Posters (continued)

Venue & Lunch

- P23 Semi-automatic interpretation of local secondary structure motifs in IncRNAs
- P24 UAP Reproducible and Monitored Next-Generation Sequencing Data Analysis
- P25 Searching with tandem mass spectra in molecular structure databases
- P26 Combined Metabolome and Transcriptome Analysis of the Circadian Rhythm in the Cyanobacterium Synechocystis sp. Strain PCC 6803
- **P27** AnnoTALE Identification, Annotation and Classification of Transcription Activator-Like Effectors
- P28 Temperature sensitive RNAalifold effects of using varyings temperatures on consensus structure prediction.
- P29 Simulation of cell and tissue dynamics using a deformable cell model
- P30 Polar Plots Visualizing the Effects of Different Treatments on Gene Regulation
- **P31** Normoxic accumulation of HIF1α is associated with glutaminolysis
- P32 Modelling slime mould electrical properties by a fractional order system in the frequency domain

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Central German Meeting on Bioinformatics 2015

August 26/27, 2015

Martin Luther University Halle–Wittenberg

MARTIN-LUTHER-UNIVERSITÄT HALLE-WITTENBERG





Universitätszentrum Informatik - Halle



Leibniz Institute of Plant Biochemistry



German Centre for Integrative Biodiversity Research



Program

Wednesday, August 26, 2015

10:00 **Opening**

Welcome address: Prof. Dr. Olaf Christen, Dean of the Faculty of Natural Sciences III, MLU

10:15 Francois Buscot

Keynote: New perspectives and challenges in plant-soil ecology research at the age of next generation sequencing

11:00 **Daniel Arend** e!DAL - A new approach to publish your data

11:25 **Sarah Berkemer** Remolding and Evolution of tRNA genes in Eukaryotes

11:50 Lunch break

- 13:20 **Stefan Schuster** (invited) The Fibonacci code in lipidomics
- 13:45 Christoph Ruttkies

Classification of reliable MetFrag candidate identifications for tandem mass spectra from selected lipid samples

14:10 Jan Ewald

Dynamic optimization: a powerful approach to elucidate optimality principles within metabolism

14:35 **Guillermo Restrepo**

Green chemical fitness landscapes

15:00 Coffee break

- 15:30 **Manja Marz** (invited) Challenges in virus genomics
- 15:55 Markus Fleischauer Bad Character Deletion Supertrees
- 16:20 **Konstantin Riege** Basal fungi phylogeny reconstructed by proteome, rRNA, RNome and mitochondrial genes
- 16:45 **Martin Nettling** Improving phylogenetic footprinting by neglecting evolution
- 17:10 Poster session
- 19:00 Barbecue

Thursday, August 27, 2015

09.00 Nicole van Dam

Nicole van Dam Keynote: Managing multiple menaces: Transcriptomics and metabolomics analysis of multiple stress responses in plants

09:45 Christoph Schuster

Whole transcriptome analysis of rare, meristematic plant cell populations using laser capture microscopy followed by strand-specific total RNA-Seq

10:10 **Time for discussions with coffee**

11:05 **Steve Hoffmann** (invited) Cancer Epigenomics - attempts to disentangle methylation, histone modification and transcription

11:30 **Ivo Hedtke** Optimal Block-Based Trimming for Next Generation Sequencing

11:55 **Christian Hoener zu Siederdissen** Generalized Algebraic Dynamic Programming

12:20 Lunch break

13:50 **Peter Stadler** (invited) Orthology, Paralogy, and Cographs: How to use paralogs in phylogenomics

14:15 Sebastian Germerodt

Pervasive selection for cooperative cross-feeding in bacterial communities

14:40 Martin Porsch

De-Novo Transcriptome Analysis and Characterization of Juncus effusus with a Multi-Module Bioinformatics Pipeline

15:05 Coffee break

15:35 Frank Jühling

Fast and sensitive detection of differential DNA methylation

16:00 Rainer König

Keynote: Inferring sample specific regulators for the genes of interest using gene expression data and chromatin binding information

- 16:45 Closing remarks
- 17:00 **End**

Posters

- P1 e!DAL A new approach to publish your data
- P2 Computer-Aided Design of Small Molecules Targeting Parasitic Histone Deacetylases
- **P3** Modelling for activity prediction of in silico mutants exemplified by trisporic acid synthesis
- P4 Homology Modeling and Molecular Dynamics Simulations of Sirtuin 4
- **P5** Modeling the host-pathogen interactions of the human immune system and C. albicans using game theory and dynamic optimization
- P6 Structure-based Development of Novel Inhibitors for the Epigenetic Target EZH2
- P7 Machine learning in computer-aided drug design
- **P8** What sequence information can reveal: The evolution of arrestins in deuterostomes
- **P9** Phylogenetic analysis of components of the Tat (twin arginine translocation) protein transport machinery
- P10 Modeling Evolutionary Shifts of Ecological Niches Based on Climatic Spaces
- P11 Correcting mass shifts in mass spectrometry imaging data using lock-mass-free recalibration procedure
- P12 Omics for non-model organisms: the case of amphipods from Lake Baikal
- P13 Prediction of conserved long-range RNA-RNA interaction in full viral genomes using the example of HCV
- P14 Preliminary comparison of differentially expressed ncRNAs in bat and human cells infected with Ebola Zaire virus
- P15 Why Respirofermentation? Explaining the Warburg effect in tumour (and other) cells by a minimal model
- P16 Phylogenetic distribution of plant snoRNAs
- P17 The hidden world of non-canonical aliphatic amino acids
- P18 Comparative visualization of sequence motifs with DiffLogo
- **P19** High-throughput plant phenotyping at IPK: facilities and methods for integrated image analysis
- P20 Analysis of whole-genome sequencing data for elucidating floral transition and discovery of bolting resistance genes in Beta vulgaris
- P21 Model-supported experimental improvement of a continuous algae production process: Minimizing medium supply via a light/dark cycle dependent dilution rate
- P22 Detecting paralog-specific gene expression associated with floral induction in the allopolyploid Brassica napus