



# ENGEL HALL NEWS

## LETTER FROM THE DEPARTMENT HEAD

Dear VT Biochemistry Alumni and Friends,

I hope you enjoy our annual newsletter, which details some of the activities in the department of Biochemistry this year. This has been a very different year, which reminds us of how important it is to educate and train the next generation of scientists to use biochemical knowledge to positively impact our world.

Many of you may be curious as to how we have adapted on campus during this time of Covid-19. As you may know, we pivoted to online learning in March, and so we have learned to master the art of Zoom. During the lock-down, we also closed our research labs. The department owes many thanks to our technical staff, including Danny Eanes and Steve Lowe, who worked diligently to keep our lab equipment up and running during both the shutdown and after re-opening. We had a virtual graduation celebration in May, and pictures of some of our graduates are in this newsletter. The beginning of Fall brought various challenges, for both faculty and students. We focused our energy on ensuring that our six credit lab course (BCHM 4124) continued to provide important training for students. This was facilitated by a major infusion of funds into new lab equipment, which will benefit our students in years to come.

Although things are radically different on campus, our faculty, staff, and students remain resilient. Our advanced students had many face-to-face classes this semester, and have continued their research in labs. Faculty have used Zoom Break-out rooms and synchronous virtual classes to facilitate an online community for our Biochemistry students. Our Academic Advisors met with students on Zoom in hundreds of appointments this semester. In addition, we offered first-year students an Oxford-style Biochemistry tutorial in which an advanced graduate student, a postdoc, and a faculty volunteer taught interested first-year students face-to-face to give these new students a more tangible way to connect with our department. Our undergraduate Peer Mentors have also been key in helping first-year students connect to the department. These advanced undergraduates assist in our First-Year experience classes, which provides us with Teaching assistants, and provides the Peer Mentors with a source of income to help with the expense of college.

I am constantly amazed by and proud of Biochemistry students. This newsletter highlights some of their achievements, which I hope you enjoy reading about. This newsletter was assembled by our new Communications Coordinator, Cameron Warren, who would love to collect stories and photos of alumni. To contact Cameron, please email her at [cameronrw@vt.edu](mailto:cameronrw@vt.edu). Please do not hesitate to reach out to Cameron, or to the department.

Sincerely,  
Glenda E. Gillaspay  
Professor and Head, Biochemistry  
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COLLEGE OF AGRICULTURE AND LIFE SCIENCES  
**BIOCHEMISTRY**  
VIRGINIA TECH

## IN THIS ISSUE

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(2021)**

## STAY CONNECTED

To follow the latest achievements of our students, faculty, staff and view recent departmental news and visit our website.

[WWW.BIOCHEM.VT.EDU](http://WWW.BIOCHEM.VT.EDU)

Follow us on social media for daily content, which includes announcements, event information, student features, departmental plans, and more!

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## HOLLY GIOVINCO

Holly was a Biochemistry and Psychology double major from New Jersey. She spent two years researching the preservation of red blood cells and platelets. She's most proud of presenting her research at Edward Via College of Osteopathic Medicine (VCOM) and winning first place in her category. She'll be attending medical school at Rowan School of Medicine.



## EMMA WILKINSON

Emma was a Biochemistry and Biology double major from Pennsylvania. She was involved in Delta Epsilon Mu, Student Alumni Associates, and the Biochemistry Peer Mentoring Program. She's most proud of her involvement in the ASDA Pre-Dental Chapter at Virginia Tech. She's attending the University of Pennsylvania School of Dental Medicine.



## JOSIE SUMMITT

Josie was a Biochemistry major from Goochland, VA. She was involved in Biochemistry Club, Medlife Club, and the Sports Medicine Club and served as a Student Athletic Trainer Aide for the Volleyball Team. She's attending Virginia Commonwealth University for their Physical Therapy Program.

**May 2020 Commencement didn't quite look the same this year but, we still celebrated our incredible seniors! Congratulations to all of the graduates!**  
**Featured on this page are a handful of our seniors that graduated in May.**



## CHRISTOPHER TAN

"I've had a nice four years in Blacksburg and will always cherish the life-transforming experience at Virginia Tech. I joined the Chinese-American society in my freshman year, where I was able to find a home. The people I met ended up being some of my closest friends and allowed me to embrace my Asian culture. After graduation, I'll be starting my next journey to become a physician at Virginia Commonwealth University School of Medicine."

