



LUCIE ORIOL, PH.D.

Passionate about biomedical research and neuroscience, my academic training and professional experience have been driven by a clear objective: contributing to advances in human health. My work has focused on understanding disease mechanisms and supporting the development of new therapeutic strategies across academic and biotech environments. I have contributed to research programs spanning depression, multiple sclerosis, spinal cord injury, Alzheimer's disease, epilepsy, and addiction. I thrive in structured, time-driven teams that value communication, coordination, and strong documentation to deliver dependable results. Driven by a commitment to scientific rigor, I seek to contribute to programs where high scientific standards and robust data translate into meaningful patient impact.

PROFESSIONAL RESEARCH EXPERIENCE

Postdoctoral Researcher 2025 - present

Magloire Lab, INSERM U1028, Lyon

Investigating the interplay between epilepsy and stress, combining fiber-photometry, electrophysiology, and behavioral research approaches

Graduate Student Researcher 2018 - 2024

Hnasko Lab, University of California San Diego, San Diego

- Development of a set of viral tools for *in vivo* labeling of neurotransmitter vesicular transporter using electron microscopy probes
- Tracing of axonal projections of the Ventral Tegmental Area (VTA) by neurotransmitter and markers subtypes
- Functional assessment of intra-VTA connectivity using slice electrophysiology and pharmacology
- Recruited and trained two undergraduate recipients of research fellowship

Research and operation manager 2015 - 2018

Novoron Bioscience, San Diego

- Led recombinant protein production and purification workflows, including process development and optimization
- *In vitro* evaluation of novel therapeutics for Alzheimer's disease

Researcher 2016 - 2018

Naviaux Lab, University of California San Diego, San Diego

In vivo metabolomics assessment of Novoron's lead compound for multiple sclerosis as an anti-inflammatory agent

Research assistant 2014

Sup'Biotech, Paris

Designed and presented a research ethics seminar using influenza as a case study

Research assistant intern 2013

Theranexus, Paris

Performed *in vivo* identification of antidepressant pharmacologic modulators

Laboratory technician intern 2012

École Normale Supérieure, Lyon

Published research on plasmon surface microscopy for blood cell characterization

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SKILLS

Organization
Scientific rigor
Communication
Collaboration
Project leadership

LANGUAGES

French : native
English : bilingual

INTEREST

Photography
Ballet
Reading

OTHER

First aid and CPR
Driver's license

LABORATORY TECHNIQUES

In vivo

Stereotaxic surgery: Injections and implants

Optogenetics and chemogenetics

Behavioral studies

Rodent care: Subcutaneous and intraperitoneal injections, and blood sampling

Intracardiac perfusions

Ex-vivo

Patch-clamp electrophysiology

Pharmacology

Optogenetics

Immunohistochemistry

In-vitro

Recombinant proteins: production and purification

Immunoprecipitation

Chromatography: FPLC and HPLC

Cell culture

Cloning

Other

Fluorescent and confocal microscopy

Experimental design

Troubleshooting

Management and maintenance

EDUCATION

Ph.D. in Biomedical Sciences University of California San Diego, San Diego	2024
Master of Science: Biotechnology Engineering Sup'Biotech, Paris	2015
Bachelor of Science: Biotechnology Engineering Sup'Biotech, Paris	2013

PUBLICATIONS

A. Flores & L. Oriol , T. Steinkellner, J. Hu, M. Mackey, A. Grewal, D. Boassa, T.S. Hnasko "Genetically-encoded probes for labeling neurotransmitter-defined synaptic vesicles" <i>in prep</i>	2026
S.M. Warlow, D.S. Dowlat, N.H. Hollon, L. Faget, L. Oriol , V. Zell, L.S. Zweifel, T.S. Hnasko "GABA-glutamate corelease is a mechanism for state-dependent neurotransmission" <i>Neuron: in press</i>	2025
L. Oriol , M. Chao, G. Kollman, D.S. Dowlat, S. Singhal, T. Steinkellner, T.S. Hnasko "Ventral tegmental area interneurons revisited: GABA and glutamate projection neurons make local synapses" <i>Elife</i>	2024
L. Faget, L. Oriol , W.C. Lee, C. Sargent, D. Ramanathan, and T.S. Hnasko, "Ventral pallidum GABA and glutamate neurons drive approach and avoidance through distinct modulation of VTA cell types" <i>Nature Communication</i>	2024
W.S. Conrad, L.Oriol , G. Kollman, L. Faget, T.S. Hnasko, "Proportion and distribution of neurotransmitter-defined cell types in the ventral tegmental area and substantia nigra pars compacta" <i>Addiction Neuroscience</i>	2024
E. Boyer-Provera, A. Rossi, L. Oriol , C. Dumontet, A. Plesa, L. Berguiga, J. Elezgaray, A. Arneodo, and F. Argoul, "Wavelet-based decomposition of high resolution surface plasmon microscopy V(Z) curves at visible and near infrared wavelengths" <i>Optics Express</i>	2013

CERTIFICATIONS

Surgery for experimental procedures VetAgro Sup, Marcy L'Étoile	2026
Design of projects and experimental procedures using animals for scientific purposes - Directive 2010/63/EU VetAgro Sup, Lyon	2025
Micro-MBA Rady's School of Management, San Diego	2022