Lucas L. Sjulson

139 W. 129th St., #2
New York, NY 10027

Phone: 646-528-9672
Email: luke@sjulsonlab.org

Education/Training

- Psychiatry Residency, July 2008 – June 2012. New York University, New York, NY.
- M.D., May 2008. Cornell/Rockefeller/Sloan-Kettering Tri-Institutional MD/PhD Program (MSTP), New York, NY.
- Ph.D. in Neuroscience, May 2007, Cornell University, New York, NY.
    - Advisor: Gero Miesenböck
    - Thesis title: Two Photon Imaging of a Genetically Encodable Voltage Sensor.
- B.A. in Neuroscience, May 1999, Johns Hopkins University, Baltimore, MD.
    - Minor in German, graduated with honors.

Academic Appointments

February 2018 – Present
Assistant Professor, Departments of Psychiatry and Neuroscience, Albert Einstein College of Medicine, Bronx, NY.

April 2013 – January 2018
Research Assistant Professor, Departments of Psychiatry, Neuroscience and Physiology, New York University, New York, NY.

July 2012 – March 2013
Clinical Instructor, Department of Psychiatry, New York University, New York, NY.

Research Positions

July 2012 – January 2018
Research fellow in the laboratories of Gordon Fishell and György Buzsáki, NYU Neuroscience Institute. Developed technology for chemogenetic modulation of specific brain circuits for the treatment of addiction. Investigated the role of specific hippocampal-accumbens interactions in addiction-related behaviors using high-density multisite silicon probe recordings combined with optogenetics.

August 2002 to December 2006
Graduate student in the laboratory of Gero Miesenböck, Sloan-Kettering Institute (2002-2004) and Yale University (2004-2006). Developed genetically encoded optical voltage reporters for high speed two photon imaging, optimized channelrhodopsin-2 for in vivo photostimulation, developed new computational techniques for analysis of multivariate time series data.

Honors and Activities

Psychopharmacology supervisor for psychiatry residents, 2012 – 2018.
Lecturer for neuroscience course for psychiatry residents, 2012 – 2018.
NIMH Outstanding Resident Award, 2010.
Journal Club Leader for Medical School Neuroscience Course, 2002-2003.
Member, Society for Neuroscience, 2000 - Present.
Phi Beta Kappa, 1999.
JHU Honor Society for Neuroscience, 1998-1999.
National Merit Scholar, 1995.

Research Support

NIDA K08 grant, 2014-2019.
NARSAD Young Investigator grant, 2016-2017.
Leon Levy Foundation Neuroscience Fellowship, 2013-2015.
NYU KL2 Scholars Program, 2013-2014.
NYU Physician Scientist Training Program, 2012-2013.
Katherine Beineke Foundation Fellowship, 2003.
Elizabeth Glaser Pediatric AIDS Foundation Summer Research Fellowship, 1998.

Publications

Sjulson L, Peyrache A, Cumpelik A, Cassataro D, Buzsáki G. Cocaine place conditioning strengthens location-specific hippocampal coupling to the nucleus accumbens. *Neuron* (in press).

Sjulson L, Cassataro D, DasGupta S, Miesenböck G. Cell-specific targeting of genetically encoded tools for neuroscience. *Annu Rev Genet.* 2016 Oct 6.

Cassataro D, **Sjulson L**. The use of DREADDs (Designer Receptors Exclusively Activated by Designer Drugs) in transgenic mouse behavioral models. In Thiel, G (Ed.), *Designer Receptors Exclusively Activated by Designer Drugs*, Neuromethods Vol 108 (2015), Humana Press.

Muñoz-Manchado AB, Foldi C, Szydlowski S, **Sjulson L**, Farries M, Wilson C, Silberberg G, Hjerling-Leffler J. Novel striatal GABAergic interneuron populations labeled in the 5HT3aEGFP mouse. *Cereb Cortex.* 2014 Aug 21.

Cassataro D, Bergfeldt D, Malekian C, Van Snellenberg JX, Thanos PK, Fishell G, **Sjulson L**. Reverse pharmacogenetic modulation of the nucleus accumbens reduces ethanol consumption in a limited access paradigm. *Neuropsychopharmacology*. 2014 Jan;39(2):283-90.

Roux L, Stark E, **Sjulson L**, Buzsáki G. In vivo optogenetic identification and manipulation of GABAergic interneuron subtypes. *Curr Opin Neurobiol*. 2014 Jan 14;26C:88-95.

Rieder E, Hamalian G, Maloy K, Streicker E, **Sjulson L**, Ying P. Psychiatric consequences of actual versus feared and perceived bed bug infestations: a case series examining a current epidemic. *Psychosomatics.* 2012 Jan;53(1):85-91.

Sjulson L, Hjerling-Leffler J, Rudy B, Fishell G. Reforming our ideas about cell types and spike waveforms [response to Vigneswaran et al. Large identified pyramidal cells in macaque motor and premotor cortex exhibit "thin spikes": implications for cell type classification.] *J Neurosci.* 2011 Oct 5;31(40):14235-42.

Claridge-Chang A, Roorda RD, Vrontou E, **Sjulson L**, Li H, Hirsh J, Miesenböck G. Writing memories with light-addressable reinforcement circuitry. *Cell.* 2009 Oct 16;139(2):405-15.

Sjulson L, Miesenböck G. Rational optimization and in vivo imaging of a genetically encoded optical voltage reporter. *J Neurosci.* 2008 May 21;28(21):5582-93.

Sjulson L, Miesenböck G. Photocontrol of Neural Activity. *Chemical Reviews.* 2008 May;108(5):1588-602.

Sjulson L, Miesenböck G. Optical recording of action potentials and other discrete physiological events: a perspective from signal detection theory. *Physiology.* 2007 Feb;22:47-55.

Shang Y, Claridge-Chang A, **Sjulson L**, Pypaert M, Miesenböck G. Excitatory local circuits and their implications for olfactory processing in the fly antennal lobe. *Cell.* 2007 Feb 9;128(3):601-12.

Vos C, Gartner S, Ransohoff RM, McArthur JC, Wahl L, **Sjulson L**, Hunter E, Conant K. Matrix Metalloprotease-9 Release From Monocytes Increases as a Function of Differentiation: Implications for Neuroimflammation and Neurodegeneration. *J Neuroimmunol.* 2000 Sep 22;109(2):221-7.

Vos CMP, **Sjulson L**, Nath A, McArthur JC, Pardo CA, Rothstein JD, Conant K. Cytotoxicity by Matrix Metalloprotease-1 in Organotypic Spinal Cord and Dissociated Neuronal Cultures. *Exp Neurol.* 2000 Jun;163(2):324-30.

Conant K, McArthur JC, Griffin DE, **Sjulson L**, Wahl LM, Irani DN. Cerebrospinal Fluid Levels of MMP-2, 7, and 9 are Elevated in Association with Human Immunodeficiency Virus Dementia. *Ann Neurol.* 1999 Sep;46(3):391-8.

Invited Seminars and Lectures (selected)

2018 National Institute on Drug Abuse, Baltimore, Maryland
2018 Columbia University, New York, New York
2017 Mt. Sinai, New York, New York
2017 Rutgers University, Piscataway, New Jersey
2017 Columbia University, New York, New York
2016 Nathan Kline Institute, Orangeburg, New York
2015 Leon Levy Foundation Symposium, New York, New York