**TO READ MORE STUDENT PROFILES  
 AND RECEIVE ACCESS TO OUR  
 COMMENCEMENT BROCHURE AND  
 NEWSLETTER, HEAD TO OUR 2020  
 COMMENCEMENT HUB:**

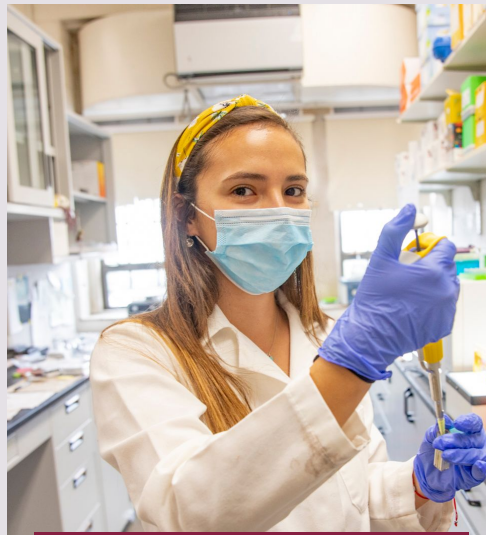
**[biochem.vt.edu/commencement](https://biochem.vt.edu/commencement)**



From left to right: Joanna Reinhold (3rd year Ph.D. candidate), Caitlin Cridland (4th year Ph.D. candidate), Hannah Valentino (5th year Ph.D. candidate), and Kylee Unnoppet (Junior) perform demonstrations and experiments for children during VT ScienceFest.



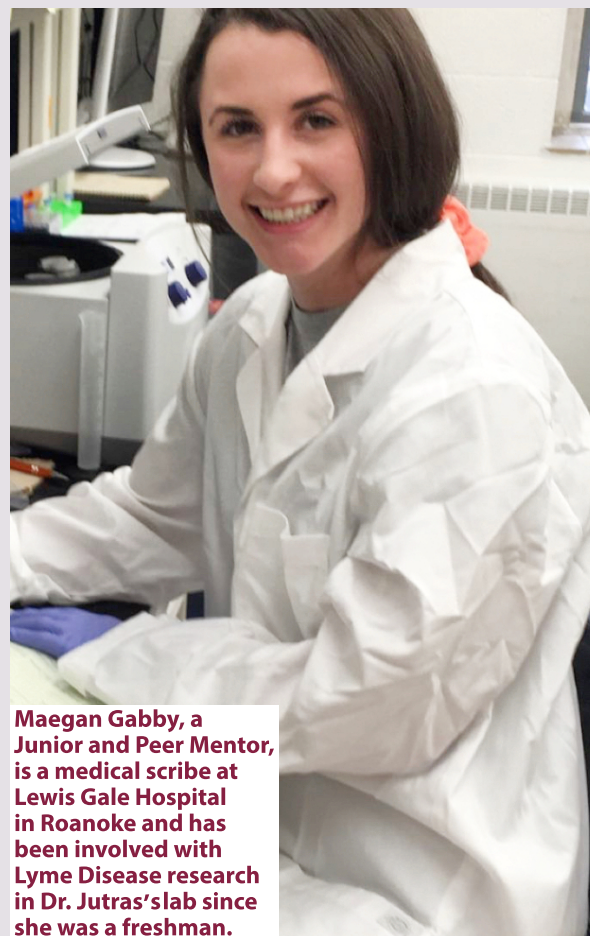
Marie Costanzo, a Junior, is a mentor in the Orion Living Learning Community on campus. Her mentees keep her motivated while she adjusts to a virtual learning platform.



Ariana Umaña, a 5th-year Ph.D. candidate, will be working at the National Human Genome Institute following graduation, where she'll continue research on cancer biology.



Ash VanWinkle, a Senior, received a prestigious Fralin Undergraduate Research Fellowship.



Maegan Gabby, a Junior and Peer Mentor, is a medical scribe at Lewis Gale Hospital in Roanoke and has been involved with Lyme Disease research in Dr. Jutras' lab since she was a freshman.



