CULTURE | COUNTING | IMAGING | CYTOMETRY | ANALYSIS

Your Partner in Cell Research

OLS®
OMNI Life Science

SMART SOLUTIONS in Cell Analysis

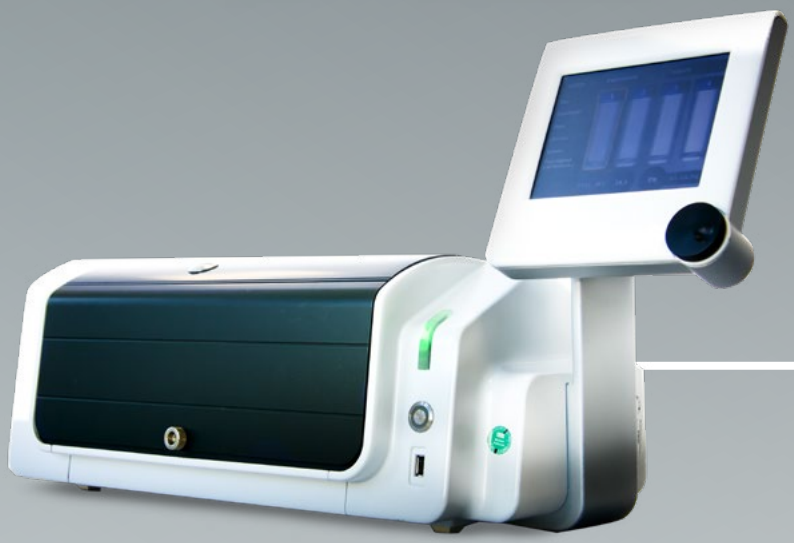
Sample Preparation

Multicolor Flow Cytometry

Real-Time Cell Analysis (RTCA)

Digital Imaging Systems

Cell Counting and More



3D Cell Culture

RTCA & Live Cell Imaging

Tissue Clearing

CASY Cell Counter and Analyzer

Multi-Parameter – Accurate – Reproducible

Highlights:

- Simple – no staining or sample preparation
- Fast – results in as little as 10 secs
- Unique – cell volume based detection and aggregation correction
- Reliable – highest reproducibility even in critical applications (PBMC, Cell- & Immunotherapy, stem cell research, biomanufacturing, ...)
- Modular – configure your CASY just the way you need it
- Cell QC – viability, cell size distribution (0,7-120 um)

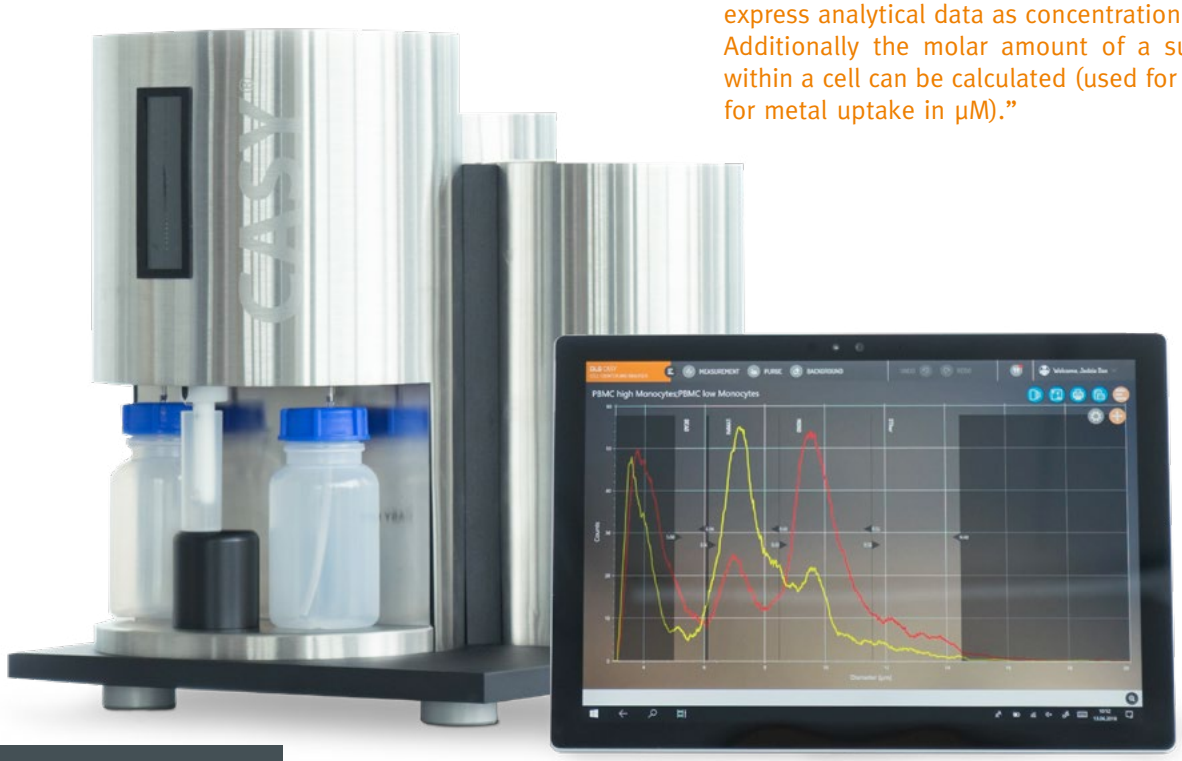
Globally, thousands of users, industrial and academic, trust CASY, the legend in cell counting. Whether working with mammalian cells, yeast, bacteria or one of many other cell types, CASY users rely on the unmatched precision, reproducibility and accuracy of the instrument combined with easy and intuitive use.

