



**THE SUMMIT**  
COUNTRY DAY SCHOOL

# Science Research Institute Mentors Needed

The Science Research Institute is a college preparatory program designed for students who plan to seek degrees and careers in the sciences. Building on the strong foundation of the Middle and Upper School science curriculums, the program's goal is to increase scientific literacy and provide an opportunity for authentic scientific research.

Through three sequentially-tiered classes and an authentic scientific research experience, the institute gives motivated students a head-start on college-level scientific research and writing. Jessica Replogle, Ph.D. head of the institute, connects students with mentors in the scientific community who provide laboratory research experiences. Acceptance into the program is by application only. The Summit selects the students based on academic achievement, work ethic and teacher recommendations.

## How You Can Help!

The Science Research Institute seeks mentors in clinical, basic or engineering research laboratories at area hospitals, universities, government, industries and other research facilities who will guide a high school student through a research project. Please contact Jessica B. Sakash Replogle, Ph.D. Science Research Institute Head via email, phone or go to [www.summitcds.org/SRI-Mentors](http://www.summitcds.org/SRI-Mentors) to complete a form to be contacted.



### 2018 Research Topics

- Clinical Orthopaedic Study
- Regional Economic Science
- Hematopoiesis
- Biosensing Technology
- Clinical Cardiology Study
- Monarch Butterfly Conservation
- Astrophysics
- Video Monitoring
- Clinical Biological Clock Study
- Community Health
- Vapochromic Materials
- Biosensor Engineering

**Jessica B. Sakash Replogle, Ph.D.**

**Science Research Institute Head**

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**[www.summitcds.org/SRI-Mentors](http://www.summitcds.org/SRI-Mentors)**

**6**

Years of  
Program

**55**

Mentors

**5**

Abstracts  
Published

**1**

Intel ISEF  
Finalist

**[www.summitcds.org/SRI-Mentors](http://www.summitcds.org/SRI-Mentors)**

## A year at a glance:

### Early spring

- Determine if you will work with student directly on project or assign a group member (postdoc, grad student, undergraduate student, research assistant) to oversee the student and the project
- Connect the student to the appropriate people they need for processing paperwork, discussing project details, determining start date
- Provide background literature such that students could write a literature review or mini proposal on what they will be exploring during the summer

### Summer

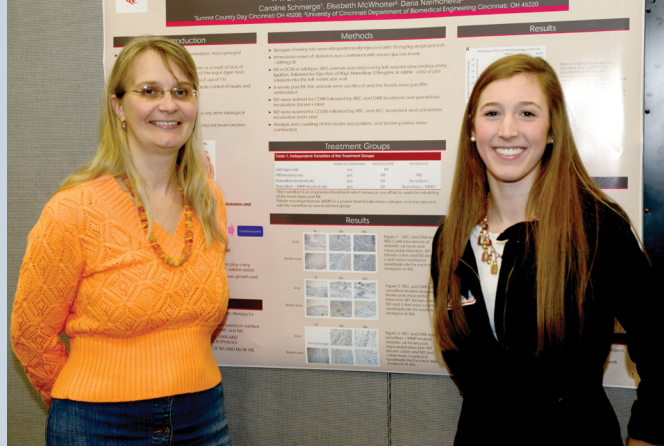
- Having student work on their own mini project or work on an aspect of your project (this has ranged from 4 to 9 weeks, depending on the project)
- Assisting student with finding and understanding background information (journal articles, textbook chapters, etc) on the project
- Helping student understand how their contribution impacts the big picture of your research
- Engaging in conversations about literature, your research questions, techniques, etc. to clear up misunderstandings the student might have
- Training student to use tools and techniques specific to the project they are working on with the hope that the student may become independent in using tools and techniques during the summer
- Working with students to develop a day-to-day schedule to maximize their experience and your own working time
- Coordinating opportunities with other group members for the HS student to shadow or assist on other projects to broaden their experience
- For clinical projects, arranging opportunities for HS student to shadow clinician on patient rounds
- Inviting HS student to group, department or divisional meetings; if possible, let them present at these meetings

### Fall

- Answer questions that arise as students are writing about their project
- Proofread their poster
- Allow student to practice presenting their oral presentation to you and/or group
- Give permission and assist with forms if student would like to apply to competitions or attend meetings (poster presentation)

### Winter

- January: attend the Science Research Institute Colloquium to support these students as they present their research presentations



### 2018 Research Partners:

- David F. Smith, M.D., Ph.D., Division of Pulmonary Medicine, Cincinnati Children's Hospital Medical Center
- Farrah Jacquez, Ph.D., PITCH Lab, University of Cincinnati
- Roger Cornwall, M.D., Division of Orthopaedic Surgery at Cincinnati Children's Hospital Medical Center
- Olivier Parent, Ph.D., Carl H. Lindner College of Business, University of Cincinnati
- H. Leighton Grimes, Ph.D., Division of Immunobiology, Cincinnati Children's Hospital Medical Center
- Jason Heikenfeld, Ph.D., Department of Electrical Engineering and Computing Systems - Novel Devices Laboratory, University of Cincinnati
- Rui Dai, Ph.D., Multimedia Networking and Computing Laboratory, University of Cincinnati
- Lynne Wagoner, M.D., Mercy Health – The Heart Institute.
- Nate Barker, William Connick Laboratory – Department of Chemistry, University of Cincinnati
- Marco Fatuzzo, Ph.D., Department of Physics, Xavier University
- Olivia Espinoza, Center for Conservation – Cincinnati Nature Center

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