

RESEARCH EDUCATION CORE

HUNTER
The City University of New York



TEMPLE
UNIVERSITY

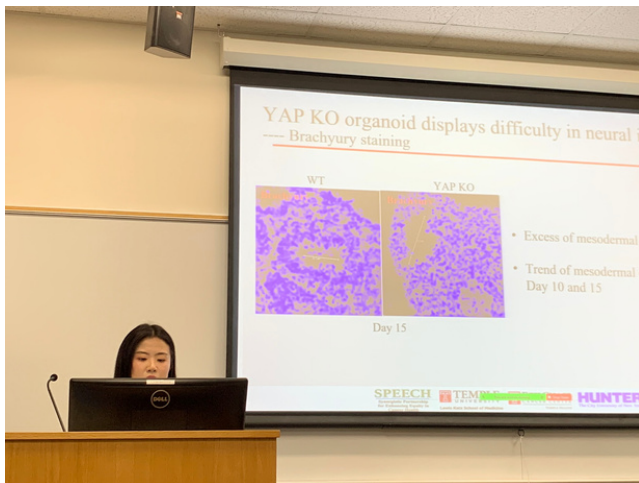


FOX CHASE
CANCER CENTER

TEMPLE HEALTH



SUMMER HIGHLIGHTS



Ruixin Feng, Hunter College, presents at the SCRI Mini-Symposium



Juan Pablo Chavez Salas, Hunter College, poses in the lab during the Summer Cancer Research Institute

The Research Education Core sponsored a number of activities this summer for mentors and trainees from the Temple University, Fox Chase Cancer Center, and Hunter College (TUFCCC/HC) Partnership.

SPEECH Conference: The 4th Annual SPEECH Regional Cancer Health Disparities Conference took place virtually on Thursday, May 12th. There were 95 participants registered to attend this virtual meeting. U54 trainees presented posters on their work, and two Pilot Award recipients delivered oral research presentations.

Mentor Training Workshop: Mentors and ESI trainees participated in a U54-sponsored Mentor Training Workshop led by Virginia Valian, PhD, Distinguished Professor of Psychology, Department of Psychology, Hunter College

Summer Cancer Research Institute: The 4th cohort of trainees from Temple University and Hunter College successfully completed the Summer Cancer Research Institute. After 8-weeks of laboratory work and skill-building workshops, the trainees presented their projects at the SCRI Mini-Symposium on Friday, July 29th.

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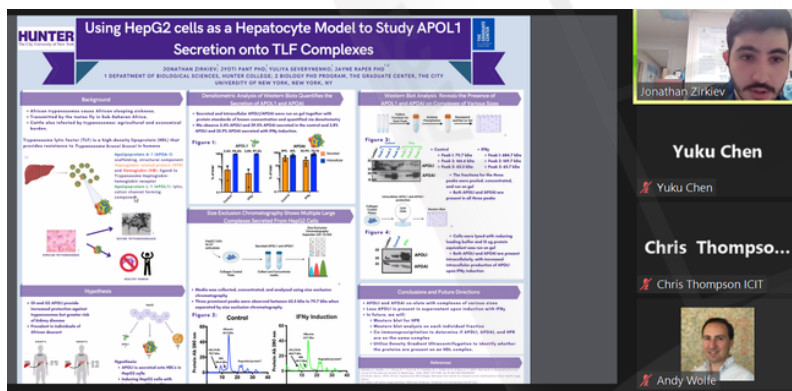
4TH ANNUAL SPEECH REGIONAL CANCER HEALTH DISPARITIES CONFERENCE

The 4th Synergistic Partnership for Enhancing Equity in Cancer Health (SPEECH) Regional Cancer Health Disparities Conference was held virtually on Thursday, May 12th. The goal of this event was to offer a professional space for students, investigators, and researchers to learn about innovative opportunities that are occurring within the field of cancer research.

