

SI Bridges Newsletter

SI Bridges to Baccalaureate

8/14/2017

Volume 1, Issue 4

4th Annual SI Bridges Poster Forum



SI Bridges scholars from left- Alysha Giltner, Cassandra Meadows, Garrett Murry, Kayla Stuthers (front row), Samuel Ramirez, Katrina Beaver, Blaise Davis, Melody Bohl, Dustin Bierbaum (back row).

SI Bridges scholars showcased their posters at the 4th annual SI Bridges Summer Research Symposium on July 14, 2017. The symposium was a collaboration between SI Bridges to the Baccalaureate and McNair Scholars programs, both led by Professor **Karen Renzaglia**.

At the symposium, the SI Bridges scholars presented their original research performed during the Summer Research Institute (SRI). Their research reflected the function of different putative kinesin

proteins in model plant, *Arabidopsis thaliana* under the mentorship of **Dr. Jessica Lucas**. Teaching assistants **Laxmi Sagwan, Kristina Jordan** and **Shayla Gunn** were instrumental to the success of this summer's research.

The SRI is an intense 8 week program where scholars receive strong training in genetics and molecular biology research. During the program, the scholars are challenged to perform individual research and pursue their own research questions. SIB scholar **Blaise**

Davis summarized the experience "This has been an incredible learning experience from being able to take part in the lab and learn all the skills and practices hands-on. I have learned so much more than I ever would have outside the program. Truly a one of a kind opportunity."

Dr. Renzaglia presented sincere opening remarks at the Symposium where she emphasized the significance of these programs and requested public support for science and research. Susan Grotts,

assistant to Senator Dick Durbin, echoed the importance of federal funding to support science at the symposium. Dr. David DiLalla, Associate Provost for Academic Administration, gave inspirational closing remarks. Dr. Lizette Chevalier, Associate Provost for Academic Programs, also attended this symposium.

The poster session lasted for an hour and was attended by SIUC and community college faculty, mentors, past SI Bridges scholars, SIUC graduate and undergraduate students. To end the symposium, all nine SI Bridges scholars received outstanding research achievement certificates and a personalized Under Armour back pack. SIB scholar **Samuel Ramirez** won the best poster in the forum.

SIB scholar **Kayla Stuthers** quoted "The SRI poster symposium made me realize just how much I learned through the SI Bridges program. I was so nervous for

the poster symposium until about halfway through my first presentation. I realized how much Bridges prepared me for that very moment and I was no longer nervous. This experience instilled me with a new confidence in myself and I will forever be grateful."

SIB scholar **Katie Beaver** also expressed "The symposium for our posters was an incredible experience that really pushed my limits. I never would have thought that I would be able to present my research in such a collected way and feel so accomplished by it. It was something I will never forget, and helped me to grow as a student, researcher, and presenter. I was so thankful for the opportunity."

We would like to extend a special thank you to all the representatives from community colleges for their presence at the poster forum. From JALC these include, **Dr. Stephanie Hartford** (Dean of Academic Affairs), **Dr. Cheryl**

"The work we are doing is incredibly insightful to the reality of research. The knowledge gained from this program is helping me define my aspirations in academia."

-Garrett Murry (SIB scholar and JALC student)

