

PROFESSIONAL DOCTORATES: SUCCESS ON THE SOUTH COAST

Two students have been awarded the Professional Doctorate in Biomedical Science (DBMS) at the University of Portsmouth.

Revd Dr Gordon Sinclair

Gordon Sinclair, Haematology Lead, Royal Marsden NHS Foundation Trust, Sutton, and Vice Chair of the IBMS Haematology Advisor Panel, successfully defended his work, “Visual search in peripheral blood film morphology: effects of expertise”.

Gordon’s study was prompted by two questions: What does expertise in peripheral blood film morphology entail? What, if anything, changes as the level of skill increases?

The first part of the work involved the design and production of a bespoke eye-tracking microscope. The project showed that eye movements using a flat screen and those using a microscope are different, that simple image recognition can discriminate between experts and novice peripheral blood film morphologists, and that speed does not improve with skill, which may be due to caution or a more consistent approach by experts. These findings will be useful for the future training of biomedical scientists.

Dr Graham White

Graham White, Senior Biomedical Scientist, Hampshire Hospitals, wrote a thesis called “Implementation of an automated system for the detection of acute kidney injury in a district general hospital and its impact on patient outcomes”. It involved the development of software for the detection of acute kidney injury (AKI) and looked at the outcomes of those patients where the e.alert was reported. The study was designed and



The Professional Doctorate in Biomedical Science students on graduation day last July: Dr Graham White (left) and Revd Dr Gordon Sinclair (right)

implemented prior to the introduction of the national NHS England scheme.

The analysis suggested that the introduction of AKI alerts coincided with a significant reduction in the relative risk for 30-day mortality following an AKI episode: stage 1 mortality falling from 19.5% to 14.6%, stage 2 mortality falling from 30.1% to 22.1%, and stage 3 mortality falling from 35.3% to 25.9%. The study also demonstrated the importance of education of end users. Graham is currently a member of the “Think Kidneys” board.

Ongoing success

Professor Graham Mills, Programme Manager, DBMS pathway, congratulated both students on their successes: “Their projects have made real professional and scientific impacts in delivering pathology services and helping in the care and management of patients.” He said that the Faculty’s professional doctorate programme continues to remain buoyant, with nearly 30 doctoral graduates from the DBMS pathway achieving success since the course started back in 2000. 