Amanda Gunzel, a Senior and Peer Mentor, interned with Novozymes this past summer.



Shannon Pollock, a Sophomore, is now entering her second year of research in Dr. Mackey's lab. She started research as a freshman!

## CAITLIN CRIDLAND

This past summer, Caitlin, a fourth-year Biochemistry Ph.D. student, played an important role in the Virginia Tech Research and Extension Experiential Learning (VT-REEL) program, a 10-week undergraduate research fellowship funded by the USDA and NIFA. Due to COVID-19, the program had to be transitioned online via Zoom. Any meetings, reflections, presentations, and reading materials that students needed were available on Canvas. However, this didn't keep Caitlin from engaging students and maintaining their excitement. "I hope that the students enjoyed their experience and learned something from VT-REEL."



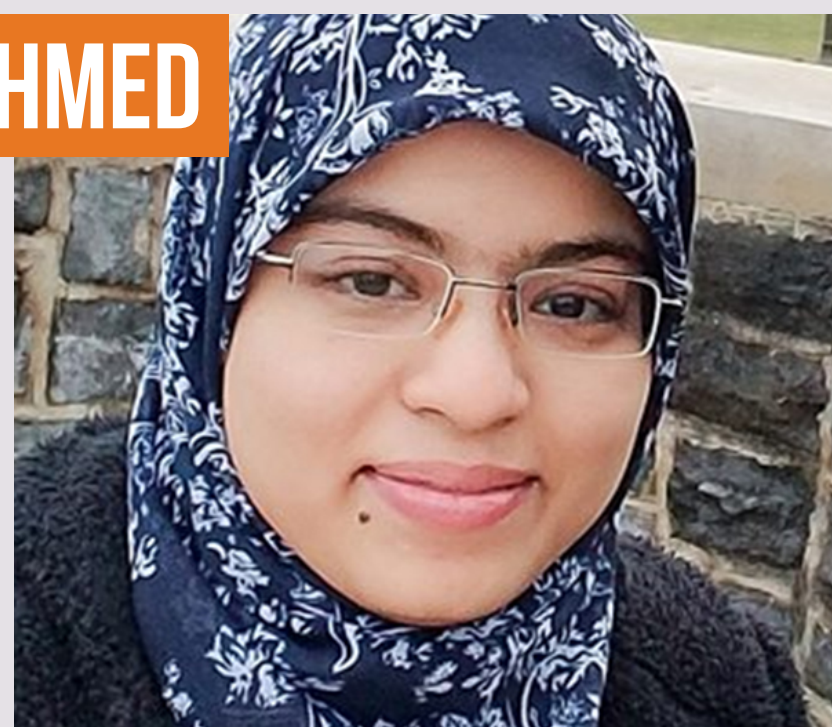
## DIDIER MENA AGUILAR

Didier, a third-year Ph.D. Biochemistry student, was the instructor on record for Biochemistry for Biotechnology (BCHM 3114). BCHM 3114 was a non-major, online, synchronous course; the class was offered face-to-face but transitioned to an online format due to the COVID-19 pandemic. If you'd asked Didier if he could've imagined teaching his class online during this time when he first started with the Graduate Teaching Scholars program, he would've said no. Under the seemingly negative circumstances, Didier ends on a positive note. "I look forward to getting to know my students, making connections with them, and helping them grow. It's truly the most fulfilling part of being an instructor."



## TAHMINA AHMED

Tahmina is the inaugural Student Advocate on the Departmental Diversity, Equity & Inclusion (DEI) Committee. Tahmina became involved in the committee began in January 2020. She believed that getting involved would be a great way to promote changes for the betterment of the departmental environment and make an impact on students from diverse backgrounds. Her past counseling experience and her drive to learn made her perfect for the role. As she reflects on her role, she says "Diversity is the beauty and you can glorify this beauty by nurturing and supporting it."



## ROWAN WOOLDRIDGE

Rowan, Biochemistry Accelerated Master's student, was one of three recipients of the inaugural Undergraduate Research Excellence Award in June. Finalists for the award were identified based on their completion of the Undergraduate Research Excellence Program (UREP), and recipients were selected based on their ability to communicate their research effectively to a broad audience as well as their creative use of visuals and technology to enhance their message.



