Session	Emerging innovative technologies: novel fermentation and novel downstream processing innovations
Title	Licence-free engineering of non-model bacteria
Company	Forge Genetics
Speaker	Craig Woods
TRL	TRL 8-9
Keywords feedstock (max 2)	non-model bacteria
Keywords technology (max 2)	non-crispr engineering
Keywords End-Product (max 2)	product agnostic

Abstract:

Forge Genetics is a specialist strain engineering company. We have developed Forge Editing: a modular library of proprietary non-CRISPR genetic tools that unlock the ability to make robust gene edits into bacterial species that are traditionally extremely recalcitrant to genetic modification using CRISPR-based tools. We then deploy these genetic tools in-house to create high-performance engineered bacterial strains for customer and partner use. By leveraging Forge Editing to build these strains, we ensure that our engineered strains are built to a Bio-manufacturing Readiness Level of at least BioMRL3 before handover to our customers & partners. Vitally, we can also offer these engineered strains on a licence-free basis, as we do not rely on any 3rd Party CRISPR (or other gene editing tech) IP.

A key advantage of Forge Editing is our ability to genetically modify non-model bacterial species that other technologies and companies can't. This allows us to more readily engineer a large portfolio of extremophilic species with unique native capabilities for unconventional feedstock utilisation.

We are excited to build partnerships with anyone and everyone working with non-model bacterial species: from halophiles to chemotrophs and far beyond!