A Very Warm Welcome to Our 2021 Summer Interns

The NIH Summer Internship Program is fully virtual this year. What does that mean for our NICHD trainees? It means our summer interns are going to receive top-notch mentorship, research training, and career development experiences throughout the summer—without having to deal with metro area traffic!

Over the past year, many NICHD trainees have worked through a completely virtual experience. To welcome our incoming summer interns, we asked the students from our NICHD-Howard University partnership to talk about their virtual experiences so far. Check out their words of advice and inspirational messages below!

MY BEST PIECE OF ADVICE ABOUT VIRTUAL TRAINING:
Working with Dr. Ajay Chitnis at the NIH was an incredible experience. Given the success of our relationship for the past year, I can confidently provide insight into how our virtual training experience worked out so well.

This was a flawless experience for the two of us because of our speedy email responses and communication skills. During a time when in-person meeting is not possible, it is important to be open and honest with one’s mentor/mentee. Dr. Chitnis and I exchanged emails and phone numbers at the beginning of the sessions and have been very communicative about availability since. Being that we had ample access to reach out to each other, Dr. Chitnis also performed weekly check-ins to see how I was progressing with both enjoying and understanding the topic. While an in-person mentor-mentee experience would have been great, Dr. Chitnis made the process better than I ever imagined.

—Morgan Ford, Rising Junior, Biology/Criminology Double Major at Howard University

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June is a great month. The longest day of the year beckons the warmth of summer. Outdoor activities abound. And, most importantly, the NICHD Office of Education welcomes our Summer Internship Program trainees!

This summer’s virtual environment creates new learning opportunities for summer trainees. The NICHD Office of Education and the NIH Office of Intramural Training and Education have planned a superb line up of career development workshops and activities. Take it from our current trainees, a fully virtual environment can be a valuable and fulfilling experience.

I’d like to personally invite our summer interns to contact me (shana.spindler@nih.gov) with any ideas for The NICHD Connection newsletter or interest in writing an article. To help summer interns learn about our content, we’ve included a few of our regular columns, including our Hot Off the Press, Clinical Corner, and Rep Report columns—and of course our June Announcements and Events. Check out our newsletter archives for an additional decade worth of examples.

To our newest trainees, most senior fellows, and everyone in between—have a great summer!

Your Editor in Chief,
Shana R. Spindler, PhD

Please send questions, comments, and ideas to our editor at shana.spindler@nih.gov.
A Very Warm Welcome to Our 2021 Summer Interns

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AN IMPACTFUL MOMENT FROM MY VIRTUAL TRAINING EXPERIENCE:

The transition to the virtual experience can be very stressful or very rewarding. My experience with Dr. Henry Levin has been the latter. Since January 2021, I have had the opportunity to be mentored by Dr. Levin in his NICHD laboratory, which focuses on the biology of transposable elements.

The only thing I knew about transposable elements was that they are mobile DNA. Initially, having to learn more about them and their potential impact in resolving recombination intermediates virtually seemed like a stretched goal. However, my experience with Dr. Levin has done more than achieve this goal by also helping me grow as a person.

One of many experiences that had this impact on me was in one of our Zoom meetings. On that particular Monday, I was fed up with trying to understand the concept behind transposition and homologous recombination assays. To add to my stress, we were having Internet connection issues. Dr. Levin noticed and asked me to do the weirdest thing I had ever done. He told me to turn off my microphone and leave the video on. He then gave me a phone number to call and stayed on the call with me explaining the concept until I understood it and could confidently explain it to him. And I finally understood it!

That one experience not only assured me that Dr. Levin is interested in my growth as a researcher, but it also revealed his selfless trait as an individual, which I strive to embody.

—Ayanfeoluwa Kolawole, Rising Junior, Biology Major at Howard University (Premed)

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A Very Warm Welcome to Our 2021 Summer Interns
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MY BEST PIECE OF ADVICE ABOUT VIRTUAL TRAINING:
My best piece of advice with learning virtually this past semester is to be comfortable with unpredictability. As I am a very detail-oriented and organized person, I often have my days planned down to the hour: it gives me a sense of comfort and allows me to maximize my efficiency. However, learning virtually this semester has forced me to adapt from my “normal” and be comfortable with the unknown—a lesson that is not just applicable to the online learning setting but also life in general.

