

The main research focus of Prof Anderson (Institute of Immunology and Immunotherapy at The University of Birmingham) and Prof Ohigashi (Institute of Medical Sciences, Tokushima University) is to understand how the thymus produces T-cells. Profs Anderson and Ohigashi have met several times at international conferences, and these meetings have provided the opportunity to discuss the foundations of collaborative work. The funding we obtained from JSPS (4,000,000 JPY) enabled us to combine our unique research expertise and work collaboratively on a poorly understood aspect of thymus biology, which focusses on the importance of thymus medulla microenvironments. In this collaboration, novel experimental mouse models generated in the Ohigashi lab were sent to Birmingham, and are being used to investigate epithelial progenitors in the thymus medulla. In addition, we have shared experimental methods to perform detailed analysis of medullary epithelial cell populations using a combination of cell surface and intracellular markers together with the retention of fluorescent protein reporters. From this work, we have a joint manuscript currently submitted for publication, and have been invited to write a review based on current understanding of thymus medulla biology (due for submission 2024). Our JSPS funding has provided with excellent opportunities to forge ahead with our research in ways that would not have been possible without collaborative support. Indeed, the JSPS funding we received has enabled us to be successful in obtaining research funding in both the UK (Anderson, MRC and Wellcome Trust) and Japan (Ohigashi, JST PRESTO) that will fund continued work on thymus biology. We are now in a strong position to build on these collaborations. We will continue to look for JSPS funding opportunities, so that we can continue to work collaboratively by sharing reagents, organising reciprocal lab visits, and continue to publish collaborative work in leading journals.