



MANCHESTER
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The University of Manchester

School of Biological Sciences

**Industrial/
Professional
Experience
Placements**
Guidance for
Companies

School of Biological Sciences

Industrial/Professional Experience Placements Guidance for Companies

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Industrial/Professional Placement Scheme

The School of Biological Sciences runs a very successful programme of laboratory, field research, science communication and business placements with over 100 partner organisations all over the world including:

- pharmaceutical and biotech companies
- research institutes
- hospitals
- museums
- research centres and research stations
- sealife centres
- universities
- nature reserves
- zoos

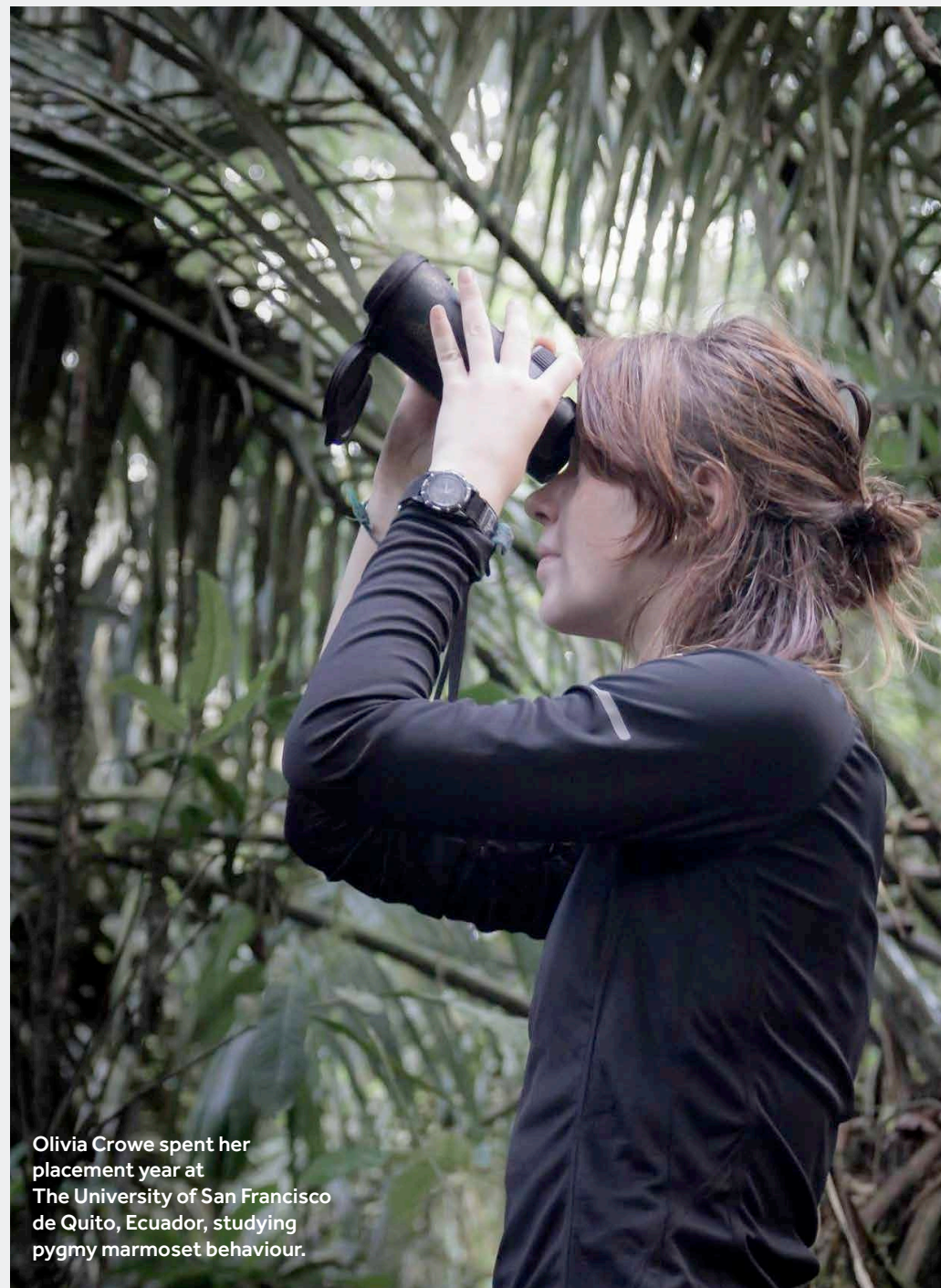
We are always looking to expand our range of placements to reflect the growing range of science careers both inside and outside of the laboratory.

