

CARLOS I. RODRIGUEZ, Ph.D.

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SUMMARY

Translational neuroscientist with 10 years of experience conducting clinical and preclinical fMRI research. Skilled in experimental research design, data management, and statistical analysis. Seeking a position on an effective team to contribute broadly to translational, interdisciplinary and innovative research.

SKILLS

MATLAB (8+ yrs)	Histology (3 yrs)
Statistical Modeling (8+ yrs)	Microscopy (3 yrs)
fMRI (8+ yrs)	Git (2 yrs)
Data management (8+ yrs)	Graph Theory (1+ yrs)
Linux Shell Scripting (4+ yrs)	Python (< 1 yr)
Animal behavior tests (4 yrs)	Scientific Writing (10+ yrs)
R (3+ yrs)	Teaching (4+ yrs)
Machine Learning (3 yrs)	Research Mentoring (3+ yrs)
Large-scale data analysis (3 yrs)	Fluent in Spanish

EDUCATION

THE UNIVERSITY OF NEW MEXICO | Psychology – Cognition, Brain and Behavior

- PhD, 2018
- MS, 2015 (*with distinction*)

WESTERN COLORADO UNIVERSITY | Psychology – Biopsychology

- BA, 2006

RELEVANT EXPERIENCE

THE MIND RESEARCH NETWORK FOR NEURODIAGNOSTIC DISCOVERY

Postdoctoral Fellow | Mar 2020 – Present

- Graph theory-based network analysis of fMRI data in individuals with prenatal alcohol exposure
- Developed support vector machine learning algorithms to classify patterns of brain connectivity
- Investigate adolescent brain development using large data sets
- Analyzed magnetoencephalography recordings in individuals with alcohol use disorder
- Developed Bash, MATLAB, Python, and R based scripts to process and analyze neuroimaging and behavioral data (available on GitHub)
- Certification in human research ethics and HIPAA privacy guidelines

UNIVERSITY OF NEW MEXICO

Program Specialist: Center for Teaching & Learning | Mar 2019 - Mar 2020

- Incorporated cognitive science research to strengthen student and faculty development programs
- Produced an interactive instructional module based on inter- and intradepartmental collaborations
- Managed 26 staff that provided academic support services

UNIVERSITY OF TEXAS AT EL PASO

Postdoctoral Fellow: Department of Psychology | Jun 2018 – Feb 2019

- Developed interdepartmental collaborations to fabricate custom animal testing environments
- Designed and executed in vivo animal behavior experiments

- Analysis of variance of large animal behavior data sets
- Wrote IACUC and biosafety committee protocols

UNIVERSITY OF NEW MEXICO

Doctoral Student: Department of Psychology | Aug 2012 – Jul 2018

Dissertation Title: *The effects of prenatal alcohol exposure on functional network connectivity in children and adolescents with fetal alcohol spectrum disorders*. P.I.: Derek Hamilton, Ph.D.

- Instituted procedures for the management, processing, and analysis of fMRI data
- Implemented behavioral testing protocols to measure animal cognition
- Composed and delivered research presentations for national and international audiences

RESEARCH SUPPORT & AWARDS

2021 International Brain Research Organization, Scholarships to Enhance and Empower Diversity

2018 National Hispanic Science Network, Invited Panelist & Travel Award

2017 The Society for Neuroscience, Neuroscience Scholars Program

2017 The Ford Foundation, Dissertation Fellowship Award

2016 University of New Mexico, El Centro de la Raza; Research Fellowship

2016 University of Alabama, Birmingham, Best Oral Presentation

2015 The Marine Biological Laboratory, Summer Program in Neuroscience Ethics and Success

2012 University of New Mexico, El Centro de la Raza; Graduate Student Fellowship

COMMUNITY SERVICE

2021 Student abstract reviewer, SACNAS

2020 Graduate student mentor, Society for Neuroscience,

2019 Research mentor, Oak Ridge Institute for Science and Education/DTRA Joint Science & Tech Institute

2016 Speaker, Science, Technology, Engineering, Art, Math and Health Career Exploration Program;

SELECT PUBLICATIONS

- Rodriguez CI, Vergara VM, Calhoun VD, Savage DD, Hamilton DA, Tesche CD, Stephen JM. Disruptions in global network segregation and integration in adolescents and young adults with fetal alcohol spectrum disorder. 2021
- Rodriguez CI, Vergara VM, Davies S, Calhoun VD, Savage DD, Hamilton DA. Detection of prenatal alcohol exposure using machine learning classification of resting-state functional network connectivity data. 2021
- Full List of Publications: <https://www.carlosivanrodriguez.com/publications/>

PROFESSIONAL MEMBERSHIPS

Society for the advancement of Chicanos/Hispanics & Native Americans in Science

Society for Neuroscience

Research Society on Alcoholism

HOBBIES

Acoustic Guitar

Woodworking

Mountain Biking