With online learning, many factors are added in: possible technical difficulties, schedule delays, and limited accessibility to certain people. Many times this semester, these factors played a part in my learning, which I am grateful for. With this, I have had the opportunity to attend and participate in some important meetings, be extended special internship opportunities, and meet some exceptional people.

—Alexa Moore, Rising Junior, Honors Biology Major at Howard University

Summer Internship Program Links to Like!

Check out these Office of Intramural Training and Education (OITE) resources for NIH summer interns:

- Summer Intern News
- Creating a Summer Account on the OITE Website
- Summer Intern Journal Clubs
- Resources for Finding an NIH Community
- Upcoming OITE Events
- Listservs for Current Trainees
- OITE Online Resources
- OITE Careers Blog
- Graduate and Professional School Fair
Fertile npc2 Mutants Shed Light On Embryonic Cholesterol Control
*By Paul Elizalde*

The combination of basic science and clinical research is important for understanding the mechanisms of disease in the development of treatments. Dr. Forbes Porter’s laboratory in the NICHD Division of Intramural Research performs research at the intersection of basic and clinical science in the fight against neurodegenerative disease, specifically Niemann-Pick type C (NPC).

NPC is a rare—always fatal—autosomal, recessive neurodegenerative disease caused by point mutations in *NPC1* or *NPC2* genes that result in defects in intracellular cholesterol trafficking. In humans, deleterious mutations in both copies of either gene (most commonly in *NPC1*) result in neurodegeneration and symptoms such as seizures and learning disabilities as well as severe cirrhosis and liver failure.

Dr. Wei-Chia Tseng, a postdoctoral fellow in the Porter lab, uses zebrafish in his research to better understand and find treatments for NPC. Dr. Tseng joined the NICHD in 2015 after receiving his PhD from the University of Georgia in cellular biology. At the time, the Porter lab was interested in using a model other than mice and mammalian cell lines to study NPC. Relying on experience from his graduate work, Dr. Tseng initiated NPC studies in fish, which are cheaper to maintain and more numerous than mouse colonies.

In a 2018 publication, Dr. Tseng and his collaborators established zebrafish as a model to study NPC and screen for NPC drugs.¹ Dr. Tseng’s most recent publication reports on the role of Npc2 in development.²

“One cool thing about my most recent publication is that we studied the maternal effect of NPC2,” Dr. Tseng said. The maternal effect refers to proteins and molecules that are present in the egg prior to fertilization and are important in the first 24 to 48 hours post-fertilization in zebrafish.

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Fertile npc2 Mutants Shed Light On Embryonic Cholesterol Control

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Dr. Tseng thought about maternal effects during his previous study of NPC1, but they were unable to obtain maternal-zygotic npc1 mutants. “We just couldn’t get the mature [npc1 mutant] fish to breed,” Dr. Tseng explained. “But we were lucky enough to find fertile npc2 mutant females—not many, but a few.”

He found that maternal Npc2 contributes to the initial hours of zebrafish development. Maternal-zygotic npc2 mutants had defects in otic vesicles, heads, brains, body axes, and lacked circulating blood cells. Dr. Tseng showed that these features were due to decreased cholesterol bioavailability. In addition, he revealed a downregulation of Notch signaling in these mutants. His results offer insight into how cholesterol bioavailability affects embryonic development. “No one has looked at cholesterol transport that early in embryonic development,” Dr. Tseng exclaimed.

As a “developmental biologist at heart” in a clinically focused lab, Dr. Tseng expressed his gratitude to Dr. Porter for allowing him the freedom to make discoveries about how biological systems work.

REFERENCES


Clinical Corner: Virtual Practices in the Age of Telemedicine

By Leah Meuter

As we are all aware, the COVID-19 pandemic has resulted in a massive cultural shift in medicine to deliver virtual care—an impact that is predicted to outlive the virus itself.1 While the rapid implementation of telehealth led to many published views on policy changes, insurance coverage, and barriers to patient access, there seemed to be little to no literature on how providers could effectively enhance the provider-patient relationship over a virtual platform.

