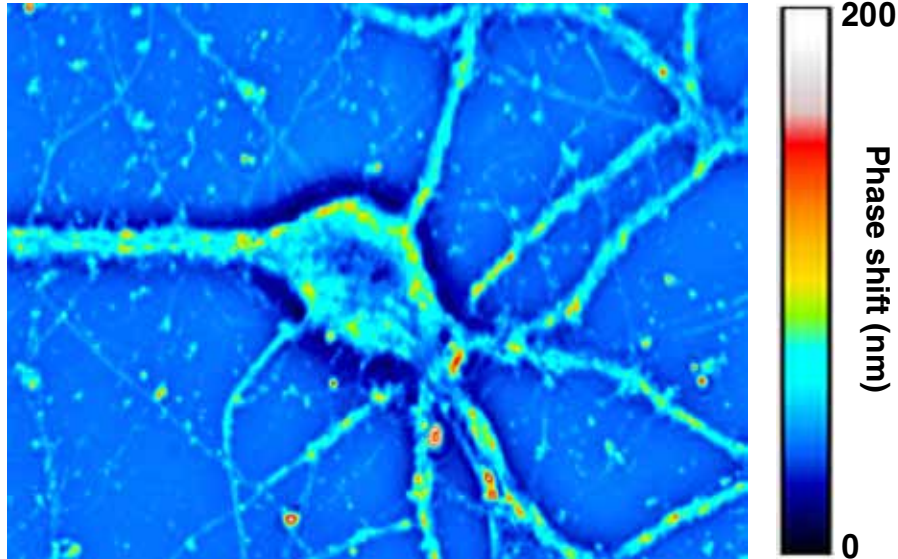


Quantitative Phase Imaging (QPI) by Phi Optics

Real time, label-free and quantitative imaging of live cells and tissues with nanoscale sensitivity



Phase map of live hippocampal neuron

QPI = Phase Contrast + Interferometry (intrinsic label free method)

Can be combined with fluorescence channel for specificity

Real time

Monitor cellular processes as they happen

Label-free

Noninvasive imaging with minimal sample preparation

Eliminate observation bias from contrast agents

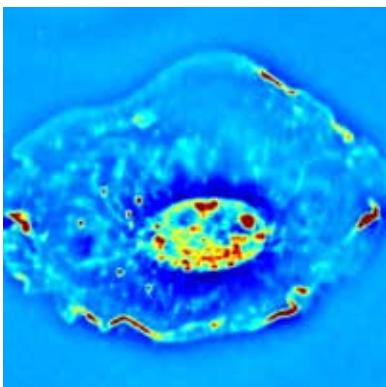
Long term imaging without cell die-off

Quantitative

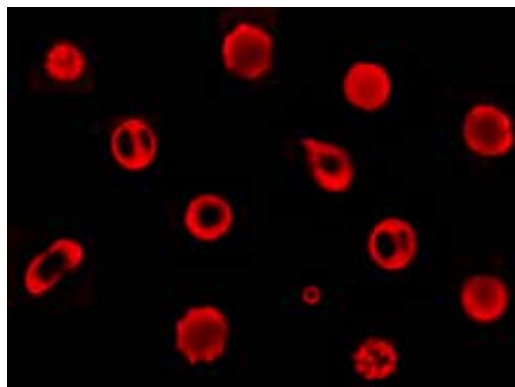
Nanometer path length sensitivity (along Z-axis)

Femtogram sensitivity to dry mass

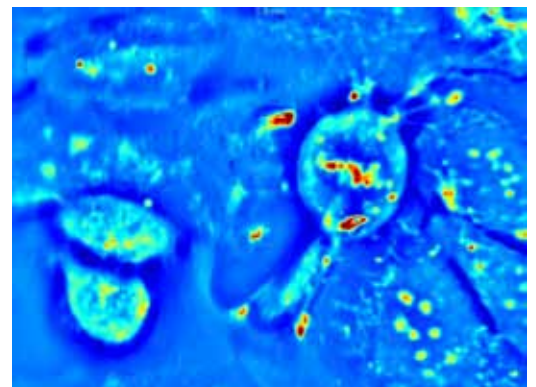
Applications: **cell growth, cell structure and dynamics, microrheology, drug interaction**



Glia cell



Red Blood Cells



U2OS cells

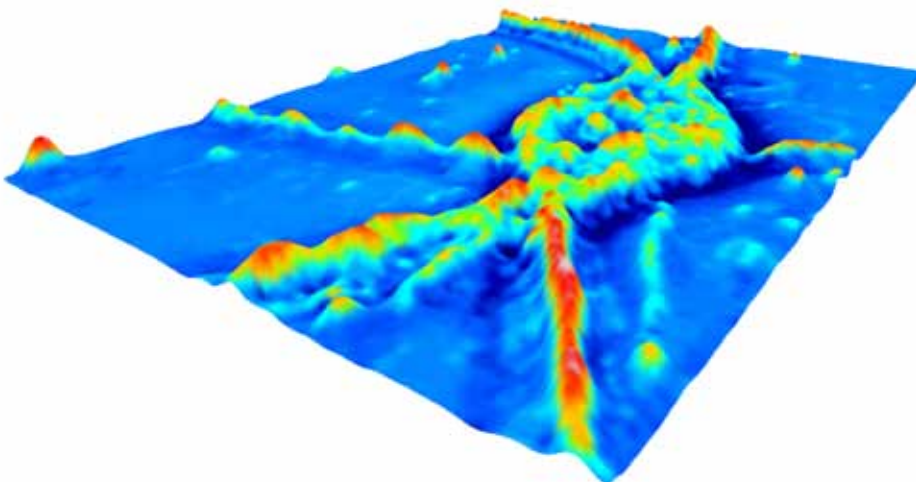
Quantitative Phase Imaging (QPI) by Phi Optics

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CellVista Q1000 model specifications:

- Includes **Zeiss Axio Observer D1** manual microscope stand, **Q1000 module** (attached) and computer running the **CellVista software module** for data acquisition
- Transverse resolution (X-Y plane): **350 nm**
- Path length sensitivity (along Z axis): **< 1nm**
- Depth of field: **1 - 40 μm** (depending on the microscope objective)
- Image processing speed: **1 frame per second (fps)**
- Output image: **1600 x 1200 and 1024 x 768 pixels resolution, grey scale 8 and 16-bit**
- Objectives: **10X/0.3NA, 40X/0.75NA and 63X/1.4NA**
- Q1000 module footprint: **41 x 39 x 10 cm (L x W x H)**



Surface projection of live hippocampal neuron