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### DR. JOHN ENG TO RECEIVE GOLDEN GOOSE AWARD

# HIS RESEARCH ON GILA MONSTER VENOM LED TO PROTECTION FOR MILLIONS OF DIABETICS

The creators of the Golden Goose Award announced today that the next award will go to Dr. John Eng, a medical researcher and practicing physician whose study of the extremely poisonous venom produced by the Gila monster led to a drug that protects millions of diabetics from such complications as blindness, kidney failure, and nerve damage.

The Golden Goose Award was created in 2012 to celebrate researchers whose seemingly odd or obscure federally funded research turned out to have a significant, positive impact on society. Dr. Eng will receive the award at the second annual Golden Goose Awards ceremony in Washington, DC this fall, along with the late Wallace Coulter, who was named a Golden Goose awardee earlier this year, and other winners to be named in the coming weeks.

Representative Jim Cooper (D-TN) first proposed the Golden Goose Award, and it was created by a coalition of organizations listed below. Like the bipartisan group of Members of Congress who support the Golden Goose Award, the founding organizations believe that federally funded basic scientific research is the cornerstone of American innovation and essential to our economic growth, health, global competitiveness, and national security. Award recipients are selected by a panel of respected scientists and university research leaders.

"Medicine from monsters and venom may sound like a science-fiction novel, but it's a real-life breakthrough," said Rep. Cooper. "Dr. Eng's research shows that we can't abandon science funding only because we don't know where it might lead. Just ask millions of diabetics whose lives have been improved by his discovery."

"Dr. Eng's research demonstrates the necessity of federally supported basic research," said Rep. Charlie Dent (R-PA), another congressional supporter of the Golden Goose Award. "In 1992, there was no way of knowing that Gila monster venom contained a compound that would one day change the lives of millions of diabetics. We owe it to future generations to lay the groundwork now for tomorrow's breakthroughs."

Dr. Eng began his career as a physician and researcher at the Veterans Administration (VA) Medical Center in the Bronx, New York, working under Nobel Prize recipient Dr. Rosalyn S. Yalow. He treated many diabetic patients, and knew that maintaining normal glucose levels in diabetics is key to reducing their chances of suffering such complications as blindness, nerve damage, and kidney failure.

According to the American Diabetes Association, in 2011 nearly 26 million people in the U.S. had diabetes. It is the leading cause of kidney failure, and the leading cause of new cases of blindness among adults aged 20-74.



Supported by funding from the Department of Veterans Affairs, Dr. Eng sought to build on earlier research by other scientists supported by the National Institutes of Health, who had found that the venom of some animals had an impact on the human pancreas.

Focusing on the poisonous venom of the Gila monster, a lizard indigenous to the southwestern U.S., Dr. Eng discovered in 1992 a new compound that he named Exendin-4. The compound stimulates insulin-producing cells in the pancreas to produce more insulin when glucose levels are high. The compound keeps the body's blood sugar levels at a steady, normal level while minimizing, compared to an insulin shot, the risk of levels going too low.

To gain notice for his discovery, Dr. Eng set up a booth at the American Diabetes Association annual meeting, where he caught the attention of a small biotechnology company, Amylin Pharmaceuticals.

The new drug developed by that company, exenatide, marketed as Byetta, was approved by the Food and Drug Administration in 2005, and has proved to be a long-acting treatment that helps diabetics manage their chronic condition. It has been prescribed to millions of people suffering from diabetes to help them to manage their blood sugar levels and to feel less hungry and eat less.

Additional information about the Golden Goose Award, including videos and other information on the 2012 award winners, can be found at <a href="https://www.goldengooseaward.org">www.goldengooseaward.org</a>.

#### **FOUNDING ORGANIZATIONS:**

American Association for the Advancement of Science (AAAS): The American Association for the Advancement of Science is an international nonprofit organization dedicated to advancing science around the world by serving as an educator, leader, spokesperson and professional association. In addition to organizing membership activities, AAAS publishes the *Science* family of journals as well as many scientific newsletters, books and reports, and spearheads programs that raise the bar of understanding for science worldwide.

Association of American Universities (AAU): The Association of American Universities is a nonprofit association of 59 leading US public and private research universities and two Canadian counterparts. Founded in 1900, AAU today focuses on issues that are important to research-intensive universities, such as funding for research, research policy issues, and graduate and undergraduate education. AAU member universities are on the leading edge of innovation, scholarship, and solutions that contribute to the nation's economy, security, and well-being.

Association of Public and Land-grant Universities (APLU): Founded in 1887, the Association of Public and Land-grant Universities is an association of public research universities, land-grant institutions, and many state public university systems. Its 219 members enroll more than 4.7 million students, award nearly one million degrees annually, and conduct nearly two-thirds of all academic research, totaling more than \$34 billion annually. As the nation's oldest higher education association, APLU is dedicated to excellence in learning, discovery and engagement.

**Breakthrough Institute**: The Breakthrough Institute is a paradigm-shifting think tank committed to modernizing liberal thought for the 21<sup>st</sup> Century. Our core values are integrity, imagination and audacity. Our goal is to accelerate the transition to a future where all the world's inhabitants can enjoy secure, free, prosperous, and fulfilling lives on an ecologically vibrant planet.



Progressive Policy Institute (PPI): The Progressive Policy Institute is an independent, innovative and high-impact DC-based think tank founded in 1989. As the original "idea mill" for President Bill Clinton's New Democrats, PPI has a long legacy of promoting break-the-mold ideas aimed at economic growth, national security and modern, performance-based government. Today, PPI's unique mix of political realism and policy innovation continues to make it a leading source of pragmatic and creative ideas. PPI is nonprofit, 501(c)(3) organization.

<u>Richard Lounsbery Foundation</u>: The Richard Lounsbery Foundation aims to enhance national strengths in science and technology through support of programs in the following areas: science and technology components of key US policy issues; elementary and secondary science and math education; historical studies and contemporary assessments of key trends in physical and biomedical sciences; and start-up assistance for establishing the infrastructure of research projects.

<u>Task Force on American Innovation</u>: The Task Force is a coalition of business and business organizations, scientific societies, and higher education associations founded in 2004 to advocate for greater federal investments for basic research in the physical sciences and engineering. The group focuses on the National Science Foundation, the Department of Energy Office of Science, the Department of defense research budget, the National Institute of Standards and Technology labs at the Department of Commerce, and NASA.

The Science Coalition (TSC): The Science Coalition is a nonprofit, nonpartisan organization of the nation's leading public and private research universities. It is dedicated to sustaining strong federal funding of basic scientific research as a means to stimulate the economy, spur innovation, and drive America's global competitiveness.

<u>United for Medical Research (UMR)</u>: United for Medical Research is a coalition of leading research institutions, patient and health advocates, and private industry that have joined together to seek steady increases in funding for the National Institutes of Health.

## Other organizations sponsoring the Golden Goose Award:

American Astronomical Society
American Mathematical Society

American Psychological Association

American Sociological Association

**APS Physics** 

Association for Psychological Science

Association of American Medical Colleges

**Biophysical Society** 

Gordon and Betty Moore Foundation

**IEEE-USA** 

Texas Instruments, Inc.