Sofía **Fernández Lozano**

PSYCHOLOGY B.A. · NEUROBIOLOGY M.S. (EXPECTED JAN. 2020)

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"Brain: an apparatus with which we think we think." –Ambrose Bierce, 1911

Education

Universidad Nacional Autónoma de México (UNAM) & Instituto de Neurobiología (INB)   *Ciudad de México, México*
MASTER OF SCIENCE IN NEUROBIOLOGY   *Expected 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 (equivalent to Summa Cum Laude)

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; reflecciones para terapeutas (Sexual and reproductive rights; reflections for therapists). In Gómez-Lamont, M.F. & Silva-Aragón, A. (Eds.), *Terapia familiar sistémica y la comunidad (Systemic family therapy and LGBT comminity)*. 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

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*
Jun 2018 (TV interview)	[Talking intersex] Ciudad Abierta channel	*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)
2016 – Honoree *Guadalajara, Jal., México*	EGEL-CENEVAL Excellence Award
2011 – Scholarship *Tijuana, BC, México*	Scholarship for outstanding ENLACE scores

HONOURS & AWARDS

2016 – Undergrad rep. *Tijuana, BC, México*	Ceremony for Honor Students

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

Basic Course of Applied Neuroscience — *Mexicali, BC, México* · *Aug. 2016*
Autonomous University of Baja California
Two-week course of diverse neuroscience conferences and classes for psychology students and recent graduates

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)

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)