PRESS RELEASE

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NANOLIVE LAUNCHES THE SMART MITOCHONDRIAL ASSAY^{LIVE}: A BREAKTHROUGH FOR BIOPHARMA, COSMETICS AND ACADEMIA

Tolochenaz, Switzerland — February 25, 2025 — Nanolive SA proudly announces its latest innovation, the Smart Mitochondrial Assay^{LIVE}, the first label-free tool for real-time mitochondrial analysis.

This AI-powered assay provides **unprecedented accuracy** in studying mitochondrial dynamics while preserving cell viability, setting a new standard for drug discovery, toxicology, and disease research.

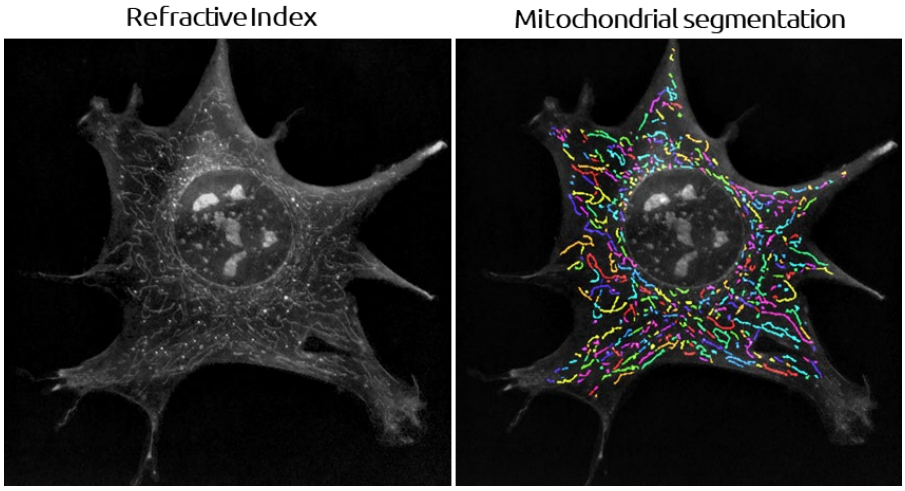

Figure 1: *Nanolive's holotomographic imaging and mitochondrial detection. Nanolive's holotomographic technology creates high resolution, label-free images of cells and their organelles. Contrast is generated by the intrinsic refractive index properties of cellular structures (left). Refractive index image plus multi-colored digital segmentation of mitochondria, powered by the Smart Mitochondrial Assay^{LIVE} (right).*

KEY BENEFITS:

- **Real-time, label-free imaging** eliminates staining artifacts and phototoxicity.
- **AI-driven quantification** automates mitochondrial morphology and network analysis.
- **Unbiased, reproducible results** enhance drug development and toxicology studies.
- **Cost-efficient, streamlined workflows** save time and reduce experimental variability.
- **Predictive insights** improve understanding of cell health and treatment response.

TRANSFORMING MITOCHONDRIAL RESEARCH IN BIOPHARMA, COSMETICS AND ACADEMIA

The Smart Mitochondrial Assay^{LIVE} is designed for a wide range of applications, including:

- **Drug discovery & development** – Assess compound efficacy and toxicity by monitoring and quantifying mitochondrial responses in live cells.

- **Cancer metabolism studies** – Understand the role of mitochondrial dynamics in tumor progression and therapeutic resistance.
- **Aging & longevity research** – Monitor mitochondrial health over time to explore cellular aging mechanisms.
- **Toxicology & safety screening** – Improve preclinical testing by detecting early mitochondrial stress and damage.

Stefan Milde, Imaging Lead at bit.bio, tested the **Smart Mitochondrial Assay^{LIVE}** and highlights its impact: *"The introduction of the label-free Smart Mitochondrial Assay^{LIVE} is a very exciting development, delivering a range of metrics that allow us to interrogate the dynamics of mitochondrial biology in undisturbed, live cells in unprecedented detail. This new module will be an invaluable tool for the deep phenotyping of our opti-ox powered human iPSC-derived cells and disease models."*

An **optional fluorescence module** adds multimodal capabilities for visualizing fluorescent drugs, nanoparticles, and molecular targets alongside mitochondrial behavior.

Nanolive's **Smart Mitochondrial Assay^{LIVE}** is transforming mitochondrial research, empowering scientists with **faster, more reliable** insights for biopharma, cosmetics, and longevity studies. Learn more at www.nanolive.com.

ABOUT NANOLIVE SA

Nanolive SA is a Swiss-based company pioneering label-free live cell imaging and AI-driven digital analysis. By combining cutting-edge artificial intelligence with high-content, high-resolution, non-invasive imaging, Nanolive extract unparalleled quantitative data at the single-cell and organelle level—empowering scientists with richer, actionable insights to advance drug discovery, cosmetics development, and academic research.

Find more information on www.nanolive.com and follow the company on LinkedIn.

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