PROFILE

Combined MD/PhD student studying infectious disease and microbiology with diverse research skills in data science, wet-lab techniques, and animal handling. Former professional artist who simultaneously performed at an international level of ballet, pursued diverse interests, and maintained a high-level of academic achievement. Interested in emerging infectious diseases, data science, and equity in the arts.

EDUCATION

University of Texas Medical Branch School of Medicine

May 2028

MD/PhD in Biochemistry, Cellular and Molecular Biology, GS1

University of Pittsburgh, Graduate School of Public Health

May 2020

MS in Infectious Disease and Microbiology

Texas A&M University, College of Veterinary Medicine and Biomedical Science

May 2018

BS in Biomedical Studies

ACADEMIC EXPERIENCE

Peiyong Shi Lab | University of Texas Medical Branch

2021 - 2022

Graduate Member (Thesis Lab)

• Applied molecular cloning and virologic techniques at Biosafety Level 3 to characterize emerging variants and mutants resistant to various antiviral compounds at different approval stages (pre-IND to phase 1 trials).

Andrew Routh Lab | University of Texas Medical Branch

2021 - 2022

Collaborator

• Developed <u>web application</u>, NoSQL database, documentation and Nanopore-compatible software for ViReMa, a viral recombination mapper software that detects non-homologous recombination in sequencing data.

Nikos Vasilakis Lab | University of Texas Medical Branch

2021

Collaborator

• Identified gene expression changes in a human skin model bitten by Dengue virus-infected mosquitoes.

St. Vincent's Student Clinic | University of Texas Medical Branch

2020 - 2021

Steering Committee Member (Logistics and Smoking Cessation Programming)

• Assisted in development of a student-run comprehensive care clinic for congestive heart failure patients and performed motivational interviewing for tobacco use.

Ernesto Marques, Jr. Lab | University of Pittsburgh Graduate School of Public Health

2018 - 2020

Graduate Member (MS Thesis Work)

• Worked on projects related to <u>pathogenesis and host response of Dengue and Zika viral infection</u>, developed and optimized immunoassays, and analyzed large datasets of immune-related patient features.

Vishwajit Nimgaonkar Lab | University of Pittsburgh Medical Center Western Psychiatric Hospital *Graduate Member*

2019 - 2020

• Applied virologic techniques and cultured brain organoids for modeling of herpes simplex infections.

Koichi Kobayashi Lab | Texas A&M College of Medicine

2016 - 2018

Undergraduate Member

• Contributed to several projects related to the role of the gene NLRC5 in various cancers, worked with transgenic mice models, analyzed large public datasets (TCGA), and mentored students.

MD Anderson Cancer Center | T. Boone Pickens Academic Tower

2016 - 2017

Integrative Medicine Trainee and Internal Medicine Observer

• Used R to prepare large clinical datasets for multivariate survival analysis, collected clinical data from EPIC software, presented at weekly meetings, attended lectures, and shadowed physicians.

Aggie Research Scholar | Texas A&M Vet-Med GI Lab

2016 - 2017

Team Member

• Contributed to research projects utilizing cytokine levels to diagnose canine chronic enteropathies.