HEAD TO [VT.BIOCHEM.EDU/NEWS](https://vt.biochem.edu/news) TO READ THE FULL STORIES ABOUT OUR GRADUATE STUDENTS AND THEIR ACHIEVEMENTS!

**FIND FULL ARTICLES ABOUT OUR FACULTY AND THEIR RESEARCH ON [BIOCHEM.VT.EDU/NEWS](https://biochem.vt.edu/news)**



**Amy Rasor was the September 2020 Advisor of the Month!**



**Chloé Lahondère received a promotion to Assistant Professor.**



**Researchers in Zhijian Tu's lab successfully converted female mosquitoes into fertile male mosquitoes.**



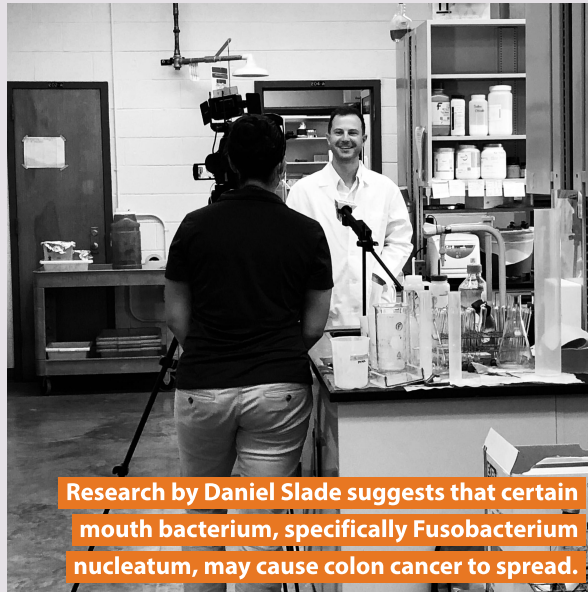
**Anne Brown was named a recipient of the 2019 Outstanding Research Mentor Award.**



**The Steven & Alexandra Cohen Foundation awarded Brandon Jutras a \$661,216 grant to study Lyme arthritis.**



**Kristopher Hite adjusted his teaching protocols to give students critical research experience during COVID-19.**



**Research by Daniel Slade suggests that certain mouth bacterium, specifically Fusobacterium nucleatum, may cause colon cancer to spread.**



**Dr. Carla Finkelstein (left), an associate professor in the College of Science, coordinates COVID-19 test development on the Blacksburg campus with Dr. Rich Helm.**



**Pablo Sobrado & Hannah Valentino (Ph.D. Candidate) discovered a way to make the flavor of garlic more or less pungent.**



WILLIAM DOWNY



PATRICIA ERICKSON



CAITLIN O'CONNELL

# ADVISORY BOARD COUNCIL

Our developing Advisory Board is helping us to enhance career opportunities for both undergraduate and graduate students in Biochemistry. Email Dr. Glenda Gillaspy (gillaspy@vt.edu) if you're interested in sharing your expertise and serving on our board.

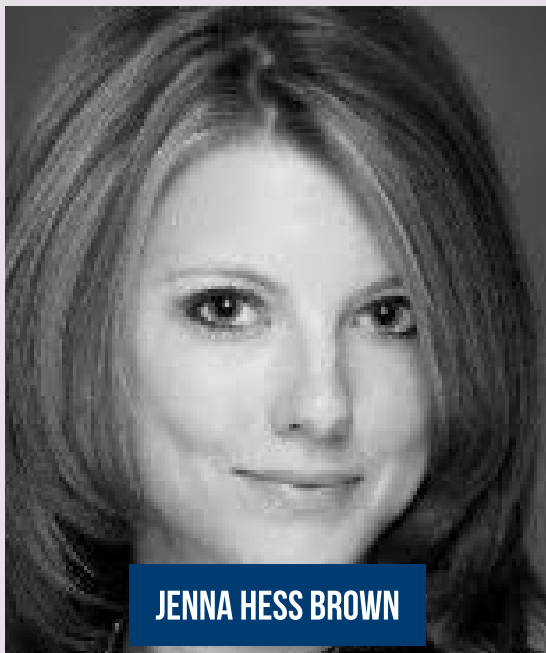
## HERE ARE SOME THINGS YOU CAN DO TO GET INVOLVED WITH THE DEPARTMENT!

