Correlative imaging - a new perspective for spectroscopy and microscopy

Problem

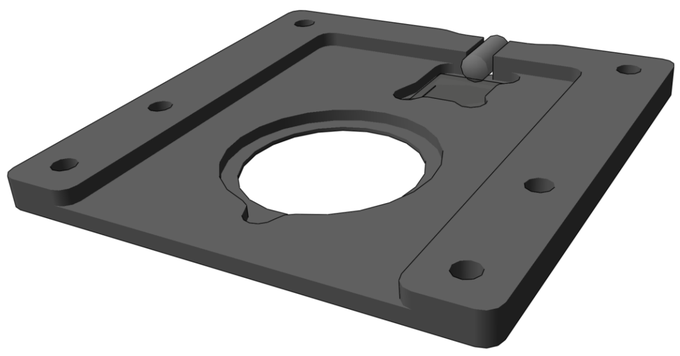
Classical correlative microscopy refers to the imaging and correlation of information collected on the same sample from 2 types of optical and scanning electron microscopes. Imaging in this technique is characterized by the possibility of correlation of information about the exact same location on the sample, e.g. the same cell selected from the whole breeding. In this case, we are sure that the collected data from the two devices can be correlated in order to draw the correct conclusions.

In the vast majority of studies carried out in the world, this correlation is missing even though measurements are taken using many devices and representative samples are tested (for example, different cells from the same culture or different locations on one tissue). Such collected and "correlated" information and the conclusions drawn on this basis often arouse doubts in the scientific community as to their accuracy. This situation is mainly due to the lack of opportunity to locate the exact same point on the sample using devices of different types and manufacturers, because these devices were not designed for this by their creators.

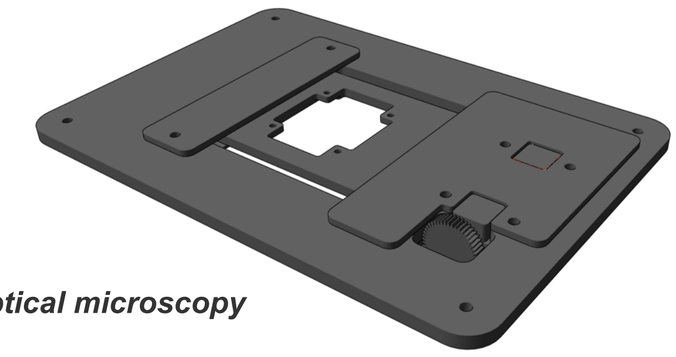
Solution

Correscopy meets the demands of modern imaging and presents an accessory that allows one to find the exact same point of a sample on any research device. By using Correscopy's patent protected correlative imaging solution, data correlation possibilities become almost unlimited. The user decides what data needs to be collected and which device is to be used for research; the device does not decide for the user. This solution does not require any modification of the microscope and is an independent accessory that does not affect its performance.

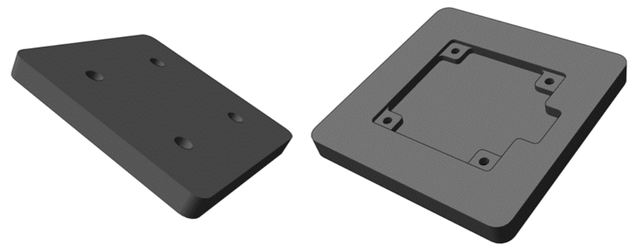
Example of a sample holder



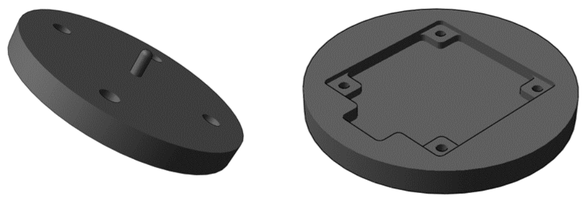
Examples of adapters for imaging devices



Optical microscopy



For microscopes with a magnetic table



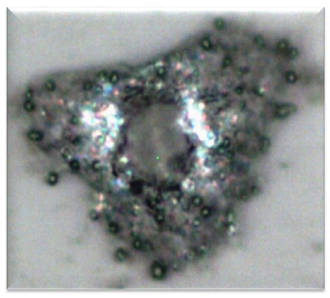
Scanning electron microscopy

Dedicated software guides the user through the correlative imaging process by:

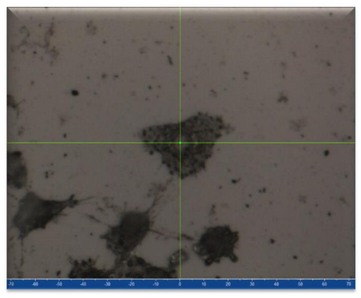
- Defining devices
- Creating a library of devices
- Defining areas of interest on the sample
- Locating the above areas on any device
- Editing and planning projects

Results

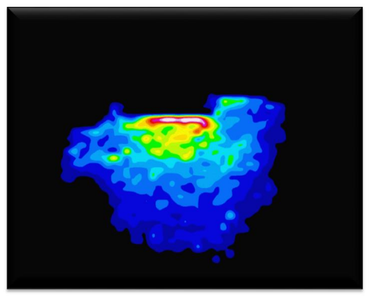
Specimen: cancer cell (HeLa) to be displayed in an environment containing carbon nanotubes (CNTs)



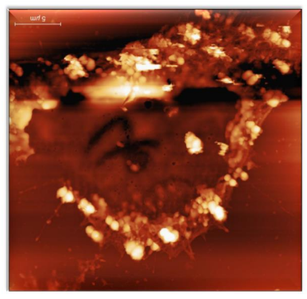
Optical microscope
(biological, transmitted light)



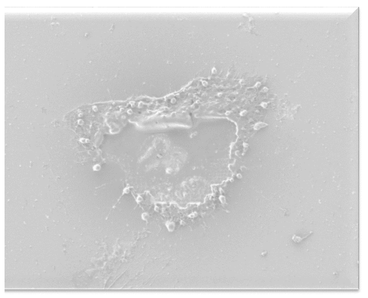
Optical microscope
(metallurgical, reflected light)



Raman spectroscope



Atomic force microscope



Scanning electron microscope

Does the ability to examine the exact same point of a sample on two or more devices and draw irrefutable conclusions about it seem like an attractive prospect?

For more information, please visit:

www.correscopy.com

Contact:

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CORRESCOPY
CORRELATIVE IMAGING

In cooperation with:

NUS National University of Singapore | NUS Nanoscience & Nanotechnology Institute