

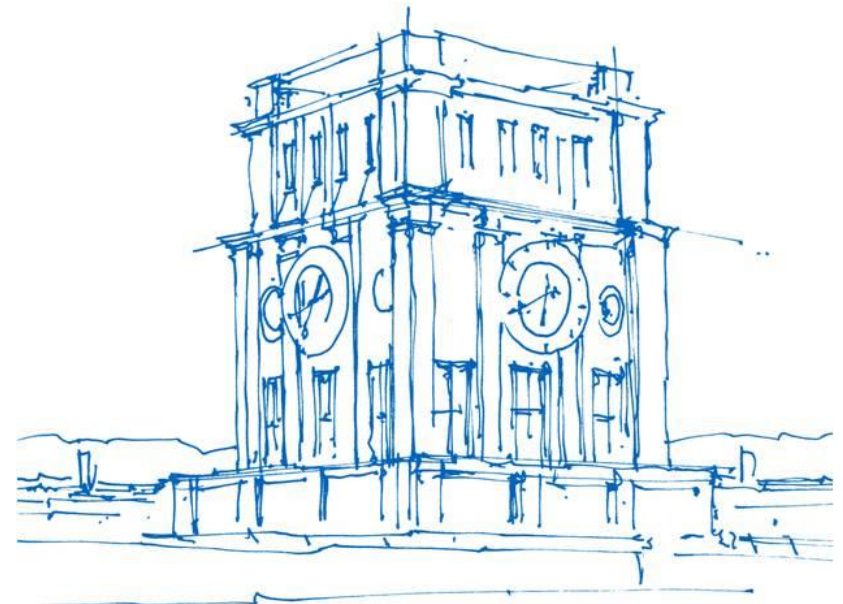
Dive-It Droplet *In-Vitro* transcription/translation Enzyme Identification

