Introduction

Cambridge Science Festival is committed to engaging the public with science, technology, engineering, mathematics and medicine. In 2015, the Festival ran from 9 to 22 March and comprised over 280 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 21<sup>st</sup> Cambridge Science Festival ran from Monday 9 March to Sunday 22 March with an overall theme of Light. This linked to, and celebrated, the 2015 UNESCO International Year of Light and Light Based Technologies.

- the Festival comprised 280 events over 14 days
- this resulted in over 60,800 face-to-face interactions over the two week Festival period
- the Festival had 17 sponsors, including spotlight sponsors Cambridge University Press, the Medical Research Council, MedImmune and AstraZeneca
- the Festival had six partners including Cambridge University Hospitals NHS Foundation Trust and our media partner BBC Radio Cambridgeshire
- over 40 external organisations and over 60 internal departments, centres, institutes and museums contributed to the Festival
- a light touch evaluation was conducted (following a full external evaluation in 2014)
- feedback was collected on event booking (624 responses) and following attendance at an event (1378 responses)
- the majority of visitors came from Cambridgeshire, East Anglia and London with a number of international visitors and school groups from Denmark, France, Spain and Japan
- the Festival website saw 375,000 unique views from the opening of event booking in early February to the end of the Festival in March
- social media was used to promote events and provide a space for discussion, the Festival had 6100 followers on twitter, 5600 likes on Facebook at the end of the Festival
- the Festival app had 979 unique users, half the number that used the app in 2014
- 94% of feedback respondents came to the Festival because they were keen to know more about the topic of the event they attended
- 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: 53% of feedback respondents visited the Festival for the first time in 2015, 26% have attended more than three Festivals
- the schools roadshow took 14 University of Cambridge researchers to 33 primary schools across Cambridgeshire during the week prior to the Festival, engaging close to 2000 pupils
- the Festival initiated a new schools event for secondary schools: the Science Festival Schools Conference Day welcomed pupils from across the Eastern Region and London for science lectures and a visit to a Cambridge College, the event was organised in association with Schools Liaison Officers from St Catharine’s, Pembroke, Clare, St John’s and Newnham Colleges
- media interest in the Science Festival was high with coverage in local, national and international press, on national and local radio – including a live broadcast on local radio channels throughout England, and packages on local TV
- working with media partner BBC Radio Cambridgeshire, the Festival hosted a live broadcast of the Naked Scientist radio show across England during the BBC Mark Forrest Show
- the Festival continued its very successful partnership with Cambridge Junction who hosted a theatre company in residence during the Festival and programmed a strand of science theatre
- the Festival increased the number of events specifically for teenagers, expanded weekday early evening talks for families and included a very successful hands-on event for adults
Cambridge Science Festival in pictures
Cambridge Science Festival Patrons

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Professor John Barrow  Department of Applied Maths and Theoretical Physics
Dr Claire Cockcroft  Babraham Institute
Dr Henry Gee  Nature
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Professor Ron Laskey  Former Director Hutchinson/MRC Research Centre
Professor Bill Sutherland  Department of Zoology
Professor John Naughton  Open University
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Cambridge Science Festival Team

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Cambridge Science Festival Sponsors

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Festival Partners

Cambridge University Hospitals NHS Foundation Trust

Hills Road Sixth Form College Cambridge

UTC Cambridge

University Technical College

Naked Scientists

British Science Week
We thank the senior management of the University of Cambridge, including the Vice Chancellor Professor Sir Leszek Borysiewicz and Professor Jeremy Sanders Pro-Vice Chancellor (Institutional Affairs) 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.

Steve Homent and his team at Central Sites Technical Services were a huge help again and we thank them for their dedication, technical skills and enthusiasm for the Festival. Steve, who has been involved in all 21 Science Festivals, retires this year and we wish him the very best wishes for the future. We also thank Steve Matthews, Tori Robinson, Jamie Brittain and Taylor Alison and all venue custodians from the University Facilities Management team for their invaluable logistical and practical 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 for supporting all of the financial aspects of the Festival.

Over 800 Science Festival tee-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 2016 Cambridge Science Festival will run from 7 to 20 March, we very much look forward to welcoming everyone to the Festival next year.

Thank you
Recommendations for 2016

Programme brochure and flyers
The majority of feedback respondents find the brochure easy to use, particularly if they have attended the Festival before. However first time users and some previous attendees can find the programme difficult to navigate. We will address design issues for the 2016 Cambridge Science Festival based on feedback comments from all Festivals organised through the University of Cambridge Public Engagement team.

Following comments on programme availability, particularly out of the centre of Cambridge, we will investigate the production and distribution of both physical flyers and e-flyers across the region.

Website and event booking
Updating to the University of Cambridge website template has led to very substantial improvements in website look and performance. Addition of a search function to the website event listings page has proved successful and we plan on working with the website designer to further improve the physical layout of the events page so that it doesn’t appear as a single long list.

Event booking
Encouraging as many coordinators as possible to use the centrally provided Eventbrite booking service proved successful with very positive comments on its ease of use and effectiveness. We will encourage more coordinators to do the same in 2016 with the aim of having almost all events booked using this system.

Trialling booking events to capacity in 2015 (rather than over booking by 20%) and advertising that places would be available on the day proved successful. This was aimed at overcoming continued problems experienced with no-shows. Anecdotal evidence suggested that a number of people were happy to turn up on the night without a ticket as they had confidence that they would be able to attend the event. We will continue with this approach in the future.

Promotion of the Festival to all ages
A number of events were programmed in 2015 specifically for a teenage audience and it is extremely gratifying that this was noted extremely positively in feedback responses. Likewise our hands-on adults only event and family weekday early evening talks were very well received and we will continue to build on these initiatives in 2016.

Knowing our audience better
Audience mapping and profiling will be conducted to enable us to gain a better understanding of the geographical location and cultural preferences of our current Festival attendees. Not only will this allow us to better understand our audience but will also highlight areas where we lack reach. We hope that this analysis will enable us to better target our marketing materials, publicise the Festival more effectively and develop programming to encourage new audiences to the Festival.

Festival evaluation
We will look to do more qualitative evaluation in 2016, using observational techniques, focus groups and collection of anecdotal evidence. We hope that this will give us a better understanding of the visitor experience through the Festival and how we can improve this in the future.
Feedback
General visitor comments from pre and post evaluation responses

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

“The Science Festival is an excellent way of getting children to understand that Science is cool, fascinating, relevant to their everyday lives and important. I used to bring my daughters and their friends when they were young; one of my daughters is now studying for a PhD in Chemistry at Cambridge. She is the first from either side of the family to get to Oxbridge. Now I bring my cousin’s and friends’ children. Keep up the good work!”

“The Cambridge Science Festival is my favourite family event all year - trips to London included. The staff are brilliant with the kids - intelligent and caring and interesting and enthusiastic. We are so lucky to get access to so many fantastic Cambridge spaces of scientific study, research, and medical treatment. This year, yet again, I found it a completely wonderful experience for our children and their friends. I am saving the dates already for next year - we take a break from all the children’s normal activities for this. Thank you all so much - we are so grateful for all your hard work.”

“It is absolutely wonderful that Cambridge University have created such a varied and in-depth programme. My friends, children and I are all inspired by our visit today. Thank you for sowing seeds of wonder that will hopefully blossom into science careers and discovery.”

“We keep coming back every year, it is an amazing Festival and we have learned a lot, both my teenage daughter and I. My daughter is passionate about science and wants to pursue a career in this direction. She finds attending the Festival helps her narrow down her choices of subjects to study further. She found chatting with the students and staff especially useful. A HUGE thank you for organising this Festival.”

“The Science Festival makes a huge contribution to getting children interested in science, and enthusiastic to find out more. We come every year, and wouldn’t miss it. Many thanks to all involved.”