The Placement Scheme is designed to equip our students with valuable experience and skills gained while working for 9-12 months in a professional setting. Many students wish to undertake a laboratory or field based project but some others do not and are more interested in related areas such as scientific writing, bioinformatics, database work or more theoretical research projects. The students may have a 'service' element to their jobs but are expected to carry out an in-depth research project during their time away under the supervision of a member of staff at the host organisation.

The School of Biological Sciences runs the following programmes which all offer a year in a professional setting:

- BSc Anatomical Science
- BSc Biochemistry
- BSc Biology
- BSc Biology with Science & Society
- BSc Biomedical Science
- BSc Biotechnology
- BSc Cell Biology
- BSc Cognitive Neuroscience & Psychology
- BSc Developmental Biology
- BSc Genetics
- BSc Medical Biochemistry
- BSc Microbiology
- BSc Molecular Biology
- BSc Neuroscience
- BSc Pharmacology
- BSc Pharmacology & Physiology
- BSc Physiology
- BSc Plant Science
- BSc Zoology

Salaries for placements vary from minimum wage to £22,000. Some placements may even be unsalaried.



Olivia Crowe spent her placement year at The University of San Francisco de Quito, Ecuador, studying pygmy marmoset behaviour.

Why employ a student from the University's School of Biological Sciences?

The programmes in the School are designed to provide graduates with a high level of practical and theoretical skills over a range of biological subjects, together with knowledge of currently available techniques and technologies.

We aim to develop competent professionals, able to play a leading part in many different commercial, industrial, and academic activities. Our graduates will have the ability to adapt rapidly to changing technology and meet the demand of industry for high calibre graduates.

Only our brightest and best students are selected for the placement scheme. A good placement student can be "worth their weight in gold" according to one company. Many of our Placement Providers comment that they would be delighted to welcome our students back as employees after graduation.

The benefits to your company of employing a School of Biological Sciences placement student include:

- High-calibre, low cost recruitment solutions for up to 12 months. Employers have found that our students possess a high level of skill and a mature attitude in the workplace. Students from the School of Biological Sciences are targeted for recruitment by companies throughout the UK and Europe.

- The selection of placement students is left entirely to the individual company's recruitment procedures.
- An ideal solution if your company has a project to complete or a temporary vacancy to fill.
- The opportunity to devote time to a project which you have not had the resource to do.
- An opportunity to get a head start on recruiting the best new graduates for your company.
- The opportunity to create effective links with The University of Manchester that could benefit your business now and in the future.
- No recruitment costs involved.

How to advertise for placements with us

The School of Biological Sciences has a dedicated Placement Team who would be delighted to hear from companies interested in employing one of our students.

Please send us a job description and advert describing the role, area of work and type of skills you need. Let us know when you wish the placement to begin and end. This will need to be approved by the School Team to ensure that it fulfils our requirements too and, assuming it does, we can then advertise this to the appropriate students.

If you would like to come and speak to the students on campus then we would be happy to arrange this for you. Similarly, we can arrange for interviews to be held at the University if this is more convenient for you.

The Placement Office will collate CVs, applications, covering letters and send them to you, or can direct students to online application forms.



Ciara (fourth from left) spent her placement year at the University of Salamanca

Timeline for recruiting placement students

Recruitment begins in October and runs until June. However, we would advise companies to advertise early in order to secure the best candidates for the role. Examinations at the University take place in mid to end January and mid-May to early-June so we would ask if possible that interviews are not scheduled for these times.

Placements can begin in June, July, August or September and must be between nine and twelve months.

School of Biological Sciences Placement Team

The School of Biological Sciences has a dedicated Placement Office, contact details for which are provided on the back page.

The role of the University in placements

During the placement year, the University will:

- Assign an academic member of staff from the University as visiting tutor to the placement student. The Placement Advisor will visit the student twice during their placement year. The visit may be face-to-face or via skype/telephone. The visitor will also request to meet with the student's supervisor.
- Continue to conduct one-to-one meetings between the placement student and their personal advisor during the placement year. These meetings will normally take place via email or via telephone.
- Ensure that the student maintains their support network at the University (email, library, personal advisor) during their placement.
- Assess the student's final placement report*
- Work with the Placement Provider to produce a Confidentiality Disclosure Agreement (CDA), if required by the Placement Provider.



