

Getting to Cambridge:

Cambridge science summer school offers you a hassle free journey to our University. We will arrange return flight tickets and pick-up and drop-off service from Heathrow airport to our departments/colleges.



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1. Letter of acceptance: The official letter of acceptance to the programme will be issued by Departments once the programme fees have been paid.
2. Additional supporting documents
Students should refer to the UK Border Agency's [documents to bring to the UK](#) pages for general information on supporting documents. The official letter of acceptance will explain that the fees for tuition, accommodation in advance. Students may be asked to show evidence of additional financial support (at least £600 per month) which can be done by showing one of the following documents:
 - the last three months of official bank statements, showing adequate funds to support the student for the full duration of his/her stay;
 - a letter from the student's parents guaranteeing financial support to him/her, as well as three months of bank statements demonstrating sufficient funds to do so;
 - a letter from the scholarship or loan provider confirming the amount of financial aid and its intended use, and if this amount is less than £600/month, this evidence can be combined with either of the two items listed above.

If the student's citizenship means he/she must apply in advance for a student visitor visa to attend the programme, more information on applying for a visa can be found on the [UK Visa Services](#) website.

Visa information

Citizens of EU countries do not need a visa to participate in Cambridge Science Summer School. Citizens of other countries will need a visa to participate in Cambridge Science Summer School. You would need to obtain a **Student Visitor visa** for this programme. Please visit the [UK Border Agency](#) website for more information, especially the [student visitor visa](#) and [eligibility](#) pages.

Obtaining a student visitor visa

Citizens of some countries (e.g. Hong Kong, USA, Singapore, Malaysia) can obtain a student visitor visa on arrival at a UK airport. You may obtain a student visitor visa on arrival at a UK airport if, for example, you are a Hong Kong national (with an SAR Passport) and you have been normally and legally resident in Hong Kong. Citizens from other countries (e.g. China) will need to apply for a Student Visitor visa in advance. Students should check via <http://www.ukvisas.gov.uk/en/doineedvisa/> to see if they will need to apply for a visa before coming to the UK. If students can obtain the student visitor visa at the airport when they arrive they will need to show immigration officials two types of documentation:

Accommodation

Cambridge Science Summer School offers you a chance to live in one of our University Colleges. Each college varies in style, history, character, size, age restriction and even genders. All Colleges provide residence for undergraduates during term time and some accommodate graduate students all year round. Undergraduates are supervised during the academic year by senior members of the College such as research fellows or College teaching officers. Colleges also provide funding and/or accommodation for some of the senior research posts in the University. The Colleges are self-



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governing bodies with their own statutes, endowments, possessions and resources. Each college provides its own community for students who come from different ethnic backgrounds to read different subjects, to share their knowledge and have fun together through Formal Halls (dining in College hall) and residing in Colleges or College owned properties. There are 31 Colleges in Cambridge, of which Peterhouse, founded in 1284, is the oldest, and the newest College is



Robinson, founded in 1977. Three Cambridge Colleges admit only women (Murray Edwards, Newnham and Lucy Cavendish). Two Colleges admit only postgraduates (Clare Hall and Darwin) and four more admit both mature students and graduate students (Hughes Hall, Lucy Cavendish, St Edmund's and Wolfson). All other Colleges admit both undergraduate and postgraduate students with no age restrictions.

All College rooms are traditional single-occupancy rooms with a single bed, a desk and chair, a wardrobe, free internet access and shared facilities





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including bathrooms, toilets, laundry room, kitchens, chapel, gardens, and sport grounds. The rooms we provide are those normally occupied by Cambridge undergraduates during the academic year, so you will be living as a Cambridge student. The colleges' extensive gardens and quiet courtyards provide a beautiful place to live and work.

Dining is an important part of College life. Over the summer, students will be able to attend at least one dinner, known as a 'Formal Hall' with world-class scientists as guest speakers.

