## VILCEK FOUNDATION

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# VILCEK FOUNDATION ANNOUNCES WINNERS OF THE 2014 PRIZES IN BIOMEDICAL SCIENCE AND DESIGN

<u>BIOMEDICAL SCIENCE HONOREES</u>: Thomas Jessell – Winner of Vilcek Prize; Antonio Giraldez, Stavros Lomvardas, and Pardis Sabeti – Recipients of the Vilcek Prizes for Creative Promise

<u>ARTS HONOREES</u>: Neri Oxman – Winner of Vilcek Prize; Yasaman Hashemian, Mansour Ourasanah, and Quilian Riano – Recipients of the Vilcek Prizes for Creative Promise

New York, NY, January 27, 2014 — The Vilcek Foundation is pleased to announce the winners of the annual Vilcek Prizes and Creative Promise Prizes, recognizing immigrant contributions to the American arts and sciences. The Vilcek Prize for the Arts, focusing on the field of design, is awarded to Neri Oxman. The Vilcek Prize for Biomedical Science goes to Thomas Jessell. Each prize includes a \$100,000 cash award.

"Each year during the selection process for the Vilcek Prizes, we are overcome with inspiring stories and innovative works that demonstrate the true impact that foreign-born artists and scientists have on science and culture in the U.S.," said Rick Kinsel, executive director of the Vilcek Foundation. "This year is no exception; our winners are at the forefront of modernization. They are building a better future for new generations to come, and it's an honor to recognize each of these remarkable prizewinners."

The Vilcek Prize for Design goes to architect and designer Neri Oxman, who was raised in Israel and relocated to the United States in 2005. Acknowledged for coining the phrase "material ecology" to define her work, Oxman is often referred to as the leader of the biological revolution in design. Through her work, she challenges traditional design principles across architecture, product design, and fashion by juxtaposing material properties and environmental constraints to generate breathtaking new forms. Her designs are created using modern technologies, such as 3D printing, but are inspired by elements of nature. Oxman has received multiple awards and recognitions, and her work has been displayed in institutions worldwide, such as the Museum of Modern Art (MoMA) in New York City, the Pompidou in Paris, the Museum of Fine Arts in Boston, and the Smithsonian. Oxman resides in Boston, where she is the Sony Corporation Career Development professor and assistant professor of Media Arts and Sciences at the MIT Media Lab. She is the founder and director of the Mediated Matter design research group.

The Vilcek Prize for Biomedical Science goes to British-born Thomas Jessell, a neuroscientist at Columbia University. His research investigates the developmental processes of the vertebrate central nervous system and has broadened the study of mammalian neural development from a descriptive science to a molecular and mechanistic one. Jessell's lab focuses on combining

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neuro-computation and bio-mechanics studies to elucidate how the nervous system interacts with the skeletal muscle control system. His work has shed light on developmental abnormalities in the central nervous system and has paved the way for new treatment possibilities, using neural stem cells, for degenerative diseases affecting motor neurons and for spinal cord injuries. He has received much recognition for his work, including the Kavli Prize in Neuroscience and the Canada Gairdner award. Jessell is also an investigator of the Howard Hughes Medical Institute and is the Claire Tow professor in the departments of Neuroscience and Biochemistry & Molecular Biophysics at Columbia University.

The Vilcek Prizes for Creative Promise complement the Vilcek Prizes and are awarded to a younger generation of immigrant artists and scientists who have demonstrated exceptional achievements; each prize includes a \$35,000 award. The winners of the prizes in design are:

**Mansour Ourasanah**, a senior designer for Whirlpool's Advanced Studio in Chicago, where his role is to create innovative user-centric solutions for a new generation of global and hyperconnected consumers. His work focuses on the importance of storytelling in the design of products that address complex emotional and environmental challenges. His most recent project, <u>LEPSIS</u>: The Art of Growing Grasshoppers — a vessel that can be used to grow insects for food in efforts to promote sustainable meat production and consumption amongst urban populations — is one example of his achievements in the design arena. Ourasanah was born in Togo.

