2016 Cambridge Science Festival
Introduction

Cambridge Science Festival is committed to engaging the public with science, technology, engineering, mathematics and medicine. In 2016, the Festival ran from 7 to 20 March and comprised over 350 events. It attracted a wide audience of all ages from the local area and beyond, including many international visitors. The Festival is evaluated by the visiting public, comments are collated and assessed in order to improve and grow the Festival each year.

The objectives of Cambridge Science Festival are to:

- Encourage young people to study science, technology, engineering and mathematics further and to consider careers in these areas
- Engage researchers and the public with issues of scientific interest and concern
- Promote research conducted within the University of Cambridge and partner organisations
- Reach at least 25,000 visitors each year and engage new audiences in the Festival

This report shows that we continue to meet these objectives.

Cambridge Science Festival depends on the continued support, hard work, creativity and enthusiasm of colleagues in the University and other agencies, schools, institutions and businesses which take part. We thank everyone who contributed to the Festival this year; as speakers, event coordinators, volunteers, sponsors and patrons.
Overview

The 22nd Cambridge Science Festival ran from Monday 7 March to Sunday 20 March 2016 with the theme of ‘data and knowledge’ – focusing on how we manage the vast amounts of data we collect and generate to increase our understanding of the world.

- Cambridge Science Festival comprised ~360 events over 14 days resulting in ~75,000 face-to-face interactions over the two week Festival period.
- The Festival had 19 sponsors, including spotlight sponsors Cambridge University Press, MedImmune and AstraZeneca, illumina and TTPGroup and eleven partners including Anglia Ruskin University, Cambridge University Hospitals NHS Foundation Trust, Cambridge Junction, Cambridge Live and our media partner BBC Radio Cambridgeshire.
- Over 85 internal Departments, Centres, Institutes and Museums and 55 external organisations contributed to the Festival.
- Feedback was collected on event booking (2102 responses), following attendance at an event (1386 responses) and one month after the Festival (109 responses – sent only to those who agreed to be contacted again for feedback). 90% respondents to our post-event evaluation request rated the event they attended as very good.
- In addition to standard evaluation surveys, the Festival employed, through the Cambridge BID, mystery shoppers. These assessors provided an objective view of our visitors’ experience.
- The majority of visitors came from Cambridgeshire, East Anglia and London with a number of international visitors and school groups.
- The Festival website saw 469,758 unique views from the opening of event booking on Monday 8 February to the end of the Festival on Sunday 20 March (up by 95,000 on the equivalent period in 2015). During this period it was the 3rd most visited site on cam.ac.uk (11.5% of all page views).
- Social media was used to promote events and provide a space for discussion; at the end of the Festival had 7514 followers on twitter, 7100 likes on Face Book.
- On the day bookings opened, the Festival website received 77,446 page views and 4,000 tickets were booked in first half hour of bookings being open.
- The Festival provided a space for Strategic Research Initiatives and Strategic Research Networks to discuss their research with a public audience, almost all took up this opportunity through talks, hands-on activities, exhibitions and debates.
- The Festival continues to appeal to new and existing audiences: 65.5% of feedback respondents visited the Festival for the first time in 2016, 21% have attended more than three Festivals.
- The Schools’ Road show took 17 University of Cambridge researchers to 31 primary schools across Cambridgeshire during the week prior to the Festival, engaging close to 2000 pupils. Many of the researchers were previous participants on our Rising Stars Public Engagement training course. Our second Secondary Schools Conference Day welcomed 180 pupils from across the Eastern Region and London for science lectures and a visit to a Cambridge College.
- This year the Festival included an autism friendly hands-on session at the Guildhall on Sunday morning. Support and guidance on running the event was provided by the University of Cambridge Disability Resource Centre, the Romsey Mill charity, the National Autistic Society and Claire Madge, Tincture of Museum. Feedback from participants (both attendees and event coordinators) was extremely positive.
- A formal Festival dinner was held for the first time at Corpus Christ College. The event was attended by 130 people and included an after-dinner talk by Professor Paul Fletcher.
- The Festival continued to increase the number of events specifically for teenagers, expanded weekday early evening talks for families and repeated the very successful hands-on event for adults at the Guildhall.
Cambridge Science Festival in pictures
Cambridge Science Festival Patrons

Professor Simon Baron-Cohen  Departments of Psychiatry and Psychology
Professor John Barrow  Department of Applied Maths and Theoretical Physics
Dr Claire Cockcroft  Babraham Institute
Dr Henry Gee  Nature
Lord Rees of Ludlow  Astronomer Royal
Professor Malcolm Longair  Cavendish Laboratory
Mr Tim Radford  Journalist
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Professor Jeremy Sanders  Pro-Vice-Chancellor for Institutional Affairs
Dr Andrew Sugden  Science AAAS
Ms Carol Vorderman  Media presenter
Professor Jim Secord  Department of History and Philosophy of Science
Mr Ian Harvey  Hills Road Sixth Form College
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Professor Ron Laskey  Former Director Hutchinson/MRC Research Centre
Professor Bill Sutherland  Department of Zoology
Professor John Naughton  Open University
Professor Alan Barrell  Judge Business School

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Cambridge Science Festival Sponsors

We thank the following companies, organisations, charities and community groups for their support for Cambridge Science Festival.
Thank you

We thank the senior management of the University of Cambridge, including the Vice Chancellor Professor Sir Leszek Borysiewicz, for their support for the Cambridge Science Festival. We are also extremely grateful to our Science Festival Patrons, chaired by Professor Malcolm Longair, for their support and advice and Heads of Schools for their support for the Festivals Administered Fund. We also thank the many Heads of Departments and Institutions for their financial and staff and student time commitment.

We thank our sponsors, many of whom have been Science Festival partners for a number of years. Their support enables us to grow the Festival, programme innovative events and ensure the Festival remains free, open and accessible to all.

We also thank Steve Matthews, Tori Robinson, Eimear Cross, Jamie Brittain and Taylor Alison and all venue custodians from the University Facilities Management team for their invaluable logistical and practical support and Jamie Pilmer and his team at Central Sites Technical Services for their AV support.

We are also extremely grateful to our colleagues in the Office of External Affairs and Communications for their considerable support for the Science Festival. We would like to thank, in particular, Barney Brown and Lloyd Mann for their great work on the Festival website and events system and Lyn Traub and Louis Wenham for supporting all of the financial aspects of the Festival.

Over 900 Science Festival t-shirts were produced this year for event coordinators, event staff and for volunteer stewards. We thank each and everyone involved for their part in making the Science Festival such a marvellous event.

And a very special thank you to everyone who visited the Science Festival and explored, investigated and discussed science with us all. The 2017 Cambridge Science Festival will run from 13 to 26 March, we very much look forward to welcoming everyone to the Festival next year.
Feedback

Encourage young people to study science, technology, engineering and mathematics further and to consider careers in these areas

“The Festival is an amazing event that we have visited for many years. As the children have grown up we have changed the type of event that we attend but we will continue to visit even when they don't. Your talks have been used in homework and university applications.”

“Cambridge Science Festival is an event we very much look forward to as a family. We have been coming for a number of years and it has definitely instilled an interest and love for science in our children and it has meant we have a weekend of precious family time together.”

“I look forward to taking my two boys to the science festival events. It's a great way for them to 'experience' a wide range of science topics in small and entertaining chunks - inspirational - thank you.”

“We have been attending the science festival for many years, initially my partner and I would come together, then when we became parents we were keen to bring our daughter to events. I see it as a great opportunity to highlight that STEM subjects are things that can be of interest to girls. The availability of child orientated events is excellent.”

“Free brilliant events like this are rare, thank you for organising it.”

“My 15 year old daughter is considering pursuing a career in medicine. When you talk to a GP they all say 'don't do it'; this provided a different perspective on the medical world and was very insightful - so thank you!”

Promote research within the University of Cambridge and partner organisations

“IT's a fantastic event and an amazing opportunity to hear and see the world's leading scientists brings science alive. I learn something new every time I go to an event, just brilliant.”

“A fantastic opportunity to feel more a part of the scholarly side of Cambridge that is normally so closed off to residents.”

“I love it. It's a real highlight of the year, and it's amazing how open the departments are, and how friendly all the volunteers - and really knowledgeable.”

“We've attended for 5 years and are always enthused by everything we've attended. The organisation is fantastic, the fun or interest element for relevant events are brilliant, the variety is fantastic but always the most impressive thing is how nearly all speakers are able to enthuse/stimulate everyone in the group who have so many different levels of knowledge or experience in the subject - there are many clever people in the world but only a few can communicate things to their relevant audience as they do mostly in the Science Festival - HUGE THANKS to everyone involved - we advertise it to friends, family and to our school. It gets better each year.”

