



<b>Project Title: Brain morphology abnormalities in babies who die from Sudden Infant Death Syndrome (SIDS)</b>		<b>Code: CCS4</b>
<b>Host School / Institute:</b> <a href="#">Central Clinical School</a>	<b>Address:</b> Medical Foundation Building, K25, 92-94 Parramatta Road, Camperdown	
<b>Certificates &amp; Clearances required:</b> No		
<b>Primary Supervisor:</b> <a href="#">Dr Rita Machaalani</a>		
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<b>Co-Supervisor/team:</b> Dr Arunnjah Vivekanandaraja		
<b>Project Type:</b> Laboratory based		
<b>Project Category:</b> Neuroscience; Paediatrics/Child Health		
<b>Skills / Attributes of a successful student:</b> A background in microscopy and bench chemistry work would be helpful but not necessary. An interest in brain anatomy and identification of brain regions.		
<b>Project Keywords:</b> Brain; infant; sudden death; microscopy; staining		
<p><b>Project Description:</b> The major focus of our laboratory is the neuropathology of the Sudden Infant Death Syndrome (SIDS) which is the leading cause of death among infants (1-12 months of age) in developed countries. SIDS victims die suddenly during a sleep period, and the cause is still unknown, although a strong hypothesis is that it is a brainstem disorder of the cardiorespiratory system, with recent evidence showing that other brain regions are also involved including the hippocampus and hypothalamus. This project will involve staining for certain proteins and markers in brain regions of infants who died from SIDS compared to infants who died from other causes, and correlating them with any abnormal morphological changes that may be present. The staining will be quantified using image analysis systems.</p> <p>Acquired skills and techniques: Immunohistochemistry, microscopy, neuroanatomy, quantification using computerized image analysis systems, data analysis and critical literature review.</p>		