MATIAS LEANDRO ANDINA

EDUCATION

Current | 2021
PhD. Student, Neuroscience
Massachusetts Institute of Technology — Massachusetts, USA

2018 | 2016
MSc., Neuroscience
University of Massachusetts Amherst — Massachusetts, USA

2015 | 2010
Biology Degree
University of Buenos Aires — Buenos Aires, ARG

RESEARCH EXPERIENCE

Current | 2022
Graduate Research Assistant
Massachusetts Institute of Technology — Massachusetts, USA

- Designed and built behavioral setup for synchronized behavior and physiology recordings
- Designed experiments and collected terabyte datasets to study hunger, sleep, and torpor in mice

2021 | 2018
Technical Associate
Massachusetts Institute of Technology — Massachusetts, USA

- Provided technical support for lab procedures (surgeries, wet lab, colony management)
- Designed continuous home cage monitoring system for movement, temperature, and food intake

2018 | 2016
Graduate Research Assistant
University of Massachusetts Amherst — Massachusetts, USA

- Designed experiments and collected data to study maternal behavior in rats

2015 | 2013
Undergraduate Researcher
University of Buenos Aires — Buenos Aires, ARG

- Tested a novel device to measure escape responses in crabs
- Designed experiments and collected data to study learning and memory mechanisms

TEACHING EXPERIENCE

2022
Teaching Assistant: Statistics for Brain and Computer Sciences
Massachusetts Institute of Technology — Massachusetts, USA

- Taught statistics recitation lectures.

2018
Teaching Assistant: Methods of Inquiry in Psychology
University of Massachusetts Amherst — Massachusetts, USA

- Taught statistics recitation lectures.

matiasandina@gmail.com
NeuroMLA
github.com/matiasandina
matiasandina.com
linkedin.com/in/matiasandina

LANGUAGES

Spanish (native)
English (bilingual)
Portuguese (intermediate)

PROGRAMMING

R
Python
Matlab
git / GitHub

DATA ANALYSIS

Data visualization (ggplot2, seaborn)
Linear models (GLM, GLMM)
Machine Learning (sklearn)
Image Processing (opencv)

LITERATE CODING

Quarto
Rmarkdown
LaTeX

2017

Instructor of Record: Animal Behavior

University of Massachusetts Amherst — Massachusetts, USA

- Selected topics in animal behavior and designed curriculum.
- Taught weekly seminars in animal behavior for 40 students
- CITRL associate

SELECTED PUBLICATIONS

IL-1R1-positive dorsal raphe neurons drive self-imposed social withdrawal in sickness

Cell https://doi.org/10.1016/j.cell.2025.10.040

- L Yang, ML Andina, M Witkowski, H King, I Wickersham, JR Huh, GB Choi

2021

Two spaced training trials induce associative ERK-dependent long term memory in Neohelice granulata.

Behavioral Brain Research. https://doi.org/10.1016/j.bbr.2021.113132

- Ojea Ramos S., Andina M., Romano A., Feld, M

2020

Interleukin-17a restores sociability in several mouse models for neurodevelopmental disorders.

Nature. https://doi.org/10.1038/s41586-019-1843-6

- Reed M.D., Yim Y.S., (…), Andina M., (…), Huh J.R., Choi G.B.

Complete publication list at Google Scholar.

SELECTED TALKS & INVITED LECTURES

2021

Building a user-driven database of open neuroscience projects

Organisation for Human Brain Mapping

- bit.ly/OHBM-21-MLA

2019

Data Visualization

Harvard Philantrophy Advisory Fellowship — Massachusetts, USA

- bit.ly/PAF-2019-MLA

CONFERENCES

2025

IL-1R1-positive dorsal raphe neurons drive self-imposed social withdrawal in sickness

Society For Neuroscience

- L Yang, ML Andina, M Witkowski, H King, I Wickersham, JR Huh, GB Choi

2019

Interleukin-17a restores sociability in several mouse models for neurodevelopmental disorders.

