

## 2014 Cambridge Science Festival – Index

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### 2014 Cambridge Science Festival - Introduction

Cambridge Science Festival is committed to engaging the public with science, technology, engineering, mathematics and medicine. In 2014, the Festival ran from 10 to 23 March and comprised over 250 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

Of the 250+ events that comprise the Cambridge Science Festival, approximately 15% (by number) are organised by the Public Engagement team, 65% are delivered by University staff and students and 20% are arranged by partners external to the University of Cambridge. This report only describes the centrally-organised activities (those 15% of events), Festival-wide marketing and publicity, our schools' activities and Festival logistics. We do, however, offer major thanks to the University and our partner community for producing locally-organised events, such as in the Institute for Astronomy, in the Department for Applied Mathematics and Theoretical Physics and the Cambridge Science Centre, which thousands of people enjoy.

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.

### 2014 Cambridge Science Festival – Contact us

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Cambridge University Hospitals NHS





#### **Media Partners**



The Cambridge Science Festival is financed through core funding from the University of Cambridge and generous support from our sponsors. We thank them all for their support.

### 2014 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

Professor Barbara Sahakian Department of Psychiatry

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 Society of Biology, Hills Road Sixth Form College

Professor Andrea Brand Department of Physiology, Development, Neuroscience 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

### 2014 Cambridge Science Festival – Team

### This year's Cambridge Science Festival team were:

Shelley Bolderson Science Festival Co-ordinator
Lucinda Spokes Festivals and Training Co-ordinator

Sue Long Festivals and Outreach Officer (Community and Schools)

Emily White Festivals and Outreach Assistant Will Whyles Festivals and Outreach Assistant

Becky Wieczorek Public Engagement Communications Officer

Nicola Buckley Head of Public Engagement
Dane Comerford Public Engagement Manager

Ellen Thornton Events Assistant

Malavika Anderson Festival and Outreach Co-ordinator (Arts and Humanities)

# 2014 Cambridge Science Festival Ian Harvey, Hills Road teacher and Science Festival Patron

For me the Cambridge Science Festival is very, very special and something I'm proud to be a part of. I frequently tell people what a great science community we have in Cambridge and the festival allows us a chance to showcase to the public who we are, what we do, why we do it and why we LOVE IT!

Every year, a fortnight in March sees Cambridge become the science equivalent of Willy Wonka's Chocolate Factory, so many delights to enjoy and truly something scrumptious for everyone. This year we even had "The Science of SWEEEETS!" Our aims are to engage, enthuse, inform, challenge and show how science is fun and incredibly important. All of us who are involved in the planning and delivery of the festival find it so rewarding.

My biggest dilemma is trying to decide which events to go to. When I get my programme, I start highlighting events and soon realise that I want to be in three places at the same time. Maybe I could be cloned for a fortnight?

It's impossible to pick out highlights as I could only attend a fraction of the programme but here's what it meant for me. I started on day one with a talk on Plants and Microbes. I learned so much and my students did the next day. Perfect material to enrich my teaching.

Friday saw the "Talking science: what next" evening at the Senate House. The Bodmer Report published in 1985 is credited with starting the movement for the public understanding of science which is what our festival is all about and it was a privilege to hear from Sir Walter himself. A thought-provoking evening recalling the talk which was delivered on 7 May 1959 in the Senate House by C.P. Snow and subsequently published as *The Two Cultures and the Scientific Revolution* which explored whether the humanities and science were really two different cultures. And the debate continues.

During week two I attended terrific talks on Why snowflakes are hexagons? (which included the best explanation of x-ray crystallography I've heard), Transmissible cancers in Tasmanian Devils and Stem cells and repairing brains. Sadly I couldn't get to the orchestral work, Icarus on the edge of time or Why scientists fly: the Arctic science experience but I heard rave reviews about both.

CSF at the Corn Exchange as a new venture was a major highlight for me. My Hills Road students and I joined the rest of the biology community in engaging the public in our subject. For two days the place was buzzing and we lost count of the number of visitors. Everyone was happy and smiling as they engaged with loads of activities and the positive vibes were almost tangible. Talking to the visitors, it's impressive how far many have travelled, several staying in Cambridge for the whole weekend to immerse themselves in what's on offer.

At the end of it all, I'm sad it's over but thrilled at the success and what it gave to everyone involved. On behalf of the patrons and all of the thousands of visitors, a huge THANK YOU to the dedicated, team who plan and deliver the festival and to our kind sponsors. Now we start to plan for 2015!

### 2014 Cambridge Science Festival - Overview

- We used the theme 'structures and patterns' to celebrate the International Year of Crystallography and the Festival featured over 250 events for all ages during the two weeks.
- Building on the success of Sunday opening, we introduced a new family fun day at the Cambridge Biomedical Campus, in partnership with Cambridge University Hospitals. This ran on the final day of the Festival, Sunday 23 March and welcomed 4000 visits. Further details of this can be found on page 21 and we hope to build on the success of this pilot for future Festivals.
- Owing to large-scale building works on the New Museums Site, which is the home of many of the centrally organised activities for Science on Saturday, events were spread across 11 sites. The 'Top Talks', formerly hosted in the Babbage Lecture Theatre were relocated to the Mill Lane Lecture Rooms and were at capacity for the entire day. Activities which made up the former 'Biology Zone' were relocated to the Cambridge Corn Exchange and were hugely successful, both on the Saturday and Sunday reaching 6500. The Corn Exchange was also used and the Festival Head Quarters, which worked really well and we are keen to continue using this central location, funding dependant. Further information can be found on pages 16.
- Media interest in the Festival was high this year with coverage in both local and national press. BBC Radio Cambridgeshire was our media partner again, running features throughout the Festival. Alongside this we also ran a social media campaign with audio content from talks, video clips from activities, Facebook posts and tweets uploaded throughout the Festival. See page 27 for more information.
- The centrally organised evening lecture series featured the University's strategic initiatives and were very well attended by 4000 visitors. 40% of speakers who featured in this strand of activity were female. A full breakdown of this can be found on page 13.

## 2014 Cambridge Science Festival - In pictures



### 2014 Cambridge Science Festival – In Summary

- Science Festival evaluation forms were distributed to visitors at all centrally organised events and at a number of events run by Science Festival Coordinators. A total of 419 evaluation cards were collected over the Festival. In addition to the paper evaluation forms, information was collected online during booking (1034 responses) and two months following the Festival (349 responses). Both internal and external event coordinators were emailed following the Festival to provide comments and feedback.
- 43% respondents to the online booking evaluation had not attended the Festival previously, 25% of respondents had been to more than three previous Festivals
- The 67% of visitors came from Cambridgeshire with significant numbers also from the Eastern region and London
- 98% of respondents had a positive overall impression of the Cambridge Science Festival up to two months after attending (based on 349 online evaluation responses)
- 60% of respondents spoke to academics/speakers during the Festival
- 79% of respondents discussed ideas from the Festival with friends and family who had not attended
- 35,043 unique page views to the website (from Google Analytics for 3 February to 23 March 2014)
- 26.8% people accessed the website through mobile devices. The app received 1934 unique users, and 500 active users on Science on Saturday
- 4392 followers on twitter, 5001 likes on Facebook (1106 new followers on twitter, 1240 new likes on Facebook compared to data from 2013)
- 135 people acted as centrally-managed volunteer stewards throughout the Festival; 176
  Event Co-ordinators contributed activities to the Festival, together with many other
  volunteers
- 17 University academics gave 43 Schools Roadshow talks on a range of different topics to over 3000 primary and secondary schools in Cambridge and the Fenland District
- The Festival welcomed people of all ages. Using data collected from evaluation cards and during Festival, children (0-15 years in age) represented 10.5% of respondents, 53% of respondents were between 36 and 55 years old, and 6.9% were in the 16-25 age category, which is considerably down on last year (12%)

### 2014 Cambridge Science Festival - Feedback

General visitor comments about the Festival from pre, during and post evaluation responses

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

The Cambridge Science Festival is incredibly inspiring. I have attended the event with children but would like to attend some of the adult focussed events in future years. My children (and all the other children I bring along) come away sure in the knowledge that they are real scientists.