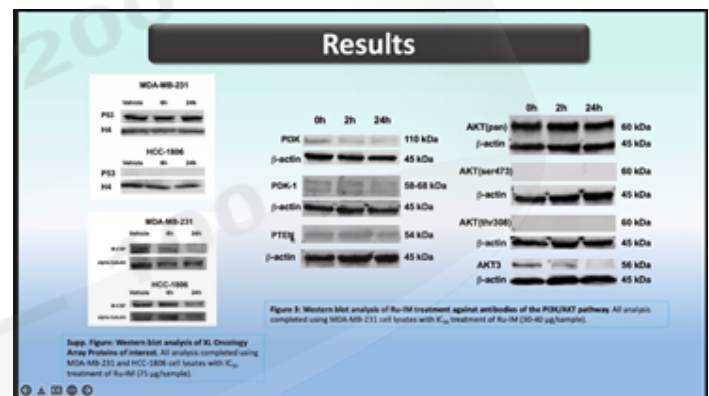
The conference opened with welcoming remarks from Jennifer Raab, JD, President of Hunter College of The City University of New York, and Jason Wingard, PhD, President of Temple University. Sandra San Miguel, MS, PhD(c), Program Director from the National Cancer Institute's Center to Reduce Cancer Health Disparities (NCI-CRCHD), addressed the audience on the importance of health equity and diversity in the field of cancer research. Joseph Osborne, MD, PhD, Chief of Molecular Imaging and Therapeutics, Professor of Radiology at Weill Cornell Medicine, and Attending Radiologist at New York-Presbyterian/Weill Cornell Medicine, provided an inspiring keynote lecture on health equity and partnerships to reduce radiologic health disparities.

This year's conference featured two pilot and pre-pilot award trainees who were selected to present their research on the main stage. Aisha Bhimla, PhD, Temple University, is a postdoctoral fellow at the Center for Asian Health at Temple University Lewis Katz School of Medicine. She is collaborating on federally funded projects that address health disparities among Asian American, Black/African American, and Latinx communities. Jayashri Ghosh, PhD, Temple University, is investigating epigenetic differences at the effect of several interventions and interpreting the data into a clinically relevant aspect of Assisted Reproductive Technology (ART). The most relevant ones are frozen embryo transfer vs fresh embryo transfer and 20% oxygen concentration vs 5% oxygen concentration. Her recent work on racial disparity in colon cancer patients shows that methylation differences exist between patients of different races and African Americans patients are more likely to be OMPs than Caucasians (TUFCCC/HC U54 Colon Pilot Study).

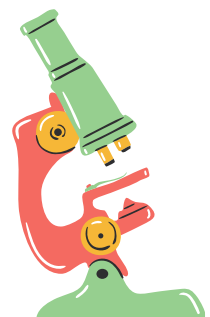
A total of 43 posters and 4 oral presentations were presented by undergraduate students, graduate students, postdoctoral fellows, and early-stage investigators across the biomedical, clinical, and population-based research domains. A committee of researchers from the TUFCCC/HC partnership evaluated the poster presentations. The highest-rated posters were presented with an award for their accomplishments.



Jonathan Zirkiev, Hunter College, presents at the SPEECH Conference



Nazia Nayeem, Brooklyn College, presents at the SPEECH Conference





MENTOR TRAINING WORKSHOP



To support the TUFCCC/HC Partnership mentors, the Research Education Core sponsored a Mentor Training Workshop on May 12, 2022. The workshop was led by Virginia Valian, PhD, who is a Distinguished Professor of Psychology at Hunter College - CUNY and is a member of the doctoral faculties of Psychology, Linguistics, and Speech-Language-Hearing Sciences at the CUNY Graduate Center. She directs the Language Acquisition Research Center (LARC) and the Gender Equity Project (GEP) at Hunter College.

Valian works on gender equity and on the psychology of language. In gender equity, Valian performs research on the reasons behind women's slow advancement in the professions and proposes remedies for individuals and institutions. She is the author of *Why so slow? The advancement of women*, and co-author, with Abigail Stewart, of *An inclusive academy: Achieving diversity and excellence*. Valian consults with institutions and organizations to improve gender equity.

