

## **CAMBRIDGE SCHOLARS PROGRAM: PARTICIPANT COMMENTS MICHAELMAS 2016**

### **Gavy Aggarwal '18, Computer Science, Cambridge Michaelmas/Corpus Christi College**

After deciding to study abroad at Cambridge, I was reluctant to enter a new world where I knew nobody and I was unfamiliar with the culture. When I first came to the city, I was intimidated by the busy shops on Market Square, the maze of roads, and the majestic buildings guarded by giant towers and massive gates. However, I quickly found out that behind those gates, existed a beautiful world.

In my case, inside the gates was the heart of Corpus Christi, one of the 31 self-governing colleges that comprise the University of Cambridge. Since I had arrived during Michaelmas term, I attended matriculation, an extravagant ceremony in which we wore our college gowns, signed a special book that made us lifelong members of Corpus Christi, and dined in a picturesque neo-gothic style, candle-lit hall. Following matriculation, we had Fresher's week, where we met the other first-years and upperclassmen, received advice and pointers for living at Corpus Christi, and explored the city of Cambridge. At Cambridge's societies fair, I discovered the number of clubs that Caltech could offer with its small undergraduate population was dwarfed by the myriad of clubs at Cambridge, ranging from various cultural societies to a breakdancing society to a whiskey society and to a sport society for practically any sport imaginable.

I chose to join the Cambridge University Massage Society and enrolled in a four-week course focused on hand, arm, shoulder, and back massage. I also joined Corpus Christi's rowing team, for which I had to go to practice at the brink of dawn several times a week as winter approached and the temperatures plummeted. But it was worth it. Over the course of the term, we went from being uncoordinated newbies who struggled to even balance the boat to being a well-greased machine of skillful rowers who speedily raced on the river. And speaking of traveling on the river, while at Cambridge, I went punting, a famous but strenuous mode of transport on the River Cam that involves standing on the stern of a flat-bottomed boat and propelling it forward by pushing off the bottom of the river with a metal pole. To this day, I vividly remember the panic of being thrown off balance and almost falling into the river after colliding with other boats or getting the pole caught.

Besides all the societies and clubs, the academic system is one of the most distinguishing features of Cambridge. As a student in the Computer Science Tripos, I enjoyed all my classes and felt like I had the opportunity to further my education by taking courses that were not offered at Caltech. In addition to lectures, I attended supervisions, 1 on 1 sessions with alumni and professors in which we discussed the contents of the course. Having these intellectual discussions with experts in the field on a routine basis was an incredible, enlightening experience that I have yet to see in the US university system. On top of all the lectures and supervisions, Cambridge had a

burgeoning Computer Science department which hosted tech talks almost every day (sometimes multiple in a day) from leading engineers in top companies who explained their clever solutions to problems the industry is currently facing.

Overall, the term I spent at Cambridge was the perfect complement to my time at Caltech. It was an enriching experience in which I learned new skills, met some great people, and broadened my education in a way beyond that was impossible at Caltech.

### **Chloe Hsu '18, Mathematics, Cambridge Michaelmas/Pembroke College**

When I look back to the seven weeks that I have had in Cambridge so far, those seven weeks seem so long, yet so short – long because they are filled with many cherished memories with lovely people at lovely places, and short because I still remember vividly the first day I arrived in Pembroke during Freshers' Week. I have adjusted to a fairly different daily routine here than my typical day at Caltech. It took me several weeks to find what works the best for me (e.g. how many layers of clothes to wear), but once I found my own balance, I have been quite happy about my life here. Cambridge is a big university with plenty of diversity, so if you randomly ask a dozen Cambridge students, none of them will have the same Cambridge experience. Some do a lot of rowing and athletic activities, some get intensely involved in theater, choir, activism, etc., while some are busy with challenging work and interesting academic talks.

