

Yineng Chen

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EDUCATION

Columbia University, Mailman School of Public Health New York, NY
Master of Science (MS), Biostatistics/Pharmaceutical Biostatistics Track GPA | 3.8/4.0 May 2021
Relevant Courses: Probability | Statistical Inference | Biostatistics Methods | Clinical Trial Methodology
China Pharmaceutical University Nanjing, China
Bachelor of Science (BS), Pharmaceutical Science | GPA 3.8/4.0 July 2019
Relevant Courses: Advanced Mathematics | Mathematical Statistics | Pharmacokinetics | Pharmacology

PROFESSIONAL EXPERIENCE

Center for Preventive Ophthalmology and Biostatistics, University of Pennsylvania Philadelphia, PA
Biostatistician June 2021 – Present

- Provided consultation to researchers on experimental design and statistical research approaches.
- Designed, implemented, reported findings, and interpreted statistical results on statistical research studies

Mailman School of Public Health, Columbia University New York, NY
Associate statistician May 2020 – May 2021

- Conducted statistical analyses and generated summary statistics, tables and graphs with more than 500 records for the internal discussions and final reports, directed by Dr. Shea and Professor JLP Thompson, senior statistician.

RESEARCH EXPERIENCE

Natural History of a Rare Disease: Mitochondrial Neurogastrointestinal Encephalomyopathy (MNGIE) (Clinicaltrials.gov NCT01694953) P.I. Michio Hirano MD

- This study develops measures of disease status for use in future clinical trials for MNGIE. It is supported by the NIH-funded North American Mitochondrial Disease Consortium (NAMDC).
- Conducted data visualization, longitudinal data analysis to depict body weight change trend over 200 records
- Summarized a research abstract that was submitted to FDA for a Type C pre-IND meeting

Retail Outlet Health Kiosk Hypertension Trial (Clinicaltrials.gov NCT03515681) P.I. Steven Shea MD

- NIH-NHLBI R34 ROKHyT randomized pilot trial of an interactive text messaging intervention to improve hypertension control in individuals with high (>140/90 mmHg) blood pressure in retail outlet health kiosks
- Conducted Cochran-Mantel-Haenszel tests for the Phase II clinical trial with data from 140 patients to assess the association between text messaging intervention and improve hypertension control
- Calculated power and sample size with PASS for a phase III clinical trial with a stratification design
- Designed the time and stopping rules of the interim analysis for the phase III clinical trial using PASS

The Primary Open-Angle African Ancestry Glaucoma Genetics (POAAGG) study P.I. Joan O'Brien, MD

- This study seeks to understand the genetic structure of primary open-angle glaucoma (POAG) in African Americans. This five-year study was funded by the National Eye Institute.
- Developed linear mixed-effects models with random intercept for subjects and random intercept and slope for eyes within subjects using R (lme4) with 4,000+ repeat measurements to depict the disease progression.
- Developed GEE models accounting for the inter-eye correlation to assess the risk factors for structural and functional progression of primary open-angle glaucoma (POAG) in an African ancestry cohort
- Assists in the preparation of statistical related sections of scientific abstracts, peer-reviewed manuscripts

FLuorometholone as Adjunctive Medical Therapy for TT Surgery Trial (FLAME Clinicaltrials.gov NCT04149210) P.I. John H Kempen, MD MPH MHS PhD

- This is a double-masked, placebo controlled randomized clinical trial in which a total of approximately 2254 subjects will be enrolled, to assess the effectiveness and safety of Fluorometholone when added to the treatment of patients with trachomatous trichiasis undergoing lid rotation surgery.
- Performed data quality review regularly to ensure the accuracy and validity of the database, collaborating with ophthalmologist, data managers and field team members
- Assists in the preparation of clinical trial documents, reports, and responses to requests from DSMC, the industry collaborator and other health authorities.