During this workshop, attendees shared their mentoring experience and strategies for addressing mentoring challenges. The mentor training workshop also concluded with a lively discussion regarding gender equity in mentorship.



Virginia Valian, PhD Distinguished Professor of Psychology
Department of Psychology, Hunter College of
The City University of New York



CAREER PROGRESSION-

CONGRATULATIONS TO OUR NEW DOCTOR!



George Annor, PhD, Hunter College

George Kwakye Annor is originally from Ghana where he obtained his undergraduate degree in Biochemistry from the University of Ghana. Graduating magna cum laude (3.8/4.0), he was appointed as a teaching assistant in the Department of Biochemistry. Subsequently, he was awarded a Swedish Institute Scholarship to pursue a master's degree in Molecular Biology at the University of Gothenburg in 2014. In 2017, he joined the Biochemistry PhD program at Hunter College, and in 2018 he became an official member of the Bargonetti lab.

His PhD thesis sought to understand the importance of two key domains of mutant p53 in their oncogenic gain-of-function activities. He successfully defended his PhD thesis on May 20, 2022, and accepted a postdoctoral research fellow position at the NIH/NCI where he will begin working in the laboratory of Dr. Jack Shern in August 2022.

George is passionate about a career in research, and his long-term career goal is to start his own lab to leverage the understanding of cancer biology in therapeutic remedies.

Congratulations

TRAINEE ACCOMPLISHMENTS

2022 DIAMOND AWARD RECIPIENTS



Cassie Navalta
Temple University

Cassie Navalta graduated from Temple University in May 2022 with a major in public health. She was a research trainee with the Health Disparity Research Innovation Program at the Center for Asian Health. She has also worked as a community outreach intern in the Office of Congressman Dwight Evans. Cassie plans to earn a Master's in Public Health at George Washington University concentrating in Maternal and Child Health and wants to help advance the health of all populations with equity. Cassis received her 2022 Diamond Award for her passion for scholarship, devotion to service, and dedication to leadership. She has relied on and is grateful for the support of her teammates, mentors, professors, and family.



Olivia Quartey is a recent graduate of Temple University with a Sociology Health degree from the College of Liberal Arts. She began her research journey at the Center for Asian Health as an intern in the Health Disparities Research Innovation Program. From there, she went on to conduct research at Geisinger Commonwealth School of Medicine. She is a past recipient of the Liberal Arts Undergraduate Research Award and the Sociology Prize recognizing her honors thesis about the barriers that underrepresented minority pre-med students face. Additionally, she is a 2022 recipient of the Diamond Award-- the highest recognition by Student Affairs given to an undergraduate student at Temple University.

Currently, she works as a Clinical Research Assistant in the PolicyLab at Children's Hospital of Philadelphia. In the future, she plans to pursue a career in medicine as a physician and a champion for promoting health equity.



Olivia Quartey
Temple University

MENTOR SPOTLIGHT: NORA ENGEL, PHD

Dr. Nora Engel is Associate Professor of Cancer and Cellular Biology at the Fels Cancer Institute for Personalized Medicine.

Dr. Engel received her PhD. in Molecular Genetics at the University of Buenos Aires, studying gene expression patterns associated with cell proliferation in a rat model of breast cancer compared to normal mammary tissue. For her postdoctoral studies, she worked in the lab of Dr. Marisa Bartolomei at the University of Pennsylvania, supported first by a Howard Hughes Medical Institute fellowship and later by NIH F32 and K01 awards. There she embarked on work elucidating the epigenetics of genomic imprinting in a cancer-related gene cluster. Dr. Engel started her own research lab at Temple University in 2008, conducting studies to understand the establishment and developmental dynamics of DNA methylation at imprinted genes.

