

'MEET THE SCIENTISTS'



STEM Ambassador Hub Merseyside & Cheshire

Context and Overview



STEM Ambassador, Dr Laura Bonnett, is a National Institute for Health Research (NIHR) Post-Doctoral Fellow, estimating time to next event for patients with recurrent conditions such as epilepsy and

asthma. From 2013 to 2015 she was a post-doctoral research associate at the University of Liverpool, within the Institute of Translational Medicine and the Institute of Global Health and from 2008 to 2013, whilst also completing a part-time PhD, she was the study statistician on a NIHR programme grant predicting outcomes for epilepsy treatments. Laura is also the Associate Editor of 'Diagnostic & Prognostic Research', a member of the Royal Statistical Society (RSC) Education & Statistical Literacy Committee and Chair of the RSC Merseyside Local Group. In addition to regular professional speaking engagements, she somehow finds time to volunteer as a STEM Ambassador!

Laura has taken part in a wide range of STEM Ambassador activities, including careers fairs, in-class curriculum support for the statistical elements of the A-level Biology syllabus and a range of hands-on activities and demonstrations. She, along with other STEM Ambassadors from the Department of Biostatistics at the University of Liverpool, has also been part of the highly successful 'Meet the Scientists' events coordinated by the university's Faculty of Life Sciences Public Engagement Officer, Laura Winters, in partnership with the World Museum Liverpool.

The 'Meet the Scientists' events are supported by the Wellcome Trust and are part of the Faculty of Health and Life Sciences' public engagement programme, which also includes school visits, public lectures and running events at science festivals.

Each event has a different theme and includes contributions from researchers from across the Faculty, covering a wide range of subjects. Previous themes have included such things as:

- 'Build-A-Body', exploring what animal and human bodies are made of, from the tiniest of cells all the way up to our skeleton and muscles, and how they take us from birth to old age
- 'Marvellous Medicines', which showed visitors where our medicines come from, ways we can treat illnesses and stay healthy and what the marvellous medicines of the future might look like
- 'Alive' which explored the diversity of life forms and habitats from plants to microbes and animals and included activities which explored the hidden superheroes in our body, and a giant circulatory system!

Laura Bonnett and a team of other STEM Ambassadors from the Department of Biostatistics attended the 'Meet the Scientists - Battle Station Infection' event on 27th January 2018.

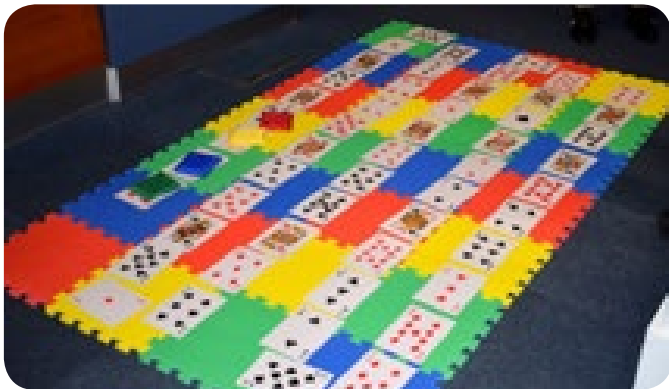


From L to R: STEM Ambassadors Andy Cutts, Sarah Gorst, Andrea Jorgensen, Laura Bonnett, Maria Suddell and Juhi Gupta.

The team provided three hands-on activities to provide visitors with an insight into their research and its applications.



The first activity, 'Meerkat Mix-Up' enabled the visitors to determine the weight & gender of their chosen meerkat and to use growth chart information to ascertain whether or not the animal would pass quarantine restrictions.



The second activity, "Sociable Cards", asked visitors to move coloured bean bags along a 'snake' of playing cards, according to the number of the playing card on which they landed. Despite the seemingly random series of moves, players landed on a predicted final card.



The third activity 'Can you Beat The Bolt?' measured visitors' reaction times for catching a falling ruler. The position on the ruler where each person caught the ruler was plotted on a graph and each individual's result compared with that of Usain Bolt!

