

## 2023 PSYCHIATRY UNDERGRADUATE RESEARCH PROGRAM AND LEARNING EXPERIENCE (PURPLE)

The 2023 Psychiatry Undergraduate Research Program and Learning Experience (**PURPLE**) is designed to introduce undergraduates to a variety of careers in psychology and psychiatry through participation in mentored research activities with faculty members from the University of Colorado Anschutz Medical Campus and the Children's Hospital of Colorado. Applicants will have the opportunity to learn about the CU Department of Psychiatry's research mission: to promote brain health for all, for life.

**This year's program will be held with a hybrid model** (some in-person work and some online) and may be held completely digitally depending on evolving institutional guidelines. The program will run from **May 22nd to August 11th, 2023**. An outline of the research activities is listed on page three.

Specifically, PURPLE seeks to:

1. Provide undergraduates with basic research skills
2. Introduce undergraduates to careers in behavioral health, psychiatry, and psychology
3. Give undergraduates the tools to successfully apply to graduate school and/or job opportunities

Program Overview: During the program, each student is paired with a faculty mentor (and the mentor's research team) to complete a research project (refer to pages 6-14 for faculty mentor profiles). Students are expected to commit approximately 25 hours per week to the research program. Work schedules are flexible and will be arranged in advance with faculty mentors. However, students are still expected to be physically present during in-person didactics and digitally present (e.g., attending digital meetings, completing work via computer, participating in digital class sessions, etc.) for 25 hours per week during the 12-week program. Upon completion of the research program, students are required to formally present their work to the department and their peers in the form of oral and poster presentations given digitally. This year's program will be hybrid and will become virtual as needed depending on changing guidelines. All accepted students from 2023 will receive the same rigorous, fun, and meaningful experience for which PURPLE is known!

***Please note that based on feedback from previous cohorts, this is an intensive program requiring a significant time commitment. The digital program will be no exception.*** If selected, students should plan their other summer commitments accordingly.

Applicant Eligibility: This year, we are recruiting **eight** highly qualified undergraduate students for the 12-week program. Competitive applicants will: A) Have a cumulative college GPA of  $\geq 3.0$ ; B) have taken at least one college statistics course; and C) show a demonstrated interest in pursuing graduate school or careers related to behavioral health, psychiatry, or psychology.

If you do not meet the listed requirements, you are still welcome to apply. We examine student profiles holistically, taking into consideration student hardship, demonstrated strengths outside of

college, and overall potential. However, given the large number of applicants we receive each year, these requirements are usually the *bare minimum* qualifications we see from accepted students to our program.

Applicants are subject to complete a required toxicology test and pass a background check upon hiring. This will be paid for by the PURPLE program. Students are also required to provide proof of COVID-19 Vaccination or must file for an exemption.

Student Stipend: A stipend of \$3,720 will be provided to each selected student. Although the program will be partially digital, it is expected that transportation, housing, and living expenses are paid for by students and are thus not included in the stipend amount. Selected students must make their own transportation and living arrangements prior to the start of the summer research program.

**The application deadline is Monday, March 13th, 2023 by midnight (MST).** Submissions received after this deadline will not be accepted. It is your responsibility to ensure that your recommendation letter(s) are turned in to the appropriate e-mail by the March 13<sup>th</sup> deadline, along with your application materials. See page two for application details.

## APPLICATION PROCESS

Application Materials: Interested applicants are required to submit the following materials:

- 1) A one-page cover letter expressing your interest in PURPLE. Please address the following:
  - a) Why are you applying to PURPLE?
  - b) What are your career goals and how will this program help you realize these goals?
  - c) With which mentors do you most wish to work, and why?
  - d) What unique abilities, attributes or skills do you bring to PURPLE?
- 2) An unofficial academic transcript
- 3) An updated resume or CV
- 4) A letter of recommendation from a program advisor or faculty member who can speak to your professionalism, work ethics, academic performance, and any other qualities you possess that are pertinent to this summer research program
- 5) **OPTIONAL:** A second letter of recommendation from an individual who can speak to your ability to succeed in this program. This is not required, but in some cases may allow us to more holistically understand your strengths and abilities (e.g., you have a letter from both a professor and an employer, you are a double major and have letters from two professors in different fields, you have a second letter from a volunteer organization leader, etc.).

