

Faculty Mentor: *Andrea A. Pappalardo, MD*

General Information: When a child has an asthma attack, one of the only medications that can help is a reliever medication called albuterol. For many reasons, children do not always have access to an albuterol inhaler at schools. This places children with asthma at risk.

To ensure children with asthma always have access to albuterol, a potentially life-saving treatment, some states have passed laws that allow albuterol to be kept at schools to be given to any child when in need. However, these states still struggle with the logistics of safely storing and providing albuterol. Other states have no laws or procedures in place.

My American Lung Association-funded project aims to analyze the procedures in place for states with stock albuterol laws. We will use their lessons learned to determine how best to implement stock albuterol policy using a pilot test in Illinois in various school districts (urban, rural and suburban). Our goal is to support all states and school districts to successfully implement this life-saving program.

Key Roles:

- Prepare data for analysis and execute details of studies. Perform analysis and document results.
- May conduct literature searches.
- Participates in meetings and workgroups related to the project.
- May write abstracts and/or manuscripts based on findings.

Key Qualifications/ Experience Required:

- Bachelor's degree in Public Health, Social Science or related field required.
- Knowledge of fundamental research concepts, practices and procedures.
- Must exhibit careful attention to detail
- Excellent written and oral communication skills
- Experience with virtual platforms
- Strong interpersonal skills and exceptional professionalism

Preferred Qualifications:

- Master's degree in Public Health
- Proficiency in MS Excel, MS Word, MS PowerPoint, Qualtrics, RedCap, EndNote and Atlas.ti.
- Experience with SAS, SPSS, or R a plus

How to Apply: Students can apply by emailing their CV and Statement of Interest to *Dr. Andrea Pappalardo, apappa2@uic.edu*

Faculty Mentor: *Cristiana Hentea*

General Information: There are a number of challenges in the structure and outcomes of undergraduate medical communication education. Students experience a decay in patient-centered attitudes and skills during their clinical years. A comprehensive review of tactics used in promoting communication education in the clinical years as well as development of innovative strategies is needed.

Key Roles:

qualitative analysis

communication education curriculum development

systematic review analysis

Key Qualifications/ Experience Required:

- *Required student in a professional school (medicine, nursing, pharmacy, dentistry, etc)*
- *Experience with qualitative research methods is preferred, not required*

How to Apply: Students can apply by emailing their CV and Statement of Interest to *Cristiana Hentea, MD (hentea@uic.edu)*

Faculty Mentor: Jen Sanchez-Flack, PhD, MPH

General Study Information: Longitudinal and epidemiological data show that obesity is associated with an excess risk of early-onset colorectal cancer. Cancer among young adults is rapidly increasing, demonstrating the need to prevent obesity at an early age. This research aims to reduce cancer disparities by intervening on dietary behavior to prevent obesity among African American and Latinx families with preschool-aged children by utilizing novel digital health approaches to support parents in making healthier grocery purchases.

Key Roles: Because the COVID landscape is continually changing, the roles for this upcoming summer may change. However, it is anticipated that the summer scholar student will:

- Conduct qualitative data analysis on previously collected formative research data.
- Conduct a literature review for a review paper.
- Assist with the preparation of two manuscripts: 1) qualitative paper and 2) scoping review paper.

Key Qualifications/ Experience Required

Required qualification(s):

- Strong interest in child health inequities, health behavior science, and public health research.

Preferred experience(s):

- Prior experience in public health practice and/or research.
- Prior experience with qualitative data analysis and/or conducting literature reviews.
- Prior experience in manuscript preparation and scientific writing.

How to Apply: Students can email their CV or resume and Statement of Interest to Dr. Jen Sanchez-Flack at jsanch38@uic.edu.

Faculty Mentor: Jonathan Klein, MD, MPH

General Information: The WHO Partnership for Women's, Children's and Adolescents' Health (PMNCH <https://pmnch.who.int/>) is a global alliance of over 1,000 partner organizations. The 2021 – 2025 PMNCH Strategy is built on three objectives; Maternal Newborn and Child Health, Sexual and Reproductive Health and Rights, and Adolescents Health and Well-Being. PMNCH's advocacy agenda includes working towards a global call to action for adolescent health and wellness in 2023. The International Association for Adolescent Health (IAAH), a small global health professional specialty society, is organizing national and regional stakeholders to support efforts to advocate for national commitments to the global call to action. Effective participation in the Call to Action will be supported through developing networking, communication, and advocacy tools to support national adolescent health organization and their members.

