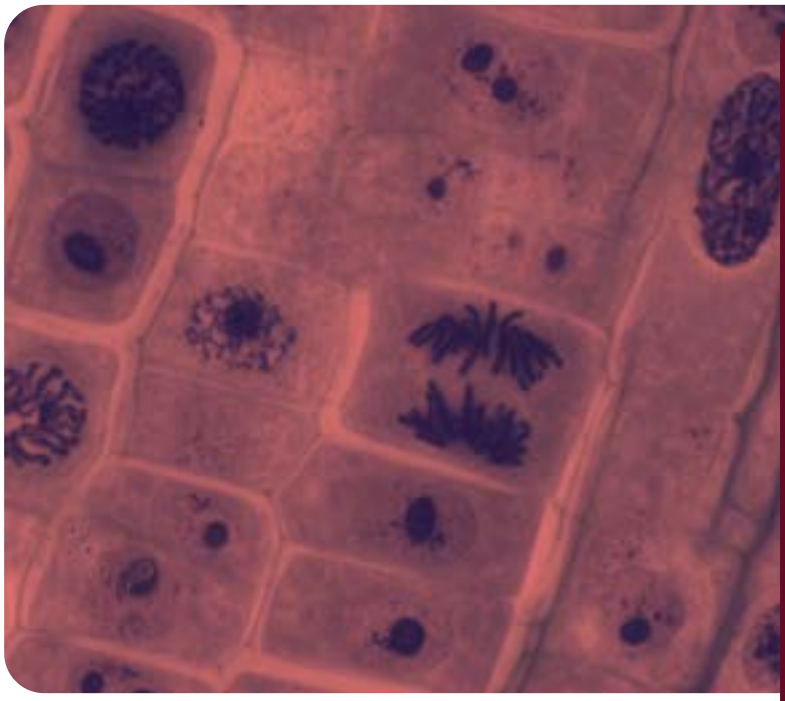
VJAS VOICE
Spring 2026

INSIDE OUT

Biology and Medicine

Cover image courtesy of: The Joint Pathology Center. (2025). 01-2. Thyroid gland, foal. In Wednesday Slide Conference, 2025-2026, Conference 1, Case 1. https://www.askjpc.org/wsco/wsc_showcase2.php?id=bDY1LzZqYklXNHNJS2MvT1FHMVZCdz09



WELCOME TO *THE VOICE*

The Voice is the student-led and student-written publication of the Virginia Junior Academy of Science. We, the Editors-in-Chief, are so excited to present the third issue of this academic year. The Voice aims to educate our readers on the process of scientific experimentation, present research, and cover general news and topics across various fields of science.

This Spring issue explores the theme of Biology and Medicine. As two widely explored fields of science, biology and medicine continue to intertwine with all fields of science, so we hope the articles presented in this edition inspire you to continue your research in related fields, learn more about presenting complex research on symposium day, and other interesting subtopics!

As we said before, the VJAS Voice is student-written. Make your passion for science heard and submit an article for our upcoming issues later in the year!

Sajeela Ahmad and Taarun Ganesh
Editors-in-Chief, VJAS Voice
2025-2026

HIGHLIGHTS

The 85th Virginia Junior Academy of Science

MEETING AND RESEARCH SYMPOSIUM

May 2, 2026

Hampden-Sydney College

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"The goal of the VJAS is to promote progress in the field of scientific research among secondary school students. [...] It is here that several facets of the VJAS program culminate. Among them are the presentation of outstanding individual research projects, the announcement of state winners in VJAS competitions, guest speakers, and the annual business session at which VJAS student officers for the coming year are elected."

VJAS Handbook

DAY OF VJAS SYMPOSIUM

Shriya Bandla, VJAS Vice President 2025-26

The 2026 Virginia Junior Academy of Science (VJAS) Research Symposium will bring student researchers from across Virginia together for a day devoted to curiosity, discussion, and the sharing of ideas. For many participants, the symposium marks the culmination of months of work spent designing experiments, analyzing data, and refining research papers. Questions that first took shape in classrooms or small lab spaces will finally be presented to judges, mentors, and peers who share the same excitement for scientific discovery.

Student presentations will take place in person at Hampden–Sydney College on Saturday, May 2. Throughout the day, participants will present their projects and walk judges through their research process. Many students arrive having revised their papers several times, practiced explaining their findings, and carefully prepared to answer questions about their methods and conclusions. The presentations become conversations where students explain how their ideas developed, what obstacles they encountered, and what their results might mean moving forward.

The research showcased at the symposium reflects a wide range of interests and questions. Some projects examine environmental patterns and ecological change, while others explore biomedical questions, data-driven modeling, or engineering design. Each investigation represents a process that required patience and persistence. Experiments rarely unfold perfectly the first time, and students often spend weeks adjusting variables, rechecking calculations, and searching for patterns in their results.