Dr. Josef Sperl

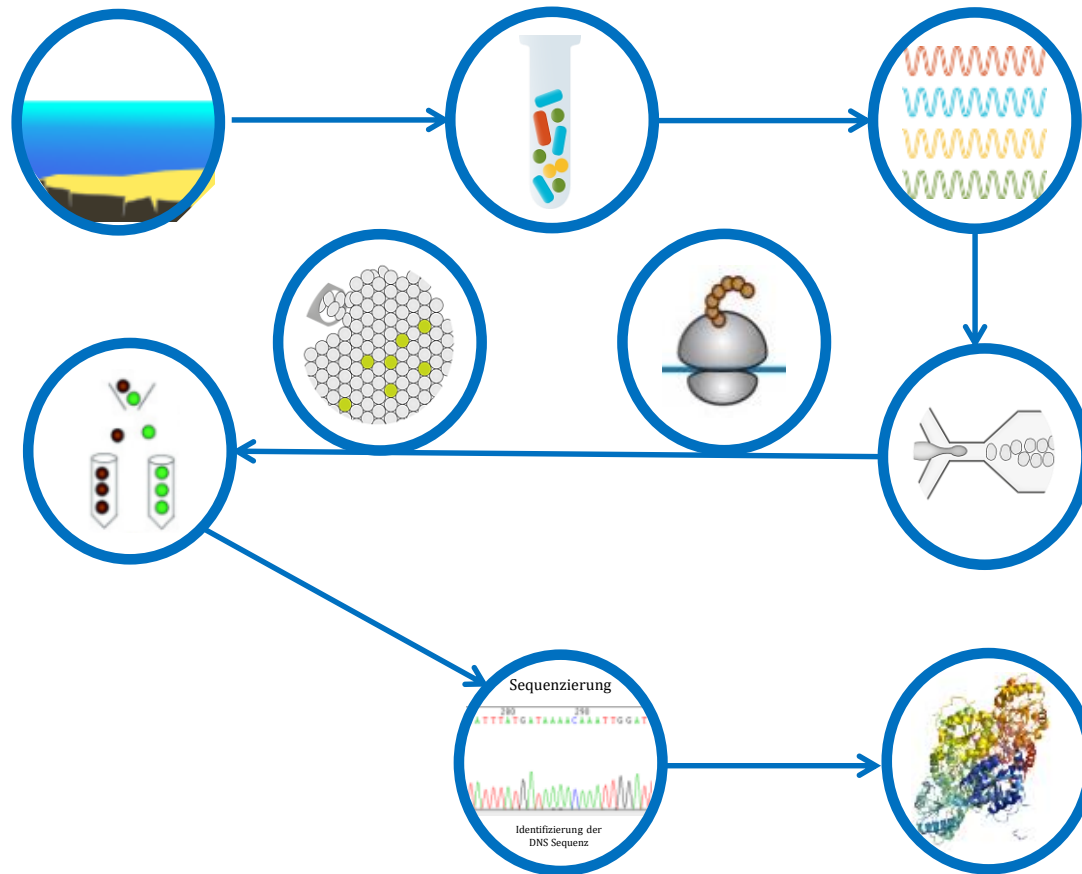
Technical University of Munich

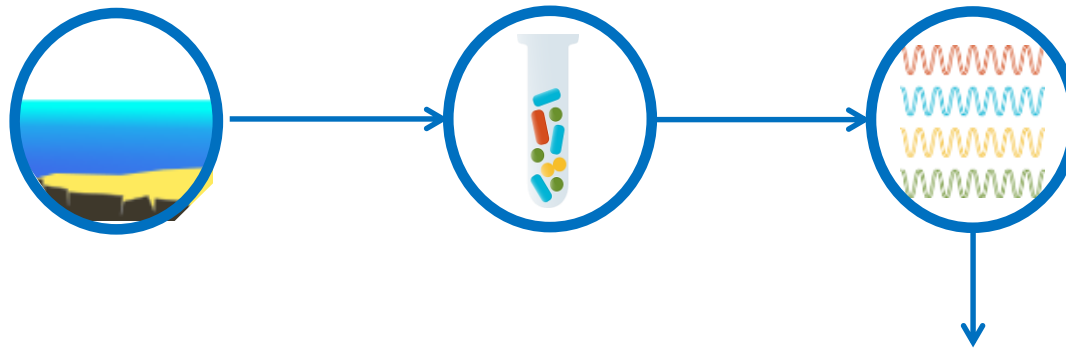
Chair of Chemistry of Biogenic Resources

