THE VJAS VOICE

The Virginia Junior Academy of Science Student MAGAZINE



BY STUDENTS FOR STUDENTS

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Letter from the Editors

Eujine Kim & Corrina Peachey

Hello! This is Eujine Kim and Corrina Peachey, your Co Editors-in-Chief of the VJAS Voice. For the last edition of the Voice, we wanted to write a "Letter from the Editors" that emphasizes what being part of the student officers of the Virginia Junior Academy of Science has meant for us. Above all else, we have both learned so much from the communication and collaboration between the students. The student meetings and the ability to participate in the biannual senior committee meetings were valuable opportunities to be exposed to students with incredible talent and very bright futures.

Through our work as student officers, we have been able to work side by side with students from across Virginia. These students have shown us their perspectives coming from different backgrounds, schools, and areas. From reading and editing different essays, interviews, and stories, we have become friends with students we would not have been exposed to otherwise.

We have also been exposed to wonderful mentorship from the adult leadership of VJAS, including Mrs. Booth, Mrs. Curtis, and Dr. Lateef. They have provided beneficial criticisms throughout our writing, editing, and publishing process. We encourage you to use the opportunities that VJAS provides to the fullest and take advantage of the mentorship programs. We have both loved our time as Co Editors-in-Chief, and we thank you for this wonderful opportunity. Thank you,

Eujine and Corrina

The VJAS Mentorship Program: Dr. Mike Wolyniak

Laasya Konidala, Secretary

The Virginia Academy of Science (VAS) Mentorship Program, initiated by Dr. Mike Wolyniak, is an opportunity for students to work with VAS members as mentors to conduct scientific research based on their shared interests. Primarily geared towards middle and high school classrooms, the goal of this program is to get students engaged in science and research, in either a virtual or in-person experience, expanding their interests in pursuing a scientific career. Read more below to hear a reflection on the VAS Mentorship Program from the creator, Dr. Mike Wolyniak.

LAASYA KONIDALA (VJAS SECRETARY): What inspired you to create this mentorship program?

DR. MIKE WOLYNIAK: I have been involved with several K-12 student outreach initiatives over the years, and I have gotten an incredible amount of personal satisfaction from this work. When the COVID pandemic began, I was the President of the Virginia Academy of Science, and I realized that it was a great time to help the Academy use its resources to help the Commonwealth's K-12 teachers.

LAASYA KONIDALA: What would you say were the key highlights of the program this year?

DR. MIKE WOLYNIAK: I am excited to get graduate students and postdoctoral fellows at Virginia's research universities involved as mentors. These individuals are in training to become independent scientists and working with students in programs like this give them the experience that they will need to be successful teachers.

LAASYA KONIDALA: How are you planning on developing or changing this program before the next year?

DR. MIKE WOLYNIAK: I am looking to expand the number of Academy members that are involved in running this program. That will allow us to get fresh ideas on how to reach a wider audience and to ultimately expand our program. The VAS Mentorship program is seeking to recruit interested mentors and high school teachers who would like their students to participate in a long-term research project. This opportunity will give mentors valuable teaching experience and students the juried research experience necessary to earn the Virginia Department of Education Seal for Excellence in Science and the Environment.

If you are interested in serving as a mentor, please fill out: https://secure4.hsc.edu/forms/view.php?id=117158

If you are a teacher interested in having a mentor work with your class, please fill out: https://secure4.hsc.edu/forms/view.php?id=116443

Online Vaccine Educational Research Study

Calling all 10th graders - Science Needs YOU! By RANIA LATEEF (VJAS STUDENT RESEARCHER AND ASSISTANT RESEARCH
COORDINATOR FOR THIS STUDY)

Hello, my fellow student scientists! As you are getting ready to end another (hopefully awesome!) 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!



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 $10^{\rm th}$ 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 public 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.



These materials are neither sponsored nor endorsed by the Board of Education the Superintendent of Schools, or this school.

STUDENT INTERVIEWS by Eujine Kim

QI) In what ways have your attitudes towards learning changed as a result of participating in the VJAS student officer body?

ARMAN LATEEF (CO-PRESIDENT): I've learned that science is so much more of a collaborative than an individual process. While doing your own work is rewarding, helping others learn and accomplish their own goals is so much more gratifying.

