

Video Article

April 2011: This Month in JoVE

Aaron Kolski-Andreaco¹

1

URL: <https://www.jove.com/video/3342>

DOI: [doi:10.3791/3342](https://doi.org/10.3791/3342)

Keywords: This Month in JoVE, Issue 50,

Date Published: 4/11/2011

Citation: Kolski-Andreaco, A. April 2011: This Month in JoVE. *J. Vis. Exp.* (50), e3342, doi:10.3791/3342 (2011).

Abstract

Video Link

The video component of this article can be found at <https://www.jove.com/video/3342/>

Protocol

Methods to quantify pharmacologically induced alterations in motor function in human incomplete SCI

Christopher K. Thompson^{1,2}, Arun Jarayanan², Catherine Kinnaird², T. George Hornby^{2,3}

¹Department of Kinesiology and Nutrition, University of Illinois at Chicago, ²Sensory Motor Performance Program, Rehabilitation Institute of Chicago, ³Department of Physical Therapy, University of Illinois at Chicago

This video demonstrates modulation of reflex activity, volitional strength and ambulation through clinical and quantitative assessments in individuals with motor incomplete SCI as a result of acute oral administration of a serotonin reuptake inhibitor (SSRI).

Studying the Neural Basis of Adaptive Locomotor Behavior in Insects

Matthias Gruhn, Philipp Rosenbaum, Hans-Peter Bollhagen, Ansgar Bueschges

Zoological Institute, University of Cologne

We describe a method to record motor activity, timed to the electrically recorded tarsal contact signal in a tethered insect, walking on a slippery surface. This is used to study the neural basis of adaptive behavior under reduced influence of mechanical interaction between legs through the substrate.

Electrophysiology of Scorpion Peg Sensilla

Elizabeth D. Knowlton, Douglas D. Gaffin

Department of Zoology, University of Oklahoma

This article describes an electrophysiological method for isolating chemical stimulation to individual sensilla via extracellular, tip-recordings under mineral oil.

Measurement of Aggregate Cohesion by Tissue Surface Tensiometry

Christine M. Butler, Ramsey A. Foty

Department of Surgery, UMDNJ-Robert Wood Johnson Medical School

We describe a method of measuring binding energy, expressible as tissue surface tension, between cells within 3D tissue-like aggregates. Differences in tissue surface tension have been demonstrated to correlate with invasiveness of lung, muscle, and brain tumors, and are fundamental determinants of establishing spatial relationships between different cell types.