“Another brilliant Festival! Superb organisation as ever - each time I marvel at your ability to arrange so many excellent events and to carry them off with no hitches visible to those of us attending. The Science Festival and the Festival of Ideas are one of the joys of living in Cambridge - so many interesting ideas and stimulating debates. I love the opportunity to hear about what's going on outside my own field (and in the buildings I walk past every day). In the case of the Science Festival it's just what I need at the end of the long winter weeks! A big thank you to the whole team and I hope that you've been able to have a well-deserved break before starting preparations for the next one!”

Engage researchers and the public with issues of scientific interest and concern

“The Festival is a great source of learning about the discoveries and trends that mark our future day to day existence.”

“Most relevant and informative for understanding the complexity of data and medication in cancer research.”

“Professor Sir John Gurdon was an absolute model of clarity. It was extraordinary to have the privilege of hearing someone of that calibre explain their own research. In a sense the fact and content of this particular lecture was the embodiment of what the Science Festival is all about.”

“Very good and a great link for the public to realise how close science affects everyday life, and not just the 'whitecoats in labs' trying to fight diseases.”

“This event sparked a great conversation with my colleague who joined me as well as with my partner who didn't attend! Overall, it was a great event with a panel that handled passionate questions from the audience very well.”

“Wow, what a brilliant event. Both myself, little subject knowledge, and my daughter, A level computing student, really benefitted and enjoyed it. The speakers were both excellent and entertaining.”

“This was an excellent lecture - full of new observations and revealing science, yet explained for the layman. I think everyone in the room learned a lot - it was compelling and surprising.”
Festival brand

As part of the overall University of Cambridge Festivals rebrand, Cambridge Science Festival introduced a new identity and colour in 2016. This included a new logo and programme style. The design, developed by local design agency The District, aimed to better communicate the quality and breadth of research explored and discussed at the Festival and its inclusivity.

The new logo was used as a ‘port-hole’ and an image of a circuit board used to represent the Festival theme of data and knowledge. The image was taken by John Krzesinski who very kindly granted us permission to use this on the programme, posters and pull-up and lamppost banners.

Events were presented chronologically within sections (exhibitions, talks, performances, films, hands-on).
Another change was the inclusion of editorial content in the form of short ‘features’ within the programme. These included thought-pieces, interviews and profiles by those participating in the Festival. To appeal to a family audience, line drawings, in keeping with the icons used for section markers, were included. These aimed to make the programme a little more child-friendly but not childish.

Two fold-out sections were incorporated into the programme as tip-ins providing maps and overviews of events taking place both weekends of the Festival. These were also available as hand-outs at events.
How the new design was received

Specific questions about the programme design and layout were asked as part of the Festival evaluation. Almost 70% of respondents to our feedback request agreed that it was easy to use the new programme style and many preferred it to the website as a source of information.

“The newly designed programme booklet is set out well - dividing events into categories works better than putting everything together in chronological order.”
“New format of programme with weekend pull-out sections was much easier to use: it’s nice to have events categorised.”
“The calendar inserts for the weekends are very helpful, consider perforating these so they can be easily torn out and carried around.”
“The programme much better reflects the high quality of the events within the Festival.”

“This year’s booklet was more confusing than last year’s. Simpler is better.”
“The new printed booklet wasn’t easy and clear to read. The one from 2015 was much better designed, with the bookmarks on the edges of pages making it easy to find the events.”

Overview of the Festival

Marketing and publicity

The marketing plan for the Cambridge Science Festival comprised two phases. The first phase was used to raise awareness of the upcoming Festival, through programme and flyer distribution, lamp post banners, general posters, University of Cambridge What’s On email listings, press releases to both local and national contacts and pre-Festival interviews on BBC Radio Cambridgeshire.

- To maximise impact within budget, the number of programmes produced was decreased from 45,000 in 2015 to 35,000 in 2016 and the number of A6 flyers increased to 125,000. Programmes were distributed to over 3000 addresses through mail-outs and made available in large numbers at public spaces including libraries, book shops, pubs, Tourist Information Centres, cafes and community centres. Flyers were distributed through door-to-door and business distribution services and enabled us to reach a much larger number of places and people and geographic area than previously, at a reasonable cost.
- The lamp post banner campaign extended from the Cambridge Biomedical Campus on the southern side of the city, to the West Cambridge site of the University of Cambridge off Madingley Road.
- General Festival posters were displayed on City Council advertising boards throughout Cambridge and digitally on advertising screens in the Central Cambridge Library and University of Cambridge venues.

The second phase focussed on marketing specific events to target audiences through online listing sites, dedicated mailings, media interviews and event posters on railings throughout Cambridge. Targeted Cambridge Science Festival e-bulletins on the University of Cambridge ‘What’s On’ email bulletin proved very effective, resulting in distinct peaks in event bookings.

The Science Festival website, social media strands and press coverage complemented and extended the impact of these marketing and publicity drives.
The Cambridge Science Festival website was rebranded in keeping with the new Festival design and an improved search facility and grid layout implemented on the events listing page.

The website is the most significant channel of engagement in terms of numbers – 469,758 unique page views from when bookings opened on Monday 8 February to the end of the Festival on Sunday 20 March. During this period the Festival website was the third most visited site on all www.cam.ac.uk pages (11.5% of all page views).

Features articles from the Festival programme were promoted through the website along with 26 speaker spotlights and three Festival films, a first for the Festival. These thought pieces, produced by Cambridge FilmWorks, featured:

Professor Lord Martin Rees - speaking about our future as a species and artificial intelligence.
Professor Dame Athene Donald - on how scientists working together can open up new vistas and how multi-faceted teams are crucial to success.
Dr Lydia Drumright - explaining how and why big data is revolutionising healthcare. ([http://www.sciencefestival.cam.ac.uk/features/festival-films](http://www.sciencefestival.cam.ac.uk/features/festival-films))

There are still issues with website functionality and usability which need to be addressed particularly as we decrease the number of printed programmes produced:
"The website is not easy to use, neither it nor the book allowed me to see a list of everything on one day.
"Website needs to be better designed for ease of access and navigation."
"It was very hard to search for events without already knowing about them."

And we must continue to ensure that information is available through print and telephone routes to ensure that the Festival is accessible to as many people as possible.
"I love the Science Festival and have attended events since it started. Now it is becoming more and more digitally dependent it is more and more difficult for me to access. Like many of my age I am not a very competent silver surfer. I suspect this is difficult for anyone from Cambridge University to understand or comprehend."

Social Media

Face Book (facebook.com/cambridgesciencefestival) and Twitter (@camscience #csf2016) continue to prove very important ways to build interest in the Cambridge Science Festival, promote events and provide a voice and platform for visitors and contributors.

- Levels of engagement and interaction through social medial channels increased dramatically through the Festival period.
- Twitter followers reached 7514 at the end of the Festival (from 6157 at end of the 2015 Festival).
- Tweets earnt 358K impressions from when bookings opened until the end of the Festival.

<table>
<thead>
<tr>
<th>Month (2016)</th>
<th>Number of tweets sent</th>
<th>New followers</th>
<th>Profile visits</th>
<th>Mentions</th>
<th>Tweet impressions</th>
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<td>133</td>
<td>298</td>
<td>10900</td>
<td>1078</td>
<td>236000</td>
</tr>
</tbody>
</table>

- Face Book likes at the end of the Festival were 7208 (from 5674 at the end of the 2015 Festival)
• Face Book was used as a notice board, promoting events and linked research.
• The age distribution of people who like the Festival Face Book page is broadly similar to that in 2015. Women make up 51% of our followers with the majority in the 25-34 year age category.
• The Festival Face Book audience is located throughout the world – the majority in the UK at 44%, 6% in the USA, 5.5% in India, 5.3% in Pakistan and 5.1% in Egypt.
• Sound cloud was used to upload audio recordings of Festival events with recordings also embedded on the Festival website, six weeks after the Festival these talks have had over 3500 listens.
• Face Book and Twitter are used strategically throughout the year to publicise research and science events from the University of Cambridge and from Festival partners and the numbers of followers/likes continues to grow post-Festival with no drop in numbers observed.

Press coverage

Widespread media coverage of research, events and speakers featured in the programme allowed us to reach a larger, geographically dispersed audience.

