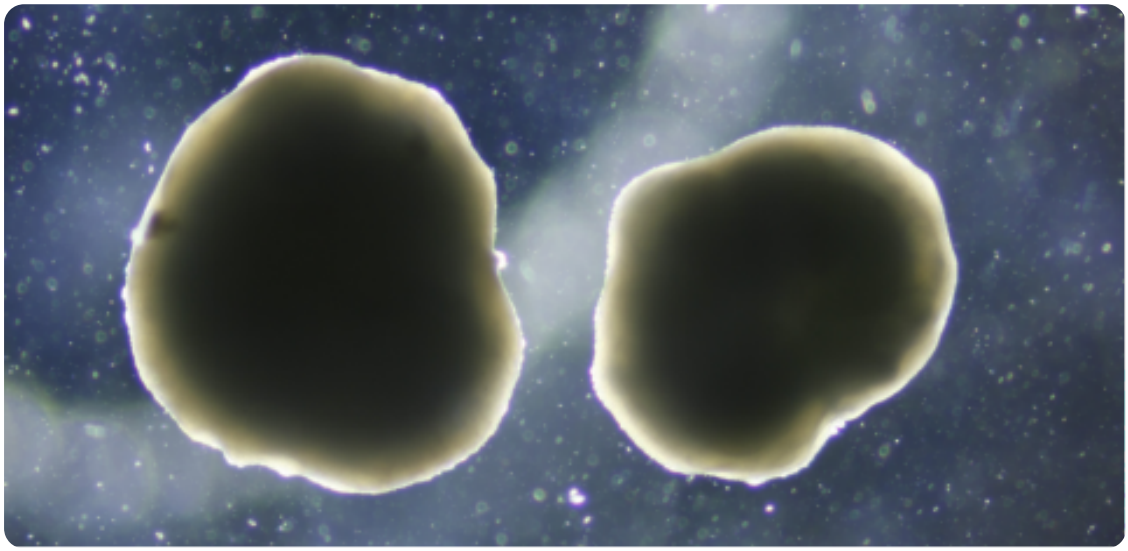
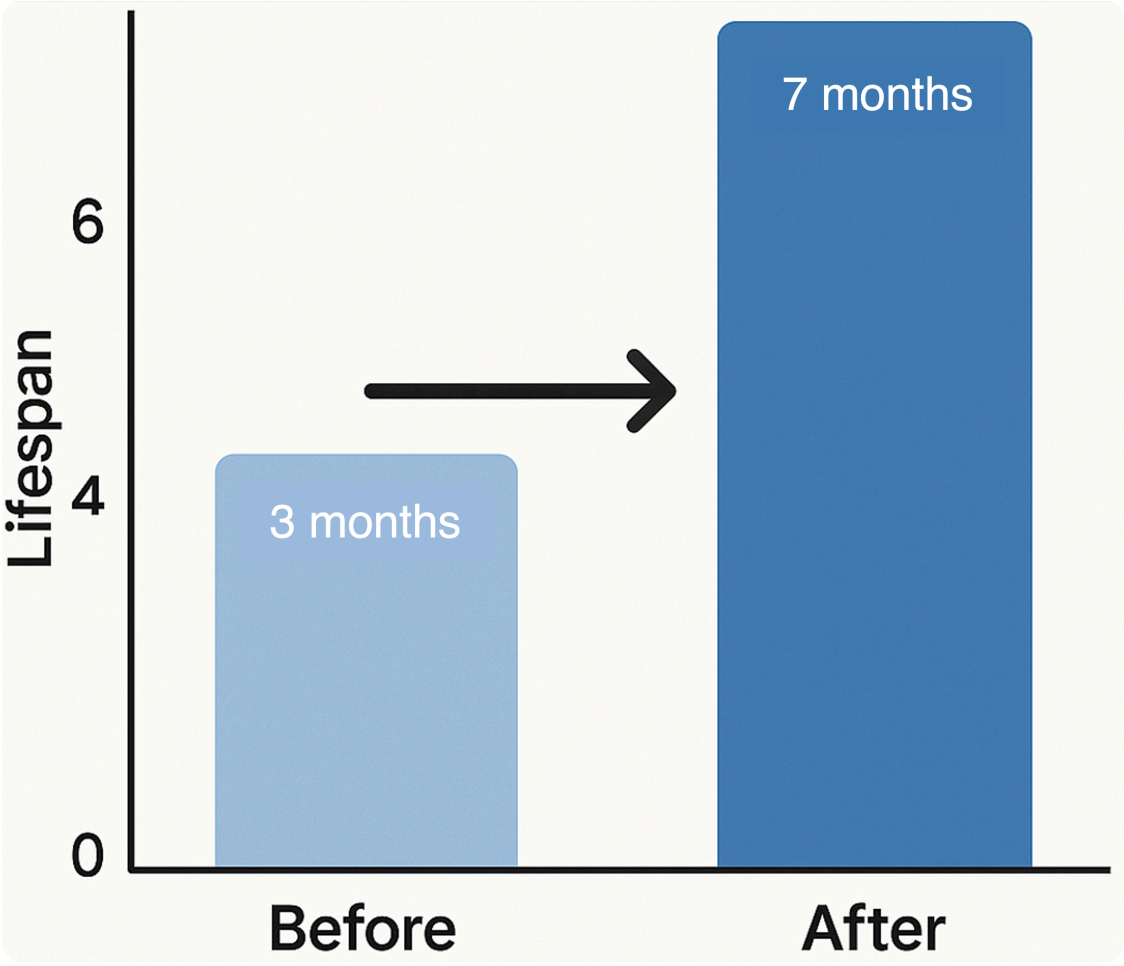
We are making our own organoids!