**Please submit all of the above documents using this [link](https://redcap.link/p18rgbnn) or web address by Monday, March 13th, 2023 (midnight MST): <https://redcap.link/p18rgbnn>**

Letters of recommendation can be submitted via the above link or emailed directly by your recommender(s) to: [PURPLE@ucdenver.edu](mailto:PURPLE@ucdenver.edu)

**Applications that do not follow the above instructions will not be reviewed.**

Timeline: Successful applicants will be notified by email if selected to interview with faculty mentors via teleconferencing in April 2023. All applicants will be notified of final application decisions, regardless of selection status, by the first week of May 2023.

## CONTACT INFORMATION

The information in this packet serves as general guidance to the 2023 PURPLE program. Individual faculty mentors and the program director reserve the right to modify the activities and scope of the program as described herein. If you have further questions about this program, please contact the program team:

<b>Emmaly Perks, MA, CCRP</b> Director, PURPLE PURPLE@ucdenver.edu 303-724-4067	<b>Yunliang (Lily) Luo, BS</b> Co - Director, PURPLE PURPLE@ucdenver.edu	<b>Shanna Trott, BA</b> Coordinator, PURPLE PURPLE@ucdenver.edu
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## PROGRAM OUTLINE

During PURPLE, selected students will be paired with a faculty mentor to conduct a mentored research project. Students will also: 1) attend digital didactic sessions to learn basic research and effective scientific communication skills, 2) receive coaching on professional development skills and applying to graduate school, and 3) complete digital clinical shadowing (telehealth) opportunities. Research and didactic activities may include but are not limited to the following:

Competency	Individual Tasks	Learning Goals
Scientific Thinking and Using Tools of the Discipline	<ul style="list-style-type: none"> <li>Literature search and writing a literature review</li> <li>Developing a research proposal</li> <li>Pitching your ideas to funders</li> <li>Shadowing digital study visits</li> </ul>	<ul style="list-style-type: none"> <li>Practice the scientific method from the proposal stage through implementation and closeout</li> <li>Gain skills with various scientific tools</li> </ul>
Data Manipulation	<ul style="list-style-type: none"> <li>Data collection and data entry</li> <li>Data analysis</li> <li>Data visualization</li> </ul>	<ul style="list-style-type: none"> <li>Familiarity with data manipulation techniques, including basic statistics</li> <li>Develop skills in collecting, analyzing, summarizing, and reporting data</li> </ul>
Scientific Communication	<ul style="list-style-type: none"> <li>Designing a scientific poster and oral presentation</li> <li>Presenting research to a scientific audience</li> <li>Writing up results</li> </ul>	<ul style="list-style-type: none"> <li>Develop confidence in communicating research outcomes to a real-world audience</li> </ul>

Career and Graduate School Preparation	<ul style="list-style-type: none"> <li>• Workshops on various research skills, graduate school, and career preparation</li> <li>• Directed readings</li> <li>• Panel discussions</li> <li>• Campus and facilities tours</li> <li>• Clinical shadowing</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare for careers and graduate education in behavioral health, psychiatry, and psychology</li> <li>• Gain exposure to the major concepts and controversies in the discipline</li> <li>• Explore potential job and educational pathways</li> </ul>
Collaboration and Networking	<ul style="list-style-type: none"> <li>• Collaborate with diverse teams, cohort members, and faculty</li> <li>• Networking with notable thinkers in the discipline</li> </ul>	<ul style="list-style-type: none"> <li>• Professionally present your personal brand</li> <li>• Learn to work with diverse teams</li> <li>• Connect with real scientists doing the work of the discipline</li> </ul>

Students in previous cohorts have indicated **this is an intensive program requiring a significant time commitment.** If selected, students should plan their other summer commitments accordingly.

