

## 2013 U.S. AAALAC International Fellowship: The Experience of a Lifetime

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My 2013 AAALAC International Fellowship experience was a tale of firsts. My first time across the pond to visit the UK...first time traversing the Tube (mind the gap)...first full English breakfast (still craving that Black pudding)...and my first time driving on the left side of the road, on the right side of the car. I sometimes have dreams of never ending roundabouts!

I landed at London Heathrow airport on a surprisingly sunny Sunday afternoon in March. As I looked out the window of my hotel room, I could see the London Eye in the distance. That's when it hit me...I really am the 2013 U.S. AAALAC International Fellow! After pinching myself to be sure I wasn't dreaming, I was ready to embark on what I knew would be an experience of a lifetime.

Day 2 of my Fellowship started out with a bang, as I traveled via the Tube, a double decker bus, and a brisk walk up an inclined street to reach the MRC National Institute for Medical Research (NIMR). After clearing security and a brief introduction with a hearty "welcome to the UK", I was told to take off all my clothes. That is when I knew it would be a great Fellowship! I showered in and found some barrier attire waiting for me on the other side, including paper underwear --- another first! I was immediately impressed with the NIMR facility, where the focus is on Genetics & Development, Infections & Immunity, Neurosciences, and Structural Biology. What impressed me most of all were the people I was able to meet at the NIMR. I got the strong sense that it was not just a job to them, that they were very engaged in the research, and extremely proud of their part in the process. I had the privilege of shadowing one of the technicians while they performed their normal duties. I was also shown around the Procedural Services Section (PSS), SPF Transgenic Facility, and Laidlaw Rodent/Aquatic unit. After a nice lunch in their cafeteria, I was treated to my first pint of English ale at the local pub. At the conclusion of my visit to the NIMR, I was driven to the local train station. This would be my first English train ride. I arrived at the Grateley station that evening and then took a cab to my guesthouse in the quaint little town of Amesbury. My second day concluded with a delicious Indian meal paired with wonderful Indian beers on tap.

Day 3 began with a taxi to a research facility where the Centre for Macaques (CFM) is based. The CFM is a breeding facility for rhesus macaques that aims to be a centre of excellence in primate welfare and care. There is an emphasis on training animals for husbandry and procedures and ensuring that animals are well socialized with humans. I witnessed all of these guiding principles in practice during my visit to the CFM. Everyone on staff that I met was clearly passionate about the animals under their care. It was a bit unnerving at first wearing much less PPE than I had been used to in the U.S. This is due to the fact that all of the Macaques housed at the CFM are B-virus negative. I was extremely impressed with the variety of environmental

enrichment. My favorite was the mirrors that had been installed outside every glass windowed enclosure. These mirrors also had handles on the inside that the animals used to move the mirrors and see who was in the corridor. It was fun to see curious Macaque faces checking me out through the mirrors. The high point for me was receiving a big bowl of peanuts and being allowed inside one of the enclosures to feed the residents! An experience I won't soon forget. My second day concluded with a train ride back to London and my first taste of proper Fish & Chips, with a few pints of English ale for good measure!

Day 4 began with a Tube ride to Cambridge, then a taxi to a Molecular Biology Laboratory. The aim of the lab is to interpret biological phenomena at the molecular level by a wide range of studies on the structure of proteins, nucleic acids, membranes, organelles and viruses, and by research on the mechanisms and control of gene expression and the three--- dimensional organization of cells. I was impressed with everyone that I met at the lab, their genuine good nature and passion for the animals under their care. I remember fondly a great deal of hearty laughter and camaraderie at the lab. At the conclusion of my visit, I was given a mini---tour of central Cambridge. I could feel the history in the air, and was awed by the architecture of the various buildings. The high point for me was having a pint at the Eagle pub, the place where Francis Crick interrupted patrons' lunchtime on February 28, 1953 to announce that he and James Watson had "discovered the secret of life" after they had come up with their proposal for the structure of DNA. The evening concluded with a splendid dinner with newfound friends, followed by a train ride back to London.

