



VJAS VOICE

THE VIRGINIA JUNIOR ACADEMY
OF SCIENCE'S QUARTERLY PAPER

Fall 2022 EDITION, ISSUE 1

"THE IMPORTANT
THING IS TO
NEVER STOP
QUESTIONING."

**ALBERT
EINSTEIN**

**2023 VJAS VIRTUAL
RESEARCH SYMPOSIUM**
*Serving the World Through
Science*

The College of William & Mary
Williamsburg, VA

Student presentations will
be *fully virtual* and begin on

VJAS STUDENT GOVERNMENT

CO-PRESIDENTS:
HAMZA ARMAN LATEEF
LAASYA KONIDALA

• • •

VICE PRESIDENT:
CHARLOTTE CUNNINGHAM

• • •

SECRETARY:
YASH SAXENA

• • •

EDITORS IN CHIEF:
RANIA LATEEF
JACOB TILLER

• • •

COMMUNICATIONS LIAISON:
NITYA KUMAR



We look forward to the hosting our new and
returning student scientists via a virtual
symposium!

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VJAS 2023 SYMPOSIUM

RANIA LATEEF

The 82nd VJAS Annual Symposium will be virtual and hosted by the College of William and Mary.

More details can be found here:

<http://vjas.org/2023-symposium.html>

We are also open to recruiting our Readers and Judges.

Please sign up below:

<https://docs.google.com/forms/d/e/1FAIpQLScyEH8spkoRUviXh-3m7NUctcEAstqjuzXSAFwbCgjwcl5Eg/viewform>



START YOUR YEAR WITH SCIENCE

RANIA LATEEF, CO-EDITOR-IN-CHIEF

We hope everyone's academic year is off to an awesome start! Fall is an exciting time and also a busy one - pristine planners and new notebooks will soon be filled with meetings, ideas and, projects. Amidst the back-to-school bustle, we welcome all our returning VJAS members and scientists and we encourage those who have never participated, to join our vibrant community.

As you look around you this fall, seek topics in science that inspire or intrigue you. Ask yourself what is known and what remains to be discovered. Carve out a little problem you wish you pursue and reach for those trusted tenets of the scientific method. Look around you for mentors in the classroom and VJAS community who can help guide your chosen project. Also, check out our awesome mentorship program described in an article on page 6.

The VJAS student officers hope to have a couple STEMinars to help prepare you for the VJAS journey this year. In the meantime, if you have any questions please do reach out to us. And let's plan to see each other at the VJAS annual symposium in May, 2023!

MEET OUR VJAS OFFICERS

HAMZA ARMAN LATEEF CO-PRESIDENT

Arman Lateef is the current Co-president of the VJAS Student Officer Committee and he is a senior at the Governor's School at Innovation Park in Manassas, Virginia. Arman has attended VJAS since he was in 7th grade and this will be his fifth year at the symposium. He is an avid environmental health researcher and public health advocate committed to protecting the most vulnerable communities affected by adverse environmental exposures.

(Pictured on the right.)



LAASYA KONIDALA CO-PRESIDENT

Laasya Konidala is overjoyed to be serving as Co-President of the VJAS Student Government this year. The VJAS Symposium has played a significant role in her high-school career as it continues to foster her ambition and support her scientific endeavors. Laasya loves being a part of this student body because she gets the opportunity to pursue passion projects and lead various initiatives.

(Pictured on the left.)



CHARLOTTE CUNNINGHAM VICE PRESIDENT

Charlotte is a senior at Washington-Liberty High School in Arlington. She has presented her research papers at the annual VJAS Symposium in middle and high school in the categories of Chemistry and Medicine & Health. Charlotte helps students and their advisors experience success in their submitted papers and presentations. Outside of her research, Charlotte is a Science Fair and Freshman mentor at her school, runs on her school's cross-country team, and is the Founder and President of her school's Global Health Club.

(Pictured on the right.)