“Our children aged 8 and 10 really enjoyed the Science Festival. The lecture we attended sparked an interesting discussion afterwards and inspired them to go look up more information.”

“The Science Festival has made my son love science, as he’s been coming every year from age 5 - he’s now 14. Love the fact that there are events to suit all ages and interests. Lots of hard work for everyone, but very worth it.”

“As home educators we have benefitted from attending the lectures, using the labs and becoming acquainted with university life.”

“We have noticed the increase in activities for older children this year and last, which is very welcome. Good to engage mid-teens in these things as well as younger ones. Adult events appreciated too. We are lucky to have this on our doorstep.”

“Very entertaining... even my science-hating teenager was forced to smile and even laugh at points during this talk. Thank you SO much! Keep up the good work awakening scientific enquiry in even the most resilient souls!! Well done and many thanks.”

Promote research conducted within the University of Cambridge and partner organisations

“Fantastic opportunity to find out more on a vast array of topics from leaders in their fields and it's all free.”

“We love attending the science festival. This year we attended the lectures but previously we have attended the various exhibitions as well. We always enjoy the Festival. We really appreciate the fact that the events are free and the sheer scale/scope of events on offer.”

“The Science Festival is a fantastic event which as a non-University Cambridge resident I really appreciate for me and my children. The selection of events is incredible and at the ones I have attended, all the staff have been friendly, helpful, and non- elitist. It helps considerably to bridge the perceived gap between so-called ‘Town’ and ‘Gown’. Well done to all parties and individuals involved and long may it continue!!”

“Quite brilliant. The range and quality of talks and activities both for children and adults is outstanding.”
“Excellent range of events, extremely well organised, and it looks seamlessly put together, which is credit to the team, and their tremendous effort that will have gone in to organising the whole festival to make it 'so together' and high calibre speakers. Looking forward to the next event!”

“I love it! Always attend as much as is possible and feel very privileged to have such a resource on our doorstep and having the opportunity to tap into the university and hear the speakers talk on their current work.”

“The young scientists participating are a key plus factor. They generate a strikingly upbeat atmosphere I hope the young people visiting absorb this enthusiasm.”

“I think it gives the people of Cambridge a wonderful chance to explore all facets of science in their city - long may it continue!”

“Very well organised and offering great encouragement to the younger generation.* I wish I had had a stimulus such as this in my teens. The University of Cambridge deserve great praise. * And of interest to the older generation too!”

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

“How inspirational to see how medicine can evolve and change lives. Thank you.”

“This was the best presentation I have ever attended on climate change. It is one perhaps all students could attend as part of their time at Cambridge. The topic links in with so much research that is being done at the University. Young people seem to want answers so they can take meaningful action that will make a difference, this would help them gel their ideas.”

“This was, by some way, the best event I have been to this year. Three mathematical cosmologists on top of their form with wonderful overheads and a very good story to tell. The venue matched the quality of the fare. Those with less familiarity with some of the topics - gravitational waves, for example, would have floundered a bit - as I did. But now I know what to look out for in the very near future when this work becomes more generally available.”

“Excellent evening of thought provoking discussion with enjoyable reception afterwards!”

“Excellent and entertaining talk, well judged for a general audience. I particularly liked the fact that the speaker brought in wider health and energy issues which made me think in more depth about the societal relevance of the research presented.”

“Thank you for giving access to modern developments. I loved science at school, but not using knowledge day to day it is easy to forget. The festival acts as a great refresher and also gives amazing access to modern developments not covered previously.”
Festival programme and publicity

The 2015 Cambridge Science Festival programme cover, a striking abstract interpretation of light, was designed by Hannah and Holly (hannahandholly.com). Mark Mniszko of Cambridge Design Studio (cambridgedesignstudio.org) was responsible for internal programme design and layout.

Marketing and publicity plan for the Science Festival:

- production and distribution of 45,000 52 page, B5 sized Festival programmes with the programme sent to schools, colleges, universities and research institutes in the region, central Cambridge and local libraries, tourist information centres, community centres, local businesses, museums, specialist science venues and our mailing list
- lamp post banner campaign throughout Cambridge – extending 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
- dedicated event posters on railings in Cambridge city centre locations
- general Science Festival posters (A1 and A3) positioned on City Council advertising boards throughout Cambridge and digital information on advertising screens in the Central Cambridge Library and University of Cambridge venues
- production of specialised information flyers for the Cambridge Biomedical Campus and the West Cambridge site
- use of online listings sites
- targeted Science Festival e-bulletins on the University of Cambridge ‘What’s On’ email bulletin to let subscribers know when event bookings opened and promote particular events, these e-bulletins were 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.

Programme brochure feedback

The majority of feedback respondents find the brochure easy to use, particularly if they have attended the Festival before:

“Really got it cracked - it gets better to understand each year.”

“The book is good for browsing, but there is so much going on its still hard to work out what to go to, perhaps you could include more pages that list all the events on a particular day, like Saturday?”

However, first time users and some previous attendees can find the programme difficult to navigate:

“It's packed full of fantastic and amazing stuff but really hard to follow and work out how to get the most from a day. This is our 3rd year and we are still in a flap!”

We plan on addressing programme design issues for the 2016 Festival, taking on board comments from Science Festival, Festival of Ideas and Open Cambridge visitors.
Press coverage

Widespread media coverage of research, events and speakers featured in the programme allowed us to reach a larger, geographically dispersed audience. Approximately 45 pieces related to Festival events appeared in print outlets, chiefly newspapers. Additionally, there were 86 online articles and 40 broadcast interviews. Of these, eight pieces were published in the national press, including BBC, ITV, The Independent, The Mail on Sunday, The Times, Huffington Post and Yahoo.

As well as extensive written coverage, 40 radio and TV packages about Festival events were broadcast. Six packages were broadcast on regional TV stations – BBC Look East and ITV Anglia – and a further package was distributed via the international news agency, Associated Press, whose clients include more than 300 international broadcasters. Of the radio coverage, three packages appeared on national stations, including BBC Radio 4 Women’s Hour, and this year the Science Festival and BBC Radio Cambridgeshire teamed up to coordinate a national outside broadcast from The Pitt Building on the Mark Forrest Show – via BBC Radio England.

The bulk of our radio coverage was regional and was provided by our media partner, BBC Radio Cambridgeshire. Each weekday morning during the Festival, the station ran an interview with a Festival speaker on its Breakfast show. A number of Science Festival speakers were also featured on other BBC Radio Cambridgeshire programmes, including Drivetime, The Nick Carter Show, The Jeremy Sallis Show, Sue Dougan in the Afternoon and Saturday Breakfast. In addition, Heart Radio also broadcast four packages.

The full 2015 Cambridge Science Festival media compendium can be found at: sciencefestival.cam.ac.uk/system/files/press_cutting_compendium_csf2015_web.pdf
Updated Cambridge Science Festival website:

- new web address in line with new University of Cambridge website naming protocol: [www.sciencefestival.cam.ac.uk](http://www.sciencefestival.cam.ac.uk)
- updated design using colours and elements from the printed programme
- new features including a live twitter stream on the welcome page - making the site feel more interactive, and a basic event search facility on the booking page - which proved successful as the first stage in the development and improvement of this part of the website
- most significant channel of engagement in terms of numbers – 344,459 unique pageviews from the beginning of February 2015, when bookings opened, to the end of the Festival
- a distinct peak in page views seen on Monday 9 February when bookings opened at 10.30am with over 3000 free tickets booked in the first 90 minutes, one every two seconds!
Festival website heat map provided information on where users of the Festival website clicked – event booking page, links to social media strands, news and features pages, main carousel items and the general search function all attracted large numbers of interactions.