Join us for our Biochemistry Seminar Series! Every Monday at 4 p.m., our Department hosts a biochemistry seminar, and we have transitioned online in response to the pandemic. If you'd like to attend, please reach out to Zerita Montgomery (zerita@vt.edu) to be added to our Canvas site to have access to all of our seminars. If you'd like to host a seminar and talk about careers or discuss other professional development topics, contact Dr. Biswarup Mukhopadhyay (bmukhopa@vt.edu).

Join Hokie Mentorship Connect, a new service that matches alumni mentors with VT students. For more information, go to [mentoring.career.vt.edu](http://mentoring.career.vt.edu)

Connect with other Biochemistry alumni on LinkedIn! You can join our Biochemistry LinkedIn Page at [www.linkedin.com/groups/7063375/](http://www.linkedin.com/groups/7063375/)

Share your career insights with students in our Undergraduate Careers class. You can participate from anywhere in the world! All you need is an internet connection! Contact our undergraduate advisor, Amy Rasor (arasor@vt.edu), if interested.



JENNA HESS BROWN



ANH TRAN



RYAN BURNETTE

# WE ARE THRILLED TO ANNOUNCE OUR DEPARTMENT'S 2019 GROUP OF OUTSTANDING ALUMNI!

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**Ina O'Carroll: Outstanding Recent Alumna in Academia**

**Ana Denicola: Distinguished Alumna in Academia**

**Jenna Hess Brown: Outstanding Recent Alumna in Government or Industry**

**Ray Hetherington: Distinguished Alumnus in Government or Industry**

**THANK YOU FOR ALL YOUR OUTSTANDING CONTRIBUTIONS! CONGRATULATIONS!**



**Ina O'Carroll '09**



**Ana Denicola '88**



**Jenna Hess Brown '08, '11**



**Ray Hetherington '83**

For in-depth winner profiles and detailed award descriptions, go to [www.cals.vt.edu/alumni/awards](http://www.cals.vt.edu/alumni/awards)

## WE'RE NOW ACCEPTING NOMINATIONS FOR OUR 2020 GROUP OF OUTSTANDING BIOCHEMISTRY ALUMNI!

Consider nominating yourself or another biochemistry alumni whose work, professional activities, and/or service to Virginia Tech deserve recognition. Send your nominations to Zerita Montgomery ([zerita@vt.edu](mailto:zerita@vt.edu)); your nomination email should include the name of the nominee and their email address.

These alumni will be recognized at our third annual undergraduate research showcase event, EngelPalooza, in late October 2021. Attending EngelPalooza will give our alumni the chance to interact with students and to see their research achievements.

# SCHOLARSHIP RECIPIENTS

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**LENA MOORE**  
**CLASS OF 2022, JUNIOR**

"The Downey scholarship means so much to me because it relieves some financial stress and allows me to focus on furthering my education. I'm a Junior studying biochemistry and human nutrition, foods, and exercise. I am beginning my dental school applications and hope that I will become a doctor of orthodontics."



**SENAH STEPHENS**  
**CLASS OF 2021, SENIOR**

"I am graciously humbled to receive the William Burns Downey Memorial and the John and Ann Hess Educational Scholarships. I am honored to represent these families as a senior student-athlete. The monies have been vital to my success academically and have enabled me to maintain a near-perfect GPA. Next, I plan to attend medical school to pursue a career as an orthopedic surgeon."



**TAYLAN TUNCKANAT**  
**CLASS OF 2021, SENIOR**

"I'm a senior on track for an accelerated Master of Science. The R.W. and Frances H. Engel Scholarship allowed me to devote time to both my research and my academics, for which I am beyond grateful. After graduation, I am pursuing a Ph.D. in biochemistry with an aspiration to be part of academia as a research faculty."