Dr. Heike Schwarz, Dept. of Cell Biology, DIARECT AG:

"We have been using CASY for the fast and reliable determination of cell concentrations and cell diameters of our cell cultures for 20 years now. We are still impressed by the high reproducibility of the measurements and the simple, intuitive operation of the device. The associated software offers great options for managing and displaying the measurement results graphically."

Prof. Dr. Julia Bornhorst, Food Chemistry, University of Wuppertal:

"We have successfully been using CASY for 10 years now. With CASY we are able to carry out reproducible cell culture experiments even when working with highly aggregated cells. CASY allows us to consider cell concentration and aggregation when seeding and harvesting cells, as both are measured by CASY. Measuring accurately cell number, aggregation factor and cell volume, gives us the opportunity to express analytical data as concentration per cell. Additionally the molar amount of a substance within a cell can be calculated (used for example for metal uptake in µM)."



Made in Germany

CERO 3D Incubator and Bioreactor

Stem Cells – Spheroids – Organoids – Tissues

Highlights:

- Reduces cost, time and variation
- Improved viability and maturation
- Significantly reduced apoptosis & necrosis
- Homogenous conditions for homogenous results
- No shear forces and minimized levels of necrosis
- Enables pathogenic infection studies

Think in new dimensions – CERO is overcoming known limitations of static cultures.
Easy, ready-to-use protocols, standardizable workflows and autoadhesion of cells without any need for Carriers or Matrigel are just a few of the advantages.
As a result, CERO enables high-yield expansion of pluripotent stem cells or long-term cultivation of tissue for ›20 days (Spheroids ›80 or Organoids ›180).

Prof. Dr. Heikenwälder, Chronic Inflammation and Cancer, German Cancer Research Center (DKFZ), Heidelberg, Germany:
"Cultivating hepatocyte spheroids in CERO improves expansion, differentiation, maturation, and heptic virus infection considerably compared to monolayer culture. Our research takes advantage of healthy cells even from long-term cultures in CERO. Moreover, we are now able to perform 3D long-term culture of human tissue specimen in CERO – a paradigm shift."

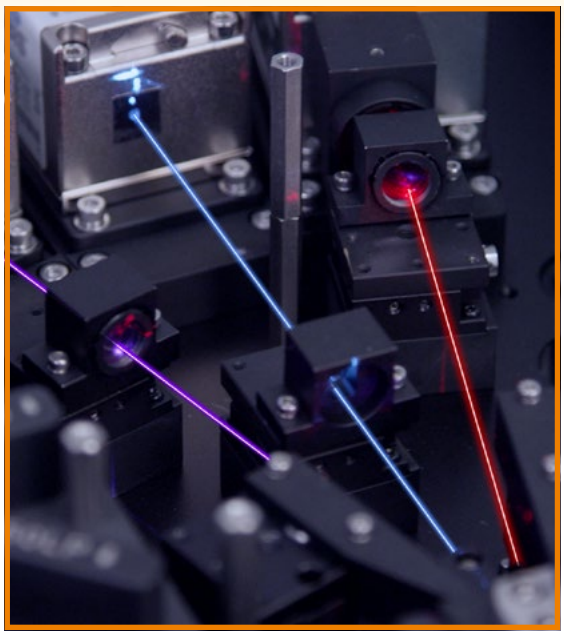
NovoCyte Flow Cytometers

High Performance – Bench Top – Low Investment

Highlights:

- Powerful – up to 27 parameter detection
- Customizable – 1-4 laser options, exchangeable filters and flexible analysis formats
- Best size resolution of 100 nm for extracellular vesicles, virus and bacteria detection.
- Complex cell analysis capabilities – clinical studies, drug discovery, therapeutic antibody screening, cancer biomarker discovery or immunological research.
- Superior fluidic system – absolute cell counts, less clogging, low maintanance costs.
- True walk-away automation with the NovoSampler Q™ and robotic integration capabilities
- Intuitive – easy to use NovoExpress software

NovoCyte® Flow Cytometer – Proven for years, popular and flexible. Without compromise, it offers proven technologies with high-quality components. The user in focus: freely configurable and expandable, it offers up to 3 lasers and 15 optical channels (17 parameters). High performance at low investment costs.