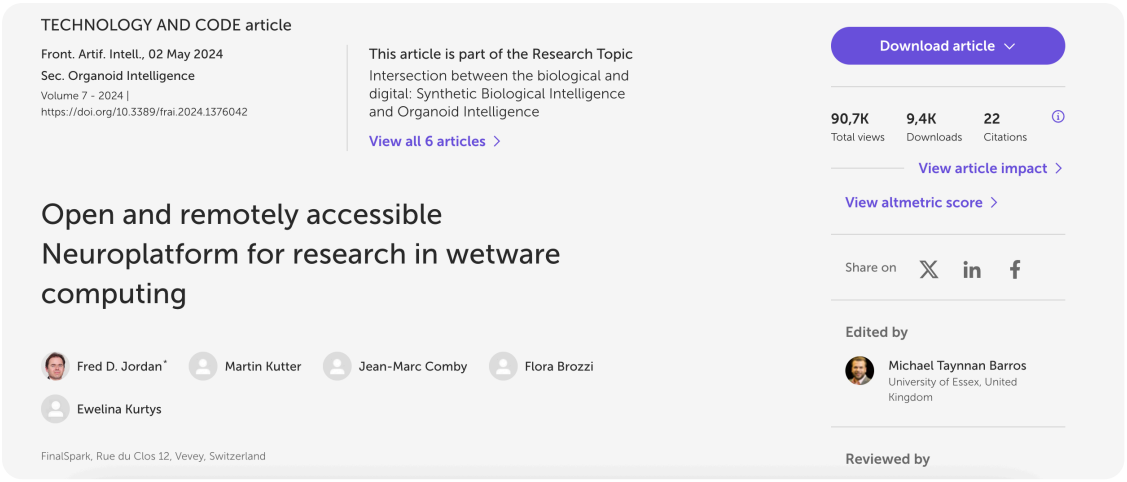
At FinalSpark, we believe true innovation means mastering the process from the very beginning — and for us, that journey starts with the cells. These cells evolve through four stages: donor cells, pluripotent stem cells, neural stem cells, and finally neurons. Until recently, our research began at the third stage, using ready-made neural stem cells. Now, we've taken a big step forward: we can start one stage earlier, working directly from pluripotent stem cells. Why does this matter? It gives us exciting new possibilities — the ability to grow organoids from different regions of the brain and to extend their lifespan, unlocking even greater potential for the future of biocomputing.