Hampden-Sydney College. (2026). View of HSC Campus. In Plan Your Stay. https://www.hsc.edu/admission-and-financial-aid/schedule-visit/plan-your-stay

The day will also include the Jeffers Memorial Lecture and Symposium, held in person at Hampden–Sydney College. This lecture brings students together to hear from a scientist engaged in ongoing research, offering insight into how long-term scientific work develops and how research contributes to addressing real-world challenges. For many participants, the lecture provides a meaningful connection between the projects they are presenting and the broader scientific community they hope to join in the future.

While the symposium itself will take place in person on May 2, the VJAS Awards Ceremony will be held virtually on May 18, 2026 at 7:00 PM. During this ceremony, projects that stood out during the judging process will be recognized.

Beyond the formal schedule, the symposium creates a space where students can engage with one another's ideas. Conversations often begin with a question about an experiment or dataset and continue into longer discussions about methods, unexpected findings, or future directions for research. These exchanges capture the spirit of the event. Students gather because they are interested in understanding complex problems and in sharing the process of discovery with others who approach science with the same curiosity and dedication.

WE'RE LOOKING FOR JUDGES!

Do you want to cultivate the next generation of researchers, scientists, and Nobel Prize winners? Become a judge for VJAS!

Students complete projects on a range of topics—judging will always be a learning opportunity. Judges will attend in person at the host institution, Hampden-Sydney University in Farmville, Virginia.

https://vjas.org/judges.html

INTERESTED IN BEING A MENTOR?

At VJAS, some of the most curious and driven student researchers in the state come together to ask real scientific questions and present original work. What makes that experience truly transformative is mentoring.

The Virginia Academy of Science (VAS) is excited to offer its mentorship program in partnership with VJAS, pairing scientists with K-12 classes to perform long-term science projects. The VAS is seeking to recruit both mentors (graduate students, post-doctoral fellows, instructors, scientists, etc.) and high school teachers who would like their students to participate in a virtually-driven long-term research project.

For more information and links to sign up for this year, visit the VJAS website at http://vjas.org/resources.html.

DATES TO REMEMBER

Notification of Accepted Presenters (check website!)

Deadline to Notify by Email (April 19)

Deadline for sponsors to:
1. notify the VJAS Office of any student(s) that cannot participate.
2. notify the VJAS Office of any name or paper title corrections.
3. register with the host institution for housing, food, etc. (registration link will be shared in March).

VJAS Research Symposium (May 2)

Student Presentations, Jeffers Memorial Lecture: In-Person at Hampden-Sydney College on May 2nd
Awards Ceremony: Virtual on June 16th at 6pm

VJAS Voices

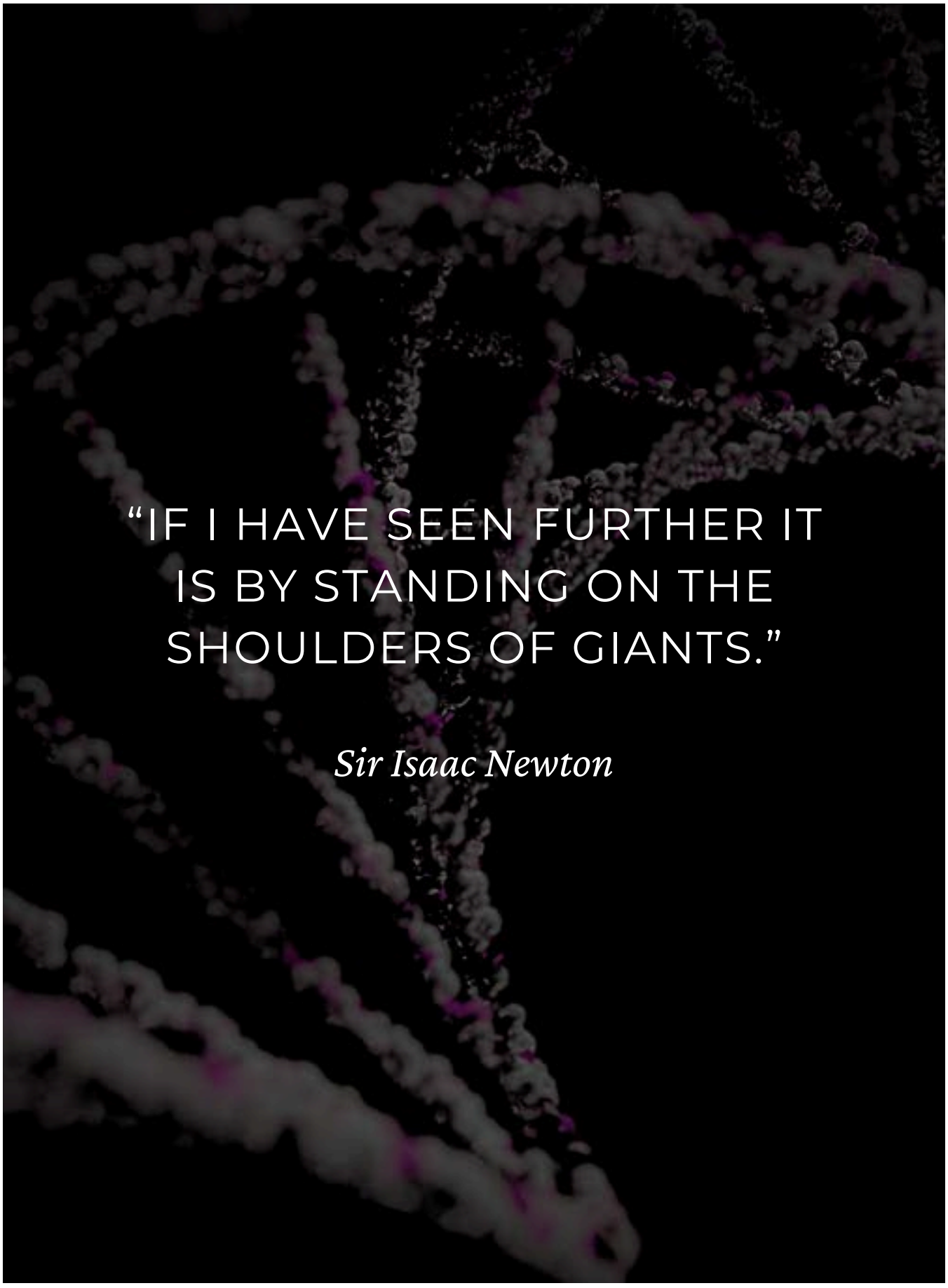
View the new episode on Spotify!

