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**Dr. Victor Ambros and Dr. Gary Ruvkun Win 2012 Dr. Paul Janssen Award for Biomedical Research for Discovery of MicroRNAs**

*Collaboration between researchers led to major impact on understanding gene regulation*

**BOSTON – June 19, 2012** – Johnson & Johnson today named Dr. Victor Ambros and Dr. Gary Ruvkun the winners of the 2012 Dr. Paul Janssen Award for Biomedical Research during an event at the Biotechnology Industry Organization International Convention in Boston. Drs. Ambros and Ruvkun won the Award for their co-discovery of microRNAs (miRNAs) as central regulators of gene expression and development. These regulatory molecules have been implicated in a wide range of normal and pathological activities, including embryonic development, blood-cell specialization, muscle function, heart disease and viral infections. Their discovery has opened new fields of research and has implications for the development of diagnostic tools and medicines.

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). The legacy of Dr. Paul – as he was known in the scientific community – continues to inspire the company's commitment to developing innovative solutions for unmet medical needs. Dr. Paul's work led to breakthroughs in several fields, including pain management, psychiatry, infectious disease and gastroenterology. Four of the drugs discovered by Dr. Paul and his team remain on the World Health Organization's list of essential medicines.

"The groundbreaking research of Dr. Ambros and Dr. Ruvkun has revolutionized the understanding of gene regulation, with significant implications for future developments in the medical field," said Dr. Paul Stoffels, Worldwide Chairman, Pharmaceuticals, Johnson & Johnson. "Perhaps equally important is the spirit of collaboration exemplified by these researchers – exactly what Dr. Paul advocated in his own labs. Their success demonstrates that we can achieve so much more when we work together, rather than in silos."

Working independently, Dr. Ambros and Dr. Ruvkun led the groups that identified the first miRNA and the first miRNA target. Dr. Ambros' lab yielded the discovery of the first miRNA and Dr. Ruvkun's lab identified how that miRNA regulates its target messenger. Working together,

they demonstrated that the miRNA inactivates its target through direct, base-pairing interactions. MicroRNAs have been linked to cancer and identified as regulators of numerous other developmental events in both plants and animals. As a result of this discovery, researchers are now exploring miRNAs for use in diagnosis and prognosis as well as potential therapies.

“Our research grew out of long-standing traditions in the field aiming to unearth molecular explanations for how biological systems work, with the hope that if an understanding was achieved, practical applications would likely emerge,” said Gary Ruvkun, Ph.D., Massachusetts General Hospital and Harvard Medical School. “We have seen the small RNA field grow from our first papers to thousands of papers, many focused on particular diseases and treatments of diseases. The research has come full circle – from fundamental biology to medicine – just as we had hoped.”

“We are honored to join the distinguished list of past awardees of the Dr. Paul Janssen Award for Biomedical Research,” continued Victor Ambros, Ph.D., University of Massachusetts Medical School. “It is a testament to the wisdom of private and government patrons that fundamental research such as ours was supported over the years, and that it is paying off in new understanding of disease processes...and possibly in cures for patients.”

The winners of the Dr. Paul Janssen Award for Biomedical Research are chosen by an independent committee of renowned scientists, including Nobel Laureates and Lasker Prize winners. The Award, which includes a \$100,000 prize, will be presented to Drs. Ambros and Ruvkun in a ceremony followed by a scientific symposium at the New York Academy of Sciences in New York on September 7, 2012. For more information on the award or to request additional detail on the scientific symposium, please visit [www.pauljanssenaward.com](http://www.pauljanssenaward.com).

#### **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 and Napoleone Ferrara. Learn more at [www.pauljanssenaward.com](http://www.pauljanssenaward.com).

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