**University of Leicester**

**MRC AIM Studentship Project 2025-6 entry.**

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| **Additional Supervisor** |  |

**Section 2 – *Project Information***

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| **Project Title** | Analytic methods for leveraging complex data to inform effective evaluation of cancer therapies |
| **Project Summary**  |
| This PhD project will focus on application and development of methods for evaluation of the effectiveness of cancer therapies. Modern cancer therapies are often developed for subsets of patients harbouring a particular biomarker. Therefore, clinical trials evaluating the effectiveness of cancer therapies may be small, resulting in uncertainty about the effectiveness of these therapies; for example, in improving patients’ survival. This project will investigate efficient methods for combining diverse data to improve the precision of the effectiveness estimates. In turn, it will help improve the efficiency of important decisions about which new therapies are available to patients. You will apply a range of modern tools from biostatistics, including Bayesian analysis, and data science to evaluate cancer therapies. You will use diverse data from clinical trials, including alternative outcomes (other than survival) or different cancers, and data collected routinely in hospitals available from electronic health records. You will benefit from an experienced supervisory team, including academics from the University of Leicester and the University of Birmingham and experts from industry from AstraZeneca, with expertise in statistics, data science and oncology. The project will provide an opportunity to develop a range of analytical skills and gain insight into drug development processes. |
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