Key Roles:

This is a leadership/advocacy project, as compared to a traditional research project. Working with Dr. Klein and other elected members of the IAAH leadership, a student will work on tools for rostering technical expertise, organizational capacity, and for supporting advocacy activities by national adolescent health stakeholders.

Key Qualifications/ Experience Required:

- Public health or health professions students preferred; senior undergraduates only with substantive relevant experience
- Experience with global health or global health organizations preferred

How to Apply: Students can apply by emailing their CV and a Statement of Interest to Jonathan Klein, MD, MPH at jonklein@uic.edu.

Faculty Mentor: Molly Martin, MD

General Information: National Institutes of Health (NIH) Community Engagement Research Alliance Against COVID-19 Disparities (CEAL) research teams are currently working in 21 states to provide trustworthy information through active community engagement and outreach to the people hardest-hit by the COVID-19 pandemic. The Chicagoland COVID Collaborative is a partnership of academic and community health disparities experts working together to improve COVID-19 vaccination and engagement in quality therapeutic care and trials for low-income Black and Latinx communities in the Chicago area. More info about our program is available at <https://chicovid.ihrp.uic.edu/>.

Key Roles:

Because the COVID landscape is changing so rapidly, the roles for this upcoming summer are unclear. We anticipate a need for students to work on qualitative and quantitative analysis, manuscript preparation, and possibly community data collection.

Key Qualifications/ Experience Required:

- Preferred experience with community research
- Preferred experience with qualitative data analysis
- Preferred Spanish-language skills

How to Apply: Students can apply by emailing their CV and Statement of Interest to Anna Sandoval, MPH, at asando1@uic.edu.

Faculty Mentor: Molly Martin, MD

General Information: COordinated Oral Health Promotion (CO-OP) Chicago is an NIH-funded research study that addresses oral health disparities in young children. The CO-OP Chicago trial finished in 2020. A subsequent data collection was conducted to better understand the impact of COVID-19 on oral health and social factors. Now the study is enrolling families again to study oral health social determinants over time. More information is available at: <https://co-opchicago.ihrp.uic.edu/>.

Key Roles:

- Assist with participant enrollment (in community locations)
- Assist with data collection
- Support data analysis and manuscript preparation

Key Qualifications/ Experience Required:

- Preferred experience with community research
- Preferred experience with academic manuscript writing
- Preferred Spanish-language skills

How to Apply: Students can apply by emailing their CV and Statement of Interest to Anna Sandoval, MPH, at asando1@uic.edu.

Faculty Mentor: Rebecca Feinstein, MPH, PhD, LCSW

General Information: The PATH 2 Purpose study is a two-arm comparative effectiveness research trial that will evaluate the ability of the interventions, Teens Achieving Mastery over Stress (TEAMS) and Competent Adulthood Transition with Cognitive-behavioral and Interpersonal Training (CATCH-IT), to intervene early to prevent depressive illness in adolescents ages 13-18 from diverse communities. The study will enroll 564 teens at-risk for depression into the two different online prevention programs, TEAMS and CATCH-IT, and compare their effectiveness, accessibility, time commitment, cultural acceptability, and implementation costs. Our challenge is to:

- Widely implement effective, evidenced-based mental health interventions in primary care clinics and schools;
- Successfully adapt the interventions for use in diverse communities; and
- Create a sustainable system for the interventions to be used in a population-health model.
- For more info: <https://path2purpose.info>
- Like us on https://www.instagram.com/path2purpose_study/
- Like us on <https://www.facebook.com/path2purpose2021/>

Key Roles:

Remote and in-person screening, Recruitment, and enrollment of adolescent patients age 13-18 in UIC pediatric and adolescent medicine clinics and Mile Square Health Centers.

Key Qualifications/ Experience Required:

We are seeking undergraduate and graduate students interest who have interpersonal skills, can work independently, and have previous work/volunteer experience with adolescents ages 13-18. Since the recruitment training process is complex, particularly due to COVID, students who are willing to volunteer longer than the 6-week Summer Scholars program are preferred.

How to Apply: Students can apply by emailing their CV and Statement of Interest to Rebecca Feinstein at rfeinst@uic.edu

Note: The position is contingent upon successful completion of training requirements for delivering the intervention.

