eye that will help accelerate downstream research by scientists in such fields as genetics, developmental biology, and computer science.

The endowment's awardee in 2026, chosen by a panel of esteemed basic scientists from NIH and top universities, is King-Wai Yau, Ph.D., professor of neuroscience at Johns Hopkins School of Medicine.

Dr. Yau's lecture will cover how retinal rods and cones detect and process light at the most fundamental level. Drawing on decades of pioneering basic science research, he will detail molecular and cellular mechanisms of phototransduction, including how individual photons can be reliably detected by rod photoreceptors and how cones support vision across a wide range of light intensities and colors. The lecture will highlight key experimental discoveries that shape our current understanding of visual signaling and illustrate how fundamental research in sensory biology reveals general principles of neural function.



"Scientists develop hypotheses—stories—to bridge gaps in the narrative between the known and the unknown. We do this in hopes that others will come behind us, building on the work we have done, and thereby changing the stories we tell."



Joram Piatigorsky