



MARK ROBERTS

(Full postal address, email and telephone – including home, mobile & work, if you can be contacted)

ACADEMIC EDUCATION

2015 – present Newcastle University **PhD in Medicinal Chemistry and Biochemistry**

Title: identification of New Mycobacterial Mycolyl Transferases by Chemical Approaches -
Supervisors: Prof DE Biochemist and Dr GS Chemist

Projects:

- Synthesis and biological evaluation of new inhibitors of mycobacterial mycolyl transferases relevant to the treatment of tuberculosis as part of a Glaxo Wellcome CASE studentship
- The synthesis of glycolipids to investigate the structural requirements for antigen recognition and presentation by CD1.

Both projects are designed to increase understanding of the fundamental processes within the growing mycobacterium and its mode of action. Full details in attached appendix

2011 - 2015 Newcastle University **MChem (Hons) Medicinal Chemistry 2:1**

Dissertation Project: the synthesis of 2-alkyl-3-hydroxy long-chain acids and their 6-O-glucose esters.

Modules studied include: drug design, chemical toxicology, cancer chemotherapy, biochemistry and pharmacology

2009 - 2011 QE Sixth Form College, Darlington
A levels – Maths (A), Chemistry (B), Physics (B), AS Level Chemistry (grade 3)

2004 - 2009 Hurworth Comprehensive School, Darlington
9 GCSEs at A*-B grade

RESEARCH EXPERIENCE

09/15 - present Glaxo Wellcome Research & Dev, Stevenage **CASE Placement**

- As part of my sponsorship by Glaxo Wellcome, I have been involved in a placement within a medicinal chemistry team at their Stevenage site

11/15 - present Newcastle University **Postgraduate Demonstrator**

- Whilst undertaking my PhD I have constantly been involved with the supervision of undergraduates in their practical classes. At any one time I have been personally responsible for as many as forty students.
- I have been solely responsible for the supervision of an ERASMUS student and have supervised a number of masters and undergraduate students with their dissertations. This has honed my skills and understanding of project management, development and the importance of meeting deadlines.



07/13-09/14 Microbiology Dept, Colorado State University, USA **Industrial Placement**

- I worked as part of Professor IM Microbiologist's internationally renowned research group in the field of tuberculosis research
- My work involved the synthesis of carbohydrate derivatives that could be used to investigate the biosynthesis of the mycobacterial cell wall with the aim of developing novel inhibitors for Mycobacterium Tuberculosis

RESEARCH TECHNIQUES

I am competent in the following techniques:

- Parallel synthesis, for both development of optimum reaction conditions and multiple synthesis
- Automated parallel purification techniques such as Biotage and Solid Phase Extraction processes
- I also have a working knowledge of NMR and mass Spectroscopy, gained during my time at Prof IM Microbiologist's lab

OTHER EXPERIENCE

07/09-07/11 The Blackwell Grange Hotel, Darlington **Bar Supervisor**

- Initially worked as a silver service waiter in the conference and banqueting team, and then promoted to the wine and bar section
- Responsible for the general running of three bars, involving stock control, producing staff rotas and balancing the tills

SKILLS

- IT - Have extensive knowledge of all Microsoft programs and whilst at Glaxo Wellcome attended advanced courses in Excel, Powerpoint and Word. I am experienced in the use of advanced internet search engines and am currently helping to construct a Newcastle University Chemistry software packages including the ISIS suite, Chemdraw and various NMR packages
- Languages: English (Fluent); Spanish (Learner)

INTERESTS AND ACHIEVEMENTS

- Awarded Newcastle Chemistry Department –Glaxo Wellcome sponsored prize 2015
- Darlington Rugby Club 2006 - present
- Newcastle University Staff Cricket Team 2015 – present
- Secretary, Chemistry Department Student Society 2012-13

REFEREES

(Provide contact details including telephone, email of current supervisor (make sure they know the details of the post you are applying for) and another academic, preferably in the same or a related field)