These are three-course candlelit meals usually enjoyed in a beautiful dining hall with students, faculty, and college senior members (fellows). Heated debates are often carried out amongst students at such dinners during term time. This Cambridge dining tradition dates back hundreds of years.





Excursions

One of England's most magnificent cathedrals, Ely, is just a short journey from Cambridge. It is known as the 'Ship of the Fens' because of its unique Octagon tower that rises majestically into the wide blue sky and stands tall over the fens in the small historic city of Ely. Ely Cathedral is the only UK building listed as 'One of the seven medieval wonders of the world'. The cathedral has been a prominent film location for the Elizabeth I sequel 'The Golden Age' starring Cate Blanchett, Henry's VIII 'The Other Boleyn Girls' and, most recently, 'The King's Speech'. Although Ely is a small city, it is very pretty and full of history dating back to the 11th century. You can follow the city's heritage public art 'eel trail' and walk into its past, experiencing life in the medieval period by entering the home of Oliver Cromwell, one of Ely's best-known historical figures. You can also stroll along the River Ouse, walking through the sweeping willows hanging over the water on both sides of the river and enjoy the late sunset blending into a golden horizon with a light Summer breeze. Ely's waterside is also a great place to feed the resident ducks and watch the swans drifting along the current.

Directly south of Cambridge is one of the great sights of East Anglia - Audley End - a fine example of England's stately homes set in a spectacular landscaped park. Audley End was built as an outstanding Jacobean mansion on land given to Henry VIII's Lord Chancellor, Thomas Audley. It is a great place to find out more about British Kings, lords and ladies, barons and earls who have lived here and left their mark over five centuries. The house itself is elaborately decorated with a collection of fine arts and treasure. You

might also enjoy the colourful 19th century parterre garden and a walk through the restored fairytale stable meeting the resident horses and a Victorian groom along the way. To round off the day you can enjoy a cup of tea with a slice of cake in the Cart Yard Café next to the acclaimed walled kitchen garden with its lovely glasshouses and vinery growing original Victorian varieties of fruit and vegetables.

For horseracing enthusiasts, Newmarket, the home of British Horseracing, is just 20 minutes by train from Cambridge. One of the very first British races won by King Charles II, the Town Plate, took place in Newmarket in the early 17th century. Today, over 2500 racehorses train on the gallops from sunrise, every morning. It can be a very fun day out experiencing an adrenaline-driven race event and also popping into the National Horseracing Museum to learn about one of the great traditions of British culture. If the time allows, pick your favourite tour to absorb the atmosphere further.

Further East from Cambridge, beyond Newmarket, you come to a glorious small town called Bury St Edmunds, once home of one of the most powerful monasteries in Medieval Europe. Bury St Edmunds grew up around the powerful abbey of St Edmund in the Middle Ages. People came from all over the world in the last 500 years to worship at the shrine of Edmund, the martyred Saxon King of the East Angles, who was patron saint of England until George took his place. Bury St Edmunds' motto is "Sacrarium Regis, Cunabula Legis" - Latin for "Shrine of a king, cradle of the law". Legend has it that at the high altar of the abbey 25



Sandringham Estate

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met at the shrine of St Edmund, swore an oath in 1214 to force King John to accept their Charter of Liberties, known since as Magna Carta. The document was a significant step towards English democracy, limiting the powers of the monarchy and was vital for the development of today's legal system. It is a great day out to experience the Norman period by entering the Norman Tower, built between 1120 and 1148 as the gateway to the abbey precincts, and then to enjoy a picnic in the splendid Abbey Gardens with its 40,000 summer blooms planted to create a splash of colour. Alongside the astonishing history of this ancient town, the locally brewed beer from the UK's largest British owned brewery, Greene King, can be refreshing on a hot, sunny summer day. You may also enjoy freshly brewed beer in the Nutshell Pub in the centre of town, which is noted in the Guinness Book of Records as Britain's smallest pub, offering little more than eight square metres inside a Grade II listed building.

