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Boyden named inaugural recipient of IET's Harvey Engineering Research Prize

Honored for his pioneering research contributions to the field of optogenetics, in which neurons are genetically modified to respon light.

McGovern Institute for Brain Research

January 6, 2012

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Ed Boyden is developing new optogenetic techniques that the potential to detect and silence epileptic seizures.
Photo: Dominick Reuter

Ed Boyden of the MIT Media Lab and the McGovern Institute for Brain Research at MIT, has been named by the United Kingdom-based Institute of Engineering and Technology (IET) as the first winner of the newly established A. F. Harvey Engineering Research Prize. The prize, worth £300,000 (about $460,000), recognizes outstanding contributions to research in the field of medical engineering.

Boyden was awarded the prize for his pioneering research contributions to the field o optogenetics, in which neurons are genetically modified to respond to light.

"Over the last several years, we've developed a suite of molecular tools that make neurons activatable or silenceable by pulses of light," Boyden says. "These tools are widespread use in science, because they let you turn brain cells on or off, thus revea what the cells do in the brain.We're eager to keep expanding this toolbox, and also t figure out clinical uses for the tools as novel therapeutics."

Boyden plans to use the prize fund to develop new optogenetic techniques that have potential todetect and silence epileptic seizures.

Nigel Fine, IET chief executive, says, "Professor Boyden's outstanding research into technologies that enable the electrical activity of brain cells to be controlled by light h

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opened up the possibility of new kinds of treatments for otherwise untreatable brain disorders.

"Professor Boyden is a worthy recipient of the first ever IET A. F. Harvey Engineering Research Prize. I am confident that the funding will accelerate his work and the results will be of great use to medical science and those who have epilepsy. I am delighted that this award has gone to such a worthy cause."

About the IET AF Harvey Engineering Research Prize

The award is named after Dr. A. F. Harvey, who bequeathed a generous sum of money to the IET for a trust fund to be set up in his name after his death. The terms of the trust specify that the money is to be used to further scientific research in the fields of medical, microwave, laser or radar engineering. This award is made for the first time in 2011.

The IET will celebrate this inaugural prize with an event in London on June 19, 2012, in which Boyden will give a talk to an audience of engineers, scientists and business leaders.

About the IET

The IET, a not-for-profit organization, is a world-leading multi-disciplinary society and a trusted source of essential engineering intelligence. Part of its remit is promoting, recognizing and rewarding excellence through its awards programs, such as the A. F. Harvey Engineering Research Prize.

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