## 20

## Lattice light sheet at Warwick Medical School.

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## **Abstract Text**

From 'bread and butter' imaging to more specialist samples, hear a perspective from Helena Coker, the Wellcome funded lattice light sheet specialist at University of Warwick. She will discuss the role of a full-time imaging specialist in the successful use of a 3i Lattice LightSheet instrument.

Our 'bread and butter' imaging is of sensitive dynamic processes in single cells; from cell division and microtubule tip tracking in RPE lines to micropinocytosis in dictyostelium. We have reliable and reproducible methods for these experiments and were the first in the UK to publish using lattice data [1]. To date we've collected over 25 terabytes of these data and are slowly ramping production back up after lockdown.

The experimental side to our imaging comes from 'unusual' samples, often requiring adaptations to our mounting procedures. We are successfully imaging cleavage furrows in early stage zebrafish embryo as best we can without adaptive optics. As well as our living samples, we have started optimizing biophysics experiments including imaging of giant unilamellar vesicles.

Finally, with Covid-19 reducing travel, Helena will discuss changes to the Visitors Programme she hosts, in the hope of maintaining access to specialist equipment such as the Lattice.