My weekday in Cambridge starts with a refreshing 25-minute walk to the math department. During the walk, we cross the river and stroll along a beautiful path past the university library, stepping on the red and yellow fallen leaves. The scene looks different every single day, sometimes with a ray of sunshine, sometimes with a thin layer of frost on the grass. One of the reasons that I chose to come in Michaelmas is because autumn is my favorite season, and I want to see England in autumn. Then, lectures run from 9am to 1pm. I find the lectures here generally similar to lectures at Caltech.

After lectures, I often take advantage of the lunchtime to tag along with friends in other colleges and visit their colleges over lunch, since Pembroke College is quite far away from my lectures. Pembroke is one of the oldest colleges with a "Harry Potter" style hall; Murray Edwards is an admirably artsy college, and their dining hall resembles a gallery with numerous modern paintings on a monthly rotation; St Catherine's is small and homey (Paul, a SURF student at Caltech last summer, took me to St Catherine's); and the list goes on. Most of my Cambridge friends say after a while they get over the initial hype and become blind of how beautiful the town is, but my stay here is too short for me to get tired of Cambridge.

In the evenings, there are endless possibilities. Formal halls (formal dinners) are also nice, whether on a special occasion with a large group, or just casually with a close friend. Each society also has its own events, and there are probably more societies here

than you could think of. Film nights, debates, talks, chorus groups, photography peer reviews, wine/whisky tasting, and poker/bridge games. It never hurts to try something new, but at the same time choose selectively since time is limited. One advantage of Michaelmas over Lent is that Freshers' Fair (the gigantic Cambridge club fair) takes place in Michaelmas, and it is relatively less intimidating to join societies since everyone is new. Personally, I really enjoy going to classical concerts/recitals and plays. There are always at least a handful of plays and concerts going on every night in Cambridge, and the great thing is that the venues are so close to my room. Most events are in college playrooms/chapels, whereas Cambridge Corn Exchange and West Road Concert Hall are at most 10 minutes away by walking. Because of this, I don't really need to plan much ahead for going to these performances. Often I find someone who would like to go together on the day of, and show up at the door.

I am very grateful to having this opportunity to study abroad at the University of Cambridge, and I am very grateful to everyone who has helped me along the way. Now, the thought that I have only two more weeks left until the end of term makes me a little sad, but at the same time this thought urges me to make the best use of my remaining time here and explore more of Cambridge.

### **Aishwayra Nene '18, Chemistry, Cambridge Michaelmas/St. John's College**

When you are studying abroad, no one day is like the next. With the immense opportunities available, each day is an adventure. I have been able to pursue many interests and learn of ones I never thought I have had. From my food exploits to meeting wonderfully diverse people to strolls in this historic city, I remain to have a dull moment.

I arrived late September after a hectic summer not knowing what to expect. As I dragged my suitcases across the cobbled ground in St. John's College from courtyard to courtyard, my jaw continued to drop. St. John's is one of the largest colleges in Cambridge (an 8 minute walk from my room in campus to the main gate). The college's chapel and formal hall are covered in stain glass. The gardens behind the college lie beside the River Cam, where students like to go punting. The ivy encapsulates the backside of one of the gothic buildings and turns crimson red in autumn (an absolute delight if you've only lived in season less California). Not to mention, I was fortunate enough to live in a penthouse room this year with two floors, a living room, and an ensuite bathroom. St. John's is just one architectural masterpiece in Cambridge. As a Cambridge student, you have the opportunity to stroll through any of the 31 colleges with their impressive libraries and chapels.

The best insight I can give you into my student life is probably what I am able to do on my walk back from class. I'm a chemistry major, so the chemistry department is just under a 1/2 hour walk from where I live. This would be 6 Avery's away, which may sound unfathomable to a Caltech student. But, I don't mind because of the many distractions on my route. Some days, I stroll into a new café to work with coffee. There

are also a large number of shops and a mall sprinkled on my route. Every morning, I cross the Fitzwilliam Museum, which is daunting with its Roman architecture. There are also smaller museums throughout Cambridge, including the Museum of Archaeology and Anthropology, where I swear I saw Stephen Hawking. Other highlights in Cambridge include visiting the ADC theatre (amazing student-cast plays and comedy skits), the Cambridge market (great for souvenirs and cheap street food), and the nightlife (student clubs and pubs like The Eagle where Watson and Crick announced the DNA structure). And, despite all of this, if you do want to get out of the city, London is only 50 minutes away.