Website and event booking feedback

Updating to the University of Cambridge website template has led to very substantial improvements in website look and performance. Addition of a search function to the website event listings page has proved very successful, although the way the events are displayed still needs improvement.

“Website very good, much improved over previous years (speed, layout).”

“The events are just a loooong list that you have to scroll through and go through 28 pages if you want to see everything. Yes, you can filter by days or themes, but I think if would be better if you could still see all events, but organized in a calendar.”

Festival visitors on the whole find booking through eventbrite simple and straightforward although a number would like to be able to book multiple events at once. Booking to capacity and advertising that places would be available on the day (rather than booking to 120%) appears to have been successful.
Festival App

As in 2014, a Science Festival app was commissioned for both iPhone and Android:

- the app allowed visitors to search, book and organise events
- user statistics showed the app had 979 unique users, half that in 2014
- increased web traffic, enhanced website functionality and improved Wi-Fi throughout

Cambridge suggests perhaps that visitors used the website in preference to the app

Social Media

Face Book and Twitter continue to prove very important ways to build interest in the Cambridge Science Festival, promote events and provide a voice for visitors and contributors.

- levels of engagement and interaction through social media channels increased dramatically through the Festival period
- 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
- numbers of followers/likes continue to grow post-Festival with no significant drop seen
- Soundcloud used to upload audio recordings of Festival events with recordings also embedded on the Festival website, two months after the Festival these talks have had close to 3000 listens

Twitter - @camscience #csf2015

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- Twitter followers reached 6157 at the end of the Festival (from 4501 at end of 2014)
- a Twitter campaign was run in the lead up to the Festival – the Cambridge Science Festival song ([http://www.sciencefestival.cam.ac.uk/festival-song](http://www.sciencefestival.cam.ac.uk/festival-song))
  “Thank you for a wonderful piece of whimsy each day”
- a Twitter campaign was also run during the Festival - #csfsselfie, with contributions from a number of Festival speakers, event contributors and visitors

Face Book – facebook.com/cambridgesciencefestival

- Face Book likes at the end of the Festival were 5674 (from 5057 at the end of 2014)
- Face Book 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 2014 with a small percentage increase in male followers in the 18-24 age category
- the Festival Face Book audience is located throughout the world – the majority in the UK at 40%, 5% in the USA, 5% in India, 5% in Egypt, 4% in Pakistan and 3% in Indonesia
Audience

A light-touch evaluation was conducted in 2015 (following extensive external evaluation in 2014).

- 94% of feedback respondents to our feedback survey come to a particular event because they are keen to know more about the topic under discussion, one third of respondents attend events because they wish to see a particular person speaking
- 76% of feedback respondents like the Science Festival because it has events for all ages
- 69% of feedback respondents agree that the Science Festival covers a broad range of topics, only 5% say the Festival is not broad enough
- 62% of feedback respondents come to the Science Festival because it is free
- 53% of feedback respondents have not come to the Science Festival before 2015, 26% have attended three or more Science Festivals
- 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

- people visit the Science Festival for multiple reasons, the majority attend the Festival to learn more about research undertaken at the University of Cambridge
I don't know much about the topic under discussion (%)

I was the speaker/performer that attracted me to this event (%)

I am keen to learn more about the topic of the event (%)

I like to absorb information in my own time (%)

I come to the Festival because it is free (%)

I like the Festival because it has events for all ages (%)

The Festival does not cover a broad enough range of topics (%)

I attend Science Festivals to interact directly with researchers (%)

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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 around 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 and how to get between locations and act as the public face of the Festival. We are extremely grateful to our team of volunteers for giving their time, enthusiasm and expertise to the Festival.

“We would like to thank all the volunteers that made our experience for the fourth year in a row truly interesting and inspirational.”

“Fantastic organisation with branded volunteers showing visitors where to go and proactively approaching people for comments or questions, very impressed.”

“The Science Festival organisers and volunteers were remarkably helpful and personal with my bookings ahead of time and on the day. Thank you all so much.”

Very, very well organized! I particularly refer to emails of confirmation/direction, a very warm welcome from staff and volunteers, great facilities and very interesting topics.
Schools’ events

Science Festival Schools’ Roadshow, 2-6 March

The Schools’ Roadshow continues to be an important and very popular feature of the Science Festival. This year the focus was on primary schools with a new conference day for secondary schools following the Science Festival. This year 14 researchers, including former and current participants on our Rising Stars Public Engagement course, gave 39 talks at 33 primary schools. We thank all our researchers for giving their time to enthuse ~2000 pupils.

“Children were incredibly engaged and it supported the project we’ve been doing in class - asking big questions. Children now have a wider understanding of what science is, how it is applied and the impact of science on us. The scientist was inspirational, challenging the children’s views on who could be a scientist and how they look.”

“All the children were fully engaged for the whole hour. Many of them gained a more in-depth understanding of how and why materials change. Everyone, including the adults, was wowed by the experiments, especially the ones including liquid nitrogen. Some parents commented that their child was excitedly sharing all the details of the session at home. Some of the more able scientists were challenged and extended well. Overall, a fantastic session that we all really enjoyed and learnt from.”

“The children were excited and enthused and both the presentation and activity engaged the entire class. We are so grateful that the University of Cambridge provides this wonderful opportunity for our pupils to meet its scientists and that it is all free.”

Science Festival Schools Conference Day, 16 April

A new addition to the Science Festival, 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 220 pupils and teachers attended two interactive science talks at the Mill Lane Lecture Rooms. The first talk on Light and Colour was presented by Dr Sonali Shukla from the Institute of Astronomy. The second talk by Dr Ed Pickering from the Department of Materials Science and Metallurgy, focused on Alloys. In addition to these science themed talks, the programme included an Introduction to Higher Education talk given by Schools Liaison Officers at St. Catharine’s College, Pembroke College, Newnham College, Clare College and St. John’s College, a tour of the College and the opportunity to meet current undergraduate students.

“I deeply enjoyed this experience. It has expanded my knowledge of university and driven me to apply for one.”

“I enjoyed the fact that my tour guide was able to fully explain the course I am interested in and provide me with the encouragement to apply here.”

“I loved that we got an experience of what it is like being in a lecture. I also loved the campus tour and the fact that we could ask which ever question I wanted. I have a much better idea now of what university is like.”

“This day has given me first-hand experience of a genuine university and has motivated me to aspire to try to get into Cambridge.”

“I enjoyed finding out about the University, however the lectures made the day.”
Schools’ Zone, Saturday 21 March

Visitors to the Science Festival were given the opportunity to find out what tomorrows 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. We were delighted to welcome back Blue Bridge Education as the headline sponsor for this event along with groups of pupils from both Japan and Spain. Around 1000 people visited this event.

Participants

Bancroft’s School     Watching woodlice
Chesterton Community College    Exploring experiments
Hills Road Sixth Form College    Autonomous robots
Kasumigaoka High School (Japan)  Research on rotation
Parkside Federation (Parkside campus)   Science magic
The Perse School    Science, technology and computer science
St Faiths School     Goblin Racing Car
Sawston Village College    Sinclair C5
Stamford High School    Stamford Biology Club
Europa International School, Barcelona (Spain)  A bit of science
Weekday evening events

The Science Festival centrally organised 29 weekday evening talks throughout the Festival. In addition to these talks, coordinators arranged and ran 79 additional talks, films, exhibitions and demonstrations on weekday afternoons and evenings throughout the Festival. These 108 live events represented close to 13,000 face-to-face interactions.

