

## Industry Representatives

### Chris Cobb

Associate, International Intellectual Property Group,  
Allen & Overy LLP

*Allen & Overy is a leading global law firm operating in over 30 countries. We cover 99% of the world's economy, working with companies, organisations and governments on issues of incredible scope and complexity.*

*Built on the work of talented and motivated people, in a supportive and collaborative environment, we're dedicated to challenging the status quo and leading the way in commercial law. So whatever you've studied – and around half our trainees have a degree in a subject other than law – we will help you develop into an exceptional lawyer and learn to do work of the highest possible standard.*



I am an associate in the International Intellectual Property Group based in London. I specialise in litigation within the life sciences sector, particularly patent litigation. The role of a litigation associate is to manage the litigation process working with the team internally, with barristers and with the clients to build the case for trial. In particular, patent litigation typically requires the involvement of experts in the relevant field, often the leaders in that particular technical area (even Nobel prize winners!), and an associate will work closely with the expert to prepare the report that they will submit to the court.

#### **Advice for students wanting a career in the sector**

Ideally, try to get a first hand insight into what a career in law involves. Programmes like the DTP are a great opportunity, also Allen & Overy and other law firms offer short vacation schemes which allow students to shadow an associate for a short period; I did one of these schemes and it was a great experience. Finally, although a science background is incredibly applicable to IP, there is huge scope to a possible career in law and it should be approached with an open mind; not forgetting that scientific training develops many valuable transferable skills.

### Hannah Thompson

Chief Product and People Officer, Cambridge Cancer  
Genomics

*CCG builds precision oncology solutions for all patients. Our technology can detect relapse earlier than standard of care, predict response to therapy more accurately & reduce ineffective treatment regimens. We give your oncologist the head start they need to stay ahead of an evolving tumor.*

*Ultimately, we will ensure that each patient has the right treatment, at the right time, to beat their cancer.*

#### **Advice for students wanting a career in the sector**

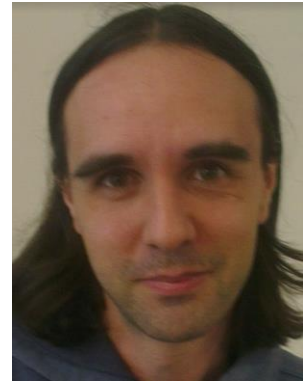
I would advise you to get stuck into projects. For coders that's using languages, or do hackathons or work in a group on a project. For those interested in business got to talks and get involved in startups! The more hands on the better.



## Robin Simons

### Lead Risk Analyst, Animal and Plant Health Agency (APHA)

*The Animal and Plant Health Agency (APHA) is an executive agency of the Department for Environment, Food & Rural Affairs, and also works on behalf of the Scottish Government and Welsh Government. We're responsible for identifying, controlling and eradicating endemic and exotic diseases and pests in animals, plants and bees. We facilitate international trade in animals, products of animal origin, and plants, protect endangered wildlife through licensing and registration and provide science-based evidence and advice to inform policy makers in areas such as bacterial, viral, prion and parasitic diseases and food safety.*



I work within the Biomathematics & Risk Research Workgroup (BRR) at APHA, a nationally & internationally recognised group of risk analysts, modellers and statisticians providing high quality scientific evidence for policy formulation and outbreak response, as well as specialist support to research and operations in the area of animal and veterinary public health. My role is to design, develop and manage projects, review and evaluate methodological developments, promote BRR science at national and international meetings and conferences, advise policy-makers on results of these projects and offer consultancy on risk assessment both within and outwith the APHA.

#### **Advice for students wanting a career in the sector**

The ability to understand and develop complex stochastic mathematical models in computer programming languages such as R or Matlab is increasingly important. Understanding how to apply theoretical science to real world systems and how to provide high quality scientific advice to policy requires considering biological plausibility and relevance of the results – aspects as important as technical accuracy. Communication of complex models to non-scientific audiences is also important, through effective visualisation techniques and the ability to convey results in plain English. Finally, do check out the civil service jobs website for opportunities, as well as the more common academic job websites.