MEET OUR VJAS OFFICERS

YASH SAXENA SECRETARY

Yash's connection to science comes in the form of his curiosity about how the world around him functions. Scientific research provides him a way to experiment and discover for himself how things around him work and being an officer at the VJAS lets him spread his love of science and helps him foster it in other students in our state.

(Pictured on the right.)



NITYA KUMAR COMMUNICATIONS LIAISON

Nitya Kumar is a junior at Douglas Freeman high school and she is the social media and communications liaison for VJAS. She is very excited to be able to serve as an officer this year! She has been a part of VJAS and has been conducting scientific research since seventh grade. She is very passionate about science and research and strives to help more students pursue their research goals this year, through her role in the VJAS organization.

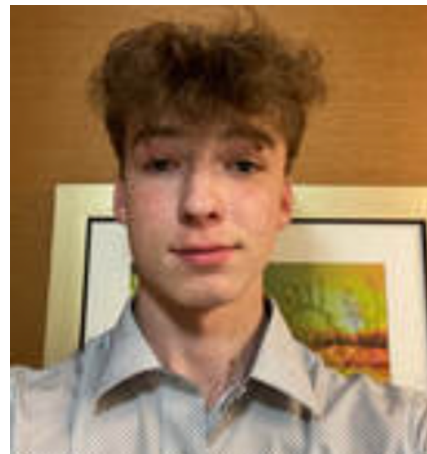
(Pictured on the left.)



JACOB TILLER, CO-EDITOR-IN-CHIEF, VJAS VOICE

Jacob is a senior at the Central Virginia Governor's School for Science and Technology. In 2022, Jacob saw his VJAS debut with his junior research project on water purification improvements. After the 2022 Symposium, Jacob was named a Co-Editor In Chief for the 2022-2023 VJAS year. In addition to VJAS, Jacob serves as the Head Scientific Coordinator for SLC6A1 Connect, a rare disease research and patient advocacy group. Jacob has also served as a researcher at the Nationwide Children's Hospital and plans to one day attend medical school.

(Pictured on the right.)



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MEET OUR VJAS OFFICERS

RANIA LATEEF

CO-EDITOR-IN-CHIEF, VJAS VOICE

Rania Lateef is a sophomore at Colgan High School, in Manassas, Virginia. She has been a VJAS member since 7th grade and looks forward to editing and publishing the VJAS Voice this year, while aiming to also increase its readership. Rania's interest in scientific research stems from her passion for public health, psychology, and gender studies. In her free time, Rania enjoys traveling and spending time with friends and her family which includes her three brothers and pet rabbit, Oreo.



(Pictured on the right.)

VJAS ALUMNI RECOGNITION

We recognize that many of our VJAS members go on to build upon an amazing foundation of research, presentation, and publication skills. We would love to hear about your accomplishments and acknowledge your journey.

If you are a VJAS alumnus and would like to receive recognition for an achievement, please let us know (raniaslateef@gmail.com) and we will send you a copy of the recognition form to be filled out.

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VJAS MENTORSHIP PROGRAM

The Virginia Academy of Science (VAS) is excited to offer its mentorship program once again for K-12 classrooms across Virginia to pair scientists with K-12 classes to perform long-term science projects.

They are looking to recruit both mentors (grad students, postdocs, instructors, scientists, etc.) and high school teachers who would like their students to participate in a virtually-driven long-term research project.

They have partnered with the Virginia Junior Academy of Science in this endeavor to encourage participation in our 2023 Annual Research Symposium and to give students the juried research experience necessary to earn the Virginia Department of Education's new Seal for Excellence in Science and the Environment on their diploma.

Mentorships may be in-person, virtual, or hybrid, and the VAS would like to offer middle and high school instructors the opportunity to either do a project of local interest or to participate in a "Citizen Science" type initiative in which their class will work with others across the Commonwealth and (sometimes) the nation in the collection and analysis of data.

This model is more inclusive since it should allow a greater level of participation with geography and distance not being limiting factors.

Even if you signed up last year, to avoid unwanted emails to those who do not wish to participate this year, Dr. Wolyniak, the program coordinator would like to you to sign up using the appropriate link below.

