

CHARLOTTE BAKER

charlotte.l.baker@gmail.com
se.linkedin.com/in/charlottelbaker
+46 736 469 875
Nationality: British

PROFILE

I am a motivated and versatile AstraZeneca scientist, with an eagerness to learn and take on challenges. I am part of the Global Innovative Medicines Graduate Programme, which is enabling me to further broaden my knowledge and develop many new skills across the drug discovery spectrum. As part of the programme I have completed a number of development modules where skills essential for success and leadership are focused on.

At university I studied the diverse discipline of Natural Sciences, which has given me the ideal knowledge base for my current job. I developed excellent organisational and presentation skills, as well as the ability to work fluidly across a wide range of subjects including Chemistry, Biology and Mathematics.

My MSci research project offered me an insight to electrochemistry and its diverse applications. It improved my ability to work independently in the lab as well as providing me the opportunity to produce a detailed scientific report. I defended the body of work and findings to two senior lecturers in a challenging and stimulating viva. I prepared a manuscript from the work I undertook which has been published in Chemistry – An Asian Journal.

EXPERIENCE

INNOVATIVE MEDICINES GRADUATE PROGRAMME

AstraZeneca, Mölndal, Sweden
25th November 2013- present

A two-year programme consisting of three 8-month rotations in different departments within the Innovative Medicines function. I completed development modules alongside the programme to enhance my leadership potential.

Rotation 1 – Synthetic Organic Chemistry: I was responsible for the design and synthesis of new potential drug molecules including parallel synthesis of libraries of molecules. I followed and adapted synthetic routes from colleagues and the literature. I worked on 2 different projects (cardiovascular and diabetic nephropathy) where I had the opportunity to read around the disease areas and participate in design team meetings.

Rotation 2 – Reagents and Assay Development: I successfully developed a HTS ready ADP-glo assay for a kinase which has the potential to be a new diabetes drug target. I screened 180 compounds in a dose response experiment and analysed their activities using computer software. I also expressed protein in a mammalian cell system and then established and optimised the purification process. The protein was then used in an assay for an anti-inflammatory project.

Rotation 3 – Structure and Biophysics: I am crystallising a protein, which is the target for an asthma project. I soak in different ligands and then collect X-ray crystallography data. I use the data to create a 3D electron density plot. This enables me to analyse the protein-ligand interactions and therefore design more potent drug molecules.

PHYSICAL CHEMIST

Unilever, Port Sunlight, UK
27th August 2013- 1st November 2013

I worked in the Household Care Department and was responsible for developing new hand dish wash formulations and improving the existing soil, which was used as a standard to test the new formulations. I had strict deadlines to work to and routinely summarized and presented my results to my team leaders.

RESEARCH SCIENTIST

DSM, the Netherlands
1st September 2010-1st September 2011

Research project within the Functional Coatings department - During my internship I was given many opportunities to practice my professional communication skills through my own presentations, discussions and department meetings; an experience that strengthened my ability to communicate with co-workers, peers and

academics across departments and research areas. During the year I improved my practical laboratory skills and I was responsible for planning and performing my own experiments with little supervision very early on. The final elements of my assignment were a scientific poster and a full scientific report on the year's research study (Anti-reflective coatings for glass).

EDUCATION

THE UNIVERSITY OF BATH (2008-2013)

MSci (Hons) Natural Sciences with Professional Placement – 2:1 obtained

FINAL YEAR PROJECT: Chemistry research on the use of electrochemistry to detect phase transitions of a lipid within a carbon nanoparticle/coenzyme Q10/lipid composite film

MODULES STUDIED:

Fifth year: Organic Chemistry, Synthesis of Medicinal Compounds, Blockbuster Drugs, Inorganic Chemistry, Advanced Organometallic Chemistry, Contemporary Main Group Chemistry, Radiochemistry, The Evolution of Genetic Systems, Microbial Evolution - from the Laboratory to Nature

Fourth year: Drug Properties for Natural Scientists, Biopolymers; Biosynthesis & Biotransformations, Symmetry & Group Theory, Advanced f-block Chemistry, Supramolecular Chemistry, Inorganic Chemistry in Biological Systems, Laboratory Chemistry for Natural Scientists, Genomes, Concepts in Systems Biology, Simulation techniques, Mathematical Methods

Third year: Professional placement (DSM, Netherlands)