• 55 radio and TV broadcast packages including two national TV packages via Channel 4 and ITV, and three regional TV packages on BBC Look East and ITV Anglia.
• National and international radio coverage including BBC Radio 4 Women’s Hour, BBC Radio 4 The World at One, BBC Radio Wales, BBC Radio 4 Today programme, BBC World Service Business Daily and BBC World Service ‘Click’ radio programme.
• Two live outside broadcasts – BBC World Service ‘Click’ radio programme broadcast a live show across the world from the Festival and the Festival teamed with BBC Radio Cambridgeshire and the Naked Scientists to broadcast direct from Cambridge Science Centre. Snippets of this show were broadcast on the Mark Forrest Show via BBC Radio England.
• BBC Radio Cambridgeshire, our media partner, provided the bulk of our radio coverage. In the lead up to the Festival and each week day during the fortnight of the Festival, the station ran between one to two interviews per day on the station’s Drivetime show. A number of Science Festival speakers were also featured extensively on other BBC Radio Cambridgeshire programmes, including Breakfast, Lunchtime Live and Saturday Breakfast.

Event booking

We have continued to encourage as many coordinators as possible to use our centrally provided booking service run using Eventbrite. This has proved successful with positive comments on ease of use.

“Great that all bookings now seem to be through Eventbrite - unified & simplified.”
“I wish all the events were bookable through Eventbrite, because that was very straight forward - I tried to book something else and had to join a group, then was told I’m on a waiting list, and got so many irrelevant emails that I changed preferences, so now I probably won’t be informed if I do get a place!”

In the future we are aiming for an integrated booking form as part of the Festival website so all information is kept in-house. We are working with the University web team to see whether we can achieve this.

Event bookings opened one month before the start of the Festival and booking numbers were extremely good. Over 4000 tickets were booked in first half hour of bookings opening and over 20,000 tickets were booked by the start of the Festival, 75% of those available.
This year events were booked to 110% and, once these seats were taken, we advertised that limited return tickets would be available on the door and two reminders were sent to attendees.

- This proved successful for events in centre of Cambridge with large numbers of people turning up on spec and balancing no-show numbers. In some cases people had to be turned away.
- This policy was not so successful for events out of the city, for some events, ~50% no-shows seen and many fewer people turned up who had not pre-booked.

We have requested suggestions from Festival event coordinators and other event organisers throughout the University but have yet to find a simple solution to our high no-show rate when tickets are free. Do we need to consider opening bookings later and/or releasing tickets in stages?

Cambridge Science Festival audience

As part of our membership of the UK Science Festival network (http://sciencefestivals.uk/), audience mapping was conducted using the postcode district data collected during evaluation. Results from the Cambridge Science Festival attendee profile data indicates that the Festival attracts a broad mix of urban and rural audiences, with a higher representation of younger, more culturally active and affluent groups. The geographical reach for the Festival is largely concentrated in the Eastern Region with some audiences from Central and North Midlands.

- 66% of respondents attended the Festival for the first time in 2016, 11.4% had attended at least five Festivals, 1% at least 10 Festivals “Our first time attending, & we were impressed by the sheer scale of the festival, & the extremely helpful staff at the events, & on the phone booking lines.”
- People find out about the Science Festival in a variety of different ways: the What’s On mailing list, lamp post banners, website and information from family and friends are particularly important methods of information exchange.
- The average age of people booking events was 41 years old, 64% of those that replied were women.
- The Festival website is used by 41% of feedback respondents as their primary source of information, 28% use the programme. Anecdotal evidence suggests though that people like using the printed programme but availability is often an issue.
- 85% respondents agreed that the short event descriptions provided all the information they needed to decide whether to attend an event and 86% of respondents found interesting events online or in the programme that they were not initially looking for.

Festival evaluation

In addition to standard evaluation surveys on booking, after an event and one month after the Festival, we employed, through the Cambridge Business Improvement District (BID), a number of mystery shoppers to visit our large hands-on spaces. This is the first time this form of evaluation has been conducted at one of the Cambridge Festivals. Its aim was to give us a detailed and objective understanding of the visitor experience through the Festival and how we can improve this in the future.

All event coordinators were made aware in advance that the Festival would be mystery shopped. A total of 10 mystery shops were conducted at the Guildhall and on the Downing Site over the first weekend of the Festival and five shops were each conducted on the West Cambridge Site and on the Cambridge Biomedical Campus on the second weekend.
Key issues assessed included:

- Overall appearance - the overall venue itself and the activity visited
- Staff appearance – was it obvious who staff were and the organisation they represented
- Initial impression – were visitors acknowledged and welcomed on arrival
- Content of the activity – were visitors guided through an activity, was appropriate non-technical language used and were the presenters enthusiastic about their science
- Knowledge about the Festival - all event coordinators were provided with a list of 10 key highlights about the Festival, the University of Cambridge and the city to help their members of staff answer this question.

Overall, feedback was largely positive with survey scores ranging from 57% to 96%. The most successful events will be recognised as part of the BID Mystery Shop and Awards Programme. Individual feedback reports will be shared with event coordinators and we will offer advice and support to those who request it.

Although information about the Festival was provided to event coordinators, this information appeared not to have been particularly well cascaded to all involved on stands. This lack of Festival knowledge will be addressed going forward to ensure that all taking part are effective ambassadors for the Cambridge Science Festival and for the University of Cambridge and/or the institutions they represent.

"At every table, there was something for children to try. Everything was in working order and it was enjoyable for the children. The sections were clean and litter-free. Based on the staff interaction today, I would genuinely visit myself."
"The staff members at the event were very friendly and helpful. They gave thorough and easy-to-understand explanations of their activities and it was a lot of fun for all the family."
"Staff at the event were enthusiastic and helpful. They used the most simple language to explain their sophisticated research and let the public get a hands-on experience of science and also have lots of fun with their family and children. I was quite impressed. I would definitely have brought children with me."
"As I entered the venue I asked the staff member about the Festival. She had a very thorough knowledge and answered my questions warmly with a smile."
"The staff were not proactive and I came away from the activity with no additional knowledge gained. They did not convey any enthusiasm in their responses or inclusion."
"Some staff were helpful and polite but others got distracted while showing me the experiments and even walked away before I had finished. They used very technical language and I felt that the event would be more suitable for people with a scientific background not for the general public."

Volunteers

The Science Festival is delivered successfully each year thanks to the efforts of the entire Public Engagement team at the University of Cambridge and ~75 volunteers over the two week Festival period. Volunteers help steward events ensuring our visitors have an enjoyable and safe experience, they provide information about events, how to get between locations and act as the public face of the Festival. We are extremely grateful to them for giving their time, enthusiasm and expertise to the Festival.

"Thank you to all the organisers and sponsors. Great to see things so well attended with lots of lectures, wide variety of talks, great speakers. And thank you to the volunteers who make it all happen."
"I love it. It's a real highlight of the year, and it's amazing how open the departments are, and how friendly all the volunteers - and really knowledgeable."
"Love the science Festival - so well organised with such happy/helpful stewards."
Schools’ events

Science Festival Schools’ Roadshow, Monday 29 February – Friday 4 March

The Schools’ Roadshow continues to be an important and very popular feature of the Science Festival. This year we again focused on primary schools. This year 17 researchers, including former and current participants on our Rising Stars Public Engagement course, gave 34 talks at 31 primary schools. We thank all our researchers for giving their time to enthuse ~2000 pupils.

“The afternoon was fantastic; the children were inspired and learned a huge amount; our speaker engaged very well with the children. They were talking about their afternoon for days afterwards and couldn’t quite believe that they’d actually managed to separate DNA from fruit. In short, it was excellent.”

“All our children were actively engaged during the visit and are still enthused by sciences afterwards!”

“Children were really engaged, particularly those who rarely speak. Everyone had fun and learnt something, thanks!”

Science Festival Schools’ Conference Day, Thursday 3 March

In its second year, the Science Festival Secondary Schools Conference Day invited Year 9 pupils (ages 13-14 years) to spend a day in Cambridge. The event aimed to inspire pupils to consider applying to University and introduce them to science at the University of Cambridge.

Around 180 pupils and teachers from 14 schools attended two interactive science talks at the Mill Lane Lecture Rooms.

- Teenagers: a natural history. Dr David Bainbridge, Department of Physiology, Development and Neuroscience
- Understanding our Universe. Dr Lisa Jardine-Wright, Cavendish Laboratory, Department of Physics

followed by an introduction to higher education talk given by Schools Liaison Officers at St. Catharine’s College, Pembroke College, Peterhouse, Jesus College and Girton College, a tour of the College and the opportunity to meet current undergraduate students.