There are many other beautiful attractions just a short drive from Cambridge, for example the Sandringham Estate (the Norfolk retreat of HM The Queen set in a stunning 24 hectares of gardens), Cromer (a British seaside town and home to the very famous tasty Cromer crabs, ideal for seafood lovers), Wicken Fen (a lost landscape and remnant of ancient fenland), Welney (a birdwatcher's paradise) and,

if this is not enough, the vibrant metropolitan city of London is just 45 minutes away on the train that runs very frequently throughout the day.

CSSS offers you local guidance from our departmental graduate students. They will show you around Cambridge to familiarise you with the town and also organise fun events for you to join and experience. Each of our summer students will be assigned a graduate student 'mentor', so you can easily seek the help and advice you require to enjoy a smooth stay in Cambridge.



Ruins in Bury St Edmunds

Application procedure:

Before applying, students should ensure that they have read and understood all the information on our Terms and Conditions and Rules of Conduct (<http://www.bioc.cam.ac.uk/summerschool.html>)

1. Please send us your completed and signed application form accompanied with an original academic transcript from your university, a photocopy of certificates or examination result/grade to prove your English proficiency and a passport-style photograph with registered post to our postal address:
CSSS Programme
Department of Biochemistry
University of Cambridge
80 Tennis Court Road
Old Addenbrookes Site
Cambridge CB2 1GA
United Kingdom

Note: A passport-style photograph should be a forward facing close-up picture of your head and shoulders against a neutral background. There should be no accessories worn in the picture (i.e. hats, sunglasses etc).

2. The academic reference may be emailed but only from an institutional email address.
3. Pay the application fee and send an email to the Programme Director with a copy of transaction receipt from your bank and also notify us you have submitted your application form together with supporting documents, the date you sent them and also the postal reference number.
4. If you do not receive an acknowledgement email from us after two weeks from the date you sent your application, please contact the Programme Director.

Applications submitted without the application fee will not be processed and please ensure you reference the applicant's name in the transfer for any fees you've paid.

The deadline for receiving applications is 14th November 2011. Applications are considered on a rolling basis and, given the intense competition for places, early application is advised. CSSS aims to communicate its decision within three weeks of receiving a complete application. Applications sent thereafter 14th November 2011 will be placed in a waiting list.

Terms and conditions:

- Applicants must be 18 or above and currently registered as a full time student in a home university (Applicants under 18 will not be accepted on the CSSS Programme).
- Applications received after the deadline (14th November 2011) will be placed on a waiting list. The CSSS will contact successful applicants.
- Application will only be processed if correct fees are paid.
- The Departments and Programme Director will endeavour to secure the applicant's preferred research subjects, however, the subject area is allocated on a first-come, first-served basis, so it is not possible to guarantee the preferred research subject. In this case, we will ensure you are enrolled for an alternative research subject option.
- The Departments and Programme Director reserves the right to alter any course/programme should illness or unavoidable changes in circumstance prevent a course/programme instructor from supervising, tutoring and/or teaching. The Departments will make all efforts, should such an event arise, to provide a suitable substitute instructor.
- The Programme Director reserves the right to alter the contents/details of the Programme (e.g. dates of registration, dates of travelling etc) in the event of unpredicted circumstances caused by public disorder, weather, natural disasters, strikes, Olympic Games 2012 or any other unforeseen problems. We will make all efforts, should such an event arise, to provide an alternative option/programme.

Full and final acceptance on to the programme is subject to the availability of courses and accommodation and the full payment of programme fees. The Departments and Programme Director reserve the right to cancel any of the courses/programmes on offer for the 2012 programme should they be undersubscribed. In the unlikely event of this situation arising, participants will be advised on the best alternative subject for their course requirements.

Visa Requirements

Visa requirements vary according to country of citizenship and applicants should therefore consult the Visa information (see Visa Information section).

