

## Newnham US Bursary 2018 - Report to the Newnham US Committee

### Disha Singhania



Thanks to the financial support Newnham provided me, I was able to spend my summer at an ophthalmic institute in Boston, Massachusetts. I spent a total of eight weeks at the Schepens Eye Research Institute - affiliated with both Harvard Medical School and Massachusetts Eye and Ear. The establishment was founded by the retinal surgeon Charles L. Schepens, M.D. in 1950 and is now one of the largest eye research institutes in the nation.

I am currently in between my second and third year of medicine. Having completed pre-clinical medicine, I really wanted to explore ophthalmology as a potential branch for me to pursue in the future. I found both the immunology and the physiology of it fascinating and as I am conducting my third year research in physiology, I wanted to explore immunological research during my summer. I found Dr. Sunil Kumar Chauhan's research on corneal immunology both exciting and innovative and was fortunate that despite being such a prominent figure, he accepted my request to join him for the summer.



We had a small lab of five people in total, allowing for an unparalleled level of support and camaraderie. All of my fellow colleagues were post-doctoral, two from a scientific background and two from a medical/veterinary background. Another unique aspect of our lab was the extent to which Dr. Chauhan encouraged independence and academic thought. At other labs in the US and globally, you could often take on the role of technician and just perform the techniques you were asked to do. In Dr. Chauhan's lab, I was encouraged to think about why I was doing which experiments, understand the basis of the technique I was using and plan my own course of action. There is no doubt that I was surrounded by intelligent and driven researchers and as a consequence, was truly inspired by them during my time there.



I have gained so much from their teaching - both scientifically and technically. I can now comfortably handle cells (counting, passaging, freezing, thawing etc.), have attempted real-time PCR and assisted during techniques such as migration assays and flow cytometry. Scientifically, I have read numerous papers, attended large lab meetings and helped with writing manuscripts. I have never known more about immunology or about the scientific process.

However, despite this being a predominantly academic pursuit, I also had the once-in-a-lifetime opportunity to experience a different culture to my own. I have travelled for holidays but I have never lived in another country and doing this, especially considering the fact I was alone for the two months, taught me a lot in terms of independence and self-confidence. I think a beautiful part of



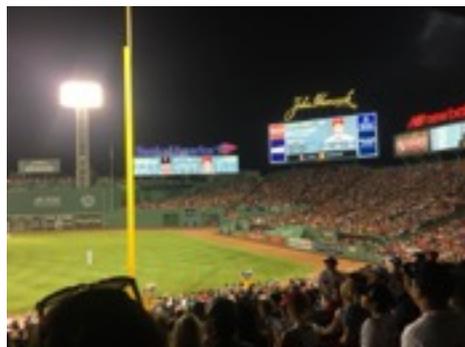
culture in America is that it is not as defined as in Britain: it is a melting pot of the cultures of so many people from different backgrounds. This was particularly evident in my lab and the larger lab we were associated with. I was fortunate to go on the annual lab outing to Cochituate State Park, which was a really good chance to build relationships with and learn the stories of these really interesting scientists from across the globe. I also got to try my hand at kayaking which may be my

new favourite sport! In addition, whilst in Boston, I managed to see my Director of Studies - Prof Jenny Morton - at a conference she was speaking at, which was a lovely time to meet both her and other renowned scientists in the field of neurodegenerative research.



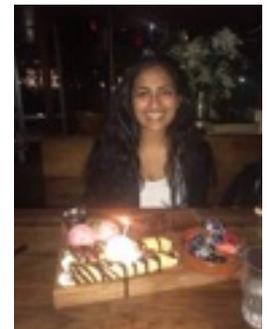
Outside of the lab, I also endeavoured to explore as much as possible. A couple of weeks into my trip I discovered that two other medical students in my year from Cambridge had come to Boston doing their own respective projects. This made tourism a lot more fun as we all wanted to see the same things! Some of my highlights were the freedom trail (and climbing the very narrow Bunker Hill Monument), the science museum and the bridge between Cambridge and Boston measured in 'smoots'. Out of all the university buildings, three stood out: MIT's main campus, Harvard Business School and

Harvard Medical School. Just standing next to their grandeur was inspiring, particularly at the Medical School for myself! It was also fun to visit the Hard Rock Cafe one night for something contemporary. We ensured we did the infamous 'Duck Boat' tour too, which was a fun opportunity to catch the Boston skyline at sunset as well as watch a helicopter landing at Mass General!



As well as touring, I also enjoyed doing typical Bostonian activities. I managed to decide on a couple of my favourite restaurants (despite the huge portion sizes), strolled the parks and went to the cinema a few times. I was lucky enough to get tickets to see a Boston Red Sox game at Fenway Park - unfortunately we lost to the Phillies but it definitely spiked an interest in baseball for me! As an avid classical music fan, I attended many a concert including going to see the opening of the summer concerts at the Hatchshell (an outdoor venue where they played

Holst's *The Planets* that evening) and a concert by the MIT philharmonic orchestra. I even managed to visit some distant relatives in Lexington, where we went peach picking and visited a beautiful sunflower farm. I celebrated my birthday during my trip as well, so managed to share some cake with my lab as well as go out for a lovely meal in the evening with some friends.



As a lot of my time in the USA was mainly working, it was very nice to have a weekend in New York that felt like a true holiday. We saw all the major hotspots in Manhattan including the Empire State Building, Rockefeller Centre, New York Public Library, Wall Street and the Met. We caught the Staten Island Ferry at sunset and went to Times Square at night - some of the most beautiful and exciting scenes of my life. I also explored Brooklyn Heights and the view of Manhattan from there.



I am so incredibly thankful to Newnham and the US Alumnae Committee for their generosity in giving this bursary. I hope this letter has shown you to some extent how important this trip has been for me and how much I have gained from it. It was an experience I would not have been able to enjoy without your support. You are all kind, powerful and inspirational women that I am very lucky to be affiliated with. During my time in the US, I was delighted to visit Margaret Campbell in Brooklyn and meet Antonia Von Gottberg and Sarah Gould in Boston. I unfortunately could not meet with Linda Gaal in NY due to differing schedules, but she also kindly invited me to her home. I will always be thankful for their hospitality and warm welcome to the US. If any of the alumnae would like any more pictures, to further discuss my trip or meet in the UK (maybe even the US), I would be thrilled. Hopefully, it won't be long before I'm back there again!