The Engel lab has recently embarked on a research program dedicated to understanding how sex biases are established during embryonic development and how these disparities are related to the well-established sex differences in risk, progression, and outcomes in cancer. These studies include in vivo and in vitro approaches and state-of-the-art epigenetic and genomic technologies. Dr. Engel has participated as a mentor in the SCRI program since 2019.



*Nora Engel, PhD
Temple University*

Recent publications from Dr. Engel's team include:

Sex chromosomes drive gene expression and regulatory dimorphisms in mouse embryonic stem cells. Werner RJ, Schultz BM, Huhn JM, Jelinek J, Madzo J, Engel N. *Biol Sex Differ*. 2017 8(1):28. doi:10.1186/s13293-017-0150-x. <https://doi.org/10.1186/s13293-019-0259-1> PMID:28818098

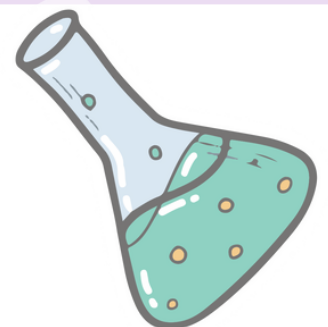
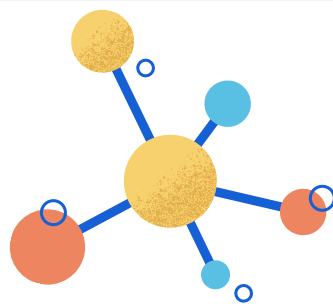
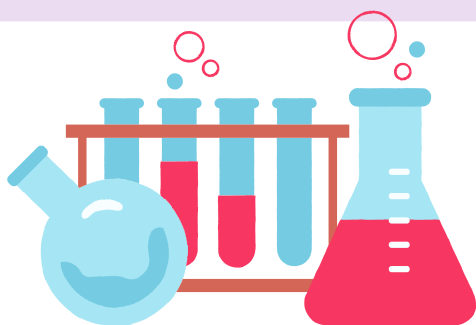
Sex differences in early embryogenesis: Inter-chromosomal regulation sets the stage for sex-biased gene networks. Engel, N. *BioEssays* 2018 Sep;40(9):e1800073. [https://doi: 10.1002/bies.201800073](https://doi.org/10.1002/bies.201800073) PMID:29943439 (featured in Advanced Science News: <https://www.advancedsciencenews.com/sex-determination-when-does-it-start-and-how-might-it-work/>)

The developmental origins of sex-biased expression in cardiac development. Deegan DF, Karbalaei R, Madzo J, Kulathinal RJ, Engel N. *Biol Sex Differ*. 2019 10(1):46 PMID:31488212

Sexual dimorphism in the age of genomics: how, when, where. Deegan DF and Engel N. *Frontiers in Cell and Developmental Biology* 2019 9(7), <https://doi.org/10.3389/fcell.2019.00186> PMID: 31552249

Sexual Dimorphism of the Heart: Genetics, Epigenetics, and Development. Deegan DF, Nigam P and Engel N. *Front. Cardiovasc. Med.*, 26 May 2021, <https://doi.org/10.3389/fcvm.2021.668252> PMID: 34124200

Comparative developmental genomics of sex-biased gene expression in early embryogenesis across mammals. *bioRxiv* 2022. Richardson V, Zhang K, Engel N, Kulathinal RJ doi: <https://doi.org/10.1101/2022.03.17.484606> 2022



SUMMER CANCER RESEARCH INSTITUTE: MEET THE COHORT

The Summer Cancer Research Institute (SCRI) was created by the TUFCCC/HC partnership to provide trainees with the resources, training, and skills needed to develop professional careers in the field of cancer research. We received a total of 174 applications for this year's cohort of which 79 were from Temple University and 95 were from Hunter College. A team of 24 reviewers met to select the final trainees. This year, due to the outstanding response we received, SCRI accepted two additional for a total of 17 trainees.