Highlights

- expanded weekday evening talks for family audiences enabling us to expand our reach to this age group:
  - The chemistry of light: a demonstration lecture with Dr Peter Wothers
  - Light and Colour with Professor Malcolm Longair
  - Alex Hopkins lecture: mercury, window on the invisible with Dr Andrea Sella
  - Fartology with Stefan Gates and Dr Andrea Sella
- short talks from seven of the Cambridge 2014 Royal Society Fellows as part our Cambridge Stars: Big Ideas series of lectures, a wonderful opportunity to showcase internationally excellent research to a public audience
- continuation of our successful partnership with Cambridge Junction (www.junction.co.uk) who, during the Festival, hosted Curious Directive (http://www.curiousdirective.com/) as their theatre company in residence
- working with BBC Radio Cambridgeshire, a live Naked Scientists radio show at the Pitt Building which was broadcast throughout England during the BBC Mark Forrest Show
- high profile sponsored events through the Festival including:
  - The FameLab Cambridge Final – supported by TTP Group and FameLab UK
  - Einstein’s Legacy: 100 years of General Relativity - supported by Science AAAS
  - How does work make you healthier? – supported by RAND Europe
- talks and panel discussions from Strategic Research Initiatives and Strategic Research Networks highlighting world-leading multi-disciplinary research across the University of Cambridge

“Fantastic set of events, well run and varied topics. I love it.”
“A fantastic opportunity to find out more on a vast array of topics from leaders in their fields and free”
“Really pleased to see lots of evening weekday lectures - going to something every evening – it’s hard to choose which one to go to!”
“Wonderful programme of events, very varied and fascinating to learn Cambridge research.”
“Excellent programme generally, maybe a bit narrow this year…?”
“An unusually wide range of subjects this year - many many events we would like to go to, many clashes, where a hard decision was needed. But this is better than finding that days go by with nothing of particular interest.”
Feedback from selected events

Event: Fame Lab Cambridge final
Judges: Professor Sir David Spiegelhalter, Dr Dervila Glynn, Ben Valser
       Dr Hans Hoppe, Chris Mann
Event sponsors: TTP Group and Fame Lab
Date and venue: Monday 9 March, Cambridge Junction
Event overview: Audience ~200, 10 finalists, view performances at: sciencefestival.cam.ac.uk/2015-cambridge-science-festival/famelab-cambridge-2015
Feedback: “I was impressed with the diversity of the talks, the way they were delivered and the wide range of fields discussed.”

Event: Andrew Chamblin Memorial Lecture: colour, new dimensions and the geometry of physics
Speaker: Professor Frank Wilczek, MIT
Date and venue: Tuesday 10 March, Lady Mitchell Hall
Event overview: Audience ~350, feedback responses N=36, 85% respondents rated the event good or very good, postcodes: 19CB, 2MK, 5PE, 2SG
Feedback: “Absolutely fantastic experience! I enjoyed the lecture but this talk was way above the knowledge base of (I guess) over 90% of the audience.”
“The lecture was very interesting and I really appreciated the opportunity to attend a talk by a Nobel Prize winner. However, sometimes when you try to simplify complicated concepts, you lose a lot of the complexity necessary to explain it fully.”

Events: Cambridge Stars: Big Ideas 1 and 2
Research from our new Fellows of the Royal Society
Speakers: Professor Martin Johnson, Dr Julian Parkhill, Professor Richard Hills, Dr Karalyn Patterson, Professor Randy Read, Professor Paul Midgley
Dates and venue: Thursday 12 and Thursday 19 March, Mill Lane Lecture Rooms
Event overview: Total audience ~200, feedback responses N=15, 87% respondents rated the event good or very good, postcodes: 9CB, 2PE, 1GL, 1SG
Feedback: “Love this event - the diverse subjects covered was brilliant!”

Event: Climate engineering: who can we trust?
Speakers: Oliver Morton (Chair), Professor Martin Rees, Professor Amartya Sen, Professor Onora O’Neill and Professor David Keith
Date and venue: Friday 13 March, Lady Mitchell Hall
Event overview: In association with the International Solar Radiation Management Conference
Audience ~450, feedback responses N=18, 83% respondents rated the event good or very good, postcodes: 12CB, 1SG, 1PE, 1MK
Feedback: “Some of the panel talked for too long without making any points which did not, unfortunately, give the expected time for questions and discussion.”
“Excellent, top class contributors and ideas.”

Event: How does work make you healthier?
Speakers: Professor Dame Carol Black, Dr Steve Boorman, Dr Chris van Stolk
Event sponsor: RAND Europe
Date and venue: Friday 13 March, Clare College
Event overview: Audience ~90, feedback responses N=11, 100% respondents rated the event good or very good, postcodes: 7 CB, 1 SG, 1PE
Feedback: “Excellent panel and plenty of time for questions at this event.”
“Excellent evening of thought provoking discussion with enjoyable reception.”
**Event:** Dementia Research in Cambridge  
**Speakers:** Dr Laura Phipps, Dr Tatyana Dias, Dr Michael Coleman, Dr Michael Hornberger, Professor John O’Brien  
**Event sponsor:** Alzheimer’s Research UK  
**Date and venue:** Tuesday 17 March, Sanger Building, Department of Biochemistry  
**Event overview:** Audience ~150, feedback responses N=12, 100% respondents rated the event good or very good, postcodes: 9CB, 1SG  
**Feedback:** “General introduction was very good; I’d have liked to know how existing dementia drugs work and more about the new drugs being discovered.”

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**Title:** Light and colour: experiments and theory  
**Speaker:** Professor Malcolm Longair  
**Event sponsor:** Cambridge University Press  
**Date and venue:** Wednesday 18 March, Pippard Lecture Theatre, Cavendish Laboratory  
**Event overview:** Audience ~400, feedback responses N=19, 89% respondents rated the event good or very good, postcodes: 14CB, 1MK, 1PE, 1SG  
**Feedback:** “My children (11 and 9) enjoyed the experiments, especially the colour mixing. Some of the detail went over our heads, but overall it was very informative. Nice to have an event that was appropriate for under 12’s.”  
“Really fabulous, I am not a scientist but I absorbed quite a bit.”  
“The theory was over our head but the experiments were still very interesting and overall it was very enlightening. We are looking forward to attend many more sessions. It is a brilliant way to get children interested in science.”

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**Event:** Sex by numbers: the statistics of our intimate lives  
**Speaker:** Professor Sir David Spiegelhalter  
**Date and venue:** Wednesday 18 March, Mill Lane Lecture Rooms  
**Event overview:** Audience ~240, feedback responses N=24, 100% respondents rated the event good or very good, postcodes: 17CB, 1PE, 2SG, 1GL  
**Feedback:** “As ever, with David Spiegelhalter - absolutely brilliant, interesting and funny. Thank you so much for organising and for his time.”  
“A privilege to be able to attend, really interesting & fun.”

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**Event:** Einstein’s Legacy: 100 years of general relativity  
**Speakers:** Professor John D Barrow, Professor Michael Kramer, Professor Ulrich Sperhake, Tim Radford (Chair)  
**Event sponsor:** Science AAAS  
**Date and venue:** Thursday 19 March, Howard Lecture Theatre, Downing College  
**Event overview:** Audience ~160, feedback responses N=15, 100% respondents rated the event % good or very good, postcodes: 9CB, 1SG, 1PE  
**Feedback:** “This was, by some way, the best event I have been to this year. Three mathematical cosmologists on top of their form with wonderful overheads and a very good story to tell. The venue matched the quality of the fare.”  
“Those with less familiarity with some of the topics- gravitational waves, for example, would have floundered a bit - as I did. But now I know what to look out for in the very near future when this work becomes more available.”