RESEARCH PUBLICATIONS

- 1. Spike determines the tropism and fitness of Omicron BA.1 in human airway cultures. (In preparation)
- 2. Sotcheff S, Zhou Y, **Yeung J**, Sun Y, Johnson JE, et al. ViReMa: A Virus Recombination Mapper of Next-Generation Sequencing data characterizes diverse recombinant viral nucleic acids. (Under Review at *GigaScience*)
- 3. Marques ETA, Demers M, D'Aiuto L, Castanha PMS, **Yeung J**, et al. 2022. Herpesvirus Infections in the Human Brain: A Neural Cell Model of the Complement System Derived from Induced Pluripotent Stem Cells. *Current Topics in Behavioral Neurosciences*. Springer; :1-22. doi:10.1007/7854_2022_383
- 4. **Yeung J,** Routh AL. 2022. ViReMaShiny: An Interactive Application for Analysis of Viral Recombination Data. *Bioinformatics*. btac522, https://doi.org/10.1093/bioinformatics/btac522
- 5. Yoshihama S, Cho S, **Yeung J**, Pan X, Lizee G, et al. 2021. NLRC5/CITA expression correlates with efficient response to anti-CTLA-4 checkpoint blockade. *Scientific Reports*.
- 6. Zheng W, Klammer AM, Naciri JN, **Yeung J**, Demers M, et al. 2020. Patterns of HSV-1 infection in neural progenitor cells. *Journal of Virology*. doi:10.1128/JVI.00994-20:JVI.00994-20
- 7. Liu W, Qdaisat A, **Yeung J**, Lopez G, Weinberg JS, Cohen L, et al. 2018. The association between common clinical characteristics and postoperative morbidity and overall survival in patients with glioblastoma. *The Oncologist*. theoncologist.2018-0056. 10.1634/theoncologist.2018-0056.
- 8. Liu W, Qdaisat A, Lee E, **Yeung J**, Vu K, Lin J, et al. 2019. The association between weight stability and parenteral nutrition characteristics and survival in patients with colorectal cancer. *Gastroenterology Report*.

SKILLS AND ACTIVITIES

Proficient with R / Shiny, D3.js

Experience with Python, Java, Linux Command line, MongoDB, Docker, Observable

ARTISTIC EXPERIENCE

Final Bow for Yellowface / Gold Standard Arts Foundation | Houston, TX

2021 - 2022

Research Advisor

• Involved in IRB-approved, survey-based research for Final Bow for Yellowface and their non-profit organization dedicated to promoting the visibility of Asian Americans and Pacific Islanders in dance.

Dance Data Project ® | Chicago, IL

2020 - 2022

Board Member

• Serve on the board of directors for Dance Data Project, a non-profit organization featured in <u>The New York Times</u> that "promotes equity in all aspects of classical ballet by providing metrics-based analysis".

Data Pointes | Pittsburgh, PA

2019 - 2022

Founder / Writer

• Created a <u>data-driven ballet organization</u> analyzing patterns in diversity and hiring; launched <u>app</u> visualizing common trajectories for ballet dancers.

Colombian Folkloric Ballet | Houston, TX

2016

Soloist Performer

• Performed in *Mi Colombia*, a project funded in part by a grant from the City of Houston through the Houston Arts Alliance and dedicated to the promotion of Colombian culture in the United States.

Houston Ballet | Houston, TX

2016

Audiovisual Intern

• Coordinated with other production team members to fulfill video production-related requests, created checkout system for the video archive in Visual Basic, catalogued, and edited promotional footage.

City Ballet of Houston | Houston, TX

2014 - 2017

Artist in Residence

• Performed as the lead artist in outreach shows at Jones Hall (Greater Houston Youth Nutcracker) for Houston public school systems; outreach shows integrate inner city youths into the performance and award dance scholarships to promising children.

Tulsa Ballet | Tulsa, OK 2012 - 2014

Full-Time Second Company Performer

• Performed in shows with the critically acclaimed company including outreach shows and teaching events for children from the Tulsa public school system.

Awards

UTMB WE Summit Top Student Researcher Awardee – 2022

Carl J. Herzog Endowment for the MD/PhD Program Awardee – 2022

Delta Omega Honorary Society in Public Health – based on "outstanding scholarship in students" – 2020 Dean's list – 2016, 2017

Valentina Kozlova International Ballet Competition Semi-Final New Orleans – Bronze medal – 2015

Valentina Kozlova International Ballet Competition Finals New York – Awarded New Jersey Ballet Contract (one of four recipients of a corps company job contract) – 2015

World Ballet Competition – an international competition with competitors from 32 countries – 3^{rd} Place Pas De Deux Division – 2015

Committee Responsibilities

UTMB Pathology Association for Students – Vice President – 2022

UTMB SOM Student Ambassador – Member – 2022

St. Vincent's Student Clinic - Steering Committee Member (Logistics and Smoking Cessation Programming) - 2020 Public Health Premedical Organization – President – 2020