

2022 PSYCHIATRY UNDERGRADUATE RESEARCH PROGRAM AND LEARNING EXPERIENCE (PURPLE)

The 2022 **P**sychiatry **U**ndergraduate **R**esearch **P**rogram and **L**earning **E**xperience (**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.

Due to COVID-19, 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 23rd to August 12th, 2022**. 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 2022 will receive the same rigorous, fun, and meaningful experience for which PURPLE is known, but there will be a limited in-person component.

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 >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 \$3,600 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, though no transportation to campus will be required.

The application deadline is Monday, March 14th, 2022 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 14th 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.ucdenver.edu/surveys/?s=DPE9WCMCNJ3P9RFY) or web address by Monday, March 14th, 2022 (midnight MST): <https://redcap.ucdenver.edu/surveys/?s=DPE9WCMCNJ3P9RFY>

Letters of recommendation can be submitted via the above link or emailed directly by your recommender(s) to: 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 2022. All applicants will be notified of final application decisions, regardless of selection status, by the first week of May 2022.

CONTACT INFORMATION

The information in this packet serves as general guidance to the 2022 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:

<p>Emmaly Perks, MA, CCRP Director, PURPLE PURPLE@ucdenver.edu 303-724-4067</p>	<p>Yunliang (Lily) Luo, BS Assistant Director, PURPLE PURPLE@ucdenver.edu</p>
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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"> • Literature search and writing a literature review • Developing a research proposal • Pitching your ideas to funders • Shadowing digital study visits 	<ul style="list-style-type: none"> • Practice the scientific method from the proposal stage through implementation and closeout • Gain skills with various scientific tools
Data Manipulation	<ul style="list-style-type: none"> • Data collection and data entry • Data analysis • Data visualization 	<ul style="list-style-type: none"> • Familiarity with data manipulation techniques, including basic statistics • Develop skills in collecting, analyzing, summarizing, and reporting data
Scientific Communication	<ul style="list-style-type: none"> • Designing a scientific poster and oral presentation • Presenting research to a scientific audience • Writing up results 	<ul style="list-style-type: none"> • Develop confidence in communicating research outcomes to a real-world audience

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

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



Bruno Anthony, PhD

- Bruno J. Anthony, Ph.D. is a clinical psychologist, Professor and Vice-Chair of Psychiatry and Chief of Psychology for the Pediatric Mental Health Institute at Children's Hospital of Colorado as well as Research Director of Partners for Children's Mental Health. Dr. Anthony received degrees in Developmental Psychology at Columbia University and Clinical Psychology at the University of Wisconsin and internship at the Yale Child Study Center. He has experience with the intramural division of NIMH, the Department of Psychiatry at the University of Maryland and Georgetown University. He has focused his research and clinical work on developing family-focused and systemic approaches to identify and help children with behavioral/ developmental challenges and their families within primary care and school settings, including increasing access to quality of health services for minority populations. He has also been a leader in determining key components of peer support and the impact of this growing part of the mental health service array. At Georgetown, he was Deputy Director of the Center for Child and Human Development which has been at the forefront of developing systems change strategies for children with disabilities nationally, championing culturally competent services and approaches. Dr. Anthony has been a lead investigator on many large federal and state grants, has served as a member of federal review panels and has published more than 60 peer-reviewed articles and book chapters.
- Partners for Children's Mental health (PCMH) operates as a cross-system resource, training, and implementation hub in order to increase capacity, access, and quality of youth mental health services in Colorado. This project focuses on the startling increase in suicide rates among young people 10-24 years of age in Colorado and across the country. This project involves synchronous and asynchronous training and support for primary care practices (e.g., suicide prevention pathway) and schools (Dialectical Behavior Therapy, Question, Persuade, Refer) to raise awareness about the early signs of suicide risk, evaluate that risk and provide the best ways to intervene when necessary and provide appropriate resources. Purple students can observe the interventions and collaborate with the PCMH Research and Evaluation team in assessing the impact.
- Students will have the opportunity to prepare papers, attend meetings, data entry, data analysis, learning REDCap, and additional poster presentations
- Learn more – Bruno Anthony: <https://som.ucdenver.edu/Profiles/Faculty/Profile/25273>
- **Bruno and Laura will be hosting 1 student. The student will get to choose whose research they would like to participate in for PURPLE.**



MENTOR PROFILE



Laura Anthony, PhD
(she/her/hers)