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**Event:** Fartology  
**Speakers:** Dr Andrea Sella, Stefan Gates  
**Date and venue:** Friday 20 March, Department of Chemistry  
**Event overview:** Audience ~375, feedback responses N=22, 91% respondents rated the event good or very good, postcodes: 19CB, 2SG, 1NR  
**Feedback:** “Hilarious and educational at the same time. I really loved it as did the kids!”  
“It was fun and enjoyed greatly by the kids (8yr / 10yrs). Andrea Sella beautifully provided the factual component to this tricky topic.”
Weekend one – Central Cambridge
Science on Saturday one: 14 March
Science on Sunday one: 15 March

Close to 100 events were delivered over the first weekend of the Science Festival representing around 32,500 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, the Cambridge Corn Exchange and Guildhall. For the first time, the Corn Exchange was open in the evening giving adults the opportunity to try the hands-on activities themselves. This event was particularly well received by both the audience and the research scientists taking part, with many groups bring their senior scientists to the event.

Science comedy had a home at the Cambridge Union with a performance by the Festival of the Spoken Nerd, and Science Theatre at Cambridge Junction where we welcomed back Tangram Theatre Company with a performance of *The origin of species... a musical comedy about Charles Darwin* (1809-1882).

“This will be our 3rd year. It’s a really fantastic event - full of energy, and stretches the minds and thoughts of everyone in our family. I only wish we lived closer as we miss out on so much fantastic stuff going on in the week - this year, we will be travelling down from Nottingham for both week-ends!”

- Top Talks were held in the Mill Lane Lecture Rooms on Saturday 14 March with a focus on maths (as it was Ultimate Pi day – 3.14.15!) and were specifically targeted at older children, ages 12+ years
  “Very pleased there was more for older teenagers this year. We took 4 teenagers aged 14-17.”
  “We have noticed the increase in activities for older children this year and last, which is very welcome. Good to engage mid-teens in these things as well as younger ones. We are lucky to have this on our doorstep.”

- Top Talks were held in Lady Mitchell Hall on Sunday 15 March and programmed specifically for a family audience

- hands-on activities with a biomedical theme were presented at Cambridge Corn Exchange on both the Saturday and Sunday, with a total audience of 5600 people over the two days
  “Excellent- lots of hands on activities for the kids and information applicable to all the three generations of us in our group.”

- hands-on activities from Anglia Ruskin University, the IET and Airbus Defence and Space were run at the Guildhall on Saturday and, for the first time, also on Sunday

- Airbus Defence and Space brought their prototype Mars Rover to the Guildhall generating a large amount of public and press interest

- participants from the University of Cambridge Rising Stars public engagement training course were given a space in the Cambridge Corn Exchange to run their newly designed hands-on activities and performances for the first time to our Festival visitors

- the British Science Association Cambridgeshire branch ran science busking activities on Saturday at the Grafton Shopping Centre
## Selected feedback

**Event:** Enigma and the secret world of code breaking  
**Speaker:** Dr James Grime  
**Date and venue:** Saturday 14 March, Mill Lane Lecture Rooms  
**Event overview:** Audience 240, feedback responses N=53, 100% respondents rated the event good or very good, postcodes: 21CB, 3SG, 8PE, 1MK, 1CW, 1N, 2NR, 1BR, 1NN, 2Germany  
**Feedback**  
“*This was an excellent event; the speaker was brilliant and engaging. The children were captivated and the pitch was just right, absolutely excellent.*”  
“The whole family really enjoyed this lecture and found it accessible and engaging - the kids all came away wanting to find out more about the maths of code breaking.”

**Event:** Cambridge Science Festival @ Cambridge Corn Exchange Adults only  
**Date and venue:** Saturday 14 March (6pm-8pm), Cambridge Corn Exchange  
**Event sponsor:** MedImmune and AstraZeneca  
**Event overview:** Audience ~300, feedback responses N=20, 95% respondents rated the event good or very good, postcodes: 13CB, 1SG, 3PE, 1NN, 1MK  
**Feedback**  
“Fantastic to have the opportunity to ask questions to experts in a relaxed atmosphere with no pressure to let kids learn. More adult-only events please, it makes such a difference for older people with amateur interests in popular science to feel there is something for them and not just young scientists.”  
“It was really good to be able to be ‘a child again’ and be allowed to actually have a go at a few basic experiments. Normally the ‘hands on’ sessions are so full of children that adults do not have any chance in actually ‘getting their hands dirty’.  
“The event was excellent, as older adults we learnt an enormous amount about modern day life style, in a fun, friendly, informative way. It was great being among so many young people with so much knowledge and enthusiasm. Thank you for all the hard work and commitment.”

**Event:** Dragons of the lost world  
**Speaker:** Dr Matt Wilkinson  
**Date and venue:** Sunday 15 March, Lady Mitchell Hall  
**Event overview:** Audience ~400, feedback responses N=30, 100% respondents rated the event good or very good, postcodes: 20CB, 2PE, 1MK, 1SG, 1KA, 1NG, 1WV  
**Feedback**  
“Excellent event, entertaining and very interesting. This event was thoroughly enjoyed by us all from age 8 to 50!”  
“Children aged 8 and 10 really enjoyed it. Lecture sparked an Interesting discussion afterwards and inspired them to go look up more information.”

**Event:** The weird and wonderful world of really long molecules  
**Speaker:** Steve Mould  
**Date and venue:** Sunday 15 March, Lady Mitchell Hall  
**Event overview:** Audience ~400, feedback responses: N=16, 100% respondents rated the event good or very good, postcodes: 10CB, 2PE, 2MK, 1SG  
**Feedback**  
“This particular event was interesting, precisely because some of the attempted experiments failed on stage. The presenter was able to get through the talk and other experiments without missing a beat. This showed the audience that science is real and alive- and that mistakes are ok.”  
“Goes to show demos really make great lectures.”
Weekend two  
Science on Saturday two: 21 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. For the first time this event included use of the University of Cambridge Sports Centre where we hosted the Department of Materials Science and Metallurgy event ‘Ten things you didn’t know about ice cream’ producing 800 ice creams using liquid nitrogen. Additionally, a number of events were held throughout central Cambridge including talks and discussions in the Cambridge Union on a conservation theme and culminating with comedy in the evening from Science Festival favourite Robin Ince.

Contributions from the Faculty of Mathematics, the Department of Materials Science and Metallurgy, the Cavendish Laboratory, the Institute of Astronomy and the Institute for Manufacturing enabled us to engage in ~11,000 face-to-face interactions between our visitors and our research scientists.

“Overall an excellent event particularly the enthusiasm at most venues, it was well worth our trip and we will certainly come again next year.”

“The whole day at West Cambridge was great fun and very interactive, perfect for an 11 and 12 year old, thanks!”

Selected feedback

**Event:** How engineers make the world a better place  
**Speaker:** Dr Tim Minshall  
**Date and venue:** Saturday 21 March, Institute for Manufacturing  
**Event overview:** Audience ~200, feedback responses N=6, 100% respondents rated the event good or very good, postcodes: 2CB, 1IP, 1PE  
**Feedback:** “Brilliant talks like this are very inspiring for the younger generation.”

**Event:** Ten things you didn’t know about ice cream  
**Speaker:** Dr Lata Sahonta  
**Date and venue:** Saturday 21 March, University of Cambridge Sports Centre  
**Event overview:** Total audience for two talks ~760, feedback responses N=30, 93% respondents rated the event good or very good, postcodes: 16CB, 1SG, 2CM, 1SW, 1WD, 1IP, 1KT, 1PE  
**Feedback:** “The presentation was a bit too long for young children, the ice cream was delicious!”

**Event:** Trees: titans of the plant world  
**Speaker:** Gwenda Kyd  
**Date and venue:** Saturday 21 March, Botanic Garden  
**Event overview:** Audience~40, feedback responses N=10, 100% respondent rated the event good or very good, postcodes: 3CB, 1SG  
**Feedback:** “Wonderful informative leader who made the whole subject so interesting.”

