Summer Scholars Program 2019

Applications Accepted: February – June 2019
Program Dates: Research – June –
Program Location: University of Illinois at Chicago West Campus
Paid Fellowship Dates: June 1st, 2019 – August 31st, 2019

PEDIATRICS COLLEGE OF MEDICINE
Overview

The University of Illinois at Chicago (UIC) Department of Pediatrics started the Summer Student Research Program in 2018 in order to enrich the experience of students conducting research in the Department. The program is sponsored by the UIC Department of Pediatrics Research Committee, under the director of Molly Martin, MD. All students working for faculty in the Department were invited to participate, and all faculty in the Department had the opportunity to participate as mentors.
13 Summer Scholars participated in this year’s program.

5 Universities housed the students participating
- 3 Medical Schools and 2 Undergraduate Schools
- Locations: Chicago, Iowa, Arkansas, and Ireland

8 Faculty mentored our Summer Scholars students

10 Research Projects kept our students busy this summer.

4 Didactic Lectures were provided to students covering research topics.

5 Summer Scholar Research Fellows

2 College of Medicine Craig Fellows participated in our program. For more information on the Craig Fellowship, click here.
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<td><strong>Assessment of Patient Education on Hydroxyurea Therapy in Sickle Cell Patients</strong></td>
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<td><strong>Primary Care and Community-based Prevention of Mental Disorders in Adolescents</strong></td>
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**PIs:**

- Dr. Reshma Shah, MD
  - Section Chief of Behavioral and Developmental Pediatrics.
- Dr. Lewis Hsu, MD, PhD
  - Director of Sickle Cell Program.
- Dr. Michelle Barnes, MD
  - Associate Director of Pediatric Residency Program.
- Dr. Molly Martin, MD, MAPP
  - Associate Head for Research.
- Dr. Jonathan Klein, MD, MPH
  - Executive Vice Head of Department of Pediatrics.
- Dr. Benjamin Van Voorhees, MD, MPH
  - Head of the Department of Pediatrics.
- Dr. De-Ann Pillers, MD, PhD
  - Section Chief of Neonatal-Perinatal Medicine.
- Dr. Nishant Srinivasan, MD
  - Director of Neonatal Simulation and Neonatal Transports.
- Dr. Rebecca Feinstein, PhD
  - Program Director.
- Dr. Jonathan Klein, MD, MPH
  - Executive Vice Head of Department of Pediatrics.
- Dr. Rebecca Feinstein, PhD
  - Program Director.
- Dr. Rebecca Feinstein, PhD
  - Program Director.
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<th>Topic</th>
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<td>Monday, June 17th</td>
<td>Intro to Summer Scholars Program – Meet &amp; Greet for Faculty Mentors &amp; Students</td>
<td>Dr. Molly Martin, MD, MAAP Associate Head of Research UIC Department of Pediatrics</td>
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<td>Thursday, June 27th</td>
<td>Research Design &amp; Translation Research</td>
<td>Dr. Alan Schwartz, PhD The Michael Reese Endowed Professor of Medical Research Professor, UIC Department of Pediatrics</td>
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<td>Monday, July 8th</td>
<td>Survey Design</td>
<td>Dr. Jonathan Klein, MD, MPH Senior Associate Head of the Department of Pediatrics</td>
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<td>Thursday, July 18th</td>
<td>Mixed Methods &amp; Qualitative Research</td>
<td>Dr. Rebecca Feinstein, PhD Project Director of Path 2 Purpose</td>
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<td>Thursday July 25th</td>
<td>Student Power Point Presentations</td>
<td>Summer Scholars Students</td>
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<td>Thursday, August 1st</td>
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<tr>
<td>Scholar</td>
<td>University</td>
<td>Medical Status</td>
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<tr>
<td><strong>Sophia A. Bidny</strong></td>
<td><strong>University of Illinois at Chicago College of Medicine</strong></td>
<td><strong>Medical Student - Class of 2024</strong></td>
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<tr>
<td><em>Craig Fellowship Recipient</em></td>
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A recent alumna from UIC, receiving her Bachelor's degree in Chemistry, Sophia continues to be part of UIC's community as she takes on her second year of Medical School this fall. Participating in this program taught her the importance of organizing and communicating with other people on the research team to help move the progress and success of a clinical and statistical study, whereas in bench lab research, the work is more independent. She also learned about the different research methods available within clinical research and was able to develop a basic knowledge of the program language R! Her research interests include the smoking effects on pregnancy, neonatal health, and pediatric craniofacial development. Although she is still determining her career trajectory, she is confident that she will go into a pediatric specialty, specifically Neonatology – which is why she chose to take on this research project. However, Plastics and ENT are not off the table.

