**PROJECT RESUME**

**TITLE:** Dawning of a new ‘phase’ in contrast imaging: visualising soft and hard joint tissues

3-dimensional imaging of non-stained intact tissues has been desirable for many years but is often hindered by technical limitations and artefacts. We have sought to remove some of this hindrance in the context of skeletal biology by developing a method using phase-contrast, very high resolution simultaneous imaging of soft and hard tissues. This is to be applied to joints in order to reveal relationships at the interface of cartilage and mineralised tissues. This will allow for the quantitation of the anatomical links between the tissues, and particularly individual cells in these tissues, which underpin both healthy joint ageing and precipitate joint demise in osteoarthritis to be explored for the first time.

File: USVRS Project Resume 202122 PITSILLIDES