

# PAMELA N. ROMERO VILLELA



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## EDUCATION

### BEHAVIORAL, PSYCHIATRIC, & STATISTICAL GENETICS, PH.D.

Mentors: Drs. Matthew C. Keller, Marissa A. Ehringer, & Luke M. Evans  
University of Colorado Boulder | Expected: May 2024

### PSYCHOLOGY, M.A.

University of Colorado Boulder | November 2021

### NEUROSCIENCE & BEHAVIORAL BIOLOGY, B.S.

### COMPUTER SCIENCE, UNOFFICIAL MINOR

Emory University | May 2018

### ACADEMIA LOS PINARES, HIGH SCHOOL

Tegucigalpa, Honduras | June 2014

## PEER-REVIEWED JOURNAL ARTICLES

A. Adjangba, R. Border, **P.N. Romero Villela**, M.C. Keller, M.A. Ehringer, L.M. Evans. 2020. Limited evidence of modified genetic susceptibility to tobacco smoking at rs16969968 based on age of onset of regular smoking. *Nicotine & Tobacco Research*.

## RESEARCH EXPERIENCE

### KELLER STATISTICAL GENETICS LAB

Principal Investigator: Dr. Matthew C. Keller  
Graduate Research Assistant | August 2019 - Present

- Investigating genetic and environmental interactions influencing nicotine dependence using the world's largest biorepository
- Investigating regional and functional overlap of rare and common genetic variants using a variety of exomic, whole genome, and array genetic data

### BEHAVIORAL GENETICS OF ADDICTION LABORATORY

Research Assistant | January 2017 – May 2019

- Co-coordinator for MAPme, a pilot study on college health and drug use
- Conducted a preliminary family GWAS on the genetics of alcohol withdrawal using Plink

### LIU COMPUTATIONAL NEUROETHOLOGY LABORATORY

Volunteer | Summer 2016

- Programmed image processing algorithms for quantifying pair-bonding in voles using MatLab

### WEINSHENKER GENETICS LABORATORY

Undergraduate Research Assistant | August 2015 – May 2016

- Prepared Conditioned Place Preference (CPP) studies for mice
- Performed brain slicing and perfusions in mice

### LILIENFELD PSYCHOPATHY LABORATORY

Undergraduate Research Assistant | January 2015 – June 2015

- Assisted with data entry

## AWARDS

### GRADUATE RESEARCH EXCELLENCE AWARD

University of Colorado Boulder | September 2021

### STUDENT TRAVEL AWARD

International Behavioural and Neural Genetics Society | March 2021

### AMERICAN PSYCHOLOGICAL ASSOCIATION STUDENT TRAVEL AWARD

American Psychological Association | March 2018

### EMORY GRADUATING WOMEN OF EXCELLENCE

Emory University | March 2018  
**CENTER FOR CREATIVITY & ARTS GRANT RECIPIENT**  
Emory University | Spring 2016 & Spring 2018  
**EMORY LIBERAL ARTS SCHOLAR**  
Emory University | Fall 2014

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## PRESENTATIONS

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### 2022

**P.N. Romero Villela**, M. Huang, M.C. Keller. (June 2022) Evaluating the regional and functional overlap of rare and common variant signals across complex traits. Talk, 2022 Annual meeting of the Behavior Genetics Association. *Behavior Genetics Association*.

### 2021

**P.N. Romero Villela**, Balbona, Jared, L.M. Evans, M.A. Ehringer, M.C. Keller. (June 2021) No significant interaction between genome-wide loci and maternal smoking during pregnancy predicting offspring smoking behaviors in individuals of European descent. Poster, 51st Annual meeting of the Behavior Genetics Association. *Behavior Genetics Association*.

**P.N. Romero Villela**, R. Border, M.C. Keller, L.M. Evans, M.A. Ehringer. (May 2021) Investigating single variant and gene interactions with rs16969968 influencing cigarettes per day in the UKBiobank. Poster, *International Behavioural & Neural Genetics Society*.

