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**David Julius Wins 2013 Dr. Paul Janssen Award for Biomedical Research**

**SAN FRANCISCO – June 12, 2013** – Johnson & Johnson today named David Julius, PhD, chair of the Department of Physiology at the University of California, San Francisco (UCSF), the winner of the 2013 Dr. Paul Janssen Award for Biomedical Research. Dr. Julius was chosen for his discovery of the molecular mechanism that controls thermosensation (sensory perception of temperature) and elucidation of the role this mechanism plays in the sensation of acute and inflammatory pain. By providing a mechanistic view of how stimuli are detected in the body, his discovery significantly advanced the study of pain and may lead to new pain therapies.

The Dr. Paul Janssen Award for Biomedical Research was created by Johnson & Johnson to honor the legacy of one of the most passionate, creative and productive scientists of the 20th century, Dr. Paul Janssen (1926-2003). Dr. Paul – as he was known in the scientific community – founded Janssen Pharmaceutica, which was acquired by Johnson & Johnson in 1961. His work led to the development of more than 80 transformational medicines in several fields, including pain management, psychiatry, infectious disease and gastroenterology.

“The progressive research of Dr. Julius has dramatically shifted the approach to thermosensation exploration, with significant implications for future developments in the treatment of chronic pain and inflammatory syndromes,” said Dr. Paul Stoffels, Chief Scientific Officer, Johnson & Johnson. “His body of work gives us a deeper understanding of the molecular logic that connects ion channels, sensory biology and behavior, enabling the development of more effective treatments for those suffering from neurogenic inflammatory diseases.”

Dr. Julius, a biochemist and molecular biologist, utilizes the power of natural products to elucidate molecular mechanisms of touch and pain sensation. Using these products as pharmacological probes, he identified transient receptor potential (TRP) channels on sensory nerve fibers that are activated by heat or cold, providing molecular insight into the process of thermosensation. He began with identifying how capsaicin, the spicy ingredient in chili peppers, produces burning pain. Eventually, Dr. Julius was able to pinpoint a receptor for menthol (TRPM8) and showed that it is activated by cold, revealing a unifying mechanism for temperature detection. By connecting these dots, Dr. Julius supplied insight into the detection of painful stimuli, as well as how the nervous system detects changes in ambient temperature.

“The past recipients of the Dr. Paul Janssen Award are a remarkable group of scientists, and I am proud to have been selected to join them in accepting this honor,” said Dr. Julius. “My research was born out of a fascination with, and desire to comprehend how the body reacts to stimuli from ordinary foods, like chili peppers, with a particular focus on the molecular basis of pain sensation. I am proud that my work may lead to more effective treatments for people living with diseases like arthritis, asthma and chronic pain.”

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 \$100,000 prize, will be presented to Dr. Julius in a ceremony followed by a scientific symposium to take place 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 to honor the memory of Dr. Paul. Past winners include Craig Mello, Marc Feldmann, Sir Ravinder Maini, Axel Ullrich, Erik De Clercq, Anthony S. Fauci, Napoleone Ferrara, Victor Ambros and Gary Ruvkun. 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 2013 Selection Committee includes:

- Craig Mello, Ph.D., (chairman) professor of Molecular Medicine, University of Massachusetts Medical School and investigator, Howard Hughes Medical Institute; 2006 Nobel Laureate in Physiology or Medicine; 2006 Dr. Paul Janssen Award for Biomedical Research winner; member, National Academy of Sciences
- Bruce Beutler, M.D., Regental Professor, Director, Center for the Genetics of Host Defense, University of Texas Southwestern Medical Center; 2011 Nobel Laureate in Physiology or Medicine; 2011 Shaw Prize winner; 2009 Albany Medical Center Prize in Medicine and Biomedical Research winner; member, American Academy of Arts and Sciences
- Elizabeth Blackburn, Ph.D., Morris Herzstein Professor of Biology and Physiology, Department of Biochemistry and Biophysics, University of California, San Francisco; 2009 Nobel Laureate in Physiology or Medicine; 2006 Albert Lasker Medical Research Award winner; 2007 one of TIME Magazine’s 100 Most Influential People
- Michael Brown, M.D., Paul J. Thomas Professor of Molecular Genetics and Director of the Jonsson Center for Molecular Genetics, UT Southwestern; 1985 Nobel Laureate in Physiology or Medicine; 1988 National Medal of Science (United States)
- Robert Langer, Sc. D., David H. Koch Institute Professor of Chemical Engineering, Massachusetts Institute of Technology; 2006 National Medal of Science winner; Charles Stark Draper Prize winner; 2008 Millennium Prize winner; member, National Academy of Engineering, National Academy of Sciences, Institute of Medicine

- Rebecca Richards-Kortum, Ph.D., Stanley C. Moore Professor of Bioengineering and Professor of Electrical and Computer Engineering, Director of Rice 360°: Institute for Global Health Technology, Rice University; fellow, American Institute for Medical and Biological Engineering; fellow, American Association for the Advancement of Science and Biomedical Engineering Society; 2010 Pritzker Distinguished Scientist and Lecturer of the Biomedical Engineering Society Annual Meeting
- Axel Ullrich, Ph.D., Director, Department of Molecular Biology, Max Planck Institute of Biochemistry, Germany; winner, 2009 Dr. Paul Janssen Award for Biomedical Research; 2010 Wolf Prize winner
- Huda Zoghbi, M.D., Professor, Baylor College of Medicine; investigator, Howard Hughes Medical Institute; Director, Jan and Dan Duncan Neurological Research Institute; member, National Academy of Science and the Institute of Medicine; member, Lasker Award jury; E. Mead Johnson Award for Pediatric Research winner

### **About Johnson & Johnson**

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