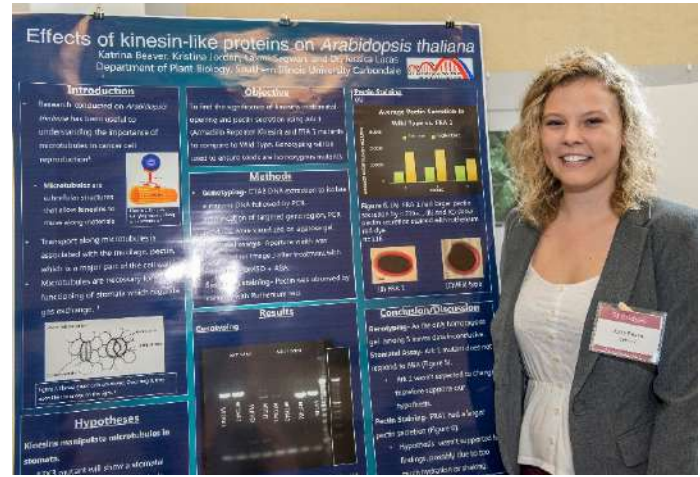
Thomas (Department Chair of Life and Physical Science), **Adrienne Barkley Giffin** (Director of Student Activities and Cultural Events), **Kathi Kibler** (Professor of Psychology) and **Donna Ford** (Associate Professor of Life Science). From SCC, **Dr. Vickie Artman** (Vice-President of Academic Affairs and Student Learning) and **Lori Armstrong** (Life Science Instructor). **Dr. Joy Branlund** (Earth Science Professor) from Southwestern Illinois College (SWIC) **also attended this symposium.** Finally, we would like to thank all the poster judges that took the time to participate in this forum.



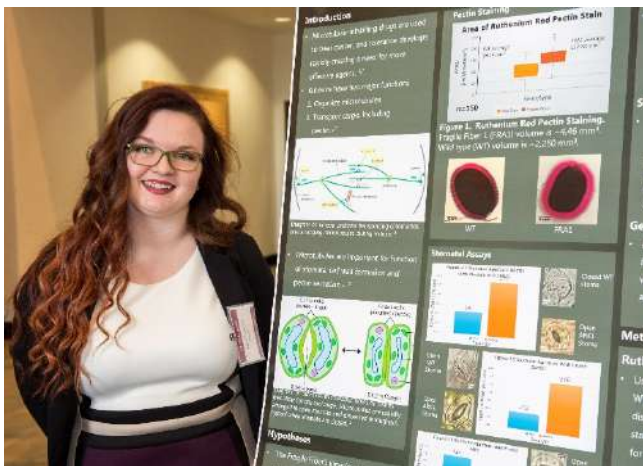
PROUD MOMENTS



Cassandra Meadows, biological science major at JALC will graduate with an Associate in Science in Fall 2017. She plans to transfer to SIUC to major in zoology (pre-vet). Her dream job is to become a zoo vet.



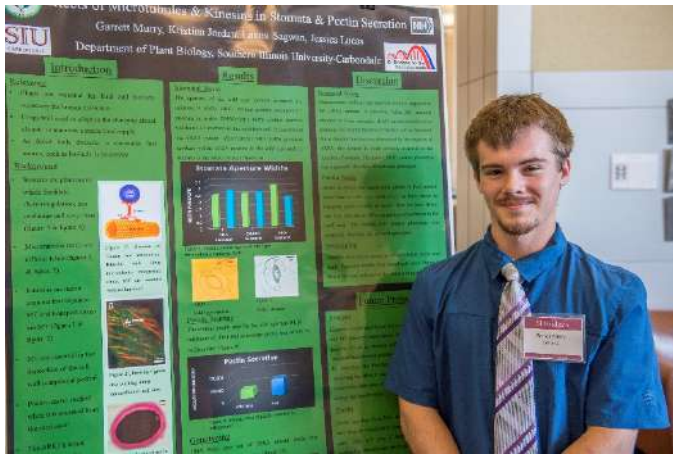
Katrina Beaver, Pre-Physician Assistant major at JALC is planning to graduate in Spring 2018 with an Associate of Science. She will then transfer to SIUC in Fall 2018 to pursue a Bachelors in Microbiology or Physiology before continuing to P.A. school.



