PhD Horizons Conference 2018

Panel 2B: Non-academic science I

Dr James Robertson, Executive Director – Global Head of Patents, LEO Pharma

Career summary

James completed a PhD in Molecular and Immunobiology at the University of Edinburgh. He then worked as a Postdoctoral Research Associate at Imperial College, London for just over a year before moving to a job as a trainee patent attorney with GlaxoSmithKline (GSK) in 2006. He qualified as a Chartered (UK) Patent Attorney (CPA) and European Patent Attorney (EPA) in 2010. He then relocated to Brussels, Belgium with GSK and moved into more senior roles, before being head-hunted for a position leading a team of patent attorneys for LEO Pharma in Copenhagen, Denmark.

After his UG and PhD James had no clear career plans. Was offered a 5 year post-doc contract at Imperial but wanted a change in direction. Saw advert for role at GSK. Drawn to patent attorney work as mix of business law and using his science appealed- wanted a commercial aspect to his work. Believes he got this first role due to his molecular biology/vaccination background made him a good fit. Had to work for at least 4 years before he could take exams.

Key messages

- Getting started as a patent attorney is very competitive- but varies according to specialism; biology/chemistry most competitive, engineering/electronics less so.
- Masters in Intellectual Property may give you an edge (though James didn’t do it)
- In Europe, companies take on scientists and teach the law- not the other way round.
- Working outside the UK opens more doors. Working in Brussels really enhances career. Good to show mobility.
- Consider whether you want to work in-house for a pharma company or in private practice. In-house not as well paid but integrated into the business; work with R&D, finance, commercial, legal. Working with a global company has meant working across the world, being involved in litigation across the world and learning about different legal systems. In the pharma sector companies work together to influence EU law.
- **Role is to protect innovations for inventors;** you submit patent applications and convince the UK or European office that it is an invention worthy of a patent. Includes trying to revoke others’ patents or defending your own. Stand up in court and argue your case, get a decision on the day. If case is outside EU, then also instructs lawyers in other companies. Has a lobbying role, part of advocacy group Federation of Pharmacy companies, lobbies to change EU law.
- PhD opened up way more doors – would not have got his role without it. Had the technical skills employers like GSK were looking for. Ability to move about has also been key to career success – London, Brussels and Copenhagen – it’s easy to turn jobs down but being flexible has been key.
- LinkedIn is very important for professional networking and keeping up to date - he was approached via LI for second role.
Dr Lara Bennett, Medical Writer, Comradis

Career Summary

Lara gained her PhD in Cell Biology and Molecular Biology at the University of Dundee in 2007. She then went on to work in Science Communications in the charity sector at Cancer Research UK and Worldwide Cancer Research for 9 years before transitioning into Medical Communications at Comradis in 2017. Comradis is part of Amiculum - a group of medical health communication companies. Involves within the Pharmaceutical industry informing GPs and Clinicians on new treatments – always supported by clinical data.

Laura had a year in industry as part of her UG degree and realised it would help her career to do a PhD. Couldn’t see herself as a Group leader in academia. Considered medicine. Liked the bigger picture so researched science comms. Offered a maternity cover at Dundee then another maternity cover role for Cancer Research in London (writing website, explaining achievements to non-scientists). Then took management role in St. Andrews writing blogs, fund-raising leaflets, press/TV.

Key messages

- Maternity covers are often less competitive as fewer people prepared to leave a permanent role for temp role- can be a great opportunity to try something
- LinkedIn was a MASSIVE help in progressing career; advises to connect with as many as you can in the field, review profiles to get insights into relevant experience
- Typical day includes; advisory board meetings, speak to experts met at conferences (what do they think of a new drug? How would they use it?) Puts together slide sets, writes publications (based on clinical trial data), writes literature reviews (e.g. 30 papers summary to convince government/regulatory authorities). Commercial work e.g. produce promo materials, Q&A documents, internal training of sales staff. Market analysis- what are the competition doing? Work with digital team building apps, websites, e-learning modules, in house videos and animations.
- The role is intellectually challenging; learning about new diseases, about anatomy/medicine
- Well defined career path; trainee medical writer, to senior medical writer, to principal medical writer, to director
- Entry roles in account or project manager and editorial roles, as well as medical writer
- Must have scientific knowledge (usually a PhD), eye for detail, organisational skills, good communication skills, team working and an eagerness to learn.
- Lots of agencies and lots of jobs out there
- Different roles in different sizes of companies; chose Amiculum as a global network of independent agencies, some small so get more responsibility earlier. Informal recruitment process; no role at the time but created a position based on Lara’s background. Some much larger e.g. Ashfield offer full service spanning medical communications, advertising and PR. Others more specialist. Consider reputation, culture, training and development and career dev when choosing as not all agencies are the same.
- Expect writing test as part of the recruitment process
- Amiculum always accepts CVs even if no roles advertised – now 230 staff and growing fast.
Dr Nina Divorty, Medical Writer, Complete Medical Communications

Career Summary

Nina gained her PhD in Biochemistry and Molecular Biology at the University of Glasgow in 2016. Throughout her PhD she wrote for a student-run science magazine. She became an Associate Medical Writer for Complete Medical Communications in October 2016, and has been a Medical Writer since July 2017.

