Yuejia Xu

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Professional Experience

AstraZeneca — Cambridge, UK

- Statistical Science Associate Director *11/2023 - 02/2025*
- Senior Statistician II *10/2022 - 10/2023*
- Senior Statistician I *05/2021 - 09/2022*

Roles, responsibilities, and achievements:

- Served as the global project statistician for early phase cardiovascular, renal and metabolism (CVRM) projects, leading project-level statistical strategies including design, quantitative decision-making, delivery, and interpretation through cross-functional collaborations. This involved driving statistical thinking, informing governance decisions, and influencing key stakeholders for investment decisions.
- Served as the study lead statistician for multiple early phase CVRM studies, directing the development of key study documents including CSP, SAP, and CSR, and providing expert oversight on vendor deliverables to ensure adherence to timelines, quality standards, and regulatory requirements.
- Served as a core member of the heart failure design option workstream, leading the statistical evaluation of the multi-domain approach for Phase 2 → Phase 3 Go/No-go, resulting in multiple internal and external presentations, and a manuscript.
- Acted as the renal disease area lead for the early CVRM Biometrics team, serving as the primary point of contact for renal-related inquiries. Played a key role in fostering alignment within the renal disease area by collating information and driving consensus on critical matters.
- Contributed to the development of internal guidance and training materials aimed at enhancing quality, efficiency, and effectiveness. Notably, I played a core role in developing precision medicine guidance document for the Early Biometrics & Statistical Innovation team and contributed to the creation of subgroup analysis e-learning pathway in Biometrics Academy.
- Offered mentorship and coaching to less experienced staffs including placement students, statistics apprentices and permanent staffs, providing dedicated support for their professional development through tailored education, comprehensive training, and hands-on shadowing experiences.
- Delivered multiple presentations at AstraZeneca internal events such as CDI&Biometrics conference - Connect, R&D Data Science Symposium, and external conferences such as the PSI annual conference.
- Secured 3-year funding for a postdoctoral project in collaboration with academic partners through the highly competitive AstraZeneca Postdoc Scheme. My proposal was the exclusive selection among all statistical proposals submitted for the 2022-2023 application cycle.
- Recognized as an AstraZeneca R&D Award winner in 2024, acknowledging outstanding achievement and innovation in research and development.

Education

University of Cambridge — Cambridge, UK

Ph.D., Biostatistics *10/2017 - 03/2021*

- Thesis: Developing tailored approaches from multi-arm randomised trials with application to blood donation. [link]
- Research keywords: Precision medicine, individualised treatment rules, patient stratification, subgroup identification.

Harvard University — Boston, USA

M.S., Biostatistics *09/2015 - 05/2017*

- GPA: 3.99/4.00

Hong Kong Baptist University — Hong Kong

B.Sc.(Hons), Statistics and Operations Research *09/2011 - 06/2015*

- GPA: 3.87/4.00 (Rank: 1/52)
- Academic Honors: *President's Honor Roll* in all semesters.

Professional Skills & Certificates

Programming Languages & Statistical Softwares

- R, SAS, Matlab, SQL, Python, Stan, nQuery, EAST, FACTS.

Certificates

- SAS Certified Clinical Trials Programmer (License ID: CTP001081v9) *06/2016*
- SAS Certified Advanced Programmer (License ID: BP055659v9) *01/2016*

Publications and Selected Working Papers

Koren, M. J., Vega, R. B., Agrawal, N., **Xu, Y.**, Barbour, A. M., Yu, H., et al. (2025). "An oral, small molecule PCSK9 inhibitor for treatment of hypercholesterolemia: The PURSUIT Randomized Trial." *Journal of the American College of Cardiology*, 85(21): 1996-2007. https://www.jacc.org/doi/10.1016/j.jacc.2025.03.499.

Xu, Y., Wood, A.M., Sweeting, M.J., Roberts, D.J., and Tom, B.D.M. (2020). "Optimal individualised decision rules from a multi-arm trial: tailoring inter-donation intervals among blood donors in the UK." *Statistical Methods in Medical Research*, 29(11): 3113-3134. https://doi.org/10.1177/0962280220920669.