I thought all the events were extremely high quality and hugely enjoyable. I went with my teenage son and his friend, and both boys were interested, especially my son who found some of the activities and one of the talks particularly inspiring. As a school/special needs science teacher myself I look for new ideas for my own classroom each year that I go to the Festival, and as usual I wasn't disappointed.

Really enjoyable and thought provoking. Even managed to keep 14 years old boys interested, and debating on the way home!

This has been my chance to try science and after coming for 10 years it has inspired me to want to do triple science for my GCSEs and find a way to do science as a career With our family no one is into science and we have little time and money so UC has been just so fantastic in giving me these opportunities, have to go now as lunch is finishing and have to get back to lessons

### Engage with the public on issues of scientific interest and concern

I think it is a fantastic festival and a credit to the University and the City.

Thank you for a superb weekend - we came from London especially!!

Please keep events free to attend. I have been to Edinburgh and British Sci Fest and these are so much more expensive. It limits too much what you can afford to do.

I am not a scientist but I value science very much and feel it is important to educate our children to this effect. Please keep going. Brilliant. Engaged children of all sexes and ages in our group esp. as female scientists were available to talk to in some sessions. Also so important it remains free as we have to travel and stay over and we can't always complete and get to events or may need to leave if not suitable. Thanks again for keeping it up:) Fantastic resource that has given our daughter a chance to access science that we could never have done. As adults not into science, it has opened our minds and encouraged us to take up education opportunities for mature students.

It has inspired me to think as a girl I can do science and want to get a better education that helps me do the best I can in science and maths as the Festival makes me think I could do something in science in my future and that's really exciting

Please don't stop the Festival, despite how chaotic and busy it is - I look forward to it each year!

### Promote research conducted within the University

The new research that is currently going on is fascinating. Exhibitions were well laid out and the interactive events were fun.

The highlights are the lectures, but I also appreciate the opportunity to speak to researchers. This year was at least as good as, possibly better than, previous festivals.

They were incredibly useful and though-provoking. It is great to be able to meet people who are experts in the fields I am learning about! It is an experience motivating to harder work and enhancing my understanding of research-based career.

It was so varied and informative. The Speakers were honest and up to date. Absolutely brilliant!

### Opportunities for improvements

### **Event booking and programming**

85% of people who completed our online evaluation said the website and booking system were mostly easy or very easy to use but some feedback comments suggest there is still room for improvement. With 69% of respondents finding the programme easy to use.

My only disappointment was that I only became aware of the festival a week before the event and by that time many of the ticketed events were fully booked so perhaps repeating some of the more popular talks more would help"

A great event: paper booklet much easier to negotiate than the website. Events get booked up very early, no doubt by the same people. School events are particularly appreciated. It's a pity that the first Saturday is the main event and that the events aren't spread over the two weekends a little more evenly.

Wanted to go to many more talks, but they "sold out" very quickly. Programmes weren't widely available beforehand.

A number of events I've attended, including this one, said "Fully booked" on the events website but there were a number of seats still available.

#### Co-ordinator feedback

#### Michael Conterio - Sci Cam: the science magazine show

In total we only had four people watching, and two of those were partners of two of the presenters. This is despite having a full booking of 36 on Eventbrite - only 3 of these turned up. Looking at the list of tickets booked on Eventbrite it appears one person booked 6 tickets three times, accounting for half of the total allocation - I'm guessing this was an accident.

### Elizabeth Crilly - STEM Team East

Estimate of 30 children and 60 adults on average to each of the 4 sessions -- so an estimated total of 320-- this was below what we expected -- we are a booked event but a lot did not turn up to their booking. I suppose because they were having a super time elsewhere, which is great -- we did have a good suggestion this year, which was to offer each of our 4 workshops to different age groups . I think I will go for that next year as some teenagers came to our SCIENCE OF KITES -which does have some GCSE level physics in the presentation but I know some left as of course we get an audience of younger children and they thought maybe it was too young for them-- and it is a little embarrassing for teenagers. Having said that we did have a couple with no children who came to make kites and were delighted to learn so much.

### Mandy Carter - MRC Cognition and Brain Sciences Unit

For us, taking pre-bookings was a bit of disaster – we turned away loads of people by phone and email once we logged our H&S maximum, and then on the night loads of people did not turn up – very annoying. We won't bother doing that again and people will just have to come early to get a place.

### Wendy Gu (Landgraf Lab) - Department of Zoology

We had allocated 12 visitors per hour for 5 hours for pre-booking (60 total attendees). Some individuals did not show up on the day. We were resourceful and invited people in queue outside of the Department of Zoology to join our workshop. As such, our event was operating at or near maximum capacity.

### <u>Improvements:</u>

- Consistent booking method for all bookable events during the Festival. This is difficult
  as events are input by a multitude of contributors many of whom want to manage
  their own bookings.
- Continue to pre book events but ensure there are places available on the day. Rather
  than overbooking everything by 20% to ensure that all seats are taken, we will book
  to capacity and then offer the seats from the individuals who do not show up to take
  their places to people on the day, and making sure this is fully explained in the
  programme.
- Ability to search for events using multiple terms e.g. teenager and talks, clearer that booking needed for certain events and when booking opens.
- Continuing to expand our offering on the weekend and repeating some of the more popular events on the Sunday.

#### Events for different ages and levels of scientific understanding

A number of visitors commented on the scientific level of events and several wished to have more events available for teenagers.

Sometimes the events which are billed as suitable for children are too advanced. Impressive amount of events. More demonstrations and talks aimed at older students would be great.

This event was too hard for the age group recommended (8+) - more suitable for over 12s or even higher as even the adults found some of the concepts tricky. – Mystery of the Horrible Hypothesis

It is very good. Would like more talks like this one, which was excellent, suitable for 12-16 age range. Many events are too bang, crash, pop/ horrible science-esque for teenagers who have done guite a lot of science at school. – Simpsons/ Simon Singh

#### Co-ordinator feedback

### Elizabeth Crilly - STEM Team East

W

e did have a good suggestion this year, which was to offer each of our 4 workshops to different age groups. I think I will go for that next year as some teenagers came to our SCIENCE OF KITES -which does have some GCSE level physics in the presentation but I know some left as of course we get an audience of younger children and they thought maybe it was too young for them-- and it is a little embarrassing for teenagers. Having said that we did have a couple with no children who came to make kites and were delighted to learn so much.

### **Improvements:**

- More detailed specific age information, less emphasis on 'All ages' which is sometimes misleading. Working with event co-ordinators to make their activity age appropriate for their target audience.
- More events focussed at teenagers? We run very successful programmes in Cambridgeshire schools for teenagers but are extremely keen to engage more with this age group during our public events. We will continue to expand our offering to this age group. The issue we face is that all children up to the age of 16 have to be accompanied by an adult. We are reassessing our age categories for 2014 – to include a 13+/teen age grouping. We hope that this will encourage older children to attend and that fewer parents will bring younger children to these events.

### 2014 Cambridge Science Festival - Events

### Centrally organised talks running through the Festival

We were extremely fortunate to use the Senate House our keynote address this year, hosting a panel on 'Talking Science: what next?' including Professor Sir Walter Bodmer and Susan Watts. This was fully booked and extremely well received.

The event and following reception was sponsored by TTP Group and we thank them for their continued support of the Festival.

