DIGITALISIERUNG IM DIALOG

DEGGENDORF INSTITUTE OF TECHNOLOGY

Invitation to the virtual DigiCamp „Life Science Meets Informatics“

hosted by the Department of Digitization I Innovative Teaching &
the Faculty of Applied Computer Science
on Tuesday, June 29 2021
from 12:30 to 6:00 PM (MESZ)

The Next Generation Sequencing (NGS) technology produces large amounts of data of the (human) genome, epigenome and associated transcriptome, the analysis and interpretation of which is a growing challenge. Therefore, it is important to create a functional and resilient interface between natural scientists and computer scientists. The volumes of data generated in the decoding of human, animal or plant genomes, for example, must be processed and correlated in order to make them useful.

Biomedical research and molecular diagnostics are currently using a variety of computational analysis tools to identify and analyze genes that are predictive of prognosis or therapeutic response with respect to a disease (precision medicine, personalized medicine). The analysis and evaluation of these data sets requires knowledge in the field of biomedicine combined with application-oriented informatics. Exactly these core competences are necessary to perform a high-quality and meaningful data analysis - transparent and comprehensible.

First-class speakers will provide you with insights into the latest research focuses, diagnostic applications and the latest technologies of Next Generation Sequencing methodology.

The virtual DigiCamp is aimed at experts from companies in the pharmaceutical, medical technology and other industries. Research institutions and interested master students from the fields of bioinformatics, biology, chemistry, medicine and pharmacy are also cordially invited to attend.

We cordially invite you to the virtual event “Life Science meets Informatics” with the following agenda:

PROGRAM

12.30 - 1.00 PM	TALK: NGS IN RESEARCH AND CLINICS - AN OVERVIEW Prof. Dr. Melanie Kappelmann-Fenzl Deggendorf Institute of Technology (DIT) Faculty of Computer Science
1.00 - 1.45 PM	TALK: NEXT GENERATION SEQUENCING AND DATA ANALYSIS - EXAMPLES OF RECENT RESEARCH TOPICS Prof. Dr. Anja Katrin Bosserhoff University of Erlangen (FAU) - Institute of Biochemistry Biochemistry and Molecular Medicine
1.45 - 2.30 PM	PRESENTATION OF THE RCI NGS CORE FACILITY TALK: EPIGENETICS: GENERATION & ANALYSIS OF ChIP-SEQ DATA Prof. Dr. Michael Rehli University Medical Center of Regensburg - RCI NGS Core Internal Medicine
2.30 - 3.15 PM	TALK: ILLUMINA - NGS TECHNOLOGY Dr. Susanne Hilgert Senior Territory Account Manager, Illumina GmbH Dr. Ismahen Ammar-Tekay Technical Sales Specialist, Illumina GmbH
3.15 - 4.00 PM	TALK: DIAGNOSTIC PATHOLOGY AND THE ROLE OF MOLECULAR PATHOLOGY ( ) Dr. Fabian Eder Institute of Pathology, Molecular Pathology and Cytology, Deggendorf
4.00 - 4.45 PM	TALK: METHODS IN MOLECULAR TUMOR DIAGNOSTICS Dr. Alexandra Hamberger Institute of Pathology, Molecular Pathology and Cytology, Deggendorf
4.45 - 5.30 PM	TALK: UTILIZING EXTRACELLULAR VESICLES FOR EARLY DETECTION AND TREATMENT STRATIFICATION Prof. Dr. Phillipp Torkler Deggendorf Institute of Technology (DIT) Faculty of Computer Science
5.30 PM	CLOSING WORDS Prof. Dr. Melanie Kappelmann-Fenzl

SPEAKER | Prof. Dr. Melanie Kappelmann-Fenzl

Melanie Kappelmann-Fenzl is a professor at the Deggendorf Institute of Technology (DIT) at the Faculty of Computer Science in the field of Applied Life Sciences. Main areas of her teaching and research work are human genetics, molecular biology, next generation sequencing (RNA-Seq, ChIP-Seq, Methyl-Seq) and biomedical data analysis. One of her goals is to get NGS technologies to DIT.

SPEAKER | Prof. Dr. Anja Katrin Bosserhoff

Anja Bosserhoff is a professor at the University of Erlangen (FAU), Chair of the Institute of Biochemistry and director for the study program Molecular Medicine. Her research focuses on various biomedical topics, in particular on the molecular mechanisms of melanoma development, progression and metastasis. Prof. Bosserhoff was chair of the expert committee "Promotion of Young Medical/Scientific Professionals" of the German Cancer Aid and is now member of two permanent senate commissions of the DFG (Deutsche Forschungsgemeinschaft). Since January 2017 Prof. Bosserhoff is member of the German Council of Science and Humanities and since 2021 the chairman of its Scientific Commission.

SPEAKER | Prof. Dr. rer. nat. Michael Rehli

Michael Rehli is professor for Experimental Hematology at the University Hospital of Regensburg and head of the NGS Core of the Regensburg Center for Interventional Immunology (RCI). His research focuses on the interplay between transcription factors and epigenetic mechanisms in regulating hematopoietic lineage specification and leukemia development. Prof. Rehli is an elected member of the Committee on Scientific Instrumentation and Information Technology of the DFG (Deutsche Forschungsgemeinschaft) and a member of the International FANTOM Consortium.

SPEAKERS | Dr. rer. nat. Susanne Hilgert & Dr. rer. nat. Ismahen Ammar-Tekaya

Illumina Inc. is a global leader in providing comprehensive NGS solution technologies. Illumina's studies claim to make the goal of personalized medicine possible. Susanne Hilgert is a Senior Territory Account Manager at Illumina GmbH. She is responsible for customer care in southwestern Germany. Ismahen Ammar-Tekaya is a Technical Sales Specialist for the southern and eastern part in Germany.

SPEAKER | Dr. med. Fabian Eder

Fabian Eder is specialist in pathology and senior physician at the Institute of Pathology, Molecular Pathology and Cytology in Deggendorf. Professional expertise, continuous training and the claim to follow contemporary research and knowledge level combined with latest technologies creates the fundament for his work. A goal: To make use of these skills to gather an optimal individually diagnosis as a basis for quickest possible and specific cancer therapy.

SPEAKER | Dr. rer. nat. Alexandra Hamberger

Alexandra Hamberger is the head of the department for molecular pathology at the Institute of Pathology, Molecular Pathology and Cytology in Deggendorf. Molecular pathology plays a leading role in modern fight against cancer. Her focus lies on therapy-oriented tumor diagnostics based on target sequencing applications.

SPEAKER | Prof. Dr. rer. nat. Phillipp Torkler

Phillipp Torkler is a professor for Bioinformatics and Data Analysis at the Faculty of Computer Science at the Deggendorf Institute of Technology (DIT). He is specialized in the early detection of disease and personalized medicine. Previously, he has contributed to the development of molecular diagnostic tests for early detection of severe diseases.

REGISTRATION

Please register via our registration portal of the DIT:
https://pmit-ext.th-deg.de/iqw-seminare/dates/view/180

MORE INFORMATION

- The event will take place virtually on Zoom. You will receive your access link a couple of days in advance.
- The program is will almost entirely be held in English. The talk of Dr. Fabian Eder will be in German.

Please do not hesitate to contact us if you have any questions.

We look forward to seeing you online!

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