In this episode, Madilyn Marsden interviewed Athithi Prakash, second place winner in the medicine and health section of the research symposium last year. She attends Blacksburg High School. Athithi found an uplifting treatment for melanoma last year and her research was published. Listen to learn more!

What is VJAS Voices?
It is a podcast created by the Virginia Junior Academy of Science (VJAS), with a goal of helping students and mentors navigate the process of conducting, submitting, and presenting scientific research for the VJAS Symposium.

Where to Listen:
You can listen to the podcast on the official VJAS website. The podcast is also available on Spotify.

Examples of Episode Topics:
Research ethics, Navigating symposium day, Preparing for presentations, Writing a scientific paper, Conducting effective research, Choosing a research topic, Introduction to the VJAS program, Interviews


“IF I HAVE SEEN FURTHER IT
IS BY STANDING ON THE
SHOULDERS OF GIANTS.”
Sir Isaac Newton

PRESENTING YOUR PROJECT

Sajeela Ahmad, VJAS Co-Editor-in-Chief 2025-26

This May, hundreds of students from across Virginia will be presenting their research at the VJAS symposium. This year, the symposium is in-person, which will be a new experience for most students, as it will be for me. As one of those students presenting at the symposium this May, I would like to share some tips to help students better prepare for their presentations.

Before worrying about what to say, it is important to ensure that the slides you are presenting properly represent your research. Slides should have all the required information, but they should not be filled with text. Instead, have simple titles and bullet points for information, and try to incorporate more images, graphics, and tables. Most of the information should be coming from you as you present, not from the perusal of your slides. The VJAS Handbook and Style Guide provide information on how to make your presentation. Using those resources will help you have the proper slide structure, write all the base information on your slides, and also know what you should leave for the verbal presentation.

When it comes to presenting research, delivery is important, and mindset plays a huge role. Come to the symposium in clothes that look good and make you feel confident. Remember that you are the expert in your project, and you deserve to be at the symposium because of your effort. Personally, I have noticed that whether it be VJAS or any other research competition, having a positive mindset leads to a better presentation and a better impression on the judges. Therefore, do not think negatively about your project or how the judges will perceive you, as that might hurt your presentation.

In the end, it all comes down to practice. Having a general outline for what you will say for each slide, and then practicing active retrieval of your project's information by presenting to the mirror or to other people, is the best way to have a confident and precise presentation on symposium day. Also, make sure you understand the background of your project and the reasoning for your methodology, and ask other people to ask questions about your project. By doing this, you will be optimally prepared for presenting your project and will also have a confident mindset walking into the symposium.

By following the handbook and practicing well, you can deliver an excellent presentation at the VJAS symposium. Good luck to all presenters!

INTERVIEWING A UVA ASSISTANT PROFESSOR AND MOLECULAR BIOLOGIST

Taarun Ganesh, VJAS Co-Editor-in-Chief 2025-26

Dr. Ahmad Jomaa is a current assistant professor in physiology and biological physics at the University of Virginia in Charlottesville. Initially considering a career in the medical field, Dr. Jomaa pivoted to focus on molecular biology research, particularly protein synthesis and how cells regulate this essential process.

Q: How did your personal background shape the career you have today?

A: My path into research was not planned. I come from a Middle Eastern background where no one in my family had education beyond high school. There was a strong expectation for me to go to medical school, so research was never really on the agenda.