**P.N. Romero Villela**, R. Border, M.C. Keller, L.M. Evans, M.A. Ehringer. (February 2021) Investigating single variant and gene interactions with rs16969968 influencing cigarettes per day in the UKBiobank. Poster, *NIDA Genetics & Epigenetics Cross-Cutting Research Team*.

### 2020

**P.N. Romero Villela**, R. Border, M.C. Keller, L.M. Evans, M.A. Ehringer. (June 2020) No significant interaction between rs16969968 and genome-wide loci to predict cigarettes per day in the UK Biobank. Poster, 50th Annual meeting of the Behavior Genetics Association. *Behavior Genetics Association*.

### 2018

**P.N. Romero Villela**, C. Benca-Bachman, R.H. Palmer. (May 2018) Genome-Wide Association Study of Alcohol Withdrawal Symptomologies. 30<sup>th</sup> Association for Psychological Science Annual Convention. *Association for Psychological Science*.

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## LABORATORY TECHNIQUES

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### COMPUTATIONAL SKILLS

- Proficient in R for data cleaning, statistical analysis, and data visualization
- Proficient in statistical genetics software such as Plink, GeneWeaver, METAL, & MAGMA
- Proficient in managing data, building reports, and creating projects in REDcap
- Proficient in designing surveys and collecting data in Qualtrics
- Intermediate experience in Python, Java, & MatLab
- Beginner experience in MySQL, HTML, & C
- Beginner experience in Neuron, NDVis, & Genesis simulation software

### WET LAB SKILLS

- Brain slicing (mouse)
- Extracellular & Intracellular recording (crayfish)



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## WORKSHOPS & CERTIFICATES

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### BEHAVIORAL GENETICS CERTIFICATE

Boulder, CO, U.S.A | Expected: May 2023

### DATA SCIENCE STATISTICS CERTIFICATE

Boulder, CO, U.S.A | Expected: May 2023

### INTERNATIONAL STATISTICAL GENETICS WORKSHOP

Boulder, CO, U.S.A | May 2018

### ADVANCING LEARNING THROUGH EVIDENCE-BASED STEM TEACHING CERTIFICATE

Boulder, CO, U.S.A | March 2020

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## RELEVANT COURSEWORK

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### PROGRAMMING AND DATA SCIENCE

- Graduate Statistics
- Statistical Programming in R
- Statistical Methods & Applications I & II
- Introduction to Bioinformatics

### BEHAVIORAL GENETICS

- Behavioral Genetics
  - Methods Proseminar in Behavioral Genetics
  - Physiological Genetics
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## TEACHING EXPERIENCE

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### PSYC 2111: PSYCHOLOGICAL STATISTICS

Graduate Teaching Assistant | Spring 2021

- 2 laboratory sections comprised of 25 students each
- Taught basic statistical programming in R
- Created template scripts and lesson presentations with learning objectives used by the students each week in class

### PSYC 3511: HISTORY OF PSYCHOLOGY

Graduate Teaching Assistant | Fall 2020

- 1 section comprised of 100 students
- Graded exams and tutored students twice a week

### PSYC 3111: RESEARCH METHODS IN PSYCHOLOGY

Graduate Teaching Assistant | Fall 2019 - Spring 2020

- 2 laboratory sections comprised of 25 students each
- Trained and guided undergraduates in the steps to conduct two independent research studies
- Edited and graded research papers following the American Psychology Association's format

### GEORGIA SCIENCE, TECHNOLOGY, ENGINEERING, ARTS, AND TECHNOLOGY (STEAM) CONFERENCE LEAD WORKSHOP SPEAKER & PANELIST

Center for Education Integrating Science, Mathematics, & Computing, Atlanta, GA, U.S.A | March 22<sup>nd</sup>, 2018

### INTERDISCIPLINARY SCIENCE GUEST LECTURER

Emory University department of Interdisciplinary Studies, Atlanta, GA, U.S.A | February 29<sup>th</sup>, 2018

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## SCIENCE OUTREACH & COMMUNICATION

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### SCIENCE.ART.WONDER (SAW)