NovoCyte Quanteon™ – Most advanced bench top flow cytometer on the market today. It is equipped with 25 fluorescence channels from 4 lasers that allow up to 27 parameter analysis. Quanteon provides superior sensitivity and stability along with a 7.2 log dynamic range.
Fully automated cell wash and true walk-away automation will save you time and costs.

NovoCyte Advanteon™ – Accommodates today's high-end multi-color flow cytometry assays, and provides the flexibility of 1, 2, or 3 laser options, with up to 21 fluorescence channels and 23 parameter.
Customize the instrument to meet your specific needs, but easily upgrade to meet your future demands.

Curiox Laminar Wash Systems for Flow Cytometry

Less Workload – Time Saving – No Cell Stress

Highlights:

- Eliminates time-consuming, hands-on centrifugation
- Superior consistency of flow cytometry data without centrifugation
- Enhanced retention of cells
- Improved enumeration of cells
- Easy integration into your lab automation

Laminar Wash ™ technology eliminates time-consuming, hands-on centrifugation. It has been successfully demonstrated on various applications including immunophenotyping and CyTOF.

xCELLigence RTCA – Real-Time Cell Analyzer

Non-Invasive – Easy to Operate

Highlights:

- Continuously monitor live cell proliferation, morphology and viability
- Label-free, impedance real-time analysis
- Different throughputs from 16 to 6x96 well formats
- Use of E-plates – gold microelectrodes fused to a microtiter plate well
- Kinetic read-out – capture both short (sec) and long-term effects (days)
- Exceeds limitations from endpoint-assays

Specialized Functionalities:

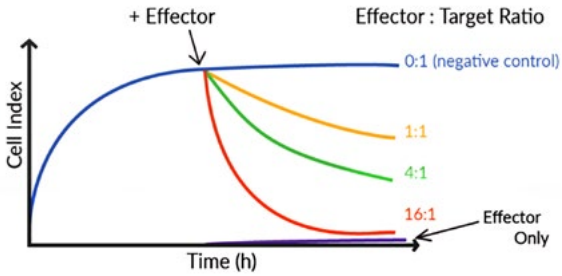
- RTCA Dual Purpose – Cell invasion & migration
- RTCA Cardio, Cardio ECR – Cardiomyocyte contractility, viability & electrical activity
- RTCA eSight – RTCA & Live Cell Imaging

Variety of applications:

- Cancer Immunotherapy
- Drug Discovery & Development
- Virology Research
- Vaccine Development
- Bacterial Biofilms
- Receptor interaction

Prof. Dr. H. Ungefroren, CBBM, Lübeck, Germany:

"We are studying oncogenic and metastatic signaling pathways in pancreatic carcinoma cells. Cell migration assays using the xCELLigence DP system have proven indispensable for our work, as it allows us to generate valuable, easily quantifiable kinetic data, combined with a simple and time-saving setup procedure." Visit Prof. Ungefroren's Lab: bit.ly/DP-Lab



xCELLigence eSight RTCA

Two Modes – One Experiment – Easy Workflow

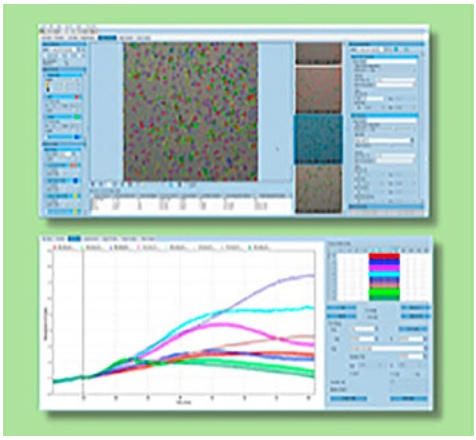
Highlights:

- Perform Impedance (RTCA) and Live Cell Imaging simultaneously
- Equipped with 3 fluorescence channels (red, green, blue) + brightfield
- Availability of 5 cradles (3 for impedance + imaging; 2 for imaging only)
- 5 x 96 well-plates can be analysed concurrently
- Quick read out – measures impedance of a 96 well-plate in 15 seconds; images a 96 well-plate in 6 minutes
- Intuitive data analysis RTCA software

J. Peper, IFIZ Tübingen, Dept. Immunology:
"We've searched an alternative to CRA, ideally without the need for using dyes or being limited by endpoint-assays. xCELLigence turned out to be the most suitable and easy to install. We now achieve an effector to target ratio of 0.05:1, evaluate complete kinetics and even might use effector cells in further experiments."

