



Session	Start-ups/SMEs looking for Finance: pre-seed/angel/seed funding
Title	Biomanufacturing of saffron and other high-value botanicals using immobilized plant cell culture
Company	Krokos Bio Inc.
Speaker	Emma Skoog
Keywords feedstock (max. 2)	Sucrose
Keywords technology (max 2)	Plant cell
Keywords End-Product (max 2)	Saffron
Abstract:	
Krokos Bio is developing a next-generation plant cell culture platform for sustainable production of high-value botanical ingredients. Traditional cultivation of specialty plants is limited by environmental constraints, long growth cycles, and resource-intensive harvesting. Our technology overcomes these barriers through a novel combination of suspension-grown plant cells and a proprietary biogel scaffold, enabling scalable, cost-effective, and climate-resilient ingredient production. The scaffold system, enhanced with tailored elicitors, promotes tissue organization and boosts secondary metabolite synthesis, achieving natural-like color, flavor, and aroma profiles. This approach delivers superior quality compared to conventional plant cell culture methods and can be applied across diverse species—starting with <i>Crocus sativus</i> for food-grade saffron, one of the world’s most valuable spices (USD 1,000–5,000/kg). We anticipate price parity with commodity-grade saffron at pilot scale, validating Krokos Bio’s platform for the controlled, cell-based biomanufacturing of botanicals.	