The future of public engagement: Biochemical Society and beyond

Last November, the British Science Association held its inaugural Huxley Summit, titled Trust in the 21st Century. Named for Thomas Huxley (Darwin's Bulldog), who was instrumental in bringing Darwin's theory of evolution to the general public, the event aimed to capture the spirit of public debate, engagement, and interest in a high profile arena – and, crucially, involve people from beyond the boundaries of science. In a period of time when, apparently, "people in this country have had enough of experts" how do we as scientists rebuild this trust?

When the Committee on the Public Understanding of Science (COPUS) was formed in 1985, much of its work was founded on the deficit model; suggesting that the public’s mistrust of science came from a lack of understanding of the current work being done. Thankfully, this rather condescending, top-down, didactic approach has been replaced with the more modern sounding ‘public engagement’. More than just a change in terminology, this has been a shift towards a two-way dialogue between research and the public, which benefits both sides and aims to inform, consult and collaborate. And I’m pleased to report that public engagement is in rude health. The range of opportunities for members of academia and industry to engage the public is vast, with a different approach suitable for almost every conceivable taste.

This year the Biochemical Society is taking a themed approach to its public engagement, with that theme being genome editing. We will be running activities at festivals and events, as well as holding public debates and lectures on the rise of these new technologies. As the Nuffield foundation has highlighted in its recent work on the subject, genome editing is a perfect example of the need for a dialogue with the public about current research. As scientists make rapid and potentially game-changing progress, it is crucial that we as a society discuss openly the limits to how we wish to use this technology. The ethical debate is one that cannot be confined to scientists.

But public engagement (PE) shouldn’t be seen as a service expected of researchers; when done correctly it is beneficial to both sides. As well as developing improved communication skills, researchers are able to get feedback on their work, gain new perspectives and ideas, collaborate with people from different fields, make connections, strengthen the pipeline of future scientists, demonstrate impact, and build public trust, accountability, relevance and responsiveness.

So, we know it’s important, and I know from personal experience that there is a lot of enthusiasm about public engagement, but if you’ve never done any before, where do you start? A good place to begin your journey into the realm of PE would be to sign up for one of our free training events. In collaboration with the Royal Society of Biology, we are running a public engagement primer at 10 locations around the UK and Ireland. The aim is to give undergraduate and early career members the opportunity to learn about the principles and practicalities of engaging the public along with hands-on experience of running activities. Delivered by PE experts, Science Made Simple, the courses will give you everything you need to get started. If you can’t make it to one of the events, you can still access the Society’s archive of outreach and PE activities via our website.
to run for yourself. If you’re looking for a bit more of a guided start, look out for when the education team will be attending events in your area (on the website or social media), we’re always happy to have volunteers or even just a chat about public engagement. Check our website’s public engagement page for a list of events and resources or send us an email at education@biochemistry.org.

For many researchers, running stands at science festivals and open days will be a regular occurrence. So, how can you take it to the next level? The first stage is to step away from the comforting environment of the science literate and to head to those audiences which don’t often engage with science. The ASPIRES 2 project being run by Professor Louise Archer at King’s College, London shows the importance of engaging with audiences of low science capital; those members of the public who have had little contact, interaction or experience of science in their everyday lives. (If you’ve not come across this principle, look at the further reading section to find out more) Taking your science activity to shopping malls, food festivals, book fairs, art galleries, music festivals, football matches, pubs, air shows and national parks, can really bring you to an audience who you might ordinarily miss. To help you with this, the Society’s Scientific Outreach grants offer up to £1000 for activities that communicate the excitement of molecular bioscience to young people and the community. There are two rounds a year which close in April and September, and we are always looking to fund novel and innovative PE activities. Details of these can be found on the grants section of the Biochemical Society webpage.

This of course, means that you might have to think carefully about how you are going to engage with these audiences. The first thing to consider is how you’re going to reach the audience; it’s likely that you will have to go to them. Instead of science festivals and museums, try going to food festivals and football matches! Could you run activities at a vacant shop in the local mall for a day? How could your research link into an air show? Could you demonstrate the science of sun protection at the beach? Do you have a talent for comedy or drama? Are you musical? How can you communicate your work in a different light?

