YUE (Paddy) TU

EDUCATION

2019-Present
(Expected 2024) **UNIVERSITY OF SOUTHERN CALIFORNIA**   **LOS ANGELES, CA**
Ph.D. Student in Biostatistics
- GPA: 3.8/4.0
- Thesis Title: Bayesian Biomarker-Adaptive Clinical Trial Design Algorithms for Personalized Medicine in Oncology
- Advisor: Dr. Lindsay Renfro
- Honors: USC Provost Graduate School Fellowship
- Relevant Courses: Advanced Statistical Computing, Algorithms, Statistical Methods in Clinical Trial, Theory of Statistics, High-Dimensional Data Analysis, Design of Clinical Studies

2016-2018 **COLUMBIA UNIVERSITY MAILMAN SCHOOL OF PUBLIC HEALTH**   **NEW YORK, NY**
M.S in Biostatistics
- GPA: 4.0/4.0
- Practicum Title: Exploring Early Endpoints for Predicting Asthma Exacerbations
- Relevant Courses: Machine Learning, Design of Medical Experiments, Survival Analysis, Longitudinal Analysis, Pharmaceutical Statistics, Linear Regression, Inference, Categorical Data Analysis, Probability, Generalized Linear Models

2012-2016 **UNIVERSITY OF CALIFORNIA, LOS ANGELES**   **LOS ANGELES, CA**
B.S. in Biochemistry, Minor in Accounting
- GPA: 3.8/4.0
Honors: Latin Honor - magna cum laude, Golden Key International Honor Society
- Relevant courses: Linear Algebra, Calculus of Several Variables, Statistical Programming with R

WORK EXPERIENCE

06/2018-08/2019 **BRIGHTECH INTERNATIONAL, LLC/CIMS GLOBAL**   **SOMERSET, NJ**
SAS and R Programmer
- Developed simulations for generalized adaptive trial design by applying Brownian motion method using R
- Pioneered the statistical support for a software program in trial designs and dynamic monitoring using R and R-Shiny, which was later applied in the Chinese Clinical Trials of Remdesivir in treating patients with COVID-19
- Represented the company to attend JSM EXPO Booth to evangelize the about to launch software
- Created statistical tables, figures and listings for clinical trial data using SAS
- Participated in the study of pomalidomide(Pomalyst), which is the first new FDA approved Kaposi sarcoma treatment in 20 years

09/2017-12/2017 **COLUMBIA UNIVERSITY DEPARTMENT OF BIOSTATISTICS**   **NEW YORK, NY**
Teaching Assistant for Introduction to Biostatistics
- Led recitations twice a week
- Created SAS lab problem sets to reinforce lecture concepts

06/2017-09/2017 **GENENTECH**   **SAN FRANCISCO, CA**
Statistical Programming Analysis – Data Analytics Intern
- Collaborated with Biostatisticians in exploring early endpoints for predicting asthma exacerbations using data from trial LAVOLTA I and II
- Constructed logistic regression models based on univariate area under the curve (AUC) and LASSO for variable selection on training dataset and compare models performance on test dataset using R

09/2014-01/2015 **UCLA STUDENT CALL CENTER**   **LOS ANGELES, CA**
Student Caller
- Contacted alumni for the University to raise support for the UCLA fund

08/2014-10/2014 **CANBRIDGE LIFE SCIENCES LTD.**   **BEIJING, CHINA**
Intern
- Researched mechanism of action of caphosol (oral mucositis treatment) and promoted the development and launch of caphosol in China

RESEARCH EXPERIENCE

08/2021-Present **BAYESIAN BIOMARKER-ADAPTIVE CLINICAL TRIAL DESIGN ALGORITHMS FOR PERSONALIZED MEDICINE IN ONCOLOGY**   **LOS ANGELES, CA**
Research Assistant of Dr. Lindsay Renfro at USC
- Developing adaptive randomization trial design with continuous biomarkers using Bayesian modeling
- Conducted literature review on basket trial and adaptive enrichment trial designs

06/2018-08/2019 **GENERALIZED ADAPTIVE DESIGN FOR CLINICAL TRIAL**   **SOMERSET, NJ**

Statistical Programmer of Dr. Ping Gao at Brightech International LLC
- Implemented methods of sample size re-estimation and simulated to derive unbiased inference
- Calculated a new type of critical boundary controlling type I error for seamless Phase II and III trial

01/2016-06/2016 INVESTIGATION OF GENETIC CAUSES FOR OPTIC NERVE HYPOPLASIA

Research Assistant of Dr. Wenhui Li at CHLA   **LOS ANGELES, CA**
- Performed Next-Generation sequencing data analysis for 40 families
- Extracted DNA for ONH research samples

10/2014-03/2015 INVESTIGATION OF PHARMACOKINETICS OF 3-AP, DI-82, VE-822 BY ORAL PRESCRIPTION AND INJECTION PRESCRIPTION   **LOS ANGELES, CA**

Research Assistant of Dr. Cauis Radu at UCLA
- Collected sample data files of 3-AP, DI-82, VE-822 and calculated sum of iron transition
- Analyzed drug's pharmacokinetics in plasma and found oral prescription of 3-AP was better method

LEADERSHIP EXPERIENCE

09/2016-12/2017 CAREER CHINA AT CUMC   **NEW YORK, NY**

Secretary
- Carried administrative duties for the club

09/2014-03/2016 UNITED NATIONS ASSOCIATION AT UCLA   **LOS ANGELES, CA**

Finance Committee Director
- Organized fundraising activities and applied funding for the club

COMMUNITY SERVICE EXPERIENCE

09/2013-10/2014 VOLUNTEER INCOME TAX ASSISTANCE   **LOS ANGELES, CA**
- Provided free income tax assistance to around 30 students and low-income taxpayers

PUBLICATIONS

- **Tu Y**, Renfro L.A. (2021): *Biomarker-Driven Basket and Enrichment Designs: New Developments*, In preparation.
- Xie T, Zhang P, Shih WJ, **Tu Y** & Lan KK.(2021): *Dynamic Monitoring of Ongoing Clinical Trials,* Stat Biopharm Res, DOI: 10.1080/19466315.2021.1880965

PRESENTATIONS

- **Tu Y** (2020): *Biomarker Clinical Trial Design for Cancer Therapy*, Seminar in Biostatistics and Epidemiology. Keck School of Medicine, USC. Online.
- **Tu Y** (2019): *Efficiency with Trade-Offs and Crossover Design*, Seminar in Biostatistics and Programming. Brightech International LLC. Somerset, NJ.
- **Tu Y** (2018): *Overview of Clinical Trial*, Seminar in Biostatistics and Programming. Brightech International LLC. Somerset, NJ.
- **Tu Y**, Borkowsky J, Jones C, Yang X (2017): *Exploring Early Endpoints for Predicting Asthma Exacerbations*, Seminar in Biometric, Statistical programming and Analysis. Genentech. San Francisco, CA.
- **Tu Y**, Bo C (2017): *Introduction to ggplot2*, Seminar in Biometric, Statistical programming and Analysis. Genentech. San Francisco, CA.

ADDITIONAL

Language Skills: Bilingual English and Mandarin Chinese

Computer Skills: R, R-Shiny, Python, SAS, SQL, Stata, Git, LaTeX, Microsoft Office (Excel, Word, PowerPoint)

Certificate: SAS Certified Base Programmer for SAS 9, SAS Certified Advanced Programmer for SAS 9, Earned CFA Level I