There are countless opportunities to get involved in student life. This would be the main reason I would strongly recommend studying in Michaelmas Term. Fresher's week gives you not only the opportunity to meet so many new people, but also attend the societies fair. With hundreds of societies, there were things that I had never heard of like caving. I've had the opportunity to pursue pistol shooting and rowing. Societies can be a great way to make friends. For instance, I am going to Oxford to attend a Diwali Ball through one of my societies. The people here come from all over the world and are studying everything from law to Persian. If you're interested, there are loads of opportunities to have pretentious, or rather intellectual 😊, conversations with your peers and the college fellows at champagne receptions or in your gowns at formal hall. I never thought I would be able to make any lasting friendships in the six short weeks, but it's wonderful to have international friends. It just means more travel plans in the future. Everyone is very friendly and because it is Michaelmas term, other students have less work and there are tons of social events (too many for me to keep up with!).

That brings me to work, because after all, you are *studying* abroad. As a chemistry junior, I am taking six mini courses in chemistry. I get to take a wide variety of topics ranging from medicinal chemistry to advanced diffraction methods to computer simulation. The courses are very enjoyable, but they are designed for 4<sup>th</sup> year students in chemistry, while I am a junior. I needed to take these classes because they are the only ones that work with our schedule. These advanced electives, therefore, were as challenging as my Caltech coursework. There is a significant amount of work associated and you attend supervisions where you articulate your work. But, the work is incredibly gratifying and there are no exams. Of course, this varies for different majors. As a premedical student, this was my opportunity to learn for the joy of learning without the petty worries about getting every mark possible.

I like to think that I can encapsulate the memories I've made into a little box of happiness to pack into my suitcase. Walking down these cobbled streets, I still feel like I'm in a dream. Never have I done so many new things in such a short time, never have I ever felt more independent and alive.

## **Preston Rasmussen '18, Mathematics, Cambridge Michaelmas/Corpus Christi College**

I expected to have a new and unique academic experience while at Cambridge, but the experience that I had was so much more. My time at Cambridge began with Freshers' Week, which has a wide variety of events both formal and informal. One of the major standouts is matriculation, where the incoming first-years sign books to have their names join those of all the previous members of the college and university. This event, which took place in the picturesque hall, made me feel truly connected to the university, and part of a history that had lasted for centuries and would last for centuries more. Later that week, we attended the societies fair, which showcases any possible organization that you could want to join, including social societies, sports, theater and even a Tolkien society. I could have spent three years at Cambridge and still not have the time to participate in all of the societies that I wanted to. The options are endless and there is plenty for everyone, no matter their interests.

The people I met at Cambridge were all extremely passionate and intelligent. The students studied more varied subjects than those at Caltech, and it was nice to have numerous conversations about Philosophy or Classics crop up, in addition to many of the scientifically oriented conversations which are common at Caltech as well. In terms of academics, I found that the interaction between undergraduates and PhD students or professors from supervisions was invaluable. I feel that doing problem sets in mathematics is a good way to learn material and to practice writing proofs. However, this system used at Caltech often leaves out much intuition behind asking the right questions, and conjecturing what to prove is as important as actually proving statements in mathematics. I felt that the supervision system allowed professors to give insight into how mathematicians of the past were able to conjecture their important theorems, and how to make seemingly unintuitive statements feel completely natural. All of the supervisors I had were extremely kind, helpful and passionate, and this experience of interacting with academics will allow me to better approach and discuss questions with the Caltech faculty.

While at Cambridge I joined the college rowing team, which offered a new way to both meet people and challenge myself. Rowing was particularly rewarding because it has a large community at Cambridge and was a sport not available to me at Caltech. Even though rowing met getting up at 6:30 in the morning, it was definitely a great experience and I would encourage everyone who studies at Cambridge to try to joining a sport, even if they have never done any before.

