YUAN YANG

Tel: 412-228-1749 | **Email:** yuan.yang@stonybrook.edu
Address: 7 Carolyn Road, Port Jefferson Station NY 11776

EDUCATION

PhD in Population Health and Clinical Outcomes Research ***08/2020-Present***
Stony Brook University, Program in Public Health *Stony Brook, NY*
- Cumulative GPA: 3.9/4

Master of Public Health (MPH), Epidemiology ***12/2018***
University of Pittsburgh Graduate School of Public Health *Pittsburgh, PA*
- Certificate: Public Health Genetics
- Cumulative GPA: 3.8/4

Bachelor of Medicine, Clinical Medicine ***06/2017***
Harbin Medical University *Harbin, China*
- Honors: Received 5 second-class scholarships

SKILLS

R, SAS, Python, Stata, SQL, REDcap, Linux

PUBLICATIONS

Lhuillier E, **Yang Y**, Morozova O, Clouston SAP, Yang X, Waszczuk MA, Carr MA, Luft BJ. The Impact of World Trade Center Related Medical Conditions on the Severity of COVID-19 Disease and Its Long-Term Sequelae. Int J Environ Res Public Health. 2022 Jun 7;19(12):6963. doi: 10.3390/ijerph19126963. PMID: 35742213; PMCID: PMC9222715.

Yang Y, Zmuda JM, Wojczynski MK, Thyagarajan B, Christensen K, Cvejkus RK, Kuipers AL. Genetic association analysis of the cardiovascular biomarker: N-terminal fragment of pro-B-type natriuretic peptide (NT-proBNP). PLoS One. 2021 Mar 15;16(3):e0248726. Doi: 10.1371/journal.pone.0248726. PMID: 33720941; PMCID: PMC7959346.

Hector Sandoval, **Yuan Yang**, Wei Hou, Inci Dersu; A Retrospective Study of Refractive Changes in Diabetic and Non-Diabetic Veterans in an Urban Setting. Invest. Ophthalmol. Vis. Sci. 2022;63(7):3601 – A0056.

Natale, G., Kritikos, M., Kuan, P.-F., Carr, M. A., Yang, X., **Yang, Y.**, . . . Luft, B. J. (2023). Glial suppression and post-traumatic stress disorder: A cross-sectional study of 1,520 world trade center responders. Brain, Behavior, & Immunity - Health, 100631. doi:https://doi.org/10.1016/j.bbih.2023.100631

RESEARCH EXPERIENCE

Inhale Particulate Exposure and Cognition among World Trade Center Responders ***05/2022-Present***
Mentor: Dr. Sean Clouston
- Create a new 911 exposure index including date, duration, location, kind of activity, microenvironment, and the type and use of personal protection equipment to quantify potential inhaled particle exposure. To assess the relationship between WTC exposure index and PTSD with risk of incident mild cognitive impairment and

changes in cognition. To determine associations of WTC exposure and PTSD with MRI measurements: cortical atrophy, hippocampal atrophy, and changes in white matter connectivity.

Education Moderate Relationship between Brain Pathology and Cognition Literature Review Research ***09/2021-Present***

Mentor: Dr. Sean Clouston

- As one of the modifiable risk factors, it is important to understand how education interacts with neuropathology on cognition. However, to date, there is no such systematic review for education as a moderator in the associations between neuropathology and cognition. Therefore, this systematic review aimed to evaluate education's moderator role from direction and effect size in the associations between neuropathology and cognitive outcomes.

PM 2.5 and Cognition in National Health and Aging Trends Study (NHATS) ***06/2022-Present***

Prof: Dr. Sean Clouston and Dr. Amitava Das

- Determine the associations between fine particulate matter and cognition outcomes among senior Americans to measure and confirm the impact of PM2.5 on cognition decline.

World Trade Center Cohort COVID Research ***09/2021-05/2022***

Mentor: Dr. Sean Clouston

- **Determine the risk factors of COVID-19 severity and post-acute COVID-19 sequelae among WTC responders.** *COVID-19 severity was associated with age, Black race, obstructive airway disease (OAD), as well as with worse self-reported depressive symptoms. Post-acute COVID-19 sequelae was associated with initial analysis for COVID-19 severity, upper respiratory disease (URD), gastroesophageal reflux disease (GERD), OAD, heart disease, and higher depressive symptoms.*

Theoretic Research, Nomogram for Low-Grade Papillary Urothelial Carcinoma ***07/2021-12/2021***

Professor: Dr. Dylan Smith

- Using data from SEER database to construct a nomogram for low-grade papillary urothelial carcinoma.

