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<https://www.biologie.uni-hamburg.de/forschung/mikrobiologie-und-infektionsbiologie/mikrobiobiotech/ag-forschung/f-streit.html>

Deep-mining in Marine and Terrestrial Metagenomes

Metagenomics is a key technology to explore the DNAs from not-yet-cultivated microbes for health, ecology and biotechnology. Since the term 'metagenome' was coined almost two decades ago, this research has dramatically changed our view on many areas of microbial ecology, community biology, microbiome research and it has resulted in the rapid identification of many thousand novel biomolecules with potential and proven value to bioindustries and health associated aspects. In recent years various novel technologies have been developed to access the genomes of the mostly non-cultivated bacteria using HT technologies often in combination with Next Generation Sequencing approaches. Within this background I will highlight novel and improved strategies employed to explore highly diverse metagenome resources. Thereby, the combination of function- and sequence-based screening technologies has been very successful to obtain novel and highly active enzymes and gain insights into the function of complex and diverse metagenomes.

Further, I will report on the first steps towards developing a cell-free and function-based screening platform, which allows faster and improved screening and circumvents host-related expression problems.

Date: Thursday, 1st February 2018, 1:15 pm
Venue: GEOMAR Westshore, Düsternbrooker Weg 20, Lecture Hall
Host: Prof. Dr. Deniz Tasdemir