This summer, I spent several months working remotely as an intern at the Singapore Institute of Clinical Sciences (SICS). SICS focuses on research into metabolism and neuroscience and their effects on human development. One of their ongoing projects is a longitudinal study that follows mothers from pre-conception and their infants from birth into childhood. This study aims to investigate the effects of environmental factors including nutrition, lifestyle and mental health before and during pregnancy on health outcomes for the family. I was given the opportunity to clean, prepare and analyse their data regarding gastrointestinal symptoms in infants during their first 12 months, and then compile the findings into a paper. Although it may seem insignificant, regurgitation actually affects the majority of infants in their first year. I pursued this internship as a way to learn more about clinical research - and was not disappointed!

The first few weeks of my internship consisted of data cleaning and analysis. In order to carry this out, I learnt a new programming language, R. The process required a lot of patience and significant amounts of googling! I taught myself how to use functions for statistical tests, techniques to read, process and write large amounts of data, and how to make creative graphs and figures. Throughout the course of the internship, I met with my supervisors on zoom several times a week to show them the progress I had made. For each meeting, I had to prepare a set of slides, and present the latest findings. The audience included my supervisor, a consultant from Singapore’s National University Hospital, as well as other researchers in the paediatrics department. Presenting was stressful in the beginning but I soon grew to enjoy it when I became more confident in handling and presenting the data. The worst part, however, was when my laptop stopped working a few weeks into the internship. Luckily, I was able to get the hardware fixed within a few days and fortunately the code I had written was saved (a great reminder of the importance of keeping backups!).

In the second half of my internship, I began writing my findings up into a manuscript. This was a novel experience for me, as I had no previous exposure to writing scientifically. In the introduction, I explained the parameters of this research and referenced many contemporary works to explain how much was already known about infant gastroesophageal reflux disease (not a lot!). I described the methods used to carry out this study and explained the results that I was finding. Finally, I discussed how our findings compared to other studies and proposed reasons
why these differences may exist. This section included a comparison of the prevalence in Asian populations compared to Western populations, and an analysis of health-seeking behaviours and attitudes of parents in Singapore. I’ve discovered just how much work goes into writing a paper; we are currently on our 7th draft and are planning to submit it for publication sometime this month!

I learnt a lot over the last few months about the processes involved in academia and the working environment for those in research. Writing a paper requires many, many revisions and there are a lot of people involved throughout, from those who collected the data, cleaned and analysed it, to those who review and edit the paper. The working culture in Singapore was a very large contrast to that in the UK. My supervisors had no qualms about emailing or setting me work late in the evenings or at weekends, but equally, they were happy to answer questions I had at any time of the day or night!

Due to the COVID-19 situation, my internship was mostly undertaken remotely. Fortunately, I did get to meet up with my supervisors in person, which I really enjoyed! I also had the opportunity to explore Singapore. I visited the beaches on Sentosa Island, watched the fireworks on National Day, admired Gardens by the Bay, went shopping on Orchard Road, saw the Merlion and went for many walks around various parks across the city. The best part, however, was the very wide variety of delicious food I was able to experience!

I’m very grateful to my supervisors, Dr Elizabeth Tham and Dr Hidaya Suaini, for the outstanding support that they provided me with throughout my internship. It was an unforgettable experience and the development of my skills in public speaking, scientific writing, data analysis and programming are among just a few of the many benefits that I have received. Finally, my sincere thanks to the founder and Governing Body of the Rokos Scholarship Award and to my tutor, Professor Jeremy Taylor, who encouraged me to apply for this opportunity.