

Vereinigung für Allgemeine und Angewandte Mikrobiologie



## 6. VAAM Industry-Academia Panel

16.03.2023

## "High throughput screening in strain and biocatalyst development"



Prof. Dr. Beatrix Süß (Synthetic RNA Biology, TU Darmstadt)

"Next-level riboswitch development - Implementation of Capture-SELEX allows fast and easy identification of new synthetic riboswitches "

Synthetic riboswitches are promising tools not only for conditional gene expression but also for biosensing. However, their engineering is not straightforward and often requires a combination of in vitro selection and in vivo screening. We report novel design strategies and selection methods for efficient riboswitch development.



## Dr. Andreas Meyer, Ginkgo Bioworks (fka FGen AG), Basel

"High throughput screening – not only a numbers game "

The analysis of microbial strains at high throughput typically involves the scale down of final application conditions. Cell encapsulation offers a powerful tool for miniaturization and enables the cultivation of microbial strains under process relevant conditions, thus reducing the risk of failure during scale-up. We will highlight how such methods can accelerate and allow to fully exploit the design-build-test-learn (DBTL) cycle of modern synthetic biology.