“It was really interesting to see how lectures are different to an ordinary school lesson. The lecturer was really good and engaging and taught us some really interesting facts about the human brain.”

“This day made me want to go to University and gave me ideas of what subjects I should take.”

“I now feel much more confident about attending university in the future.”

“A really informative day – aimed completely at the correct year groups who need to start becoming aware of choices, universities and application processes.”
Schools’ Zone, Saturday 19 March

Visitors to the Science Festival were given the opportunity to find out what tomorrow’s scientists are doing today in the Schools’ Zone in the Hauser Forum on the West Cambridge Site. Teams of up to eight students were invited to showcase their science project work, conducted as part of the curriculum or in after-school STEM Clubs. Around 1000 people visited this event.

Participants

- St Faights School: Goblin Racing Car
- Europa International School (Spain): A bit of science
- St Mary’s School: Exploring engineering and computer science
- Swavesey Village College: From the playground to the lab
- Bancroft’s School: Weeds
- St John’s College School: Glitter bugs and grand ideas
- Hills Road Sixth Form College: Student robotics and Lego League
- Sawston Village College: STEM with Sawston
- Stamford High School: Elephants don’t forget but do woodlice?
- The Perse School: Experiments with the Perse School
- Parkside Federation: Parkside and Trumpington Science Club – Kitchen Science
Weekday evening events

The Science Festival centrally organised 35 weekday evening talks throughout the Festival. In addition to these talks, coordinators arranged and ran 105 additional talks, films, exhibitions and demonstrations on weekday afternoons and evenings throughout the Festival. These 140 live events represented around 18,670 face-to-face interactions.

Highlights

- Our first Cambridge Science Festival dinner at Corpus Christi College with the theme ‘Fooling your senses’ with Professor Paul Fletcher, Bernard Wolfe Professor of Health Neuroscience and Honorary Consultant Psychiatrist as our after dinner speaker.
- Expanded weekday evening talks and practical sessions for family audiences enabling us to expand our reach to this age group:
  - Just add water presented by Dr Peter Wothers from the Department of Chemistry
  - Alex Hopkins lecture: Oceans, the engine of our planet presented by Dr Helen Czerski
  - Chocolatology presented by Stefan Gates and Dr Andrea Sella, UCL
  - More science pranks presented by Steve Mould
  - Physics problem solving: students event organised by Isaac Physics, Cavendish Laboratory
  - Look what chemistry has done for me organised by the Royal Society of Chemistry
  - Science at 6pm organised and run by UTC Cambridge
  - Organ transplantation presented by Professor J Andrew Bradley, CUH
  - Biologic therapeutics presented by Dr John Elvin, MedImmune
  - Circadian rhythms presented by Dr John O’Neill, MRC-LMB
  - The future is Airlander presented by Dr Barry Robertson, Airlander
- Continuation of our successful partnership with Cambridge Junction (www.junction.co.uk)
- A live audience with the Naked Scientists and BBC Radio Cambridgeshire at Cambridge Science Centre with highlights broadcast on the Mark Forrest show on BBC Local Radio and a live broadcast of the BBC World Service programme Click
- High profile sponsored events through the Festival including:
  - Cambridge University Press series - Turing’s Imitation Game; Curiosity, Chloroform and cobra poison; A tale of two icebergs; What is conservation?
  - The FameLab Cambridge Final – presented with TTP Group and FameLab UK
  - Knowledge for Nature – presented with Science AAAS
  - Designing the future: digital twins – presented with Siemens Industry Software Limited
  - Starch, milk and alcohol – presented with illumina
  - Clever solutions find inconvenient truths – presented with ARM
- Talks and panel discussions from Strategic Research Initiatives and Strategic Research Networks highlighting world-leading multi-disciplinary research across the University of Cambridge

“We enjoyed every event that we went to - all the speakers were entertaining and engaging. I will definitely be booking tickets again next year. Having such a range of events - for free - is amazing and very much appreciated.”

“Overall an amazing job, such richness, and all events well planned.”

“As ever it was great to have so much going on that you could dip in and out of, I just wish we could have attended more talks.”

“Just to say thank you to all those who helped to arrange, talk and take part in the festival. I thought the publicity was excellent and found the events I attended to be fantastic. It really was a success.”
Feedback from selected events

**Events:** Clever solutions find inconvenient truths: a history of the ARM Architecture, and the lessons learnt while building it

**Speaker:** Dr Richard Grisenthwaite, Lead Architect and Fellow at ARM

**Date and venue:** Tuesday 8 March, Mill Lane Lecture Rooms

**Event overview:** Audience ~ 180, feedback responses N=22, 96% respondents rated the event very good, postcodes: 15CB, 2PE, 2SG, 1CO, 1MK, 1IP

**Feedback:**
- “I was hugely impressed by the speaker’s ability to describe technical details with authority while also giving the broader industry context and perspective.”
- “An absolutely spot-on, interesting and enlightening presentation, pitched correctly for the audience. One of the best Science Festival events I have been to.”

**Event:** Pregnancy as a compromise

**Speaker:** Professor Ashley Moffett, Department of Pathology

**Date and venue:** Wednesday 9 March, Mill Lane Lecture Rooms

**Event overview:** Audience ~190, feedback responses N=12, 100% respondents rated the event very good, postcodes: 9CB

**Feedback:**
- “Prof Moffett was wonderfully clear and articulate in speaking about her fascinating subject. This was an excellent lecture - full of new observations and revealing science, yet explained for the layman. I think everyone in the room learned a lot - it was compelling and surprising.”
- “One of the best talks ever! Ashley Moffett covered a number of closely related topics, but made even quite technical aspects possible to understand by me as a non-specialist, (such as about the cells involved in the placenta attaching to the mother's blood supply, the problems that can occur because of the different genomes of the mother and the baby and placenta). Well-chosen slides and an easy-to-follow narrative made it informative and interesting. I left feeling I had learnt a lot.”

**Event:** Biomimetic materials: rethinking how we build stuff

**Speaker:** Dr Michelle Oyen, Department of Engineering

**Date and venue:** Wednesday 9 March, Mill Lane Lecture Rooms

**Event overview:** Audience ~240, feedback responses N=33, 97% respondents rated the event very good, postcodes: 9CB

**Feedback:**
- “Good interesting presentation; it left me thinking about the changes our society will perhaps need to espouse to be able to use such technologies widely - no more skyscrapers, for example - which may in turn be a change for the better?”
- “This was an excellent lecture, delivered at a level that any reasonably intelligent person could understand.”

**Event:** More science pranks

**Speaker:** Steve Mould

**Date and venue:** Monday 14 March, Lady Mitchell Hall

**Event overview:** Audience ~450, feedback responses N=14, 100% respondents rated the event very good, postcodes: 14CB, 3SG

**Feedback:**
- “More Science Pranks' was very well presented - VERY funny and really appealed to not only my 10 and 12 year old sons but also their grandparents (for whom this was their first science festival event!) a great family evening - we all learned loads and it didn't even seem like hard work!"
- “Excellent event, really entertaining but with good science content and pitched well across all the age groups.”

**Event:** Killing cancer

**Speaker:** Professor Richard Gilbertson, Director Cambridge Cancer Centre

**Date and venue:** Monday 14 March, Mill Lane Lecture Rooms

**Event overview:** Audience ~240, feedback responses N=12, 100% respondents rated the event very good, postcodes: 9CB, 10X