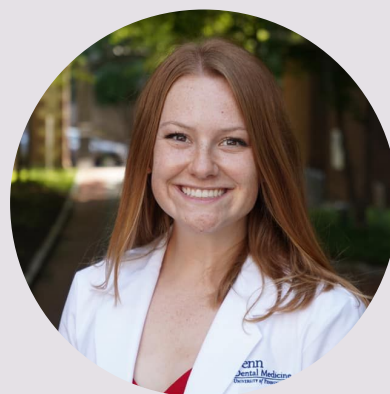
**CAITLIN WINNER**  
**CLASS OF 2022, JUNIOR**

"The William Burns Downey Memorial Scholarship has allowed me the opportunity to grow in my academic career and participate in studies I never thought possible. I hope to work at the National Institute of Health or the Centers for Disease Control and Prevention as a chemist."



**SARA GALLEGOS**  
**CLASS OF 2023, SOPHOMORE**

"Words cannot describe how thankful I am for receiving the James F. Eheart scholarship. The scholarship allowed me to pay for my college education and confidently work on my Biochemistry research related to Alzheimer's Disease with appropriate materials. I plan to be involved in more research opportunities and learn more about Alzheimer's Disease."



**EMMA WILKSON**  
**MAY 2020 GRADUATE**

"The R.W. and Frances H. Engel Scholarship allowed me to attend Virginia Tech and helped lessen the cost of my education, which was helpful for me as an out of state student. Currently, I'm attending the University of Pennsylvania School of Dental Medicine and pursuing my DMD!"

**KEVIN MIKITA**  
**CLASS OF 2022, JUNIOR**



"The R.W. and Frances H. Engel Scholarship allowed me to purchase school supplies in this new online environment, pay for school, and show my work through undergraduate research. After graduation, I plan to enter the sustainability consulting field."

**MARGARET WALKER**  
**CLASS OF 2021, SENIOR**

"The R.W. and Frances H. Engel Scholarship allowed me to finish my third year, despite the twists and turns of the past year. I hope to work for the Department of Defense Biotechnology divisions."





**MICHAEL RAUCÓ**  
CLASS OF 2021, SENIOR

"The R. W. and Frances H. Engel Scholarship saved me from taking out loans and gave me the extra motivation and incentive I needed to keep working as hard as I could, even in the fully online setting."



**REBECCA TRIMBLE**  
CLASS OF 2022, JUNIOR

"The R. W. and Frances H. Engel Scholarship allowed me to spend more time studying and researching in a lab, instead of having to work to pay for school. Being able to dedicate more time to a lab will help prepare me for graduate school. I plan to go into disease research in the future!"



**ARIANA UMAÑA**  
5TH-YEAR PH.D. CANDIDATE

"The Ann L. and John L. Hess Education Scholarship allowed me to attend the 2019 ASM Virginia Annual Meeting and gave me the opportunity to present to the microbiology field my recent publication: Utilizing Whole Fusobacterium Genomes To Identify, Correct, and Characterize Potential Virulence Protein Families."



**KAITLYN GALLAGHER**  
MAY 2020 GRADUATE

"The William Burns Downey Memorial Scholarship afforded me the time to look for employment post-graduation and to spend more time with those closest to me during a period where being together was so valuable. I graduated with degrees in Biochemistry and Spanish and am currently working in a biochemistry lab at Vanderbilt University to gain more research experience."



**TAYLER SCHINDLER**  
CLASS OF 2023, SOPHOMORE

"The James F. Eheart Memorial Award Scholarship made this school year a lot less stressful for me and relieved some of the financial burdens on my family. After graduation, I plan to go to medical school somewhere down south, in hopes of becoming a neurosurgeon one day."



**ALEX KNOPF**  
CLASS OF 2022, JUNIOR

"I can't begin to express my gratitude for receiving the James F. Eheart Memorial Award. Thanks to this award, I didn't need to take out as many loans, and my hours spent outside of school were reduced, which allowed me to have more time for school and myself. I'm studying biochemistry in hopes of attending Physicians Assistant school following graduation."

**KATE DOUTHAT**  
MAY 2020 GRADUATE

"The generous donation supplied by Mr. and Mrs. William B. Downey allowed me to focus on my studies and commit more time to study instead of worrying about financial burdens. Being gifted the William Burns Downey Memorial scholarship also gave me a confidence boost and was such an exciting moment during an unprecedented and trying time."



Your gifts to our department constitute a key resource for investing in the future. Your gifts enable us to invest in our students by providing scholarships and new equipment for our instructional laboratories. If you're interested in giving to the Department of Biochemistry, you can give online or via check. Checks should be written to the "Virginia Tech Foundation" with a memo to the "Biochemistry Fund 881055." To donate to scholarship funds, make a note to specify the scholarship fund of your choice.