**Project:** Racial and Gender Influences on Nicotine Processing and Gestational Age  
**Faculty Mentor:** Dr. De-Ann Pillers

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<tr>
<td><strong>Muskaan Chhibber</strong></td>
<td><strong>University of Illinois at Chicago</strong></td>
<td><strong>Undergraduate Student</strong></td>
<td><strong>New Delhi, India</strong></td>
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<td><em>Summer Scholars Fellowship Recipient</em></td>
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Muskaan is currently completing her undergraduate studies here at UIC where she is double majoring in Neuroscience & Philosophy. This summer, she completed a desk analysis on tobacco control guidelines in Low and Middle Income Countries (LMICs). Her tasks included everything from formulating a hypothesis, conducting an extensive internet search, constructing surveys to evaluate the guidelines, and lastly, coding the survey data. Her research interests are in policy and lab research. She is also drawn to specific topics like magnetic kyphoplasty and bone graft comparisons. In the future, Muskaan aspires to become a physician and take up a research oriented path along with it. She has pursued this goal of becoming a physician by acquiring her EMT license and working with the community health department at UI health. She hopes to intermingle her interest in the field of medicine as a physician with her prolonged interest in research and volunteering.

**Project:** Secondhand Tobacco Smoke and MCH Services in low and middle income countries (LMICs)  
**Faculty Mentor:** Dr. Jonathan Klein
### Meet the Scholars

#### Brady Carlton Goodwin
*Des Moines University | Medical Student – Class of 2023*  
Hometown: Portland, OR

Before Medical School, Brady was studying Psychology and receiving his Bachelor degree at Oregon State University. He joined us this summer to work as a Summer intern on the Catch-It Program. His main role was to primarily prepare the manuscript examining the secondary outcomes of the online depression intervention program. Through this experience he learned how to conduct a qualitative analysis while analyzing participant interviews. He also learned about the importance of writing clear questions for surveys and how to conduct focus group interviews. This experience helped solidify his research interest in adolescent depression and mood disorders and career aspiration to become a Psychiatrist.

**Project:** Primary Care and Community-based Prevention of Mental Disorders in Adolescents  
**Faculty Mentor:** Dr. Rebecca Feinstein

#### Carol Jacob
*University of Illinois at Chicago | Undergraduate Student*  
*Summer Scholars Fellowship Recipient*  
Hometown: Edmonton, Alberta (Canada)

Carol Jacob is a rising senior at UIC pursuing her Bachelor degree in Biology with a minor in Sociology. During her research project, she provided interventions to parents at the Pediatric out-patient clinic - demonstrating play and talk activities to promote child development. She also helped with data collection regarding the program's acceptability, conducted fidelity checks, and participated in discussions on how to implement the program in other clinics. The Summer Scholars Program gave her the opportunity to talk to other student researchers and learn about the diversity in clinical research. She also realized the importance of flexibility and adaptation to keep a program effective and beneficial to the participants. Through this program, she recognized her attraction to clinical research and how it helps mold knowledge of disparities for the current and future generations. She wants to conduct research that will similarly develop intervention programs that will educate and provide resources to disadvantaged communities and improve patient-provider relationships. She is also interested in interdisciplinary research to implement public health policies & enhance patient efficacy and promote patient-centered decision making.

**Project:** Sit Down and Play Program  
**Faculty Mentor:** Dr. Reshma Shah
Meet the Scholars

Kimberly Orozco
University of Illinois at Chicago College of Medicine | Class of 2022
Hometown: Chicago, IL
*Summer Scholars Fellowship Recipient*

Before pursuing Medical School here at UIC, Kimberly was double majoring in Psychology and Gender Studies at Northwestern University. This summer, she joined another med student colleague and worked on the Community Health Worker Inventory project where she designed and disseminated comprehensive surveys to better understand the wealth of community health work at UIC. Kimberly came with previous work experience as Team Leader for a team of Community Health workers (CHWs) where she observed the beneficial and measurable health outcomes for the individuals supported by CHWs. The CHW Inventory project she conducted through the program highlighted the complex process of implementing change and the powerful role research can play. She learned about the importance of inter-professional collaboration in creating sustainable and system-wide changes.