## Francesca Cormack

### Director of Research and Innovation, Cambridge Cognition

*Cambridge Cognition is a neuroscience technology company optimising the assessment of cognition for better brain health research with scientifically validated digital health solutions. Our software solutions are used in cognitive research and clinical trials, accelerating safe and effective treatment development, helping to improve patient outcomes in conditions affecting brain health. We support clients in over 100 countries, including the world's leading biotech and pharmaceutical companies and more than 800 universities worldwide.*



I am Director of Research and Innovation and I work primarily in the R&D function of the business, helping to develop and validate new ways of assessing cognition and mental health.

#### **Advice for students wanting a career in the sector**

R&D requires flexibility, creativity and a combination of quantitative and technical skills. Recognize that the skills you have developed can be applied in many different ways, beyond the topic of your thesis, and be willing to keep learning new things.

## Surya Kotha

### Postdoctoral Fellow, AstraZeneca

*AstraZeneca is one of the world's most exciting bio-pharmaceutical companies. We are one of very few innovation-driven biopharmaceutical companies to span discovery, development, manufacturing, distribution and worldwide commercialisation. Our pipeline forms a robust portfolio of investigational therapies in varied stages of clinical development. Our innovative science means a strong track-record of publication in peer-reviewed journals, contributing to the foundation of scientific advancement. We are all united by our purpose: to push the boundaries of science to deliver life-changing medicines.*



AstraZeneca Postdoctoral Fellows are part of an industry-leading program to facilitate scientific discovery within AstraZeneca. The program, launched in June 2011 to support the highest-quality, innovative scientific programs from across the organization, maximizes the value and quality of science from the postdoc fund by addressing fundamental scientific challenges that underpin drug discovery.

#### **Advice for students wanting a career in the sector**

Being a postdoc in the pharmaceutical sector provides unique insight into the world of drug development while maintaining a close connection to innovative and translational science. I have been able to learn about the process of early discovery, regulatory affairs, and clinical trials. AstraZeneca is an exciting place to work, with many career paths and programmes available in locations across the globe.

## Alison Darke

### Postdoc Coordinator, AstraZeneca

*We are a science-led pharmaceutical company with a clear Purpose: to push the boundaries of science to deliver life-changing medicines. Our Medicines are used by millions of patients worldwide. We focus on three main therapy areas: Oncology; Cardiovascular, Renal and Metabolism and Respiratory diseases. Astra was established first then Zeneca and we came together in 1999. We have 60,000 employees working across the world - about half of Cambridge. We have 3 main research and development hubs - Cambridge, Gothenburg and Gaithersburg. Early talent is very important to us so Postdoc program was formed in 2011.*



I am the Postdoc Coordinator who along with a Postdoc Programme Manager support the Programme to give our postdocs a brilliant experience. Our global postdoc network gives our 150 postdocs the opportunity to share great science and support each other. Our Postdoc Committee is made up of a full spectrum of AZ scientists with extensive functional scientific expertise who select the best projects for Postdocs by addressing fundamental scientific challenges that underpin drug discovery.

#### **Advice for students wanting a career in the sector**

We look for someone who lives for research – challenges the way things are done by introducing new ideas and contributing to the scientific community. You need to have a strong record in a scientific field. Whatever stage you are in your career always look for opportunities that demonstrates your passion for science.

## David Bailey

CEO, IOTA Pharmaceuticals Ltd

*IOTA Pharmaceuticals is an early-stage drug discovery company based on the Cambridge Biomedical Campus at the Addenbrooke's Hospital site in Cambridge. We use molecular structure-based design and cellular phenotypic screening approaches to characterise new and existing drugs as potential treatments for cancer. Our therapeutic area focus is glioblastoma.*



### **Advice for students wanting a career in the sector**

Drug Discovery is rich in job opportunities and scientific challenges, and the arrival of AstraZeneca and the burgeoning number of smaller companies working in the pharmaceutical sector in Cambridge provides an unparalleled landscape for career development. But it's important to decide what you are good at. Are you an "entrepreneur" or a "team player"? Working in a small technology start-up can be exciting - but also at times overwhelming. Working in a team to deliver new treatments is hugely rewarding. My advice would be to gain as much work experience as possible before committing to any career path. The BBSRC PIPS scheme is a good way of achieving this.

