



I completed my MSci in Chemistry at the University of Birmingham. I spent the third year of my degree in industry at Innospec Inc, where my research focused on the synthesis of novel monomers and (co)polymers for new generation crude oil and refined fuel additives. For my final year, I conducted my research project under Prof. Rachel O'Reilly, where I studied the activity and stability of ruthenium catalysts in aqueous media for olefin metathesis, leading to a (co)first author publication.

In 2020 I joined the Gaunt group as part of the SynTech CDT, where my research is focused on developing novel synthetic strategies for important chemical transformations, such as one-pot alkene homologation, and benzene to pyridine transformations.

The SynTech programme appealed to me because it offers opportunities to gain experience in areas outside my existing skillset, such as in machine learning & associated data-driven science, both of which are becoming increasingly useful tools for synthetic chemists.

Publications:

**100th Anniversary of Macromolecular Science Viewpoint: The Role of Hydrophobicity in Polymer Phenomena**, J. C. Foster, I. Akar, M. C. Grocott, A. K. Pearce, R. T. Mathers, & R. K. O'Reilly, *ACS Macro Lett.*, 2020, 9, 1700–1707, DOI: [10.1021/acsmacrolett.0c00645](https://doi.org/10.1021/acsmacrolett.0c00645)

**It is better with salt: Aqueous Ring-Opening Metathesis Polymerization at Neutral pH**, J. C. Foster; M. C. Grocott; L. A. Arkinstall; S. Varlas; M. J. Redding; S. M. Grayson; R. K. O'Reilly, *J. Am. Chem. Soc.*, 2020, 142, 32, 13878-13885. DOI: [10.1021/jacs.0c05499](https://doi.org/10.1021/jacs.0c05499)