That changed during my undergraduate years. In my second and third years, I did a lab internship and discovered that I really enjoyed research. That experience made me reconsider my path, and I ultimately decided not to pursue medical school. Instead, I stayed in research, which became the foundation of my career.

Q: What does a typical day in your lab look like?

A: Well, my day usually begins at around 8 AM after I drop my kids off at school. The first thing I do is check my emails, especially those that require more thought than I could give them at night.

Then, in the morning, I spend some quiet time with my papers or writings, such as grants or manuscripts. However, in the later part of the day, my time is mostly spent in meetings with students in the lab, faculty, or even other colleagues.

So, my day is from 8 in the morning until 6 in the evening. Unlike students, I do not spend my time conducting experiments.

Q: How different is it to be a principal investigator (PI) versus a student?

A: It's quite different. When you're a student, most of your time is spent conducting experiments. The more advanced you become in your studies, the more time you spend writing. You're writing papers, fellowships, etc.

When you become a principal investigator, it's almost the complete opposite. You don't spend nearly as much time conducting experiments and spend more time managing experiments and people. You're more focused on making sure that experiments get done and that people are working.

Q: Can you explain your lab's research and its importance in molecular biology?
A: We are interested in protein synthesis at a fundamental level. Proteins are what everything in our body is made of and are therefore essential for life. Additionally, we are interested in how these synthesized proteins are targeted correctly in a cell to a place like the mitochondria or the endoplasmic reticulum (ER) and how ribosomes, which make proteins, are turned off and on in response to stress.

This is important because problems in these processes can lead to diseases like cancer or contribute to things like aging. These are all really important questions because they can help us understand how things work in a healthy state and how things go wrong in disease states.

Q: What skills or preparation would you recommend for students who are interested in molecular biology?
A: It truly does depend on the lab! It is not always necessary to have prior experience, although it can be helpful. I had no research experience at all when I first started my lab internship.

Some labs, especially smaller or younger ones, may be more willing to work with students with no prior experience, whereas others may prefer students with some lab experience. The most important thing is to start somewhere, be willing to learn, and build your skills over time.

Q: What advice do you have for students who may be feeling overwhelmed with their research?
A: Research is inherently frustrating because there isn't always a known solution. Unlike in school, where problems are designed to be solvable, research involves exploring the unknown realm.

It's normal to feel stuck. That's why teamwork is important—we rely on others in the lab for help, ideas, and support. Sometimes we even switch projects or bring in outside mentors to provide new perspectives. That said, frustration never completely goes away; it's just part of the process.

EPIGENETICS

Sajeela Ahmad, VJAS Co-Editor-in-Chief 2025-26

Epigenetics is defined as the study of changes in gene activity that are heritable and do not require any change in the actual sequence of DNA. Rather, it involves epigenetic 'modifications' of DNA, which can be through chemical modification of histone tails, or through covalent modification of DNA bases (Dupont et al., 2009).

Before understanding epigenetics, it is important to understand how DNA is stored. In the nucleus, DNA is wrapped around a core of eight histone proteins. This histone core with DNA wrapped around it forms a nucleosome, and nucleosomes form chromatin. Histones also contain a tail, and that tail can experience modifications such as acetylation, methylation, and phosphorylation, among others; these modifications can lead to the 'tightening' or 'loosening' of DNA around the core, making it harder or easier to transcribe and translate the DNA. Specifically, these histone modifications are both added and erased by histone-modifying enzymes, and then these modifications are read by reader proteins. The reader proteins are what lead to an outcome of transcriptional activation or silencing (Davalos & Esteller, 2022). As for the DNA modifications, those are simply covalent modifications directly on the DNA, usually on cytosine bases (Dupont et al., 2009).

Recently, there have been developments in epigenetic research, specifically with respect to how it can be applied for cancer diagnosis and treatment. Research has found that epigenetic biomarkers can aid traditional methods of diagnosis, as there are certain marks or patterns that are characteristic of human tumors. Currently, research is being done on how to measure these epigenetic modifications in the least invasive manner. *Epidrugs*, or drugs that affect enzymes involved in epigenetic regulation, are a new strategy in cancer treatment; they target 'writer', 'reader', and 'eraser' enzymes to introduce, recognize, or erase DNA and histone modifications. This is promising because epigenetic modifications are easily changed, and also because research is showing that *epidrugs* can work alongside traditional cancer therapies by boosting them, or by removing resistance to those cancer treatments (Davalos & Esteller, 2022).

In conclusion, epigenetics is a rapidly growing field with immense possible outcomes for human health through increasing precision in disease treatment.