After closely monitoring health and safety guidelines from the Centers for Disease Control and Prevention (CDC), the Pennsylvania Department of Health, and Temple University Health Systems, the team decided to host the SCRI program in person. As part of the SCRI curriculum, trainees attended seminars on topics ranging from basic science, population science, and biostatistics. Professional development seminars were also integrated into the curriculum.

The SCRI team would like to thank all the mentors and PIs involved in selecting this year's outstanding cohort. A full list of the selected students and their mentors is below.



STUDENT	INSTITUTION	MAJOR	MENTOR
Emilie Procario	Hunter College	Nutrition and Dietetics	Carmen Sapienza
Gigi Lin	Hunter College	Biological Sciences	Camille Ragin
Juan Pablo Chavez Salas	Hunter College	Nutrition	Michael Hall
Malika Alamova	Hunter College	Biochemistry	Christian Hurtz
Mashhura Nurilloeva	Hunter College	Biochemistry	John Karanicolas
Nisha Manahil	Hunter College	Biochemistry	Nora Engel
Ruixin Feng	Hunter College	Biochemistry	Seonhee Kim
Sophia Perez	Hunter College	Biological Science	Carolyn Fang
Tasmiah Akhter	Hunter College	Biological Science	Hasan Raza Kazmi
Uska Naveed	Hunter College	Biology	Kelly Whelan
Aidan Douglas	Temple University	Biology	Jonathan Soboloff
Angela Brown	Temple University	Bioengineering	Xavier Grana-Amat
Chanele Lomax	Temple University	Public Health	Robin Taylor Wilson
Diana Atar	Temple University	Neuroscience: Cellular and Molecular	Igor Astsaturov
Ryan Dadey	Temple University	Biology	Ana Gamero
William McHale	Temple University	Biochemistry	Yuwaraj Kadariya
Yassah Lavelah	Temple University	Social Work	Grace Ma

SUMMER CANCER RESEARCH INSTITUTE

The fourth cohort of Summer Cancer Research Institute (SCRI) trainees recently completed the 8-week program, which ran from June 6th to July 29th. Working in their individual mentor's labs, trainees learned a variety of laboratory techniques and research methodologies relevant to their projects.

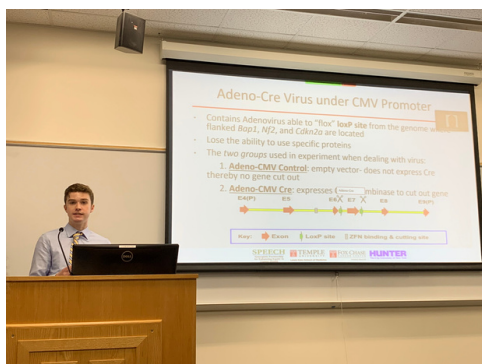
In addition to their lab work, trainees attended weekly seminars that covered a range of topics including Basic Science Research, Population Science Research, Biostatistics and Bioinformatics, and Cancer Biology. Trainees also participated in 'How to' workshops focused on Building Your CV and Resume, Hypothesis Development, Abstract Development, Giving a Presentation, Publications, and Poster Presentations. In total, trainees participated in 20 training activities during the 8-week program. Trainees also posted on social media to share their lab experiences.

At the completion of the program, trainees reported high overall satisfaction with the SCRI and shared positive feedback about their experiences.

"Over the past eight weeks, I have learned much about myself as a future researcher and cancer researcher. I accomplished my goal of gaining a better understanding of molecular research. After my experience with SCRI, I would like to study more molecular research and how it correlates to population health." – Chanele Lomax, Temple University



4TH ANNUAL SCRI MINI-SYMPOSIUM



On July 29th, the 2022 SCRI trainees presented their research at the fourth annual SCRI Mini-Symposium. Due to the COVID-19 pandemic, the symposium was held in a hybrid format. This allowed trainees, mentors, and other investigators and staff from Hunter College, Fox Chase Cancer Center, and Temple University to attend in person on the Health Sciences Campus at Temple University or virtually. Trainees presented findings from their research while demonstrating their knowledge and skills acquired through the SCRI. At the completion of the symposium, each trainee was awarded a certificate of achievement and celebrated with mentors, lab members, and SCRI staff after concluding presentations.

