Reproducible Cell Experiments

Realized by ZEISS Labscope
AI Cell Confluency and AI Cell Counting

Do you work with cell cultures such as COS-7, HeLa, LoVo, U2OS in your laboratory? Then you are probably familiar with the tasks of determining cell confluency and counting cells. Cell confluency and cell count are your critical values to further decide on cell proliferation, viability, to adapt environmental conditions, harvest cells, start transfections, and prepare experiments. And both, cell confluency and counting must work independent from shape, size and type of your cell. Manually done, this can be a rather time-consuming, labor-intensive process with error-prone, subjective results.

**Start today to make your experiments more reproducible.**
Analyze the number of cells and the covered cell area automatically using artificial intelligence. The ZEISS Labscope modules AI Cell Confluency and AI Cell Counting perfectly fit into your workflow. You examine your cells as usual. As you move from one position to the other in your cell culture vessel, simply take a picture. The images are automatically analyzed and you receive an instant result, visually and quantitatively.
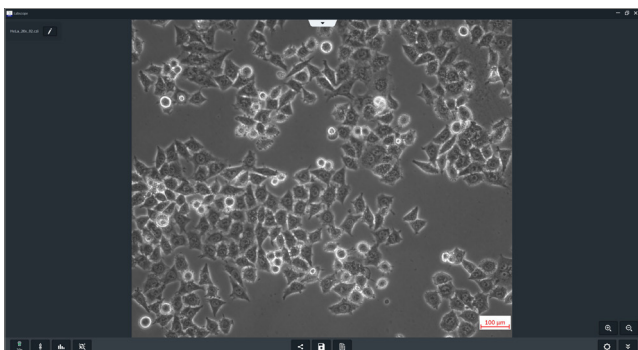
HeLa cell line, 20× objective
*Left: image in phase contrast; Right: analyzed image with ZEISS Labscope*
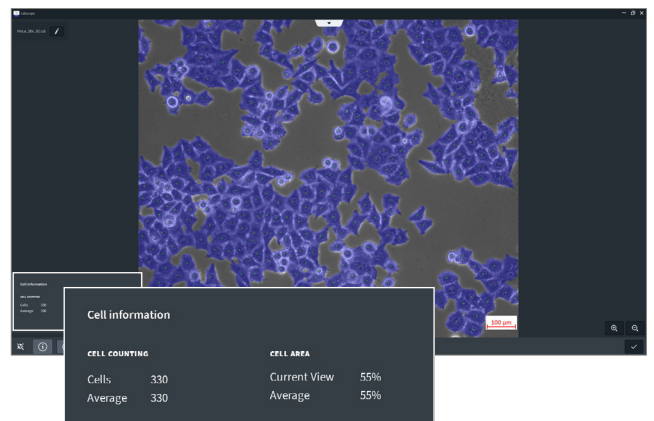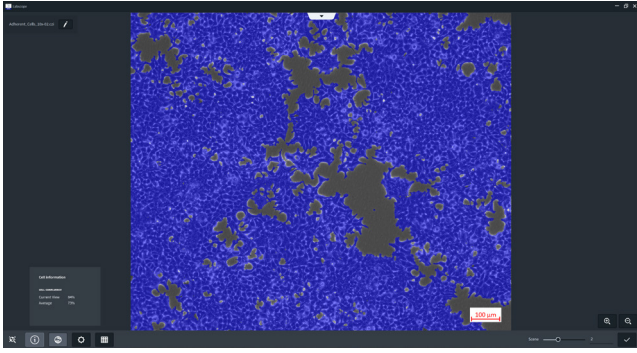
ZEISS Labscope Module AI Cell Confluency

The Labscope AI Cell Confluency module is easy to use. Really. You simply move your cell culture sample from one area to another, taking images as you go. Using artificial intelligence, the percentage of cell coverage in your cell dish is automatically and instantly displayed.

IMAGE SEQUENCE	CELL COUNT	CELL AREA (µm²)	CELL CONFLUENCY (%)	EXTRAPOLATED CELL COUNT PER CM²
Scene 1	2,712	1,121,628	74%	1.79x10^5
Scene 2	3,622	1,268,696	84%	2.38x10^5
Scene 3	2,540	990,148	65%	1.67x10^5
Scene 4	2,743	1,058,667	70%	1.81x10^5
Average	2,904	1,109,784	73%	1.91x10^5

The summary table shows the results for the individual images and also the average over all images. Therefore, possible inhomogeneities of the sample are taken into account and you work more accurate. The average extrapolated cell number per cm² can directly be used to calculate the total cell number in your culture vessel.
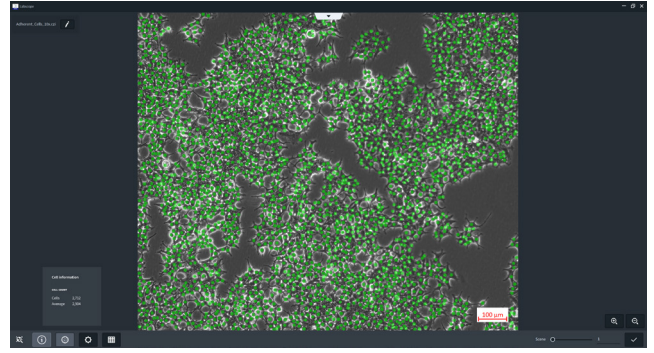
ZEISS Labscope Module AI Cell Counting

With the Labscope AI Cell Counting module you get an efficient and easy way to quickly count cells in an image. You simply acquire a phase contrast image of your cells and the artificial intelligence algorithm automatically detects and counts the cells for you.

At a glance

The Labscope modules AI Cell Confluency and AI Cell Counting work:

- at various magnifications, especially from 5× − 20×
- with different culture vessels such as: flasks, dishes, multiwell plates
- with a broad range of adherent cell types
- without any necessary parameter adjustments
- on a PC or laptop

You benefit from:

- fast and reproducible results
- a very easy procedure that fits into your workflow
- higher data accuracy and quality

Improve the quality in your cell culture which is the basis for your research. Work more efficiently and reproducibly. Relax and enjoy watching the AI at work.

ZEISS Labscope

Simple. Imaging. App.

With ZEISS Labscope you decide for an easy-to-use imaging software that fulfills all your needs in your laboratory – from image acquisition, handy built-in measurement functions up to easy data sharing.
It is available no matter what device or operating system you're on: Windows PC, tablet or mobile phone. Android or iOS. Same GUI, same feeling, same fun. Simply download it – it's free.

You don't have to buy a pig in a poke. You can try out the modules of Labscope 30 days for free using a trial license. If you're happy with the functionality, just proceed with the purchase.

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Seeing beyond