Biophysium

Presentation

R&D AT THE SERVICE OF HEALTH

About us

Biophysium is an innovative bio-health company specialising in the design and provision of services for pre-clinical (cell culture, in-vivo and ex-vivo) and clinical research in the fields of cardiovascular health, metabolic diseases and nutraceuticals.

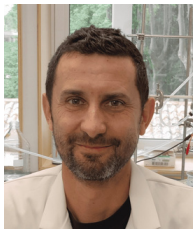
We analyze the effects of different strategies (nutraceuticals, physical exercise, drugs), starting with assessments at the cellular level, through pre-clinical models, right up to clinical effects.

Our skills are

1. **Optimizing** processes or formulations, particularly those based on natural substances.
2. **Generate** proofs of concept.
3. **Test**, **develop** and **identify** the mechanisms of action of molecules/micronutrients/formulations with an impact on the development of cardiovascular, metabolic, oxidative and inflammatory diseases.
4. **3D echocardiography** and **AI** for the development of new methods of analysis, prevention and diagnosis of cardiac pathologies.

Our team

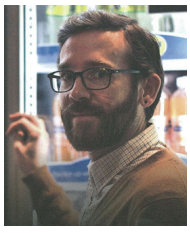
Gaëtan Boléa
CEO, CSO, Founder, Chairman of the Scientific Advisory



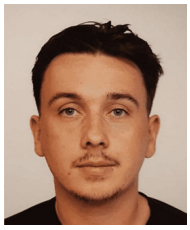
Cyril Reboul
Head of Pre-clinical studies department, member of the Scientific Advisory

Florence Coste
Member of Scientific Advisory

Grégory Meyer
Head of ex-vivo studies and cell culture department, member of the Scientific Advisory



Guillaume Walther
Head of Clinical studies department, member of the Scientific Advisory



Maxime Gouin-Gravezat
PhD student

Our competences

- Cardiac and vascular echography
- Cardiovascular health
- Metabolic diseases
- Nutraceutical
- Analytic Lab
- Mitochondrial Function

Our values

Our internal quality policy guarantees confidentiality, **transparency** and **traceability** of results within pre-defined deadlines, so that we can offer you rigorous, high-quality solutions based on Good Laboratory Practice.

A scientific advisory board and our PhD experts provide you with their advice on the design and validate the interpretation of the results to ensure that your study is carried out to optimum effect.

Customer satisfaction is our priority and our values are ethics, integrity, responsibility and innovation.

Custom project

Each project is unique, and the experimental design is optimized to provide the most appropriate and least costly responses in order to provide the best scientific evidence.

We have validated models of heart failure, hypertension, atherosclerosis, diabetes and obesity, we design tailor-made diets, and our platforms for functional exploration, imaging and biochemical analysis enable us to provide a complete range of experimental solutions.

+60
Studies completed

+45
Diseases models

+50
Scientific publications

Find out more about our specific skills in the cardiovascular health, metabolic diseases and nutraceuticals sections on

www.biophysium.com

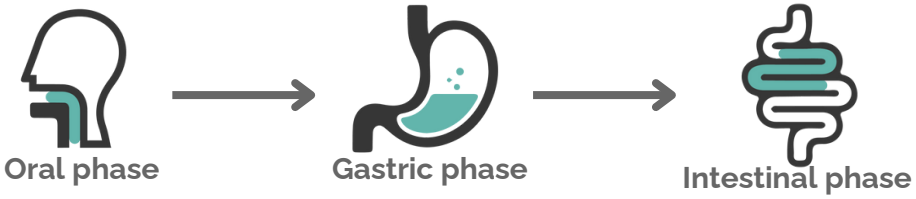
Biophysium

Innovative skills

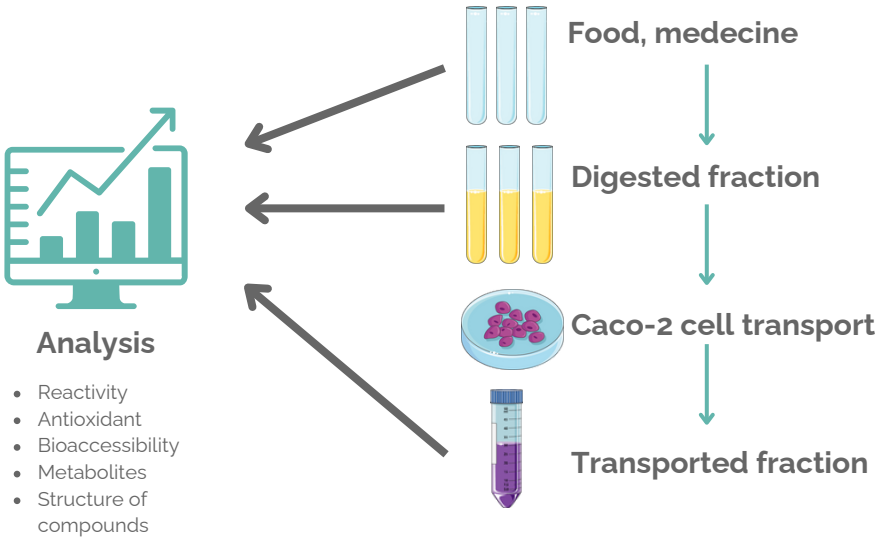
In vitro digestion simulation model

1. Food, formulation, medicine, natural substance

2. Digestion method for food



3. Digestion/Caco-2 cell model



- Reactivity
- Antioxidant
- Bioaccessibility
- Metabolites
- Structure of compounds