Mail any checks to this address:  
**Julia Gregory, Fiscal Coordinator**  
Virginia Tech (MC0308)  
Biochemistry Department  
340 West Campus Drive  
111B Engel Hall  
Blacksburg, Virginia 24061



# Fall 2020 DEPARTMENTAL EVENTS

Anticipating that our students would have strong feelings about racial and social justice upon return to campus in the Fall, the Department of Biochemistry's Diversity, Equity, & Inclusion (DEI) Committee worked to host several events to increase awareness of Inclusion issues. Two events are highlighted on these next 2 pages.



THEATER DELTA PRESENTS

## CULTIVATION: HOW TO MAXIMIZE YOUR MENTORING RELATIONSHIPS



COLLEGE OF AGRICULTURE AND LIFE SCIENCES  
**BIOCHEMISTRY**  
VIRGINIA TECH.

PRESENTS

## CULTIVATION

A VIRTUAL INTERACTIVE THEATER PERFORMANCE ON  
MAXIMIZING THE MENTOR-MENTEE RELATIONSHIP AND  
DEALING WITH UNCONSCIOUS BIAS

October 16, 2020  
3:00-5:00pm

Click the link below to register



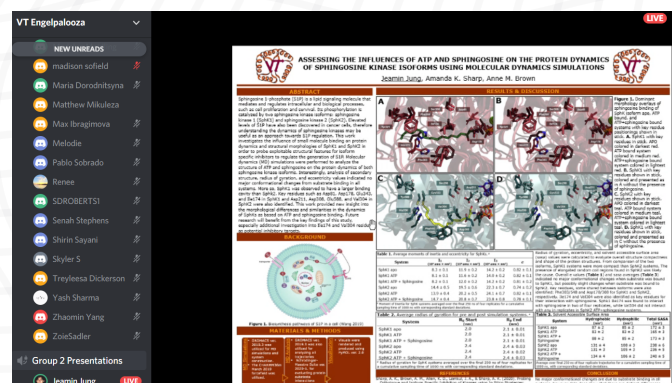
**16**  
OCTOBER

## THEATER DELTA

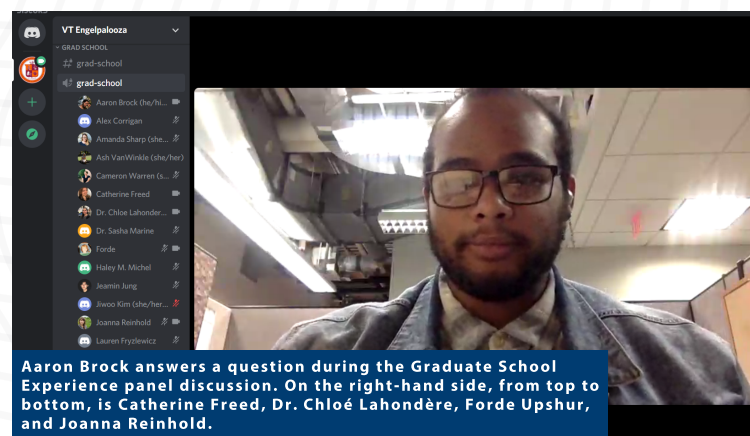
We brought a theater troupe named Theater Delta to campus, virtually, to engage faculty, staff and graduate students in a dynamic theater piece/discussion on mentoring. The actors were realistic, and their short "play" started a meaningful conversation on mentoring.



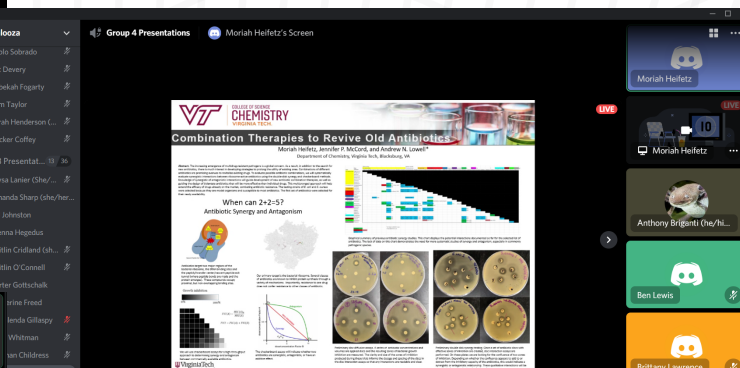
Dr. Chloé Lahondère leads an open panel discussion about the Graduate School experience with graduate students: Aaron Brock, Catherine Freed, and Lauren Fryzlewicz (shown with their cameras on) and Tanner DeHart (gray Discord box) and Brenna Hegedus (red Discord box).



