

SydLab™ One

Unlock the potential of Organism-On-Chip technology in advancing your research



High-data throughput *in vivo* testing at the *in vitro* scale. All in a single benchtop device.

Leveraging the much-vaunted *C. elegans* organism model, SydLab™ One introduces the revolutionary Organism-on-Chip technology, which combines the power of *in vivo* assays with the convenience and scalability of *in vitro* testing. Researchers can now conduct experiments on over 1,000 organisms simultaneously, with results analyzed in real-time through our accompanying AI-driven software suite.

1 High Reproducibility

SydLab™ One automated workflows and deep-learning analytics ensure robust, user-independent results every time.

64 independent conditions

2 Higher Speed, Lower Cost

SydLab™ One's Plug-and-Play, chip-based system saves you time and energy during the experiments, as well as reducing cost per assay. SydLab™ One allows you to do more, for less.

x40 faster than vertebrate testing



3 Real-Time Data

SydLab™ One integrates our advanced AI-driven software suite, empowering real-time experiment monitoring and delivering clear, actionable data analysis.

+30
datapoints/hour
/organism

4 No Ethical Concerns

Leveraging the highly validated *C. elegans* as a model organism, SydLab™ One offers a recognized ethical alternative to vertebrate testing, advancing research with a focus on sustainability and responsibility.

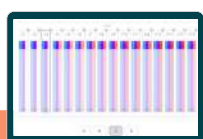
SydLab™ One Workflow: 4 simple steps to your next breakthrough

SydLab™ One provides an integrated, high-performance platform designed to advance biological discovery, accelerate therapeutic development, and streamline toxicological assessments.



SydLab™ Assay Kits

Everything you need to start an experiment on SydLab™ One.



Design your experiment

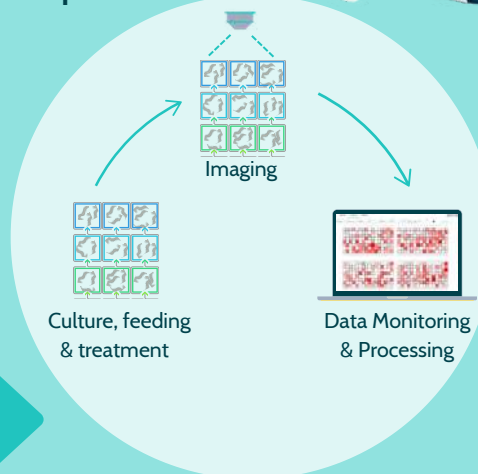


Insert up to 4 chips

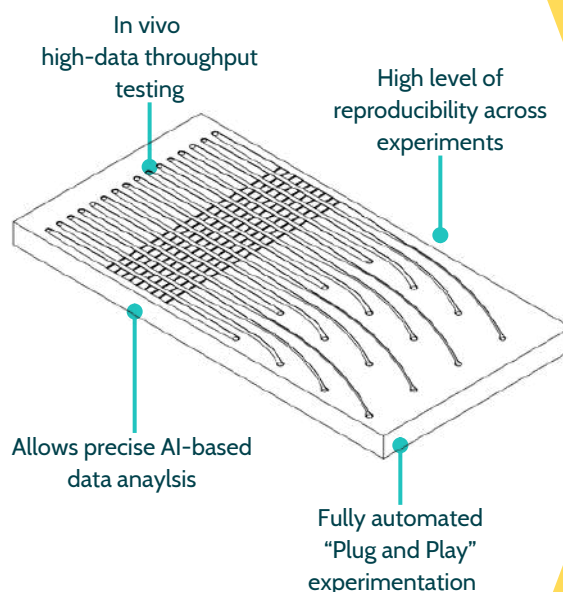


Load your *C. elegans* population and bacteria

Fully automated acquisition process



Nagi™ Chips: Organism-on-Chip technology





SydLab™ Analyzer Suite

AI-based
Data extraction
& analysis.

Image Exports:
TIFF, JPEG, PNG

SydLab™ Analyzer Suite: Our software for seamless, high-content data

SydLab™ Analyzer Suite complements the SydLab™ One system, offering an intuitive, user-friendly interface for experimental design, real-time monitoring, and data analysis. With state-of-the-art AI algorithms for high-content data extraction and advanced statistical tools, SydLab™ One enhances the efficiency and precision of your research, reducing operational complexity while delivering actionable insights faster and more cost-effectively.

Data Exports:
CSV, PDF

Tailored modules for comprehensive data analysis

Toxicity Profiling Module



- Speed up toxicity testing with clear, easy-to-interpret results.
- Obtain faster and highly accurate insights into the effects of your compounds of interest.

Lifespan & Healthspan Module



- Precisely measure lifespan and healthspan by analysing motility, fitness, reproductive, and survival parameters.

Fluo-based Assays Module



- Monitor protein aggregation to gain valuable insights into neurodegeneration or explore other biomarkers tailored to diverse applications.

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We are very pleased with the experience of the Nagi Bioscience team and the exceptional quality of their work. Their innovative technology has been instrumental in allowing us to gather critical scientific data quickly, providing invaluable insights that significantly advance our research in longevity.

Erez Aminov
CEO at Telomir Pharmaceuticals, Inc.

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By improving precision and enhancing reproducibility, SydLab™ One empowers us to explore new frontiers in critical fields of medical science. We are excited to leverage this fully automated, end-to-end solution in our projects and accelerate the pace of scientific discovery.

Prof. Konstantinos Palikaras, PhD
Group Leader of the Unit of Neurogenetics and Ageing, Laboratory of Physiology at NKUA

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OUR MISSION

We create cutting-edge technologies that unlock the power of innovative biological models and deliver the insights scientists need to accelerate life-changing discoveries

10+ YEARS OF
RESEARCH
BEHIND OUR
TECHNOLOGY

50+ YEARS OF
EXPERTISE IN
THE FIELD

30+
PUBLICATIONS
FEATURING
NAGI

TRUSTED BY 20+
TEAMS IN 10+
COUNTRIES



Instrument specifications



SydLab™ One Instrument	666 x 606 x 714 mm (width x depth x height) 100kg (weight)
Microscopy – objective	Magnification: 6x magnification Numerical aperture: 0.5 Working distance: 1.6mm
Imaging – camera	Sensor type: CMOS Resolution: 2048 x 2048 pixels Pixel Size: 0.9075um Colour mode: monochrome
Imaging – fluorescence	Excitation band: 469 ± 17.5nm Emission band: 525 ± 19.5nm Dichroic band: 452 – 490nm / 505 – 800nm Adapted for GFP (green fluorescent protein)
Imaging – readout	Image format: png/tiff
Incubator	Temperature range: 17 to 37 °C Temperature variation: ±0.2°C @20°C Temperature control (dynamics): +5°C (typ. 30 minutes), -5°C (typ. 60 minutes)
Throughput	64 independent conditions
Consumables & Reagents	2 Types of microfluidic chips: L1-Sync Chips & L4-Sync Chips Nagi™ Assay Kits compatible with SydLab™ One (all reagents for an experiment included).
Softwares	• Experimental Design GUI – for instrument operation. • SydLab™ Analyzer Suite with Monitoring Tool – for image and data analysis

**Explore our resources
and research solutions**



**Discover the capabilities of SydLab™ One
with the Discovery Pack experience**

Let's connect

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