In addition to our spotlight lecture, we organised 17 other talks running on weekday evenings, summarised below. A new feature of the programme this year was the 'Cambridge Stars: big ideas' series, which saw the six newly appointed Cambridge Royal Society Fellows for 2013 giving bitesize introductions to their research. These talks were fully booked and feedback was hugely positive, we plan to build on the success of these at future Festivals.

Many thanks once again for organising such an excellent and interesting set of events for me to enjoy for free!

Brilliant - to get the opportunity to see and hear so much about the latest research.

Around 4000 people attended centrally our organised talks. In addition to these, coordinators arranged and ran 48 additional talks, films and demonstrations on weekday afternoons and evenings throughout the Festival.

Date	Event Title	Speaker
Monday 10 March	The World's oldest start up Sponsored by Cambridge University Press	Helen Cunningham
Tuesday 11 March	Combinatorics: the mathematics that counts Supported by Cambridge University Press	Professor Robin Wilson
Tuesday 11 March	Overcoming stress and anxiety: healthy brains for a flourishing society Sponsored by British Association for Psychopharmacology	Professor Barbara Sakahian
Tuesday 11 March	Cambridge Stars: big ideas 1	Professor Maria Grazia Spillantini Professor Ray Goldstein Professor Gerry Gillmore
Wednesday 12 March	Why cats make you sneeze: new results from immunology	Professor Clare Bryant
Wednesday 12 March	What's wrong with pink?	Professor Melissa Hines
Thursday 13 March	Andrew Chamblin Memorial Lecture: The pointless universe	Professor Michael Green
Thursday 13 March	What a coincidence!	Professor David Spiegelhalter
Friday 14 March	Can science make a cyclist faster?	Professor Tony Purnell
Tuesday 18 March	Cambridge Stars: big ideas 2	Professor Gillian Griffiths Dr Phill Hawkins Professor Jon Crowcroft

Tuesday 18 March	Transmissible cancer in dogs and Tasmanian Devils	Andrea Strakova		
Wednesday	The science of SWEEETS!	Stefan Gates		
19 March		Professor Andrea Sella		
Wednesday	Making machines see	Dr Roberto Cipolla		
19 March				
Wednesday	Healthy for longer: guess how and guess	Elliott Grigg		
19 March	who?			
Thursday	A festival piece of Raspberry Pi  Clive Beale			
20 March	Supported by Cambridge University Press			
Thursday	Why we know so little about the effect of	Professor David Colquhoun		
20 March	diet on health.			
Friday 21	Why are all snowflakes hexagons: the	Dr Michael Wharmby		
March	secret life of water			
Friday 21	What's the point of palaeontology	Nick Crumpton		
March				
Monday 10	What's new in space?	Dr Rosie Bolton and		
March	Sponsored by Science AAAS Professor Gerry Gilmore, Ti			
		Radford		
Friday 14	Talking science: what next?	Professor Sir Leszek		
March	Sponsored by TTP Group	Borysiewicz, Professor Sir		
		Walter Bodmer, Susan		
		Watts, Professor John		
		Naughton		

### Selected feedback

**Event:** Whats new in space

Speaker: Dr. Patricia Fara, Dr Rosie Bolton, Professor Gerry Gilmore, Tim Radford

Venue: St Catharine's College, Monday 10 March 7.30pm – 8.45pm

Fabulous event, amazing speakers with a passion they could articulate, brilliantly organised: could not have been better!!!!!

Nice surprise to have food and drinks following the talk. Interesting speakers and great to see a female majority on a panel, esp science!

A really fantastic presentation that we found fascinating and keen to learn more!

Event: What's wrong with pink? Speaker: Professor Melissa Hines

Venue: Mill Lane Lecture Rooms, Wednesday 12 March 8pm – 9pm

This was an excellent talk. Prof Hines even explained the statistics used in a very simple way and was easy to understand. It was one of the best talks, of many good talks I have attended so far in this year's festival.

This was an excellent event - Melissa Hines explained difficult concepts in a straightforward, humorous and interesting way. This session (or this speaker) would be well worth repeating at future festivals.

I was very impressed with the talk by Melissa Hines. It was interesting and accessible and thought provoking to a mother of two young boys. Thank you!

**Event:** The Janus-faced interaction of plants and microbes

**Co-ordinator: Elisabeth Burmeister, Sainsbury Laboratory** 

**Speaker:** Dr Sebastian Schornack

Venue: Sainsbury Laboratory, Monday 10 March 7.30pm – 8.30pm

A very interesting programme this year. This particular talk, "The Janus-faced interaction of plants and microbes" was fascinating. The speaker had outstanding presentation skills, enthusiasm and pitched the talk just at the right level. A great kick-off to my Science Festival experience - if the rest is half as good, I'll be thrilled.

I regularly attend Public Lectures at Cambridge but this was my first Science Festival lecture. It was far and away the most interesting and engaging lecture I have been to.

Very well organized talk, using what first seemed strange phrases to describe the different parts of the talk, but they served as excellent labels to distinguish, understand and remember the different parts of the talk. The level of explanation was good, assuming only some basic level of general knowledge (that bacteria, fungi and plants are different) but still managing to explain the interesting research.

This was an outstandingly good and engaging lecture that was very much enjoyed by all there.

### 2014 Cambridge Science Festival - Events

Science on Saturday 1: 15 March and Science on Sunday: 16 March

Top Talks - Science on Saturday 1

This year we had to relocate our central activity from the New Museum's Site due to major building works which meant that activity was spread over 11 sites on this day. Centrally organised talks were held in the Mill Lane Lecture Rooms and at the Cambridge Union. All events where booking was required were fully booked prior to the event. Events were organised to span the entire age range with family highlights from Matt Parker, Mark Miodownik and Steve Mould and science comedy events from Robin Ince.

Following a successful partnership implemented last year, the Public Engagement team worked with Dr Paul Elliott from Homerton College, University of Cambridge and The Faculty of Science and Technology at Anglia Ruskin University to facilitate the delivery of 'The mystery of the horrible hypothesis.

Over 1500 people attended top talks and feedback showed they were very well received.

Date	Event Title	Speaker
Saturday 15 March	The mystery of the horrible hypothesis	Dr Paul Elliot
Saturday 15 March	Stuff matters	Professor Mark Miodownik
Saturday 15 March	Stand-up mathematics	Matt Parker
Saturday 15 March	Helen Keen's space race	Helen Keen
Saturday 15 March	Poking the brain	Steve Mould
Saturday 15 March	Why rodents rule the world	Dr Phil Cox
Saturday 15 March	The dark world of caves and the life which lives there	Dr Tony Whitten
Saturday 15 March	Why (and how) do butterflies paint their wings?	Dr John Davey
Saturday 15 March	How the bicycle dot its spokes	Phil Garsed

### CSF@the Corn Exchange

Formerly located in the Arts School on New Museums Site, the rebranded 'CSF@the Corn Exchange (was the Biology Zone), was moved to this central location due to building works. Along with the activities the Festival headquarters was relocated to the foyer and the venue featured 20 different hands-on exhibits for all ages. Building on the success of Sunday opening, this was open all weekend (from 11am to 5pm on Saturday 15 March and from 11am to 4pm on Sunday 16 March) and allowed us to use new publicity materials to dress the site, including drop banners and flags. A survey of visitors suggests that the number of people attending the Biology Zone reached ~6500 over the two days. CSF@the Corn Exchange was facilitated by the Science Festival team and coordinated by all participants.