Society For Neuroscience

- Reed M.D., Yim Y.S., (…), Andina M., (…), Huh J.R., Choi G.B

2018

Long-term memory induced by two training trials in the crab Neohelice granulata

Federation of European Neuroscience Societies

- Ojea Ramos S., Andina M., Feld M

2015 **Two-trial long-term memory in the crab Neohelice granulata**
Argentinean Society of Neuroscience Research
• Andina M., Romano A., Feld M

2013 **Measuring crab´s memory: improving conditioning**
Argentinean Society of Neuroscience Research
• Andina M., (…), Romano A., Feld M.

AWARDS

2024 | 2022 **Picower Neurological Disorder Research Fund**
Massachusetts Institute of Technology
• Secured $75,000 to lead a collaborative research effort

2021 **Arete Fellowship**
Massachusetts Institute of Technology
• Participated on weekly seminars in Effective Altruism discussion panel

2021 **IBRO-LARC**
Talleres Open Source
• Secured $5,000 to organize open-hardware workshop in Latin America. https://tallerneurolatam.netlify.app/

2021 **Presidential Fellowship**
Massachusetts Institute of Technology
• Secured $43,000 to fund my PhD research

2017 **College of Natural Sciences Fellowship**
University of Massachusetts Amherst
• Awarded fellowship to design and teach a first year seminar class

2016 **Neuroscience and Behavior Program Fellowship**
University of Massachusetts Amherst
• Secured $27,000 to fund my MSc research

2015 **Young ISN Neurochemistry**
University of Buenos Aires
• Secured travel funding to present my Undergraduate Research at a conference

MENTORING

2025 **Matthew Alkire**
Massachusetts Institute of Technology
• Stereotaxic and abdominal surgery. Experimental design.

2025 **Jenna Raffael**
Massachusetts Institute of Technology
• Stereotaxic and abdominal surgery. Basic laboratory techniques in rodents.

2022 | 2021

Penelope Herrero
Massachusetts Institute of Technology

• Open Hardware design and fabrication

2021

John Eastman
Massachusetts Institute of Technology

• FedWatcher. Open Software & Hardware design and fabrication

2018 | 2017

Idil Tuncali
University of Massachusetts Amherst

• Statistics, R programming, and Analysis of Ultrasonic Vocalizations

2017

Nneka Southwell
University of Massachusetts Amherst

• Basic laboratory techniques in rodents

SERVICE

2023 | 2020

Team member
Open Neuroscience

• Repository of open-source neuroscience tools
• https://open-neuroscience.com/

2021 | 2020

Co-founder and team member
Talleres Open Source

• Organization of workshops for Open Source tools in Neuroscience.
• https://talleresos.netlify.app/

2018 | 2016

NSB Seminar Committee
University of Massachusetts Amherst

• Organization of invited Faculty weekly talks

2018 | 2017

NSB Mentoring Committee.
University of Massachusetts Amherst

• Organization of first year graduate student activities and mentoring events

SOFTWARE DEVELOPMENT

FedWatcher: an open-source python software for real-time serial communication with FED3 devices.
https://github.com/matiasandina/FEDWatcher

FLOW: an open-source home cage monitoring system of temperature and movement in rodents.
https://github.com/matiasandina/homecage_quantification

nobrainr: an open-source simple interface to plot plates from the Mouse Allen Brain Atlas using R.
https://github.com/matiasandina/nobrainr

Complete List of Software at Github.

I have a strong commitment towards using and developing open source tools.

SELECTED DATA SCIENCE WRITING

2020 **Queen's Gambit**
https://matiasandina.com/posts/2021-02-07-queens-gambit/

2019 **Birthday Meritocracy**
https://matiasandina.com/posts/2019-05-09-birthday-meritocracy/

I love to visualize data. I post my visualizations and insights in my personal blog[1]

Last updated on 2025-12-01.