**Feedback:**
- “Brilliant speaker, makes the whole lecture more enjoyable.”
- “Well organised and presented for young people to understand. I thought that the slides were particularly well chosen for a lay audience.”
<table>
<thead>
<tr>
<th>Event:</th>
<th>How old are you really?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td>Professor Sir David Spiegelhalter</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Monday 14 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~240, feedback responses N=30, 97% respondents rated the event very good, postcodes: 21CB, 2PE, 3SG, 1MK</td>
</tr>
<tr>
<td>Feedback:</td>
<td>&quot;I saw David Spiegelhalter talking at two previous CSFs and I only went to the talk last night because it was him. It was extremely interesting, entertaining and presented in people-friendly manner, which minimal graphs yet a lot of examples and data sneaked in.”</td>
</tr>
<tr>
<td></td>
<td>“Excellent! One of the highlights of the whole week. Professor David Spiegelhalter is an amazing presenter and should be invited every year!”</td>
</tr>
<tr>
<td></td>
<td>“Prof Spiegelhalter lives up to his moniker as a Prof for &quot;public understanding&quot; - he is genuinely entertaining whilst communicating his subject. A pleasure to be there.”</td>
</tr>
<tr>
<td></td>
<td>“As always, David Spiegelhalter was both entertaining and brilliant at presenting some tricky statistical information. Learning is so much fun when the teacher is so engaged with the audience and the material. Many thanks.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event:</th>
<th>Andrew Chamblin Memorial Lecture: Harnessing the quantum world</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td>Professor Raymond Laflamme, University of Washington</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Wednesday 16 March, Lady Mitchell Hall</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~350, feedback responses N=22, 72% respondents rated the event very good, postcodes: 15CB, 1MK, 1SG, 1IP, 1SE</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“Excellent! It is always a privilege coming to these lectures because of the high quality of speaker and topic.”</td>
</tr>
<tr>
<td></td>
<td>“I studied engineering at Cambridge, and found this talk reassuringly difficult to understand. I learnt lots that will be useful in a work capacity.”</td>
</tr>
<tr>
<td></td>
<td>“I felt that Prof Laflamme’s lecture was a little too complex for a general audience but not detailed enough to be understandable to people with a background in physics but not quantum computing.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event:</th>
<th>Knowledge for nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speakers:</td>
<td>Professor Bill Adams, Dr Mike Rands, Dr Juliet Vickery, Dr Matt Walpole</td>
</tr>
<tr>
<td>Event sponsor:</td>
<td>Science AAAS</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Thursday 17 March, Howard Lecture Theatre, Downing College</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~60, feedback responses N=6, 100% respondents rated the event good or very good, postcodes: 6CB</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“I thought the panel was a fabulous collection of individuals that really brought the topic to life. Many thanks!”</td>
</tr>
<tr>
<td></td>
<td>“I found the event really though-provoking and the format was very engaging. The best part was being able to have an informal talk with the speakers, and other audience members, afterwards with drinks.”</td>
</tr>
<tr>
<td></td>
<td>“I came with my daughter (age 16) who hopes to be a wildlife conservationist. She took many pages of notes and we both found it extremely informative. It made me hopeful to see the people Cambridge has gathered into the CCI to work together for conservation. Thank you Science Festival!”</td>
</tr>
</tbody>
</table>
Weekend one – Central Cambridge

Science on Saturday one: 12 March
Science on Sunday one: 13 March

One hundred and nine events were delivered over the first weekend of the Science Festival representing around 28,500 face-to-face interactions. Family talks were again held in the Mill Lane Lecture Rooms on Saturday and in the Lady Mitchell Hall on Sunday. Hands-on activities were located around the city with a focus on the Downing Site and the Guildhall.

Highlights

- Hands-on activities with a biomedical theme were at the Guildhall on Saturday and Sunday, with a total audience of 5600 people over the two days. The Guildhall was used this year rather than the Corn Exchange (as Sarah Millican was performing there!) and proved a successful venue with two halls and committee rooms spreading the large numbers of visitors throughout the space.
- The Guildhall was open in the evening giving adults the opportunity to try hands-on activities themselves. This event was well received by both the audience and the research scientists taking part, with many groups bring their senior scientists. Numbers were lower than in 2015 and we will look to add additional activities and a bar in 2017.
- Our first ‘Hands-on at the Guildhall: autism friendly hour’ event was held on Sunday morning. Numbers were capped at 100 and everyone who had booked, turned up. Support and guidance on running the event was provided by the University of Cambridge Disability Resource Centre, the Romsey Mill charity, the National Autistic Society and Claire Madge, Tincture of Museum. Following these discussions we produced a fact sheet for event coordinators and stewards so that all involved were supported and informed. Feedback from both attendees and event coordinators was extremely positive and we will look to run this event in the future.
- Top talks for families were held in the Mill Lane Lecture Rooms on Saturday 12 March and in Lady Mitchell Hall on Sunday 13 March. Saturday talks were specifically targeted at older children aged 12+ years and Sunday talks were programmed specifically for a family audience.
- Science theatre with Ada, Ada, Ada: an immersive performance about the life of Ada Lovelace and science comedy with Robin Ince took place on Saturday at the Cambridge Union Society.
- Participants from the University of Cambridge Rising Stars Public Engagement training course were given a space in the Guildhall to run their newly designed hands-on activities and performances for the first time to our Festival visitors.
Feedback from selected events

Event: Alan Turing and the Enigma machine  
Speaker: Dr James Grime  
Date and venue: Saturday 12 March, Mill Lane Lecture Rooms  
Event overview: Audience 240, feedback responses N=23, 100% respondents rated the event good or very good, postcodes: 10CB, 2SG, 1PE, 3MK, HP, 1NN, 1NG, 1CM  
Feedback:  
"James Grime is an amazing communicator – inspiring the young and interesting the older audience. James must be one of the best guest speakers and one that has such a basis in mathematics and ability to convey the subject is rare indeed."  
"The presentation by James Grime was beyond excellent - he is far and away the best communicator I have had the pleasure to listen to. Inspirational!"  
"Greatly exceeded expectations. We will attend again next year. We were enthralled with this presentation from start to finish."  
"Really excellent talk, thank you. We travelled from Folkestone for the day and it was well worth the journey just for this talk! Very inspiring and pitched very well to teenagers and adults alike."  

Event: Shark Tales  
Speaker: Helen Scales  
Date and venue: Sunday 13 March, Lady Mitchell Hall  
Event overview: Audience ~400, feedback responses: N=25, 92% respondents rated the event very good, postcodes: 11CB, 3PE, 1IP, 3SG, 1NW  
Feedback:  
"10 out of 10 for an excellent talk. All 3 kids from 4-10 found it interesting.  
"Terrific talk. Accessible to our kids, and yet even the adults learned some new things."  
"Thank you SO MUCH for organising. This is our 2nd year coming from London and we really enjoyed it. We have seen Helen Scales at the Royal Institution in London so are big fans. She did not disappoint. Amazing! "  

Event: Hands-on at the Guildhall: Autism friendly hour  
Date and venue: Sunday 13 March, Cambridge Guildhall  
Event overview: Audience ~100, feedback responses N=17, 100% respondents rated the event very good, postcodes: 10CB, 1SG, 1PE, 1MK, 1IP  
Feedback:  
"This is a fantastic idea and opportunity for my science loving autistic son. He loved it and it was a brilliant start to the day."  
"I just wanted to let you know what a fabulous time H had at the Science festival. The fact that it was so quiet made all the difference! The exhibits were fantastic and H got so much out of the whole experience. Thank you for your input into making today so pleasurable."  
"We have been to the Guildhall. It was amazing. Our first ever Cambridge Science Festival, thank you and everyone involved so much for pulling out such an event. It was amazing and very relaxed. The kids and adults alike were at their element. So so grateful to be given such an honour and a wonderful experience for myself and my children who would have not been able to attend a mainstream event as they tend to be extremely busy."  

Event: A history of rocketry  
Speaker: Jon London  
Presented with: Cambridge Science Centre  
Date and venue: Sunday 13 March, Lady Mitchell Hall  
Event overview: Audience ~400, feedback responses N=32, 100% respondents rated the event good or very good, postcodes: 18CB, 1PE, 1MK, 4SG, 1TN, 1NR, 1IP  
Feedback:  
"It was brilliant and both my children left with new knowledge about how we got into space, and were buzzing about seeing how a rocket works."  
Excellent talk, more interesting and informative than I expected, yet still fun and very entertaining. Full marks.  
"It was really well aimed at the younger members of the audience and was entertaining for them and it was a pleasure to see them enjoying the talk and demonstrations."
Weekend two
Science on Saturday two: 19 March

The second Saturday of the Science Festival centred on the West Cambridge Site off Madingley Road with family focused talks and hands-on activities for all ages in Departments and Institutes around the site. The Whittle Laboratory opened for the first time and the School of Veterinary Medicine opened after a break of three years joining the Faculty of Mathematics, Department of Materials Science and Metallurgy, Cavendish Laboratory, Institute of Astronomy, Sports Centre and Institute for Manufacturing.

Anglia Ruskin University opened its doors on East Road for talks, exhibitions and hands-on activities as part of the Festival and Cambridge Junction hosted Tangram Theatre Company who presented the third performance in their ‘scientrilogy:’ The element in the room: a radioactive comedy about the death and life of Marie Curie.

Fifty seven events over the day enabled us to engage in ~16,800 face-to-face interactions between our Festival visitors and our research scientists.

“The Science Festival is one of the main events we go to as a family. I have taken my children every year since they were 7 years old (now 11 yrs old). We never got disappointed, as there are so many events going on and many hands-on for the children. Great and many thank you for your effort.”

