

# What is a scientific conference?

Caroline Wood

*With so many research groups across the world, it can be difficult for scientists to keep on top of the latest developments and findings. As well as publishing in journals (such as Nature or Science), researchers communicate their results at scientific conferences. These range in size from small, specialist meetings of about 20 people, to huge international events attended by thousands. So what exactly happens at these gatherings?*

**Caroline Wood** reports from the 37th meeting of the International Union of Physiological Sciences (IUPS), held in July 2013 in Birmingham.

A small, specialist scientific meeting may attract about 20 people. The IUPS 2013 meeting was much bigger than that – over 3000 people attended. It was held at the International Convention Centre in Birmingham. Physiologists study how living organisms function; in particular, how organs, cells and tissues work to carry out essential life processes.

## Arrival and registration

Delegates typically register months in advance. They sign in and collect their welcome pack on arrival. Conferences are advertised in scientific journals or through posters and emails sent to research departments. Some are singular, one-off events whereas others occur on a yearly basis; the IUPS conference happens every four years and requires considerable preparation, as Nick Boross-Toby, Director of Events and Marketing for IUPS explains:

*“IUPS 2013 was eight years in the planning. An event of this nature; including over 100 symposia, 35 keynote lectures, 700 speakers and over 3000 participants requires meticulous attention to detail, a robust project plan and a very thick skin! This was truly a team effort involving every single member of the Society’s staff, a number of Society Members and our superb team of volunteers.”*

### Key words

conference  
communication  
physiology  
publishing



The entrance to the IUPS 2013 meeting, at Birmingham’s ICC



Delegates sign in and collect their welcome packs.

## The conference programme

Each delegate is given an Abstract Book which includes a short summary for each seminar and lecture. At a large conference, multiple sessions may be held at once, so attendants must choose which events best suit their research interests. The Abstract Book also contains an inventory of the poster displays, allowing scientists to find colleagues working on similar topics.



The stairs are marked to show the long history of IUPS conferences, held every four years.



Delegates study the conference programme at IUPS 2013.

## Plenary lectures

Each day is usually divided up into plenary lectures and seminars. At plenary lectures, distinguished scientists are invited to speak on a keynote topic of broad interest; as these are attended by many delegates they are held in the main auditorium. At IUPS 2013, the plenary lecture themes included the circadian clock, the effects of hypoxia in the womb, and the ecological impacts of climate change.



Plenary lectures were held in the main auditorium at IUPS 2013.

## Seminars

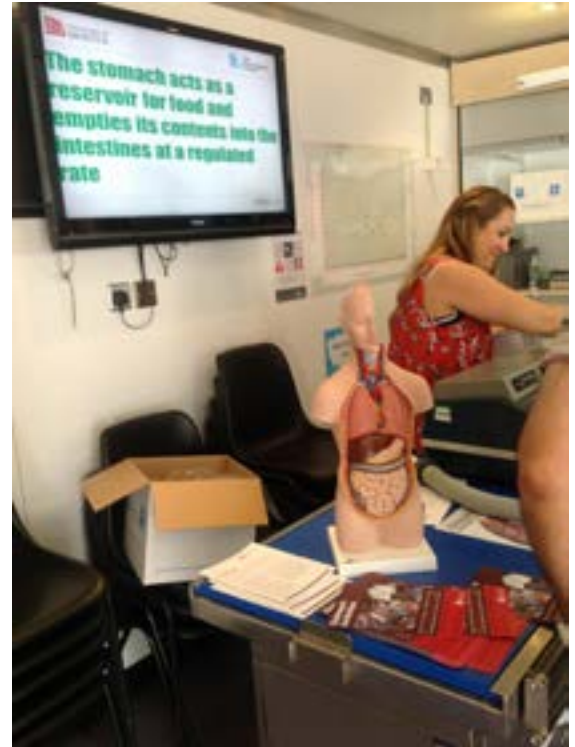
Research seminars cover more specific topics than plenary lectures and are held in smaller rooms. They consist of a series of short talks, each lasting between 20-45 minutes, given by leading experts in the field. Each speaker describes the latest findings from their laboratory and what they hope to investigate in the future. After every talk the floor is opened for discussion and the audience is invited to ask questions. This is a valuable way for scientists to share ideas and research strategies. Dr Daniel Whitcombe, speaking at IUPS 2013 on the physiological basis of Alzheimer's disease, describes the process of compiling a talk for a research seminar:

*"You're given an indication of a remit...the next part of the process is thinking about what you want your key message to be. Often you have very limited amounts of time to explain to an audience not as familiar with your research as you are. The main challenge is to put across your message in a simple, clear, concise way."*