Zac spent his placement year working on a biochemistry project at the University of Madrid

*At the end of the placement year the student must submit a report on the research project carried out during their time on placement. This report is submitted to the University for assessment by two members of academic staff from the University and the mark for this report will contribute approximately 10% towards his/her final degree classification. On return to University the student attends a viva at which they are examined on their placement work. Reports throughout the year from visiting tutors, and the company's supervisor report at the end of the year, are used to check that the placement has been completed satisfactorily.

The role of the Company (Placement Provider)

Commitment from the Placement Provider usually comprises:

- Providing the student with a placement for a minimum of nine months and a maximum of twelve months.
- Providing a named supervisor within the company who will conduct or make arrangements for the day-to-day supervision of the student.
- Providing the placement student with an induction to the organisation and its working practices, policies etc.
- Providing the student with an opportunity to conduct an in-depth research project which they can write up as a report for The University.
- Ensuring, so far as is reasonably practicable, a safe working environment, in conformity with Health and Safety legislation*
- Facilitating access to the student for visits by the visiting tutor from the University.
- In case of serious breaches of discipline advising and consulting with the Deputy Director for Undergraduate Studies at the University.
- Providing the same level of liability and other insurance cover provided for comparable employees.



Becky Cliffe spent her placement year studying sloths at the Sloth Sanctuary of Costa Rica.

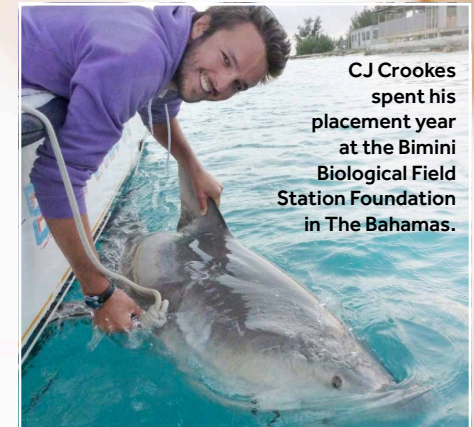
- Treating the student as an employee on a short term contract in accordance with the organisation's normal policies.

*Companies in the U.K. operate under the same health and safety legislation that operates in the University. The placement student must be made aware of any special local requirements. If you are offering a placement working overseas, the student may have no knowledge of the prevailing Health and Safety requirements and so the University requires that information on local requirements be made available to the placement student. The Health and Safety Executive has recommended that we ask formally for assurances on health and safety and we ask Placement Providers to complete our health and safety form.

Student responsibility to the Placement Provider

It is made clear to students that they must:

- Abide by all company rules regarding hours of work, health and safety regulations and other practices and procedures.
- Maintain confidentiality during their placement year.
- To carry out the work programme specified by the placement organisation under the supervision of the specified supervisor(s).
- Consult with The University prior to seeking any changes in the terms and duration of the placement.



CJ Crookes spent his placement year at the Bimini Biological Field Station Foundation in The Bahamas.

Student case studies

Bryn White

Havas Lynx, Manchester



“ I joined Havas Lynx as a Junior Account Executive for the duration of my placement year while studying Biology at the University of Manchester. I was delighted that the role offered me an opportunity to combine my science, business and marketing interests within a sociable working environment that encouraged creative thinking and innovation.

The role provided me the opportunity to work closely with account managers, and included interactions with clients from some of the world-leading pharmaceutical companies, in which concepts, briefs and insights had to be translated to the internal production team to deliver a variety of inventive projects. It was great to see projects develop from initial ideas stage to the finalised products and I really enjoyed the opportunity to work closely with members of the production team at each

stage of the creation process. The projects I worked on related to a range of different therapy areas which was great for me coming from a science background.

Working closely with a variety of creative people and clients on a daily basis definitely enhanced my communication and organisational skills however more importantly the placement provided great insights into how digital technology can be used to benefit the healthcare industry.

**Bryn White,
BSc Biology with
Industrial Experience**



Tiziana Shqau

Mayo Clinic Jacksonville, Florida

“ I am a Biochemistry student at the University of Manchester who has spent a year working at the Mayo Clinic in Jacksonville, Florida. I worked in the cancer research department, in Dr. Derek Radisky's laboratory, which specialises in studies on tumour microenvironment and how this affects cancer cell growth and invasion.

I had an amazing experience and found out what it is like to do real research and what the impacts of my work could be in the wider medical context. In the laboratory I worked with the principal investigator, Dr Radisky, and a post-doctoral fellow, Dr Cichon. Dr Cichon and Dr Radisky are currently working with all the data generated on the project in order to publish the results of the study, hopefully in a high impact journal.