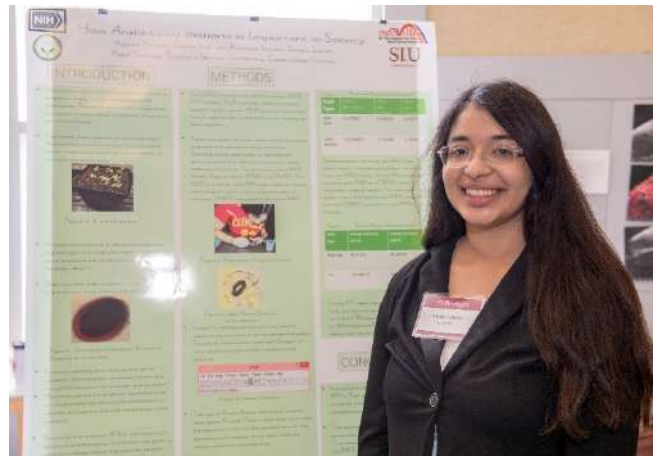
Kayla Stuthers, biological science major at JALC where she plans to graduate with an Associates in Science. She will be transferring to SIU in Fall 2018 to pursue a major in molecular biology and minor in physiology.



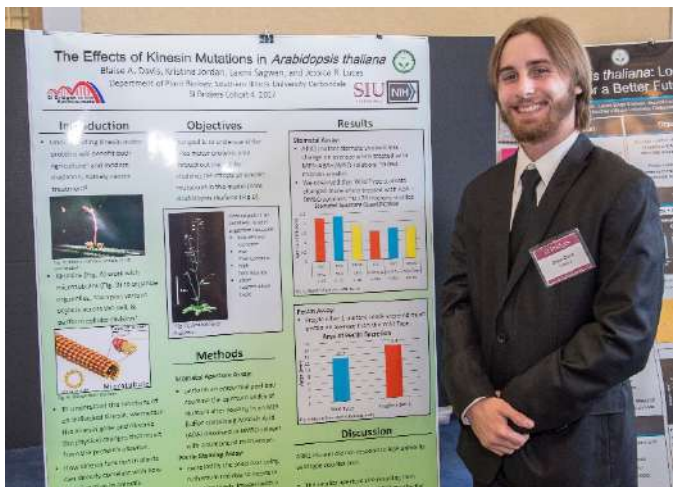
Samuel Ramirez, engineering major at JALC is working towards an Associates in Arts. He then plans to transfer to SIUC to possibly pursue a degree in Plant Biology.



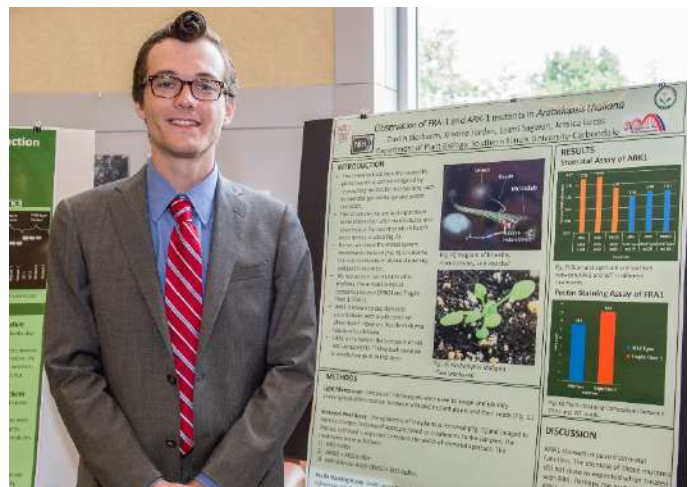
Garrett Murry, biological science major at JALC will graduate with an Associates of Science in Spring 2018. He will transfer to SIUC in Fall 2018 with focus in biochemistry.