Together with the guidance of my principal investigator, Dr. Karel Pacak (a practicing physician), and Katherine Wolf (current medical student), we created a commentary article that discusses telemedicine with both provider and patient considerations.2 Please see Table 1 of the publication for a general overview.

We cover three topics in this article that we termed “virtual-clinical values.” Here are the basics:

I. APPEARANCE
Research in traditional settings suggests that appropriate attire can establish patients’ trust and increase their willingness to share their medical concerns with their providers.3 Clinicians should maintain business professional attire under a white coat. Clothing with large patterns or logos should be avoided, as well as excessive jewelry or accessories, as these items can cause both visual and audio disturbances.

II. COMMUNICATION
Current research suggests that a provider-patient relationship can be established over telemedicine if strong communication skills are used.4 We discuss verbal techniques (patient-centered questioning and shared decision making) as well as non-verbal techniques (head-nodding, upright posture, and appropriate facial expressions) that should be practiced regularly during a virtual visit. Providers should note that eye contact, a vital non-verbal communication tool, is established by looking into the camera on their device or desktop, instead of looking at the patient’s eyes on the screen.

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III. ENVIRONMENT

Providers should strive to give virtual care from a neutral, uncluttered space to reduce distractions. Providers should be cognizant of patient privacy concerns and encourage the use of headphones or chat features if needed.

Throughout this article, we consider how health care professionals can continue to build trusting and meaningful professional relationships with their patients, even over a telemedicine platform. As our nation adapts to the seemingly new normal of virtual medical care, we must ensure that maintaining professionalism and patient respect is at the forefront of our efforts.

REFERENCES


The Rep Report

By Lauren Walling, PhD

As the current NICHD Basic Sciences Institutes and Centers (IC) Representative, I represent NICHD postdoctoral fellows at the Fellows Committee (FelCom) meeting every month and share the latest news with you here. Do you have a concern or question that you want brought up at the next meeting? Contact me at lauren.walling@nih.gov!

The Visiting Fellows Committee is looking for new members! Please contact Vrushali Agashe (vrushali.agashe@nih.gov) or Zeni Wu (zeni.wu@nih.gov) if you are interested!

FAES discussed the Fellows Health Insurance Plan for next year. No major changes have been discussed, other than plans for increasing access to mental health services.

The Health & Recreation Subcommittee invites you to join their upcoming events! They plan weekly virtual game nights on Zoom, monthly trail runs (the next one is June 5th), virtual yoga, biking, and nature walks. For more information, join their Slack page: Health & Recreation Subcommittee Slack Page.

The Career Development Committee has upcoming career panels planned. On June 10th at 12 p.m., the panel will focus on careers in non-profits, and in August, it will feature careers at the FDA. Keep an eye out for more information in an email from OITE!
June Announcements

NICHD OFFICE OF EDUCATION WELCOMES VERONICA HARKER AND KATHERINE LAMB

We are pleased to introduce our two new Office of Education program coordinators: Veronica Harker and Katherine Lamb. They join us with a wealth of experience, and we’re excited to welcome them into the NICHD Family!

Veronica Harker is an Anglo-Indian American who grew up in a British colonial town in South India. She was raised in a large, close-knit family and attended boarding school at a British convent run by the Sisters of St. Joseph of Cluny, where she and several of her sisters spent nine months of each year. As a young adult, Veronica studied secretarial sciences, but found greater satisfaction and joy in teaching preparatory for first grade students, mostly non-English speaking four- and five-year-olds. She also enjoyed teaching English as a second language to Iranian women whose husbands were on agricultural assignment in India.

Veronica was the first member of her family to immigrate to the US and paved the way for her parents and six siblings and their extended families to join her. Her life in America has expanded over a 38-year career in a healthcare organization, where she started as a housekeeper and worked her way to corporate headquarters.

During the COVID-19 pandemic, Veronica authored an autobiography, and was delighted to have it published in April of 2021.

Veronica has always been a caregiver at heart and continually seeks to help and support those in need. As a breast cancer and a COVID-19 survivor, she hopes to find comfort and fulfillment in the knowledge that she is contributing, in some small way, by working for an organization which pursues, as their topmost priority, the health and well-being of people from all walks of life.