Literature Cited:

Davalos, V., & Esteller, M. (2022). Cancer epigenetics in clinical practice. *CA: A Cancer Journal for Clinicians*, *73*(4). https://doi.org/10.3322/caac.21765

Dupont, C., Armant, D. R., & Brenner, C. (2009). Epigenetics: Definition, Mechanisms and Clinical Perspective. *Seminars in Reproductive Medicine*, *27*(05), 351–357. https://doi.org/10.1055/s-0029-1237423

THE RISE OF ANTIMICROBIAL RESISTANCE IN THE UNITED STATES

Madeline Levorson, VJAS Co-President 2025-26

Antimicrobial Resistance (AMR) has become a critical public health threat in the United States, necessitating urgent attention and coordinated action. The World Health Organization estimated that Bacterial AMR contributed to 4.5 million deaths worldwide in 2019. Antimicrobial Resistance occurs when bacteria, viruses, or fungal infections no longer respond to traditional antimicrobial medicines. Due to AMR, everyday infections may become fatal due to a lack of antibiotics. Similar to medieval times, someone could die just due to an infected cut or scrape. Additionally, due to AMR, routine procedures such as caring for an infant, cancer treatments, and even minor surgeries could become deadly. With the rise of AMR, infections become harder to treat in humans as treatments become limited to those antimicrobials that are still active against one's infection. Thus, thousands of people die due to a lack of alternative solutions for these infections. As of 2024, the WHO updated a list of the most drug-resistant bacteria worldwide, which includes *Enterobacterales, Mycobacterium tuberculosis, and Acinetobacter baumannii* as critical priority bacteria. These species are commonly multi-drug-resistant worldwide, causing increased threat and higher burdens to treat these kinds of infections.

To investigate what is being done with AMR, I interviewed an Infection Preventionist at the INOVA hospital system. She works on antimicrobial resistance and how to decrease it from a hospital and medical professional standpoint every day. She said that "The root cause of antibiotic resistance is largely due to the overuse and misuse of antibiotics. This includes prescribing antibiotics when they are not needed—such as for viral infections—as well as incorrect dosing or duration, all of which contribute to the development and spread of resistant organisms."

When asked about some solutions to antibiotic resistance, she responded that "A key solution is antimicrobial stewardship, which is complex and requires strong collaboration, trust, and partnership among physicians, advanced practice providers, pharmacists, infection preventionists, and other members of the care team. Additionally, strong infection prevention practices—including proper hand hygiene, environmental cleaning and disinfection, and consistent use of isolation precautions—are essential in reducing the spread of resistant organisms.

A well-supported and proactive Infection Prevention program plays a vital role in coordinating and sustaining these efforts." She also explained the importance of outreach to the community by stating that "Having open conversations with their healthcare providers about when antibiotics are necessary can promote awareness and appropriate use," and that through more education, we can decrease antibiotic use and decrease antimicrobial resistance.

As Doctors and Scientists search for alternatives to traditional antimicrobials and ways to lessen the burden of antimicrobial resistance, Americans can help decrease the spread of AMR at home. The CDC states that AMR is increased due to everyday misuse and overuse of antibiotics. Misuse could occur if someone took leftover antibiotics for a viral cold infection, or when factory farms give antibiotics to all chickens to prevent disease that has not occurred yet. To prevent AMR spreading, here are some ways you can help: making sure you only take antibiotics for bacterial infections and not viral infections, and speaking with your doctor or veterinarian about the correct treatment course when prescribed antibiotics. Additionally, the CDC gives some insight into how everyday Americans can help, such as buying antibiotic-free chicken at the grocery store or limiting the use of antifungals and preparing food safely to prevent infection.

Similarly, the Cleveland Clinic addresses antibiotic overuse but focuses on its occurrence in the treatment of livestock animals on farms. Many of these animals are treated with antibiotics preventively; however, this may create a breeding ground for bacteria to become resistant or for humans to receive microdoses of antibiotics when they consume these animals. Antibiotics and antifungal drugs are also commonly used in agriculture when growing crops; however, treating crops with antibiotics can harm humans later on. These types of antibiotics account for about a third of all the antibiotics used in the United States every year. Through these preventative measures and overuse of antimicrobials, AMR is increasing rapidly.

To take action, advocate for antimicrobial stewardship programs in local hospitals, health centers, and with local leaders. Visit the CDC's antimicrobial resistance page to learn about stewardship and educate yourself. Share with your community that 5 out of 6 people are prescribed antibiotics each year, and 30% of these may be unnecessary. Encourage healthcare organizations to provide antibiotics only when necessary, ensure access for those who most need them, and educate physicians on appropriate stewardship to combat AMR.

ANTIBIOTIC RESISTANCE: CAUSES AND DEVELOPMENT

Kriesh Tivare, VJAS Co-President 2025-26

Antibiotics are one of the most important discoveries of the last century, as they have saved millions of lives by curing diseases caused by bacteria. However, scientists and medical professionals worldwide are getting more and more concerned about a new phenomenon that is affecting a large number of people. This emerging issue is called antibiotic resistance. In other words, bacteria are becoming resistant to antibiotics that previously could kill them or prevent their growth.