## MENTOR PROFILE



**Michelle Clementi, PhD**

- Michelle Clementi, PhD is an Assistant Professor and pediatric health psychologist integrated in the Children's Hospital Colorado Pediatric Headache Program. Dr. Clementi's expertise is in psychological and behavioral interventions to address pain/headache management. Her research interests focus on the intersection of chronic pain, sleep, and mental health, and understanding how psychological interventions may improve quality of life for youth with chronic migraine.
- Her current study focuses on adapting and testing a mindfulness-based intervention for adolescents with chronic migraine. The first phase of the study involves conducting qualitative interviews with teens, parents, and providers about the experience of living with chronic migraine and feedback on adaptations to a mindfulness intervention. The second phase of the study (anticipated to begin in Fall 2023) will involve testing the intervention in a telehealth group format. Student responsibilities may include: coding qualitative interviews, participating in intervention adaptation meetings, preparing the IRB protocol for the second phase of the study, building a REDCap database, and preparing a manuscript focused on qualitative data.
- Students may also have the opportunity to shadow providers across multiple disciplines (psychology, neurology, physical therapy, nutrition) in the Pediatric Headache Program, participate in research and clinical team meetings, meet regularly with Dr. Clementi for professional development meetings, and assist with quantitative analyses for clinic-based data. Students may also be able to shadow pediatric health psychologists in other medical settings outside of headache (e.g., sleep, GI).
- Learn more: <https://som.cuanschutz.edu/Profiles/Faculty/Profile/29350>

## MENTOR PROFILE



**Aviva Olsavsky, MD**

- Dr. Aviva Olsavsky is an Assistant Professor and a perinatal/child psychiatrist at the University of Colorado School of Medicine with appointments in Psychiatry and Obstetrics/Gynecology. She is a graduate of Harvard College and the UCLA School of Medicine. She completed her adult psychiatry residency training at UCLA, a clinical research fellowship at the National Institutes of Health, and her child and adolescent psychiatry and postdoctoral research fellowships at the University of Colorado. Dr. Olsavsky's clinical work includes evaluation and treatment of mothers who grapple with mental health conditions and/or substance use during the perinatal period, as well as working with mothers and infants to improve their relationships. Dr. Olsavsky's NIH-funded research program aims to understand the impact of maternal substance use and mothers' early adverse experiences on their neural responses to infant cues and relationships with their infants. She has designed innovative virtual educational programming for psychiatric trainees as they become new parents, allowing them to learn about perinatal mental health and clinical neuroscience, while spending more time with their infants. She is a consultant to the American Heart Association's EmPOWERED to Serve program, which provides health educational content through community-based programs which aim to support and empower communities of Color. In seeking to understand the mechanisms through which stress and substances act on the parental brain, Dr. Olsavsky hopes to improve preventive and treatment approaches, to support new families, and to impact the mental health of multiple generations.
- PURPLE intern will join our Mama Brain Project team, investigating how adverse early experiences and cannabis use impact new mothers as they adapt to parenting their infants. We seek to understand how mothers process their own infant's cues in the brain and how these neural processes impact mother- infant relationships. The student will gain exposure to and learn about: clinical research project design, recruitment, working with vulnerable populations of mothers and infants including mothers with early life adversity and substance use, structured clinical interviews, functional MRI, methods for working with biological samples (blood and breastmilk), and micro-coding of mother-infant interactions.
- We approach the PURPLE program as a modular learning experience and an investment in the trainee as well as in my own dyadic relationship with them. I meet with trainees to understand their interests, and together we devise an appropriate sub-project for them to complete for their poster. I have had recent trainees who have presented locally, at national meetings, and who have been involved in writing of manuscripts. I believe in having longitudinal interactions with trainees for career mentoring after they leave the program, and investing this time is particularly important when people have the aim to be involved in writing of papers that might come from their work in the program. I am involved in many different projects, from research, to educational projects, and further, to health services and policy-focused work. I work as a psychiatrist in both perinatal mental health and substance use settings. I'm happy to add exposure to some of these settings to benefit PURPLE participants with the understanding that their primary focus will be research-related work during the summer.
- Learn more: <https://som.ucdenver.edu/Profiles/Faculty/Profile/20284>

## MENTOR PROFILE



**Allison Dempsey, PhD**

- Dr. Dempsey and the Connections team have developed comprehensive behavioral health programs for young children with complex medical conditions and their families on inpatient medical units and in outpatient clinics. In doing this work she learned to appreciate how technology could be used to reduce disparities in care, improve efficiency and effectiveness of service delivery, and lead to greater health outcomes. The team uses critical psychology and human centered design skills to identify larger problems in healthcare that could be solved meaningfully with technological innovation.
- There are two projects to which the student could contribute. Both already have data already collected so the student would be involved in data entry, cleaning, and verification as well as some simple analyses (with support from our team) and manuscript/presentation preparation.
  - Project 1: Investigating the degree to which developmental screening data collected in pediatric clinics for young children align with scores on a digital assessment of development created for the project.
  - Project 2: Identifying social determinants of health in NICU families that affect family engagement and NICU course.
- The student would have the opportunity to:
  - Shadow activities in various program rotations.
  - Attend clinical and research team meetings.
  - Set up REDCap databases for research projects and program evaluation.
  - Enter data into REDCap
  - Conduct basic analyses for program evaluation.
  - Assist with preparing IRB applications and revisions.
- Learn more: <https://som.cuanschutz.edu/Profiles/Faculty/Profile/27872>

