

## SAMUEL LEONARD SIMPSON FELLOWSHIPS IN ENDOCRINOLOGY

**NAME:** Jonathan Neil Walker

**ADDRESS:** Dept of Endocrinology and Diabetes, OCDEM  
Churchill Hospital, Old Road, Headington Oxford, OX37LJ

**Destination:** Islet Transplant Unit, University of Alberta, Edmonton, Canada.

**Date:** September 2010

During my Endocrinology/ Diabetes rotation in Oxford, I developed a keen interest in both the clinical and research aspects of Islet cell transplantation. In 2008 I was appointed to a clinical research fellow post with the University of Oxford, funded by the National Institute for Health Research. During this time I undertook a DPhil in the field of Islet Transplantation. This research was based with the Oxford Islet Transplant Consortium and focused on the influence of human donor variables on pancreatic islet function, structure and islet transplantation outcome, with the aim of trying to identify possible opportunities to increase the pancreas donor pool.

**Picture 1:** (a) Jonathan Walker undertaking an islet isolation for research and (b) members of the Oxford Islet Cell isolation team preparing for a clinical islet isolation

(a)



(b)



Although the number of patients in the UK undergoing Islet Cell transplantation is increasing, other centres in USA/ Canada have a significantly larger cohort of patients. I therefore approached the Director of the Islet Transplant Programme at the University of Alberta, Edmonton, Canada as I was keen to organise an Educational placement to gain further experience. The Islet programme in Edmonton has one of the biggest cohorts of patients in the world and is one of the world leaders in this field. The Samuel Leonard Simpson fellowship in Endocrinology allowed me the opportunity to join the Edmonton group, aiming to further improve my knowledge in this field as well as developing research collaborations for the future.

In September 2010 I flew to Edmonton to join the Islet team. During my visit I attended the University of Alberta Hospital (picture 2a) and undertook the Islet transplant clinics with Prof Peter Senior. This allowed me the opportunity to review a large number of patients in a relatively short space of time—many more than I see in Oxford. I learnt about their post-transplant care protocols and it highlighted improvements we could make in my home unit. In addition to the Islet clinics I attended the Islet MDTs and planning meetings which were extremely educational. I also had the opportunity to present my own clinical research at the department’s weekly meeting. This generated useful discussion with very helpful feedback. I took the opportunity to attend the general Diabetes and Endocrine clinics which were also of interest, showing variation in practice between different health care systems.

**Picture 2:** (a) University of Alberta Hospital and (b) Members of the Edmonton Islet Isolation Team



During my time in Edmonton I joined the on-call Islet isolation and transplant rota. I took part in islet isolations which was a unique opportunity to determine differences in protocols and to work with their highly experienced senior scientists (picture 2b). I was quite astonished at the speed they were able to undertake the isolation—approx 1 1/2hrs quicker than the current average in the UK. I learnt a different method for pancreas cannulation (picture 3) which I now practice routinely in the UK. It was also reassuring to see that many of our protocols and methodology were similar.

**Picture 3:** Edmonton Islet Isolation team demonstrating pancreas cannulation technique



I attended the Edmonton Islet research meetings and discussed potential joint projects. Through this I established a research collaboration which has since been very fruitful and the joint data was present at Diabetes UK earlier this year. I was delighted to be awarded the 2011 Diabetes UK Young Diabetologist Award for my work in this field.

By visiting and working in this Canadian Centre of Excellence, I have gained new insights into this field and develop my expertise in this developing area of Endocrinology. I have already use the skills and experience that I developed from the trip to improve the patient care that is delivered in our centre and will share my experiences with the UK Islet transplant Consortium. This was a great opportunity to gain significant experience into a much specialised area which would not have be possible within the UK. I am indebted to the Samuel Leonard Simpson fellowship for providing me with the financial support to do this work and would very much like to thank the Islet Transplant Team at the University of Alberta, Edmonton for making me feel so welcome and for their willingness to educate and share their experiences.

  
National Institute for Health Research

Oxford Radcliffe Hospitals   
NHS Trust



UNIVERSITY OF  
ALBERTA