

Factsheet

Acronym SynSignal

Full title Synthetic Cellular Signaling Circuits

Programme FP7 - Collaborative project

Contract number 613879

Abstract Cellular signaling systems are crucially important for a broad range of critical health and disease areas and high value industrial applications. Signaling systems are the target for more than half of the medicines marketed by the pharmaceutical industry, and form the main R&D area for the nutrition, flavour and fragrance industries. SynSignal is a multidisciplinary high-tech consortium working in synthetic biology's area of greatest untapped potential, delivering a synthetic biology toolbox and finished products custom designed for major present and future industrial applications of cellular signaling. Based on the leading expertise and innovative drive of the partners, SynSignal will address this urgent and imposing bottleneck, by providing new and sophisticated synthetic biology tools and technologies to overcome the challenges currently facing signaling-based product development. Putting in place the technological innovations, toolboxes, and application-focused materials created within the scope of SynSignal will have a dramatic impact on the accessibility of drug discovery technologies, particularly for cancer and diabetes, and for enabling technologies to create the next generation of flavours, fragrances, and nutritional ingredients. Our innovations will provide immediate benefits to the health and well-being of Europe's citizens and to the competitiveness of key European industries alike, and catalyse their transition towards sustainable production principles. In addition, all partners in SynSignal themselves will draw great benefit from the activities proposed. Private sector partners will considerably enhance their discovery and technology platforms, thereby increasing their efficiency, output and valuation. Academic partners in SynSignal will decisively advance fundamental life science research in their laboratories and in the larger scientific community by creating enabling tools to tackle biological questions of unprecedented complexity in cellular signaling.

Duration 48 months (01/11/2013 – 31/10/2017)

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