

## CASE STUDY

### Dr Jamuna Selvakumaran

Dr Jamuna Selvakumaran, Daphne Jackson Fellow, 2013-2015

Daphne Jackson Fellowship hosted by Royal Holloway, University of London and sponsored by the BBSRC.

A trained Biochemist and Biomedical Engineer, Jamuna Selvakumaran received her B.Sc. and Ph.D. from the University of Surrey. She then took a postdoctoral position at Imperial College London researching Bioglass® for bone remodelling. During this time she had two children, but found it difficult to balance the demands of a research position with the demands of family life and, in conjunction with her husband, made the decision that she would step away from her career to focus on raising their children. Through contact with former colleagues, Jamuna heard about the Daphne Jackson Fellowship scheme and saw this as the ideal way to return to research with the flexibility she sought to give balance to her work and home life. She identified a project within the Advanced Gene and Cell Therapy Laboratory at Royal Holloway, University of London and was awarded a 2 year 0.5 FTE Daphne Jackson Fellowship, sponsored by the BBSRC, in 2013. At that stage she had been away from research for 8 years.

The fellowship research focused on the development of an induced pluripotent stem (iPS) cell based *in vitro* model of the human blood-brain barrier (BBB) to test therapeutics. The model based on the iPS cells, provides the advantage of being patient specific and overcomes the moral and ethical issues related to BBB models based on embryonic stem cells. Jamuna's results showed the iPS cell based model produced very tight junctions between the cells mimicking the BBB inside the body. She is now employed full-time on a 3 year project as a postdoctoral researcher using the model developed during her fellowship to test potential therapeutic compounds for the treatment of spinal muscular atrophy (SMA). The project is funded by The SMA Trust, as part of the SMA Research Consortium, a collaboration between Royal Holloway University of London, where Jamuna continues to work, the University of Oxford, The University of Edinburgh and The University of Sheffield.

Jamuna acknowledges the role the Daphne Jackson Fellowship played in securing her current post. In particular the requirement to incorporate a personalised training programme alongside the research project made her think carefully about her future career path and identify a range of techniques and field of research that would increase her employability. In developing her plans and undertaking the fellowship work, Jamuna has grown in confidence and achieved her dreams of getting back in to science in a way that allows her to do the research she loves and spend time with her children.