Xu, Y., Laeyendecker, O., and Wang, R. (2019). "Cross-sectional HIV Incidence Estimation Accounting for Heterogeneity Across Communities." *Biometrics*, 75(3): 1017-1028. https://doi.org/10.1111/biom.13046.

Barbaro, R., **Xu, Y.**, Borasino, S., Truemper, E., Watson, R., Thiagarajan, R., Wypij, D., and Curley, M. (2018). "Does Extracorporeal Membrane Oxygenation Improve Survival in Pediatric Acute Respiratory Failure?" *American Journal of Respiratory and Critical Care Medicine*, 197(9): 1177-1186. https://doi.org/10.1164/rccm.201709-1893OC.
— This paper received the 2018 Society of Critical Care Medicine Star Research Achievement Award.

Xu, Y., Wood, A.M., and Tom, B.D.M. (2025+). "Patient stratification in multi-arm trials: a two-stage procedure with Bayesian profile regression." *Preprint*. Available at https://arxiv.org/pdf/2302.11647.

Xu, Y., Wood, A.M., Roberts, D.J., and Tom, B.D.M. (2025+). "Sequential re-estimation learning of optimal individualised treatment rules among ordinal treatments with application to recommended intervals between blood donations." *Preprint*. Available at https://arxiv.org/pdf/2302.11647.
— This paper received the 13^{th} International Conference on Health Policy Statistics Student Paper Award.

Millegård, M., Gabrielsen, A., **Xu, Y.**, Bore, A., Wetterlundh, A., Nyström, P., Claggett, B.L., and Solomon, S.D (2025+). "Improving clinical development in absence of predictive Phase 2 endpoints." *Under Review.*

Selected Conference Presentations

"**Honest estimation of treatment effects in subgroups.**"
- PSI Annual Conference, London, UK. *06/2023*

"**The multi-domain Go/no-go decision framework in heart failure clinical trials.**"
- PSI Annual Conference, Gothenburg, Sweden. *06/2022*

"**Estimating optimal individualised treatment rules for ordinal treatments with application to blood donation.**"
- 13^{th} International Conference on Health Policy Statistics, San Diego, USA. *01/2020*
- 40^{th} Annual Conference of the International Society for Clinical Biostatistics, Leuven, Belgium. *07/2019*

"**Cross-sectional HIV incidence estimation accounting for heterogeneity across communities.**"
- 29^{th} International Biometric Conference, Barcelona, Spain. *07/2018*

External Professional Activities

Journal Referee
- Statistics in Medicine, Annals of Applied Statistics, Journal of Acquired Immune Deficiency Syndromes.

Working Group
- Member of the PSI Subgroup Analysis Special Interest Group (SIG)
  - Delivered a presentation in the PSI 2023 annual conference on behalf of SIG
  - Chaired the Subgroup Analysis SIG session in the PSI 2024 annual conference
- Member of the ASA Safety Statistics Working Group

Honours, Awards, and Scholarships

R&D Award *AstraZeneca, 2024*
International Conference on Health Policy Statistics Student Paper Award *American Statistical Association, 2020*
International Biometrics Conference Young Statistician Showcase Competition Winner *International Biometric Society, 2018*
Cambridge International Scholarship *University of Cambridge, 2017*
Distinction in Teaching *Harvard Biostatistics Department, 2017*
Mu Sigma Rho *Boston Chapter of the American Statistical Association, 2017*
Scholastic Award *Hong Kong Baptist University, 2015*
Asia-Pacific Economic Cooperation Scholarship *HKSAR Government, 2015*
Undergraduate Research Fellowship *Hong Kong Baptist University, 2014*
Hsin Chong K.N.Godfrey Yeh Education Fund Scholarship *Hong Kong Baptist University, 2014*
HKSAR Government Scholarship *HKSAR Government, 2012 - 2015*
Sir Robert Tseng Chi Lu Scholarship *Hong Kong Baptist University, 2012*