



Session	Emerging Innovative Technologies: Novel Fermentation and Downstream Processing Innovations
Title	Fermentation production of feed stock additives using synthetic biology
Company	Fermelanta, Inc.
Speaker	Anthony Swain
Keywords feedstock (max 2)	Additives
Keywords technology (max 2)	Synthetic biology
Keywords End-Product (max 2)	Carotenoids, vitamins
Abstract:	
Fermelanta is a biotechnology startup originating from Ishikawa Prefectural University, Japan. We harness the power of synbio to develop sustainable fermentation-based platforms for producing valuable natural compounds. Our mission is to replace traditional extraction and chemical synthesis with efficient, environmentally friendly microbial production systems. Our team has successfully engineered microbial strains capable of producing a diverse range of bioactive molecules, including alkaloids, terpenoids, and flavonoids. These compounds have applications in pharmaceuticals, nutraceuticals, cosmetics, and functional foods. We create high-performing microbial cell factories that deliver these compounds with high yield and purity. In addition to specialty bioactives, we are developing production systems for feed additives such as vitamins and carotenoids. These compounds play crucial roles in animal nutrition and health, and demand for sustainable, fermentation-derived alternatives is rapidly growing. Fermelanta aims to meet this demand through scalable bioprocessing solutions that ensure both cost competitiveness and sustainability. We are seeking strategic partners who share our vision of building a bio-based, circular economy. Collaboration opportunities include joint strain development, process optimization, pilot-scale fermentation, and commercial production partnerships. By combining Fermelanta's synbio expertise with partners' market access and manufacturing capabilities, we can accelerate the transition to a sustainable future driven by biotechnology. At Fermelanta, we believe that the next generation of natural products will come not from fields or factories—but from microbes.	