“We would have liked to know that there was car parking at the individual events there and couldn’t even find the Sports Hall in our Atlas of Cambridge. We’ll know better next year! But, thanks for an enjoyable, if tiring, day.”

Feedback from selected events

<table>
<thead>
<tr>
<th>Event:</th>
<th>The science of out-of-body experiences</th>
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</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td>Dr Jane Aspell, Department of Psychology, Anglia Ruskin University</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Saturday 19 March, Anglia Ruskin University</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~150, feedback responses N=8, 100% respondents rated the event good or very good, postcodes: 4CB, 1PE, 1MK, 1LE</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“A very neat enjoyable presentation -- the presenter identified the parameters of the talk, kept to them, demonstrated good empathy with the audience all in an easy to follow format.”</td>
</tr>
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<table>
<thead>
<tr>
<th>Event:</th>
<th>Manufacturing your future: how engineers make the world better</th>
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<tbody>
<tr>
<td>Speaker:</td>
<td>Dr Tim Minshall, Institute for Manufacturing, Department of Engineering</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Saturday 19 March, Institute for Manufacturing</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~ 100, feedback responses, 100% respondents rated the event very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“This event was the most organised talk I have ever been to! The presentations and material were excellent, engaging both children and adults alike, and the references for further reading were nicely packaged up to allow us to explore further. Thank you.”</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Event:</th>
<th>Practicalities of orbital space travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker:</td>
<td>Charles Simonyi</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Saturday 19 March, Isaac Newton Institute for Mathematical Sciences</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience~120, feedback responses N=8, 87% respondent rated the event good or very good, postcodes: 1CB, 2SG, 1NN, 1MK, 1SM</td>
</tr>
</tbody>
</table>
| Feedback: | “Many thanks indeed to Dr Charles Simonyi for his superbly clear and insightful description of his expeditions to the International Space Station. The experiences and talks at the Festival are unique and provide insights to science in a highly accessible way.”

“We’ve been attending the Cambridge Science Festival for more than 15 years and always find it enjoyable. This talk, by Charles Simonyi, is one of the most engaging talks I've ever attended at the Cambridge Science Festival.”
Weekend two
Science on Sunday two: 20 March

Our Science Festival journey from bench to bedside returned to the Cambridge Biomedical Campus in 2016 and formed part of the Addenbrooke’s Hospital 250th Anniversary Open day. As a result the event was larger than previously with more of the Hospital open for visitors to discover including an operating theatre, the mortuary and the opportunity to find out more about how the Cambridge Biomedical Campus will develop in the future.

Our very effective partnerships with Cambridge University Hospitals NHS Foundation trust, UTC Cambridge, University departments, companies and research institutes on the Cambridge Biomedical Campus enabled us to host over 70 hands-on activities and talks by leading medical research scientists enabling ~10,500 face-to-face interactions.

“Thank you so much to everyone who gave up their time to give us such a wonderful insight into their working world.”
“Meet your mind was best for children, sex, smell and fruit flies was fascinating and humorous. Of Mice and Men was very sobering when talking of Alzheimer’s diagnosis. We enjoyed all the presentations, it was a well organised stimulating day.”
“The professionals were very informative. My three children (triplets, aged 16) were very interested in everything we attended, one in particular who is keen to study medicine.”

Feedback from selected events

**Event:** John Gurdon: Journey of a lifetime
**Speakers:** Professor Sir John Gurdon, The Gurdon Institute
**Date and venue:** Sunday 20 March, Clinical School, Cambridge Biomedical Campus
**Event overview:** Audience ~350, feedback responses N=28, 100% respondents said the event was good or very good, postcodes: 17CB, 2PE, 2SG, 1ME, 1MK, 1CH
**Feedback:**
“\[*
I thought the speaker was inspirational. I am neither a scientist nor a medic; however I found the lecture very accessible and fascinating."
“Sir John Gurdon was an absolute model of clarity. It was extraordinary to have the privilege of hearing someone of that calibre explain their own research. In a sense the fact, and content of this particular lecture was the embodiment of what the Science Festival is about.
“It was a real privilege to hear Sir John talk about the material that has been his passion for so many years. He is very eloquent but also very self-effacing. Having started the week with Professor Burton’s talk on the generation of stem cells in the early period of gestation of babies Sir John’s talk made a perfect end to the week.”

**Event:** Putting neurosurgery under the 3D microscope
**Speaker:** Dr Rikin Trivedi, Addenbrooke’s Hospital
**Date and venue:** Sunday 20 March, Clifford Allbutt Building, Cambridge Biomedical Campus
**Event overview:** Audience ~150, feedback responses N=8, 100% respondents rated the event very good, postcodes: 4CB, 1IP, 2SG, 1AL
**Feedback:**
“I and my children aged 10 and 13 found this lecture fascinating. The information was presented at just the right level to be interesting and easy to follow. My children would now love to be surgeons!”
“Wow, Dr Rikin is a great communicator. The images were both gripping and incredible. The sequence where the surgeon moved from the scalp through the skull down to the site of the coil to fit a new clip really demonstrated the facility the equipment gives the surgeon and those in training. A remarkable and very memorable talk.”
Strategic Research Initiatives and Networks

The Strategic Research Initiatives (SRI) and Strategic Research Networks (SRN) of the University of Cambridge build on areas of research strength by bringing together research expertise from across the six Schools of Study. Each year all SRI and SRN’s are invited to participate in the Science Festival, 2016 contributions are outlined here.

Strategic Research Initiatives

<table>
<thead>
<tr>
<th>Event</th>
<th>Big data</th>
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</thead>
<tbody>
<tr>
<td>Event:</td>
<td>Happier and healthier with smart phone data</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Dr Neal Lathia, Computer Laboratory</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Monday 7 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience: ~150, 94% respondents rated the event as very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“Amazingly well delivered and informative and friendly when answering questions. Thought the personal tone made the talk better. Looking forward to trying the app and feeding back.”</td>
</tr>
<tr>
<td>Event:</td>
<td>Will artificial intelligence be superior to the human brain?</td>
</tr>
<tr>
<td>Organiser:</td>
<td>Professor Barbara Sahakian</td>
</tr>
<tr>
<td>Speakers:</td>
<td>Dr Herman Hauser, Dr Mateja Jamnik, Professor Trevor Robbins, Professor Alan Winfield, Tom Feilden (Chair)</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Monday 7 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~240, 92% respondents rated the event as very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“The event was interesting, but I felt that we needed a philosopher to help answer some of the definitional questions that caused problems: e.g., what is intelligence / what are the types of intelligence, what is consciousness, etc.”</td>
</tr>
<tr>
<td>Event:</td>
<td>How to measure who we are: big data, phones and you in the new tech society</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Dr Jason Renfrew, Department of Psychology</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Saturday 12 March, Department of Psychology</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~ 150</td>
</tr>
<tr>
<td>Event:</td>
<td>Our digital future: which data should we keep and how will we access it?</td>
</tr>
<tr>
<td>Organiser:</td>
<td>Dr Claire Dyer-Smith, Cambridge Big Data SRI Coordinator</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Monday 14 March, Murray Edwards College</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience: ~50, 100% respondents rated the event as very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“Wow, what a brilliant event. Both I, little subject knowledge, and my daughter, A level computing student, really benefitted and enjoyed it. The speakers were both excellent and entertaining and the lecture theatre was a perfect venue.”</td>
</tr>
<tr>
<td>Event:</td>
<td>How big data analysis is changing how we understand the living world</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Dr Ewan Birney, Director EMBL, European Bioinformatics Institute</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Tuesday 15 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience: ~240, 92% respondents rated the event as very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“The event was excellent 100% enjoyable. Ewan is a great presenter. He made the subject entertaining but informative.”</td>
</tr>
<tr>
<td>Event:</td>
<td>Intelligence and learning in brains and machines</td>
</tr>
<tr>
<td>Speaker:</td>
<td>Professor Zoubin Ghahramani, Computer Laboratory</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Tuesday 15 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience: ~180, 92% respondents rated the event as very good</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“Great speaker, really clear presentation - loved it”</td>
</tr>
</tbody>
</table>
Event: Big data from small sources: today's computing demands in molecular and cell biology
Speaker: Dr Peter Maccallum, Cancer Research UK Cambridge Institute
Date and venue: Sunday 20 March, Cancer Research UK Cambridge Institute
Event overview: Audience: ~100, feedback 85% respondents rated the event as very good
Feedback: “Very interesting, most relevant and informative for understanding the complexity of data and medication in cancer research.”
“Would have preferred a little more detail.”