### 2014 Participants

University of Cambridge

Division of Cardiovascular

Medicine

Metabolic Research Laboratories

EPIC Norfolk (European Prospective Investigation of

Cancer)

MRC Units

MRC Biostatistics Unit

Wellcome Trust - MRC Cambridge

Stem Cell Institute

MRC Laboratory of Molecular

Biology

MRC Human Nutrition Research

Unit

European Bioinformatics Institute Wellcome Trust Sanger Institute

NIHR/ Wellcome Trust Clinical

Investigation Ward, Cambridge University

Hospitals NHS Foundation Trust

The Babraham Institute Papworth Hospital Society of Biology

Long Road Sixth Form College

MedÎmmune Astrazeneca

The Cambridge Bioresource

Almost all visitors we spoke liked the change in venue, saying it appeared more open and easier to get around than the Arts School. A few still found it too busy and hot. 99% of people who provided feedback said the event at the Corn Exchange was very good or good.

I liked the layout of the Corn Exchange, it felt easier to get around than the biology zone in the large examinations hall on previous years. There was good connectivity between stalls, exhibits and activities.

We plan to continue to use this central space as it was very well received by both visitors and event contributors alike, however the increased cost of venue hire will mean we have to fundraise further in order to keep the venue free.

#### Co-ordinator Feedback

#### John Elvin - Medlmmune

Has the [formally] Biology Zone got a bit big now, a victim of its own success? Does the split work? Perhaps we should not have repeats (like we did the same event but in two venues over two weekends)? Perhaps just choose to be Weekend 1 or Weekend 2 not both?

### Throughout the University and the City on Saturday

The University and City were extremely busy throughout the day. The Chemistry Department were joined by the Royal Society of Chemistry, The Departments of Zoology, Pathology, Psychology, Plant Sciences, Biochemistry, Anatomy, Engineering along with the McDonald Institute for Archaeological Research were open with a wonderful range of hands-on activities and talks on offer. The Admissions Office also ran their 'GetSET' event providing information on how to apply to study sciences at the University of Cambridge.

All the University Museums contributed with tours, talks and hands-on activities. Anglia Ruskin University took over The Guildhall with a host of interactive activities for all ages and CHaOS ran their extremely popular 'Crash, Bang, Squelch workshops. ThinkCon, a series of talks for young people and adults took place in the McCrum Lecture Theatre, the education charity STEM Team East ran kite building workshops and St. John's College library proved very popular again this year.

### Top Talks – Science on Sunday

Building on the popularity of previous year's Sunday events, a series of centrally organised top talks for families were trialled at the Lady Mitchell Hall and the CSF@The Corn Exchange was open throughout the day. We also welcomed back former Guest Director Robin Ince who compered his 'Show and Tell' at The Cambridge Union in featuring scientists from Cambridge and beyond. In the evening Robin played to a sell-out audience with his show 'Robin Ince is (in and) out of his mind'. Many events where booking was required were fully booked prior to the event and over 2500 people are estimated to have taken part.

Date	Event Title	Speaker
Sunday 16 March	Generating power	David Bebb
Sunday 16 March	Demo derby	Dave Ansell
Sunday 16 March	Sending signals and making messages	Lia Chappell and Phil Garsed
Sunday 16 March	Stars, planets and microwave ovens	Dave Ansell and Dominic Ford
Sunday 16 March	The Simpsons and their mathematical secrets	Dr Simon Singh
Sunday 16 March	Robin Ince's show and tell	Robin Ince, various
Sunday 16 March	Robin Ince is (in and) out of his mind	Robin Ince

In addition to centrally organised events, the Institute of Continuing Education organised three events at Madingley Hall, and hosted more sessions of 'The mystery of the horrible hypothesis' in which the evening event took the form of a three course meal, the Science Festival Choral Evensong took place at Great St. Mary's Church and Cambridge Science Centre opened for activities.

Speaking to visitors, there appears to be a real enthusiasm for Sunday opening with people attending on Sunday instead of, and in addition to, Saturday. In 2015 we plan to increase our Sunday offering, including perhaps access to the University Museums which not normally open on Sundays.

Selected feedback – Centrally organised events: Saturday and Sunday

**Event:** The Simpsons and their mathematical secrets

Speaker: Simon Singh

Venue: Cambridge Union, Sunday 16 March 1pm – 2pm

Amazing to be in a talk which referenced Prof. Hawking in the Simpsons with the man himself in the hall!

All the events that we have attended have been very well run true to the description or better. Even where the maths gets a little beyond our children they pick up little points because those giving the talk make it easy to listen to and interesting.

I went with my 12-year old son and we both loved it. Afterwards he said it was awesome and he didn't want it to end.

**Event:** Stuff matters

Speaker: Professor Mark Midiownik

Venue: Mill Lane Lecture Rooms, Saturday 15 March 11am – 12noon

The speaker was fantastic! Best lecture I have attended at all the science festivals we have attended. This is our 6th or 7th. The content was stimulating, accessible and he used various microscopic cameras, cameras and photographs to demonstrate his points. He also added humour very very funny. Very thought provoking. Brilliant getting the kids to think about science, invention and practical ways of bringing them together. Many thanks!

Presenter was awesome. Topic very well. A lot of information for children to digest but very interesting and amusing. Thank you!

everyone in the family (aged from 10 up to 40) really enjoyed this lecture and found the demonstrations of scale made the comparison of living cells and molecules very illuminating. He use of a handheld microscope connected by USB was a really good idea.

Event: Robin Ince - various Venue: Cambridge Union

Robin was a dynamic Chairman/host and was my reason for being there. However i think i will be mindful of other events at the Cambridge Union in future and not just the CSF. I understand there is a Festival of Ideas in the Autumn...i will be waiting with interest.

Ace, as always , well done!

Very impressed with the level of organisation - this is the third event that I went to, all completely different and some higher quality than others. This event in particular was exactly in my area of interest and I found it very inspiring - I strongly support overlap between arts and sciences at the festival.

Events organised by other coordinators: Saturday 15 March

Event: Crash, bang, squelch!

Coordinator: Cambridge Hands on Science (CHaOS)

Venue: Department of Zoology, Saturday 15 March 10am – 5pm

Online booking facilitities were SO MUCH better this year, than in previous years. Thank you so much for cutting out the worry of queuing up for the CHaOS talks and finding out you couldn't then get in.

It was great, the kids loved it. Good variety and the volunteers were lovely. Would prefer for it to run on two days (sat and sun) so that we didn't have to rush through.

The children said they had an awesome day. They both loved it. The explanations were good and the experiments hands on. 2xaged10 thank you to all the volunteers. Just when school science was putting one child off ..possibly you have inspired!

The students at the event were enthusiastic and very good with the children. They explained things very well. the children understood the experiments and were able to ask lots of questions. It really was excellent Thanks

Our son who is 10 loved this event, said it was brilliant fun. I think the organisers do a very good job on the Science Festival, we go every year and its a highlight of our calendar.

After missing it on previous two years because of the queues, I congratulate you on making it bookable in advance. There were very small queues and we were allowed to enter earlier than our slot. We spent a long time inside and it was never overcrowded. Very happy parents and six-year-old-girl (science is her favourite subject).

### 2014 Cambridge Science Festival - Events

Science on Saturday 2: 22 March

Science on Saturday 2 took place on 22 March around the West Cambridge Site and in the centre of Cambridge. Venues on site were extremely busy including, The Cavendish Laboratory, The Institute for Manufacturing, The Centre for Mathematical Sciences, Department of Materials Science and Metallurgy, The Isaac Newton Institute for Mathematic Sciences, The Institute of Astronomy and the Geological Conservation Unit. Central locations open included the Cambridge Science Centre, the University Library, the Museum of Classical Archaeology, the Sedgwick Museum and the Botanic Garden all welcomed visitors. The Hauser Forum acted as the Festival Head Quarters and hosted the ever popular Schools Zone, see page 24 for more details on this initiative.

It was fantastic to see inside the new Materials Science building, more next year please!