**Event:** Drawing the line: how art engages with conservation  
**Speakers:** Robin Ince, artists Ackroyd and Harvey, Chris Watson  
**Date and venue:** Saturday 21 March, Cambridge Union Society  
**Event overview:** Audience ~70, feedback responses N=12m 100% respondents rated the event good or very good, postcodes: 8CB, 1SG, 2NN  
**Feedback:** “This event was a complete delight.”

“Having artists presenting their creations that are about scientific ideas was fascinating and entertaining.”
Weekend two
Science on Sunday two: 22 March

Our Science Festival journey from bench to bedside returned to the Cambridge Biomedical Campus in 2015 with even more of the campus open to visitors. This year we were particularly pleased to welcome Festival visitors to the new UTC Cambridge (a specialist science college for 14-19 year olds) where the Naked Scientists presented their Naked Neuroscience show and to the Cancer Research UK Cambridge Institute which hosted talks and hands-on activities focusing on world-leading cancer research. Increased numbers of venues open meant that our visitors were able to see more of the Campus and prevented the overcrowding seen in 2014.

Our very effective partnerships with Cambridge University Hospitals NHS Foundation trust, University departments, companies and research institutes on the Biomedical Site enabled us to host hands-on activities and talks by leading medical research scientists enabling ~4500 face-to-face interactions.

“It was a fantastic event at Addenbrookes! There was so much to do and see and I stayed much longer than planned. I wanted to find out more about cell structure and stem cells and now need to find a course! Everybody was so friendly, communicative and enthusiastic. THANK YOU SO MUCH!”

“Inspirational, so many health professionals willing to share their expertise. My daughter wishes to train to become a doctor and this event has surpassed our expectations. Thank you.”

Looking forward, 2016 marks the 250th anniversary of Addenbrookes Hospital and we are delighted that Cambridge Science Festival @ Cambridge Biomedical Campus event will form one part of this year-long celebration.

Selected feedback

<table>
<thead>
<tr>
<th>Event: Hands-off my health records</th>
<th>Speakers: Professor Peter Jones, Dr Jem Rashbass, Dr Lydia Drumright, Professor Sheila Bird and Professor Liam Smeeth</th>
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<tbody>
<tr>
<td>Date and venue: Sunday 22 March, Cancer Research UK Cambridge Institute</td>
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<tr>
<td>Event overview: Audience ~70, feedback responses N=9, 78% respondents said the event was good or very good, postcodes: 6CB, 3PE, 1SG</td>
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<tr>
<td>Feedback: “Excellent high level panel. A big thank you to all of them.”</td>
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<tr>
<td>“I think it would have helped if some background could have been given - just 5 mins - to set the scene for why there is a debate about health records. What are the ‘no’ camp saying, what went wrong with Care Data and where are we now. However, an absolutely fascinating debate, thank you.”</td>
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<table>
<thead>
<tr>
<th>Event: Open your mind with the Naked Scientists</th>
<th>Speakers: Dr Hannah Critchlow, Ginny Smith</th>
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<tbody>
<tr>
<td>Date and venue: Sunday 22 March, UTC Cambridge</td>
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<tr>
<td>Event overview: Audience 600, feedback responses N=35, 94% respondents rated the event good or very good, postcodes: 24CB, 3PE, 1CM, 1PO</td>
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<tr>
<td>Feedback: “Fantastic event. Superbly well thought out ways of integrating the audience. Lovely and knowledgeable presenters.”</td>
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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, 2015 contributions are outlined here.

Strategic Research Initiatives

**Big data**

**Event:** What your Facebook says about you

**SRI/SRN involved:** Big Data + Psychometrics

**Speaker:** Dr Alex Kogan, Department of Psychology

**Date and venue:** Tuesday 10 March, Mill Lane Lecture Rooms

**Event overview:** Audience: ~220, feedback responses N=12, 83% respondents rated the event good or very good, postcodes: 9CB, 2SG

**Feedback:** “Interesting and somewhat re-assuring.”

**Event:** Hands-off my health records: why sharing your health data matters

**SRI/SRN involved:** Public Health + Big Data + Public Policy

**Organiser:** Cambridge Institute of Public Health

**Speakers:** Professor Peter Jones (Chair), Dr Jem Rashbass, Dr Lydia Drumright, Professor Sheila Bird, Professor Liam Smeeth

**Date and venue:** Sunday 22 March, Cancer Research UK Cambridge Institute

**Event overview:** Audience ~70, feedback responses N=9, 78% respondents rated the event good or very good, postcodes: 6CB, 3PE, 1SG

**Feedback:** “Excellent high level panel. A big thank you to them.”

“I think it would have helped if some background could have been given to set the scene for why there is a debate about health records. What are the ‘no’ camp saying, what went wrong with Care Data and where are we now.”

**Cancer**

**Event:** LENS

**Contributors:** The artist Livvy Fink was inspired by research on breast cancer by Ali Razi, Carlos Caldas (CRUK CI) and Nicholas Walton (Astronomy), and spent time in the CRUK Cambridge Institute Microscopy core facility when developing her ideas.

**Date and venue:** Monday 16 – Tuesday 17 March, Thursday 19 – Friday 20 March, Saturday 21 March, Institute of Astronomy

**Event:** Blood and leukaemia stem cells: the root of all (evil)

**SRI/SRN involved:** Cancer + Stem Cells

**Event details:** See Stem Cells

**Event:** Discover more about cancer research:

**hands-on activities with Cambridge Cancer Centre members**

**Date and venue:** Sunday 22 March, Cancer Research UK, Cambridge Institute

**Event overview:** Audience ~500

**Event:** Today’s match: cancer vs treatment

**Speaker:** Dr Florian Markowetz, Cancer Research UK Cambridge Institute

**Date and venue:** Sunday 22 March, Cancer Research UK Cambridge Institute

**Event overview:** Audience ~70, 100% respondents rated the event good or very good

**Feedback:** “Very good way to use football as an analogy for complex concepts.”
Event: What is cancer and what are we doing about it?
Speaker: Dr Alasdair Russell, Cancer Research UK Cambridge Institute
Date and venue: Sunday 22 March, Cancer Research UK Cambridge Institute
Event overview: Audience ~70, feedback responses N=8, 100% respondents rated the event good or very good
Feedback: “Really appreciated the opportunity to ask questions and the helpfulness of the staff at CRUK.”

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 14 March, Sunday 15 March, Cambridge Corn Exchange
Event overview: Audience ~6000 people visited the Corn Exchange over the weekend

Conservation
Event: Cuckoos, swifts and nightingales: tracking migratory birds
Speaker: Chris Hewson, British Trust for Ornithology
Date and venue: Monday 9 March, Judge Business School
Event overview: Audience ~50, 100% respondents rated the event good or very good

Event: The beast in the studio, the bird at sea
Speakers: Artists Ackroyd & Harvey, Professor Bill Sutherland, Steve Broad
Date and venue: Monday 9 March, Judge Business School
Event overview: Audience ~50, 100% respondents rated the event good or very good

Event: The barometer of life
Speakers: Caroline Pollock (International Union for Conservation of Nature)
Date and venue: Wednesday 11 March, Mill Lane Lecture Rooms
Event overview: Audience ~70, feedback responses N=4, 100% respondents rated the event good or very good, postcodes: 1CB, 1SG

Event: Splash and squelch: hands-on activities
Organisers: University of Cambridge Conservation Research Initiative
Date and venue: Saturday 14 March, Department of Geography
Event overview: Audience ~150

Event: Carrying the hopes of millions...
Speakers: Dr Mike Rands (Chair), Professor Bhaskar Vira, Hazell Thompson (BirdLife), Pippa Howard (FFI)
Date and venue: Tuesday 17 March, Judge Business School

Event: Gender and conservation: does it matter?
Organisers: Women in Conservation Leadership Network
Speakers: Dame Fiona Reynolds (Chair), Rosie Travelyan (Tropical Biology Association), Pamela Abbott (Natural England), Mike Clarke (RSPB), Ali Johnston (BTO)
Date and venue: Saturday 21 March, Cambridge Union Society
Feedback: “So stimulating, loved it.”

