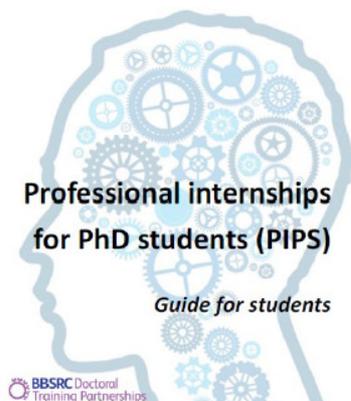


Editorial

Professional Internships for PhD students (PIPS) are an essential component of the student experience within BBSRC Doctoral Training Partnerships.



The Internships are, typically, 12-week placements in professional contexts different from the student's research environment and each DTP student has to complete an internship before submitting a thesis. The PIPS training aims not only to enhance the future employability of doctoral graduates, but also to promote the development of professional skills that are not so overtly used in the context of academic research. No matter what the sphere of activity, choosing and completing an internship requires good communication and time management skills, the ability to approach and solve unfamiliar problems and, most importantly, the willingness to take the initiative of finding an internship into your own hands. One of the most vital considerations when preparing the students for PIPS is to ensure that they start thinking about their aspirations early and start planning for PIPS from the moment they join the programme (or even before). In this issue we hear about how the East of Scotland DTP, EASTBIO approach this critical element of a DTP.

Chris Thomas, Midlands Integrative

Biosciences DTP: MIBTP

and

Irina Stancheva, Director of EASTBIO DTP

Good Practice: PIPS Support at

EASTBIO Finding and organising the perfect placement can be daunting for students just setting out in their research careers.

Therefore, the PIPS coordinator, responsible for preparing students for PIPS and guiding them through the process of arranging and completing an internship, has one of the most important management roles in any DTP. The East of Scotland DTP (EASTBIO) is extremely fortunate to have Dr Caroline Pope as its PIPS coordinator. Following her PhD and postdoctoral training in stem cell research, Caroline became interested in helping science graduates make the right career choices. She did outstanding work within the team of 'Making Most of Masters (MMM)', a collaborative project between several Scottish universities, which won the 2013 Times Higher Education Award for Outstanding Employer Engagement Initiative (see <http://www.mastersprojects.ac.uk/>).

From the start of the EASTBIO DTP, Caroline has worked very closely with students, supervisors and internship providers to ensure that all sides are in perfect agreement. Now, when all 34 students from our first EASTBIO cohort have completed their internships and the others have plans in the pipeline, we have the opportunity to look back, evaluate our strengths and share our experience with other DTPs. So what is it that EASTBIO does well with PIPS?

A firm protocol for internship approval

The first thing we regard as good practice is having a structured approach to ensure consistency and transparency. Therefore Caroline created extensive documentation, including a *PIPS Guide for Students*, *PIPS planning sheet* and *Internship agreement form* (all downloadable from the EASTBIO web site <http://www.eastscotbiodtp.ac.uk/information>

[-current-students](#)) and established a firm “protocol” for approval of internship planning and agreements. This process is reassuring for both students and placement providers as they formalise and cement any informal communications that may otherwise dissipate into thin air. While the formal procedure may look complex on first sight, it allows us to demonstrate that the EASTBIO PIPS scheme adheres to the relevant sections of The UK Quality Code for Higher Education, ensuring it will give the maximum benefit possible to our students in their future careers.



The PIPS workshop is a lively event for exchange of information and ideas.

Motivation and preparation of the students

Our second key feature, and probably the most important task that Caroline performs, is to prepare and motivate the students for their internship experience. To achieve this, she introduces PIPS at our induction event for first-year students, then follows this up by running a full-day workshop ‘Managing Your Professional Internship Experience’ 5 to 6 months after the students have begun their studies. The workshop is extremely popular and highly attended by the first-year students with third-year students coming along to share their experience and provide helpful first-hand advice.

The PIPS Workshop

The day usually starts with an overview of the PIPS scheme, emphasizing what the students

can expect from an internship and what is expected of them. This is followed by talks from third-year students and discussions on when and how to approach potential internship hosts, how to write a professional CV not aimed at academic institutions and the range of opportunities that are out there. The workshop is a very lively event providing ample time for the students to ask burning questions and a wonderfully rich opportunity for peer learning as the new students hear from those who have completed internships with a variety of host organisations. All students benefit from and, most importantly, enjoy this sharing of ideas and experience. The first-year students receive plenty of feedback on their choices of potential hosts, and on planning and securing an internship, while the third-year students are happy to tell their stories and give advice. Most of them feel proud of what they have achieved no matter of whether or not the internship will impact directly on their future.

Student feedback

Here is what the first-year students had to say about the recent workshop:

“Our BBSRC EASTBIO PIPS Day provided me with a fantastic opportunity to understand how my learning and future prospects are enhanced by PIPS. To listen to how fellow students have made the most of this opportunity, learned from different experiences in industry, policy and charities and how PIPS is influencing their future was fantastic. It has helped me to understand why I am going on PIPS” (Greg Sutton).