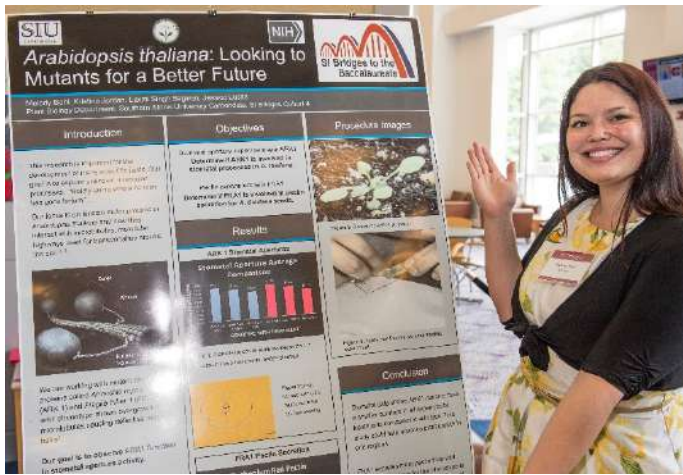
Alysha Giltner, psychology major graduated with an Associates of Arts from SCC in Spring 2017. She will be transferring to Southeast Missouri State University (SEMO) in Fall 2017 and where she would be working towards a major in clinical psychology and minor in social work.



Blaise Davis, engineering major at SCC plans to attain his Associates of Science and then transfer to SIUC with an intended major in Material Engineering.



Dustin Bierbaum, biological science major at SCC intends to graduate in Spring 2018 with an Associates in Art and Science. He has plans to transfer to SIUC in Fall where he will pursue a Bachelors in a field associated with biological, chemical, and ecological sciences.



Melody Bohl, physics major from SCC where she earned an Associates of Arts and Science in May 2017. She will be attending SIUC in Fall 2017, majoring in physics and minoring in biology. She aspires to work for NASA someday to promote scientific understanding for all people.



William Browning from cohort 3, now a Plant Biology major at SIUC plans to graduate in Spring 2019. As a current McNair scholar, he presented his research work titled “The relationship between Photosynthesis and Dessiccation in Bryophytes” under the guidance of Dr. Dale Vitt.

Moments of the SI Bridges Research Symposium



SI BRIDGES SCHOLAR FEATURE: BAYLEN EARLES



Baylen Earles was part of the SI Bridges program in 2014 (cohort 1). He graduated from JALC with an Associate in Science in Spring 2015 and later transferred to SIUC. He's currently working towards a major in Biological Science with concentration in Biomedical Science with a minor in Chemistry. He intends to graduate from SIUC in Fall 2017. As a McNair Scholar, he conducted research on traumatic brain injury under the guidance of Dr. Gregory Rose and Dr. Michael Hylin. This research work won him a second place in the Summer Research McNair Symposium in 2016. He has further presented his research in UCARF-SIUC undergraduate forums.

During his two-year working in Dr. Rose's research lab, he has successfully assembled an electrophysiology set up to measure chemical synapses from scratch. He has also mentored two undergraduate students in the process of electrophysiology. He has also led several leadership roles such as President of SIUC Rotaract (2015), judged the 2017 McNair Summer Research Symposium and organized campus wide CV workshops.

After earning his bachelor's degree, he aims to concentrate on the process of applying to different PhD programs in biology, biomedical science or cell biology. His research interest focuses in bio-fabrication. He would like to learn the techniques of bioprinting and innovate the methods to make it cost-efficient and clinically applicable. His long-term goal is to open a bioprinting clinic where tissue samples could be sent in from hospitals and the patient-specific tissues/organs could be provided on a sliding scale basis so that the technology is accessible to everyone, despite how much money have or what socioeconomic background they

come from. Some of his non-academic goals include to build his own dome-home, scuba dive the Great Barrier Reef, learn a fly a small plane, and hike the Appalachian Trail.

What got you interested in research?

I have always been drawn towards science (See Mad Scientist Halloween Photo from 2002 on next page). For just as long, I have been asking questions- which is kind of like research. However, I didn't get a taste for lab-based research until I joined SI Bridges in 2014. That initial experience with SI Bridges opened doors for me to pursue more research opportunities, in the form of undergraduate assistantships, McNair Scholars Program, and hopefully a PhD down the road.

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What is the best part of doing research? What did you enjoy the most during your research?

