

## Yoshinori Ohsumi, Ph.D., Wins 2016 Dr. Paul Janssen Award for Biomedical Research

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**SAN FRANCISCO – June 8, 2016** – As part of an ongoing commitment to support life sciences innovators and the development of integrated, cross-sector solutions to prevent, intercept and cure diseases, Johnson & Johnson today named cell biologist Yoshinori Ohsumi, Ph.D., of the Tokyo Institute of Technology the winner of the 2016 Dr. Paul Janssen Award for Biomedical Research for his pioneering discoveries concerning the molecular basis of autophagy.

Dr. Ohsumi was honored today during an event at the 2016 BIO International Convention in San Francisco. A video of his acceptance comments can be viewed [here](#).

“Dr. Ohsumi’s curiosity led him to become the first person in the world to determine the molecular mechanism and regulation of autophagy, shedding light on one of the most basic functions of all living cells,” said Paul Stoffels, M.D., Chief Scientific Officer, Johnson & Johnson. “Dr. Ohsumi’s discoveries hold promise for better understanding, preventing and treating many diseases. It is with great pleasure that we celebrate his contributions, which remind us of the innovative spirit Dr. Paul brought to the lab every day.”

Autophagy is a universal process that cells use for maintenance, repair and generation of energy during starvation. Dr. Ohsumi first observed these processes in yeast cells. He then determined that autophagy is one of the most basic cell functions found in a variety of organisms, from plants to humans. Research of disruptions to this process has added to the understanding of the molecular mechanisms involved in many health disorders including cancer and Alzheimer’s disease.

“Dr. Ohsumi’s discoveries have opened one of the most exciting and widespread fields of biology and medicine,” said Michael Brown, M.D., Paul J. Thomas Professor of Molecular Genetics and Director of the Jonsson Center for Molecular Genetics, University of Texas Southwestern, and Chair of the Dr. Paul Janssen Award independent selection committee. “Autophagy is essential for survival during starvation in all organisms from yeast to humans. The process was visualized by microscopists but no one had any idea of the mechanism until Dr. Ohsumi and his students elucidated the intricate pathway through a brilliant combination of biochemistry and genetics in yeast. Subsequent studies suggest many other functions for autophagy in higher organisms, including resistance to certain infections, resistance to neurodegeneration and survival of cancer cells.

Professor Ohsumi's discoveries have exerted a profound impact on biological science and medicine.”

Dr. Ohsumi is Honorary Professor at the Frontier Research Center at the Tokyo Institute of Technology and Professor Emeritus at the National Institute for Basic Biology at the Graduate University for Advanced Studies, Japan.

Dr. Ohsumi previously served as a professor at the National Institute of Basic Biology and as an associate professor at the University of Tokyo, where he also earned his bachelor and doctoral degrees. He completed a postdoctoral fellowship at The Rockefeller University in New York, NY. Dr. Ohsumi has received many accolades for his work, including the Fujihara Award, Japan Academy Prize, Asahi Prize, Kyoto Prize in Life Sciences, Keio Medical Science Prize, International Prize for Biology, Gairdner International Award, Rosenstiel Award, and Wiley Prize in Biomedical Sciences.

“I feel greatly honored that my work has attracted so much interest, and that it could lead to advancements that make an impact on human health,” said Dr. Ohsumi. “Being recognized with the Dr. Paul Janssen Award and joining the ranks of the prior Award recipients is a true privilege.”

The winners of the Dr. Paul Janssen Award for Biomedical Research are chosen by an independent selection committee of the world’s most renowned scientists. The Award, which includes a \$200,000 prize, will be presented to Dr. Ohsumi during ceremonies in the U.S. and Belgium in September.

#### **About The Dr. Paul Janssen Award for Biomedical Research**

Dr. Paul Janssen was one of the 20th century's most gifted and passionate researchers. He helped save millions of lives through his contribution to the discovery and development of more than 80 medicines, four of which remain on the World Health Organization's list of essential medicines. The Dr. Paul Janssen Award for Biomedical Research was established by Johnson & Johnson in 2004 to honor the memory of Dr. Paul.

Previous Award winners include:

- 2015 – Bert Vogelstein, M.D.
- 2014 – Emmanuelle Charpentier, Ph.D. and Jennifer Doudna, Ph.D.
- 2013 – David Julius, Ph.D.
- 2012 – Victor Ambros, Ph.D., and Gary Ruvkun, Ph.D.
- 2011 – Napoleone Ferrara, M.D.
- 2010 – Anthony S. Fauci, M.D. and Erik De Clercq, M.D., Ph.D.,
- 2009 – Axel Ullrich, Ph.D.
- 2008 – Sir Ravinder Maini, FRCP, FMedSci, FRS and Marc Feldmann, FMedSci, FAA, FRS
- 2006 – Craig Mello, Ph.D., Nobel Laureate

Learn more at [www.pauljanssenaward.com](http://www.pauljanssenaward.com).

### **About the Selection Committee**

The Dr. Paul Janssen Award independent selection committee is composed of some of the world's leading scientists, including National Medal of Science winners, Nobel Laureates, members of the National Academy of Sciences and past winners of the Dr. Paul Janssen Award.

The 2016 Selection Committee includes:

- Michael Brown, M.D., (chairman), Paul J. Thomas Professor of Molecular Genetics and Director of the Jonsson Center for Molecular Genetics, University of Texas Southwestern
- Bruce Beutler, M.D., Regental Professor, Director, Center for the Genetics of Host Defense, University of Texas Southwestern Medical Center
- Elizabeth Blackburn, Ph.D., President, Salk Institute for Biological Studies
- Hans Clevers, M.D., Ph.D., Professor of molecular genetics, Hubrecht Institute, Netherlands
- Jennifer Doudna Ph.D., Professor of cell and molecular biology and of chemistry, University of California, Berkeley; Li Ka Shing Chancellor's Chair in Biomedical and Health Sciences; Investigator, Howard Hughes Medical Institute
- David Julius, Ph.D., Professor and Chair of the Department of Physiology at the University of California, San Francisco
- Rebecca Richards-Kortum, Ph.D., Malcolm Gillis University Professor ; Howard Hughes Medical Institute (HHMI) Professor; Director of Rice 360°: Institute for Global Health
- Thomas Südhof, M.D., Avram Goldstein Professor in the School of Medicine and Professor of Molecular and Cellular Physiology at Stanford University

### **About Johnson & Johnson**

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