The early opening of the hands on maths events meant we were able to get around more activities, it was buzzing from the very start, thank you

I was disappointed by the events that are aimed at 'all ages', I have two young daughters and we found there was nothing for them to do and they were often overlooked when trying to get involved in activities. More thought on either altering the publicity or on what activities have to offer please.

We have been coming to the Festival for years as my daughter is interested in physics; however the events are getting a little samey now

We miss events at the Vet school!

### 2014 Cambridge Science Festival - Events

CSF@CBC: Sunday 23 March

A new addition to the Cambridge Science Festival, CSF@Cambridge Biomedical Campus was organised by the Cambridge Science Festival team in partnership with the Communications teams at Cambridge University Hospitals NHS Foundation Trust. Running from 11am to 4pm, the day focused on medical research conducted at the University of Cambridge, at Research Institutes and within industry. Hands-on activities, demonstrations and talks comprised the day with events with in the Clinical School, the Addenbrookes Treatment Centre, the Deakin Centre and the Rosie Hospital. We estimate that over 2000 people took part in hands-on activities and ~1500 people attended talks in the William Harvey Lecture Theatre and Lecture Theatre two in the Clinical School.

2014 Participants in the Clinical School (venue organised by the Cambridge Science Festival team)

University of Cambridge

Metabolic Research Laboratories EPIC Norfolk (European Prospective

Investigation of Cancer)

Immunology Strategic Research

Network

Cancer Research UK Cambridge

Institute

Cambridge Institute of Public Health

MRC Units

MRC Biostatistics Unit

Wellcome Trust – MRC Cambridge

Stem Cell Institute MRC Epidemiology

MRC Metabolic Disease Unit

MRC Mitochondrial Biology Unit Hutchinson MRC Research Centre

MRC Cancer Unit
Public Health England

NIHR/ Wellcome Trust Clinical Investigation Ward, Cambridge

University Hospitals NHS

Foundation Trust Papworth Hospital

MedImmune Astrazeneca

Talks were organised by both the Cambridge Science Festival Team and colleagues from within the Hospital, and included the first Cambridge University Hospitals Chair's Lecture. All talks were extremely well received and attended. We were particularly delighted to welcome Professor Dame Sally Davies, the Chief Medical Officer for England to this event to talk about her research into antibiotic resistance.

#### 2014 Talks in the Clinical School

Become a dementia friend

Alzheimer's Society

Open your mind with the Naked Scientists

Dr Hannah Critchlow

Health up my street

Public Health England

Cambridge University Hospital's Chairs Lecture: Cracking the peanut allergy

Dr Pamela Ewan

Dementia: What's needed now

Professor Carol Brayne and colleagues from Public Health England

The drugs don't work

Professor Dame Sally Davies, the Chief Medical Officer for England

Sponsored by Rand Europe

CUH Lecture series: Mapping the heart

**Professor Nick Morrell** 

**CUH Lecture series: Memory matters** 

CUH Lecture series: Idea to reality: the future for MS

#### Feedback

We are delighted with how this new strand of the Cambridge Science Festival went and our visitors thought likewise, with 96% of people who provided feedback said the event was good or very good. We look forward to building on our very successful collaboration with Cambridge University NHS Foundation Trust in 2015.

#### Clinical School

I took my 14 year old son who is thinking about a future in medicine. It was a brilliant day - found it really interesting and informative. It was pitched at just the right level for him and the students and staff he spoke to were really helpful and friendly.

CSF @Cambridge Biomedical Campus gave us the chance to meet medical professionals who were all willing to share their immense knowledge and enthusiasm. The simulated heart surgery with Papworth Hospital was truly inspirational. All the staff were very committed to ensuring you had the best experience of the Science Festival possible and all enquiries were fully answered and explained. More than this the hands on experience surpassed all our expectations. Absolutely amazing!

Very good. Especially the component with the hospital. This opened up Addenbrooke's to users of its service and beyond.

We both thought the lecture was excellent and the lecturer did a fantastic job of presenting his subject in an interesting way and pitching his content with the right balance between experienced and less experienced people in his audience. The specific event and the whole science festival made us feel very lucky to be living in Cambridge.

### 2014 Cambridge Science Festival - Schools

Schools Zone: 22 March

Visitors were also 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.

This year we were very grateful for the sponsorship of BlueBridge Education who helped us to enhance and improve the event. They brought an international dimension to our budding scientists and we were very pleased to welcome Kasumigoka High School from Japan.









School	Project	
Bancrofts High School	Butterflies and moths	
Chesterton Community College	Circus of light	
Ely College	Exploring energy	
Hills Road Sixth Form	FIRST Robotics Competition (FRC)	
Kasumigaoka High School	Research on rotation principles	
(Japan)		
Stamford High School	Stamford Biology Club	
The Perse School	Perse Computer Science	
Parkside Federation	Crystal clear	
Sawston Village College	Science@Sawston	
St Faith's School	St Faith's Goblins racing car	
St John's College School	The science of sport	

### Schools Roadshows: week commencing 3 March

The Schools Roadshow continues to be an important and very popular feature of the University's Science Festival taking University academics into both primary and secondary schools. This year the focus was on Cambridge schools and schools in the Fenland district to the northeast of the county. This is an area where engagement with curriculum enrichment schemes is traditionally low. As a consequence, we are particularly pleased that so many Fenland Schools applied for a Schools Roadshow visit, including three of the four secondary schools – Thomas Clarkson Academy in Wisbech, Sir Harry Smith Community College in Whittlesey and Ramnoth County Junior School.

This year 17 researchers, including former and current participants on the Rising Stars course, gave 43 talks on a range of topics over the Roadshow week. Speakers this year were: Siobhan Braybrook, Dawn Eagle, Robin Hesketh, Lisa Jardine-Wright, Maria Jiminez, Jonathan Lawson, Alicia Lloyd, Alex Mendez-Feliu, Amy Milton, Jo Montgomery, Bronwen Richards, Lata Sahonta, Lucinda Spokes, Scott Thomas, Rosalyn Wade, Laura Watson and Tony Whitten.

There was considerable bunching with the requested talks, but because schools had a first and second preference for talks, we were able to allocate an appropriate talk for all schools. But the Science Festival team will need to target secondary schools in 2015 as we had been offered some excellent sessions specifically aimed at keystages 3 and 4 and there had been a very low uptake.

The Science Festival Team would like to thank all contributors for giving their time to enthuse around 4000 pupils about science and promote research undertaken at the University of Cambridge.

#### Selected feedback

Lecturer: Alicia Lloyd

Talk: Bare bones and other skeletons School: St Philips CoE Primary School

Pupils spoke at length about how exciting the talk was. They enjoyed the hands on nature of the task and were very engaged by Alicia's style and enthusiasm. Many pupils explained that they would like to be a scientist because the job seems; fun, exciting, hard and interesting. The event was a success and we are very hopeful that we'll continue this link with another workshop next year. Many thanks.

Lecturer: Lucinda Spokes

Talk: Become a rocket scientist!

School: Great and Little Shelford Primary School

Really motivated – the most writing afterwards that I've ever seen from certain boys in science! Fantastic rocket creations which we plan to hang from the ceiling. Children asked lots of questions and discussed it in detail afterwards. Very stimulating talk and activity.

Schools hub: 27 February 2014

The Schools Hub was held at Sawston Village College. The following lecturers offered demonstrations and hands-on activities: Rebecca Fitzgerald, Lisa Jardine-Wright, Pierre Lao-Sirieix, Jonathan Lawson, Alicia Lloyd and Rosalyn Wade. 140 pupils from surrounding primary schools attended and 150 pupils from Sawston Village College.

The Science Festival Team were very grateful to Sawston Village College for hosting this event and their superb organisation.

### Developing schools activities in 2015

In 2015 we will promote an even greater school participation in the Science Festival.

