

## Francisco J. Luongo

---

CONTACT INFORMATION	796 Hayes st. San Francisco, CA 94102	415-707-9095 <a href="mailto:francisco.luongo@ucsf.edu">francisco.luongo@ucsf.edu</a>
EDUCATION	<b>University of California, San Francisco</b> , San Francisco, CA  Ph.D., Neuroscience, <i>Expected</i> : Fall 2015 <ul style="list-style-type: none"><li>• Thesis Topic: <i>Information processing and computation in prefrontal microcircuits</i></li><li>• Thesis Advisor: <a href="#">Vikaas S. Sohal, M.D., Ph.D</a></li></ul> <b>Stanford University</b> , Palo Alto, CA  B.S., Biology, May 2008	
RESEARCH INTERESTS	Prefrontal microcircuits, neural computation, network analysis, calcium imaging, ECoG time-series analysis, scientific computing	
RESEARCH EXPERIENCE	<b>Doctoral Student</b> June 2011 to present University of California San Francisco Supervisor: <a href="#">Vikaas S. Sohal, M.D., Ph.D</a> <b>Research Assistant</b> July 2008 to Aug 2010 Stanford University Supervisor: <a href="#">Thomas Clandinin, Ph.D</a> <b>Undergraduate Researcher</b> Dec 2006 to June 2008 Stanford University Supervisor: <a href="#">Liqun Luo, Ph.D</a>	
PUBLICATIONS AND ABSTRACTS	<ol style="list-style-type: none"><li>1. <b>Luongo, F.</b>, Horn, M., and Sohal, V.S. "Putative microcircuit-level substrates for attention are disrupted in mouse models of autism." <i>Biological Psychiatry</i>, In Press, 2015. <a href="#">link</a></li><li>2. <b>Luongo, F.</b>, Horn, M., and Sohal, V.S. "Changes in prefrontal microcircuit organization increase repetitive network activity in two mouse models of autism" <i>AREADNE: Research in encoding and decoding of neural ensembles</i>, [Santorini, Greece], 2014. <a href="#">link</a></li><li>3. Gee, S., Ellwood, I., Patel, T., <b>Luongo, F.</b>, Deisseroth, K., and Sohal, V.S. "Synaptic activity unmasks dopamine D2 receptor modulation of a specific class of layer V pyramidal neurons in prefrontal cortex." <i>Journal of Neuroscience</i>, 4;32(14):4959–4971, 2012. <a href="#">link</a></li><li>4. Gohl D.M., Silies M.A., Gao X.J., Bhalerao S., <b>Luongo F.J.</b>, Potter C.J., and Clandinin T.R. "A versatile in-vivo system for directed genetic dissection of gene expression patterns." <i>Nature Methods</i>, 8(3):231–237, 2011. <a href="#">link</a></li><li>5. Otero L., <b>Luongo F.</b>, Gonzalez E., Ganoza C., Hinostroza G., Seas C., and Gotuzzo E. "High rate of TB among household contacts of multidrug-resistant tuberculosis (MDR-TB) index cases in a high incidence district of Lima, Peru." <i>Centenary Meeting of the Royal Society of Tropical Medicine and Hygiene</i> [London, UK], 2007</li><li>6. <b>Luongo F.</b>, Cui B., and Han K. "High Strength/ High Conductivity copper by pulsed electrodeposition." <i>International Symposium of Crystalline Organic Materials</i>. [Key West, FL], 2005</li></ol>	

PAPERS IN  
PREPARATION

1. **Luongo, F.**, Zimmerman, C., and Sohal, V.S. “Prefrontal microcircuits have a small world organization which optimizes their production of a diverse repertoire of repetitive patterns of activity”
2. **Luongo, F.**, Kirkby L. and Sohal, V.S. “Analytical tools for identifying spatiotemporal structure in chronic ECoG recordings.”
3. Ellwood, I., **Luongo, F.**, and Sohal, V.S. “Changes in criticality associated with the modulation of prefrontal microcircuits by dopamine.”

AWARDS

National Institute of General Medicine IMSD predoctoral fellow	2010
National Hispanic Scholar	2004
National Merit Scholar	2004

REFERENCES

Vikaas S. Sohal	
Assistant Professor	Phone: (415) 502-7377
Department of Psychiatry	E-mail: <a href="mailto:vikaas.sohal@ucsf.edu">vikaas.sohal@ucsf.edu</a>
University of California, San Francisco	
Michael P. Stryker	
W.F. Ganong Professor of Physiology	Phone: (415) 502-7380
Department of Physiology	E-mail: <a href="mailto:stryker@ucsf.edu">stryker@ucsf.edu</a>
University of California, San Francisco	

TECHNIQUES AND  
SOFTWARE SKILLS

Techniques:  
Optogenetics, calcium imaging, single-cell electrophysiology, micro-endoscope imaging, histology, cloning, drosophila genetics

Computer Programming:  
python, MATLAB, bash, unix, Git