



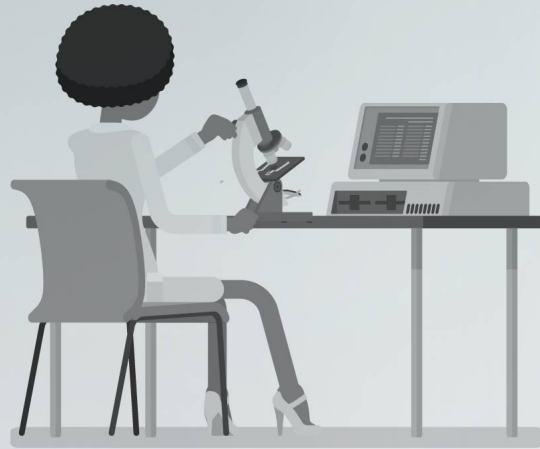
## Product Overview



Trainable AI-Microscope



Bioreactor Imager & Analysis



Time is filled with  
routine work.



AI TAKES CARE OF  
THE BORING STUFF.

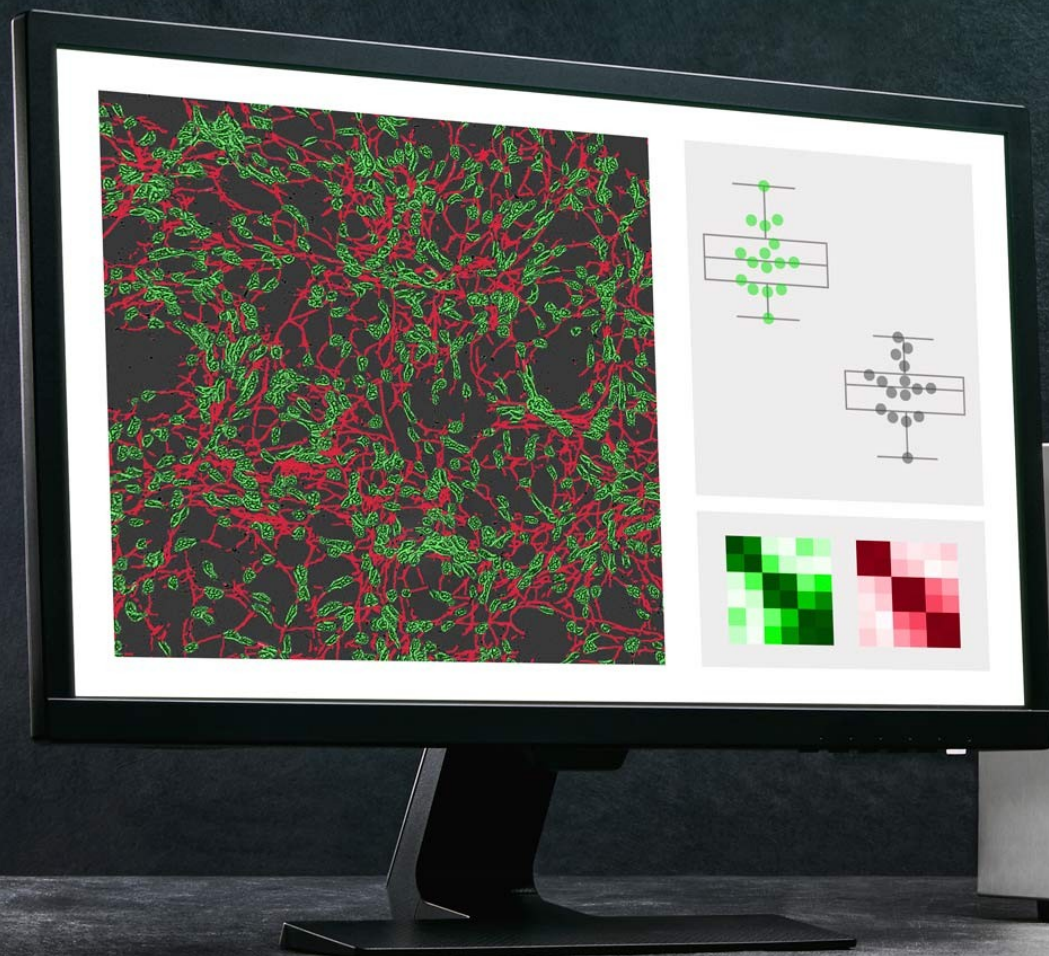


VAIDR

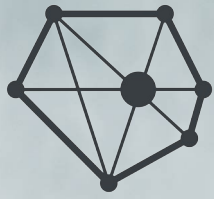
AI analysis software

automated  
microscope

high-performance  
server



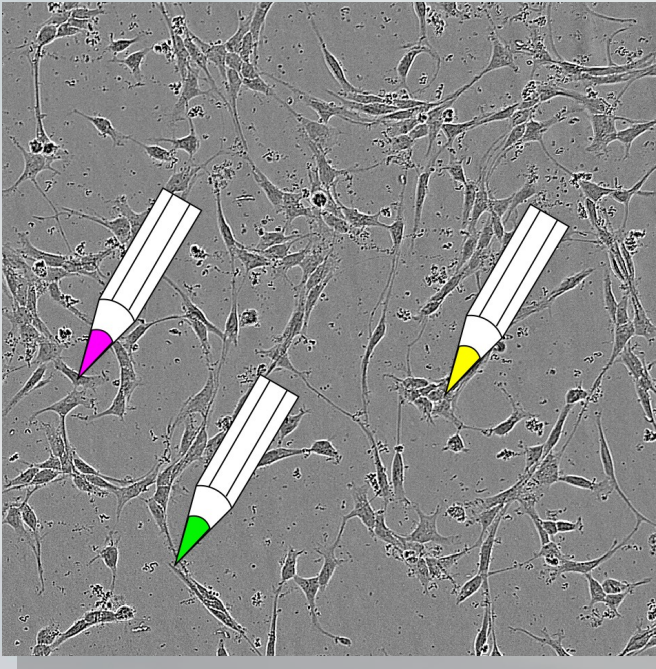




# VAIDR

## WORKFLOW

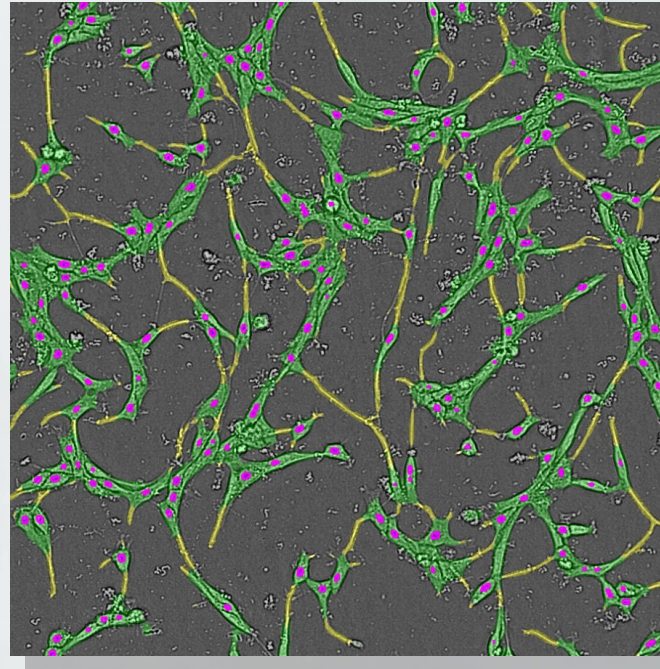
Define your question



Use pre-trained AI

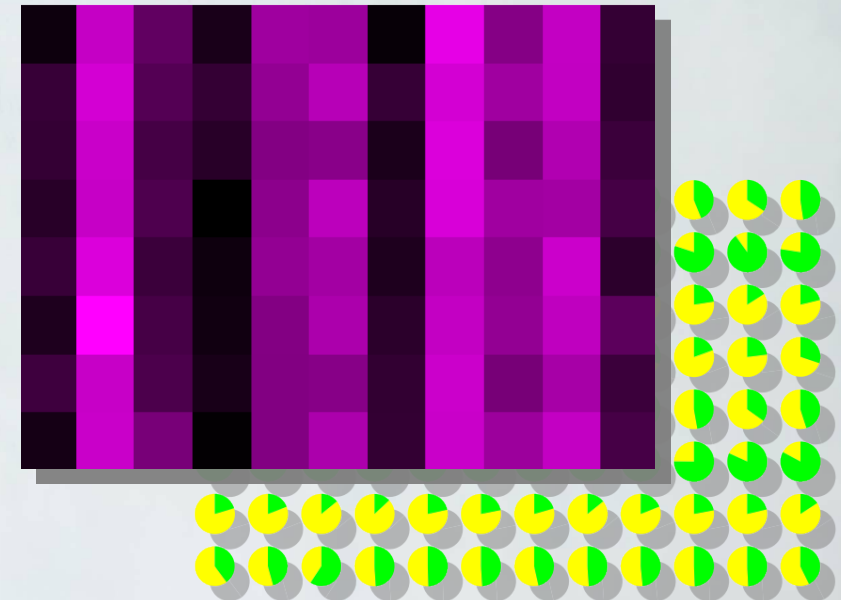
Re-train to specific problem if necessary

Evaluate images



Fully automated & conveniently tracked data processing

Get answers



Interactively drill down and evaluate

Export images, plots & results

## Application Note AI-assisted Imaging Accelerates Selection of Optimal Cell Culture Matrices

Selecting an optimal extracellular matrix (ECM) product is essential for successful culture of primary cell, stem cells and their derivatives. Manufacturing of these cells further requires defined and safe materials. Here, we present the application of the screenMATRIX, a ready-to-use library of chemical defined ECM mimetics, as a selection tool and show how VAIDR enables visualization and decision making. By combination of both technologies, decisions can be made in a quick, cost-efficient, and objective way while taking into consideration dozens of candidates.