#### Schools Zone

We will encourage more schools to bring STEM projects to the Festival, promoting it as an opportunity for pupil engagement with the public. In addition to project work undertaken in STEM clubs and through the British Science Association CREST scheme, we will also suggest schools bring curriculum based projects. We will further develop our links with STEM Team East, the regional STEMNET contract holder for Cambridgeshire and Bedfordshire and, through them, encourage advanced level Engineering Education Scheme students and Nuffield Research Bursary students and to attend and present their research results. Many of the Nuffield Research students are hosted at the University of Cambridge and we will ask University project supervisors to encourage their students to attend.

### School trips to the Science Festival

A number of schools attended the 2014 Science Festival bringing pupils to public evening talks and to events taking place on the main weekend. Groups came from local schools, from London, Norfolk, Suffolk and Essex and as far afield as Norway and Japan. We supported their attendance by providing advice on attendance, suggesting suitable talks and activities and reserving spaces. We will continue to encourage schools to attend future Festivals, providing information on the website and through direct telephone and email contact.

#### Schools Roadshows

The Science Festival Team will be looking carefully at how to target specific secondary schoos and keystages 3 and 4.

#### Schools Masterclasses

This project was cancelled for 2014 due to unforeseen circumstances. The Science Festival Team will review this activity to see if we reinstate this strand of the programme for 2015.

### 2014 Cambridge Science Festival – Publicity

### Programme and posters

45,000 near A5, 52 page programme

1000 A5 4 page children's passports with collectable stickers in 6 designs

2000 A5 4 page guides to the CSF@CBC

25,000 bookmarks

2200 A3 posters

40 A1 posters

2 Pull-up banners for events

3 fabric banners for Corn Exchange

12 canvas logo banners

2000 badges in 6 different designs

### Programme distribution

9000 copies to a regional 75 mile radius from Cambridge using the Cambridge City Council Distribution Service

5000 to all Cambridgeshire schools and colleges + 24000 bookmarks + 800 posters

4000 copies through the University

400 to the Cambridge Tourist Information Centre

300 to the Grafton promotion day

1000 to sponsors, lecture and reception guests

1000 to event co-ordinators

400 to Cambridge colleges

3000 available for Saturday and evening lectures

1000 available for telephone and email requests, and to our mailing list

9500 to businesses and community venues

5000 to tourist venues

1000 to specialist science interest venues

The University 'What's On' event notification service produced four targeted Science Festival e-bulletins, resulting in distinct peaks in bookings for events.

### 2014 Cambridge Science Festival – Press

This year's Science Festival received extensive national and local media coverage and included articles in The Mirror, The Guardian, The Independent, The Telegraph, New Scientist amongst others. We also were the editorial of Science AAAS, documenting 20 years of the Cambridge Science Festival. In total, there were nearly 30 pre-recorded and live interviews across local and national radio stations and TV networks including the BBC and ITV. In addition, there were a further 90+ mentions in a wide range of local press and on websites and blog pages reporting on the festival.

A media coverage compendium is available as a separate document available: http://www.cam.ac.uk/science-festival/news-media/media-coverage

### 2014 Cambridge Science Festival - Website

This year we adopted the University of Cambridge's new webpage design and incorporated elements of the printed materials



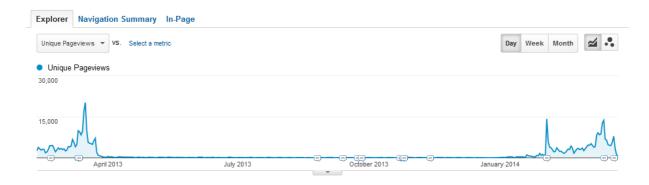
### 2014 Cambridge Science Festival – Web traffic

The website received 35,043 unique pageviews from bookings opening on 3 February 2014 until the end of the Festival on 23 March 2014.

- . The site was, and continues to be, regularly updated:
  - prior to the Festival with features promoting talks and events
  - during the Festival with information, press releases and speaker spotlights
  - post Festival with audio transcripts of talks, photogalleries, highlights of media coverage, evaluation results and information on related events.

3 Feb 2014 - 23 Mar 2014 -**Pages** Export ▼ Add to Dashboard Shortcut Explorer Navigation Summary In-Page **≈**4 ... Unique Pageviews ▼ VS. Select a metric Day Week Month Unique Pageviews 8 Feb 15 Feb 15 Mar 22 M Primary Dimension: Page Page Title Secondary dimension ▼ Sort Type: Default ▼ science-festival ◎ Q advanced ⊞ 🕒 🗉 🔁 🔡 Unique Avg. Time on Page Value Page Pageviews Pageviews Page 00:01:13 37.90% 19.54% £0.00 326,234 231,492 62,396 Site Avg: 53.26% (5.622.299) (4.360.850) 00:01:5 (2.228.172) 0.00% (£0.00) 1. /www.cam.ac.uk/science-festival 48,267 (14.80%) 35,043 (15.14%) 00:00:56 29,895 (47.91%) 20.16% 18.67% £0.00 (0.00%) /www.cam.ac.uk/science-festival/boo @ 2. 33,989 (10.42%) 18,968 (8.19%) 00:00:27 1,397 (2.24%) 33.07% 7.20% £0.00 (0.00%) king/book-events 26,711 (8.19%) 3. 20.188 (8.72%) 00:01:46 5.316 (8.52%) 35.29% 34.05% £0.00 (0.00%) /www.cam.ac.uk/science-festival/prog @ 14,632 (4.49%) 7,514 (3.25%) 00:01:41 682 (1.09%) 59.53% 14 28% £0.00 (0.00%)

This compares to 22,878 in 2013 (though it should be noted that the booking period was one week shorter 11 Feb 2013 – 24 March 2013)



There seems to have been a much bigger peak in traffic around the opening of online bookings in 2014 than in 2013.

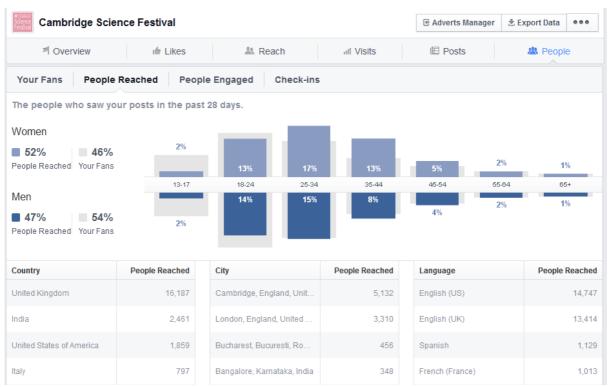
Page ⑦	Device Category ?	Pageviews ? ↓	Unique Pageviews ?	Avg. Time on Page ?
		<b>46,228</b> % of Total: 0.82% (5,622,299)	<b>34,195</b> % of Total: 0.78% (4,360,850)	00:01:03 Site Avg: 00:01:51 (-42.77%)
1. /www.cam.ac.uk/science-festival	desktop	33,939 (73.42%)	<b>25,017</b> (73.16%)	00:01:07
2. /www.cam.ac.uk/science-festival	tablet	<b>7,046</b> (15.24%)	5,069 (14.82%)	00:00:50
3. /www.cam.ac.uk/science-festival	mobile	<b>5,243</b> (11.34%)	4,109 (12.02%)	00:01:01

26.8% of pageviews for the /science-festival home page came from a tablet or mobile device.

### 2014 Cambridge Science Festival - Social Media

Face book and twitter have proved important ways to promote events and build interest in the Festival. We have 4501 followers on twitter (1211 new followers from 2013) and 5057 likes on Facebook (an increase of 1296 likes compared to 2013).

The age distribution of Facebook users who 'like' the Cambridge Science Festival page is broadly similar to 2013 but the balance of male/female users looks to be more even.