Jeamin Jung, a Senior, presents their poster during our virtual Engelpalooza to a Discord "room" with Biochemistry students and faculty.



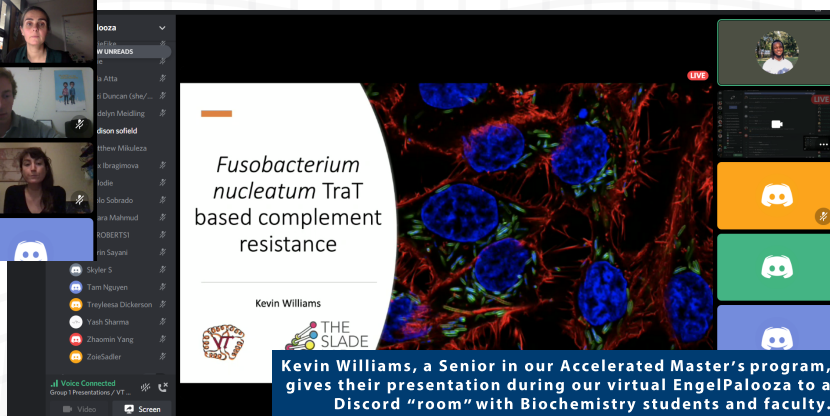
Aaron Brock answers a question during the Graduate School Experience panel discussion. On the right-hand side, from top to bottom, is Catherine Freed, Dr. Chloé Lahondère, Forde Upshur, and Joanna Reinhold.



Moriah Heifetz, a Senior, presents their poster during our virtual Engelpalooza to a Discord "room" with Biochemistry students and faculty.



Sydney Johnson, a graduate student, shares their presentation during our virtual Engelpalooza to a Discord "room" with Biochemistry students and faculty.



Kevin Williams, a Senior in our Accelerated Master's program, gives their presentation during our virtual Engelpalooza to a Discord "room" with Biochemistry students and faculty.

## SECOND ANNUAL ENGELPALOOZA

Our Department hosted our second annual student research showcase Engelpalooza virtually. We were extremely pleased with the turnout; 140+ people registered and attended! Throughout the evening, we had ten undergraduate students and twelve graduate students present their research and share their expertise with others in the department. Engelpalooza is a fun and impactful event centered on increasing undergraduate students' sense of belonging in our department and showcases how students can become involved in research.

29  
OCTOBER



## BIOCHEMISTRY SEMINAR SERIES

Join us every Monday at 4 p.m. for our Spring 2021 and Fall 2021 Biochemistry Seminar Series! Seminars will be presented online via Zoom until further notice. To attend, you must be a member of our weekly seminar series Canvas site. To be added, email Zerita Montgomery ([zerita@vt.edu](mailto:zerita@vt.edu)). To host a seminar, reach out to Dr. Biswarup Mukhopadhyay ([biswarup@vt.edu](mailto:biswarup@vt.edu)). Stay tuned for a full list of dates and topics! It will be posted on our website ([biomchem.vt.edu](http://biomchem.vt.edu)).

## FALL 2021: ENGELPALOOZA & OPEN HOUSES

We'll be hosting our third annual student research showcase, EngelPalooza, in late October 2021. We encourage alumni to attend to see all of our students' research achievements and network. We're also looking forward to hosting Departmental Open Houses for the Fall 2021 semester at home football games. Stay informed about both of these by following us on social media and viewing our website.

## STAY INFORMED WITH OUR NEW WEBSITE

In the time of Covid-19, the best way to see and experience what we're doing is to view our recently re-designed website, where we'll post updates about events, share important information, and feature stories of student and faculty achievements.