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# Genoa Instruments

Super-resolution microscopy for health and research

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## SUPER-RESOLUTION MICROSCOPY is



# key to SCIENTIFIC DISCOVERY and to FIGHT DISEASES

Each year €270B are invested globally, for biomedical and health R&D\*.

# But, microscopy is not accessible to everyone who needs it



#### it's **EXPENSIVE**

Up to €1M for a super-resolution microscope.
Only rich can buy.



# it's **COMPLEX**

Up to **12 months** to build a custom microscope. Only experts can build.



### it's **EXCLUSIVE**

Typically 1 microscope with super-resolution for 10+ researchers.

### **Genoa Instruments**

is on a mission to



# **DEMOCRATIZE SUPER-RESOLUTION**

making it accessible to everyone.

# We are rebuilding microscopy



#### it's AFFORDABLE

100k€ for a top-notch super-resolution microscope. Everyone can buy.



# it's **SCALABLE**

Our **all-in-one** approach can combine multiple instruments into a single one.



#### it's **DEMOCRATIC**

Our technology easily replaces and integrates into any existing microscope.





# super-resolution microscopy



productized from IIT research



plug-and-play microscope to retro-fit any setup

4









# software

acquisition, analysis, and cloud storage

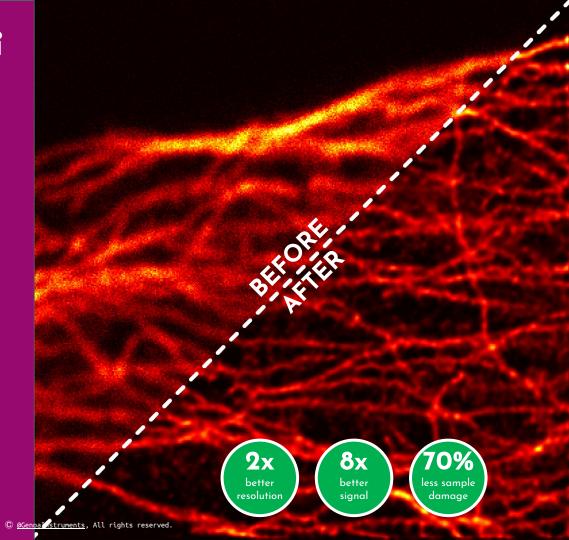
# PRISM Polo PLSV Polo Ligure Scienze della Vita SUPER RESOLUTION



Diffraction-limited optical microscopes fall short in resolving subcellular details,

PRISM offers 100-nanometer resolution, perfectly matching the size range of most biological structures\*.

PRISM enables studying the morphology of samples with 2x better resolution, 8x better signal collection and 70% less photodamage.\*\*



<sup>\*</sup> Patent 1 on spatial imaging

<sup>\*\*</sup> Image Scanning Microscopy with super-resolution FLIM

# PRISM **III**LIFETIME IMAGING

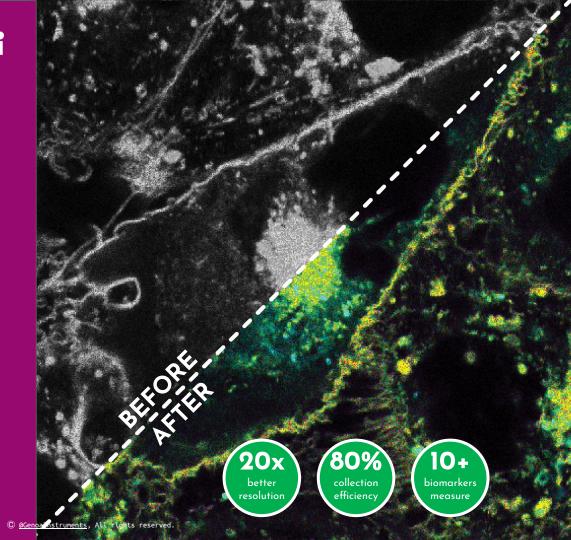




Biological living samples aren't static and requires the ability to monitor and track behaviour and dynamics.

Temporal imaging enables to visualize biomarkers such as metabolism, pH variations, DNA transformations.

PRISM offers an unprecedented\* temporal resolution of 150 picoseconds, the only way to quantitatively measure relevant biomarkers\*\*.



<sup>\*</sup> Patent 2 on temporal imaging

<sup>\*\*</sup> Image Scanning Microscopy with super-resolution FLIM

# PRISM **#**







## **BIOPSY**

Sample is taken from the patient's tumor to obtain cancer cells for testing.





# **CELL CULTURE** and **DRUG TREATMENT**

Cancer cells are cultured and exposed to different chemotherapy drugs to assess their response.







# Check response via **SUPER-RESOLUTION** LIFETIME IMAGING

Super-resolution Lifetime (FLIM) imaging is used to detect early metabolic shifts, revealing which drug is most effective for the patient within days.

<sup>\*</sup> FLIM as a Promising Tool for Cancer Diagnosis

<sup>\*\*</sup> Metabolic-imaging of human glioblastoma live tumors

# Microscopy Market.





The microscopy market is expected to reach €20.4B by 2030, with 7.98% CAGR.



Our customers are research centers located in 25'000+ universities and 165'000+ hospitals worldwide.



Around **6000+ microscopes** that offer 'super-resolution' are sold each year globally, customers demand shows greater potential.



Genoa Instruments is addressing an addressable market of €435M€ globally and an obtainable market of €21,8M.



#### Genoa Instruments

commitment to making and achieving a



# POSITIVE IMPACT and OUTCOME

for our local community.

# contributing to regional growth and deep-tech innovation



BOOSTING COMPETITIVENESS

Strengthening local high-tech and deep-tech R&D.



GLOBAL EXPANSION

Scaling a local company in the international biomedical imaging market.



JOB CREATION

Generating new professional opportunities in high-tech industries.



SUPPLY CHAIN

Enhancing regional industrial impact through partnerships with local suppliers.

#### **INVESTORS AND PARTNERS**























