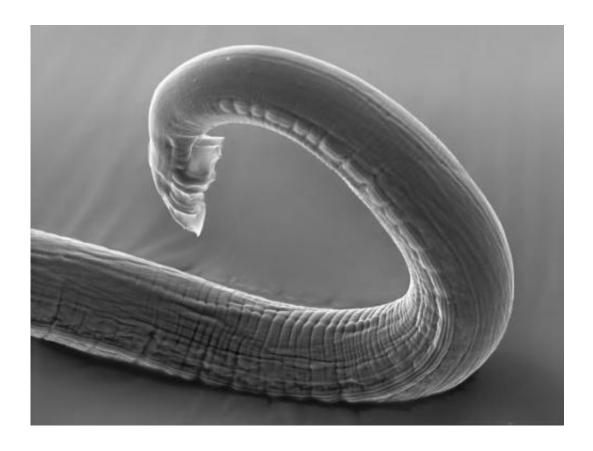


Science awards best paper of the year to Albert Einstein College of Medicine

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A scanning electron microscope image of *C. elegans*. Credit: WormAtlas

A study describing the complete wiring diagram for the part of the nervous system that controls mating behavior in male roundworms was chosen as the most outstanding paper published in *Science* in the year June 2012 to May 2013. Scott Emmons, Ph.D., senior author of the paper and professor of genetics at Albert Einstein College of Medicine



of Yeshiva University, will accept the American Association for the Advancement of Science's (AAAS) 2013 Newcomb Cleveland Prize at a ceremony on February 14 at the organization's annual meeting in Chicago.

"This one paper emerged as a tour de force from amongst many competitive entries," said *Science* editor-in-chief Marcia McNutt. "The robust model system will contribute significantly to our further understanding of the precise mapping between neuron activity and essential behaviors that ensure survival of the species."

The wiring diagram that Dr. Emmons and his colleagues mapped is called a connectome – a comprehensive map of the brain's neural connections and is used to demonstrate the specific nerve connections responsible for particular behaviors.

"Our work into the underlying function that governs mating behavior in the male roundworm is a step towards identifying how an animal controls seemingly complex movements," said Dr. Emmons, who also serves as professor in the Dominick P. Purpura Department of Neuroscience and holds the Siegfried Ullmann Chair in Molecular Genetics at Einstein. "By establishing maps of different synaptic networks, we can better understand how sensory neurons interpret signals, which in turn helps our understanding of behaviors and the brain."

The prize-winning paper, "The connectome of a decision-making neural network," was originally published by Science on July 27, 2012. In addition to mapping the <u>neural connections</u>, Dr. Emmons and his colleagues also measured the strength with which these neurons or muscles communicate with one another.

The Newcomb Cleveland Prize, now supported by The Fodor Family



Trust, is the oldest AAAS award, established in 1923 with funds donated by philanthropist Newcomb Cleveland of New York City. Each recipient receives a bronze medal and a share of a \$25,000 prize.

Dr. Emmons will share the prize with co-authors, Travis Jarrell and Yi Wang, Ph.D., who served as lead authors. Adam E. Bloniarz, Christopher Brittin, Meng Xu, and David Hall, Ph.D., all at Einstein, and J. Nichol Thomson and Donna Albertson, Ph.D., formerly at MRC Laboratory of Molecular Biology in Cambridge, England, also contributed to the paper.

The paper can be found online at http://tinyurl.com/ozhwt8c. (Please note that the article is free without charge, but initial registration is required.) *Science* is an academic journal published by the AAAS since 1880.

Provided by Albert Einstein College of Medicine

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