One of my favorite parts about doing research is the feeling of belonging and purpose that it provides. When I'm in the middle of a project, I base my whole schedule and life around it; I often think about it when I'm cooking dinner at home or when I'm falling asleep at night. I hear there's a better feeling in research- when one makes a breakthrough discovery- so that is a part that I have yet to experience but I am looking forward to.

Do you have any advice in terms of research and academic for our incoming fresh scholars?

To a fresh scholar, keep your grades up and try not to take things personally. Meet challenges as they come and get into the habit of thinking about

things from different perspectives. These next few semesters are crucial for your success as a young academic researcher, so everything that you invest into yourself during this time will payoff later: read book chapters assigned for classes, read papers about your projects, spend some Saturday nights in the lab- in the end you will be stronger mentally and better prepared for the challenges of the future.

How helpful was SI Bridges program in shaping your career?

SI Bridges is a pivotal part of the foundation that I stand on today. SI Bridges got me into research and set me up with mentors with whom I hope to stay in contact with for the rest of my life. It taught me how to have good bench hands, but also it helped craft me into a better critical thinker and peer mentor.

Generally, I think a notion that gets lost in primary, secondary and even higher education, is teaching students how to learn; this is something that SI Bridges focuses on, and I know it helps me even to this day.

What's your favorite non-science activity and why?

This is definitely tied between folding origami and playing with my cat. However, even those include spatial reasoning and behavioral psychology, so... yeah. I really like the way that a simple square is capable of making so many different 3D shapes. And I love playing with my cat because he is the fiercest, most handsome, toy-mouse hunter ever.



Baylen Earles (center) with Dr. Karen Renzaglia (left) and Rhetta Seymour (right)

Announcements

Join the Bridging the GAP RSO!



This RSO aims to welcome and support students who transfer to SIU from community colleges. To take benefits of the numerous opportunity from this organization, join at <https://orgsync.com/155871/chapter>

2017 Solar Eclipse



The first total solar eclipse over the US since 1979 will take place on August 21, 2017, just a few miles south of Carbondale. You can observe totality on the SIUC Campus at 1:21 pm. The partial phases of the eclipse starts at 11:52 am and ends at 2:47 pm.

Saluki Football Stadium, SIU Arena will be the primary location for eclipse-related activities and viewing. You can learn more about the event and purchase tickets for the event at <http://eclipse.siu.edu/>.

SIGMA XI- The Scientific Research Society

SIU Undergraduates and Graduates are welcomed to join the Sigma Xi honor society for science and engineering researchers. It is an international society that promotes science and honors scientific achievements. Every year the society provides numerous international and local awards, scholarships, grants and programs.

To become a Sigma Xi member, one needs to complete the nomination form at their website and submit it to Dr. Justin Schoof, Sigma Xi Secretary. The nomination form and information about the society can be located at their website <http://sigmaxi.siu.edu/text.html>

Recruitment to the SI Bridges to the Baccalaureate Program

We will be accepting new students to the SI Bridges program during the fall. The deadline for submitting an application is October 31, 2017. The application can be downloaded at http://sibridges.siu.edu/_common/documents/application.pdf.

Eligibility includes-

- 1) US citizen or permanent resident
- 2) A career interest in biomedical or behavioral sciences
- 3) Full time student registered at least 12 hours
- 4) Cumulative GPA of 3.0 for high school and 2.7 for any completed community college work
- 5) willingly to participate in program sponsored activities and
- 6) Meet at least one of the following criteria
 - Demonstrate financial need OR
 - First generation college student OR
 - Documented disability OR
 - Member of an underrepresented minority group (African America, Hispanic/Latino, Native American/Alaska Native or Pacific Islander)

Applicants are strongly encouraged to visit sibridges.siu.edu or contact their local representative at community college for information and support. Lori Armstrong for SCC, Donna Ford and Kathi Kibler for JALC and Dr. Joy Branlund for SWIC.



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We welcome any research related photos, original articles, news or announcements.

Email to laxmi@siu.edu or visit sibridges.siu.edu with questions and feedback.