Thank you to all the mentors, laboratory staff, and guest lecturers who devoted time and resources to training and supporting the SCRI trainees.



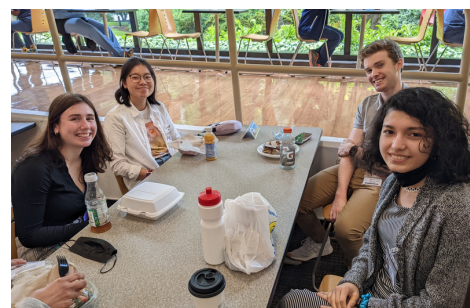
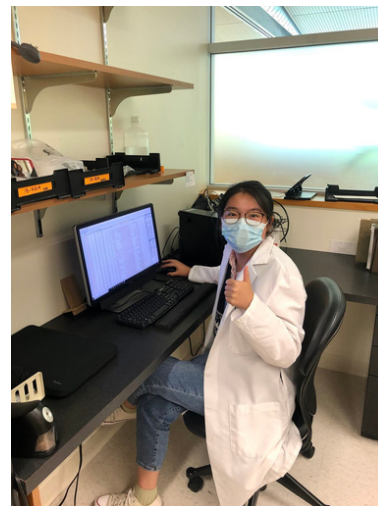
"During my time at SCRI, I think I have become a better scientist where I think critically and analyze the work I do in a way I haven't done before. I also learned a lot about laboratory techniques pertaining to a biology lab. I have wanted to gain insight into these techniques and through this program, I was able to. Therefore, I would say that I have accomplished my goals. The SCRI program helped me hone my analytical skills that can be contributed to my career aspirations." – Malika Alamova, Hunter College

INTERESTED IN APPLYING FOR THE 2023 SUMMER CANCER RESEARCH INSTITUTE?

If you would like to find out more about the Summer Cancer Research Institute (SCRI), please join us at one of three upcoming informational sessions! For more information, contact Emily Kaminsky at ek3207@hunter.cuny.edu and Yuku Chen at yuku.chen@fccc.edu.

To be eligible, students must be currently enrolled at either Temple University or Hunter College as an undergraduate or graduate student, and have an interest in pursuing biomedical, clinical, or population-based cancer research. We encourage applications from students of all backgrounds, particularly those from underrepresented minority groups or disadvantaged backgrounds.

The SCRI is held in Philadelphia each summer. Participants attend weekly cancer seminars and skill-building workshops and receive hands-on research training and mentorship from an established investigator. SCRI trainees receive a \$3,000 stipend.



Research Education Core Leaders:

Carolyn Fang, PhD - Fox Chase Cancer Center
Olorunseun Ogunwobi, MD, PhD - Hunter College

For questions regarding the Research Education Core and any upcoming events, please contact one of our program coordinators:

Yuku Chen, MPH - Yuku.Chen@fccc.edu
Emily Kaminsky, MS- ek3207@hunter.cuny.edu

SPEECH

Synergistic Partnership
for Enhancing Equity in
Cancer Health

SPEECH is a comprehensive regional cancer health disparity partnership between Temple University/Fox Chase Cancer Center and Hunter College (TUFCCC/HC), the U54 grant funded by the National Cancer Institute. The purpose of SPEECH is to reduce cancer health disparities among underserved minority populations in Pennsylvania-New Jersey-New York City (PNN) region, through cancer disparities research, community outreach, and career development for underrepresented early stage investigators and students.

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SUMMER CANCER AWARENESS MONTHS

JUNE

National Cancer Survivor Month

JULY

Sarcoma and Bone Cancer
Awareness Month