Matthew Knowles

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EDUCATION

University of York   York, UK
PhD, Mathematics (Applied Statistics)   *September 2025 – Present*
- Working on developing wavelet-based methods for modelling non-stationary time series
- Supervised by Dr. Jessica Hargreaves and Prof. Marina Knight in the Statistics and Probability group

University of Sheffield   Sheffield, UK
MSc, Statistics with Medical Applications, Grade: Merit   *September 2022 – September 2024*
- Modules in time series, bayesian statistics, medical statistics, machine learning, and economic modelling
- Disseration: A Network Meta-Analysis of Treatments of Locally Advanced/Metastatic Pancreatic Cancer

University of York   York, UK
MMath (Hons), Mathematics, Grade: 2:1   *October 2018 – June 2022*
- Key modules included statistical pattern recognition, applied data science in R, and bayesian statistics
- Dissertation: Statistical Methods for Resetting Score Targets in Limited-Overs Cricket
- Received full colours for representing the university at cricket during my undergraduate studies

EXPERIENCE

Statistical Scientist   October 2025 – Present
Astellas Pharma   *York, UK*
- Statistician in the medcial affairs statistics group
- Co-lead of a research group on indirect treatment-comparisons
- Designed and generated TLF specifications for a phase IV longitudinal study of a treatment for vasomotor symptoms
- Planned and presented internal indirect treatment-comparison to initiate a new project with a cross functional team
- Opened a new internal service for indirect treatment comparison queries

Associate Biostatistics Manager   December 2024 – September 2025
Astellas Pharma   *York, UK*
- Trial statistician in the oncology group, working on two novel compounds
- Managed the delivery of statistical output from a trial readout
- Contributed to the development of statistical analysis plans and trial protocols
- Developed an automated R pipeline for creating weekly outputs of key trial endpoints

Senior Statistical Analyst   April 2024 – November 2024
OPEN Health Evidence and Access   *London, UK*
- Lead the survival analysis workstream for a large clinical trial in chronic-lympochytic leukemia
- Supported the delivery of a network meta-analysis in crohn's disease for a NICE submission
- Conducted a non-proportional-hazards network meta analysis in ulcerative colitis
- Lead an indirect treatment comparison in crohn's disease for the Australian HTA body
- Implemented a novel survival modelling technique into a health-economic model
- Lead the development of in-house R packages for survival analysis and network meta-analysis

Statistical Analyst   June 2022 – March 2024
OPEN Health Evidence and Access   *York, UK*
- Worked on building and maintaining in-house R packages for survival analysis
- Performed and reported on the survival analyses of four clinical trials for submissions to health technology assessment agencies
- Performed a network meta-analysis in multiple myeloma
- Wrote statistical analysis plans for trial analyses and network meta-analyses

Publications

MSR48 Discrete-Event Simulation Model Projects Economic Outcomes Associated with Long-Term Clinical Remission in Patients with Severe Asthma Receiving Mepolizumab, Value in Health, Volume 28, Issue 6, S283 (July 2025)

Discrete Event-Simulation Model Projects Mepolizumab Treatment Outcomes Associated With Long-Term Clinical Remission in Severe Asthma, American Journal of Respiratory and Critical Care Medicine, Issue 211 (May 2025)

MSR213 Comparative Efficacy of Treatments in Advanced/Metastatic Pancreatic Cancer: Demonstrating the Power of Multi-Level Network Meta Regression, Value in Health, Volume 27, Issue 12, S2 (December 2024)

Skills

Programming Languages: R, Python, C/C++, Stan, SAS
Developer Tools: Git, Vim, VS Code, Rstudio Server, Rstudio Desktop
Communicative Languages: English, Norwegian
Presenting: Experienced at creating and giving talks/presentations in both Beamer and PowerPoint
Other: Excel, VBA, PowerBI, RShiny, R package development, LaTeX

Professional Memberships

Associate Member, Institute for Mathematics and its Applications

Royal Statistical Society

Research Interests

Indirect Treatment Comparisons

Survival Analysis

Computational Statistics

Wavelet Methods