Finance

How much does the Programme cost and Payment Deadlines:

The CSSS programme fees for 2012 are:

- Application fees: GBP 200
Deadline is 14th Nov 2011

This fee covers the administration costs incurred in processing applications and interviews. Successful applicants will have this fee deducted from the tuition fee.

- Tuition Fee: GBP 10,000
Deadline: 1st instalment (minimum of 50%) must be cleared within 7 days following our dispatch of your offer letter..
Deadline: 2nd instalment, the remaining tuition fee, 4 weeks following our dispatch of your offer letter.

This fee covers all research based supervision costs, bench fees, course materials, accommodation, return flight tickets, pick-up and drop-off services from Heathrow airport to the University (vice visa), together with one or two exclusion trips and at least two BBQs with our graduate students and one (or more) Formal Hall dinners with eminent scientists as guest speakers and other departmental social events and receptions with scientific seminars.

- Extra Supervision fee: depending on supervisor to student ratio (see Extras section for details)
Deadline: 8 weeks prior to Programme starting date.
- Evaluation fee: GBP 50 (see Extras section for details)
Deadline: 8 weeks prior to Programme starting date.
- Extra English lesson fee: depending on supervisor to student ratio (see Extras section for details)
Deadline: 8 weeks prior to Programme starting date.

It is important that each applicant is aware of his/her programme place will not be secured until we receive full payment of the tuition fee within the deadlines stated above.

Students who have any questions about finances or spending, either before arrival or during the programme, should contact the Programme Director for advice.

Next steps

Interviews will take place 3-4 weeks after the deadline of applications. We aim to carry out interviews from late November to December. If your application to the programme meets all the necessary criteria you will receive an invitation via e-mail for an interview in UK, Hong Kong, Beijing, Singapore or via teleconference. Successful applicants after interview will receive an offer letter for the programme together with a welcome pack containing further information. We collect a minimum of 50% of tuition fee as first installment to help secure your programme place, and therefore you would need to transfer these funds to the bank account stated in the application form within 7 days from the date that your offer letter is sent (see Finance section for details). Please make sure you have referenced your name in the bank transfer and send the Programme Director an electronic copy of the transaction receipt via email. Please transfer the remaining tuition fee three weeks after your first installment (i.e. 4 weeks from the offer letter) Please read Finance section for further information.

The Programme Director will be in touch with you for further details regarding flight schedule, pick-up services from Heathrow airport to Cambridge, accommodation in Cambridge and other travelling information and assistance as soon as we have received full payment of the tuition fee. Light refreshments will be available on arrival.

Registration takes place at the Department of Biochemistry, University of Cambridge, at 10 am on 2nd July 2012.

Insurance and Cancellation Policy

Students are strongly advised to take out travel insurance before their arrival in the UK. The insurance policy should provide adequate cover for the duration of the stay and return journey, and cover any expenses incurred as a result of lost or stolen property, late arrival or early departure or cancellation due to unforeseen and/or unavoidable circumstances. CSSS regrets that it is unable to accept liability for loss or damage to student property.

Students are strongly advised to take out medical insurance before their arrival in the UK. The policy should provide adequate cover for the duration of your stay and your return journey, and cover any expenses incurred as a result of illness or medical care required.

Students should indicate on the application form if they have

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any specific medical condition or conditions that the CSSS should be aware of.

If, for whatever reason, a student is obliged to cancel his/her place on the CSSS Programme, they should be aware of the following stipulations:

Application Fee (£200): This fee is non-refundable and non-transferable; however successful applicants will have this fee deducted from the tuition fee.

Tuition Fee (£10000): This fee is non-refundable and non-transferable; only refundable if the applicants have been rejected after interviews.

Optional Supervision Fee: refundable until 4 weeks before arrival.

Optional Evaluation Fee (£50): refundable until 4 weeks before arrival.

Optional English lessons Fee: refundable until 8 weeks before arrival.



"I'm always surprised how little people know about anything. I'm puzzled by it"

Max Perutz



"I spent eight weeks working as a summer student in Prof. Evan's Lab. This was a great experience and I learned a tremendous amount in experimental work and how world class research is carried out. This research experience was far more interesting and engaging than as an undergraduate.

