

## FOR IMMEDIATE RELEASE

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### The First Plexon/JoVE Publication Grant Contest Winning Article Goes Live with Methods Video for Using OmniPlex® and CinePlex® Systems

DALLAS, TX -- (February 20, 2014) - Plexon Inc, the leader in advanced hardware and software solutions for neuroscience and behavioral research, is thrilled to announce the official publishing today of the winning article from the first Plexon/JoVE Publication Grant Contest. The winning publication complete with a methods video titled "Automated Visual Cognitive Tasks for Recording Neural Activity Using a Floor Projection Maze" is available online via Open Access at <http://www.jove.com/video/51316/automated-visual-cognitive-tasks-for-recording-neural-activity-using>.

Plexon and the *Journal of Visualized Experiments (JoVE)* partnered early last year to sponsor this first Publication Grant Contest - valued at \$4,200. Researchers from around the world were invited to submit abstracts for unpublished, original work in which Plexon's flagship OmniPlex® Neural Data Acquisition System was used to perform neural recording during the experiment.

Congratulations once again to Jonathan W. Ho from Rebecca D. Burwell's Behavioral Neuroscience of Memory and Attention Lab at Brown University as the first contest winner. Not only did their work require the use of Plexon's OmniPlex System, but they also relied on Plexon's CinePlex Behavioral Research System as well. Mr. Ho and his team including Tara K. Jacobson, Clayton P. Aldern, Amanda L. Liu and Rebecca D. Burwell submitted the winning abstract last spring launching months of manuscript revisions, scripting, videotaping, editing and more revisions culminating in this final text and video publication. Mr. Ho and colleague Tara Jacobson even had the chance to star in the video introducing their study. The subject that made the article so scientifically compelling centers around the use of a new type of maze proposed to be more effective for assessing visual cognition specifically in rats. The abstract appears below.

#### **Automated Visual Cognitive Tasks for Recording Neural Activity Using a Floor Projection Maze**

Neuropsychological tasks used in primates to investigate mechanisms of learning and memory are typically visually guided cognitive tasks. We have developed visual cognitive tasks for rats using the Floor Projection Maze that are optimized for visual abilities of rats permitting stronger comparisons of experimental findings with other species.

In order to investigate neural correlates of learning and memory, we have integrated electrophysiological recordings into fully automated cognitive tasks on the Floor Projection Maze. Behavioral software interfaced with an animal tracking system allows monitoring of the animal's behavior with precise control of image presentation and reward contingencies for better trained animals. Integration with an *in vivo* electrophysiological recording system enables examination of behavioral correlates of neural activity at selected epochs of a given cognitive task.

We describe protocols for a model system that combines automated visual presentation of information to rodents and intracranial reward with electrophysiological approaches. Our model system offers a sophisticated set of tools as a framework for other cognitive tasks to better isolate and identify specific mechanisms contributing to particular cognitive processes.

On behalf of winner Mr. Ho and his team, Plexon compensated JoVE to perform the standard activities to publish the peer-reviewed article in a text format accompanied by a professionally developed video - filmed onsite - detailing the methods and analysis

with a voice-over in English. *JoVE* will host the article online indefinitely granting unlimited Open Access, and ensure indexing in PubMed, MEDLINE, SciFinder and PubGet.

Historically, *JoVE* publications referencing Plexon products have enticed more than 10,000 views in the first year alone. Having such relevance to both the neural recording and behavioral research communities, Plexon expects this new publication to easily surpass that benchmark.

In addition to the article above, Plexon researchers may be interested in another *JoVE* publication. This one featuring Plexon's very popular U-Probe multi-site, multi-use, linear electrode demonstrated by Bryan Hansen, Sara Eagleman and Valentin Dragol of The University of Texas Medical School at Houston available at <http://www.jove.com/video/2806/examining-local-network-processing-using-multi-contact-laminar>.

Plexon would like to extend its gratitude to Matthew Kramer at *JoVE* for his guidance through this entire process.

### **About Plexon Inc**

Plexon is a pioneer and leading innovator of custom, high performance data acquisition, behavior and analysis solutions specifically designed for scientific research. We collaborate with and supply thousands of customers including the most prestigious neuroscience laboratories around the globe driving new frontiers in areas including basic science, brain-machine interfaces (BMI), neurodegenerative diseases, addictive behaviors and neuroprosthetics. Plexon offers integrated solutions for *in vivo* neurophysiology, optogenetics and behavioral research -- backed by its industry-leading commitment to quality and customer support. [www.plexon.com](http://www.plexon.com).

### **About JoVE, The Journal of Visualized Experiments**

*JoVE, the Journal of Visualized Experiments*, is the first and only PubMed/MEDLINE-indexed, peer-reviewed journal devoted to publishing scientific research in a video format. Using an international network of videographers, *JoVE* films and edits videos of researchers performing new experimental techniques at top universities, allowing students and scientists to learn them much more quickly. As of February 2014, *JoVE* has published video-protocols from an international community of more than 9,300 authors in the fields of biology, medicine, chemistry, and physics. [www.jove.com](http://www.jove.com).