## MENTOR PROFILE



**Jessica Megan Ross, PhD**

- I am a licensed Clinical Psychologist and Assistant Professor in the Division of Addiction Sciences, Treatment and Prevention, in the Department of Psychiatry at the University of Colorado Anschutz Medical Campus. I graduated from Florida International University in May 2016 with a doctorate in the Clinical Science of Child and Adolescent Psychology. I completed my postdoctoral training at the Institute for Behavioral Genetics at the University of Colorado Boulder on a National Institute of Drug Abuse (NIDA) T32 training grant which trains pre- and postdoctoral fellows on the genetics of drug addiction. My long-term goal is to establish a NIDA-supported patient-oriented research program to understand the consequences, predictors, and mediators of substance use and substance use disorders using developmentally-sensitive and genetically-controlled study designs. Currently, my program of research is focused on the effects of cannabis use on cognitive function, physical health, and psychiatric disorders. In addition to my research program, I am a therapist in the Encompass Program which provides therapy to adolescents and young adults with substance use disorders and comorbid psychiatric disorders (e.g., depression, anxiety, and conduct disorder)
- The primary aims of the NIDA grant are to understand the effects of cannabis abstinence on psychiatric disorder symptoms and cognitive function using a sample of twin pairs who both currently use cannabis. Twins will be randomized to either abstain from cannabis use (via contingency management) and their co-twin will only be monitored. Students can analyze data for other outcomes we are collecting like physical health and other substance use. Students will learn about conducting randomized controlled trials and twin studies as well as about substance use and substance use disorders, and other psychiatric disorders.
- The student will have the opportunity to assist with manuscript preparation (e.g., literature reviews, writing), complete assessments for the project with participants, schedule participants, and attend lab meetings. Students may also shadow during therapy sessions with Dr. Ross.
- Learn more: <https://som.cuanschutz.edu/Profiles/Faculty/Profile/32790>

## MENTOR PROFILE



**Jessica Kenny, PhD**  
**(she/her/hers)**



**Ayelet Talmi, PhD**  
**(she/her/hers)**

- Jessica Kenny, PhD is an Assistant Professor in the Department of Psychiatry at the University of Colorado School of Medicine and a Licensed Clinical Psychologist. Her primary clinical and research interests focus on integrated behavioral health in primary care and specialty medical settings, program development and outcomes evaluation, providing trauma-informed and culturally sensitive-care, addressing adolescent depression and suicidality in primary care, and increasing access to care for historically marginalized populations.
- Ayelet Talmi, PhD is a Professor in the Departments of Psychiatry and Pediatrics at the University of Colorado School of Medicine and a Licensed Clinical Psychologist. Her primary clinical and research interests focus on behavioral health service delivery systems for children and families, integrated behavioral health in primary care and community settings, early childhood mental health, and young children with special health care needs.
- The current project uses clinical informatics and coded multidisciplinary notes to track, characterize, and evaluate integrated behavioral health services for adolescents and/or child involved with child welfare in pediatric primary care settings. Examples of ongoing projects include assessing the impact of: adolescent depression screening in primary care, psychosocial risk and adversity on adolescent depression, behavioral health and primary care provider interventions and recommendations and adolescent health outcomes, a medical home focused exclusively on children and families involved with child welfare and associated health outcomes, and health disparities on service utilization and health outcomes. The student will learn about electronic health record data collection, clinical informatics as a driver for clinical decision-making, assessment of health outcomes to determine program impact, and enhancing clinical care through research and quality improvement efforts.
- Students have the opportunity to shadow integrated pediatric primary care clinical work for children aged 0-18 in a large, urban pediatric primary care clinic serving predominantly Medicaid-insured patients, with about 30% of families identifying as monolingual Spanish-speaking. They will be joining the CLIMB (consultation and liaison in mental health and behavior) team meetings, have multiple professional development meetings with each of their co-mentors to discuss career options and trajectories, and participate and learn about clinical informatics, data entry and cleaning, dataset management, and creation of a poster and oral presentation. Students will be encouraged to learn and think about research to inform clinical practice and systems-level reform.
- Learn more:
  - <https://som.ucdenver.edu/Profiles/Faculty/Profile/35678>
  - <https://som.ucdenver.edu/Profiles/Faculty/Profile/1735>