Event: Battling Cancer with data science
Speaker: Dr Shamith Samarajiwa, Medical Research Council Cancer Unit
Date and venue: Sunday 20 March, Cancer Research UK Cambridge Institute
Event overview: Audience: ~100, feedback 100% respondents rated the event as very good
Feedback: “I felt the talk covered an awful lot as overview in a short space of time.”

Event: Speed data-ing
Organiser: Dr Lydia Drumright, Clinical Infomatics, Department of Medicine
Date and venue: Sunday 22 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~1000 people visited the Clinical School

Event: Killing Cancer
Speaker: Professor Richard Gilbertson, Director Cambridge Cancer Centre
Date and venue: Monday 14 March, Mill Lane Lecture Rooms
Event overview: Audience ~240, 100% respondents rated the event as very good
Feedback: “Brilliant speaker, makes the whole lecture more enjoyable.”
“Well organised and presented for young people to understand. I thought that the slides were particularly well chosen for a lay audience.”

Event: Discover the world of cancer research: hands-on activities with Cambridge Cancer Centre members
Date and venue: Sunday 20 March, Cancer Research UK, Cambridge Institute
Event overview: Audience ~750

Event: Making new medicines for old diseases
Speaker: Professor Ashok Venkitaraman, Medical Research Centre Cancer Unit
Date and venue: Sunday 20 March, Cancer Research UK Cambridge Institute
Event overview: Audience ~70, 100% respondents rated the event as very good
Feedback: “Very interesting, most relevant and informative for understanding the complexity of data and medication in cancer research

Event: Harnessing our immune system to combat cancer
Speaker: Dr Maike de la Roche, Cancer Research UK
Date and venue: Sunday 20 March, Cancer Research UK Cambridge Institute
Event overview: Audience ~70, 75% respondents rated the event as very good
Feedback: “The speaker had really considered how to make the subject accessible to a non-scientific audience. The pace was good and the visuals worked well to help illustrate the points being made. I came away feeling i knew much more than I had when i walked in.

Cambridge Cardiovascular
Event: The wonderful world of blood vessels: hands-on activities
Organiser: Division of Cardiovascular Medicine, School of Clinical Medicine
Date and venue: Saturday 12 March, Sunday 13 March, The Guildhall
Event overview: Audience ~6000 people visited the Guildhall over the weekend
Conservation

Event: Beyond images exhibition and talk
Artist in residence: Toby Smith
Date and venue: Monday 7 March – Saturday 19 March, The Michaelhouse Centre

Event: Conflicted seeds and spirit
Artists: Ackroyd & Harvey
Date and venue: Monday 7 March – Sunday 17 April, The David Attenborough Building

Event: Conservation Hub
Organiser: Shelley Bolderson, Cambridge Conservation Initiative
Date and venue: Saturday 12 March, The David Attenborough Building

Event: Water, water everywhere
Organiser: Dr Iris Moeller, Cambridge Coastal Research Unit
Date and venue: Saturday 12 March, Department of Geography
Event overview: Audience ~50

Event: What is conservation?
Presented with: Cambridge University Press
Speakers: Dr Chris Sandbrook (Chair), Dr Pamela Abbott, Dr Brian Eversham, Monipher Mustapha, Dr Rosie Trevelyan
Date and venue: Monday 14 March, The David Attenborough Building
Event overview: Audience 120
Feedback: “The subject of the discussion was interesting. A pity it was let down by the environment of the room.”

Event: Knowledge for nature
Presented with: Science AAAS
Speakers: Professor Bill Adams, Dr Mike Rands, Dr Juliet Vickery, Dr Matt Walpole
Date and venue: Thursday 17 March, Howard Lecture Theatre, Downing College
Feedback: “I thought the panel was a fabulous collection of individuals that really brought the topic to life. Many thanks!”

Event: Moving muds
Organiser: Dr Iris Moeller
Date and venue: Saturday 12 March, Department of Geography
Event overview: Audience ~300

Event: Shifting Sands
Artist: Toby Smith
Date and venue: Saturday 12 March, Department of Geography
Event overview: Audience ~300

Event: Salt marshes and coastal defence
Speaker: Dr Ruth Reef, Cambridge Coastal Research Unit
Date and venue: Friday 18 March, Botanic Garden
Event overview: Audience ~50

Energy

Event: Our nuclear world
Research group: Dr Ian Farnan, Earth Sciences, Nuclear Energy CDT
Date and venue: Saturday 12 March, University Centre
Event overview: Audience ~250

Event: Out of the blue: How gallium nitride improves your life
Research group: Professor Sir Colin Humphreys group
Date and venue: Saturday 19 March, University Sports Centre
Event overview: Audience ~220
Cambridge Neuroscience

Event: Will artificial intelligence be superior to the human brain?
Event details: See Big Data

Event: A story of ups and downs for a Cambridge drug for multiple sclerosis
Organiser: Professor Alasdair Coles
Date and venue: Thursday 10 March, Mill Lane Lecture Rooms
Event overview: Audience ~100
Feedback: “Very relevant to me as a person with MS, it was well organised and great to participate in.”

Event: Brain, body and mind: new directions in the neuroscience and philosophy of consciousness
Presented with: Research Horizons
Speakers: Professor Tim Crane and Dr Srivas Chennu
Date and venue: Wednesday 16 March, Mill Lane Lecture Rooms
Event overview: Audience 240
Feedback: “An interesting, informative, and thought-provoking event.”

Event: The treatment of dementia: new directions
Presented with: Cambridge Neuroscience Public Lecture
Speaker: Professor Giovanna Mallucci
Date and venue: Thursday 17 March, Physiology Laboratory
Event overview: Audience 150

Event: Of mice and men: a solution to the problem of diagnosing early Alzheimer’s disease
Speaker: Dr Dennis Chan
Date and venue: Sunday 20 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~100
Feedback: “One of the best presentations on dementia we have heard. Realism in relation to diagnosis and cure was very good.”

Event: Hands-on cognition cafe
Organiser: Dr Tristan Bekinschtein, Department of Psychology
Date and venue: Saturday 12 March, Department of Psychology

Event: Maths and memory: how, what, where and what?
Organiser: Dr Tristan Bekinschtein, Department of Psychology
Date and venue: Saturday 12 March, Department of Psychology

Event: Smells in the brain and it is bliss
Organiser: Dr Anat Arzi, Department of Psychology
Date and venue: Saturday 12 March, Department of Psychology

Event: Get Psychd: the personality quiz
Organiser: Dr David Greenberg, Department of Psychology
Date and venue: Saturday 12 March, Department of Psychology and online at: http://www.getpsychd.org/

Event: How to measure who we are: big data, phones and you in the new tech society
Event details: See Big Data

Event: What do you think you prefer in life: the secret of decision making
Speaker: Dr Benedetto De Martino, Department of Psychology
Date and venue: Saturday 12 March, Department of Psychology
Event overview: Audience ~ 150

Event: What can a tiny nervous system do?
Speaker: Dr Paloma Gonzalez-Bellido
Date and venue: Saturday 12 March, Anatomy building, PDN
Event overview: Audience ~ 150
Feedback: “New amazing information about the nervous system.”
Event: Baby-mum brain interaction: hands-on, brains-on experience
Speaker: Dr Vicky Leong
Date and venue: Monday 14 March – Friday 18 March, Department of Psychology

Event: A tour around your ear and hearing brain
Speaker: Dr David Baguley
Date and venue: Sunday 20 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~ 100
Feedback: “Massively informative lecture from a passionate and intelligent speaker. Well planned and organised, timely start and a few minutes for questions at the end.”

Event: Putting neurosurgery under the 3D microscope
Speaker: Dr Rikin Trivedi
Date and venue: Sunday 20 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~ 150
Feedback: “Very interesting with a passionate speaker. It was very accessible for the audience.”

Infectious diseases
Event: Science in the Cinema: Contagion
Organiser: Dr Anna Davies
Date and venue: Wednesday 16 March, Arts Picturehouse

Global food security
Event: From bean to bar: the future of chocolate
Organised with: Cambridge Forum for Sustainability and the Environment and CamPlants Hub
Date and venue: 15 March, Mill Lane Lecture Rooms
Event details: Audience 170
Feedback: “Good panel choice, live and engaging debate.”

Event: Plant and Life Sciences Marquee
Event organisers: Departments of Plant Sciences, Genetics, Chemical Engineering and Biotechnology and Pharmacology, Human Evolutionary Centre, Sainsbury Laboratory, NIAB, Synthetic Biology SRI
Date and venue: Saturday 12 March and Sunday 13 March, Downing Site
Event overview: Audience 2000 people visited the Marquee over the weekend

Event: Scientific discovery trail
Organiser: Dr Elisabeth Burmeister, Sainsbury Laboratory
Date and venue: Thursday 17 March, Sainsbury Laboratory
Feedback: “The event was absolutely amazing and incredible.”

