

## CONDENSED MATTER SPECIAL SEMINAR

Thursday 21 November at 11.00am

### “Seeing with Atoms”

Prof Paul Dastoor,  
University of Cambridge

Imaging is the key to discovery in science and yet conventional microscopes can damage delicate materials and devices; altering the very structures that they are trying to see. However, the scanning helium microscope (SHeM) opens a new window on science; providing for the first time completely non-damaging imaging using beams of neutral helium atoms. This talk will explain the importance of microscopy in science and describe how the development of the SHeM revolutionizes the imaging of delicate materials (such as biological samples) and the potential for damage-free microscopy to impact society. The presentation will also highlight the importance of international collaboration in science and its role in the development of new technology.

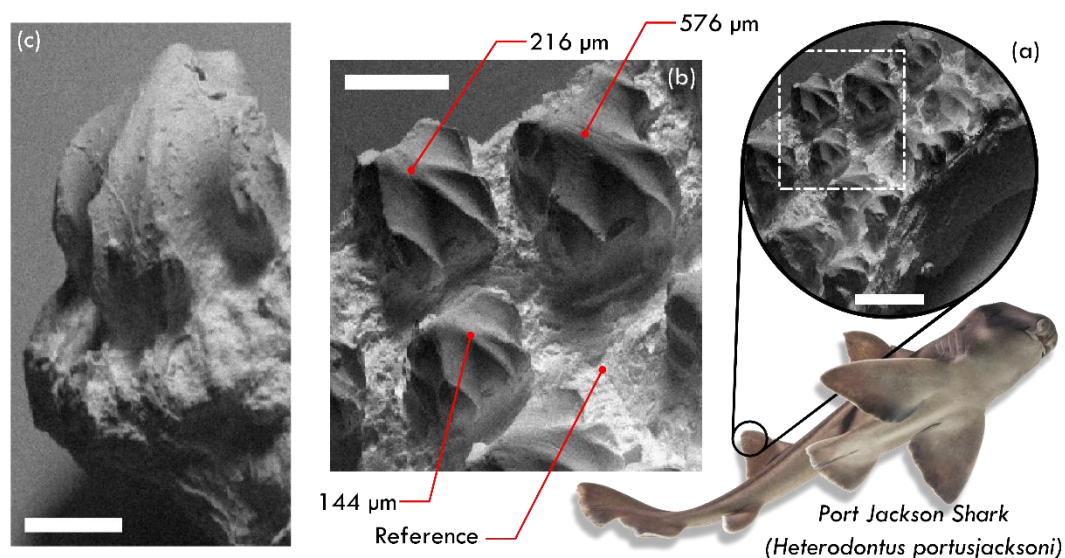


Figure: SHeM images of dorsal skin from a female Port Jackson shark. (a) A ca. 3 x 4 mm section of skin, including several dermal denticles protruding out of the underlying surface. Scale bar 1 mm. (b) Zoomed region of the same area of tissue. 3D SHeM imaging was used to measure the heights of the denticles. Scale bar 500 μm. (c) Micrograph of single denticle. Scale bar 250 μm.

Host: Sameer Vajjala Kesava  
Simpkins Lee Room, Beecroft Building