Cambridge also has a vibrant theater community, with numerous shows and events happening constantly. The plays are quite good and definitely worth attending even if you don't participate in any productions yourself. The Footlights smokers are fortnightly comedy sketch nights and are worth attending. The Footlights board members produced some of the funniest sketches I have ever seen. I would also encourage

anyone even remotely interested in doing comedy to audition for their event designed for first-timers, as it was an extremely rewarding experience.

All in all, my study abroad experience at Cambridge was irreplaceable, and it will definitely be a point in my life that I look back on fondly.

### **Samuel Yee '18, Physics, Cambridge Michaelmas/St. John's College**

Probably the biggest difference between Caltech and Cambridge is how old Cambridge is – after all, this is an institution that was almost 400 years old when Newton wrote the *Principia* (and you can see his personal annotated copy in one of the libraries!) This is a place which prides itself on tradition, and in coming here, you will join a long line of students who have been drawn here ever since the university was established. The colleges are grand and self-confident, stalwart institutions which have stood for centuries, and will probably stand for centuries more. A big part of the Cambridge experience is, therefore, about soaking in this atmosphere. In Michaelmas term, I was able to go through many of the orientation activities organized for the freshers, including a Matriculation ceremony, talks on the history of St John's college, and the first of many formal dinners. Over the course of the term, I've done my best to appreciate the things which make Cambridge Cambridge – visiting the many college libraries, attending choral evensong in the chapels, and simply walking around the town and appreciating the architecture.

Fortunately, that isn't all to do at Cambridge. There are many more students at Cambridge than at Caltech, and the students here tend to have more free time (at least outside Easter term, when all their exams are held), and so there is a bustling community of clubs and societies. It's especially easy to take advantage of this during Michaelmas term, as the Freshers' Fair provides a good way to scope out the countless societies which exist, and most societies have special events for new students at the start of the term, as a sort of sampler. It's thus very easy to try out many things to decide what you like. I've particularly enjoyed going on hiking trips with the Hillwalking Club, as it's otherwise hard to get to good places for outdoor activities on your own. I attended demonstration sessions and took a test to be able to use two 200-year-old telescopes in the Institute of Astronomy – these are completely analog, hand-operated instruments, and it's surreal that us students get to use them without supervision. There are also many talks organized by the various societies – ranging from science to policy to philosophy – and it's nice to be able to engage with fields outside your narrow scientific interest. Beyond the university, Cambridge is very much a college town and there are many museums, art events, performances, clubs, pubs, bars, all within walking distance. It's very easy to find something to do no matter what time or day of the week.

Cambridge's Cavendish Laboratory (founded by Maxwell) is often considered to have a more theoretical slant when it comes to teaching physics. But since you're studying at Caltech, this should not be a problem – in fact, I found two of the classes here to be

somewhat more phenomenological than I would expect similar classes in Caltech to be. The Part II Physics classes during Michaelmas term here can be challenging for someone who has only taken the Ph 12 series at Caltech, as the students have learned somewhat more in their second year. However, this initial hurdle is surmountable with a little bit of effort at the start of the term. Lectures here tend to be rather well-structured, and every class in the Tripos gives out typeset lecture notes, which I really appreciated as I didn't find myself having to scramble to copy down notes from the board. While I found the workload to be comparable or less than that at Caltech, the lack of reliance on the blackboard during lectures means the classes tend to go faster and cover more material than you would expect from an eight-week term.

The supervision system is like the recitations at Caltech, except that they are in smaller groups, are mandatory, and (at least in Physics), given by professors. I found it to be an excellent way of learning, as I could ask questions directly to professors about the material, understand where I went wrong on my sets, and engage them on the work they are doing and how it was related to what we were learning in class.

Just as with studying at Caltech, a study abroad experience is very much what you make of it. There is a balance to be found between the many activities that are available, making new friends, seeing more of the UK, academics, etc. – and everyone has a different idea of what that balance should be. In my conversations with the other study abroad students, I've found that everyone is enjoying themselves immensely, but for very different reasons. It is truly a golden opportunity to be able to live and study in a foreign country – and one which should not be missed.