Oslo, November 21st, 2017



Uhrenturm der TUM



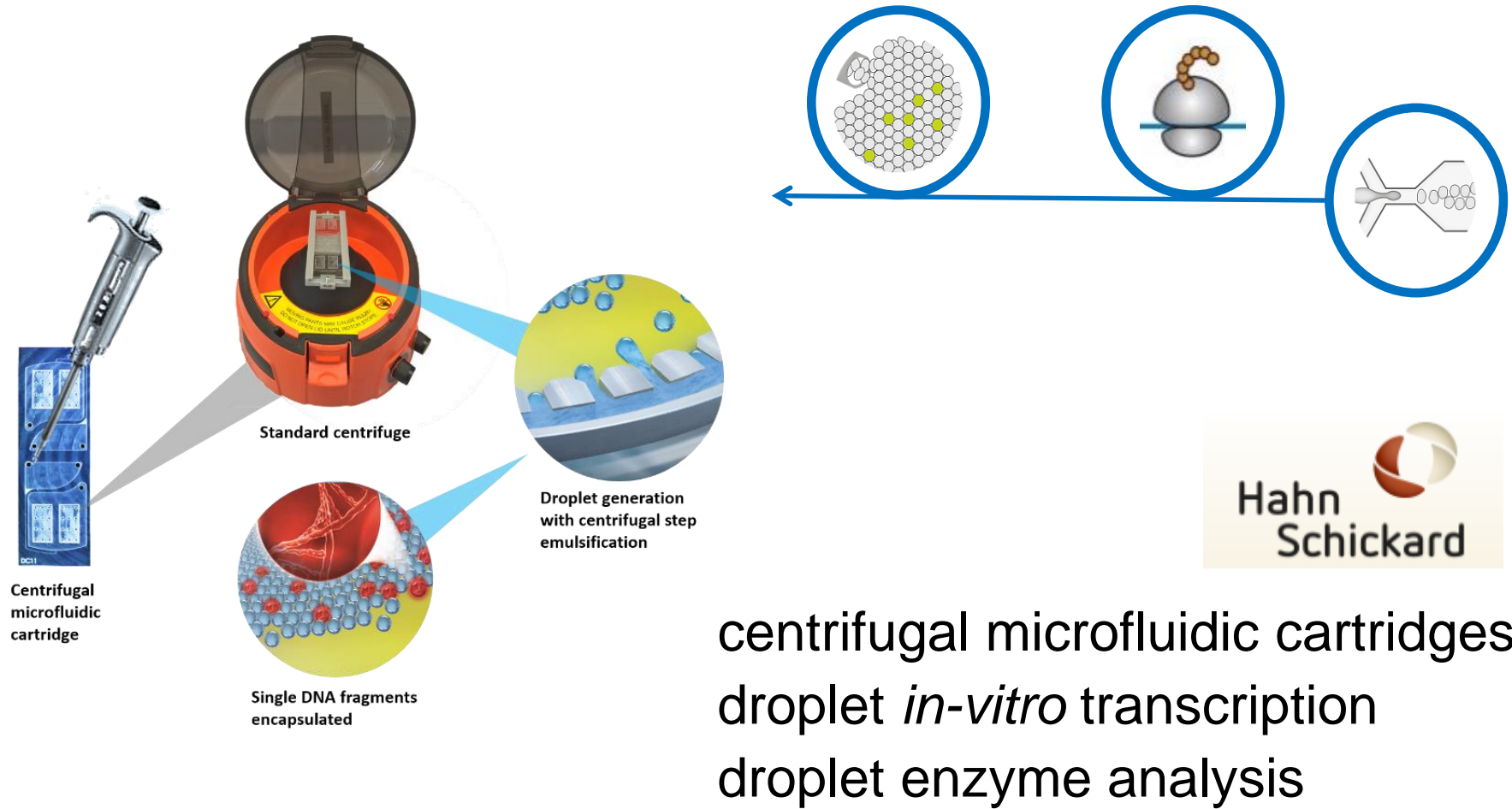


Sampling of marine habitats
surface waters, hydrothermal seeps, gas seeps
fouling on artificial substrates

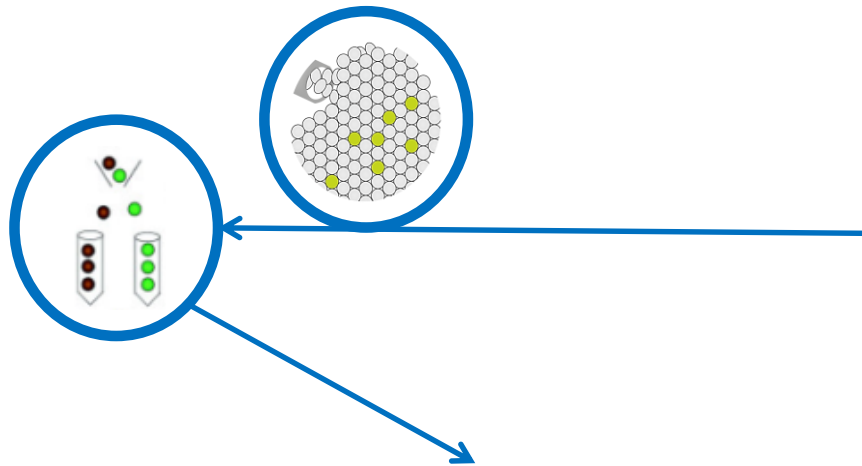
Habitat guidance: bioinformatical analyses
sequence-based habitat selection
metagenomic sample preparation



Dive-It droplet generation



Dive-It droplet analysis / sorting

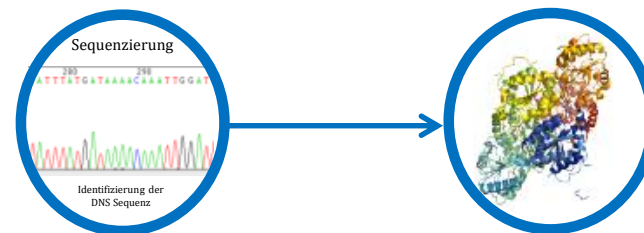


droplet sorting according to fluorescence / absorbance
microfluidic architectures
gentle manipulation of droplet stream
compatible with IVTT formulation

Biochemical characterization of positive hits

Goal:

Integration of novel enzymes into biotechnological applications





Prof. Volker Sieber

Dr. Josef Sperl



Prof. Fiona Brinkman



Dr. Nadine Borst



Prof. Alfonso Gañán-Calvo