- Laura Gutermuth Anthony, PhD is the Director of CIIRG. She is a Professor at the University of Colorado School of Medicine, the director of the Executive Functioning Clinic at CU Medicine in the Department of Psychiatry and a psychologist at the Children's Hospital Colorado in the Pediatric Mental Health Institute. She was trained in a dual-degree Ph.D. program in clinical and developmental psychology that allowed her to gain expertise in both typical and atypical development. Her unifying career goal has been to help individuals with developmental disorders move closer to their optimal developmental trajectories. In her clinical work, she evaluates and treats children, adolescents and adults with executive function difficulties and is the Director of the Executive Functioning Clinic at CU Medicine. She is especially interested in developing, testing, and implementing evidence-based practices in the communities where they are needed. Much of her current research is focused on developing and evaluating this evidence-based treatment program to improve executive functioning, including cognitive flexibility, goal setting, prioritizing/planning and coping skills in children with high-functioning autism spectrum disorders, Unstuck and On Target. She is also currently a Co-Investigator on a NIMH funded ACE network study investigating sex and gender differences in ASD symptomatology and longitudinal brain development during the transition from adolescence to adulthood. She brings the following areas of expertise to the CIIRG: school-based trial methodology; pragmatic study design; qualitative and quantitative (mixed methods) data analysis; implementation factors, experience on multiple federally-funded school based intervention studies; deep experience in mentoring at all levels, including K awardees and T32s, as well as an active clinical treatment practice in an academic medical center.
- Laura's team created an executive function curriculum for children with EF challenges called Unstuck and On Target!. They are currently working on and will be working on for the next couple of years, various versions of Unstuck and On Target! including a preschool and high school version. The aim will be to examine the feasibility and acceptability of these versions of Unstuck and On Target!. The student can assist in recruitment, data collection, data analysis, and a write-up for the scholarly paper (and poster presentation). The student will be able to explore the effectiveness of an innovative executive function curriculum for children and teens with EF challenges as well as learn more about implementation studies.
- Learn more – Laura Anthony: <https://som.ucdenver.edu/Profiles/Faculty/Profile/25274>
Bruno and Laura will be hosting 1 student. The student will get to choose whose research they would like to participate in for PURPLE.



MENTOR PROFILE



Bethany Ashby, PsyD
(she/her/hers)

- Bethany Ashby, PsyD is an associate professor in the Departments of Psychiatry and Ob/Gyn. Her clinical works focuses on the development of integrated behavioral health programs in obstetric settings. Dr. Ashby serves as the Director of Integrated Behavioral Health for the Young Mothers Clinic at Children's Hospital Colorado as well as the Director of the PROMISE Clinic at UHealth, which provides integrated behavioral health services to pregnant and postpartum women. Her research and clinical interests include the evaluation of integrated behavioral health services provided in obstetric and pediatric settings, implementation of trauma-informed care, and the impact of trauma and health disparities among perinatal women and their infants.
- The current project is focused on the evaluation of clinical services and both clinical and medical outcomes in the PROMISE Clinic, an integrated behavioral health program that serves perinatal women who are patients of UHealth's five obstetric and midwifery practices. Ongoing projects include implementation and evaluation of patient transitions into community mental health services, evaluation of universal screening for perinatal depression and anxiety across clinics, examining disparities in service utilization and pregnancy and birth outcomes for women engaged in integrated services. The student will learn about implementation and program evaluation of behavioral health services, the use of the electronic medical record in program evaluation, and impact of clinical services on health outcomes.
- Students will be able to participate in weekly PROMISE team meetings, shadow behavioral health and obstetric providers, and have regular meetings with their mentor to discuss career and professional interests and opportunities. The students will help with data entry and clean existing datasets, as well as participating in and learning about the evaluation of these data.
- Learn more: <https://som.ucdenver.edu/Profiles/Faculty/Profile/20284>

MENTOR PROFILE



Monique Germone, PhD, MA
(she/her/hers)

- Monique Germone, PhD, BCBA is a pediatric psychologist and board-certified behavior analyst. Dr. Germone is the Associate Clinical Director of the Down Syndrome Behavioral Health Collaborative (DSBHC) and lead psychologist in the Colorado Center for Celiac Disease. Both programs are located at Children's Hospital Colorado. Her current research activities include empirical analysis of the dietitian gluten-free diet adherence questionnaire, creating food insecurity supports for patients seen in the Digestive Health Institute, analyzing social media as it relates to patient education in celiac disease, and quality improvement projects in both the DSBHC and Celiac Center.
- There are currently several projects available to the PURPLE student. At the start of the PURPLE experience, the student will review the available projects and determine which project aligns with their interests and, with support from Dr. Germone, develop their own hypothesis and analysis for their project.
- The main expectations are to meet with Dr. Germone at least once per week for an hour, meet with the Celiac Research Team twice per month for an hour each, and provide weekly project updates to Dr. Germone. Depending on the project selected and the student's interests and abilities, the student could participate in data collection, data analysis, and manuscript development.
- Learn more: <https://som.ucdenver.edu/Profiles/Faculty/Profile/22240>