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Katherine Lamb joins the NICHD Office of Education bringing her management and administration experience from commercial, government and non-profit organizations. Most recently, Katherine served as the Deputy Director for the White House Internship Program and Volunteer Management office, bolstering her enthusiasm for professional development and public service.

Bringing her training-focus mindset to the NIH, Katherine hopes to cultivate an environment that best serves the trainee’s academic and professional experience. She looks forward to creating opportunities to promote career development and provide guidance to fellows and students, helping them navigate future opportunities.

Katherine received her bachelor’s degree in art history from Florida State University and master’s degree in arts management from George Mason University.

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CONGRATS TO THE 2021 VIRTUAL POSTBAC POSTER DAY WINNERS!

Congratulations to the following NICHD postbacs (and their mentors) for scoring among the top 20% of NIH postbacs in the 2021 Virtual Postbac Poster Day competition on April 27–29, 2021:

» Allison Goldstein (Dr. Brant Weinstein)
» Bakary Samasa (Dr. Brant Weinstein)
» Daniel Tetreault (Dr. Gisela Storz)
» Eliana Ramirez (Dr. Jack Yanovski)
» Fountane Chan (Dr. Judith Kassis)
» Kevin Choi (Dr. Anirban Banerjee)
» Kweku Djan (Dr. Jack Yanovski)
» Kyla Roland (Dr. Henry Levin)
» Megan Ezeude (Dr. Brant Weinstein)
» Neha Akella (Dr. Andres Buonanno)
» Nickolas Chu (Dr. Harold Burgess)
» Reeya Patel (Dr. Stephen Gilman)

To score posters, teams composed of graduate students, postdocs, and NIH scientific staff reviewed poster content, poster appearance, and student presentation for all postbac participants. A total of 65 NICHD postbacs participated in the day!

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MENTOR OF THE YEAR AWARDS: ACCEPTING NOMINATIONS NOW!

Do you have an outstanding mentor?

The time has come for you to nominate your fellow or PI for the 2021 NICHD Mentor of the Year Awards. This is your chance to recognize an individual in the Division of Intramural Research (DIR) or Division of Intramural Population Health Research (DIPHR) whose mentoring has made a difference in your life at the NIH!

Below is the link to obtain information about the NICHD’s two annual intramural Mentor of the Year Awards, one for a fellow and one for an investigator. Please submit your nomination form and a 500-word (maximum) narrative electronically to Dr. Erin Walsh (erin.walsh@nih.gov).

The submission deadline is Friday, June 25, 2021.

Please contact the Office of Education if you have any questions about the nomination instructions or selection process. Information available at Mentor of the Year Awards.

2021 VIRTUAL GRADUATE & PROFESSIONAL SCHOOL FAIR—OPEN FOR REGISTRATION

The 2021 Virtual Graduate & Professional School Fair: This year the fair is scheduled for July 19–22, with live workshops on the 19th and online exhibitor sessions on the 20th, 21st, and 22nd. More than 270 institutions have registered to participate!

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SAVE THE DATE! PUBLIC SPEAKING WORKSHOP: GIVING SCIENTIFIC TALKS
Monday, July 12, 1:30–3 p.m.
Led by Public Speaking Coach Scott Morgan

“Speaking about Science” is a highly interactive workshop led by public speaking coach Scott Morgan. The core of this workshop is a nine-step preparation process that ensures a clear and engaging talk for a variety of audiences. Learn strategies for improving your delivery of lab talks or giving presentations at big meetings.

Topics include: presenting data, identifying theme and focus, creating effective visual aids, and beginning and ending a talk. Participants in this program can also schedule an individual one-hour coaching session prior to a scheduled presentation.

Trainees at all levels, including our 2021 summer interns, are encouraged to attend!

To register for this workshop, please email Ms. Katherine Lamb (katherine.lamb@nih.gov).