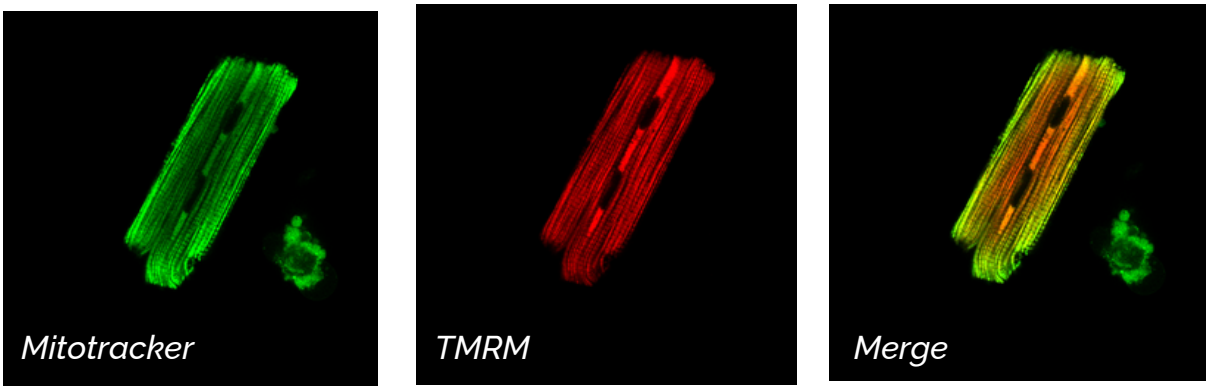
Biophysium

Innovative skills

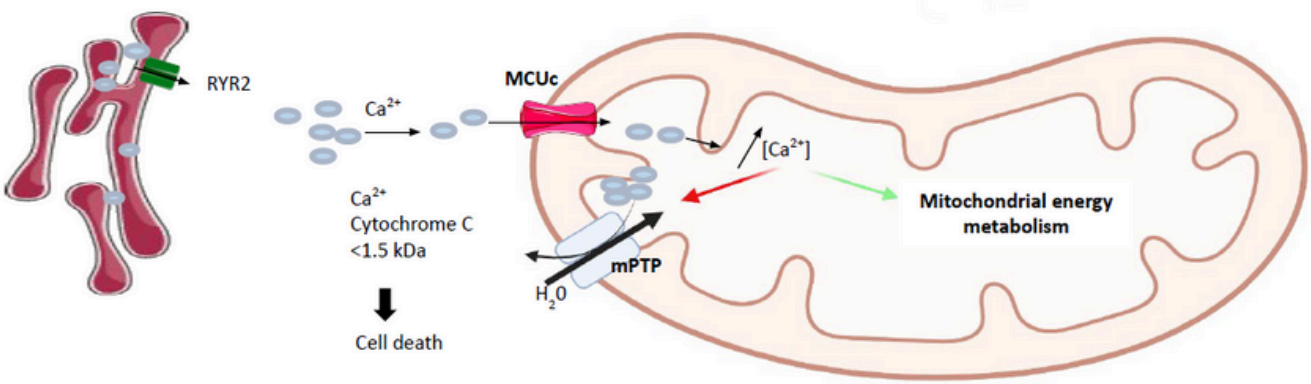
Mitochondria

Biophysium offers a wide range of experimental exploration and innovative methods, to assess different treatments and natural formulations on mitochondrial structure and function (toxicity and efficacy).

Cardiomyocyte studies



Regulation of mitochondrial calcium homeostasis

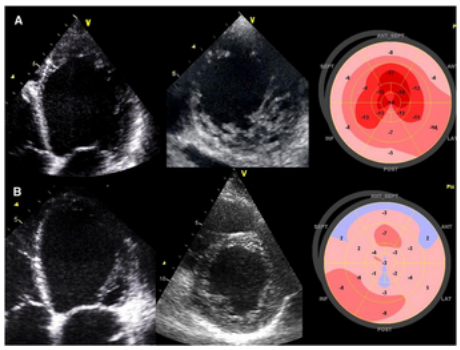


Innovative skills

Echocardiography

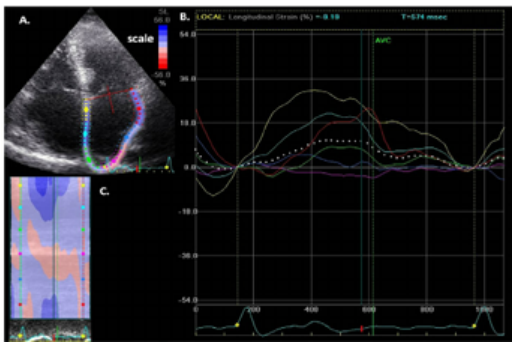
An advancement in 3D echography has emerged, incorporating the visualization of blood flow. This integration not only enhances the prevention of specific pathologies but also provides invaluable assistance to medical practitioners in their diagnostic and treatment processes. By allowing for the dynamic observation of blood circulation within the body, this innovation empowers clinicians with comprehensive insights, facilitating more informed decision-making and potentially leading to more effective patient care strategies.

Example of Myocardial deformation



- 2D strain/speckle tracking
- Myocardial twist and untwist
- Myocardial work
- Myocardial regional function

Example of Atrial deformation



- 2D strain/speckle tracking
- Atrial twist and untwist
- Blood volume
- Atrial regional function

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Let's be part of the future of innovation.

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