Event: Can we improve crop pollination by breeding better flowers
Speaker: Dr Beverley Glover, Cambridge University Botanic Garden
Date and venue: Sunday 20 March, Botanic Garden

Language Sciences
Event: Turing’s Imitation Game
Speaker: Professor Kevin Warwick, Coventry University
Date and venue: 10 March, Mill Lane Lecture Rooms
Audience: 240
Feedback: “The information was at a good level both for myself, with no previous knowledge of the subject, and my 16 year old daughter, who is an A level computer science student.”

Event: Baby-mum brain interaction: hands-on brains-on experience
Event details: See Cambridge Neuroscience

Event: Now you see it, now you don’t: the hidden messages in manuscripts
Organiser: Cambridge University Library
Date and venue: 15 March, Cambridge University Library
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**Public Policy**

**Event:** Eating less meat for planetary and population health: government policy or your choice?

**Organised with:** Cambridge Forum for Sustainability and the Environment

**Speakers:** Theresa Marteau, Behaviour and Health Research Unit; Bojana Bajzelj, WRAP; Julian Huppert; Andrew Balmford, Department of Zoology; Bee Wilson, author.

**Date and venue:** Wednesday 9 March, Mill Lane Lecture Rooms

**Feedback:** “Good panel choice, live and engaging debate.”

**Stem Cells**

**Event:** Stem cells: big data and personalised medicine

**Organisers:** Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute; Wellcome Genome Campus; Wellcome Trust / Cancer Research UK Gurdon Institute; and The Babraham Institute

**Date and venue:** Thursday 10 March, Murray Edwards College

**Event:** The future of genome editing

**Organisers:** Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute; Wellcome Genome Campus; Wellcome Trust / Cancer Research UK Gurdon Institute; and The Babraham Institute

**Date and venue:** Thursday 17 March, Murray Edwards College

**Event:** How to make a human and turn back time

**Organiser:** Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute

**Date and venue:** Saturday 12 March, Sunday 13 March, The Guildhall

**Event:** How to make a human and turn back time

**Organiser:** Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute

**Date and venue:** Sunday 20 March, Clinical School, Cambridge Biomedical Campus

**Event:** Stem cells: PhD experience

**Organiser:** Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute

**Date and venue:** Tuesday 15 March, Cambridge Stem Cell Institute

**Synthetic Biology**

**Event:** Plant and Life Sciences Marquee

**Event details:** See Global Food Security

**Event:** Family Science Makers

**Organiser:** Dr Jenny Molloy

**Date and venue:** Saturday 12 March, Makespace Cambridge
Strategic Research Networks

Immunology
Event: The Immune Army
Organisers: Immunology SRI
Date and venue: Sunday 20 March, Deakin Centre, Cambridge Biomedical Campus

Metabolic Network
Event: Nature vs nurture: what population genetics can teach us
Speaker: Dr Felix Day, MRC Epidemiology Unit
Date and venue: Thursday 10 March, Mill Lane Lecture Rooms
Event overview: Audience 240
Feedback: "Fabulous to have an interesting topic shared by a very knowledgeable speaker. He was a great communicator which made it enjoyable to listen to and relatively easy to understand."

Event: Starch, milk and alcohol
Speaker: Dr Giles Yeo, Metabolic Research Laboratories
Date and venue: Friday 11 March, Judge Business School
Event overview: Audience 150
Feedback: "Excellent speaker on very interesting and popular topic."

Event: The science of eating
Organiser: Metabolic Research Laboratories
Date and venue: Saturday 12 March, Sunday 13 March, The Guildhall
Event overview: Audience ~6000 people visited the Guildhall over the weekend

Event: Our marvellous metabolism
Organiser: Metabolic Research Laboratories
Date and venue: Sunday 20 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~1000 people visited the Clinical School

Nanoforum
Event: Out of the blue: How gallium nitride improves your life
Event overview: See Energy

Public Health Network
Event: Happier and healthier with smart phone data
Event overview: See Big Data

Event: Cod liver oil: old habits die hard
Speaker: Dr Marleen Lentjes, EPIC Norfolk
Date and venue: Friday 11 March, Mill Lane Lecture Rooms
Event overview: Audience ~100

Event: Baby-mum brain interaction: hands-on, brains-on experience
Event overview: See Cambridge Neuroscience

Event: How old are you really?
Speaker: Professor Sir David Spiegelhalter, Statistical Laboratory, Centre for Mathematical Sciences
Date and venue: Monday 14 March, Mill Lane Lecture Rooms
Event overview: Audience 240
Feedback: "Excellent, thought provoking, entertaining lecture. Ideas well-constructed into an interesting argument. Possibly the best event of the festival."

Event: Can we design heathier supermarkets?
Organisers: Behaviour and Health Research Units
Date and venue: Sunday 20 March, Deakin Centre, Cambridge Biomedical Campus
Event overview: Audience ~500 people visited the Deakin Centre

Event: Speed data-ing
Event overview: See Big Data
Internal Contributors

Cambridge Cancer Centre
Cambridge Centre for Climate Science
Cambridge Conservation Institute
Cambridge Conservation Research Initiative
Cambridge Graduate Orchestra
Cambridge Forum for Sustainability and the Environment (CFSE)
Cambridge Institute for Medical Research
Cambridge Union Society
Cambridge University Botanic Garden
Cambridge University Library
Cambridge University Press
Cancer Research UK Cambridge Research Institute
Centre for Existential Risk (CSER)
Centre for Mathematical Sciences
Central Sites Technical Services
CHaOS – Cambridge Hands-on Science
Christ's College
Computing Laboratory
Corpus Christi College
Department Applied Maths and Theoretical Physics
Department of Biochemistry
Department of Chemistry
Department of Clinical Neurosciences
Department of Earth Sciences
Department of Engineering
Department of Genetics
Department of Geography
Department of History and Philosophy of Science
Department of Land Economy
Department of Materials Science and Metallurgy
Department of Medicine
Department of Pathology
Department of Pharmacology
Department of Physics – Cavendish Laboratory
Department of Physiology, Development and Neuroscience
Department of Plant Sciences
Department of Psychology
Department of Radiology
Department of Surgery
Department of Zoology
Division of Cardiovascular Medicine
EPIC-Norfolk
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Estate Management
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Faculty of Classics
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Fitzwilliam Museum
Graduate School of Life Sciences
Great St Marys Church
Gurdon Institute
Immunology
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Institute for Manufacturing
Institute for Public Health
Isaac Newton Institute for Mathematical Science
Judge Business School
Kettles Yard
McDonald Institute for Archaeological Research
Metabolic Research Laboratories
Millennium Maths Project
MRC Epidemiology Unit
MRC Cancer Unit
Museum of Archaeology & Anthropology
Museum of Classical Archaeology
Museum of Zoology
Post Docs of Cambridge Society
Robogals Cambridge
Sainsbury Laboratory
Sedgwick Museum
School of Veterinary Medicine
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St John's College
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The Naked Scientists
The Polar Museum
University of Cambridge Museums
University of Cambridge Sports Centre
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Cambridge Stem Cell Institute
Whipple Museum of the History of Science
Whittle Laboratory
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ARM
AstraZeneca
Babraham Institute
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British Antarctic Survey
British Science Association Cambridgeshire Branch
Cambridge Biologists
Cambridge Buddhist Centre
Cambridge Carbon Footprint
Cambridge Conservation Initiative Partners
Cambridge Junction
Cambridge Live
Cambridge Past, Present and Future
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Cambridge Science Centre
Cambridge Science Guides
Cambridge Spanish Centre
Cambridge Sustainable Foods
Cambridge Style Week
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Centre for Global Equality
Embodyed Science
EBI - European Bioinformatics Institute
Fame Lab UK
HackLab
Hills Road Sixth Form College
Illumina
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Long Road Sixth Form College
Makespace Cambridge
Medimmune
MRC Biostatistics Unit
MRC Cognition and Brain Sciences Unit
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MRC Metabolic Diseases Unit
MRC Mitochondrial Biology Unit
NIHR Brain Injury Healthcare Technology Cooperative
NIHR/Wellcome Trust Clinical Research Facility
Romsey Mill
Royal Society of Chemistry
Sinco Labs
Skills4STEM
STEM Team East
The IET
UTC Cambridge
Wellcome Trust Genome Campus
Wesley Methodist Church