Project: The Community Health Worker Inventory Project & Asthma Action at Erie Trial
Faculty Mentor: Dr. Molly Martin

Elizabeth Lampley
University of Iowa | Undergraduate Student

Elizabeth joined us this Summer after completing her first year as an Undergraduate student from the University of Iowa, majoring in Public Health. She joined Dr. Van Voorhees and Dr. Feinstein's team working on evaluating two programs designed to prevent depression in adolescents- Catch-It (an online program with interactive questions and games) and POD (a face-to-face group interaction led by a moderator). She lead focus groups to obtain feedback from rural teens on the two interventions. She conducted every part of the study, including, consenting participants, taking detailed notes of the focus groups (including verbal and physical cues and responses), and coding the transcripts using a team-based approach. Through this experience, she learned about the different research methods, how to design and effective questionnaire or survey, and the importance of community engagement. Her research interests now consist of implementation of preventative measures to benefit the public, specifically regarding mental health in youths. In the future, she hopes to utilize her experience in research and public health and become a successful pediatrician.

Project: Primary Care and Community-based Prevention of Mental Disorders in Adolescents
Faculty Mentor: Dr. Rebecca Feinstein
# Meet the Scholars

## Jonathon Schening
*University of Illinois at Chicago College of Medicine | Class of 2020*

Before pursuing medical school here at UIC, Jonathon was at the University of Miami completing his Bachelor's degree in Biomedical Engineering. His impressive undergraduate degree made him an excellent fit for his summer research project. Jonathon was very helpful this summer as he advised and began the implementation of the virtual reality procedural simulator. He was able to gain experience with virtual reality interface, explore aspects of successful pericardiocentesis and chest tube placement in neonates, and learn about the implementation of instructional simulation. Now, his research interests include medical education and procedural simulation. In the future, he aspires to become a physician in Internal Medicine & Pediatrics, Cardiology, or Medical Education.

**Project:** Virtual and Augmented Reality for Neonatal Procedural Simulation Models  
**Faculty Mentor:** Dr. Nishant Srinivasan

## Calvin Rusiewski
*University of Limerick Graduate Entry School of Medicine | Class of 2020*

Calvin's unique path to becoming physician includes studying East Asian Languages and Cultures, History, and Biochemistry from University of Illinois in Champaign and in Chicago. He is now attending medical school in Ireland. During the summer, Calvin worked on implementation and scalability research for the PATH and PICORI projects. Through this experience, he learned a lot about the depth and complexity of implementation studies. He also gained a much deeper appreciation for the specific language and terms in the context of public health – to him, it was like learning another language at times! He felt fortunate to work with individuals who were very knowledgeable and specialized in their particular fields, and as a result he was able to get a better appreciation (sometimes challenging) collaboration in research. Since the program, his research interests now consist of pediatric mental health, health inequities, and sports medicine. His career goal is to become a physician in Pediatrics, Sports Medicine or Emergency Medicine.

**Project:** Primary Care and Community-based Prevention of Mental Disorders in Adolescents  
**Faculty Mentor:** Dr. Rebecca Feinstein

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<tr>
<td><strong>McKenzie Schwarze</strong></td>
<td>University of Illinois at Chicago College of Medicine</td>
<td>Class of 2022</td>
<td>Carol Stream, IL</td>
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<tr>
<td><strong>Addison Stieferman</strong></td>
<td>University of Arkansas</td>
<td>Undergraduate student</td>
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Before joining UIC as medical student, McKenzie was at Georgetown University pursuing her Bachelor degree in Human Biology. This summer she joined the Pediatric residency program directors on their study to understand the recruitment frenzy. Her roles consisted of writing an IRB protocol for the upcoming phase of the study, attending data analysis meetings, and composing abstracts to share the pilot data at upcoming conferences. Through this experience, she learned the importance of conducting a multivariate analysis of data before drawing conclusions, how to look for outliers in the data set and determine if they are true outliers or just errors during survey completion, and how to analyze the data based on questions asked, not based on responses received! Her research interest now consist of: medical education and health and wellness interventions for medical students. She plans to become a pediatric physician, with a possible subspecialty in cardiology or gastroenterology.

**Project:** Understanding the Recruitment Frenzy

**Faculty Mentor:** Dr. Michelle Barnes

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Under the mentorship of Dr. Rebecca Feinstein, Addison joined Dr. Van Voorhees' team of researchers to work on the PCORI study. Specifically, she co-lead focus groups to obtain feedback from rural teens on 2 types of interventions – Catch-It (an online program with interactive questions and games) and POD (a face-to-face group interaction led by a moderator). She participated in every part of the study, including consenting participants, taking detailed notes of the focus groups (including verbal and physical cues and responses), and coding the transcripts in a team-based approach. This summer project really allowed her to learn and grow as a researcher. In the future, she aspires to apply medical school and become a physician.

