

IJAS NEWSLETTER

March
2026



Women's History Month



Celebrating Women in Science



IJAS MISSION

The Illinois Junior Academy of Science exists for the benefit of students in the State of Illinois. The process students follow for IJAS gives them some insight into the problems and methods of thinking that are particular to the scientist. This process encourages these students to find information concerning new investigations and discoveries in science. It allows students a chance to use and gain an understanding of scientific equipment. Science fair gives reason for students with a special interest in science to go beyond the classroom curriculum and develop their own investigation(s). IJAS encourages students in their progress toward a career in science, technology, and engineering.

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**2026
IJAS
State Science
Exposition
April 24-25**



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“There is a fungus that is invading a lot of soybean fields in Illinois right now, and our particles can carry a fungicide cargo that helps the plants,” says Professor Murphy. Her students also experiment with putting biological molecules on the surface of the particles, which are about the size of individual viruses, and incubating them with cells to see how the cells interact with them. The particles scatter light very well so it is easier to observe than the actual viruses.

“Keep being curious.”

Being the first in her family to go to college along with her twin sister, Professor Murphy made the most of her college experience. She was able to join Professor Tom Rauchfuss’s lab in her freshman year. From then on, no matter what challenges came her way, she just focused on doing good work. That is what she is doing as Head of the Chemistry department at UIUC. “In my role as the department head, I remind people that chemistry is big enough for everybody. If you are interested in the molecular level, chemistry has a home for you,” says Professor Murphy.



Synthesized Nanoparticles at Murphy Lab (March 10, 2025). [Photograph], Courtesy of Murphy Group

When asked for advice for students who like to start a research project, Professor Murphy suggests students do a lot of reading. There is always some scientific literature about the topic.”It is good to know where the exciting things are,” says Professor Murphy. The second thing is to keep being curious. She thinks it is much easier if one is really interested in the topic to keep learning more about it. As for advice for young women in STEM, Professor Murphy stresses the importance of “just do it.” With social media today, Professor Murphy thinks that young scientists may find it hard to stay focused: “I know it is easy to psych yourself out about the state of the world or what people are thinking. That doesn’t really help you...So I do think, whatever you want to be successful in, just sort of do it,” says Professor Murphy.

Diverse perspectives and collaboration are also encouraged in Professor Murphy’s lab. Sometimes, she recounts, undergraduate students asked simple questions, but those questions were very helpful as they made the people in her lab rethink certain processes. As for collaboration, Professor Murphy thinks it is more efficient and fun to make friends and talk about the research, instead of trying to do everything yourself.

“If you have interesting problems, it is becoming more and more the case that you require expertise from people who can do other things. So collaboration is the way to go. We really benefit from it,” says Professor Murphy.

As a chemistry professor, Professor Murphy also feels it is her responsibility to help make known to the general public how important chemistry is since there may be some misconceptions about the field. For example, there may be people who think that chemistry is just about toxic or poisonous chemicals, but for chemists, chemistry is far beyond that. “We wouldn’t have iPhones if we didn’t have chemistry. We wouldn’t have computer chips if we didn’t have chemistry. Besides pushing the frontiers in science, our mission is to make sure people understand how awesome chemistry is,” says Professor Murphy.

“Collaboration is the way to go.”

Despite her busy schedule, Professor Murphy still found time to share her experience and advice with our IJAS student participants. She stresses the importance of a “just do it” mindset while not being afraid to ask for help from others. With her achievements and insights, Professor Murphy will surely inspire our IJAS student participants to continue their research explorations in chemistry and to engage in its wonders.

Interview with Past Student Board Member: Ellie Crowden

Annette Kang



Crowden, E (March 13, 2025). [Photograph]

This month, we had the pleasure of interviewing one of our past IJAS Student Board members, Ellie Crowden. She is graduating this year with a degree in Speech Pathology/Audiology and has recently been admitted into the Doctor of Audiology (Au.D) program.

Ellie was first inspired to join the Student Board because at the time, she was the only student participating in IJAS at her high school and saw a lack of representation for Region 8 on the State Student Board. Ellie had been on her Regionals board and was serving as the President, but she wanted to be the representation and voice for the southern half of Illinois (Region 8) on the State Student Board. During her time on the Student Board, Ellie has been the Decorations Chair and was the Vice President in her Senior year of high school. Ellie has been serving as a Student Board Advisor since she graduated high school. She has also served as the Region 12 Chair and is now serving on the Region 12 Committee. It is great to see Ellie's continuing involvement in IJAS!

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Ellie says the most significant transformation that happened while she was on the Student Board was the integration of the IJAS app, stating that “it was very integral for all the parts of the Board.” The biggest challenge Ellie faced while on the Student Board – especially with decorations – was learning how to manage the budget and manage people to keep things running smoothly. While on the Student Board, Ellie gained valuable interpersonal skills through doing interviews and working with people of different backgrounds and opinions. She remarks that it was important to “learn how to work well together, understanding that we all have the same common goal and that some of us have different ideas on how to make that goal successful or how to achieve that goal... so giving each other grace while working together was definitely one of my biggest takeaways.”

