SYMCELO

WE MEASURE LIFE<sup>o</sup>

# MASTERS OF BIOCALORIMETRY

Symcel are masters of biocalorimetry, a 'new' science that is solving age-old challenges in multiple fields of science, medicine and industry. Our biocalorimeter delivers measurements that offer previously unattainable speed, specificity and/or sensitivity and a method that is as decisive as it is simple. What can we solve for you?

#### **OUR BACKSTORY**

Founded at the Karolinska Institute in Stockholm, Sweden in 2010, our journey started with the understanding that there was a need for better predictive values in translating between early target discovery processes and later, *in vivo* testing. By increasingly reducing sample size and increasing throughput through batch processing and the use of micro-titer plates, the first prototypes reached test users in 2008. CE label status was achieved in 2014 and our first commercial installation just a year later. This was the basis for our biocalorimeter, the calScreener™.

#### From strength to strength

Since then, we have gone from strength to strength. With various grants, strong collaborations and a growing company in terms of both headcount, resources, and therefore R&D capacity, we have developed multiple applications within microbiology and cell biology. We already have groundbreaking programs in *in vitro* diagnostics and rapid sterility testing for cell and gene therapy products. These are now a key part of the Symcel offering or in the pipeline, taking biocalorimetry from a lesser-known technology to a mainstream solution provider.

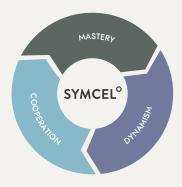


#### STRONG TEAMS

Our deep strength lies in applying our knowledge to a diverse range of industries. And we realise truly that this depends entirely on our amazing people. As of 2025, we have some 40 experts from 16 nationalities with 16 PhDs waiting to work with you. Moreover, our Management Team and Board are of the highest level, bringing to the table global experience and insight with decades of collective knowledge. Please see our website: www.symcel.com for more details.

## **VALUES MATTER**

Regardless of the industry, business remains a matter between people. And we want you to know who you're dealing with before we start working together so you are comfortable with partly entrusting your success to our cooperation. We like to think we represent the best of two worlds: science and business.



**Mastery** | Committed to excellence in everything we do

We are the global leaders in biocalorimetry and plan to remain that way. We are hugely focused on our knowledge and how to apply it. But you'll find our drive for mastery applies in all that we do. Regardless of the industry, we make it our business to understand how best to apply our skills to help you solve your challenge or bottleneck.

**Dynamism** | We're an active, switched-on bunch

Our roots in academia provide robust knowledge. Our (commercial) dynamism and passionate belief in biocalorimetry keep us up-to-date with global market developments. Here too, we're always pushing the envelope to discover more. For you.

**Cooperation** | Together we can achieve remarkable outcomes

We want to work with others. With you. We have the insight you need to improve your processes. You know your company and your market better than anyone. Let's combine the two and open up new opportunities - we're ready and waiting for you.

#### MESSAGE FROM THE CEO

"Nowadays, biocalorimetry is virtually unique as a 'new' science that is not discipline-specific. Heat is inherent to all biological systems. We will continue to improve the *speed, specificity, simplicity* and *sensitivity* of our device to serve multiple high-value markets such as cell and gene therapy, the IVD space, biofilm, microand environmental biology, in various capacities: R&D, process development, production - to name just a few.

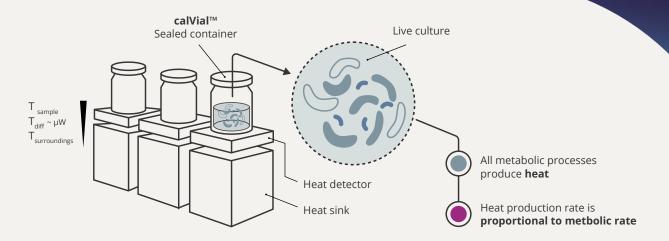
It is our ambition to remain the global leader in our field and to put biocalorimetry on the map as the breakthrough science made for breakthroughs".

Jesper Ericsson, CEO

## **BIOCALORIMETRY**

IF THERE IS LIFE, THERE IS HEAT

Biocalorimetry is the specific application of isothermal microcalorimetry to biological systems. It measures the heat released by living cells as they grow, metabolize, or respond to their environment. It opens a real-time window into biological activity - capturing the full picture of what is alive, viable, and dynamic. Symcel has developed a CE-labelled biocalorimeter and is the clear global leader in this growing and exciting field of applied science.



#### AMAZING BIOCALORIMETRY

For the study and detection of living systems, biocalorimetry offers a unique advantage as it captures the total physiological response of organisms in real time. With biocalorimetry you see what happens, when it happens.

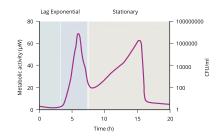
This label-free, non-destructive method works across a wide range of sample types - from pure cultures to the most complex biological systems - without

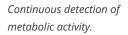
requiring optical clarity or chemical modification. It is hugely sensitive and detects the most subtle of metabolic changes - even in challenging matrices - making it ideal for investigating biofilms, microbial growth, drug response, cell viability, and microbial contamination across a wide spectrum of industries.

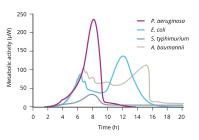
Biocalorimetry redefines how you detect, monitor, and understand microbial activity.

#### **THERMOGRAM**

The thermogram is a real-time curve that visualizes heat flow over time in each sample. This unique heat signature acts as a metabolic fingerprint, revealing the state of the microorganisms, inoculated concentration, and growth patterns. As we capture heat from all biological processes, the signal is condition-specific and highly reproducible.