My work used breast cancer cell lines. I evaluated the consequences of MYC

downregulation in different cell lines and assessed the effects of MYC inhibition in combination with TGFβ treatment. Tasks involved setting up cell experiments and analysing lysates and RNA samples by western blot and quantitative PCR respectively. I presented data regularly at weekly laboratory meetings and discussed results and experimental set ups regularly with both Dr Radisky and Dr Cichon.

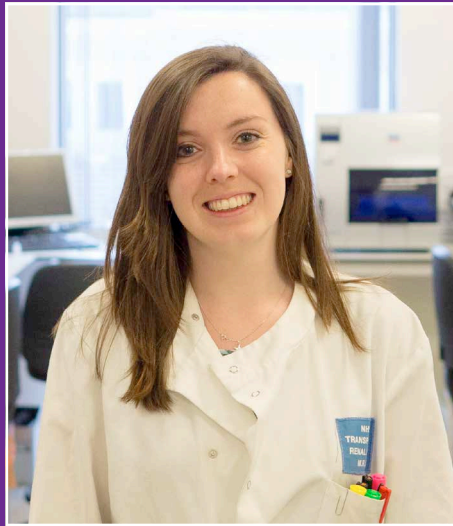
I feel the experience has equipped me with knowledge about research which will be invaluable when doing my final year project. The experience also helps me understand the final year lecture material much better as I understand many of the lab techniques and principles used in primary research articles.

**Tiziana Shqau,
BSc Biochemistry with
Industrial Experience**



Student case studies

Deborah Cooke Transplantation Laboratory Manchester Royal Infirmary



“ As a placement student at the Transplantation Laboratory, Manchester Royal Infirmary, I was able to observe and perform a range of clinical tests required for a patient to receive a solid organ or bone marrow transplant. On a day to day basis, I helped book in and process blood samples that the lab received. This included separating patient serum from clotted blood, extracting DNA and isolating lymphocytes from heparinised blood samples. I also conducted my own individual research project on flow cytometry crossmatching, which is usually the final test performed before a solid organ transplant goes ahead. My project compared the existing protocol for flow cytometry crossmatching at the transplant lab with a rapid protocol to see if the quicker method could be put into routine use. This meant I had to be trained on how to use a flow cytometer as well as interpret the data

it produced. It was an extremely clinically relevant project as if the rapid protocol was successful and produced the same results, it would decrease cold ischemia time of an organ and therefore improve transplant patient outcome. Also whilst at the transplant lab, I performed several antibody screening assays, which monitored the levels of HLA-specific antibodies in patients on the waiting list for a transplant. In addition, I was responsible for validating new batches of secondary antibodies for use in flow cytometry crossmatching. I gained invaluable experience working within a scientific laboratory during my placement year, as well as getting a real insight into the application of immunological science in a clinical setting.

Deborah Cooke,
Biomedical Science with
Industrial Experience



Simon Stones undertook his placement year at McCann Complete Medical in Macclesfield.



Placement providers case studies



Aimee Stapleton

HAVAS Lynx, Manchester

As a leading global healthcare communications agency, we're always striving to innovate and come up with new ideas. To support our team in achieving this, we provide a number of year-long industrial placements, with a strong intake from The University of Manchester.

In our experience, the students have been wonderful; they are enthusiastic and truly make the effort to complete tasks to the best of their abilities. In return – they are quickly integrated and prove themselves to be valued and trusted – rewarded by taking on increasingly complex tasks and quickly developing their experience and knowledge base. At LYNX, our students will work as part of a team to produce a mix of print and digital communications tools (whether it be websites, or mobile applications for example) and there is plenty of support available as they take on

client communications and generate briefs for our internal creative teams. We have a fantastic record in hiring our Placement Students into permanent roles following their graduation; equipping us with a strong team of Juniors who have a thorough business and industry understanding, putting them in good stead to quickly advance to more senior positions within the company.

We look forward to continuing our work with Placement Students and have no hesitation recommending this scheme to other employers. Not only does it aid long-term recruitment for your business, but it's incredibly rewarding to see individuals develop and grow as they begin their career with you.