SAVE THE DATE! INFORMATIONAL SESSION FOR FUTURE PRAT APPLICANTS
Wednesday, July 14, 1–3 p.m. (Virtual)
Led by Dr. Erin Walsh

The NIGMS Postdoctoral Research Associate (PRAT) Program supports postdoctoral fellowships within the NIH Intramural Research Program. Applicants must be citizens or permanent residents of the United States with no more than two years of postdoctoral experience at NIH by the time of appointment to the PRAT program. The deadline is October 4. More information about the program can be found at http://www.nigms.nih.gov/Training/Pages/PRAT.aspx.

Postdoc applicants must apply with the NIH Fi2 funding mechanism, and all applications must be submitted via grants.gov.

If you are planning to apply, the Office of Education is offering this session to discuss in detail how to prepare for the application submission, and more importantly, provide you with some valuable documents.

Please email Ms. Veronica Harker (veronica.harker@nih.gov) if you plan to attend.

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**SAVE THE DATE! VIRTUAL SUMMER PRESENTATION WEEK**  
**August 3–5, 2021**

If you are a summer intern, Summer Research Presentation Week is your time to share the research and creative projects you have been conducting at the NIH with the broader NIH community and your family and friends! At the same time, you will develop your communication and networking skills.

Registration will open Tuesday, June 8th and close Wednesday, July 7th. Please visit the [OITE Virtual Summer Presentation Week website](#) for more information.

**SAVE THE DATE! JOB INTERVIEWING WORKSHOP**  
**Monday, August 9, 1–2:30 p.m.**  
*Led by Public Speaking Coach Scott Morgan*

If you are actively looking for a job this year, we strongly recommend you attend this informative and dynamic workshop. During this session you will learn tips for perfecting the broad interviewing skills needed to secure scientific positions (job talks, chalk talks, and the interview itself) and increasing your comfort level and confidence. You will have the opportunity to analyze expected questions, themes, and dilemmas through interactive exercises and peer review.

Participants can also schedule an individual one-hour coaching session with Scott prior to a scheduled job interview.

To register for this workshop, please email Ms. Katherine Lamb ([katherine.lamb@nih.gov](mailto:katherine.lamb@nih.gov)).
June Events

MONDAY, JUNE 7, 2–4 PM
Virtual Grant Writing Session for IRF Applicants
Led by Triesta Fowler, MD

In 2018, DIR launched the Intramural Research Fellowship (IRF), a competitive research funding opportunity for NICHD postdoctoral, visiting, and clinical fellows. Its main objective is to promote grant writing among our intramural trainees, while enhancing awareness of the various components of an NIH grant application. For all prospective applicants, the Office of Education will offer a training session to cover various components of an NIH grant, details about the application and review processes, and tips on preparing an IRF application.

*Attendance at this virtual training session is a requirement for submission.* For more information on the IRF, please visit [NICHD Intramural Research Fellowship](#). The IRF submission date is *Wednesday, September 8, 2021.*

Please email Ms. Veronica Harker (veronica.harker@nih.gov) if you are planning to attend the training session.

As a new requirement for this cycle, in order to apply for this award, you must also submit a brief statement of intent to Dr. Triesta Fowler (fowlerlt@mail.nih.gov) by Friday, June 4th (copying your NICHD mentor to confirm their support). This statement should be submitted as a pdf document and should provide a brief summary (½–1 page maximum) of your IRF research proposal and a running title for the application. Please note that the details of your proposal do not need to be solidified for this statement of intent—rather, this should be a brief introduction and summary of the project you are planning.

FRIDAY, JUNE 25, 10 AM–12 NOON
NIH-Wide TmT Competition

In addition to two NICHD finalists, up to two fellows each from NEI, NHGRI, NIAMS, NIDCR, NIDCD, NINR, NIDDK, NIAID and NCATS, will compete. NICHD fellows who score in the top three at the final competition will receive an additional $500 award for approved travel/conference registration or training. We will announce this event throughout DIR and DIPHR—be sure to invite your lab mates and friends/colleagues!

Zoom information will be circulated throughout the DIR and DIPHR a few days prior to the event.

ONGOING EVENTS AROUND CAMPUS

NIH-Wide Office of Intramural Training and Education (OITE) Events
For more information and registration, please visit [Upcoming OITE Events](#).

NIH Library Training and Events
For more information and registration, please visit the [NIH Library Calendar](#).