

SI BRIDGES

NEWSLETTER

SI Bridges is an NIH-funded program that supports STEM students who transfer to SIUC from Community Colleges.



I have been part of the SI Bridges program for almost 7 years now. It is an absolute pleasure seeing the SI Bridges scholars go through this program and grow professionally and academically. Most of the scholars in the program are first-generation, low-income college students who participate in the SI Bridges program to receive assistance to succeed in college and future careers. Through the program, I introduce the students to research-based learning activities where they develop molecular biology, biochemistry and microscopy skillsets. Scholars then take these newly developed skills to their research lab. It is here under the mentorship of a SIUC Faculty where scholars refine their skills, and develop additional research skills that will help them shape their long-term career goals. Finally, I would like to applaud the perseverance and determination of all SI Bridges scholars and for making this a successful program for future scholars.

Sincerely,
 Laxmi Sagwan-Barkdoll
 Principal Investigator
 SI Bridges to the Baccalaureate



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Inside the Summer Research Immersion

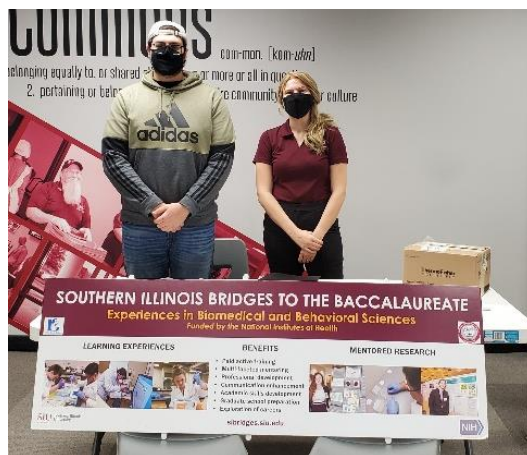


Cohort 7 SI bridges scholar the 2022 Poster Symposium: Braeden, Rebecca Schemonia, Hannah Phillips, Caleb Gentry, Emily Duran, Taryn Sauerbunn, Jewel Greene, and Kelsee Dodd.

Each year the SI Bridges Scholars participate in an intensive 10-week Summer Research Immersion (SRI) during which they designed and completed research under a faculty or staff mentor. The summer research provides the students the opportunity to conduct a research project where they learn valuable skills in the lab and develop as professionals. During the SRI, scholars work full time on individual projects and weekly group activities. The weekly meetings give students a closer look into topics such as gene-editing, authorship, peer-review, and mentor-mentee relationships.

At the Research Symposium, the hard work and dedication of the scholars' showed in their presentations to the faculty and fellow students. Pages 3-5 highlight the 2022 SRI symposium with images of each scholar and the poster they created based on the results of their research.

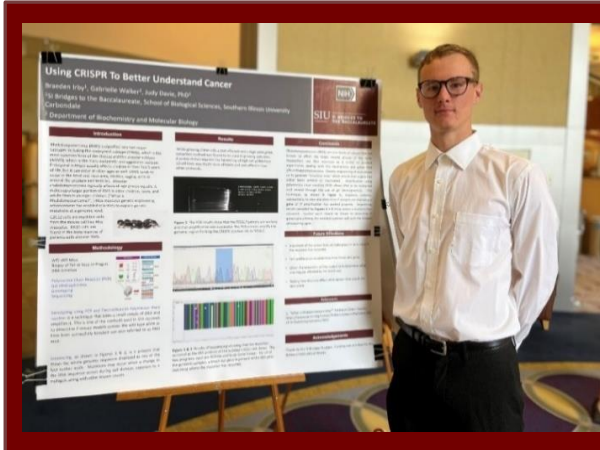
Inside Look at Recruitment for SI Bridges



Past scholars partake in recruiting students to participate in the SI Bridges Program. During the 2022 fall semester, students manned tables and visited classrooms at JALC and SCC.

To learn more about the SI Bridges to Baccalaureate program, please visit sibridges.siu.edu or contact your community college representatives-Lori Armstrong for SCC and Hannah Henson for JALC.

SCHOLARS AT THE 19th ANNUAL SUMMER RESEARCH SYMPOSIUM



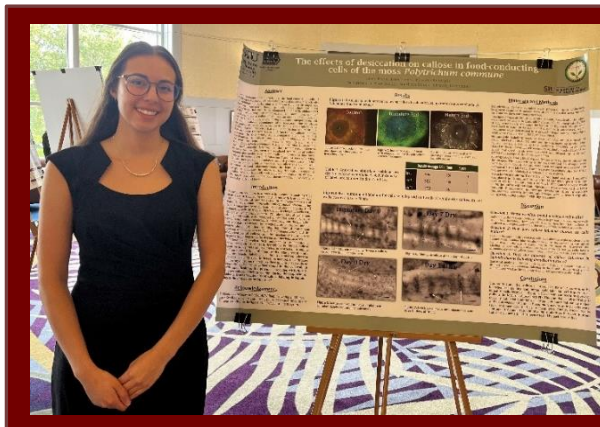
Braeden Irby is a sophomore at JALC and will transfer to SIU in fall 2023 where he will major in biology. This past summer he worked with Dr. Judy Davie, Associate Professor in the School of Medicine.