Antibiotic resistance occurs due to a process called natural selection. When bacteria are exposed to antibiotics, most of them are killed by the medicine. However, a few bacteria may have genetic mutations that allow them to survive exposure to antibiotics. These surviving bacteria then reproduce and pass their resistant characteristics to their offspring. Over time, antibiotic-resistant bacteria become dominant.

Another major cause of antibiotic resistance is the overuse and misuse of antibiotics. This is particularly true in instances where antibiotics are used to treat viral infections, such as colds and flu. However, it is worth noting that antibiotics are effective against bacteria and not viruses. When antibiotics are overused, bacteria are given an opportunity to develop resistance. This is also true in instances where people fail to complete the full prescription of antibiotics, leaving some bacteria behind, which may develop resistance.

The use of antibiotics in agriculture has also contributed to antibiotic resistance. Farmers often administer antibiotics to livestock to promote faster growth. This practice has been effective in boosting farm productivity. However, agricultural antibiotic use has also contributed to the spread of resistant bacteria. This is particularly true in cases where people come in contact with bacteria that have developed resistance.

Bacteria possess biological mechanisms that help them develop resistance to antibiotics. Some bacteria can produce enzymes that neutralize antibiotics before they have a chance to cause harm. Other bacteria can modify the targets of antibiotics, rendering them ineffective. Certain species can also pump antibiotics out of their cells or change their cell membranes to prevent antibiotics from entering.

Another cause of antibiotic resistance is the ability of bacteria to exchange genetic material. Bacteria can pass genetic material to one another through a process known as horizontal gene transfer. This means that resistance genes can spread even between bacteria of different species.

The consequences of antibiotic resistance are far-reaching. Some infections may require more expensive medication or a longer time to heal. Certain infections may become untreatable, leading to serious complications or death. Hospitals are at high risk of antibiotic resistance because bacteria can easily spread among immunocompromised people.

As a solution to this problem, it is important that antibiotics are only used when necessary, that proper infection prevention is strengthened, and that research into new antibiotics is conducted.

Antibiotic resistance is viewed as one of the biggest health challenges facing the world in the 21st century. The effectiveness of antibiotics may continue to decline if there are no collective efforts by health practitioners, scientists, policymakers, and individuals to ensure that these medicines remain effective for generations to come. The value of antibiotics should be recognized to ensure that infections caused by bacteria continue to be treatable.

STEPPING INTO SCIENCE: MOMENTS AND TAKEAWAYS FROM THE AMERICAN JUNIOR ACADEMY OF SCIENCE 2026

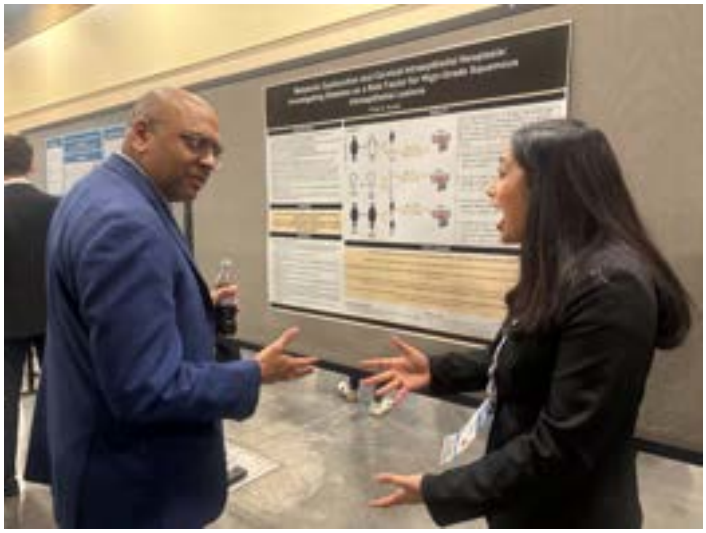
Priya Kumar, VJAS Communications Liason 2025-26

The American Junior Academy of Science (AJAS) represents one of the most impactful early-entry points into the world of professional scientific research for high-school students across the United States. As a program held in coordination with the American Association for the Advancement of Science, or AAAS, AJAS serves as a national unifier where emerging, passionate young researchers have the chance to be introduced to cutting-edge research advancements from across the world, truly understand the collaborative spirit of the scientific community, and take the next step in their scientific journey.

This year, I, along with four of my peers, had the incredible opportunity of representing the Virginia Academy of Science at the American Junior Academy of Science and the AAAS national conference, held in Phoenix, AZ from February 12th to 14th. Participants, including myself, are typically selected through their respective state academies, where they first develop and present independent research projects. From this pool, these students are invited to present and share their work at not just the AJAS national conference, but the AAAS Annual Meeting as well. Notably, the AJAS/AAAS Annual Meeting is not a competition, but rather an open, authentic forum where students are encouraged to exchange and challenge each other's ideas. During my time at the conference, not only was I inducted as an AJAS Fellow, but I also had the honor to hear from premier scientists and innovators and sit in on conversations surrounding the future of scientific research in our contemporary world.