On day 5, I visited a local university. The first stop was their Old World Primate (OWP) facility. This brought things full circle for me since all of the Macaques housed at the OWP were from the CFM. After a nice networking lunch in the center of Cambridge, it was off to visit their New World Primate (NWP) facility. I had never been up close and personal with Marmosets before, and these amazing little creatures mesmerized me. The enclosure enrichment was excellent, and you could tell that the technicians charged with daily care really loved their Marmosets. The high point for me was when I was given handfuls of small marshmallows and allowed inside a large group-housed enclosure to give the residents a treat. I felt like I was in a scene straight out of a Star Wars movie, surrounded by eager little Ewoks. What a thrill!

On day 6 I visited the London office of Understanding Animal Research (UAR). UAR provides information and educational materials based on thorough research and understanding of the facts, historical and scientific. UAR seeks to engage with and inform many sectors to bring about its vision. Key stakeholders include members of the public, the media, policy makers, schools and the scientific research community. It was great to see UAR's Campaigns Manager after initially meeting him during the Pro-Test for Science rally on the UCLA campus in 2009. I was also able to meet Wendy Jarrett (UAR Chief Executive) and have a productive meeting with them to discuss best practice in animal research outreach. With the rest of the afternoon free, I was able to ride the London Eye, a giant Ferris wheel on the South Bank of the River Thames. The entire

structure is 135 meters tall and the wheel has a diameter of 120 meters. The views of London were spectacular! I then visited Big Ben, Westminster Abbey, and the Tower of London.

Day 7 was a free day, and I took full advantage by booking a day trip that took me to Windsor Castle, Stonehenge, and the City of Bath (A World Heritage Site due to its exemplary Georgian architecture crafted from Bath Stone.) As a castle aficionado, I was thrilled by Windsor Castle, although the Queen was not in residence that day. I was also relieved to see that the actual Stonehenge was much larger than the Spinal Tap version! Day 8 was another free day in Cambridge that gave me the opportunity to explore more of that historic and magnificent city.

On Day 9, I visited an institute in Cambridge that has participated in some of the most important advances in genomic research developing new understanding of genomes and their role in biology. The institute's research is organized into 5 research themes namely Human Genetics, Pathogen Genetics, Mouse and Zebrafish Genetics, Genetics of cell systems and Bioinformatics. The Research Support Facility (RSF) houses mice, zebrafish and frogs. As well as the dedicated team of animal technicians, the RSF also houses a Transgenic Technologies Group providing DNA and ES cell microinjection services. I received a comprehensive tour of the Institute and RSF, an extensive overview of their in-house mouse database (quite impressive), and observed procedures within the Transgenic laboratory.

Days 10-12 concluded my Fellowship with the IAT Congress 2013 in the South of England. I was very fortunate to join a car pool with some of my friends, which made the trip to the South of England all the more enjoyable. The theme of Congress 2013 was "Techs and Vets – together we can make a difference." There were over 450 delegates in attendance. It reminded me of the CALAS Symposium in both size and atmosphere. There was a lot of buzz about the new European Directive 2010/63/EU that took effect on January 1, 2013. This new directive has a heavy emphasis on training and competence, with defined assessment, pass/fail criteria, effective application of the 3Rs, and focus on competency assessed separately from learning outcomes. There were plenty of exceptional posters to view, an excellent vendor exhibit area, and a first-rate program covering a wide range of interesting and relevant topics. Highlights of the social program included the popular "Ken's Quiz Night", and a closing Gala Dinner and Dance. I was very happy to see the UK folks enjoy dancing as much as I do. I didn't want it to end!

I would like to give my heartfelt thanks to Priority One Services, Inc. (POS) for their generous grant, AAALAC, AALAS, IAT, MRC, NIH, and all of the wonderful folks that I was able to meet in the UK for making this International Fellowship truly the experience of a lifetime! I have memories that will last forever!

I would also strongly encourage anyone reading this that believes they meet the Fellowship requirements to take a shot at this award. You may not succeed on the first few attempts (it took me 4 attempts before being selected), but your perseverance will pay off and your efforts will be well worth it when you experience all that the AAALAC International

Fellowship has to offer. It is truly a career and life changing experience that you will never forget!