Nina is still relatively early in her career. Half way through her PhD realised she didn’t want to work in academia. Short-term contracts didn’t appeal. Enjoyed writing papers, public engagement through science festivals, writing for student science magazine and freelanced for a start-up to get experience. Joined Complete Medical communications as an Associate Medical writer which is a training entry role which offered lots of training and development for 2 years – she is now a medical writer. Commissioned by pharma companies to produce a range of educational or promotional materials. Works with clinicians to help produce manuscripts and presentations. Balances the needs of the client with integrity of the science. Can be asked to produce websites, infographics, animations, materials for exhibition stands. Involved in publications strategy - to ensure all literature comes out at the right time and has the most impact.

75% of the day is doing the work; checking the detail, reviewing trial data. 10% emails, phone calls with clients, 10% travel, admin, training

Role incudes writing conference abstracts, attending advisory board meetings, preparing materials for websites, organising publicity booths, animations for websites. There is some opportunity for travel.

Clear career progression – massive focus on training and progression

Key messages

- Enter writing competitions, write for student science magazine
- Don’t need a PhD but will progress more quickly
- Key skills; Ability to analyse data/stats very useful, confidence in presenting complex ideas, independent thinking, able to manage own ideas and projects, problem – solving and innovation
- Challenges; constant deadlines - often tight, can explore own interests in own time during your PhD- in medical comms need to be very organised. Balancing conflicting opinions of 10-20 people, less project ownership. About efficiency so someone else in the team might pick up and submit work you started
- You work across different disease areas and so develop interests & learn new skills
- LinkedIn is an amazing tool. Use it to do your research.
- You have flexibility when doing your PhD so use this time to identify the skills you need for your desired career and create opportunities to get them
- Tailor all applications
- Ask the right questions – grow your skill set
- Ensure employer is right for you
- Don’t stop learning once you get the job

Inspiring futures
Dr Catherine Rose, Study Director, Charles River Laboratories

Catherine gained her PhD in Cardiovascular Disease at the University of Edinburgh in 2015. She joined Charles River as a Lead Analyst in November 2015 before becoming a Study Director in May 2017.

Since she was an UG, Catherine has been very interested in molecular cell biology. Had 1 year as a school science technician then decided to do her PhD. Had placement at British Heart Foundation. Joined Charles River (Drug discovery and development CRO. Huge remit; 70% of FDA approved drugs were worked on by Charles River at some point). Charles River has over 1000 staff based at Tranent (outside Edinburgh). This is the main European preclinical testing site. The pharma industry is tightly regulated and works to GLP standards. There are internal quality audits and external audits by the home office.

Catherine’s role includes writing contracts and protocols, preparing project cost estimates, optimisation of new assays, performing experiments, trouble shooting, training and supervising analysts. Her schedule is varied and she feels her role allows her to ‘make a difference’. She has learnt lots of skills - including project management and working as part of a team.

Questions

Do you miss academia?

- No. if you want a career in academia then strongly suggest you do it straight after PhD as hard to go back into it.
- Some miss chance to focus on one project in depth. Important to consider options beyond academia that suit your skills and preferences.
- Good to have a permanent job,

For James, how much of your time spent talking/doing science versus law books?

- Not lot of time looking a law books. As he works in-house he works very closely with R&D - so lot of time talking science, drafting patent applications; thinking about HOW to express the science and argue in a compelling way.

For Nina and Lara, how do you adjust to managing/ accounting for your time after academia?

- Nina - It is very different but just a skill you learn. Training is offered and you use time sheets as you have to account for your work. Enjoy looking at time sheet and reflecting on achievements – it’s not about the boss checking up.
- Lara – You pitch for work and that requires estimating the time required and accounting for the time: sometimes will go over so go back to the client and ask for more budget. There are no ethical issues with this as there is a clear path that trails go down to gain approval
- Nina – You need to ensure that everything is backed up by data. There is strong regulations in the industry and everything is reported
Ethical dilemmas you face?

- Panel not had ethical issues. You can’t say a drug is more effective than it is. Very rigorous rules around reporting ALL data, all adverse effects published. Published in peer reviewed journals so every statement is referenced and backed up in the data. Lots of regulation around clinical trial data- you are responsible for upholding the guidelines if the client suggests otherwise. But the client wants to do the right thing; very bad consequences otherwise.

Difference between patent examiner and patent attorney?

- Examiner sits in patent office (i.e. The Hague for EU) There to ensure that the subject matter is a new and inventive; will search documents to show that the application made is for something new - and make a legal assessment. If agree, then will approve.

How important is hands on lab work for a patent attorney role?

- Need to convince recruiter that you have the technical background sufficient for area you want to work in.

How long does studying take for legal side of patent attorney work?

- No time limits in the UK
- In Europe it more regulated and the qualification is more valuable. You must work for 3 or 4 years under guidance of a euro patent attorney. Pass rate low - in some papers 30–40% - but for some candidates it is a language issues. All exams are in English, French or German so have an advantage (and higher pass rates) if you are native speaker of one of those languages. Some employers give more time to prepare.
- Languages are helpful in this field but not essential. James is not bilingual.