The power of Live Cell Imaging now combined with sensitivity of xCelligence Biosensor RTCA technology. Live cell imaging and real-time biosensor measurements on the same cell populations which provides insightful information on cell behavior.

Single Set Up for Dual Measurements



Live cell imaging and real-time biosensor measurement are performed on the same cell populations to provide incisive information on cell behavior. Place plates in incubator, set up real-time data acquisition & analysis parameters, then walk away.

CELENA Digital Imaging Systems

Versatile – Customizable – Multicolor

Highlights:

- No need for eye-pieces and dark-room anymore
- Powerful yet simple, with easy to use data analysis tools, interchangeable objectives and exchangeable LED Filter cubes
- Perform fluorescence, z-stack and time-lapse imaging, and image stitching
- Controlled environment for live cell imaging with an on-stage incubator system
- Supports wide variety of vessels e.g: Multi-well plates, slides, tissue-culture dishes

CELENA® S Digital Imaging Sytem:
An All-in-One System for multicolor fluorescence imaging, with a sophisticated software for image analysis.

CELENA X High Content Imaging Sytem:
High content imaging system for automated vessel handling and scanning. Equipped with motorized XYZ stage, filter cube stage, and objective turret. Laser based autofocus for rapid and reproducible focusing. Create customized workflow for image and data analysis with the integrated software, CELENA X Cell Analyzer.

zenCELL owl Live Cell Imaging

Stable – Compact – Flexible

Highlights:

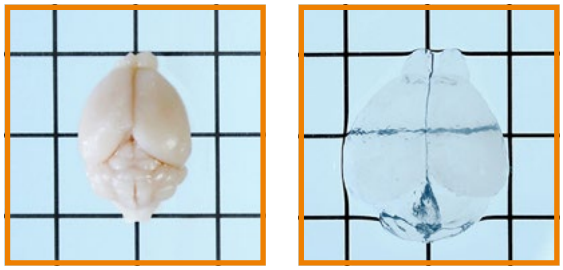
- 24-channel automated incubator microscope
- Small footprint
- Built-in image processing algorithms for fast and accurate data analysis
- Broad range of applications for real-time monitoring of cell growth and confluency, cytotoxicity, stem cell monitoring and cell migration

X-Clarity Tissue Clearing

Clearing – Labeling – Imaging

Highlights:

- Simple and standardized set-up
- Non-destructive, intact endogenous fluorescent protein expression
- Adaptable for various tissues
- Ready-to-use reagents and deep-labeling kits for enhanced and detailed visualization



Whole brain before and after Tissue Clearing with X-Clarity

Accelerate Tissue Clearing
X-Clarity is an all-in-one, easy-to-use system for optimal tissue clearing.
A rapid, safe, efficient and reproducible way of clearing a variety of biological tissues.

Service & Support

Personalized – Consistent – Fast

- **Instrument Service:** Our service team provides technical assistance for all questions arising in a timely manner. This service is ongoing during and after purchase process. During installations our technical experts can be on site to guide and train you.
- **Technical Service:** The OLS scientists in the technical support team support you professionally with a broad expertise. They can assist you to optimize your experiments and workflows.
- **Consulting:** Individual consultancy on your specific needs. Our consultants support you in finding the best instrument solution for your lab and your workflow. Let us discuss and find smart, customized solutions that meet your specific needs.
- **Training, seminars and workshops:** Meet our experts during training events or workshops and learn more about the applications, trends and tips & tricks in cell analysis. Check out our website for upcoming training events.

BROAD RANGE OF INSTRUMENTS | BEST RESULTS IN LESS TIME | EXPERTS´ KNOW-HOW

3 Questions for Dagmar Jürgens - Owner and Managing Director

What values do you stand for with your company OLS?
OLS is a medium-sized family business that is deeply rooted in Bremen and globally active.
As a managing director and owner of OLS, I stand for stability, quality, reliability and a trustworthy cooperation with our customers and business partners.

By following these values, I am supported by a great team at OLS. And it is this OLS family that meets all the challenges to achieve our most important goal: happy customers and satisfied partners.

Why would you buy OLS instruments?
This is quite simple: OLS offers innovative and exclusive technologies with unique selling points. As a customer, I am not left alone even after sales, for example through application support or refresher training – all from a single source.

What is the highlight of your time with OLS?
My highlight is the recognition we have earned from our loyal customers: As a supplier of high-quality laboratory equipment for cell laboratories and as a reliable partner in the areas of consumables, service and training.

Your Partner in Cell Research

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