If you are interested in serving as a mentor in this project, please fill out the form found at:

<https://secure4.hsc.edu/forms/view.php?id=117158>

[\[nam\]1.safelinks.protection.outlook.com](mailto:[nam]1.safelinks.protection.outlook.com)

If you are a high school teacher with an interest in having a mentor work with your class, please fill out the form found at:

<https://secure4.hsc.edu/forms/view.php?id=116443>

[\[nam\]1.safelinks.protection.outlook.com](mailto:[nam]1.safelinks.protection.outlook.com)

Please do not hesitate to contact Dr. Mike Wolniak (mwolyniak@hsc.edu) with any questions you may have, and please pass this announcement along to any other contacts you think may wish to participate.

Thank you for your consideration of this opportunity!

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INTERVIEW WITH TEACHER AND VJAS MENTOR, DR. MICHELLE DOUGLASS

JACOB TILLER

1. What does VJAS mean to you?

VJAS is an opportunity for the students to engage in a scientific community with their peers. It gives them great real-world practice in presenting in a professional fashion to judges and interacting with like-minded students that they wouldn't normally get the chance to meet.

2. How do you aid students in developing research project ideas?

I first get to know the students and their interests. Some students come in with very grand and detailed project ideas while others only have a vague idea of what might interest them. One-on-one conversations with the students really help me guide them to something that is interesting to them but also feasible with the current equipment and limited time frame.

3. How have you grown as a mentor over the years?

Every year I learn new skills and concepts as students come up with their ideas. It has helped to build my own personal repertoire and lets me better guide students on what might be a better method of data collection for their topic.

4. How do you feel VJAS impacts the CVGS community?

For years, VJAS has really been the single biggest event that brought our students

closer together. When we had overnight trips to present at a college, the experience the students gained in being there to support their peers and sharing rooms in a dorm together have been invaluable to the relationships they build that last long after they graduate from high school.

5. If you were to complete a project, what would it be related to?

It would be on Microbiology/Genetics/or Cell Biology!

Dr. Douglass is a research mentor at the Central Virginia Governor's School helping juniors to develop their own independent papers/projects in a lab setting. She also teaches College Anatomy and Physiology to seniors at the Governor's School.

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CALLING ALL 10 TH GRADERS - SCIENCE NEEDS YOU! RANIA LATEEF

Hello, my fellow student scientists! As you are getting ready to start another (hopefully amazing!) academic year, I wanted to remind you that doing and serving science never ends. I hope you will consider participating in this study to help us understand the best way to communicate vaccine science to students. It is a very simple online study, and you will be paid for your time. Remember- science needs subjects!



GEORGETOWN UNIVERSITY

Online Vaccine Educational Research Study



What is this study about?



Researchers from Georgetown University Medical Center and Hampden-Sydney College are conducting this study to help young people learn more about vaccines-what they are, what they do, and how they can help prevent diseases.

This research study has been approved by the Hampden-Sydney College Institutional Review Board (IRB) and is designed to find out if 10th grade students will learn new information after watching educational videos about vaccines.

Who can participate?

This study is open to any 10th grade student in the Virginia school systems with access to a computer or mobile device with internet capability.

What will you need to do if you decide to participate?

It will take about 80-90 minutes to complete the study.

Participants will be asked to:

- Complete a brief survey with 16 multiple choice questions (10 minutes).
- Watch some educational videos. One group will watch some educational videos about vaccines. The other group will watch educational videos about the biology of cells. This will take about 60 minutes.
- Complete another brief survey with 20-25 multiple choice questions (10-15 minutes) after watching the videos.

One of the student's parents will need to give permission first and then the student will also need to sign a form agreeing to be involved in this study.

What will you get for participating?

All participants will have the opportunity to view the vaccine videos which contain important information about vaccines.

Participants who successfully complete the study will receive a check for \$60 for contributing their time to this research.

What if you have any questions?

If you are interested in participating or have any questions, please contact **Dr. Edward Lewin's research team** at mwolyniak@hsc.edu or scan the QR code and fill out the consent form. The team will be in touch shortly after.



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