



ENGAGING WITH STEM

Hayley Pincott, an Associate Practitioner in oral pathology and microbiology, and **Siobhan Taylor**, a Clinical Scientist in histology, look at how to raise the profile of the profession.

The 2018 Royal College of Pathologists (RCPATH) Histopathology Workforce Survey stated that only 3% of histology labs were sufficiently staffed to meet clinical needs. With it taking 15 to 16 years for consultant pathologist to become fully trained, and with a large percentage of pathologists due to retire within the next few years, it is vital that a solution is found to cover the shortage in the workforce. The report identified one area in which support could be offered is the development of the roles of biomedical

scientists to enable the uptake of the Advanced Specialist Diploma in Histopathology Reporting. This is a viable option, especially considering Cancer Research UK estimates that there will be a 40% increase in new cancer cases. The more biomedical scientists that are supported to progress into reporting routine cases, the more consultant pathologists will be freed up to work on more complex cancer cases.

In order to ensure a constant stream of new biomedical scientists into the profession and maintain laboratory staff levels, it is important to highlight the importance of the biomedical scientist role.

Public engagement

Getting involved in public engagement is a great way to develop your teamwork organisational, communication, problem-solving and leadership skills. Following on from the hugely successful IBMS twitter chat in May to discuss all things Biomedical Science Day, it was clear that many members have a whole host of successful ideas for promoting the profession.

During the twitter chat, it became evident that sharing these ideas helped give confidence to some who had never felt confident enough or didn't have the time to dedicate to coming up with their own ideas. We felt that a summary of resources might help further encourage other members of the benefits of public engagement.

There are numerous ways we can promote the profession. We can do so within our own trusts by hosting awareness events/engagement stands, displaying posters and holding laboratory tours. Within our own trusts, it is possible to raise awareness to staff, patients and the public simply by displaying the IBMS produced "sample journey" or "biomedical scientist" posters in relevant patient waiting areas.

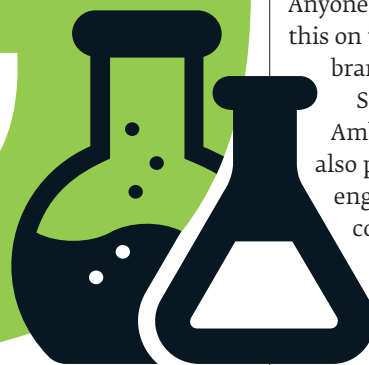
We can promote ourselves to the public by getting out into schools and the community through participating in careers fairs, school workshops and presentations.

Harvey's gang

One group that has proven how information and education is vital in alleviating fear is Harvey's Gang. The initiative was set up by IBMS member Malcolm Robinson in memory of a young patient, Harvey Buster Baldwin. Harvey was diagnosed with acute myeloid leukaemia aged six and was curious about what happened to his samples after his blood was taken countless times. Malcolm showed Harvey around the lab and answered many of his questions, and it was having this



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knowledge that helped Harvey to find his hospital stay less intimidating.

Seeing Harvey coping better with his hospital stays obviously had a hugely positive impact on his family as well. Harvey's Gang is now active across 102 sites in many different countries, including the US, which has the potential to reach 1,800 sites. Harvey's Gang is a perfect example of how we can make a

difference to patients – the empowering nature of what knowledge can bring and the positive effect that it can have for each patient.

Resources

Inspiring the next generation of biomedical scientists is critical to ensure that we have a continuous workforce supply. This can be achieved through local school engagement via workshops, presentations or careers fairs. Generic presentation can be downloaded from the IBMS, RCPATH and NHS England websites (see the "Further resources" overleaf for more information).

There are many resources available online, including practical activity ideas on the IBMS website, there are discipline-specific practical ideas and RCPATH has a large catalogue of practical activities and handouts aimed at a variety of ages. It also provides a loan service of a large human body cut-out (for which you need to give one month's notice and contact the RCPATH's public engagement team). Anyone running an event can register this on the RCPATH website and request branded freebies.

Signing up to the STEM Ambassadors Programme can also provide additional support for engaging with young people who are considering working in or studying STEM subjects. STEM has a number of learning and development opportunities, along with useful resources that will enable you to have maximum impact.

Students

Reaching out to secondary school pupils, especially those who are further on in their education and considering and exploring various career options, is important. Carrying out hands-on activities is a way to engage all pupils, as not only does it highlight our role, but it demonstrates to the pupils how theory is

put into practice and how the things they learn in the classroom apply in a practical way in the workplace.

It is important to stress the significance of completing an IBMS-accredited degree in order to become a biomedical scientist, also explaining the various roles in the laboratory, as some students might find they enter the lab in a supporting role to help them gain experience to complete their registration portfolio.

The IBMS has numerous promotional materials available to members. Along with promotional posters and freebies, there are many leaflets and booklets, with relevant information about progressing as a biomedical scientist. Members can request promotional materials via an online form. After the event, download the news pro-forma and produce a small write up of the event, including any photos making sure consent has been sought.

Additionally, the IBMS has produced a *Superlab* comic, aimed at 7-11 year olds.

If pupils are engaged with a subject early on, then it's possible to maintain that interest as they get older and start progressing in their education at secondary school.


Funding

Not only can developing ideas to showcase biomedical science be daunting, there can be an issue with funding to carry out activities. The IBMS has a grant worth up to £500 for public engagement events for Biomedical Science Day. The funding should be used for promotional items, giveaways, communication items, refreshments, and the hire of space. RCPATH has a public engagement innovation grant scheme up to £1000 grant, which can be used towards public engagement projects and schemes, raising public awareness and can also be used to help develop communication skills of pathologists and lab scientists. The IBMS also hosts science communication training, which is carried out once a year. The cost of the training is £150, however, if the



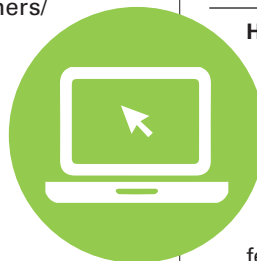
attendee hosts or assists in two events in the year following the training, then the workshop is free. Once the standard training is completed there is the opportunity to attend RCPATH advanced science communication training, which again is run once a year. Another way to reach out to the public is by setting up a blog, and the IBMS website features advice

on how to write blogs and set them up.

There are many other societies that offer their members funding and grants that can be used towards public engagements, for example, the Microbiology Society and the Biochemical Society. Often, schools can apply for grants to help cover the costs of getting someone in to host an event, the British Science Association offers “kick-start grants”, which schools can apply for that can be used for events for British Science Week. Many of these societies also provide online resources that can be used to help with public engagement. 

FURTHER INFORMATION AND RESOURCES

- ✓ careers.ibms.org/teachers/activities
- ✓ rcpath.org/discover-pathology/discover-pathology-resources/activities-and-resources.html
- ✓ stem.org.uk/resources
- ✓ rsb.org.uk/education/teaching-resources
- ✓ e-bug.eu
- ✓ microbiologysociety.org/education-outreach/resources.html
- ✓ wisecampaign.org.uk
- ✓ yourgenome.org/resources



Hayley Pincott is an Associate

Practitioner in oral pathology and microbiology and has worked in various disciplines of pathology for about 18 years. She is a STEM Ambassador and has carried out workshops at schools, science festivals, and Techniquest.

Siobhan Taylor is a Clinical Scientist in histology, currently leading the HER2 and molecular pathology services. She is the current recipient of the Chief Scientific Officer (CSO) WISE Fellowship, a joint initiative between the CSO and WISE (a campaign for gender imbalance in science, technology and engineering).