HARRISH GANESH (CO-PRESIDENT): I have discovered that learning is truly possible through collaboration. Without collaborating with other student officers, the process of gathering ideas, learning together in a team, and dealing with differing ideas is much more difficult! I feel that as an officer, I felt that my communication and collaboration skills have truly improved.

CHARLOTTE CUNNINGHAM (VICE PRESIDENT): From serving as a VJAS student officer, my attitudes toward learning have changed as I have realized the necessity of making resources as widespread and available as possible. Everyone has their own style of learning/working, and it is our job to ensure the approaches to our projects acknowledge that.

Q2) To any non-seniors, what do you hope to accomplish next year through VJAS? What things can VJAS improve upon from this year?

ARMAN LATEEF: I want to continue my journey of linking science with service through active participation in VIAS next year. I feel like I've learned so much about the organization and its leadership that this can serve as an excellent foundation to recruit more student scientists and help us develop their engagement in research.

CHARLOTTE CUNNINGHAM: Next year at VJAS, I am anticipating creating a whole line of VJAS STEMinars; for when students are creating their research projects, writing their papers/submitting to VJAS, and presenting at VJAS. We hosted the first STEMinar earlier this year for students who need advice submitting to VJAS, and we had great attendance with many excellent questions being asked. The more STEMinars that we create, the more paper submissions we will have, and the easier the process will become for students.

LAASYA KONIDALA (SECRETARY): My hope is that next year we can continue to expand VJAS to under-represented regions across Virginia, further develop the STEMinate series, and encourage students to get interested in STEM from a young age through social media and the VIAS Voice.

STUDENT INTERVIEWS PT. 2

by Eujine Kim

Q3) Dr. Lateef, how do you feel about the progression of this year's VJAS student officers? Did you see any noticeable changes to the overall VJAS format this year?

DR. TARANNUM LATEEF (STUDENT OFFICER COORDINATOR): I am extremely impressed by our officers this year. They have formed a cohesive and responsive team and shown true dedication to the mission of VJAS, which is to encourage scientific research among young student scientists in Virginia.

Q4) What were your hopes as a part of VJAS at the beginning of the year? Were these hopes accomplished?

HARRISH GANESH: My hopes as a part of VJAS are to improve STEM accessibility to many students throughout VJAS, and encourage many students to begin research projects out of curiosity. I feel that as a part of VJAS, we have accomplished this goal because we were able to conduct and prepare a wonderful VJAS annual symposium.

CHARLOTTE CUNNINGHAM: My hopes as a part of VJAS at the beginning of the year were to improve the process through student support and to work with other amazing students, who, like me, are very motivated and want to change the community to include more students. Both hopes were accomplished by creating the VJAS STEMinar.

Q5) What do you hope our readers gain from the VJAS Voice?

CHARLOTTE CUNNINGHAM: I hope readers gain an improved understanding of our work projects and become inspired to reach out to us for areas of necessary improvement. Coming into this student leadership organization, I knew very little about the student committee and how critical they are to providing input. As a student submitting papers to VJAS, I wish I knew how dedicated the officers are to working for the program and trying to improve the experience of the students.

LAASYA KONIDALA: One of the most fundamental aspects of the VJAS Voice is that it is written by the students for other students, so I hope readers get the opportunity to learn about programs and student-led initiatives that VJAS supports. The VJAS Voice has a wide variety of material, from interviews to reflection pieces, so I really think it is worthwhile to check out when you have a free moment!c

VJAS SYMPOSIUM SCHEDULE

VJAS 2022 Symposium Schedule of Events		
Event	Date	Time
VJAS General Session	5/13/2022	7:00 - 9:00 pm
Invited Speakers		
VAS, Student Officers, William & Mary		
George W Jeffers Lecture - Dr. Ellen Stofan, Under Secretary for Science and Research at Smithsonian Institute		
Student Presentations to Judges	5/14/2022	9:00am - 4:00pm
Zoom link and presentation times will be in the Symposium Program.		
Award Ceremony	5/27/2022	7:00-9:00 PM

WE HOPE TO SEE YOU THERE! HTTP://VJAS.ORG/SYMPOSIUM-593706.HTML