Event: Drawing the line: how art engages with conservation
Speakers: Robin Ince, John Fanshaw, artists Ackroyd and Harvey, sound artist Chris Watson
Date and venue: Saturday 21 March, Cambridge Union Society
Event overview: Audience ~100, feedback responses N=12, 100% respondents rated the event good or very good, postcodes: 8CB, 1SG, 2NN
Feedback: “Having artists presenting their creations that are about scientific ideas was fascinating and entertaining.”
“Very stimulating discussion and highly enjoyable.”
“This was a complete delight.”
**Energy**

**Event:** Connectivity and flow in future cities  
Organisers: Energy@Cambridge, Cambridge Centre for Science and Policy  
Cambridge Forum for Sustainability and the Environment  
Date and venue: Wednesday 18 March, Mill Lane Lecture Rooms  
Event overview: Audience ~ 75, feedback responses N=3, 100% respondents rate the event good or very good, postcodes: 3CB  
Feedback: “This was an unusual event for the Science Festival, but very welcome. I liked the debate-style format.”

**Event:** Out of the red and into the blue: making the LED revolution cost-effective  
SRI/SRN involved: Energy + Nanoforum  
Speaker: Professor Sir Colin Humphreys  
Date and venue: Monday 16 March, Mill Lane Lecture Rooms  
Event overview: Audience ~220, feedback responses N=32, 100% respondents rated the event good or very good, postcodes: 24CB, 3SG, 1PE  
Feedback: “A very lively, humorous, and highly informative presentation. Very stimulating and I wish I were studying materials science under his guidance.”  
“Excellent and entertaining talk, well-judged for a general audience. Particularly liked him bringing in wider issues such as the health issues and potential power savings.”

**Event:** Gallium nitride: lighting the future  
SRI/SRN involved: Energy + Nanoforum  
Speaker: Dr Rachel Oliver  
Date and venue: Saturday 21 March, Department of Materials Science and Metallurgy

**Infectious diseases**

**Event:** Melioidosis: biothreat infection and paddy-field disease  
Speaker: Professor Sharon Peacock  
Date and venue: Thursday 12 March, Lucy Cavendish College  

**Event:** Preventing the rise of antibiotic resistance?  
SRI+SRN involved: Immunology + Infectious Diseases  
Speakers: Dr Tennie Videler (Chair), Professor Clare Bryant, Professor Andres Floto, Professor Dame Athene Donald, Dr Mark Holmes  
Date and venue: Tuesday 17 March, Mill Lane Lecture Rooms  
Event overview: Audience~220, feedback responses N=15, 100 respondents rated the event good or very good, postcodes: 7CB, 2PE, 1SA, 1CO, 1CM  
Feedback: “Am on short break in Cambridge and just happened to see this advertised on railings! Lovely addition to the holiday!”  
“More time needed for Q and A, would've been better if speakers could have stayed behind to field some more questions.”

**Event:** Infectious knowledge: science in popular culture  
Speaker: Stephen McGann  
Date and venue: Sunday 22 March, Clinical School, Cambridge Biomedical Cam  
Event overview: Audience ~250, feedback responses N=15, 87.5% respondents rated the event good or very good, postcodes: 10CB, 3PE, 1SG, 1AI  
Feedback: “This event was suited to an audience of teens.”  
“I didn’t feel there was a point really to this lecture and I learned very little. Sorry to be critical as overall I think the Science Festival is excellent.”  
“Absolutely brilliant, interesting lecture!”
Language science

Event: Ideas and languages: six more languages that changed the world
Speaker: Professor Ian Roberts
Date and venue: Saturday 14 March, Mill Lane Lecture Rooms
Feedback: “Nice talk: good to see a hypothesis proposed and then roundly torn apart during the talk - that’s the scientific method, after all.”

Event: The language of light
Speakers: Professor Ian Roberts, Dr Georg Hohn
Date and venue: Saturday 14 March, Mill Lane Lecture Rooms

Cambridge Neuroscience

Event: Get the best out of life: resilience and stress management
Organiser:
Speakers: Professor Barbara J Sahakian, Professor Jennifer Wild, Allison Pearson, Dr Muzaffer Kaser
Date and venue: Thursday 12 March, Mill Lane Lecture Rooms
Event overview: Audience ~220, feedback responses N=18, 90% respondents rated the event good or very good, postcodes: 12CB, 1PE, 1SG
Feedback: “This talk was very interesting and informative. The range of speakers was a great addition. It would be good if the discussion time was a little more structured - some audience members made quite a few comments/questions, and that wasn’t so interesting for other people.”
“The event was staggeringly good!”

Event: Seeing and interacting with our world
Hands-on activities
Date and venue: Saturday 14 March, Department of Psychology

Event: Looking into how the brain is built
Speakers: Professor Bill Harris and Professor Christine Holt
Date and venue: Saturday 14 March, Physiology Building, PDN

Event: Perception of colour
Speaker: Professor John Mollon
Date and venue: Saturday 14 March, Anatomy Lecture Theatre

Event: Unbelievable lightness of seeing
Speaker: Dr Andrew Welchman
Date and venue: Saturday 14 March, Anatomy Lecture Theatre

Event: Ageing artists and creativity
Speakers: Dr Karen Campbell and Dr Charlotte Lee
Date and venue: Saturday 14 March, Psychology Lecture Theatre

Event: Brain mechanisms of drug addiction: are abstinence and prevention of relapse realistic treatment goals?
Cambridge Neuroscience Public Lecture
Speaker: Professor Barry Everitt
Date and venue: Friday 20 March, Clinical School, Cambridge Biomedical Campus

Event: MEG and Me
Speakers: Dr Timothy Rittman, Dr Saber Sami
Date and venue: Sunday 22 March, Clinical School Cambridge Biomedical Campus

Event: Neurosurgery and the innovative neurosurgical microscope
Speaker: Dr Rikin Trivedi
Date and venue: Sunday 22 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~ 250, feedback responses N=9, 100% respondents rated the event good or very good, postcodes: 6CB, 1CO, 1LE
Public Policy
Event: Hands-off my health records: why sharing your health data matters
SRI/SRN involved: Public Health + Big Data + Public Policy
Event details: See Big Data

Stem cells
Event: Stem cell discoveries: hands-on activities
Organiser: Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute
Date and venue: Saturday 14 March, Sunday 15 March, Cambridge Corn Exchange
Event overview: Audience ~6000 people visited the Corn Exchange over the weekend
Feedback: All parents/adults asked rated their child’s ‘Enjoyment’ as either 4 or 5, with 5 being ‘excellent’. All rated ‘Understanding & learning’ at either 4 or 5. “It was very hands-on”; “Excellent, lots of interaction.”; “The children were asking lots of questions”.

Event: Using embryonic stem cells to understand early development
Speaker: Dr Jenny Nichols
Date and venue: Monday 16 March, Murray Edwards College
Feedback: “A great opportunity to listen to an expert involved in the fascinating field of stem cell research.”

Event: Too much information: how stem cells cope with information overload
Speaker: Dr Brian Hendrich
Date and venue: Tuesday 17 March, Murray Edwards College
Feedback: “Fascinating content - complex ideas came across in a way I could understand!”

Event: Blood and leukaemia stem cells: the root of all (evil)
SRI/SRN involved: Cancer + Stem Cells
Speaker: Dr Brian Huntly
Date and venue: Wednesday 18 March, Murray Edwards College
Feedback: “As a patient who was treated for AML 25 years ago, it was fascinating to see how scientists are coming up with new ways of trying to treat it.”

