

Dr Alexandra Webb

Visit to the Department of Forensic Medicine, Aarhus University, Aarhus, Denmark

The Symington Bequest Award was received to visit Associate Professor Lars Uhrenholt at the Aarhus University to explore the use of new diagnostic methods to advance current understanding of the morphology of cervical spine structures and their role in neck pain and disability following whiplash injury caused by motor vehicle trauma. One of the crucial issues confounding the appropriate management of patients with neck pain and disability after whiplash injury is the inability to make a pathoanatomic diagnosis. From Associate Professor Uhrenholt's research using post-mortem methods, it is evident that the zygapophyseal joints are damaged following motor vehicle trauma. To date the focus of my research has been the development of quantitative methods to define the normal morphology of cervical spine structures using imaging methods. The purpose of my visit was to combine our expertise to explore the use of molecular imaging to identify damage to cervical spine structures following whiplash injury and establish a collaborative project to advance anatomical research concerning the cervical spine.

During my visit to the Department of Forensic Medicine (11–18 May, 2013) we reviewed and analysed the results of a pilot study investigating the potential of PET/CT to identify damage to injured cervical spine structures. We met with Professor Michael Pedersen (Department of Clinical Medicine) and members of his research team to discuss the strengths and weaknesses of the pilot study and to discuss different techniques in order to advance the project methodology. The outcomes of these meetings was the establishment of a series of research studies to further test and establish PET/CT as a method for advancing our understanding of the pathoanatomy of the cervical spine. These studies will commence in the next few months.

During my visit I also had the opportunity to meet laboratory and clinical staff and academics at Aarhus University and learn about the extent of research techniques and facilities available. This included a visit to the Centre for Medical Education and Institute of Anatomy to discuss anatomy education and research.

I am very grateful to the Trustees of the Symington Bequest Fund for contributing to the costs associated with my visit to Aarhus University to establish a new direction in my anatomical research. The visit has been extremely valuable for the continuation of the work established in my PhD and would not have been possible without financial support from the Symington Bequest. My visit to Aarhus enabled me to contribute significantly to the decision making process regarding methods and techniques and the future development of the project and collaboration and enhanced my knowledge and skills in anatomical research.



The Department of Forensic Medicine is located at Aarhus University Hospital, Skejby. The Department is responsible for undertaking autopsies in the region and is involved in undergraduate and postgraduate medical teaching and research utilising a range of imaging and laboratory facilities.