## MENTOR PROFILE



**Emily Hemendinger, MPH,  
LCSW**

- Emily Hemendinger, LCSW, MPH, CPH, ACS is currently an Assistant Professor, Clinical Director, and Deep Brain Stimulation Coordinator with the OCD Program, at the University of Colorado. Emily completed her dual degree program (MSW/MPH) from the University of Pittsburgh. She has over 10 years of clinical experience working with OCD, anxiety disorders, perfectionism, body image concerns, and eating disorders. Emily has a background in behavioral and community health sciences, health education, and health promotion. Her passion is combining her mental health and public health work, with specific focus on reworking our society's relationship with food and self-image.
- Students may work on one of the following areas:
  - Qualitative research on the quality of life of patients who received Deep Brain Stimulation surgery through our program.
  - Outcome measures/evaluation measures with our outpatient program and/or IOP program.
- The student may shadow my clinical sessions and groups, attend IOP planning meetings, and may also help us with outreach, screener calls, and our June 2023 fundraising event. The student may help with interviewing for the Deep Brain Stimulation research as well as coding data. The student may also help with data entry around our evaluation and outcome measures.
- Learn more: <https://som.cuanschutz.edu/Profiles/Faculty/Profile/29092>

## MENTOR PROFILE



**Patrick Romani, PhD**  
**(he/him/his)**

- Dr. Patrick Romani is an Associate Professor and licensed psychologist in the Department of Psychiatry at the University of Colorado. His research and clinical interests involve refining treatments for individuals engaging in severe problem behaviors as well as working with communities to expand access to evidence-based treatments for this population.
- The aim of this project is to expand access to evidence-based information about the Covid-19 vaccine to rural counties in Colorado. The prospective PURPLE student could expect to review quantitative and qualitative data to inform community-level intervention to improve Covid-19 vaccination rates. The PURPLE student will learn statistical approaches and how to engage with communities to intervene on socially important issues.
- During the remaining internship hours, the student can expect to shadow on the psychiatric inpatient programs at Children's Hospital Colorado. They will also participate in lab meetings and other research projects as time allows.
- Learn more: <https://som.ucdenver.edu/Profiles/Faculty/Profile/23266>

## MENTOR PROFILE



**Michelle L. West, PhD**  
**(she/her/hers)**

- I am the director of the early psychosis clinic and research program with the CU Department of Psychiatry, called the Program for Early Assessment, Care, and Study (PEACS). My clinical and research focus is on treating and understanding young people who are exhibiting early symptoms of psychosis, before onset of acute psychotic symptoms, known as clinical high risk for psychosis (CHR-p). PEACS offers specialized outpatient clinical services (evaluation, treatment), contributes to innovative research, and provides training. PEACS works with young people (typically ages 12-30) who are starting to experience new changes in their thinking or mental health, which may include: difficulties thinking clearly, uneasiness with others, experience of eyes/ears playing tricks, withdrawing from friends/family, and troubles with school/work.
- Our PURPLE student will meet with me and with other members of our team to decide their research focus. In the past, interns have done projects related to race and ethnicity considerations for clinical settings, overlap of psychosis and other diagnoses (e.g. OCD), and gender identity in psychosis populations. As a result, each intern's project is different and will be determined at the start of their time with PEACS.
- In addition to their project, interns will be involved in PEACS clinical team meeting, PEACS lab meetings, DEI didactics, shadowing evaluations and coaching sessions, training in the Structured Interview for Psychosis-Risk Syndromes (SIPS), and our early psychosis treatment seminars (in collaboration with our collaborators in MA).
- Learn more:
  - <https://medschool.cuanschutz.edu/psychiatry/programs-centers/psychiatry-research-innovations/PEACS/peacs-meet-our-team>
  - <https://som.ucdenver.edu/Profiles/Faculty/Profile/30178>
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