Second year: Organic Synthesis Reaction Mechanisms and Spectroscopy, Inorganic Synthesis, Structure and Reactivity, The Practice of Science: How Science Works, DNA (Making, Breaking & Disease), Genetics, Mathematics for Scientists 3 & 4

ST NICHOLAS' CATHOLIC HIGH SCHOOL AND SIXTH FORM COLLEGE (2001-2008) HARTFORD, CHESHIRE

A-LEVEL: Chemistry A; Biology A; Maths A

AS-LEVEL: Further Maths A; English Language B

GCSE: 8 A*, 2 A - Biology; Chemistry; Physics; Maths; English Language; Religious Studies; French; Business Studies; Art; English Literature

RESPONSIBILITIES

FOUNDER OF AZ YOUTH

I have established a group called 'AZ Youth Möndal' which is a social and educational networking platform. I gained sponsorship from the site leaders and I am responsible for an annual budget. I am leading a committee of 10 cross-functional volunteers and together we organise events for the network such as discussion sessions with senior leaders, career advice and social activities. I also collaborate globally with other regional AZ Youth networks.

TRIATHLON COMMITTEE

During my final year of university I was on the triathlon club committee. It was my responsibility to organise social events for the club, which was one of the largest at the university. One of the highlights of the year was organising a training camp in Spain for 25 members, which was enjoyed by beginners and elites alike. This role allowed me to develop my leadership skills and it additionally strengthened my ability to work as part of a team; it was important that tasks were delegated between all 5 committee members as we each had to balance the work with our studies and training.

ACADEMIC REP

I was nominated to represent final year MSci Natural science students on the student staff liaison committee for two years running. The role involved addressing any issues or suggestions my peers had as well as attending meetings with the directors of studies for each of the sciences to ensure our requests were being acted on. I have also been a UCAS tour guide; this involved showing prospective students around the university campus and answering any questions they had regarding the course and university life.

INTERESTS

TRIATHLON AND CYCLING

In September 2013 I represented Great Britain in the Age Group category at the Triathlon World Championships and placed 14th. This was an immense and exhilarating achievement as it was a goal I had been training hard for all season. I have also completed 4 half marathons, a half-Ironman triathlon and in April 2014 I competed in the European Duathlon Championships. This season I am focusing on cycling and I have been selected to be part of a Swedish elite women's cycling team. This involves travelling to different parts of the country to race against the best Swedish teams.

Sport has always been an important part of my life and fitting training around my university work, social life and now full time job has necessitated me to develop excellent time management and organisational skills.

TRAVEL

I have truly embraced every opportunity I have had to explore the world we live in. I have especially enjoyed the chance to reside in Sweden and the Netherlands due to job opportunities. I find it easy to settle in to new environments and respect the different cultures of the people around me.

I took full advantage of my university's long summer holidays. In 2012 I travelled along the east coast of Australia from Melbourne to Cairns in five weeks with two friends. I was in charge of planning our itinerary and ensured that we saw as much as possible in the relatively short amount of time that we had. I used the money that I had saved whilst working at DSM to pay for the trip.

My wages from my part time waitress job at Café Rouge allowed me to go to Morocco in the summer of 2010 for a month to work as a volunteer. While there I visited schools, orphanages and remote villages in the Atlas mountains. I helped to teach basic English, play games, do arts and crafts, and teach children how to swim. It was amazing to be so welcome in a country so different from England.

In July 2009 I went to America to work at a summer camp in Maine. My role was to work in the kitchen and ensure all meals were produced on time and in the right quantities. I also helped with planning the menus and ordering ingredients. In my time off I helped with the activities the children were doing and socialised with the other staff.

I have thoroughly enjoyed all of my adventures and believe they have helped me grow as an individual. They show that I can be very independent and quickly adapt to new surroundings.

REFERENCES

DR LOVISA HOLMBERG-SCHIAVONE, AstraZeneca, Team Leader, Line Manager:
Lovisa.Holmberg.Schiavone@astrazeneca.com

DR MARIA ÖLWEGÅRD-HALVARSSON, AstraZeneca, Senior Scientist, Supervisor:
Maria.Olwegard-Halvarsson@astrazeneca.com

PROFESSOR FRANK MARKEN, University of Bath, Masters project supervisor:
f.marken@bath.ac.uk