# Antonio Damasio wins Honda Prize

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The Honda Foundation of Japan has announced that its annual Honda Prize, one of the most important international awards for scientific achievement, will go to Antonio Damasio, the David Dornsife Professor of Neuroscience and director of the Brain and Creativity Institute at USC.

Damasio, the sole recipient of this year's honor, will become the 31st laureate of the Honda prize at an award ceremony to be held Nov. 17 at the Imperial Hotel in Tokyo. In addition to a diploma and medal, the prize carries an award of 10 million yen (approximately $100,000).

In its citation, the Honda Foundation said Damasio was chosen "for his pioneering efforts and remarkable contributions in the world of neuroscience."

Specifically, the foundation recognized Damasio for his influential Somatic Marker Hypothesis, which proposes a central role for emotion in decision-making through a process in which images involved in the reasoning process are tagged with "somatic markers," or emotion-related signals, related to past experiences. Such markers constitute a sort of weighted average, increasing the desirability of certain images and decreasing the appeal of others. Damasio's hypothesis provided an explanation for how emotions participate in reasoning and why they are necessary for good decision-making.

Damasio developed his theory from case studies of neurological patients with damage in brain regions related to emotion, such as the prefrontal

cortex and the amygdala. He found that such defects of judgment and inappropriate social behavior were caused by patients' inability to respond emotionally to the content of their thoughts. The hypothesis subsequently was tested with psychophysiological, cognitive and functional imaging techniques.

Damasio's other work on the neural basis of the emotions led him to propose that the brain's insula was the cortical platform for the processing of emotional feelings, a hypothesis that has been widely confirmed. In turn, his work on feelings has been applied to the problem of how the self and the conscious mind are constructed.

USC President C. L. Max Nikias said: "With this award, the Honda Foundation has honored a deserving scholar of rare ability. Professor Damasio's work reflects a core conviction of the foundation and of this university — that science and technology are not ends in themselves, but are means toward the ends of making us more richly human and of making our larger society more humane."

Howard Gillman, dean of USC College, which hosts the Brain and Creativity Institute, stated: "The Honda Foundation Prize recognizes scholars who advance our understanding of the relationship among science, technology and humanity, and is considered by the International Congress of Distinguished Awards as one of the world's most important awards. Antonio Damasio is the perfect choice for this extraordinary honor, given the fundamental importance and impact of his pioneering work on the roots of human consciousness and creativity. On behalf of all of us in USC College, I congratulate our good friend and distinguished colleague."

The foundation noted that Damasio's research "has inspired one neuroscientist after another and created a new trend of cross-disciplinary projects with scholars from philosophy, neuropsychology, cognitive

science, psychiatry, biology, economics, education and the arts. These collaborative efforts are expected to have an impact in the management of brain diseases such as depression and psychopathy, and in the elucidation of social behaviors."

The citation concluded: "Thanks to Dr. Damasio's intellectual bravery and truly original thinking, we can now think of emotions along the same lines with which we understand vision or audition and thus reach a much deeper understanding of the brain basis for mind and consciousness."

Damasio's work challenged a century-old movement in neuroscience that considered feelings irrelevant to the study of reason. He belongs to a small group of "most cited researchers" in neuroscience as tracked by the Institute of Scientific Research.

Damasio is the best-selling author of Descartes' Error and other works spanning neuroscience and philosophy. Self Comes to Mind, his new book, will be published by Pantheon/Knopf in November.

Damasio is married to his longtime collaborator Hanna Damasio, a renowned specialist in brain imaging and the Dana Dornsife Professor of Neuroscience at USC, where she directs the Dornsife Cognitive Neuroscience Imaging Center and codirects the Brain and Creativity Institute.

Damasio's other honors include the Prince of Asturias Award (uscnews2.usc.edu/newstools/det … .php?recordnum=11734), of which he was the sole recipient in the scientific category. Fellow Asturias laureates include Craig Venter, who led the team that mapped the human genome; Judah Folkman, who discovered how to kill tumor cells by cutting off their blood supply; and AIDS virus codiscoverers Robert Gallo and Luc Montangier.

Damasio also has been awarded the Signoret Prize, which he shared with Hanna Damasio, the Nonino Prize, the Golden Brain Award, the Pessoa Prize (also shared with his wife) and the American Medical Association's William Beaumont Prize.

He is a member of the Institute of Medicine of the National Academy of Sciences. Both Damasios are members of the American Academy of Arts and Sciences.

The Honda Prize was established in 1980 as the first international scientific award in Japan. Since then, the honor has been considered one of the most important international awards by the International Congress of Distinguished Awards. The prize has been awarded to some of the most distinguished scholars at work in the fields of biology and technology.

The last two prizes recognized the development of the first cervical cancer vaccine (2009, Ian Frazer) and the development of the first atomic electron microscope (2008, Maximillian Haider, Harald Rose, Knut Urban). But the prize has been given to achievements as varied as the Blue LED (2000, Shuji Nakamura), work on fractal geometry (1994, Benoit Mandelbrot), a novel perspective on human civilization (1985, Carl Sagan), and Dissipative Structure Theory in physics (1983, Ilya Prigogine).

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