RESEARCH TITLE: Using CRISPR to better understand cancer



Caleb Gentry is a junior at SIUC where he is pursuing his passion for wildlife by majoring in Zoology. This summer he worked with Dr. Guillaume Rousseau and graduate assistant Maximilian Larreur in the Cooperate Wildlife Research Lab.

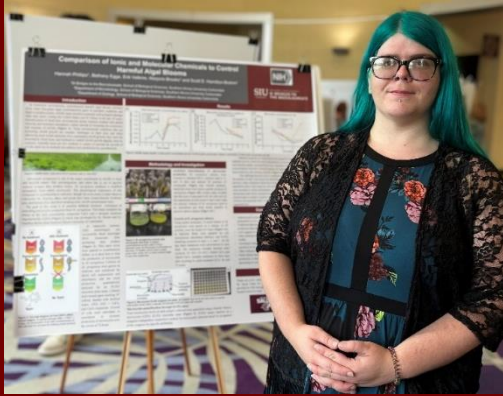
RESEARCH TITLE: Gray fox occupancy in Southern Illinois



Emily Duran is a recent graduate with a bachelor's degree in Plant Biology. This summer she worked with Emerita Professor, Karen Renzaglia and Dr. Jason Henry, Assistant Professor at SEMO.

RESEARCH TITLE: An investigation of callose and its roles in the plasmodesmata of the moss *Polytrichum commune*

SUMMER RESEARCH SYMPOSIUM CONTINUED



Hannah Phillips is a sophomore at JALC majoring in biological sciences. This summer she worked with Dr. Scott Hamilton-Brehm, Associate Professor in the Microbiology Department.

RESEARCH TITLE: Comparison of ionic and molecular chemicals to control harmful algal blooms



Jace Moore is a senior majoring in computer science at SIUC. This summer he worked with Dr. Ning Yang, Professor in the Computer Engineering Department.

RESEARCH TITLE: Using YOLOv5 to detect distracted drivers



Jewel Green is a senior at SIUC majoring in Zoology. This summer she worked with Dr. Michael Eichholz in the Cooperative Wildlife Research Lab and Center for Ecology.

RESEARCH TITLE: Nestling feeding rates relating to weather

SUMMER RESEARCH SYMPOSIUM CONTINUED



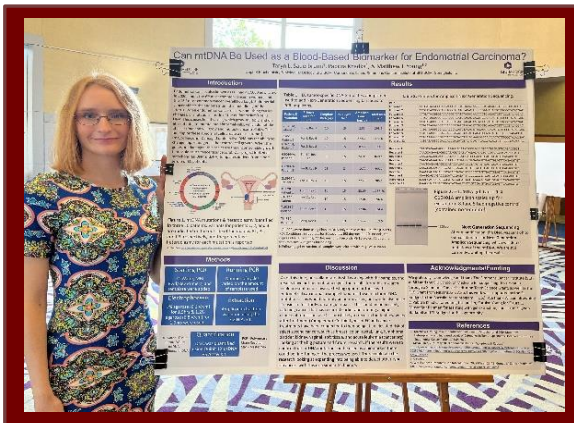
Kelsee Dodd is a senior at SIU and is studying Zoology. This past summer she worked with Dr. Brent Pease in the Forestry Department.

RESEARCH TITLE: American black bear (*Ursus americanus*) color morphs in the United States and Canada



Rebekkah Schemonia is attending SIUC where she is majoring in Animal Science with a minor in Equine Science. During the 2022 SRI she worked with Dr. Laxmi Sagwan-Barkdol in the molecular and plant biology lab.

RESEARCH TITLE: Role of active site loop region and its function of watermelon glycoxysomal malate dehydrogenase



Taryn Sauerbrunn is a junior at SIUC majoring in Nutrition and Dietetics. This past summer she worked with Dr. Matthew Young in the Biochemistry and Molecular Biology Department.

RESEARCH TITLE: Can mitochondrial DNA be used as a blood-based biomarker for endometrial carcinoma?

Student Spotlight Interview

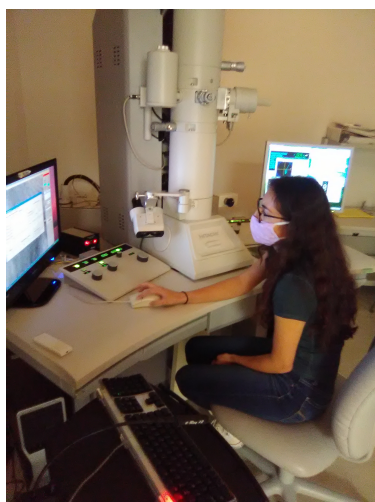
Q1: How did you discover the SI Bridges program?