Founder & Executive Director | Spring 2015 - Spring 2019

- Directing collaborations between SAW Emory, Georgia Tech, the Centers for Disease Control, & Georgia State University
- Lead 206 artists & researchers across 3 academic institutions and 2 countries for two Atlanta-wide arts-science symposiums at Emory and Piedmont Park for the 2018 Atlanta Science Festival



- Created the curriculum for the year-long partnership artists & researchers follow in the program

**CENTER FOR EDUCATION INTEGRATING SCIENCE, MATHEMATICS, AND COMPUTING**

Innovator in Residence | October 2018 – May 2019

- Trains K-8 grade teachers to develop novel, interdisciplinary STEM-based curricula at Hollis Innovation Academy, a low-income minority Atlanta public school
- Assists K-8 grade robotics after-school programs at Hollis Innovation Academy

**DR. NICOLE GERARDO'S MICROBIOLOGY LABORATORY**

Artist in Residence | Summers 2015-2018

- Created two art pieces inspired by Dr. Gerardo's work, including an interactive piece a speaker moves around to explain how maternal environmental stressors influence wing development in aphids

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**NEWS MEDIA APPEARANCES**

**THE JAZZ OF PHYSICS, RADIO INTERVIEW**

Science for the People, Alberta, Canada | August 2016

**ART & SCIENCE, TV INTERVIEW**

La Mujer Ahora, Tegucigalpa, Honduras | May 2016

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**PRINT MEDIA APPEARANCES**

**SCIENCE ART WONDER: STUDENTS TEAM WITH LABS, ARTICLE**

Emory University, Atlanta, GA, U.S.A | 2018

**PAMELA ROMERO: PRESIDENT & FOUNDER OF SCIENCE.ART.WONDER, INTERVIEW**

Her Campus, Atlanta, GA, U.S.A, April 18<sup>th</sup> | 2018

**SCIENCE.ART.WONDER REVEALS THE BEATUY OF RESEARCH THIS WEEKEND, ARTICLE**

Center for the Study of Human Health Emory University, Atlanta, GA, U.S.A | 2018

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**SERVICE & MENTORING**

**BEHAVIORAL, PSYCHIATRIC, AND STATISTICAL GENETICS (BPSG) STUDENT LIASON**

Lead Student | Fall 2022 – Present

- Leads social and networking events for the BPSG Psychology program
- Communicates and mediates between students and faculty

**DIVERSITY, EQUITY, AND INCLUSION COMMITTEE**

Student Member | Spring 2021 – Present

- Member of the Diversity, Equity, and Inclusion committee for the Institute for Behavioral Genetics (IBG) at the University of Colorado Boulder
- Helps draft diversity statements, regulations, and trainings for the Institute

**HIGH PERFORMANCE RESEARCH COMPUTING CENTER**

Student Liaison | Spring 2021 – Present

- Coordinates computational needs between the Institute for Behavioral Genetics and the University of Colorado Boulder Research Computing team
- Tests new high performance computing resources for the University of Colorado Boulder using a variety of statistical genetics workflows

**GRADUATE RESEARCH MENTOR**

Graduate Research Mentor | Fall 2020 – Present

- Welcomes and mentors incoming international and national graduate students



### **UNDERGRADUATE SUMMER RESEARCH**

Graduate Research Mentor | Spring 2019 – Summer 2019

- Mentored Ms. Julia Shoobe, a 1<sup>st</sup> year undergraduate student in data science at CU Boulder, for her summer research project of gathering descriptive statistics of the Colorado Adolescent Drug Dependence (CADD) dataset using the statistical programming language R

### **EMORY ALUMNI CREATIVE NETWORK**

Board Member | Fall 2018 – Summer 2019

- Coordinates networking and creative events for Emory University alumni

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## **MEMBERSHIPS**

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### **BEHAVIORAL GENETICS ASSOCIATION**

June 2021 – Present

### **INTERNATIONAL YOUTH NEUROSCIENCE ASSOCIATION**

August 2018 – Present

### **AMERICAN PSYCHOLOGICAL ASSOCIATION**

November 2017 – Present

- Reviewer for the 2018 Student Grant Competition