Metabolic fingerprints specific to species and culture conditions.

### THE CALSCREENER™

IF IT'S IN THE VIAL, IT'S DETECTED

The calScreener<sup>™</sup> is a first-of-its-kind benchtop biocalorimeter system designed specifically for high-sensitivity biological testing in research and industry, quality control, and regulated environments.

Its measurement system is based on isothermal microcalorimetry (IMC), a technique that captures metabolic heat at a constant temperature - ideal for observing biological activity under life-like conditions.

Multichannel microcalorimeters form the core of the system, with an independent temperature control unit and connection to the calView™ software. Each calScreener™ unit is equipped with 48 isothermal measurement channels, Up to 32 samples can be tested in parallel, with 16 corresponding references, all under identical thermal conditions.

Each channel features heat sink and a high-performance Peltier-based heat flow detector with extreme sensitivity, allowing detection with the inoculation of a single colony-forming unit.

Since it has no moving parts and an intrinsically stable design, it offers exceptional reliability and low maintenance requirements. Sample handling is straightforward - simply load into dedicated vials and place the vials in the system.

This streamlined workflow makes the calScreener™ easy to integrate into both routine testing and advanced research, even when working with complex or delicate samples.

Measurement accessories, computer, monitor and other peripherals are available as optional components. No reagents are required for continuous operation.



## MOVING FORWARDS

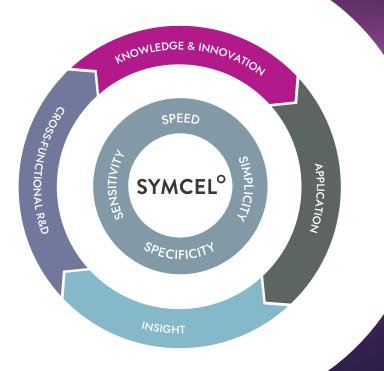
STRONG AMBITION

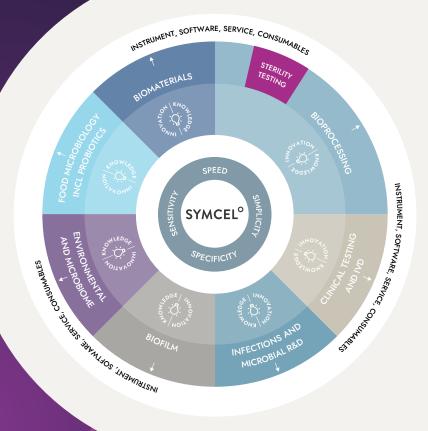
We are excited. And hope you are too. Biocalorimetry is generating solutions to bottlenecks in so many industries and we are delivering change where it is needed most - helping patients and the environent in challenging times. We have strong ambitions. Our our focus on four key qualities. Our rigorous innovation cycle and experience in a wide range of industries help us to stay on top of our game so that we deliver what you need. We're a people company. Get in touch, and let's get to work. We look forward to working with you.

## ORGANIC INNOVATION CYCLE

Our ambition is simple. To remain the best in the world at what we do. The key parameters in our business are not complex - at least not superficially. Broadly, four key qualities - speed, sensitivity, specificity and simplicity - cover the majority of our clients' needs. We benefit hugely from involvement and application of our knowledge in a wide range of industries as it confronts us with the broadest range of challenges to solve.

Each learning is used by cross-functional research and development teams to improve our performance and fine-tune our offering.





## COUNTLESS OPPORTUNITIES

**Expanding horizons in science and industry** 

Biocalorimetry offers a wealth of opportunities across various applications. Whether you're advancing biomaterials development, monitoring environmental conditions, testing microbiological contamination, or evaluating antimicrobial efficiencies, our solutions provide real-time phenotypic detection.

- · Biofilm research
- Cell and gene therapy sterility testing
- Antimicrobial Susceptibility Testing (AST)
- · Probiotic viability assessment
- Microbial load detection
- Determining strain-specific profiles
- Microbiome research
- · Food microbiology testing

The horizon is wide and we strongly believe this is just the tip of the iceberg. Biocalorimetry is paving the way for breakthroughs yet to be imagined.

#### CALSCREENER+ STERILITY

Launched in 2024, the calScreener+ Sterility offers a rapid microbial method tailored specifically for sterility testing of advanced therapeutic products. For quality control of these high-value products, timely release and accurate results are crucial. Our novel biocalorimeter technology ensures that speed does not come at the expense of accuracy, minimizing the risk of false results while reducing production costs and ensuring patient safety and treatment efficacy.



# READY AND WAITING...

Our knowledge, experience and unique, fully-fledged biocalorimeter are ready and waiting for you. Whether you're facing a bottleneck in research/academia, or looking for a process improvement in industry, we're excited to investigate your challenge together.

Please contact us via support@symcel.com



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### COLLABORATION

Collaboration is part of our heritage, and we are partnering with leading academic institutions, therapy developers, test labs, hospitals, life science and food industry, amongst others. Whether you are a major pharmaceutical company or a small research team, we treat every partnership with the same level of attention and care. How can we help you? What's your challenge? Let us know – we are here to assist!

#### YOUR PATH TO BIOCALORIMETRY

From early feasibility assessments to full validation and regulatory readiness, we're with you every step of the way. Our team can assist with study design, data interpretation, and documentation aligned with industry standards.

#### SERVICE THAT KNOWS YOUR SCIENCE

- Premium application support
- Instrument Qualification (IQ/OQ)
- · Maintenance and service