Analyzing Retinal Microanatomy in Retinopathy of Prematurity to Improve Care 2; School Age Follow on

Study (BabySTEPS2 ClinicalTrials.gov Identifier: NCT04995341) P.I. Cynthia A. Toth, MD

- This study tests high-speed optical coherence tomography (OCT) technology compared to conventional color photographs at the bedside of very preterm infants in the intensive care nursery, to characterize previously unseen abnormalities that can predict a need for referral for ROP treatment, or poor visual or neurological development later in life, up to pre-school age.
- Constructed segmented mixed-effect models with 1,000+ repeat measurements using R To characterize changes in subfoveal choroidal thickness in preterm infants from 30 to 60 weeks postmenstrual age (PMA).

PUBLICATION

1. Shea, S., Thompson, J. L., Schwartz, J. E., **Chen, Y.**, de Ferrante, M., Vanderbeek, A. M., ... & Stockwell, M. (2022). The Retail Outlet Health Kiosk Hypertension Trial (ROKHYT): Pilot Results. *American journal of hypertension*, 35(1), 103-110.
2. PRAT, D.L., LIU, G.T., AVERY, R.A., YING, G., **CHEN, Y.**, & TOMLINSON, L.A. (2021). Recovery of Vision after Optic Nerve Sheath Fenestration in Children and Adolescents with Elevated Intracranial Pressure. *American Journal of Ophthalmology*, 237, 173-182.

PRESENTATIONS

1. **Chen Y.** The Retail Outlet Health Kiosk Hypertension Trial (ROKHyt). Poster presented at: Practicum Symposium; April 2021; Columbia University, New York City, NY.
2. Daniel E., Gao J., **Chen Y.**, Salowe R., Addis V.M., Cui Q., Gudiseva H.V., Sankar P., Ying G., O'Brien J. Prevalence and Factors Associated with Optic Disc Gray Crescent in the Primary Open-Angle African American Glaucoma Genetics (POAAGG) Study. Poster presented at: ARVO Annual Meeting; May 2022; Denver, CO.
3. Salowe R., **Chen Y.**, Zenebe-Gete S., Lee R., Gudiseva H.V., Cui Q., Miller-Ellis E., Addis V.M., Sankar P., Daniel E., Ying G., O'Brien J. Rates of Structural and Functional Progression of Glaucoma and Their Risk Factors in an African Ancestry Cohort. Poster presented at: ARVO Annual Meeting; May 2022; Denver, CO.
4. Seely M.M., Mangalesh S., Michalak S.M., Sarin N., Finkle J, **Chen Y.**, Ying G., Cotton C.M., Toth C.A., Vajzovic L., BabySTEPS Group. Associations Between Oxygen Supplementation and Choroid Thickness in Preterm Infants. Lecture presented at: ARVO Annual Meeting; May 2022; Denver, CO.
5. Chen J., **Chen Y.**, Dong X., Zhai Z., Gao C. The mechanism and technical research on Active hydraulic ventricles support drug delivery system (ASD) for heart failure. Poster presented at: College Students' Innovation and Entrepreneurship National Training Program; May 2017; Nanjing, China.

TEACHING EXPERIENCE

Bio-X Club, China Pharmaceutical University

Nanjing, China

Journal Club Organizer

Jun 2016 – Jan 2018

- Built up article bank by selecting biomedical related articles from research papers and 12 posts monthly.
- Gave weekly lectures on training workshops on experiment operations and frontier research about life science.

LEADERSHIP EXPERIENCE

Chinese Students and Scholars Association, Columbia University Irving Medical Center

New York, NY

Vice President

Oct 2019 – Feb 2021

- Led a team of 4 students to run the organization's WeChat public account with 3,000+ followers.
- Collaborated with a team of 5 students to organize 10 student activities with 400+ accumulated participants.

TECHNICAL SKILLS

Programming in SAS (SAS Certified), SQL, R, LaTeX; PASS, Redcap, Microsoft Access, Excel, and PowerPoint.

MEMBERSHIP

The Association for Research in Vision and Ophthalmology