Biomarkers in Urothelial Carcinoma Diagnosis and Prognosis ***07/2020-09/2021***

Mentor: Dr. Kenneth Shroyer

- 97 bladder urothelial carcinoma formalin-fixed paraffin-embedded surgical tissue blocks from 5 different pathology groups were selected for K17 and A2ML1 staining. In low grade group, we found low K17 expression together with low A2ML1 expression could predict all deaths in this group (p=0.02).
- 36 upper tract urothelial carcinoma K17 staining cases showed high K17 staining could significantly prognose worse survival even controlling for cancer and stage (HR=3.2, p=0.05)

Theoretic Research, Cost-effectiveness of Dual Immunocytochemical Staining of KRT17/A2ML1 to Detect Urothelial Carcinoma in the Non-muscle-invasive Urothelial Carcinoma Follow-up Cohort ***01/2021-05/2021***

Professor: Dr. Alexander Slade

- Applying incremental cost-effectiveness ratios (ICERs) to evaluate the cost-effectiveness of K17 & A2ML1 dual ICC over UroVysion or K17 ICC.

Study of Muscle, Mobility and Aging (SOMMA) ***07/2019-01/2020***

Supervisor: Dr. Michelle E. Danielson

- Developing data collection forms and entering data into the REDCap system according to report requirements.

Opioid Manuscript ***09/2019-01/2020***

- Editing part of a thesis completed by one of Dr. Anthony Fabio's PhD students to meet publication requirements

Genetic Determinants of the Cardiovascular Disease Biomarker: NT-proBNP ***05/2018-12/2018***

Mentor: Dr. Allison L. Kuipers

- Gathered genetic-related BNP research literature and completed a summary using logic sequences.
- Examined associations among SNPs, NT-proBNP and cardiovascular diseases with multiple linear regression using SOLAR, applying variance-covariance methods to adjust for family structure.
- Findings included: NT-proBNP was significantly heritable (h^2=0.21, p=4.83 × 10^{-13}); minor alleles of rs198389 and rs5063 were independently associated with NT-proBNP levels; minor alleles of rs198388, rs198358 and rs632793 were associated with both higher NT-proBNP levels and lower atrial fibrillation prevalence; associations between SNPs and atrial fibrillation were partly mediated by NT-proBNP.

Molecular Epidemiology Class Term Project ***01/2018-04/2018***

Professor: Dr. Allison L. Kuipers

- Developed a study proposal for the use of miRNA profiling in early detection of breast cancer.

Molecular Basis of Inherited Disease Class Term Project ***08/2017-12/2017***

Professor: Dr. Zsolt Urban

- Wrote a mock gene review for the *FOXE1* gene and Bamforth-Lazarus Syndrome.

Social and Behavioral Sciences and Public Health Class Essay, ***08/2018-12/2018***

Professor: Dr. Thistle I. Elias

- Identified behavioral and psychological factors related to reduced sleep duration among an African-American community in Pittsburgh using the health belief model (HBM).
- Developed a community needs assessment plan and proposed an intervention strategy.
- Outlined the focus group method for the project.
- Identified SMART processes and outcome objectives; developed an evaluation plan.

SAS Class Term Project ***08/2017-12/2017***

Professor: Dr. Kristine M. Ruppert

- Explored relationships between Type 2 diabetes and weight change and reproductive health.
- Described different characteristics stratified by diabetes status and evaluated p-value using chi-square test or t-test, or nonparametric one-way Wilcoxon test; assessed correlations among covariates; conducted logistic regression to detect factors associated with diabetes. After adjusting for age, BMI, menopausal status, number of children and smoking status, 1-unit increase in weight percentage was found to be associated with 20% greater odds of diabetes (95%CI=1.12-1.30).

TEACHING EXPERIENCE

Teaching Assistant of HPH 506 Biostatistics 1 ***08/2021-2021-12***

Prof: Dr. Wei Hou and Dr. Lisa Benz Scott
Answer students' question during the SAS lab and teach the lecture "Chi-square test"

CLINICAL INTERNSHIPS

Fourth Affiliated Hospital of Harbin Medical University ***11/2014-04/2016 (6 semesters)***

Departments: Cardiology, Surgical Oncology, Gastroenterology, Endocrinology, Pediatrics, Obstetrics and Gynecology, Imaging, General Surgery, Neurology, Ophthalmology, Dermatology, Dentistry, Traditional Chinese Medicine, Emergency, Infectious Disease, Orthopedics

- Identified typical symptoms of common diseases, such as weight loss for diabetes patients and angina pectoris for myocardial infarction patients.
- Analyzed X image features for different diseases, such as tumor mass in lung cancer and pulmonary artery dilatation in Cor pulmonale.
- Evaluated treatment of common diseases, such as anticoagulant therapy in patients with atrial fibrillation.
- Inquired about patient medical history and offered advice for tobacco and alcohol cessation.
- Mastered cardiopulmonary resuscitation and gained proficiency with common instruments, including electrocardiograph and colposcope.

Second Hospital of Yulin City ***01/2013-08/2013 (11 weeks)***

Practiced physical examinations on standardized patients including inspection, palpation, percussion and auscultation.

- Filled out both standard medical records and emergency records for admitted patients.
- Measured blood pressure and performed electrocardiograms.

ACTIVITIES

Volunteer: Pitt Public Health Epi Gives Back (01/2018, 03/2018)
Participant: 2016 Association of Sino-Russian Medical Universities Summer School and General Medicine
Membership: 2014 London International Youth Science Forum, American Association for Cancer Research