The theme of this year's AAAS annual meeting was "Science @ Scale"; the AAAS website summarizes this theme as an invitation to "celebrate discovery, probe evidence-based policy innovation, and embrace the challenge of implementing science and policy at scale for the benefit of society." This motif was exemplified throughout the exhibitions and presentations I attended over the course of the conference. During the Opening Ceremonies event for AJAS delegates, we heard from Dr. Jamie L. Vernon, the Executive Director and CEO of Sigma Xi, one of the oldest and most prestigious Scientific Research Honor Societies in the country and the publisher of the esteemed scientific journal American Scientist. Dr. Vernon's presentation, "Right on Time: Meeting the Moment through Science," centered around not just the importance of conducting research, but the significance of effective scientific communication as a tool to combat the endemic misinformation and disinformation surrounding science today.

On the second day of the conference, AJAS delegates were invited to attend the AAAS Plenary Session. We heard about the power of scientific advocacy and the intersection between science, societal development, and policymaking from AAAS CEO Dr. Sudip S. Parikh and AAAS President Theresa Maldonado (who I was able to meet and speak with one-on-one after the session ended!). I was also able to attend an intriguing panel discussion with distinguished members from AAAS and the Royal Society on the development of contemporary science diplomacy in the 21st century, namely how scientific investigation is used to both divide and bring together countries on the international front.



Dr. Sudip Parikh (AAAS CEO) stopped by the AJAS presentations, and I was able to speak with him one-on-one about my project!

Other highlights from the conference included hearing from Mr. H. Chase Bishop, the 2026 AJAS Fellow in residence, who also served as a source of support to the AJAS delegates throughout the conference. He shared his story and his journey in scientific research, starting with his burgeoning passion for science in his freshman year and ending with his current position as a professor at Brevard College. The crux of Bishop's presentation was, "Your scientific journey will be like the scientific process," or in other words, full of unexpected obstacles and surprises. I know that Mr. Hudson's presentation resonated with me as well as many of my peers; as eager high school students, we often believe that our future in the scientific field will be linear and will go exactly as we plan. However, the reality is much different than this imagined ideal, and we must be prepared for potential setbacks as well as exciting prospects while sustaining our passion for science. AJAS delegates were also taken on a tour of their choice to explore the campus and STEM programs of Arizona State University, and we heard about options in STEM beyond high school in both research and other applications, including entrepreneurship and policy. Lastly, we were treated to a "Breakfast with Scientists" event, where we got to share our research and receive advice over breakfast with our peers and current researchers.

The AJAS-AAAS conference culminated in the AJAS poster presentation sessions, where each delegate had the opportunity to display their project's poster in the main Expo Hall of the AAAS conference. This way, not only could AJAS delegates see other delegates' presentations, but AAAS members, including international presenters and prominent attendees. This final presentation event officially inducted the AJAS delegates into Fellows, a lifetime honor for all students.

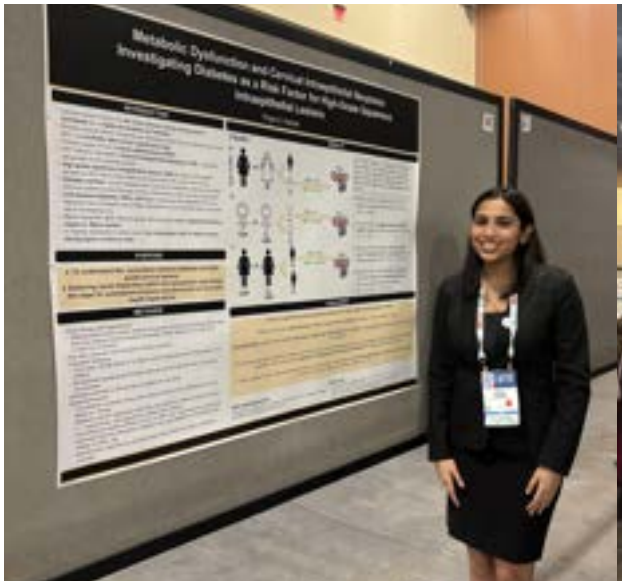
My most significant takeaway from attending the American Junior Academy of Science Annual Meeting was the gravity of unity and persistence from the scientific community in the face of contemporary fracas and polarization. Originally, I went into the conference believing that the focus of the AJAS-AAAS Conference would be purely the latest scientific innovations from across the world.