7 months - our new record in organoid lifespan



While we have long been able to preserve living organoids for years under storage conditions, their longevity has traditionally been shorter once connected to electrodes — the critical step for interaction and experimentation. Recently, we achieved a major milestone: an organoid lifespan of 7 months, more than double our previous record of 3 months. This breakthrough not only extends the usable lifetime of neurons but also creates a much larger window to train and study organoids, opening the door to more advanced applications.

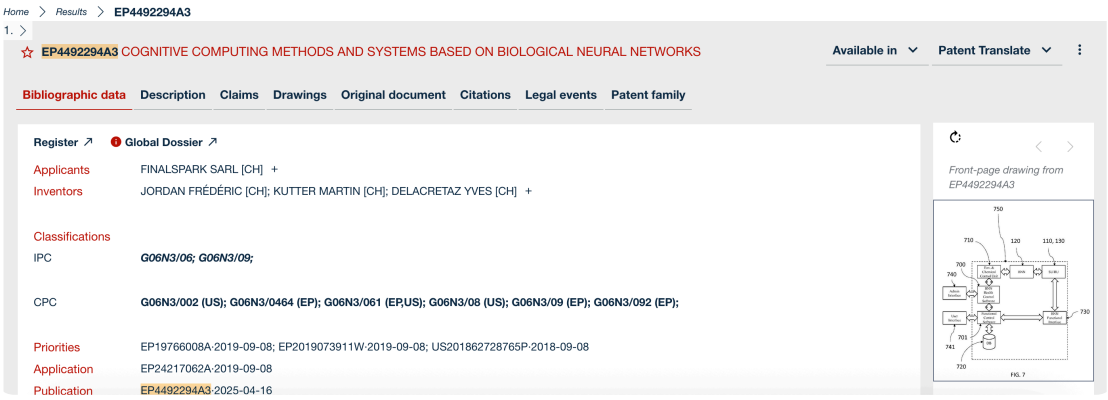
Our Neuroplatform paper reached 22 citations



We are proud to share that our publication “Open and Remotely Accessible Neuroplatform for Wetware Computing” (Frontiers in Artificial Intelligence, 2024) has now been cited 22 times — a remarkable milestone just months after release. This growing attention reflects the accelerating interest in organoid intelligence, biocomputing, and hybrid AI architectures — and reinforces FinalSpark’s leadership in shaping this emerging field. We thank all collaborators and researchers building upon our open Neuroplatform, and we invite new teams to explore its potential for sustainable, brain-like computation.