“The PIPS Q&A was definitely useful. It helped me have a clearer idea of how the PIPS organisation and timing will work in practice. I was surprised by the amount of time, attempts (and luck!) required to get

*in contact with an organisation”
(Benedetta Carbone).*

*“After hearing about the very different internships previous students have experienced and the different tasks they undertook during their internships I'm more motivated to work out where I want to do for my internship and am looking forward to finding the right internship for me”
(Stephanie Laba).*

And some advice from one student PIPS presenter about finding an ideal placement:

- Start looking early as possible
- Contact lots of companies
- Network at all opportunities
- Try a PIPS away from your host city
- Coordinate PIPS and PhD timings
- Keep a diary of all things you learn
- Persevere, don't get disheartened
- Make the most of the opportunity
- Do something you really want to

Do it yourself versus off the shelf

Some of our EASTBIO students come to the programme with a clear idea of what type of internship they would like to do. Others, however, are still in need of inspiration and advice. For those who lack specific ideas, Caroline has a healthy list of contacts and some ready-made placements to help them think of what they might like. To compile this list, Caroline keeps in touch with past and present internship hosts while always looking for new opportunities. To this end, the EASTBIO DTP web site provides clear information specifically for current and potential PIPS providers and we have sprouted invitations to other web locations, most notably into the website of the Scottish Universities Life Sciences Alliance. As a result of these efforts, we now have established interactions with more than 50 host institutions including SMEs, charities, organisations involved in science policy,



EASTBIO PhD student Hannah Parkin (front row, second from left) during her PIPS with the Brain Tumour Charity education, outreach, publishing and intellectual property.

The role of academic supervisors

Last but not least, Caroline and all of us involved in the management of the EASTBIO DTP have to ensure that not only the students, but also the supervisors appreciate the opportunities that PIPS provide and that they engage, encourage and support their students. The supervisors' help is instrumental especially in sharing industrial contacts, ideas and planning the best timing for a PIPS placement in the context of the students' research project. To engage the supervisors, answer their questions and benefit from their help and feedback, the management of EASTBIO DTP communicates with PIs at multiple points during the study period of every student: before the students are recruited, during induction and throughout the PhD. Our annual symposia, which take place in June, feature Q&A session for supervisors. Invariably, these sessions always feature heated discussions of PIPS.

Sharing with other DTPs

Finally, sharing experience and good practice with other DTPs and PhD programmes is the best way ahead to ensure the spread of new ideas and a sustainable change in the PhD training culture. Last year, Caroline was invited to visit the Cambridge-led DTP and she was glad to share with them her approach and experience. As the advantage to doctoral

students of having either an internship or an industrial placement integrated into their PhD programme is becoming widely acknowledged by funders and universities, the collaborations of EASTBIO are also starting to spread. An example is our relationship with the Edinburgh EPSRC and MRC Centre for Doctoral Training in Optical Medical Imaging (OPTIMA). As part of this collaboration, Caroline invited the OPTIMA CDT Manager to attend the recent EASTBIO PIPS workshop for first-year students. This is what Jean O'Donoghue said after attending the workshop:

“OPTIMA has yet to send any students out on placement as we are a relatively new CDT (established in 2014) and so we were looking for advice on we could best inform our students about the options available to them. In this we turned to Caroline Pope (EASTBIO DTP PIPS Coordinator) and it became clear that EASTBIO DTP were already operating a very successful and popular event that perhaps OPTIMA could model. I found her introduction very insightful and took away a number of points that OPTIMA can use going forward. I was also struck by how engaged the first year EASTBIO students were with latter cohort who had already completed their internship are who described their PIPS experiences – and we will seek to incorporate this element of peer-to-peer knowledge exchange in our own events in the future. In summary – this event has really allowed us to crystallise what we would like to achieve with our own students and I have no doubt we will be turning to Caroline for further advice down the line.”

Conclusions

To sum up, there is no doubt that PIPS are likely to become a permanent feature for most PhD programmes. This is driven not only by funders, but by students as well. Many feel that no matter how exciting their research, at the end of a PhD they become independent “thinkers”, but have little or no exposure to the professional world outside academia. This lack of experience and exposure makes it difficult for doctoral graduates to contemplate the variety of career choices that are open to them. Will PIPS change this? Will the scheme increase the confidence of our students when stepping out into the real world? We can't know yet. According to a recent survey, 35% of the students felt that they are more likely to consider a non-academic career as a result of completing PIPS. Therefore we are very much looking forward to our first DTP students graduating this year. We will be following their career paths and those of the following cohorts. It will be some years from now before we will be able to tell if the PIPS scheme has made a real difference.

Dr Irina Stancheva, director of EASTBIO DTP

Dr Caroline Pope, EASTBIO PIPS Coordinator



Sharing experience is always a joy. Caroline Pope (middle), Professor Lesley MacVinish, University of Cambridge (right), and Professor Bernadette Connolly, University of Aberdeen (left), at the EASTBIO annual symposium