Sofía **Fernández Lozano**

PSYCHOLOGY B.A. · NEUROBIOLOGY M.S.

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Education

Universidad Nacional Autónoma de México (UNAM) & Instituto de Neurobiología (INB) *Ciudad de México, México*
MASTER OF SCIENCE IN NEUROBIOLOGY; GRADUATED WITH HONORS *Jan 2020*
- Thesis: Brain Connectivity in Cocaine-addicted Patients after Repetitive Transcranial Magnetic Stimulation Treatment.
- Supervisor: Eduardo Garza-Villarreal PhD

Universidad Autónoma de Baja California (UABC) *Tijuana, BC, México*
BACHELOR OF ARTS WITH HIGHEST HONORS IN PSYCHOLOGY *Dec 2015*
- Scholar Merit (First in class)

Experience

RESEARCH

Laboratorio Nacional de Imagen por Resonancia Magnética (LANIREM) *Querétaro, Qro, México*
MASTER STUDENT RESEARCHER *Jul. 2019 - PRESENT*
- Moved over to the new location of the lab and continued the work of the research done in the INPRFM.
- I implemented a Machine Learning Algorithm to classify cocaine-dependence using global metrics of topology (Graph Theory Analysis).
- I am currently analyzing the data of the clinical trail and collaborating on the writing the article.

Laboratory of Neuroimaging, National Institute of Alcohol Abuse and Alcoholism (NIAAA) *Bethesda, MD, USA*
RESEARCH VISITOR *Mar. - May. 2019*
- I learned about the technique Functional Connectivity Density Mapping (FCDM) developed by Dr. Tomasi and implemented it on my own data.
- I presented my work on the intramural seminar of the NIAAA and NIDA at the NIH.

Instituto Nacional de Psiquiatría "Ramón de la Fuente Muñiz" (INPRFM) *Ciudad de México, México*
MASTER STUDENT RESEARCHER *Aug. 2017 - June. 2019*
- I collaborated in the *ongoing clinical trial* under the supervision of Eduardo Garza, PhD.
- I administered the TMS sessions to some of the patients in the study. I cleaned the clinical databases and statistically analyzed the clinical data using R. I acquired, organized in BIDS format, preprocessed and analyzed the MRI data using network science techniques.

Yaaj México, A.C. *Ciudad de México, México*
RESEARCH COORDINATOR *Mar. 2017 - Jul. 2019*
- I coordinated a project in collaboration with United Nations Office on Drugs and Crime (UNODC) to write a guide for professionals of Mental Health against Sexual Orientation and Gender Identity Change Efforts: *"Nada que curar"*.
- I was in charge with science divulgation related to sexual health, gender identity and sexual orientation in youth populations.

Colegio de la Frontera Norte (COLEF) *Tijuana, BC, México*
RESEARCH INTERNSHIP *Feb. - Sep. 2015*
- I was an intern on the research project: Mexican parents' attitudes toward gender equality in family roles and leadership.
- I administered the questionnaires to the parents in three different middle schools and captured the data for its analysis.

CLINICAL

Interpsique *Tijuana, BC, México*
PSYCHOMETRIST *Jan. 2016 - Mar.2017*
- I administered, scored, and evaluated psychological tests under the supervision of a licensed psychology doctorate.

Hospital de Salud Mental de Tijuana (HSMT) *Tijuana, BC, México*
PSYCHOLOGY INTERN *Dec. 2014 - Mar. 2015*
- 240 supervised clinical hours in the Inpatient Psychiatric Care Unit: Occupational and group therapy, and clinical evaluations.

Publications

CHAPTER AND POSTERS

- FERNÁNDEZ-LOZANO, S. (2019). Derechos sexuales y reproductivos; reflexiones para terapeutas (Sexual and reproductive rights; reflections for therapists). In Gómez-Lamont, M.F. & Silva-Aragón, A. (Eds.), *Terapia familiar sistémica y la comunidad LGBT+ (Systemic family therapy and LGBT community)*. Ciudad de México, México: Pax & Leed
- Morelos-Santana, E., Garza-Villarreal, E., Alcalá-Lozano, R., Torres-Marcial, A., Villicaña-Muñoz, V., FERNÁNDEZ-LOZANO, S., Dávalos-Guzmán, A., Martínez-García, B., González-Cantú, H., Reyes-Zamorano, E., González-Olvera, J. (2019, Feb). *Effects of rTMS at 5 Hz over lDLPFC on inhibitory control and craving in cocaine dependent patients*. Poster session presented at the BRAIN STIMULATION, Vancouver, Canada.