## Santa Astratova

Head of Talent, Deep Science Ventures

*Deep Science Ventures is a venture studio and a venture capital fund aimed at creating and scaling science companies. At DSV we identify what companies to build and what scientific talent is required to build them; we fund scientists to build their own companies.*



I source and select founder-type scientists whose skills and interests match one or more opportunities available at DSV.

### **Advice for students wanting a career in the sector**

The only way how to learn about starting a company is to start a company. Not everyone is meant to be an entrepreneur and not everyone should be one. But if you are pursuing entrepreneurship, make sure you find a problem worthwhile solving.

## Simon Aspland

CEO and Cofounder, Chalante

*Chalante is an animal health biotech company developing proprietary resistance breaking parasiticides for companion animals and livestock.*



### **Advice for students wanting a career in the sector**

There are many career paths open to you. Think ahead and get informed about the options available. Over time, try and accumulate experiences and expertise you need for your preferred destination job, including internships. Build positive relationships, you never know who might help.

## Amelia Charbonneau

### Project Manager, Entomics

*Entomics Biosystems Ltd is an innovative and dynamic start-up company at the forefront of insect biotechnology in the UK. Insects represent an emerging new biotechnology with unprecedented potential. The black soldier fly is a species of particular interest as the larvae can be used to convert low value waste, such as food and other organic waste, into high value protein and fat-rich biomass, in the insect form. Insects therefore present a renewable and nutritional means to feed our production and companion animals, as an alternative to some of the environmentally unsustainable feeds currently used.*



#### **Advice for students wanting a career in the sector**

Be flexible, passionate and willing try to new things. A PhD gives you great opportunities beyond academia. Do your research when making your PIPS host choices and apply for something you are genuinely interested in. Contact the hosts pre-application and ideally meet face-to-face. It's just as important that they are the right fit for you, as you are for them. Apply to companies that you can bring a new skill set to and make yourself a valuable member of the team. Treat the PIPS as an interview for a future position and get involved with as many activities as possible.

## Miha Pipan

### Chief Scientific Officer and Founder, Entomics

#### **Advice for students wanting a career in the sector**

By virtue of being new, insect bioconversion is certainly less competitive than more conventional 'next steps' such as big pharma/biotech graduate schemes – so you have a decent shot of a job offer if you enjoy it!

Apply yourself and take ownership of any task you are given, no matter how small/big, important/side project, essential/trivial it may be. Particularly in small companies and startups, and new industries, the ability to handle a problem that's thrown your way – despite how uncomfortable you may be about it in the beginning / outside of your comfort zone it may be; is what separates good employees from exceptional ones.



## Dominic McDonald

### Head of Education, The Royal Institution

*The Royal Institution of Great Britain (often abbreviated as the Royal Institution or Ri) is an organisation devoted to scientific education and research, based in London. Throughout its history the Institution has supported public engagement with science through a programme of lectures, many of which continue today. The most famous of these are the annual Royal Institution Christmas Lectures, founded by Michael Faraday in 1825.*



I bring together all of the Ri's existing and future activities for young people, so that we can ensure they have a long-lasting and enriching experience with science and with the Ri.

#### **Advice for students wanting a career in the sector**

Don't expect to get rich or famous!

