

Université d'Ottawa Faculté de médecine

Biochimie, microbiologie et immunologie

University of Ottawa Faculty of Medicine

Biochemistry, Microbiology and Immunology

Aug 5, 2010

Aaron Kolski-Andreaco, PhD Director of Content Journal of Visualized Experiments www.jove.com

Dear Dr. Kolski-Andreaco,

Please find in this submission our submission to JOVE "Localizing protein in 3D neural stem cell culture: A hybrid visualization methodology" by Imbeault et al. for consideration as a video article. Given the nature of this protocol and the collaborative research in biomedical visualization of our research laboratories (Bennett: Neural Regeneration Laboratory and Fai: Carleton Immersive Media Studios), we have opted to provide a completed video and protocol for your review.

In this protocol, we describe how to produce, expand, and immunolabel postnatal hippocampal neural progenitor cells (NPCs) in three-dimensional (3D) culture. Next, using hybrid visualization technologies, we demonstrate how digital images of immunolabelled cryosections can be used to reconstruct and map the spatial position of immunopositive cells throughout the entire 3D neurosphere.

We sincerely thank you for your kind consideration of our video article as an original JOVE submission. We would like to suggest the following three potential peer reviewers:

Dr. Amelia J Eisch

Department of Psychiatry UT Southwestern Medical Center 5323 Harry Hines Blvd., Dallas, TX 75390-9070

Email address: amelia.eisch@utsouthwestern.edu

Areas of expertise: neuroplasticity, neurogenesis, gliogenesis

Dr. Derek Van der Kooy

Department of Medical Biophysics University of Toronto Terrence Donnelly CCBR 160 College Street, 11th Floor Toronto, ON M5S 3E1 CANADA

Phone: (416) 978-1960 Lab Phone: 416-978-4539

Email: Derek.van.der.kooy@utoronto.ca

Areas of expertise: neurogenesis, neurobiology of motivation, opiates,

neural stem cell biology

Dr Karen Mearow

BioMedical Sciences Professor of Neuro/Molecular Biology

613-562-5459 613-562-5452 451 Smyth Ottawa ON K1H 8M5 Canada www.uOttawa.ca Associate Dean for BioMedical Sciences Faculty of Medicine Memorial University of Newfoundland 300 Prince Phillip Drive,

St. John's, NF, Canada A1B 3V6

Phone: 709-777-6897 (Assoc. Dean's Office) 709 777-6416 (Lab office Voice Mail)

Email: kmearow@mun.ca

Areas of expertise: neuronal survival, neuronal plasticity, neuron/neural stem cell interaction

Sincerely,

Steffany A.L. Bennett, Ph.D.

Associate Professor

Director, CIHR Training Program in Neurodegenerative Lipidomics

Director, Cell Biology & Image Analysis Core Facility

Neural Regeneration Laboratory and Ottawa Institute of Systems Biology

University of Ottawa

Email: sbennet@uottawa.ca Tel: 613 562-5800 x8372 Fax: 613 562-5452

Stephen Fai, Ph.D

Associate Professor
Director, Carleton Immersive Media Studios
Azrieli School of Architecture and Urbanism,
Carleton University

Email: sfai@cims.carleton.ca

Tel: 613 520-2867 Fax: 613 520-2849