Read the paper

New patents for FinalSpark technology

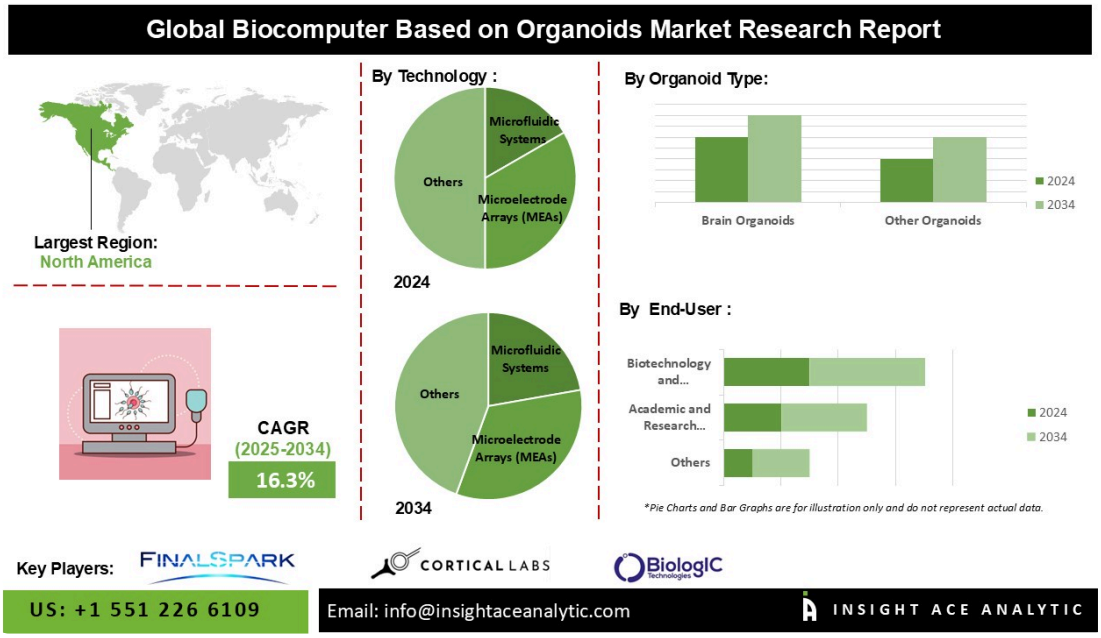


In addition to European, Japanese and US patents, a further FinalSpark patent was also recently granted by the Chinese Patent Office. FinalSpark

pioneered the development of automated processing systems for biocomputing based on long term in vitro neural cell culture control, with real-time additive supply adjustment according to continuous processing of stimulation signals jointly with monitoring of readout signals in a closed-loop setup.

Read the patent

Market research on biocomputing



For the first time, a dedicated market research report has been published on organoid-based biocomputers, confirming that biocomputing is now recognized as an emerging sector. The report projects strong growth, with a 16.3% CAGR from 2025–2034, signaling rising global interest. This recognition reflects the increasing potential of biocomputing to transform fields from AI and computing to drug discovery and personalized medicine. The technology is enabled by advances in microelectrode arrays, microfluidics, and CRISPR-based tools that connect biology with computation.

Importantly, FinalSpark is listed among the pioneers shaping this new sector. Our achievements in extending organoid lifespan and improving training methods directly address key hurdles identified in the report. By demonstrating both feasibility and performance gains, we are positioning biocomputing as a sustainable alternative to digital systems.

This first market study is more than analysis — it is validation that biocomputing has arrived on the global stage.

Read the report

FinalSpark in the global spotlight

We're proud to see FinalSpark featured across leading press outlets, podcasts, and YouTube channels — with our vision for sustainable biocomputing reaching audiences worldwide. For example, the BBC produced a documentary about our work, marking a major step in bringing organoid intelligence and living computers into mainstream awareness.

Read the selected press

SOMA: a tactile interface for living organoids

Beyond science, beyond exploration, into frontiers uncharted - this is where Luca and Basil have ventured, using FinalSpark's neuroplatform to create what has never before existed. What does it mean for a human to gaze upon the living pulse of neural tissue? Thousands of neurons, tens of thousands of connections, a storm of electric and bioelectric whispers - chaotic when seen, yet carrying the very rhythm of life. From birth to death, our essence is to interact, to await response, to mirror the world through touch. Imagine now a window-sized surface, soft and yielding, like a sheet of rubber stretched before you in Zurich. It shimmers and sways like the gentle swell of an endless ocean. Its peaks and valleys trace the hidden activity of a brain organoid, alive within its sanctuary - 37 degrees, perfect humidity, 5% CO_2 - hundreds of kilometers away in Vevey, linked through the internet. From this hidden cradle, spontaneous waves of neural life travel outward, reborn in Zurich as an art installation. The ripples of thought are rendered into motion, sculpting the relief of the sheet before your eyes. And here the journey begins. The audience is invited to touch. To press and release, to caress the living surface. Each gesture sends an echo back to Vevey, an electrical signal flowing into the brain organoid. The tissue responds, alive, entwining its pulse with the hand that reached across time and space. A quiet dialogue emerges - soothing, hypnotic. Your touch, its answer. My life, your life. Reactions folding into one another until boundaries dissolve. The viewer drifts, no longer bound by place or time, simply present, simply alive, immersed in an art without objective. SOMA - Art and FinalSpark: explore its creators, creation, and behind the scenes:

Check SOMA on YouTube

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