Interim Report

Can an integrated physical and virtual library of anatomical cross sections and diagnostic images enhance anatomical knowledge, diagnostic image interpretation and spatial awareness?

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During the past year we have progressed the project on a number of levels, despite an unfortunate set back with our plastination facility. Due to mechanical failure of the pump, the facility was out of use for a number of months, delaying the plastination of our cadaver limbs. This has put back several of our project milestones, though we are still confident of delivering the project within the two year time frame as planned.

During the past year we have:

- Acquired a set of healthy equine thoroughbred cadaver limbs for plastination
- Ultrasound, CT and MRI scanned the cadaver limbs, obtaining the images that will form the virtual library
- Preserved the cadaver limbs in formaldehyde ready for entering the plastination process. [One limb was unable to be preserved due to technical issues; therefore we will now be able to produce three sets of limb sections in total].
- Sliced one limb at a variety of thicknesses and started this limb in the process of plastination.
- Identified two students who will work with e-media staff to produce the virtual library of images; aspects of the evaluation stage of the project will form the basis for the students' RP2 projects.
- Purchased three i pads and protective accessories ready for building and hosting the virtual library of imaging. The i pads will be used primarily as a teaching tool to accompany use of the plastinated limb sections
- Piloted use of the Guay's visualisation of views and the Mental Rotations Test for evaluation of spatial ability, and an online test for assessment of anatomical knowledge in a small group of BVetMed Year 2 students.

Our next stage of the project will be to assess the first cadaver limb to exit the plastination process, in order to choose the optimum slice thickness for the remaining limbs to be sliced and plastinated. At this stage we will select representative ultrasound, CT and MRI images that accompany each specific limb slice, and begin to build the virtual image library. We aim to complete plastination and the image library by December 2016, allowing first use of the resources by students during the Year 2 locomotor strand visit in February 2017. Evaluation data will be collected and analysed at this stage. RP2 project students will also gather data from BVetMed students in years 3-5 during this period.