## Victoria Higgins

Alliance Director/Business Lead for the GSK R&D/Cambridge strategic Alliance, GlaxoSmithKline

*We are a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer. We have 3 global businesses that research, develop and manufacture innovative pharmaceutical medicines, vaccines and consumer healthcare products. Our goal is to be one of the world's most innovative, best performing and trusted healthcare companies. Our values and expectations are at the heart of everything we do and help define our culture - so that together we can deliver extraordinary things for our patients and consumers and make GSK a brilliant place to work.*

*Pharmaceuticals R&D: Our Pharmaceuticals business has a broad portfolio of innovative and established medicines with commercial leadership in respiratory and HIV. Our R&D approach focuses on science related to the immune system, use of genetics and advanced technologies.*



I am the Alliance Director/Business Lead for the GSK R&D/Cambridge strategic Alliance, established in 2013 the Alliance has enabled over 100 collaborations between the two organisations spanning short term placements to PhD studentships, post-doctoral fellowships and large research collaborations. Initially focused on the School of Clinical Medicine GSK and Cambridge now work together across the Life and Physical Sciences incorporating Clinical & Biological Sciences, Engineering, Chemistry and Mathematics. My role creates a portal via which Cambridge and GSK can effectively seek opportunities to work together and to ensure these are driven through to tangible collaborations delivering value across the board.

### **Advice for students wanting a career in the sector**

Build your network. Take any and every opportunity to talk with people who work in Industry to understand their background, their drivers and their day-to-day responsibilities. You can do pretty much anything in Pharma, from cutting-edge world-leading science to engineering, legal and finance careers. Stay open to possibilities and follow up on conversations. Request a call, a coffee. People love talking about themselves!

## Chris Burt

Cereal Genotyping Manager, RAGT

*RAGT is one of Europe's leading seed breeding companies and is active in cereal species such as bread wheat, durum wheat, triticale and barley. Cereal research is conducted at a facility at Ickleton near Cambridge. This facility comprises glasshouse, controlled environment cabinets and laboratories, and provides marker-assisted breeding support for the entire European programme.*



I run a laboratory conducting genotyping analyses for cereal breeding programmes across Europe. This involves the co-ordination of a high throughput genotyping operation, identifying new genomic technologies, research and development to identify diagnostic DNA markers for genes of agronomic importance. I work closely with breeders, statisticians and molecular biologists, both within the company and the academic sector, to conduct plant breeding research and to translate this into solutions for plant breeding problems.

### **Advice for students wanting a career in the sector**

I think it is important to engage with breeders and researchers in the plant breeding industry. This can be beneficial for your research by providing new insights and also a more applied context for your work. In addition, developing collaborations with breeding companies can help by providing access to field trialling expertise, high-throughput genotyping facilities etc. If you are interested to work in plant breeding having both contacts in the sector and an understanding of plant breeding research will help.

## Camilla Colombo

### Bioinformatics scientist, Illumina

*Illumina is a developer, manufacturer, and marketer of life science tools and integrated systems for large-scale analysis of genetic variation and function. Its portfolio includes sequencing and array-based solutions that address a range of genomic complexity and throughput, supporting customers from academic, pharmaceutical, biotechnology and governmental institutions. Illumina's DNA high-throughput sequencing systems are based on the sequencing-by-synthesis technology developed by Solexa, a company founded by Shankar Balasubramanian and David Klenerman of Cambridge University. Based in San Diego, Illumina maintains its EMEA headquarters in Cambridge.*



As a bioinformatics scientist in Illumina, my main responsibilities involve data analysis (applying best practice statistical/computational methods to analyse whole-genome sequence data, maintaining core analysis infrastructure for experimental data) and tools development and implementation (supporting validation activities for new pipelines, in-depth assessment of platforms and sample preps). Participating in cross-site projects and internal and external research collaborations are integral aspects of this position.

#### **Advice for students wanting a career in the sector**

Developing strong computational and technical skills is a great foundation for any bioinformatics and data analysis job. Combined with curiosity and enthusiasm to learn about new fields, they will provide universal tools to frame and approach problems in a broad range of biological and medical applications.

In early career stages, it's also extremely beneficial to get exposure to a diverse set of projects and opportunities, both in academy and industry, to gain full awareness of all available opportunities in the field.

