

# Matthew Knowles

mattknowles314@gmail.com

## EDUCATION

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### University of York

*PhD, Mathematics (Applied Statistics)*

York, UK

*June 2025 – Present*

- Supervised by Dr. Jessica Hargreaves and Prof. Marina Knight

### University of Sheffield

*MSc, Statistics with Medical Applications, Grade: Merit*

Sheffield, UK

*September 2022 – September 2024*

- Studied part time while working at OPEN Health
- Modules in time series, bayesian statistics, medical statistics, machine learning and economic modelling
- Dissertation: A Network Meta-Analysis of Treatments of Locally Advanced/Metastatic Pancreatic Cancer (75%)

### University of York

*MMath (Hons), Mathematics, Grade: 2:1*

York, UK

*October 2018 – June 2022*

- Specialised in statistics and financial mathematics in year 4. Focused on pure mathematics and statistics in years 1-3
- Key modules included statistical pattern recognition, applied data science in R, and bayesian statistics
- Third year project: On Differential Equations in in-host Viral Pathology (70%)
- Dissertation: Statistical Methods for Resetting Score Targets in Limited-Overs Cricket (72%)
- Recived full colours for representing the university at cricket

## EXPERIENCE

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### Statistical Scientist

*Astellas Pharma*

October 2024 – Present

*York, UK*

- Co-lead a research group on indirect treatment-comparisons

### Associate Biostatistics Manager

*Astellas Pharma*

December 2024 – September 2025

*York, UK*

- Trial statistician in the oncology group, working on two novel compounds
- Contribute 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

*OPEN Health Evidence and Access*

April 2024 – November 2024

*London, UK*

- Lead the survival analysis workstream update for a large clinical trial in chronic-lymphocytic leukemia
- Supported the delivery of a network meta analysis in crohn's disease
- Conducted a non-proportional-hazards network meta analysis in ulcerative colitis
- Lead an indirect treatment comparison in crohn's disease
- Implemented a novel survival modelling technique into a cost-effectiveness model
- Lead the development of in-house R packages for survival analysis and indirect treatment comparisons

### Statistical Analyst

*OPEN Health Evidence and Access*

June 2022 – March 2024

*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
- Gave two internal talks about network meta analysis methodologies
- Wrote statistical analysis plans for trial analyses and network meta analyses

## PUBLICATIONS

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**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)

**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)

## SKILLS

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**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, L<sup>A</sup>T<sub>E</sub>X

## PROFESSIONAL MEMBERSHIPS

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Associate Member, Institute for Mathematics and its Applications

Royal Statistical Society