**Project:** Primary Care and Community-based Prevention of Mental Disorders in Adolescents

**Faculty Mentor:** Dr. Rebecca Feinstein
Meet the Scholars

Nidhi Suthar  
*University of Illinois at Chicago College of Medicine | Class of 2022*  
Hometown: Peoria, IL

Nidhi’s educational background includes a Bachelor’s degree in Biology and a Master’s degree in Public Health, both from UIC. Now, she is a rising M2 at UIC. Over the summer, she worked under the mentorship of Dr. Lewis Hsu on assessing the efficacy and patient perceptions on the American Society of Hematology (ASH) Hydroxyurea Booklet and to conceptualize the increasing knowledge and medication adherence in patients with sickle cell disease (SCD). This was achieved via patient survey and interviews. Through this experience, her quantitative and qualitative research skills strengthened, she became more experienced in the IRB Process, and she received clinical exposure by interviewing pediatric and adult hematology patients. Her research interests now include: patient education, pediatrics, health disparities, and community-based research. Her career goal is to become a physician and work with pediatric populations and underserved communities.

**Project:** Assessment of Patient Education on Hydroxyurea Therapy in Sickle Cell Patients  
**Faculty Mentor:** Dr. Lewis Hsu

Kathryn Tabor  
*University of Illinois at Chicago College of Medicine | Class of 2022*  
Hometown: Park Ridge, IL

Kathryn started her academic career at the University of Wisconsin-Madison pursuing a Bachelors of Science in Genetics. She is now a rising M2 at UIC. This summer she worked alongside another classmate on the UIC Community Health Worker Inventory Project. Her roles included survey design and distribution, data analysis and representation, and generating reports on the survey results. Through this summer research experience, she was able to take home some key messages: (1) research methods are as variable as the questions they address; (2) there are a lot of different ideologies about the "way" research should be done, and throughout history, more or less rigorous theories have risen and fallen. The landscape of research is constantly changing; and (3) As a physician, there is so much opportunity to pursue your research interests. She moves on from this experience with the following research interests: social determinants of health, best care delivery practices for low-income populations, health insurance models, and maternal fetal health. Her career goals are to practice medicine at a Federally qualified Health Center (FQHC) and provide OB care as a family medicine doctor.

**Project:** The Community Health Worker Inventory Project  
**Faculty Mentor:** Dr. Molly Martin
Lacey J. Zimmerman  
*University of Illinois at Chicago College of Medicine | Class of 2022*  
Hometown: Mattoon, IL

Lacey has been a part of the University of Illinois since undergrad. She received her Bachelor’s in Molecular and Cellular Biology in Champaign-Urbana and has now moved to the Chicago campus for medical school. Over the summer, she worked on the Coordinated Oral Health Promotion (CO-OP) project, a cluster randomized controlled trial aiming to improve children’s oral health. Her roles included writing the baseline manuscript. To complete this task, she shadowed the research assistants and community health workers as they completed their trial duties. She also assisted with the administration and data collection of follow-up surveys to participants who already completed the trial. From this research experience, she learned how research can be incorporated into a practicing physician’s career, how a large-scale trial is conducted, and that she prefers clinical research over basic science research. Following the program, her research interests are in Pediatrics and Dermatology.

**Project:** Coordinated Oral Health Promotion (CO-OP) Chicago  
**Faculty Mentor:** Dr. Molly Martin
Program Evaluations

Student Feedback

Responses Received  Average Completion Time
8 Students 13.6 minutes

- The respondents were very satisfied with the overall program and felt it enriched their summer research experience.

- They also felt their individual research projects were both appropriate and relevant and that their mentors gave clear direction and guidance to help with their projects and presentations.

- The majority of the respondents felt the lecture series format and content were appropriate and easy to follow and would keep the lectures in next year’s program.
Program Evaluations

Faculty Feedback

Responses Received  Average Completion Time
5 faculty  2.8 minutes

- All the respondents felt that to some capacity, the program enriches student's summer research experience, increases the student's interest in conducting research, and would continue to recommend students to the program and mentor next year.

- All also agreed that having a summer scholars student was helpful to them and their research team.

- In regards to the lecture series, all agreed the didactic “lecture” format was appropriate but some disagreed the length (60 minutes) was acceptable.
2020 Summer Scholars Program Timeline

August 2019 – December 2019  
Department of Pediatrics Research Committee will review feedback and refine program to incorporate effective changes.

January 2020  
Call for open research positions from UIC Pediatric Faculty

Late January 2020  
Applications open for Summer Scholars Program and Summer Scholars Paid Fellowship Program with brief description of open positions.

March 20th, 2020  
Application Deadline for Summer Scholars Paid Fellowship Program (Summer Scholars Program Applications will be available through the beginning of June)

April 2nd, 2020  
Pediatric Research Committee will review Fellowship Applications

April 9th, 2020  
Pediatric Summer Scholars Paid Fellows will be announced.

June 1st – August 31st  
Summer Scholars Research Program

TBD  
Summer Scholars Seminar Series