## Lucy Wheatley

### Key Account Manager, Promega UK

*With a portfolio of more than 4,000 products covering the fields of genomics, protein analysis and expression, cellular analysis, drug discovery and genetic identity, Promega is a global leader in providing innovative solutions and technical support to life scientists in academic, industrial and government settings.*

*Promega products are used by life scientists who are asking fundamental questions about biological processes as well as by scientists who are applying scientific knowledge to diagnose and treat diseases, discover new therapeutics, and use genetics and DNA testing for human identification.*



My role at Promega is to develop new and existing business in the Cambridge and midlands. Key to the role is communicating effectively the advantages of Promega's excellent portfolio of products and promoting new and emerging technologies within the academic community. I aim to build strong customer relations, including establishing collaborations with R and D where appropriate and always providing excellent customer service and technical support.

#### **Advice for students wanting a career in the sector**

Research the role and try to get as much practical experience as you can. Find someone doing a similar job and see if you can meet them for lunch to speak about the role, or ask if you can shadow them for the day. Use your free time to develop "soft skills" that are relevant to the job you'd like to do - science outreach is a great way to hone your communication skills by speaking to a wider audience for example. Or becoming the treasurer for your favourite club can help develop practical budget management.

## Hamid Khan

### Public Engagement Coordinator, Sense about Science

*Every day, we are faced with claims that are based on misrepresentations of science. Sense about Science is an independent campaigning charity that challenges the misrepresentation of science and evidence in public life. They advocate openness and honesty about research findings, and work to ensure the public interest in sound science and evidence is recognised in public discussion and policymaking. They focus on socially and scientifically difficult issues where evidence is neglected, politicised or misleading.*



Hamid joined Sense about Science as public engagement coordinator in January 2019. He runs the 'Voice of Young Science', a unique network of 3000+ early career researchers across Europe committed to playing a role in public discussions about science. Hamid leads the 'Standing up for Science' workshops, coordinates institutional partnerships, contributes to the peer review workshops and is the point of contact for VoYS members and internship applications.

Hamid has a PhD in nanoscience from the University of Southampton, where he was extensively involved in public engagement. Depictions of chemistry in public life frustrated him, so he set about channelling his efforts towards improving public understanding of science and its methodology.

Hamid champions the parity of esteem between academic/industrial careers and policy/engagement careers as equally worthwhile applications of a scientific education towards advancing the public interest.

#### **Advice for students wanting a career in the sector**

For PhD students and postdocs, the greatest challenge in standing up for science is not the lack of willingness or ability to do it; it is the lack of knowledge of where to begin and how to make it effective. When working with the media, policymakers or the public at large, zone in on what your audience is going to be, and then identify where the misconceptions are and why they have arisen. Open and transparent dialogue is the key to this.

## Lucinda Spokes

### Public Engagement and Festival Manager for Sciences, University of Cambridge

*The mission of the University of Cambridge is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.*

As the Public Engagement and Festival Manager for Sciences at the University of Cambridge I support research staff and research students to engage effectively with the public. The aim of this engagement being both to share the benefits of research with a wider audience and also to improve research outcomes.



#### **Advice for students wanting a career in the sector**

Gain experience by taking advantage of the many opportunities to share your research with wider audiences during your time as a researcher. This will give you an understanding of the benefits of public engagement to both your audience and to you.



## Stuart Gilby

### Technology Consultant, PA Consulting

*PA Consulting is an innovation and transformation consultancy. Our diverse teams of experts combine innovative thinking and breakthrough technologies working closely with our clients to deliver enduring results. We have over 2,600 specialists who operate across a broad range of sectors including consumer, healthcare, life sciences, transport, and industrial manufacturing, working both for private and public organisations within the UK and overseas. PA has a strong link to STEM, and each year runs popular Work Experience and Internship programmes at its Global Innovation and Technology Centre (GITC), giving students the opportunity to work on challenging technology problems. Past internships have included robot swarming, new materials, sensor design and predictive analytics.*



I am a Technology Consultant at PA Consulting. I am responsible for day to day management of our diverse projects across various disciplines. I work with engineers, designers and scientists to develop new and exciting technology from a lab bench through to pilot line. I get to work with great clients, from CxO level to deep technical experts across a wide range of businesses' – from start-ups to multinational conglomerates. Some of the projects I have worked on include an at home tea machine, medical robot, sustainable packaging and food production machinery.

