From left to right: Dr Mariana Tinajero-Trego, Alexander Taylor and Professor Robert K. Poole
investigation then shifted to interactions between photo-CORMs or CO, and nitric oxide (NO), another ligand of haem proteins. These results were equally intriguing, showing that, while CO potentiated NO as a growth inhibitor, under certain circumstances, photo-CORM could reduce its toxicity.

The most exciting aspect of the project was exploring unknown ground, and knowing that many of the results I obtained might never have been seen before. While an expected result was greeted with feelings of triumph, many of the results were surprising, and, although these caused a great deal of head-scratching, they proved all the more thrilling because of it. During the course of the project, I also attended the XVIII International Conference on Oxygen-Binding and -Sensing Proteins in Sheffield, an exciting opportunity which I would never have otherwise had. I enjoyed the laboratory work both for its flexibility and self-directedness, and the opportunity to work with people who were so friendly, helpful and kind, and my experiences have convinced me to pursue a career in research. I am very grateful to the Biochemical Society for funding this opportunity, and I would strongly recommend it to future applicants.

Claire Anne Hutchison

I am extremely fortunate to have been given the opportunity by the Biochemical Society, and Glasgow Caledonian University, to spend 6 weeks in the laboratory this summer working under the supervision of Dr Patricia Martin. Given my particular interest in skin disorders, I was doubly lucky in that the project I was involved in was researching the role of connexins in inflammatory skin disorders with a view to establishing, among other things, whether increasing calcium concentrations could rescue cells from the effects of the leaky hemi-channel activity often associated with such disorders. With my increasing gravitation towards a career in research science, I entered into the studentship hoping that it would fire my aspirations, by giving me a realistic idea what it feels like to work in the laboratory in a research capacity, as well as equipping me with new skills and experience in a host of novel techniques. My expectations in terms of what I would get out of the experience were truly surpassed.

My studentship began with an introduction to cell culture techniques, which I proceeded to use throughout the 6 weeks to maintain my cells. I managed to expose HeLa and HaCaT cells to a number of different challenges, such as different calcium concentrations and to the bacterial cell wall component peptidoglycan, and gained experience in a number of different methods used to interpret the results, such as gel electrophoresis, immunostaining, PCR and MTT assays. Carrying out the immunostaining and the subsequent viewing of the cells on the EVOS® digital microscope was certainly one of my favourite aspects of the research. Not only were the images of the gap junctions in their fluorescent glory incredibly fascinating, but also the ability to challenge cells and visualize the results so soon after was extremely exciting.

The studentship has been an invaluable opportunity; the highlight of my university experience to date. Not only has it allowed me to develop new skills and increase my confidence in the laboratory, generating some great results along the way, but it has also enabled me to meet researchers, at different stages of their career, and draw great inspiration and knowledge from them. The time in the laboratory has, as I had hoped, stimulated my ambitions to become a research scientist. It has also taught me a number of important lessons. I have learned that keeping an up-to-date lab book really is crucial if you want to retain your sanity during the write-up process, or want to go back and repeat something or investigate why something may not have worked as expected. I have also learned to appreciate the benefit of planning your day in the laboratory to get the most out of it and to adopt the ‘if at first you don’t succeed…’ approach. On a more philosophical note, I have come to the realization that there really is no greater reward than getting to do something you love on a daily basis with the added bonus of knowing your research is contributing to the greater good. All in all, the summer studentship has been an extremely rewarding and enjoyable experience and one which I will undoubtedly look back upon as being a turning point in my career path.