Faculty Mentor: *Reshma Shah, MD, MPH*

General Information: Less than 25% of preschool-aged children with developmental delays and disabilities (DD) currently receive recommended therapies (e.g., speech therapy). Because therapeutic services are associated with improved school readiness and subsequent educational and health outcomes, a lack of therapies during this period can be responsible for substantial morbidity among children and their caregivers. This study will aim to understand: 1) predictors of accessing clinic- and school-based services among families with preschool-age children with developmental delays and disabilities who attend UI Health to better inform clinical, system- and policy-level changes; 2) the feasibility and acceptability of a brief intervention to support families access school-based services

Key Roles:

- Retrospective chart review using EPIC
- Quantitative data analysis
- Assist with manuscript preparation
- Assist with development of a website to support families access school-based services
- Conduct surveys to assess impact of a brief intervention
- Data entry
- Qualitative analysis

Key Qualifications/ Experience Required:

- Ability to use and understand EPIC preferred
- Preferred experience with quantitative data analysis
- Ability to communicate in Spanish preferred

How to Apply: Students can apply by emailing their CV and Statement of Interest to Reshma Shah, MD, at reshmamd@uic.edu.

Faculty Mentor: *Tianji Chen, PhD*

General Information: *We recently identified Paired Related Homeobox 2 as a novel pathogenic factor in pulmonary hypertension, a rare and incurable disease. However, we do not know how Prrx2 plays the role. In this summer program we would like to study the downstream mechanisms by which Prrx2 promotes PASMCM proliferation in-vitro, which can provide clues for how Prrx2 induces pulmonary vascular remodeling and PH in-vivo.*

Key Roles:

- *For this summer program, we plan to mainly focus on in-vitro studies in smooth muscle cells, as well as endothelial cells. Therefore we anticipate that students will work on cell culture, protein isolation and/or RNA isolation from the cultured cells, and downstream assays including Western blot, qPCR analysis, proliferation assays etc.*

Key Qualifications/ Experience Required:

- *Preferred experience in basic biomedical study techniques (including PCR, Western blot etc)*
- *Preferred basic knowledge in biomedical studies.*

How to Apply: Students can apply by emailing their CV and Statement of Interest to *Tianji Chen* at tianjic@uic.edu.

Faculty Mentor: Michelle Barnes MD

General Information: The Division of Education in the Department of Pediatrics is engaged in a number of projects related to medical education for pediatric residents. Ongoing projects include: implementation of a flipped classroom model for pediatric resident education, implementation of a peer coaching program for pediatric residents in the clinical setting, implementation of a climate change curriculum within the pediatrics residency program, and examination of the pediatric resident curriculum through the lens of equity with revision of rotation goals, objectives, expectations and content.

Key Roles:

Pediatric medical education continues to shift its focus towards supporting trainees in developing the skills needed in general pediatrics and away from a focus solely on acquisition of medical knowledge in pediatrics. We anticipate a need for students to conduct needs assessments for the residency program in various domains, work on IRB documentation, implement projects in various stages, and conduct data analysis. Students may also work on preparation of scholarly materials for presentation of this work regionally and nationally.

Key Qualifications/ Experience Required:

- Preferred experience with qualitative data analysis

How to Apply: Students can apply by emailing their CV and Statement of Interest to Michelle Barnes, MD, at mbarnes@uic.edu

Faculty Mentor: Lewis Hsu, MD, PhD

General Information: Sickle cell disease (SCD) is an inherited blood disorder with multisystem complications that requires acute and chronic medical care plus extensive lifestyle accommodation – subjects that clearly benefit from health education. SCD disproportionately affects people of color and is known for racial disparities in care and outcomes. Because SCD is a Rare Disease in the USA, many members of the general public and medical personnel have never encountered it. For this summer program, a student has a choice between two ongoing projects.

Key Roles:

- For this summer program, two projects are possible:
 1. Prepare health education materials for American and West African families of children with sickle cell disease, with focused messages rich in graphics. This activity aligns with the Illinois Dept of Public Health and with African Research and Innovative Initiative for Sickle Cell Education (ARISE)
<https://www.ariseinitiative.org/project-resources/>
 2. Prepare science education modules for afterschool programs (middle school/ high school) that present a scientific concept linked with a sickle cell story. This activity aligns with a project proposed to the National Science Foundation (Sickle MULTidisciplinary STEM in Collaboration (MUSIC))

Key Qualifications/ Experience Required:

- Preferred experience in education
- Preferred experience with graphics
- Preferred basic knowledge in biomedical studies.
- Preferred experience with underserved communities in Chicago or sub-Saharan Africa

How to Apply: Students can apply by emailing their CV and Statement of Interest to Lewis Hsu
LewHsu@uic.edu