04 Apr 2014

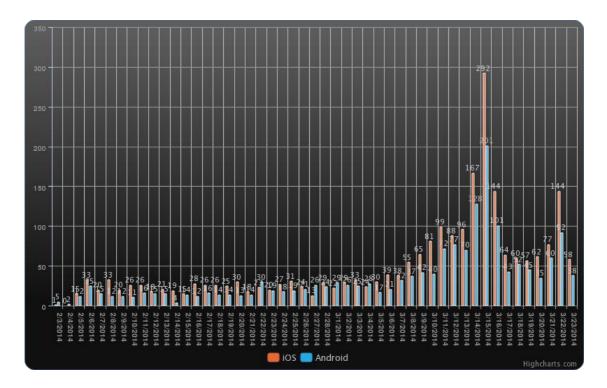
### 2014 Cambridge Science Festival - App

For the first time, an app for iPhone and Android was introduced for the Festival. The app allowed the user to search, book and organise events, access videos and competitions and receive important updates about the Festival. Other features included a personal Festival planner which allowed users to add an event to their personal calender and provide reminders if required. The app was developed with Crowd Torch, a specialised company providing mobile applications for consumer and social events.





Total no. unique users: 3 Feb – 23 Mar



Active users/day: 3 Feb – 23 Mar

There were around 500 app users active on Science on Saturday and over 200 on the second Saturday. 24 people provided feedback on the app and of which 79% of these were satisfied

Found it useful only until I got hold of a printed program

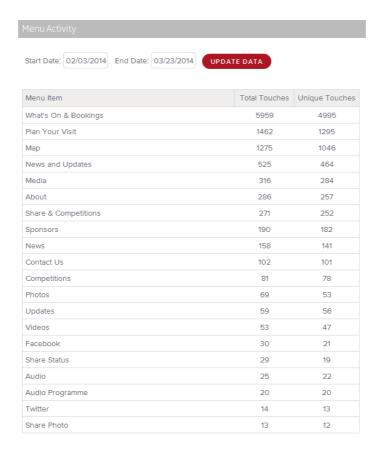
It was of limited use having already booked events before the app actually came out and then being unable to link booked events with the app, possibly of more use if I had been able to book through the app

I gave up and used the web site instead.

It just seemed a bit clunky to use.

It was frustrating that it kept sending me to the internet for more details about events
Thought it could have done with a much better map linking the events and their locations
Found it difficult to find what I was looking for - but maybe that's because there was so much
content!

Not available on Windows phone so my partner had to rely on my version of the app on Android/paper brochure



Breakdown of menu activity shows that by far the most used feature is the mobile version of the events programme. Other features such as the map, news and media sections were not so frequently used.

### 2014 Cambridge Science Festival

Recommendations for 2015

### **Expanded Sunday opening**

There appears to be a strong desire for more events on Sunday with many people choosing to attend on Sunday instead of, or in addition to, Saturday. We will therefore continue to expand our Sunday offering, including hosting events in the Guildhall and encouraging access to the University Museums which are not normally open on Sunday.

#### Amended arrangements to pre bookable events and their marketing

Addressing the feedback of events being fully booked in advance and then on the day very under attended due to people not claiming their places. We will continue to offer pre bookable activities at the Festival, however we will offer seats on a first come, first served basis on the day. In previous years we have overbooked events by 20% to address the issue of individuals not showing up, however in 2015 we will trail booking to capacity but stating in publicity that there will be places available on the day and use those spaces created by those who book but then do not attend the event.

### Better promotion our offering for teenagers

We already provide many events suitable for teenagers but will better promote our weekday talks to older teens and their families. We will also target publicity to schools and sixth form colleges encouraging school groups to attend. We will also reassess our age categories to encourage teenagers to attend weekend events specifically designed for this age range and not part of a wider family event as this can be off putting to teenagers.

#### Improved publicity

We have a limited budget so are unable to send anywhere near enough printed programmes and publicity materials to local schools. We will look to producing a targeted eflyer which can then be sent via the schools parent email distribution lists.

#### **Build on success of CBC**

We are delighted how our first event on the Cambridge Biomedical Campus was received by event coordinators, Cambridge University NHS Foundation Trust management and staff and our Festival visitors. All parties are keen to build on this pilot and plans are already in place for 2015. These include looking at new venues and space requirement, better management of the movement of Festival goers around the site and developing and delivering more events for specific age groups.

### Location of centrally organised weekend activity (due to building works)

Continue to use the Cambridge Corn Exchange as the Festival Head Quarters due to its central location. With the temporary closure of the Babbage Lecture Theatre we will continue to use the Lady Mitchell Hall for our Sunday talks, looking to repeat some of the very popular Saturday 'Top Talks' from Mill Lane Lecture Theatre in this venue as it has a much larger capacity.

#### Look at age ranges

To Address the issue of activities being publicised as suitable of 'all ages' when they do not have something to offer for all ages, or being billed as being for a younger audience than they are. We will work with event contributors to review the content and be more specific in our publicity materials. This may also encourage more teenagers to attend, as sometimes 'all ages' can be seen as being exclusively for a family audience.

#### **Review evaluation**

Look to do more qualitative rather than quantitate evaluation of the festival as we have a huge bank of data on people's views of the Festival as a whole. We will look to use techniques such as visitor tracking and accompanied visits. This will give us a better picture of people's experiences at the Festival and how we can work on improving this.

### Suggestions from feedback comments for future events

Most people who provided comments were very happy with the range of subjects that we cover.

"You are doing just fine!"

Subjects mentioned include:

Computer science, computer gaming, nanotechnology, climate science, sustainability, personalised medicine, veterinary sciences, food production, tropical diseases, chemistry talks for adults, 3D printing, astronomy, more FRS talks like "Cambridge Stars".

### 2014 Cambridge Science Festival – Thank You

We thank the senior management of University of Cambridge including Professor Sir Leszek Borysiewicz, the Vice Chancellor, Professor Jeremy Sanders, Pro-Vice Chancellor (Institutional Affairs) for their support for the Science Festival. We are also grateful to the Cambridge Science Festival Patrons, chaired by Professor Malcolm Longair, and Heads of Schools for their support for the Festivals Administered Fund. We also thank the many Heads of Departments for their financial, staff and student time commitment.

We thank our sponsors, many of whom have been Festival partners for many years: Cambridge University Press (who support the printing of the programme), Darwin 2009 Anniversary Festival, the Medical Research Council, Medlmmune, AstraZeneca, Anglia Ruskin University, Science AAAS, Royal Society of Chemistry, TTP Group, Blue Bridge Education, Abcam, Linguamatics, RAND Europe, Mathworks, Cambridge City Council, the Babraham Institute the IET, British Association for Psychopharmacology, Society of Biology, We are also grateful for in-kind support from Cambridge Science Centre, Hills Road Sixth Form College, Cambridge University Hospitals and The British Science Association. Our media partner was BBC Cambridgeshire.

We would like to thank our colleagues in the Office of External Affairs and Communications for their considerable support for the Science Festival.

Steve Homent and his team at Central Sites Technical Services were a huge help again with their dedication, technical skills and enthusiasm for the Festival. Steve Matthews and Tori Robinson were invaluable in their logistical support. We also received excellent technical and custodian support from Clive Squires and others in multiple venues.

Thanks go to our designer, Mark Mniszko of Cambridge Design Studio, who designed the programme. Thanks also to Tim Parker who provided the front cover artwork, illustrations through the programme and those that featured on the publicity materials.

We are extremely grateful to Barney Brown and Lloyd Mann for their great work on the website and events system and to Julia Moore, Finance Officer, for her hard work and patience in supporting all of the finance aspects of the Festival.