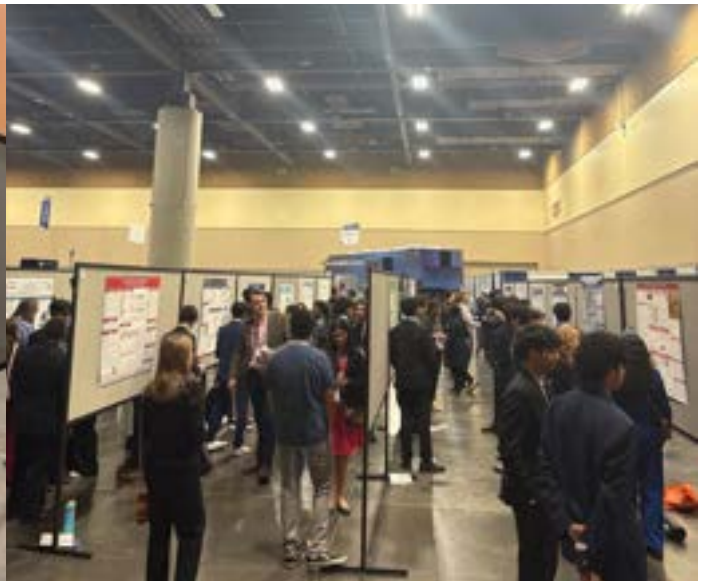
Indubitably, groundbreaking scientific findings, from AI developments to protein synthesis, were a crucial feature of the conference itself. However, what I soon realized was that the impetus of the conference was the sharing of these findings, not just the research itself. In other words, the conference represented a celebration of the work of the international scientific community in truly unprecedented times. Now more than ever, science stands strong as a necessity to human survival and development, helping us to understand the ever-changing world around us and solve some of the greatest challenges facing humanity. In the background of current upheaval of science due to transforming policy and the perpetuation of scientific disinformation, it is easy for members of the scientific community to feel unmotivated and frustrated.

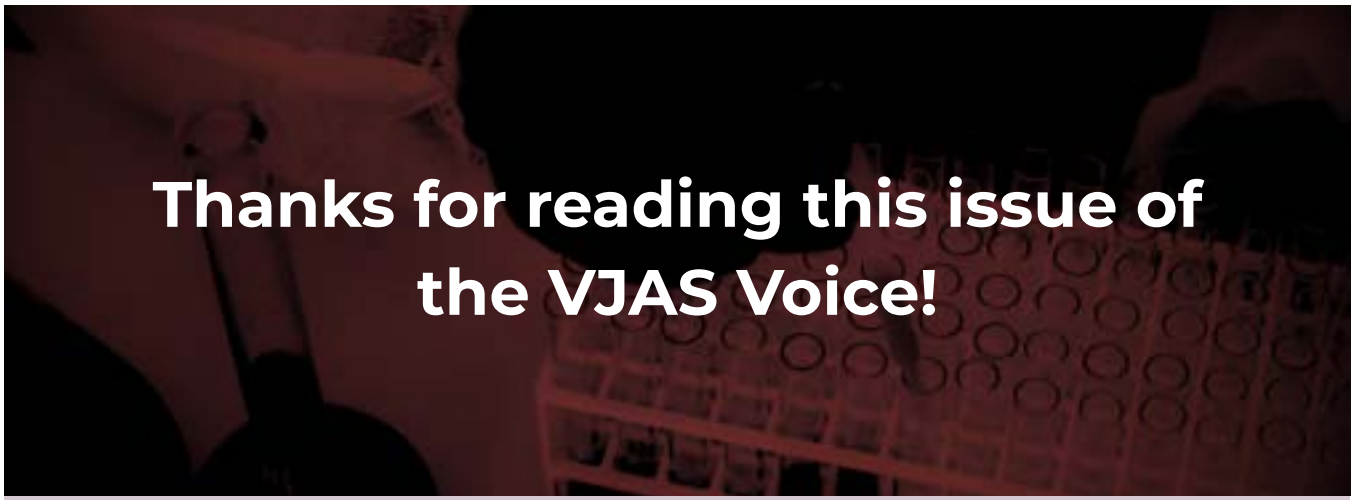
The AJAS-AAAS Annual Meeting is a reminder of the validity of scientific research and the strength of diverse perspectives and opinions in science. Personally, as a high school student, I came away from the AJAS Conference feeling not just assured about the importance of science, but optimistic about the future of scientific investigation.

In a broader sense, both AJAS and AAAS embody and reflect the mission of nurturing scientific leaders – individuals who not only will continue to contribute to the field of science, but will also take action in their communities to share their results and bring people together to build a better future.

I would be remiss without extending my deep gratitude to the Virginia Academy of Science, especially Ms. Susan Booth, Ms. Robin Curtis, and Mr. Jonathan Tolbert for their support in sending the Virginia delegation to Phoenix this year. Furthermore, I would like to thank all of the science educators who work endlessly to instill values of scientific curiosity and excellence in the next generation. Introduction to the scientific field begins not in spaces like AJAS, but in the classroom; on behalf of all the AJAS delegates, we thank our teachers and mentors for their guidance. To me, AJAS was not just a milestone achievement, but a formative experience that changed the way I view scientific exploration that I will take with me throughout my career.







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To submit an article for the next issue, please look on our Instagram for the submission form link, or email to: voice@vjas.org

Resources:

VJAS Website: https://vjas.org/index.html

VJAS Handbook: https://vjas.org/handbook.html

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Published April 2026