### screenMATRIX - a material library tool to identify an optimal matrix

The screenMATRIX is a standardized 96-well plate format that contains a pre-defined of chemically defined selection of different polysaccharides and synthetic peptides. It can be used to compositions of different microenvironments for a variety of cell types and applications. screenMATRIX has been applied by cell therapy and cultured meat companies to create custom coatings for animal component-free, as well as pharmaceutical expansion, as well as pharmaceutical companies for optimizing in vitro models.



Fig. 1: unpacking screenMATRIX for cell seeding.

**VAIDR combines streamlined microscopy with AI-assisted image analysis**  
VAIDR is an integrated system for automated microscopy and analysis. It combines universally applicable efficient phase-contrast microscopy with unbiased deep learning algorithms and exposes these functionalities in a user-friendly interface, which requires no training in data science.

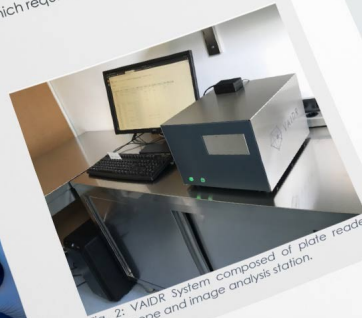


Fig. 2: VAIDR System composed of plate reader, microscope and image analysis station.

### Application Note LABEL-FREE DETECTION OF LIPID INCLUSIONS

Using the example of lipid inclusions in HepG2 cells, we demonstrate how the VAIDR system can turn a human observation into a quantitative, robust analytical method.

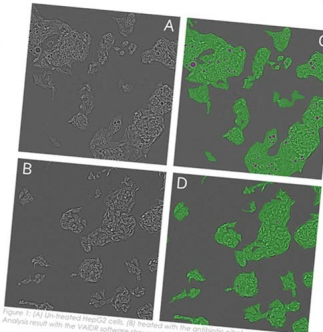


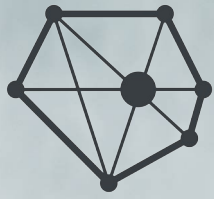
Figure 1: (A) Unprocessed image; (B) Image processed with the VAIDR system; (C) and (D) Analysis result with the VAIDR software showing cells in green and lipid inclusions in magenta.

### Application Note LABEL-FREE CELL COUNTING IN iPSC PRODUCTION

### Application Note LABEL-FREE QUANTIFICATION OF NEURITES

[www.vaidr.de](http://www.vaidr.de)  
[info@vaidr.de](mailto:info@vaidr.de)





# VAIDR

## FAQs

**Q: Does the VAIDR microscope have ambient control?**

A: No, but it's a cozy 36°C inside so you can image live cells and put them back into the incubator.

**Q: Which vessel types are supported?**

A: Any multi-well plate plus T-flasks and various dishes

**Q: What optics does the microscope have?**

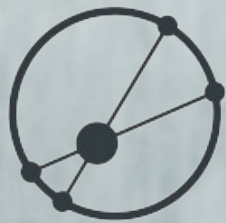
A: Each microscope has one objective. Depending on your main application, choose from 10x, 20x or 40x

**Q: Do I have to buy VAIDR?**

A: No, you can lease it. A system with 1 server, software and 1 microscope is 30k€ per year. Additional microscopes only add 3k€ per year. Choose longer lease periods or enter a collaboration with us for substantial discounts.

**Q: Can I evaluate VAIDR first?**

A: Yes, through our „2-4-2“ onboarding program. For a fee of 2500€, we offer a 4-week trial period, sandwiched between a 2-week planning period and a 2-week evaluation phase. If you decide to lease, the fee will be deducted from your first payment.



SAIBR



TRI

CONTINUOUS  
IMAGING



AUTOMATIC  
ANALYSIS



GET  
ANSWERS

Wireless imager



Custom clamp  
to fit your bio-  
reactor



# SAIBR

## FAQs

### **Q: What can SAIBR quantify?**

A: Size, shape and count of aggregates. To get an absolute aggregate count, there are various methods of calibration. Additionally, we're developing the prediction of metrics like cell count and -differentiation success.

### **Q: How much is it?**

A: A system consisting of 1 server plus software and up to 3 imagers is 30k€. This includes 1 year of care-free service & support. Extend the service & support for 3k€ per year if needed.

### **Q: Can I evaluate SAIBR first?**

A: Yes, through our „2-4-2“ onboarding program. For a fee of 2500€, we offer a 4-week trial period, sandwiched between a 2-week planning period and a 2-week evaluation phase. If you decide to buy, the fee will be deducted from your payment.