Impact on young people

HUBMC staff attended the event with Laura and the team, spoke with visitors and collected some evaluation data throughout the day.

The young people spoken to were all primary or early KS3-aged and were overwhelmingly positive about the experience provided by the event generally, the impact on their own learning and that of the care-giver who had brought them along to the event.

Kids

What do you think of the event overall?

Brilliant	92%
Pretty Good	8%
OK	0%
Rubbish!	0%

Does coming to events like this help you do better in school?

Definitely - loads	76%
Yes - quite a lot	20%
Probably - I think so	4%
No - I don't think so	0%

Do you think (whoever brought you) learns new things at an event like this?

Definitely - loads	60%
Yes - quite a lot	40%
Probably - I think so	0%
No - I don't think so	0%

I have learned

Loads	88%
Lots	12%
A bit	0%
Nothing	0%

Olivia liked the Meerkat activity best.

They were really fluffy! Mine was healthy enough to pass the quarantine test. It weighed 92 kgs. Joes' was 104kgs!

Another child spoken to, Naomi (aged 7) explained why she enjoyed coming to events like 'Meet the Scientists' saying,

I just really like getting to do the Science activities because you never know what's going to happen. It's really fun!

The event ran from 10am to 4pm and it was buzzing with life all day. It was clear that the children were fully engaged with the activities provided by the STEM Ambassadors (from both the Dept of Biostatics and various others across the Faculty for Life Sciences) and that involvement in the event had enabled enjoyment of and interest in STEM subjects.

Impact on Parents/Care-Givers

Parents and other care-givers also provided positive comments about why they felt the activities offered were valuable:

My eldest is quite thoughtful and enjoys abstract problem-solving but events like this are brilliant for my youngest son who just wants to get hands-on, dirty and stuck in!

Bringing them to activities like these helps stimulate and extend their learning. It helps them engage with things they wouldn't access at school.

I just want them to get excited about Science!

Evaluation data collected was also very positive in terms of adults' opinions about the event generally, the impact on children's learning, on their own learning and on their ability to support their children's learning.

Adults

<i>What do you think of the event overall?</i>	
Brilliant	92%
Pretty Good	8%
OK	0%
Rubbish!	0%

<i>How good do you think the event is for supporting the child's success at school?</i>	
Excellent	84%
Good	16%
Fair	0%
Poor	0%

<i>How good do you think the event is for helping you to support your child's learning?</i>	
Excellent	96%
Good	4%
Fair	0%
Poor	0%

<i>I have learned</i>	
Loads	76%
Lots	24%
A bit	0%
Nothing	0%

Hub staff were able to talk to parents about the broader STEM Learning offering and encourage them to speak to their children's teachers about it. Lots of business cards were given out! One such parent was **Julie Haegar**.



Julie was really enthusiastic about the experiences provided by the STEM Ambassadors saying 'I just want to give my children as many learning experiences as I can. I don't want them to be afraid of trying new things and these sorts of

activities really help with that.'

Since the event, the Headteacher and the Science lead from Julie's children's school, St Thomas the Martyr in Upholland, have been in touch with Hub staff to find out more about the support available via the STEM Ambassador Programme and the other STEM Learning offerings.

Impact on Other Partners

Parents and other care-givers present at the event with the children were also hugely positive about the opportunities offered through the activities provided by the STEM Ambassadors in a public venue. They were complimentary about the partnership between the University of Liverpool's Public Engagement Programme and the World Museum Liverpool, stating that the regular programme of 'Meet the Scientists' events provided an additional offering from an already well-loved and popular venue and encouraged them to visit the Museum regularly.

Impact on STEM Ambassadors

The focus of the evaluation at the event was on the impact on the child and adult visitors. However, Laura Winters, Faculty of Health and Life Sciences Public Engagement Officer, said: "The series gave us a fantastic opportunity to engage people with cutting-edge research and allow them to explore what it means to them and their lives.

"It was fantastic to see so many researchers and staff from across the faculty get involved with the series and develop their public engagement skills. We've have some really positive feedback and hope to run another series in the future."