A1: I was working as a student assistant in the biology department of John A. Logan Community College when I mentioned a career in research to a faculty member. She told me about a program, SI Bridges, which gives undergraduates a chance to conduct research at SIU and get paid. That same day, I went down to talk to members of the program who were conveniently tabling in the cafeteria and filled out my application immediately.



Q2: How has the SI bridges program helped you achieve your academic goals?

A2: Transferring to SIU, I always had the dream of eventually going to graduate school. Good grades are not the only criteria to get into a graduate program. I needed to get more involved in extracurricular activities. Thanks to the SI Bridges program, I was able to get connected with my mentor who understood my goals and helped me get involved in research. My research is now in the works to be published which is an amazing opportunity that not every undergraduate in a lab receives.



Q3: What are your plans for the future?

A3: In the near future, I hope to have my research published in a scientific journal. Working in the plant biology industry is my overall career goal. SI Bridges allowed me to realize that I enjoy working in a laboratory setting and discovering new things in research. At this point, I am searching for the role that best suits me and my goals post-graduation. Through the SI Bridges program, I have received job experience, professional development, and support to set me on track for graduate school and a career in science.

Q4: Would you recommend the SI Bridges program to other students?

A4: I believe any student with an interest in S.T.E.M. who is seeking research opportunities should consider applying for the SI Bridges program. It is a wonderful chance to gain hands-on work experience outside the classroom. When I was a community college student, the program was a wonderful opportunity to work a job and pay for college at the same time. I have had tremendous support and growth during my time as a SI Bridges scholar. I highly recommend this experience to any college student looking for the next step in building their future.



SI Bridges in the Community

The SI Bridges program joined with teachers from the NSF Noyce River Region Sustainability Program and Alto Vineyard to contribute to a science-filled festival called Family Eco Festival. The mission for the festival was to ignite curiosity in school aged kids through fun scientific activities that break from the regular school structure. Furthermore, the event brought awareness to the local community about the impact of humans on the environment.

The first ever Family Eco Fest centered on an environmental sustainability theme. All activities, demos, games, and art incorporated aspects of sustainability. Festival activities for the children included arts and crafts, live animals, and microscopes. For adults, there were demonstrations of solar ovens, composting, electricity generating bikes, and solar panels. Food and music from local artists topped off the event. Parents and children were engaged in the activities making it a successful event.



At the SI bridges tent, scholars set up a strawberry DNA extraction and a chromatography experiment using everyday household items. Both DNA extraction and chromatography are widely used techniques in the science field. Kids extracted strawberry DNA by mashing the strawberry with a lysis mixture and adding ethanol to further separate DNA from cells. DNA was collected and put in tubes with ribbon to make necklaces. With a special chromatography paper, kids picked their favorite colored marker to uncover all the pigments that go into that one color. The stream of eager kids never ceased until the end making the SI Bridges table a hit!



Braeden and Taryn at the DNA extraction table helping kids extract strawberry DNA.



Hannah teaching the kids about chromatography.

Transfer Scholarship Opportunities at SIU

**The following awards are given upon admittance*

Transfer Maroon Scholarship

- Criteria
 - 2.0 - 2.99 cumulative transfer GPA*
 - 12 or more transferable credit hours*
- Value
 - \$1500/year for two years

Transfer Silver Scholarship

- Criteria
 - 3.0 - 3.49 cumulative transfer GPA*
 - 12 or more transferable credit hours*
- Value
 - \$2500/year for two years

Dean's Transfer Scholarship

- Criteria
 - 3.5 or higher cumulative transfer GPA
 - 12 or more transferable credit hours*
- Value
 - \$4000/year for two years

**The following awards require supplemental applications for consideration*

Phi Theta Kappa Scholarship

- Criteria
 - Recipient of Dean's Transfer Scholarship
 - Member of PTK for at least one academic year
- Value
 - \$3000 for first year

Transfer Achievement Scholarship

- Criteria
 - Recipient of Dean's Transfer Scholarship
 - Scheduled to earn an associate's degree from a regionally accredited community college before enrolling at SIU*
 - Complete Scholars Program Application
 - Complete an interview if selected as a finalist
- Value
 - \$6,000/year for two years

Provost's Scholarship

- Criteria
 - Recipient of Dean's Transfer Scholarship
 - Scheduled to earn an associate's degree from a regionally accredited community college before enrolling at SIU*
 - Complete Scholars Program Application
 - Complete an interview if selected as a finalist
- Value
 - Full tuition

More information about these scholarships and more can be found at: <https://scholarships.siu.edu/types/transfer-students.php>

SI BRIDGES PROGRAM



A Partnership MEET THE TEAM

SIUC

Scott Hamilton-Brehm
Karen Renzaglia
Laxmi Sagwan-Barkdoll
William Browning
Emily Duran

JALC

Stephanie Hartford
Hannah Henson
Jo Forer

SCC

Lori Armstrong

SI Bridges to the Baccalaureate Program

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