As Ellie worked significantly with the banquets, she got to see a lot of her hard work come to life on the Friday nights of the State Expositions. She says that working with the banquets was “super fun and rewarding,” especially when helping other students with the banquets as the Student Advisor and seeing their hard work and success come to life. Some of the experiences Ellie values most from being on the Student Board were meeting close friends, being able to work with intelligent people, and having the opportunity to embark on a professional career early on.

When asked about her view of the role students will take in directing the future of science fairs, Ellie emphasizes that science fairs are for the students and therefore, should be student-led, especially since students are the ones competing, participating in, and taking advantage of the opportunities provided at these events. Ellie prioritizes allowing the students to have a voice and the leadership opportunities to put their ideas into action, as well as the platform for students to apply those ideas.

Ellie's best piece of advice for new Student Board members is “to not be afraid to ask questions.” She noted that it can feel intimidating at first but that “it's better to ask questions than to live in the dark.” Ellie adds, “I've made some of my best friends through science fair and I've had a lot of opportunities that I wouldn't have had otherwise, both professionally and interpersonally, so just take in every moment and ask all of the questions.” Ellie also comments, “Science fair is inherently just a stressful thing with a lot of high emotions, but just enjoy all of the moments and find joy in the little moments because it goes by so much faster than you would think.”

“I've made some of my best friends through science fair... Find joy in the little moments because it goes by so much faster than you would think.”

Hotels Near IJAS State Science Exposition



Caleb Gao

Home2 Suites by Hilton Carbondale

200 W Elm St, Carbondale (1 mile)

Value Inn & Suites

700 E Main St, Carbondale (1.9 miles)

University Inn of Carbondale

2400 W Main St, Carbondale (2.8 miles)

Best Western Saluki Inn

801 N Giant City Rd, Carbondale (3.2 miles)

Quality Inn

1415 E Main St, Carbondale (3.3 miles)

Hampton Inn

2175 Reed Station Pkwy, Carbondale (4.4 miles)

Holiday Inn

2300 Reed Station Pkwy, Carbondale (4.6 miles)

Comfort Inn & Suites

2400 Reed Station Pkwy, Carbondale (4.7 miles)

Holiday Inn Express & Suites Murphysboro

120 Muddy Monster Rd, Murphysboro (8.3 miles)

APPLICATIONS DUE May 2nd

JOIN

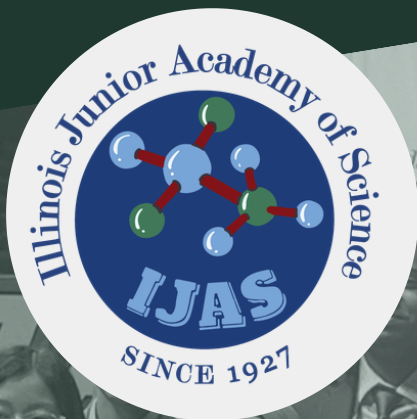
IJAS STUDENT BOARD

Annette Kang

The IJAS State Student Board applications are due May 2nd, 2026 at 11:59pm. The recommendation letter is due May 9th. To qualify, the student must attend an IJAS member school or be an individual IJAS member.

Why Join?

- Build communication skills.
- Connect with peers.
- Build resume.
- Impact STEM education statewide



Requesting Judges



Calling all judges for the IJAS State Exposition! To ensure the exposition goes smoothly, parents & teachers, please consider applying to be a judge.

Link to Registration:
<https://judges.ijas.org>



Some Fun Facts about Southern Illinois University

The University mascot is a Saluki, which is one of the oldest dog breeds in the world.

10 miles from the campus are two state parks, Crab Orchard National Wildlife Refuge, and four large lakes.

The University was established in 1869 and was originally called Southern Illinois Normal University.

Currently, SIU has an enrollement of over 21,000 students.

Famous Alumni: Robert Coover, professor at Brown University; Darryl Jones, bassist for The Rolling Stones; Melissa McCarthy, actress in the TV show Gilmore Girls.





IJAS RUNNER VOLUNTEERS

WE NEED HELP APRIL 24–25, 2026

- Help run the IJAS State Science Exposition
- Deliver scoring sheets to the tally room
- Browse science exposition poster or paper projects
- Connect with the IJAS board
- Earn volunteer experience + **hours (letter provided)**
- **The person with the most steps earns \$100!**



ijas.org/runners





Upcoming Events

March

ISAS Abstract Submission Deadline

March 15^h

STEM Education Conference at WIU

March 13th

IJAS ISEF Top 9 Projects Announced

March 15th - 11:59 PM CST

IJAS Decal Contest Submission Deadline

March 15th

April

IJAS Student Board Application Opens

April 1st

ISAS Annual Meeting

April 18th at the Pere Marquette

Special Physics Luncheon at SIU: Invitation Only

April 25th - 1pm

May

IJAS Student Board Application Submission Deadline

May 2nd

**IJAS
Office
Hours**

March 8th,

6-7 pm

(CT)

April 12th,

6-7 pm

(CT)

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