



OPTICS11 life

# CUORE

3D MUSCLE FORCE PLATFORM

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OPTICS  life

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# ABOUT OPTICS 11 LIFE

Unlock the Power of Mechanobiology



visit website



## What we offer

Cutting-edge optical fiber measurement platforms tailored for life science applications.



## Our Unique Blend

We seamlessly integrate micromechanical characterization, functional readouts, tissue-specific biosystems, and non-invasive measurements.



## Translating Science into Solutions

Our technology empowers scientists to convert mechanical forces within cells and various biomaterials into groundbreaking clinical and therapeutic interventions.

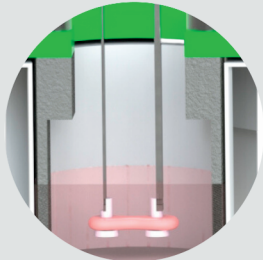
**PATENTED FIBER OPTICS  
TECHNOLOGY**

**USED IN 25+ COUNTRIES  
AND 5 CONTINENTS**

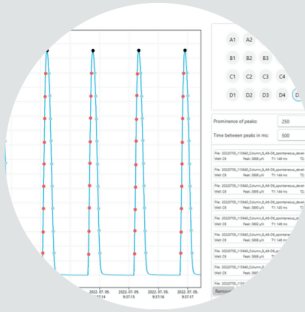
 Amsterdam

 Boston

# ABOUT THE CUORE



CUORE Pillars



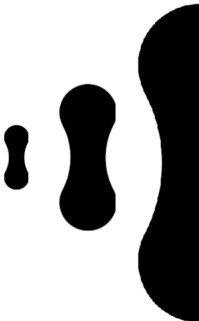
Force Output



COMPACT  
SCALABLE  
24 WELL PLATES  
ELECTRICAL STIMULATION  
LIVE FORCE READOUT  
REAL-TIME  
INCUBATION READY  
CARDIAC & SKELETAL

## APPLICATIONS

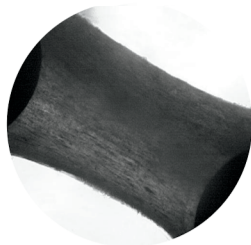
Disease Modeling, Drug Screening, Drug cell & Gene Therapy, (Biomaterials) Human Skeletal / Cardiac 3D Models (iPSC & Primary), Models for Neuromuscular Diseases & Heart Failure.







Skeletal Muscle Cells\*

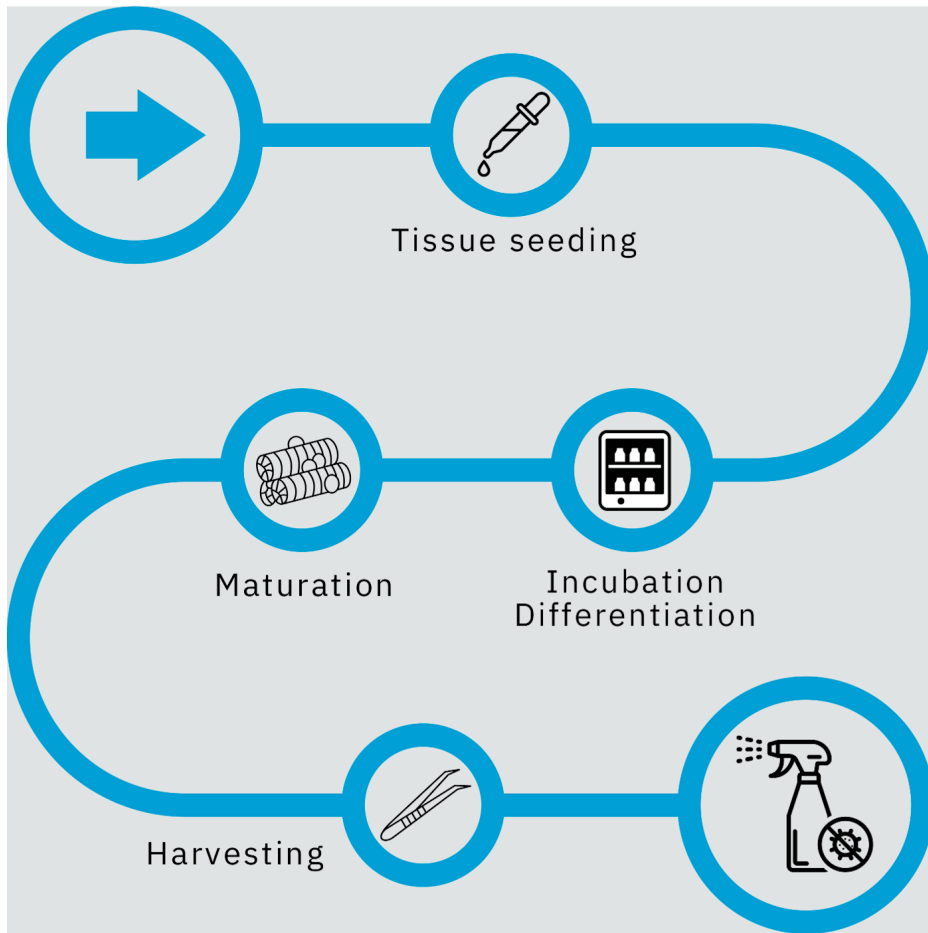


Muscle Bundle\*

Generate **near-physiological** human 3D muscle tissues  
Resemble **disease severity**  
Improve **in-vitro** models  
Enhance tissue **maturation**  
**Plug & play** functionality  
**Incubation & microscope** compatible  
**High-resolution** & continuous force monitoring