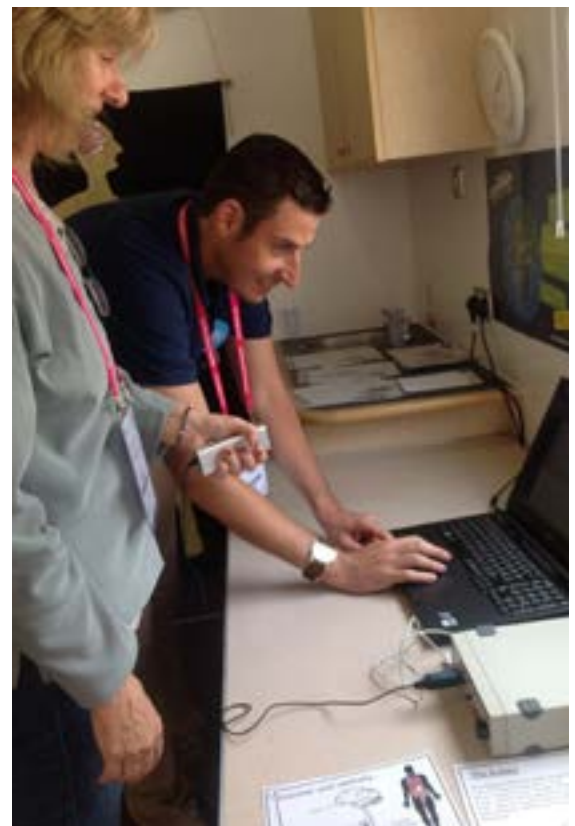
## Public outreach

Some conferences hold public outreach events to promote their particular branch of science. At IUPS 2013, a mobile 'lab in a van' offered the public the chance to measure their lung volume, estimate their fitness with a heart rate monitor or explore the structure of the inner ear using a giant model. Hannah King, from the University of Bristol and one of the organisers of the mobile van, enthused:

*"It's a really good way to link universities and real scientific research to the general public. They might give money to a charity for research into a disease and this is a good way for them to meet real scientists to see where that money goes. It gives children hands-on activities that they may not get the opportunity to do in schools. By raising awareness in the public of how their bodies work, hopefully we can inspire them to make better choices about how they live their lives."*



Hands-on activities at the 'lab in a van' at IUPS 2013

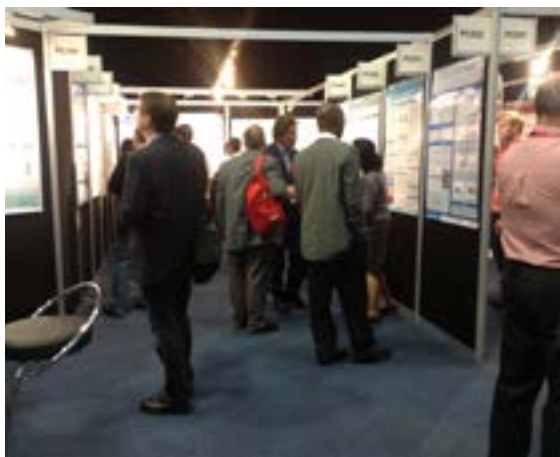


A visitor has their blood pressure measured.

## Posters

Most conferences give the opportunity for PhD students and early career scientists to present their work in the form of posters. Each person is given a specific session where they must be present to “defend” their poster and answer questions from those who are interested in their work. These are good networking opportunities, as they allow young scientists to meet researchers from labs they may like to work with in future. Prizes are usually awarded to the best posters, with the judges often being selected from the speakers at the research seminars. Dr Susan Deuchars, from the University of Leeds and a poster judge at IUPS 2013, describes what she looks out for:

“The presenting student must be able to justify their approaches and put their results in the context of the work of others and have feasible ideas for moving their research forward. There should be one strong message, the poster shouldn’t be over-cluttered.”



The poster exhibition at IUPS 2013; prizes are awarded for the best posters presented by students.

## Trade stands

Larger conferences often invite companies producing scientific equipment to exhibit their wares, giving researchers the opportunity to try out the latest, cutting-edge technology. Scientific journals may also have stands to encourage scientists to publish their results with them. Libby Collingburn, European Manager of the company Proteintech™ explains how conferences are a vital link between researchers and companies:

*“(Hosting a stand at a conference) gives the opportunity to meet scientists doing real work at the forefront of research and to discover the new techniques and applications they are working on and how your products are involved. It also means that we can open up to the brand to a wider audience.”*



Trade Stands at IUPS 2013

Caroline Wood is a postgraduate student at the University of Sheffield.

### Look here!

*It must be true – I read it in the paper!* CATALYST September 2007 pp 16-17  
*Publish or perish – Getting into print* CATALYST September 2009 pp 9-12



The hall where commercial organisations exhibited their wares at IUPS 2013