Project Title	Analysing hyperspectral oncological images using cutting-edge data processing
Supervisor	Dr Christopher Rowlands
Theme(s)	Biomedical Sensing Diagnostics and Imaging
Project Type	Lab based
Project Description	Deep learning techniques have found considerable use in pattern recognition for image analysis, but in medical imaging there are often additional data dimensions which can be exploited for improved diagnosis. This project will involve one such dataset - hyperspectral Raman images taken from tumour resection margins. In this case, the goal is to identify whether any tumor remains in the image, and if so, where it is located. Neural networks and other deep learning techniques will be used to perform this analysis, incorporating spatial and spectral information to make an accurate diagnosis.