MENTOR PROFILE



Jacob Holzman, PhD, MA, BS

- Dr. Jacob Holzman researches how children and parents affect each other's mental health concerns. In particular, Dr. Holzman investigates factors related to self-regulation (e.g., emotion regulation, executive functioning) that contribute to stressful experiences for parents, affect parenting behaviors, and potentially predict responses to treatments for early childhood mental health concerns. His current project evaluates predictors of parenting focused interventions to inform ways these interventions can be tailored to have better outcomes. Dr. Holzman's work is aimed at finding ways to improve early childhood treatments to be more effective and equitable for parents and their young children.
- The primary aim of this project will be to evaluate factors that predict responses to a parenting focused intervention for young children with significant behavioral concerns (e.g., aggression). The student will receive education on executive functioning, including how individuals stay focused, inhibit impulsive actions, and remember information. Additionally, the student will learn about interventions for helping young children with internalizing and/or externalizing concerns. The student will gain experience in participant recruitment, data collection, and can observe a variety of early childhood interventions.
- Research tasks for the student will include: Consenting participants, running data collection and report measures, collecting survey data, data entry, and coordinating/managing surveys for participants.
- Learn more: <https://som.ucdenver.edu/Profiles/Faculty/Profile/29962>

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 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, 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, participate in 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



Noy Phimphasone-Brady, PhD
(she/her/hers)

- Phoutdavone Phimphasone-Brady, (preferred name Noy) is an Assistant Professor. As a clinical health psychologist, her expertise is in the clinical care of women's health and mental health across integrated care settings, specifically polycystic ovarian syndrome, type 2 diabetes, and weight management. As an implementation science researcher, she aims to understand and address 1) sex and gender and racial/ethnic differences in the development of mental illness in chronic medical conditions, and 2) individual, system, and cultural level determinants to the implementation, adaptation, and sustainability of mental health interventions for chronic conditions, especially for women of color.
- There are several activities that a student can be involved in, either research or clinical improvement programs or both.
 - Research experience in the Balanced and Empowered Eating in Diabetes Study (The BEET Diabetes Study). This study aims to understand and treat disordered eating behaviors in adults with type 2 diabetes. This is a bilingual English and Spanish study. Students can observe how to conduct a qualitative interview or do analyses, gain REDCap data entry experience, observe in how to deliver a CBT-based intervention to treat eating disorders, and be involved in quantitative data collection. Students will learn how to implement and conduct a small pilot study.
 - Research experience in The Endocrine And Mental Health Study (TEAM Health Study). This is a large, online study to identify mental health needs of people with and without symptoms of polycystic ovarian syndrome. Students will gain experience in management of a large REDCap database, assist with online recruitment strategies, and quantitative data cleaning and analyses. This is a bilingual English and Spanish study.
 - Clinical/Quality Improvement Experience with the Women's Behavioral Health and Wellness Service Line or the DAWN Clinic. Students will gain experience with program development and evaluation for clinical programs, gain REDCap experience, and learn how to balance stakeholders' perspectives of a clinical program.
- Learn more:
 - <https://som.ucdenver.edu/Profiles/Faculty/Profile/30306>

MENTOR PROFILE



Patrick Romani, PhD
(he/him/his)

- Dr. Patrick Romani is a psychologist at Children's Hospital Colorado. Clinically, he specializes in the assessment/treatment of behavior disorders for children with autism. His research focuses on expanding access to behavior-analytic services and apply behavioral principles to issues related to public health.
- The aim of this project is to determine reasons for Covid-19 vaccine hesitancy among youth diagnosed with autism. The trainee will analyze already collected data from a project evaluating reasons for hesitancy and ways to intervene on vaccine hesitancy.
- The student will be able to participate in: data collection, data analysis, and will be expected to attend weekly lab meetings.
- 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: the Program for Early Assessment, Care, and Study (PEACS) at the CU Anschutz. My clinical and research focuses on treating and understanding young people who are exhibiting early symptoms of psychosis, before onset of acute psychotic symptoms (CHR-p). PEACS offers specialized outpatient clinical services (evaluation, treatment), contributes to innovative research, and provides training. PEACS works with young people (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, sensitivity to sights/sounds, withdrawing from friends/family, and troubles with school/work.
- The student will meet with Dr. West 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). As a result, each intern's project is different and will be determined at the start of their term at PEACS.
- The student will be able to participate in: PEACS clinical team meeting, PEACS lab meetings, DEI didactics, shadowing evaluations and coaching sessions, training in the Structured Interview for Psychosis-Risk Syndromes, and early psychosis seminars.
- Learn more:
 - <https://medschool.cuanschutz.edu/psychiatry/programs/PEACS/peacs-meet-our-team>
 - <https://som.ucdenver.edu/Profiles/Faculty/Profile/30178>