In addition to the many lecturers and contributors listed in the main body of the evaluation report, we also thank the event co-ordinators across the University and partner organisations whose hard work and volunteer recruitment and management was much appreciated by thousands of visitors.

### 2014 Cambridge Science Festival – Co-ordinators

In addition to the many lecturers and contributors listed in this evaluation, we also thank the event co-ordinators and their networks across the University and partner organisations. Without their enthusiasm, knowledge and hard work this Festival would not be possible.

Addenbrooke's Clinical Research Centre Addenbrooke's Clinical Research Centre Addenbrooke's Clinical Research Centre

Anglia Ruskin University Anglia Ruskin University

Astrazeneca

Babraham Institute Babraham Institute Babraham Institute

BHF Cardiovascular medicine

Botanic Gardens Botanic Gardens

Business Innovation Officer Cambridge Archaeological Unit

Cambridge AWiSE

Cambridge Blue Badge Guides Cambridge Buddhist Centre Cambridge Carbon Footprint Cambridge Film Consortium Cambridge Graduate Orchestra

Cambridge Institute for Medical Research
Cambridge Institute for Medical Research

Cambridge Museum of Technology Cambridge Past, Present and Future

Cambridge Regional College Cambridge Science Centre Cambridge Science Centre Cambridge Science Centre Cambridge University Library Cambridge University Library Cambridge University Press Cancer Research Institute

Cancer Research UK Cambridge Research Institute

Cardiovascular Division of Medicine

**Central Science Library** 

Cancer Research Institute

Central Sites Technical Services
Centre for Neuroscience in Education

CHaOS CHaOS CHaOS Pippa Bayfield Laura Watson

Roberto Cayado-Lopez

John Menzies
Ellen Hodges
Claire Brown
Linden Smith
Tacita Nye
Michael Hinton
Laura Burzynski
Bronwen Richards

Sally Lee

Beatrix Schlarb-Ridley
Ms Alison Dickens
Dr Catherine Onley
Lindsey Payne
Abhayamati
Alana Sinclair
Trish Sheil

Amparo Fontaine Gillian Griffiths Chris Wallace Mrs Pam Halls Ms Janet Cornish West, Helen Gaetan Lee

Katia Smith-Litiere Chris Lennard Lizz Edwards-Waller

Alex Fisher
Heidi Mulvey
Stefanie Reichelt
Will Howat
Laura Blackburn
Will Bernard
Yvonne Nobis
Steve Homent
Natasha Mead

Natasha Mead Anna Hughes Beatrice Tyrrell Nunu Tao Joseph Hooton **CHaOS** 

Churchill Archives Centre Classical Archaeology

Department of Applied Maths and Theoretical Physics

Department of Astronomy
Department of Biochemistry
Department of Chemistry
Department of Chemistry
Department of Chemistry
Department of Engineering
Department of Engineering

Department of Engineering

Department of Experimental Psychology

Department of Haematology
Department of Materials Science
Department of Materials Science

Department of Materials Science and Metallurgy

Department of Pathology
Department of Pharmacology
Department of Physics
Department of Physics

Department of Physiology, Development and Neuroscience

Department of Theoretical and Applied Linguistics

Department of Zoology Department of Chemistry Department of Plant Sciences

Department of Materials Science & Metallurgy

European Bioinformatics Institute European Bioinformatics Institute

**EPIC-Norfolk** 

Equality and Diversity Section
European Bioinformatics Institute

Faculty of Education
Faculty of Education
Faculty of History
Faraday Institute
Faraday Institute
Fitzwilliam Museum
Fitzwilliam Museum

Ftizwiliam Museum Graduate Orchestra

**Graduate School of Life Sciences** 

Great St Marys Gurdon Institute

Hills Rd Sixth Form College / Society of Biology

Humanitarian Centre Immunology Network

Institute for Engineering and Technology

Institute for manufacturing

Lia Chappell Churchill Archive Jennie Thornber

Susan Hickman Pinder
Dr Carolin Crawford
Hannah Johnson
Michelle Cain
Dr Sally Boss
Emma Powney
Maria Kettle
Jacqueline Saggers

Ann Lynn
Greg Davis
Katrin Ottersbach
Claire Armstrong

Yulia levskaya Suman-Lata Sahonta Frances McLoughlin

Brian Billups
Mr Harry Druiff
Michael Conterio
Hugh Robinson
Andrew Caines
Matthias Landgraf
James Keeler

Dijana Maric
David Munoz-Rojas
Katrina Pavelin
Cath Brooksbank
Eliott Grigg

Dr Vivien Hodges
Mary Bergman
Jacqui Howard
E. Wilson
Simon Halliday
Polly Stanton
Eleanor Puttock
Lucy Sercombe

Liz Hide

Rachel Sinfield Amparo Fontaine Geraint Wyn Story Peter Hayler

Helene Doerflinger

Ian Harvey Anne Radl Tennie Videler Vernon Boyd

Ella Whellams

Institute for Public Health Institute of Continuing Education

Isaac Newton Institute for Mathematical Science

**Kettles Yard** Kettle's Yard Kettle's Yard Kettle's Yard

La Dante Giulia Portuese-Williams

Linguistics

Long Road Sixth Form College

McDonald Institute for Archaeological Research

MedImmune

MedImmune Limited MedImmune Limited

Menagerie Theatre Company

Metabolic Network

Millennium Maths Project

MRC

MRC Biostatistics Unit MRC Biostatistics Unit MRC Cancer Cell Unit

MRC Crystal Growing/Department of Chemistry

MRC Epidemiology Unit MRC Epidemiology Unit MRC Epidemiology Unit

MRC Human Nutrition Research

**MRC-Biostatistics** 

MRC-CBU MRC-LMB MRC-MBU MRC-MBU

Mumford Theatre

Museum of Archaeology & Anthropology

Museum of Archaeology and Anthropology Museum of Archaeology and Anthropology

Museum of Classical Archaeology

Museum of Zoology Museum of Zoology **Naked Scientists** 

**Neurosciences Initiative** Papworth Hospital Papworth Hospital Papworth Hospital

Physiology, Development and Neuroscience

Polar Museum Polar Museum **Psychology Public Health** 

Public Health and Primary Care

Paul Ireland Sara Wilkinson Rosie O'Donovan Lucy Wheeler

Susie Biller Lara Gisborne

Carol Brayne

Georg FK Höhn **Chris Graham** Sara Harrop Neil Birkett

Monika Papworth John Elvin **Patrick Morris** Maria Adams

Julia Hawkins Adrian Penrose **Rosemary Camperos** Angela Frodsham Ireena Dutta Samantha Wynne Paul Browne Charlotte Ridgway

**Pinal Patel Hilary Jones** Simon White Mandy Carter Liz Pryke Martin King Penny Peck

Mr Richard Purkiss Ms Sarah-Jane Harknett

Lorena Bushell Sarah-Jane Harknett Jacqui Strawbridge

Roz Wade Alicia Lloyd Hannah Critchlow Dervila Glynn **Daniel Saxton** Jennifer Harrison Anne Scott

Naomi Chapman Rosie Amos Mirjana Bozic Lucy Lloyd Steph Moore

Fiona Duncan

Public Health Network Royal Society of Chemsitry Sainsbury Laboratory

Scott Polar Research Institute

Sedgwick Museum
Sedgwick Museum
Sedgwick Museum
Shepreth Wildlife Park
Skeptics in the Pub

Society for Chemical Industry Society for Chemical Industry

St John's College Stem cell initiative

STEM TEAM Cambridgeshire Stem Team Cambridgeshire

The Free University

Univerity of Cambridge Museums Univerity of Cambridge Museums Univerity of Cambridge Museums

University Library University of Cambridge University of Cambridge University of Cambridge

University of Cambridge University Technical College Wellcome Trust Sanger Institute

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