Accelerating microbiome research and product development using hi-throughput, inoculum-fidel HUMIPLATE platform

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Today, humans are regarded as **superorganisms**, composed of the human body and its symbiotic microbiome.

The microbiome influences most aspects of our health and plays a decisive role in the effectiveness of drugs and treatments. Consequently, microbiome research is considered one of the key areas of promise for the development of novel therapeutic strategies and for advancing new approaches in personalized medicine.

Thus, by modulating the composition and/or functionality of the microbiome, diseases could potentially be prevented or treated.

However, the translation into concrete applications is still hampered by the lack of suitable analytical models. In particular, there is a shortage of in vitro culture models capable of simulating the complex composition, functions, and interactions of a microbiome under standardized and reproducible conditions and at high throughput.

HUMIPLATE is the first *in vitro* microbiome culturing platform offering high-throughput sample processing and a true inoculum fidelity, thus maintainng inoculum compositional profile.

HUMIPLATE aims mimicking the physiological conditions to ensure delivering bio-relevant results. Combinied with functional cellular assays, and associated AI-driven bioinformatic analysis pipeline ACA-AI, the HUMIPLATE platform promises acceleration of microbiome research by providing bioloigcal relevant results.