



Session	Alternative and Unconventional Feedstocks
Title	Upcycling Industrial Waste into Specialty Chemicals using Engineered Bacteria
Company	C1 Bio
Speaker	Diego Alba, co-founder and CTO
Keywords feedstock (max 2)	Waste, glycerol
Keywords technology (max 2)	Genetic tools, bacteria
Keywords End-Product (max 2)	Specialty, aromatics
Abstract:	
C1 Bio is developing a biomanufacturing platform that converts low-cost industrial waste streams into high-value specialty chemicals, bolstering domestic chemical supply chains and meeting a growing consumer demand for greener products. Today, most commercial bioproduction depends on refined feedstocks that can represent over 60% of operating costs, limiting cost competitiveness. By using industrial waste streams, we can reduce feedstock costs by up to four-fold, saving millions of dollars annually. We leverage state-of-the-art genetic engineering tools to engineer metabolically-versatile bacteria to transform wastes such as crude glycerol, a low-value byproduct of biodiesel and oleochemical production, into drop-in chemicals with significantly improved sustainability and affordability. Importantly, our engineered strains contain pathways inaccessible to traditional industrial microbes, unlocking a whole new class of bio-based chemicals. Our first product line is high-value aromatics used in advanced materials, electronics, and consumer products, today produced almost exclusively from imported petrochemicals. C1 Bio will enable the next generation of cost-competitive biomanufacturing, delivering green chemicals without a green premium. Join us in turning waste into value.	