

MARCH 26, 2008

Charles Zuker to Deliver Public Lecture at Janelia Farm

Charles Zuker, a Howard Hughes Medical Institute (HHMI) investigator at the University of California, San Diego, will deliver a public lecture titled “Common Sense about Taste - from the Tongue to the Brain: How We Transform Sensation into Perception,” at the Janelia Farm Research Campus in Ashburn, VA.

Zuker, who is also a visiting scientist at the Janelia Farm campus, will deliver the lecture on Wednesday, April 23, 2008, at 7 PM. The event is free and open to the public, but tickets are required for admission. Directions for obtaining the tickets are available on the HHMI web site at www.hhmi.org/janelia/events.html on March 26. Seating is limited to 250 people.

The lecture is the second in a series called “Dialogues of Discovery at Janelia Farm.” In September 2007, Huda Zoghbi, an HHMI investigator at Baylor College of Medicine, delivered a lecture titled “The Path to Understanding and Treating Neurological Disease.”

Zuker has dedicated his career to unraveling the mystery of how our minds assemble information from our senses into perceptions. He chose the sense of taste as a model system for study because he was intrigued by how the small repertoire of five taste qualities combine in our minds to create a universe of sensation.

In the course of his research, Zuker's laboratory has discovered the receptors that taste cells use to detect four of the five tastes: sweet, sour, bitter, and umami. Salt is the fifth, and Zuker's research group is now working to discover the salt taste receptor.

In addition, his lab overturned the long-held idea that individual cells in our taste buds could sense all five tastes. His group's experiments with mice proved that each cell is hardwired to only one taste, and sends only one type of signal to the brain. According to Zuker, his lecture will focus on two basic questions: "How does the tongue know what it tastes, and how does the brain know what the tongue knows?"

A native of Chile, Zuker attended the Universidad Catolica de Valparaiso, and obtained his Ph.D. from the Massachusetts Institute of Technology. He did his postdoctoral studies at the University of California, Berkeley, where he was a member of Janelia Farm director Gerald Rubin's laboratory. Zuker is a member of the National Academy of Sciences and has received many awards for his work, including the Alfred P. Sloan Award in Neurosciences, the Alcon Award, the Cogan Award for Vision Research, and the W. Alden Spencer Award from Columbia University.