Of course, in the spirit of proper public engagement, the planning of your activity should be a collaboration which includes members of the community that you are targeting. Every audience will be slightly different; working with them to understand their particular needs and challenges will ensure an effective interaction.

And really, that’s the key. It doesn’t matter so much what your PE activity is, the important aspect is that it starts a conversation; a two-way dialogue between you, the researcher, and a member of the public. This is where the real magic happens; it’s unpredictable, surprising and when everything is going right, absolutely joyous.

Remember, you’re not alone on this journey. There is loads of help and guidance out there; check the further reading list for inspiration and read on below to hear about how you can get involved with the British Science Association.

**British Science Association**

**Christina Fuentes Tibbitt**

(Engagement Manager, British Science Association)

The British Science Association (BSA), previously known as the British Association for the Advancement of Science, is a charity that was founded in 1831, and works to create a world where science is seen as a fundamental part of our society and culture.
The BSA organizes major initiatives across the UK. These include British Science Week, the largest grassroots celebration of science in the UK, and the British Science Festival, Europe’s longest-standing national science event which connects people with scientists and engineers from across the globe.

In addition, they support regional and local events through their network of volunteer branches and organize programmes for young people in schools and colleges, including the CREST Awards. They also run specific activities and training for professional science communicators; undertake research and policy work; and seek to influence and collaborate with stakeholders, including policy makers and opinion formers.

Through these programmes there are many ways in which you can get involved and make a difference to the BSA and its vision. The BSA believes that volunteers are the best people to connect with a broad range of audiences. Volunteers contribute time, energy and talent, as well as generate enthusiasm and help extend the BSA’s vision across the UK. In return, the BSA ensures that their volunteers’ contributions are recognised and supported, for example, by providing funding opportunities, promotion of their events, and rewards and recognition.

The annual Sir Walter Bodmer Award for Volunteering and the Branch of the Year Award both publicly acknowledge the contributions that specific volunteers and branches have made to the BSA. The volunteering opportunities available at the BSA are outlined online at: www.britishscienceassociation.org/volunteer. Examples of how you can get involved include advising the BSA on scientific developments, mentoring students doing a CREST science project, or speaking at the British Science Festival. You can also register as a speaker on their new event platform, Science Live (www.sciencelive.net). Science Live connects event organizers, science speakers and event volunteers together, making organizing and participating in science events that much easier.

“What I enjoy most about volunteering with the British Science Association is being involved in promoting science in the community through a well-respected organization – with easy access to support and funding.” – anonymous feedback from the BSA 2015 Volunteer Satisfaction Survey.

In addition to volunteering, you can also become a BSA member for just £3 per month. Your membership will support major initiatives across the UK, giving people from all ages, backgrounds and communities the chance to explore, investigate, and discuss science.

As a member, you will receive a whole host of benefits including: exclusive opportunities to get involved with their work throughout the year, special offers with selected partners, and priority booking for special events. More information on membership can be found at: www.britishscienceassociation.org/membership.

So, if this has sparked your interest and you’d like to find out more, visit the websites mentioned above or contact the BSA directly at: info@britishscienceassociation.org They would love to hear from you!

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**Further Reading**

- Science Communication Competition - http://www.biochemistry.org/Getinvolved/ScienceCommunicationCompetition.aspx
- National Co-ordinating Centre for Public Engagement (NCCPE) - https://www.publicengagement.ac.uk/
- British Science Association - http://www.britishscienceassociation.org/
- Wellcome Trust - https://wellcome.ac.uk
- Royal Society Partnership grants - https://royalsociety.org/grants-schemes-awards/grants/partnership-grants/
- Bright Club - http://brightclub.org/
- FameLab - http://www.cheltenhamfestivals.com/about/famelab/
- Dance your PhD - http://gonzolabs.org/dance/
- Pint of Science - https://pintofscience.com/
- BiG STEM Communicators network - http://www.big.uk.com/
- Big Bang Fairs - https://www.thebigbangfair.co.uk
- ASPIRES 2 - http://www.kcl.ac.uk/sspp/departments/education/research/ASPIRES/Index.aspx