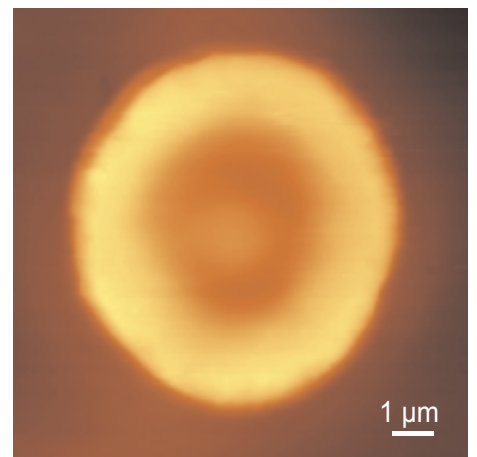
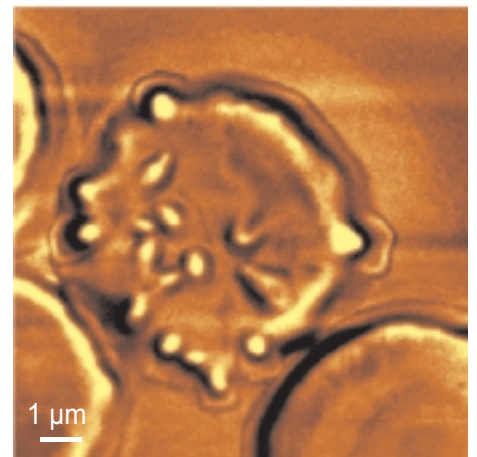
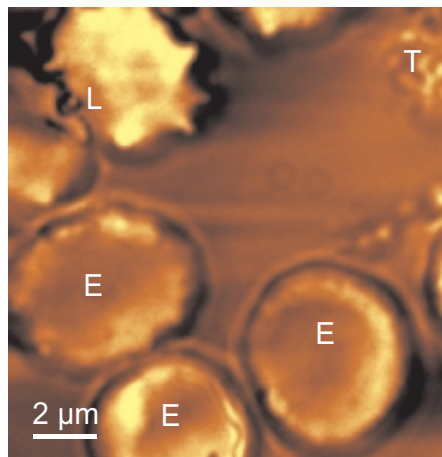


Scanning Near-field Optical Microscopy Life Science Applications

**Different Operating Modes of the WITec AlphaSNOM on the same Sample:
Human Bloodcells**



The image on the upper left shows a confocal measurement (100 x air objective) within a scan range of 20 µm x 20 µm. A frequency doubled Nd:YAG laser with a 532 nm wavelength was used to illuminate the sample. Visible are erythrocytes (E), a thrombocyte (T) and a leukocyte (L).

By simply rotating the turret of the microscope, one can switch from confocal to near-field microscopy without affecting the sample. This allows structures on an interesting area of the sample to be measured with high resolution.

The image on the right shows a 12 µm x 12 µm scan on a single leukocyte in transmission.

By using a standard AFM cantilever, the AlphaSNOM provides the full capabilities of an Atomic Force Microscope. The lower images show an AFM measurement on a single erythrocyte. Scan range: 12 µm x 12 µm. The picture on the left side is the 3D-image which shows the actual donut structure of the red blood cell (height-scale: 575 nm).