Aimee Stapleton,
Recruitment & HR HAVAS Lynx, Manchester

Dr Derek Radisky

Mayo Clinic Cancer Center, Jacksonville, Florida

I have been fortunate to have three excellent placement students in my laboratory. The first returned to Mayo Clinic as a graduate student, and recently graduated with her Ph.D., defending a truly outstanding thesis. The second has begun a Ph.D. program at Manchester University, and the third is finishing her final year of undergraduate training at Manchester. While the students were very different from each other, every student contributed meaningfully to their project. Additionally, this period in their educational career is particularly important, as they are beginning to integrate the knowledge they have acquired and apply it to more complex

problems, and even more important, to learn how to organize these new thoughts and newly acquired results and present them to the research group. I have enjoyed working with them to improve their results and to increase their confidence, and I have benefitted from their enthusiasm and excitement. I look forward to following their progress in their careers and to be able to act as a resource for their endeavors.

Dr Derek Radisky,
Associate Professor/Consultant,
Mayo Clinic Cancer Center,
Jacksonville, Florida

Dr Amanda Robson

Transplantation Laboratory, Manchester Royal Infirmary

This is the third year we have taken placement students and plan to take more later in the year. All of the students we have given placements to have been extremely impressive and enthusiastic. They have integrated well into the workforce and demonstrated a very mature attitude to the working environment. Each one has shown a willingness to learn and flexibility in their daily tasks to accommodate the ever changing demands on the laboratory. They have made a real contribution to the laboratory on both a day to day basis and as a result of their projects which have involved service improvements. Those who have reached the end of their degrees have secured posts within

the discipline with the highly competitive government funded Scientist Training Plan. We plan to continue to provide placements in the future as the students bring a real benefit to the department."

Dr Amanda Robson, Principal Clinical Scientist, Transplantation Laboratory Central Manchester University Hospitals NHS Foundation Trust Manchester Royal Infirmary



Placement providers say...



Over the years, The University of Manchester has been a reliable source of motivated young people. They have been an asset to various pre-clinical research projects by contributing to in vivo and in vitro model development, setting up new techniques and adapting existing protocols to an industrial environment.

**Professor Bastian Hengerer,
Boehringer Ingelheim**

We've taken on placement students every year for the past three years and have been consistently impressed by the students' enthusiasm, dedication and hard-working attitudes. Their scientific backgrounds and willingness to learn makes it easy for them to grasp our clients' industries, so that every student has quickly become an integral part of our agency. The students add immense value across many areas of our business and bring a fresh perspective to our work. We are always sorry to see them leave at the end of the year.

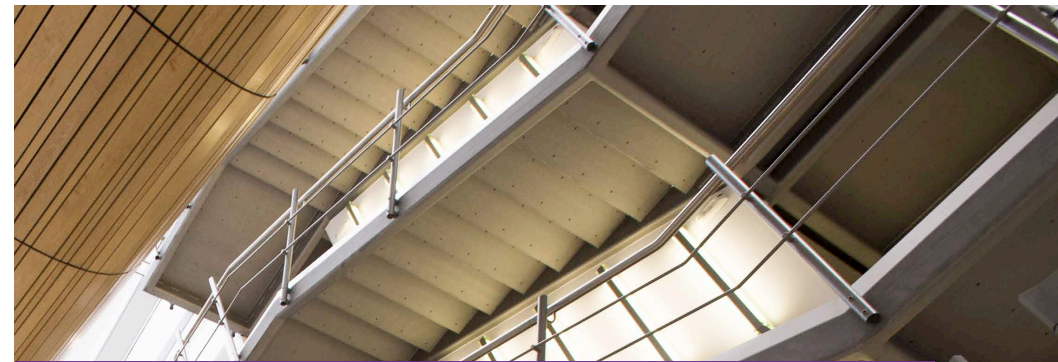
**Peter Brown,
CEO, Notch Communications UK
(Creative B2B marketing agency,
specialising in life sciences)**

Industrial placement students are a real win-win situation. The students benefit from 'real work' situations and have their eyes opened to possible avenues of work that they may not have originally thought of. Placement providers benefit from an extra pair of hands and bit of brain power, from fresh thinking and enthusiasm.

**Dr Henry McGhie,
The Manchester Museum**

In our experience, placement students are highly engaged and motivated team members to work with. They are passionate about the subject area, close to current technology and bring fresh insights and innovations to the company. Depending of the opportunities, students have worked on their own independent projects, usually a feasibility study to test the potential of a new technology or a new approach, and data from previous student projects has been used as the basis to start real company projects or have contributed to live company projects. This has given them a real flavour of what it's like to work in industry and also integrated them into the teams within the company. In fact, most of our students have returned to work for the company after their graduation.

**Dr Clément Larcher,
QIAGEN**



Placement Office Contact information:

The School's Placement Office can be contacted at placementoffice.biosciences@manchester.ac.uk or on +44 (0)161 275 1540.



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