I was mentored by an excellent supervisor - Deborah Burkhart - who provided constant help and guidance. During this short time, I learned basic laboratory techniques and simple experimental calculations. I was taught many different advanced techniques which I would not have had an opportunity to carry out during regular undergraduate teaching. These included Western Blotting, Tissue Culture, Immunostaining, Flow Cytometry, RNA extraction and qPCR. Performing these experiments allowed me to contribute a small part in an exciting ongoing research project.

My project involved working on transgenic mice which had their Ras inhibited when treated with doxycycline via a dominant negative human Ras with the aim to assess therapeutic effects of Ras inhibition in tumours. Specifically, I helped detect the presence of the inserted human Ras gene in different mice organs and compared the difference between promoters. I also optimised conditions for Mouse Embryonic Fibroblast proliferation experiments and showed

the addition of doxycycline inhibited proliferation which was also reversible. Finally, I detected various downstream effects of doxycycline addition which helped to confirm Ras was being inhibited.

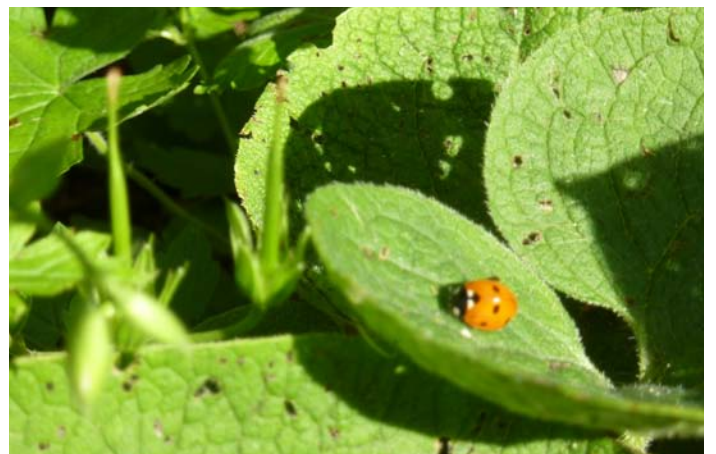
This research experience not only taught me practical techniques but also processes in scientific research. I learned to read and discuss papers with my supervisor and they related and could contribute to possible experiments for our project. I also learned to plan and design my own experiments and execute them successfully. I was also able to attend lab meetings and listen to work being presented by others and discussions for further experiments and improvements."

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What you, the CSSS student, will get from the Programme

The Cambridge Science Summer School Programme directly immerses you in the best experimental science, offering unique interactions with eminent research scientists in a world-class scientific laboratory environment. We will train you in how to generate experimentally testable hypotheses, how to conceive, plan, execute and interpret experiment. Science is a deeply social enterprise, requiring the ability to communicate and enthuse others with your data, and to interpret wisely the experiments of others. We will therefore offer you instruction on how to present data, receive and use constructive criticism of your own experiments, and how to interpret and critique published scientific papers through the use of journal clubs and discussion groups. Our Programme participants enjoy full departmental membership, with access to all the facilities within your host department, including IT access and support, use of the departmental library, A/V support for presentations, and admission to all departmental seminars, journal clubs, discussion groups and social events. At the end of your successful completion of the Summer School, we will provide you with a formal certificate of course completion signed by the Heads of the three



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participating departments (Biochemistry, Pharmacology and Pathology), indicating that you have achieved the requisite standard of scientific acumen and endeavour. In addition, your laboratory mentor will provide you with a detailed letter describing the project you undertook and the techniques and technologies that you have used. Both documents may be used by you for future career development and, we hope, support your future interest in returning to Cambridge as graduate students or post-doctoral fellows.

Professor Gerard Evan



Cambridge Science Summer School



This photo was kindly given by Dr Alan Winter, a fellow of Christ's College

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