#### **Advice for students wanting a career in the sector**

You have to love technology to work as a technology consultant and have a good understand of your discipline. Being able to explain your technical knowledge to non-experts is key, that might be your colleagues, who are experts in different fields, or business people who have no technical knowledge. So practice using 'layman's' terms, with your partner or parents.

## Anu Solanki

### Material Scientist, PA Consulting

*PA Consulting is an innovation and transformation consultancy. Our diverse teams of experts combine innovative thinking and breakthrough technologies working closely with our clients to deliver enduring results. We have over 2,600 specialists who operate across a broad range of sectors including consumer, healthcare, life sciences, transport, and industrial manufacturing, working both for private and public organisations within the UK and overseas. PA has a strong link to STEM, and each year runs popular Work Experience and Internship programmes at its Global Innovation and Technology Centre (GITC), giving students the opportunity to work on challenging technology problems. Past internships have included robot swarming, new materials, sensor design and predictive analytics.*



I am a Materials Scientist working as a Technology Consultant at PA Consulting. My role involves understanding the materials science behind new products and manufacturing processes. As a consultant I get to work in different sectors, from medical devices, to consumer goods, to sustainable packaging. The amount you can learn from one sector and apply to another always amazes me!

#### **Advice for students wanting a career in the sector**

My advice would be to try and talk to people in the industry. This applies for consulting as much as for any other role – it will make you more aware of the role and whether it is right for you, and might also help you understand what you don't want to do (which is sometimes more valuable). It's also a great start to building your network.

## Andrew Croydon

Director of Skills & Education Policy and Examinations, The Association of the British Pharmaceutical Industry

*The Association of the British Pharmaceutical Industry (ABPI) represents innovative research-based biopharmaceutical companies, large, medium and small, leading an exciting new era of biosciences in the UK. We represent companies who supply more than 80 per cent of all branded medicines used by the NHS and who are researching and developing the majority of the current medicines pipeline, ensuring that the UK remains at the forefront of helping patients prevent and overcome diseases. Globally our industry is researching and developing more than 7,000 new medicines*



Director of Skills & Education Policy and Examinations - this involves overseeing the skills strategy for the pharmaceutical industry to ensure a pipeline of talent to provide a workforce fit for purpose. We are also heavily involved with support of education (through our outreach) and education policy through analysing needs from academic and vocational routes. Thirdly, I am responsible for the professional examinations which ABPI deliver for industry professionals and how this ties to ongoing career professional development.

### **Advice for students wanting a career in the sector**

The ability to work cross-functionally, embrace collaboration and be adaptable are essential.

## JJ Dixon

Graduate Research Engineer, Oxehealth

*Oxehealth's Digital Care Assistant gives clinicians, carers and custodians more time for hands-on care where and when they are needed most. The technology is an assistant for when you can't be there, paying attention to every room.*

*Oxehealth's software solutions use secure optical sensors to generate the alerts and reports that the clinicians, carers and custodians need, seamlessly slotted into their existing workflow. Oxehealth serves customers in mental health, care home, acute hospital, prison, police & homecare settings.*

JJ Dixon joined Oxehealth as a Graduate Research Engineer in 2017, having completed an internship there over the summer of 2016. He holds a Master's degree in Engineering Science from Oxford University where he took a particular interest in computer vision and biomedical monitoring.

As a member of the research team, JJ splits his time between algorithmic development, research project management and running Oxehealth's technical internships program. JJ enjoys being part of a team which is making a real societal contribution, indeed in the past year since he joined the company's Digital Care Assistant has developed from the research phase to serving today in 17% of UK mental health trusts.

### **Advice for students wanting a career in the sector**

Although it may seem a little strange at first that a computer vision company is interested in the PIPS programme we have, in the past, found that PIPS students have completed very successful summer internships with us.

Oxehealth offers PIPS students a unique chance to use the mathematical and statistical skills they've gained in the wider scientific field, notably that of remote vital signs monitoring. If you have a good understanding with either R or Python and are passionate about statistical modelling or data analysis, please do come over and have a chat!