- Fernández-Lozano, S., Alcalá-Lozano, R., Morelos-Santana, E.D., Villicaña-Muñoz, V., González-Cantú, H., González-Olvera, J.J., Garza-Villarreal, E.A. (2018, Oct). *Análisis de teoría de grafos en redes funcionales después de un tratamiento doble ciego de EMTr en pacientes adictos a cocaína (Graph theory analysis on functional networks after double-blinded rTMS on cocaine-addicts).* Poster session presented at the Annual Meeting of researchers of the Instituto Nacional de Psiquiatría "Ramón de la Fuente Muñiz", Ciudad de México, México.
- Fernández-Lozano, S., Alcalá-Lozano, R., Morelos-Santana, E.D., Villicaña-Muñoz, V., González-Cantú, H., González-Olvera, J.J., Garza-Villarreal, E.A. (2018, Oct). *Effects of rTMs on the small-worldness of crack-cocaine addicts' functional connectivity networks.* Poster session presented at the XX Reunion of Neuroimage at the Research Center in Math (CIMAT), Guanajuato, México.

Conferences and other proceedings

Dec 2019 (Conference)	Transcranial Magnetic Stimulation: Neuromodulation techniques as neuropsychiatric treatment Monthly conference; Baja California College of Psychologists	*Tijuana, BC, México*
Oct 2019 (Conference)	Classification of cocaine dependence using topology of functional connectivity networks Neuroimage Reunion XXI; CIMAT (Center of research in mathematics)	*Guanajuato, México*
Aug 2019 (Hackaton)	MRIQCeption Neurohackademy 2019; University of Washington	*Seattle, WA, USA*
May 2019 (Hackaton)	FANI-Pack (Find All New ICDs Package) Women-led BioData Science Hackaton at NIH; National Center for Biotechnology Information	*Bethesda, MA, USA*
May 2019 (Conference)	Functional connectivity network changes after rTMS treatment in cocaine addiction NIAAA & NIDA intramural seminar; National Institutes of Health	*Bethesda, MA, USA*
Nov 2018 (Conference)	[Brain connectome: studying the most complex network system] Brain week; National High school #9 "Pedro de Alba"	*Ciudad de México, México*
Oct 2018 (Conference)	[Conversion therapy: psychology and human rights' perspective] 2nd encounter about sexualities and gender; UNAM (National Autonomous University of Mexico)	*Ciudad de México, México*
Jun 2018 (Conversatorioum)	[The right to an identity of transgender children and adolescents] Supreme Justice Tribunal of Mexico city	*Ciudad de México, México*

Honours & Grants

Fellowships & Grants

2019 – Scholarship *Ciudad de México, México*	CONACYT – international (≈$2,000)
2019 – Grant *Ciudad de México, México*	UNAM research visit grant (≈$1,300)
2017 – Fellowship *Ciudad de México, México*	CONACYT grad fellowship (≈$13,200)

Honours & Awards

2016 – Undergrad rep. *Tijuana, BC, México*	Ceremony for Honor Students
2016 – Honoree *Guadalajara, Jal., México*	EGEL-CENEVAL Excellence Award

Courses and workshops

Neurohackademy 2019 — *Seattle, WA, USA* / *Jul. - Aug. 2019*
University of Washington
Neuroimaging and Data Science summer school and hackaton.

Bayesian Modeling of Brain Imaging Data — *Ciudad de México, México* / *Sep. 2017*
Michele Guindani, PhD; Mexican Association of Statistics
Two-day intro course about Bayesian methods in fMRI analysis

International Course of Neuropsychological Evaluation — *Mexicali, BC, México* / *Oct. 2015*
Juan-Carlos Arango, PhD; Sinapsis
Bases of application and evaluation of neuropsychological tests in cultures and langagues other than those in North America and Western Europe

Semester Abroad — *Salamanca, Spain* / *Feb. - Jul. 2014*
Universidad de Salamanca
Classes of clinical evaluation, education psychology and school counseling

Skills & Certifications

Operating Systems
• Mac OS • GNU/LINUX (Debian-based, Arch-based & Void) • Windows

Programming Languages
• R • Shell (POSIX shell, bash & zsh) • Python • Javascript

Markup Languages
• LaTeX • Markdown • JSON • HTML

General Tools
• Git • Docker • Vim • SGE

Neuroimaging Tools
• FSL • AFNI • ANTs • BIDS • MRIQC • FMRIPREP • Mango

Certifications
DataCamp: • Analyst with R • Programmer with R

Languages
• Spanish (Native) • English (Fluent)