



Connecting the Dots -

Correlative Microscopy bridges the gap between the micro- and nano world

In modern research and industry describing an individual function of e.g. living cells or lithium-ion batteries is often not sufficient anymore. Regarding function and structure not individually but as an interdependent unit comes more and more into focus. Correlative microscopy – the combination of information from different sources – is a unique possibility to connect for example fluorescent images from living cells or tissue or polarized light images of geology and magnetic samples with structural data from electron microscopy. In doing so, the observed region of interest is located automatically with high precision in the different microscopy methods thus enabling the correlation of the individual datasets. Electron microscopy delivers detailed images with nanometer resolution of exactly the same region thus supplying structural data for the functional findings.

“Shuttle & Find” – is a hard- and software solution from Carl Zeiss for correlative light- and electron microscopy. It, for example enables the observation of a sample area in a light microscope while recording the specific location. During the subsequent imaging in a scanning electron microscope the positions recorded earlier are located automatically. This makes a whole new approach towards microscopy possible.