Event: Stem cells: unravelling brain disease
Speaker: Dr Thóra Káradóttir
Date and venue: Thursday 19 March, Murray Edwards College
Feedback: “The talk was very well presented and explained. The lecturer did a brilliant job.”

Event: Stem cell discoveries: hands-on activities
Organiser: Wellcome Trust – Medical Research Council Cambridge Stem Cell Institute
Date and venue: Sunday 22 March, Deakin Centre, Cambridge Biomedical Campus
Event overview: Audience ~500
Strategic Research Networks

Immunology

Event: Why snot: hands-on activities
Organisers: Immunology SRN
Date and venue: Saturday 14 March, Department of Pathology

Event: What is immunology
Speakers: Amy MacQueen and Saad Idris (Babraham Institute)
Date and venue: Saturday 14 March, Mill Lane Lecture Rooms
Event overview: Audience ~ 90, feedback responses N=9 89% respondents rated the event good or very good, postcodes: 5CB, 1SG, 1CW, 1IP
Feedback: “Good interesting material but some too juvenile for 15+ age group.”
“The talk we attended was fantastic with my sons (11 and 9) understanding much. A difficult subject well explained in an entertaining way. The interactive bit at the end was hilarious!”
“Some of the concepts were a bit difficult to understand.”

Event: Preventing the rise of antibiotic resistance?
SRI/SRN involved: Immunology and Infectious Diseases
Speakers: Dr Tennie Videler (Chair), Professor Clare Bryant, Professor Andres Floto, Professor Dame Athene Donald, Dr Mark Holmes
Event details: See Infectious Diseases

Event: The giant nose and why snot: hands-on activities
Organisers: Immunology SRN
Date and venue: Sunday 22 March, Deakin Centre Cambridge Biomedical Campus
Event overview: Audience ~500

Metabolic Network

Event: Is there a right diet for me?
Based on the BBC Horizon Special Programme.
Speakers: Dr Chris van Tulleken (Chair), Professor Susan Jebb, Professor Giles Yeo, Professor Fiona Gribble, Professor Paul Aveyard.
Date and venue: Tuesday 10 March, Lady Mitchell Hall
Event overview: Audience ~270, feedback responses N=45, 93% respondents rated the event good or very good, postcodes: 38CB, 1IP, ISG, 1ST, 1SE
Feedback: “The event was VERY good. Interesting, varied, entertaining!
“I liked this event especially as the scientists were really down to earth and didn’t use "high tech" language.”

Event: The science of eating: hands-on activities
Organiser: Metabolic Research Laboratories
Date and venue: Saturday 14 March, Sunday 15 March, Cambridge Corn Exchange
Event overview: Audience ~6000 people visited the Corn Exchange over the weekend

Event: Fantastic fat: hands-on activities
Organiser: Metabolic Research Laboratories
Date and venue: Sunday 22 March, Clinical School, Cambridge Biomedical Campus
Event overview: Audience ~500

Nanoforum

Event: Molecules in solitary confinement
Speaker: Professor Jonathan Nitschke
Date and venue: Tuesday 10 March, Mill Lane Lecture Rooms
Event overview: Audience ~70, feedback responses N=7 100% respondents rated the event good or very good, postcodes 3CB, 2SG, 1EN.
Feedback: “Excellent talk, very interesting material, inspiring.”
<table>
<thead>
<tr>
<th>Event:</th>
<th>Out of the red and into the blue: making the LED revolution cost-effective</th>
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<tbody>
<tr>
<td>SRI/SRN involved:</td>
<td>Energy + Nanoforum</td>
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<tr>
<td>Speaker:</td>
<td>Professor Sir Colin Humphreys</td>
</tr>
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<tr>
<td>Speaker:</td>
<td>Dr Rachel Oliver</td>
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<td>See Energy</td>
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**Psychometrics**

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<thead>
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<th>What your Facebook says about you</th>
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<tr>
<td>SRI/SRN involved:</td>
<td>Big Data and Psychometrics</td>
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<tr>
<td>Speaker:</td>
<td>Dr Alex Kogan</td>
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<td>Event details:</td>
<td>See Big Data</td>
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**Public Health Network**

<table>
<thead>
<tr>
<th>Event:</th>
<th>Future reactive: children’s visions of physical activity - Exhibition</th>
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<tbody>
<tr>
<td>Organisers:</td>
<td>Cambridge Institute of Public Health and Addenbrooke’s Arts</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Monday 9 – Sunday 22 March, Addenbrooke’s Treatment Centre, Cambridge Biomedical Campus</td>
</tr>
<tr>
<td>Event:</td>
<td>Vitamin D: to D or not to D?</td>
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<tr>
<td>Speaker:</td>
<td>Professor Kay-Tee Khaw</td>
</tr>
<tr>
<td>Date and venue:</td>
<td>Thursday 12 March, Mill Lane Lecture Rooms</td>
</tr>
<tr>
<td>Event overview:</td>
<td>Audience ~170, feedback responses N=28, 89% respondents rated the event good or very good, postcodes: 22CB, 1PE,1HP</td>
</tr>
<tr>
<td>Feedback:</td>
<td>“The presenter was very good and friendly. There were lots of questions which I always like because it explores avenues that may have not been covered.”</td>
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<tr>
<td></td>
<td>“Some of the graphs shown were difficult to interpret. I think it would have helped if the speaker had extracted the important data and presented it in a simpler form. Otherwise, a good and interesting talk.”</td>
</tr>
<tr>
<td>Event:</td>
<td>Cambridge Festivals in the classroom</td>
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<td>Organisers:</td>
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<tr>
<td>Date and venue:</td>
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<tr>
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<td>Audience ~3100</td>
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<th>Health Psychology Lab: hands-on activities</th>
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<th>Hands-off my health records: why sharing your health data matters</th>
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<th>Minding the gap: advancing medicine through unifying care and research using clinical informatics: hands-on activities</th>
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<td>Event overview:</td>
<td>Audience ~500</td>
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</tbody>
</table>
Internal Contributors

Cambridge Africa Programme
Cambridge Graduate Orchestra
Cambridge Institute for Medical Research
Cambridge Union Society
Cambridge University Botanic Garden
Cambridge University Library
Cambridge University Press
Cancer Research UK Cambridge Research Institute
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CHaOS
Christ's College
Department Applied Maths and Theoretical Physics
Department of Biochemistry
Department of Chemistry
Department of Earth Sciences
Department of Engineering
Department of Geography
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 Theoretical and Applied Linguistics
Department of Zoology
Division of Cardiovascular Medicine
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Estate Management
Faculty of Education
Faculty of Mathematics

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Great St Marys Church
Gurdon Institute
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Institute of Astronomy
Institute of Continuing Education
Institute for Manufacturing
Metabolic Research Laboratories
Institute for Public Health
Isaac Newton Institute for Mathematical Science
Kettles Yard
McDonald Institute for Archaeological Research
Millennium Maths Project
MRC Epidemiology Unit
Museum of Archaeology & Anthropology
Museum of Classical Archaeology
Museum of Zoology
Post Docs of Cambridge Society
Robogals
Sainsbury Laboratory
Sedgwick Museum
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Cambridge Carbon Footprint
Cambridge Conservation Initiative Partners
Cambridge Junction
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Cambridge University NHS Foundation Trust
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Fame Lab UK
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Institute of Physics
Long Road Sixth Form College
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MRC Cognition and Brain Sciences Unit
MRC Laboratory of Molecular Biology
MRC Human Nutrition Research Unit
MRC Mitochondrial Biology Unit
NIHR/Wellcome Trust Clinical Research Facility
Open University
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