**Yasaman Hashemian**, who is involved in a number of health-based research projects, which provide the basis for her work as a game and usability designer, data analyst, and game producer. Most notably among her works, <u>Virtual Sprouts</u> presents gardening and cooking as an exciting and fun activity to children reluctant to try unfamiliar fruits and vegetables. Budded from her own childhood experiences in which her parents encouraged her to engage in outdoor activities, exercise, arts, and education, Hashemian seeks to teach children the value of healthyliving practices, creativity, and teamwork through her games. Hashemian was born in Iran.

**Quilian Riano**, the founder of DSGN AGNC, a practice focused on housing and public space design. Riano seeks to address social issues that negatively affect communities by bringing together trans-disciplinary groups and community leaders to create proposals that acknowledge and navigate the complex interactions of social, political, economic, and spatial urban processes. The agency has taken on several projects in the United States and in Latin America; Riano's social design efforts with the <a href="Corona Plaza Engagement Project">Corona Plaza Engagement Project</a>, La Union Community Project, and <a href="Casas De La Esperanza Community Project">Community Project</a>, have earned him much recognition. Riano was born in Colombia.

The winners of the Vilcek Prizes for Creative Promise in Biomedical Science are:

Antonio Giraldez, an associate professor and director of Graduate Studies in Genetics at Yale University, where he focuses on the question of how microRNAs and other non-coding RNAs shape gene expression during embryonic development. He applies a wide range of knowledge in genomics, developmental biology, and stem cell biology with computational science to examine the role of microRNAs and non-coding RNAs. Recently, he found that the microRNA family, miR-430, is responsible for the clearance of maternal mRNAs, providing insight into the mechanisms of how microRNAs regulate gene expression. He also discovered the stem cell factors that activate gene expression in the fertilized egg. These findings are important to understand the very first steps that lead to the making of an embryo after fertilization. Giraldez was born in Spain.

**Stavros Lomvardas**, associate professor of Anatomy at the University of California, San Francisco, investigates the molecular mechanisms behind the expression of mammalian

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olfactory receptors (OR). There are over 1,000 kinds of OR genes in humans, belonging to a complex sensory system used to detect millions of odorants. However, each OR neuron only expresses one OR gene; Lomvardas' lab revealed that the basis of this singular expression is an unusual form of epigenetic silencing that assures thousands of OR alleles remain inactive in each olfactory sensory neuron. These findings, and other continued epigenetics research, are important to understanding not only the mammalian OR system, but also shed light on other developmental processes in the brain. Lomvardas was born in Greece.

**Pardis Sabeti**, an associate professor of Organismic and Evolutionary Biology at Harvard University and an associate member of the Broad Institute. As a computational biologist, Sabeti develops algorithms to detect patterns in human genomes that signify recent evolutionary mutations that were biologically important for our survival. Such genomic mutations elucidate how infectious diseases evolve, adapt, spread, and may be prevented. In the course of her research, Sabeti has studied several viruses that cause infectious diseases, such as malaria, Lassa fever, Ebola, and many others, and investigated the mutations that cause resistance to them. Sabeti was born in Iran.

The prizewinners were selected by panels of independent experts in each field. All prizewinners will be honored at a ceremony in New York City in April 2014. Paola Antonelli, senior curator of the Department of Architecture and Design at the MoMA in New York City, will present the arts prizes. The science prizes will be presented by Huda Zoghbi, winner of the 2009 Vilcek Prize in Biomedical Science and professor at Baylor College of Medicine.

For questions regarding the Vilcek Foundation and Vilcek Prizes in Biomedical Science, contact Phuong Pham at phuong@vilcek.org.

For questions regarding the winners of the Vilcek Prizes in Design, contact Etosha Moh at <a href="mailto:emoh@hlgrp.com">emoh@hlgrp.com</a> or Kara Marmion at <a href="mailto:kmarmion@hlgrp.com">kmarmion@hlgrp.com</a>.

The Vilcek Foundation was established in 2000 by Jan and Marica Vilcek, immigrants from the former Czechoslovakia. The mission of the Foundation, to honor the contributions of foreign-born scholars and artists living in the United States, was inspired by the couple's careers in biomedical science and art history, respectively, as well as their personal experiences and appreciation for the opportunities they received as newcomers to this country. The Foundation hosts events to promote the work of immigrants, awards annual prizes to prominent immigrant biomedical scientists and artists, and sponsors cultural programs such as the Hawaii International Film Festival. To learn more, please visit Vilcek.org.