\* Ref: Alessandro Iuliano, EMC Rotterdam



MONITOR  
STIMULATE  
ANALYSE

Tissue seeding

Incubation  
Differentiation

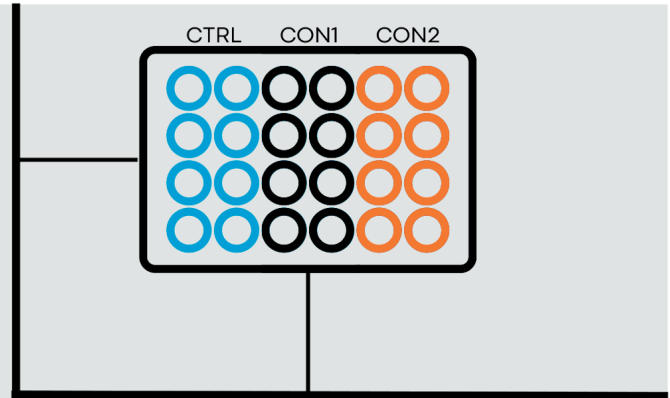
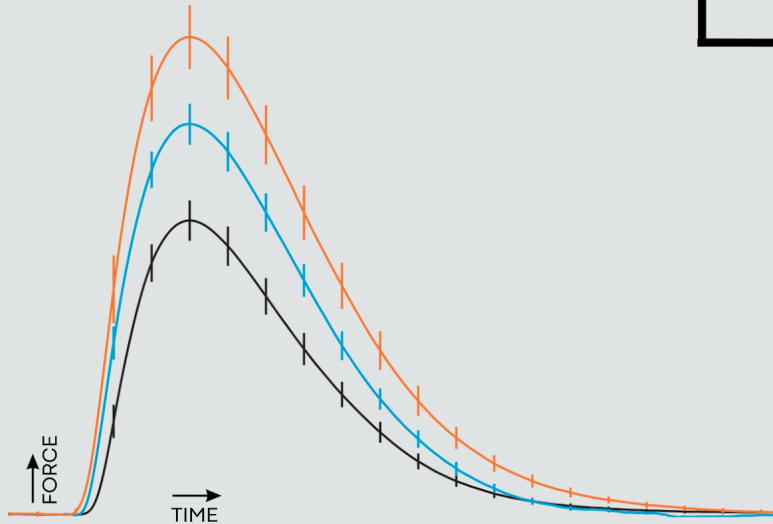
Cleaning  
Sterilization

Harvesting

Maturation

## CONDITIONS

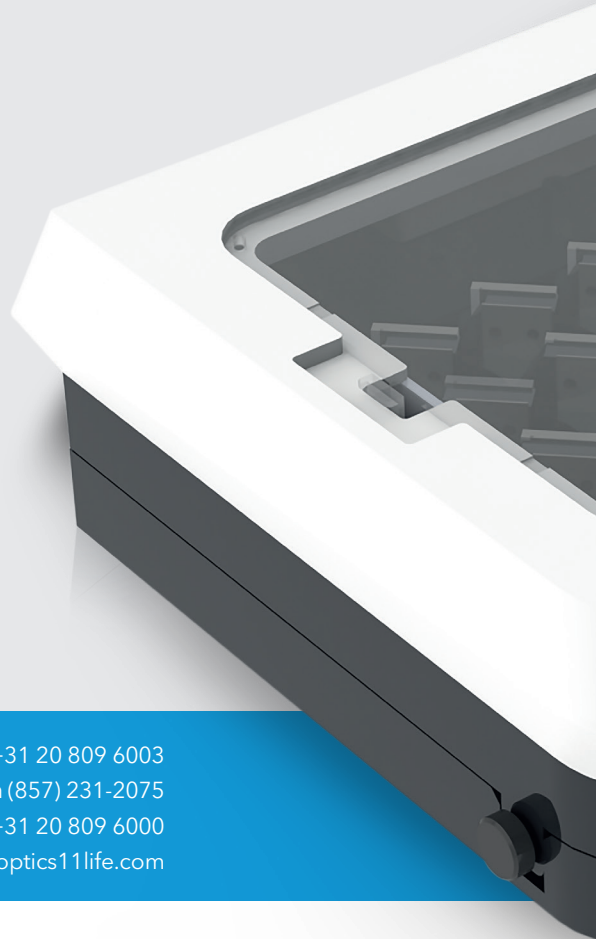
CONTROL / DISEASE / TREATMENT  
CHRONIC / ACUTE DRUG EFFECT  
EFS MUSCLE TRAINING  
MEDIUM & NUTRIENT ALTERNATION



View/analyse force & Stimulation data.

Automated Peak Force Extraction.

Exportable Statistics (.csv) format.



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