



TÜBINGEN'S EXCELLENCE:  
DRIVING PERSONALISED MEDICINE &  
MEDICAL TECHNOLOGY

The ZPM would like to invite you to a seminar talk given by **Prof. Dr. Jan Baumbach** from the Computational Biology research group of the University of Southern Denmark about **Big Data in Precision Medicine**.

**Title**

Big Data in Precision Medicine

When networks and patient records meet temporal multi-OMICS data sets

**Date**

Thursday 04.05.2017  
05:00 pm

**Place**

Klinken Berg, Gesundheitszentrum  
(Building 480), Room 1 (level 4)  
Hoppe-Seyler-Straße 6, 72076 Tübingen

**Abstract**

Recent advances in modern omics technology allow measuring the expression of all kinds of biological entities (genes, proteins, metabolites, miRNAs, etc.) at low cost and in high-throughput. Computational challenges for analyzing such big data emerge, ranging from the low signal to noise ratio to high model complexity, which render simple statistical questions arbitrarily complicated. We will discuss four bioinformatics approaches for de-isolating biological networks and multiple OMICS data profiles: de novo pathway enrichment, in vitro high-throughput screening data integration, time-series network co-enrichment, and breast cancer subtyping.



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