Publications:

**Intergenic evolution during host adaptation increases expression of the metallophore pseudopalline in *Pseudomonas aeruginosa***
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Transcriptomic profiling of interacting nasal staphylococci species reveals global changes in gene and non-coding RNA expression**
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Application of RNA-seq and Bioimaging Methods to Study Microbe-Microbe Interactions and Their Effects on Biofilm Formation and Gene Expression**
Publication: Research - peer-review › Book chapter – Annual report year: 2017

**Elucidating the Molecular Factors Implicated in the Persistence and Evolution of Transferable Antibiotic Resistance**
Publication: Research › Ph.D. thesis – Annual report year: 2018

**Genomic epidemiology of a major Mycobacterium tuberculosis outbreak: Retrospective cohort study in a low incidence setting using sparse time-series sampling**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Reconstruction of the metabolic network of *Pseudomonas aeruginosa* to interrogate virulence factor synthesis**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**SERS detection of the biomarker hydrogen cyanide from *Pseudomonas aeruginosa* cultures isolated from cystic fibrosis patients**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**A Bacteriophage-Acquired O-Antigen Polymerase (Wzy\textsubscript{P}) from *P. aeruginosa* Serotype O16 Performs a Varied Mechanism Compared to Its Cognate Wzy\textsubscript{q}**
Publication: Research - peer-review › Journal article – Annual report year: 2016

**Antibiotic combination therapy can select for broad-spectrum multidrug resistance in *Pseudomonas aeruginosa***
Publication: Research - peer-review › Journal article – Annual report year: 2015

**Application of WGS data for O-specific antigen analysis and *in silico* serotyping of *Pseudomonas aeruginosa* isolates**
Publication: Research - peer-review › Journal article – Annual report year: 2016
Biofilm as a production platform for heterologous production of rhamnolipids by the non-pathogenic strain *Pseudomonas putida* KT2440
Publication: Research - peer-review › Journal article – Annual report year: 2016

Curbing the development and spread of 'high risk' bacterial pathogens
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Evolution of metabolic divergence in *Pseudomonas aeruginosa* during long-term infection facilitates a proto-cooperative interspecies interaction
Publication: Research - peer-review › Journal article – Annual report year: 2015

Evolution of Transcriptional Regulatory Networks in *Pseudomonas aeruginosa* During Long Time Growth in Human Hosts
Publication: Research › Ph.D. thesis – Annual report year: 2016

*Pseudomonas putida* as a microbial cell factory
Publication: Research › Ph.D. thesis – Annual report year: 2016

Modulation of *S. aureus* Quorum Sensing by *P. aeruginosa*
Publication: Research › Conference abstract in proceedings – Annual report year: 2016

Sharing and community curation of mass spectrometry data with Global Natural Products Social Molecular Networking
Publication: Research - peer-review › Journal article – Annual report year: 2016

Substantial molecular evolution and mutation rates in prolonged latent *Mycobacterium tuberculosis* infection in humans
Publication: Research - peer-review › Journal article – Annual report year: 2016

The evolution of antimicrobial peptide resistance in *Pseudomonas aeruginosa* is shaped by strong epistatic interactions
Publication: Research - peer-review › Journal article – Annual report year: 2016

The phenotypic evolution of *Pseudomonas aeruginosa* populations changes in the presence of subinhibitory concentrations of ciprofloxacin
Publication: Research - peer-review › Journal article – Annual report year: 2016

Utilization and control of ecological interactions in polymicrobial infections and community-based microbial cell factories
Publication: Research - peer-review › Journal article – Annual report year: 2016

Bacteriocin-mediated competition in cystic fibrosis lung infections
Publication: Research - peer-review › Journal article – Annual report year: 2015

Clinical utilization of genomics data produced by the international *Pseudomonas aeruginosa* consortium
Publication: Research - peer-review › Journal article – Annual report year: 2015

Epistatic Mutations And Unpredictable Phenotypes In *Pseudomonas Aeruginosa*
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Evolution and adaptation of *Pseudomonas aeruginosa* in cystic fibrosis airways: cystic fibrosis as a model system
Publication: Research › Ph.D. thesis – Annual report year: 2016
Evolutionary insight from whole-genome sequencing of Pseudomonas aeruginosa from cystic fibrosis patients
Publication: Research - peer-review › Journal article – Annual report year: 2015

Genomic Evolution Of The Mdr Serotype O12 Pseudomonas Aeruginosa Clone
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

phuR intergenic mutation results in pleiotropic effects on global gene expression
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Metabolic adaptation of a human pathogen during chronic infections - a systems biology approach
Publication: Research › Ph.D. thesis – Annual report year: 2016

Novel Path Towards Colistin Resistance In Pseudomonas Aeruginosa During Chronic Infection Involves Polymorphisms In Uncharacterized Glycosyltransferase Gene
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Rnaseq As A Method To Study Microbial Interactions Arising In The Cystic Fibrosis Airways
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Substantial Molecular Evolution In Prolonged Latent Mycobacterium Tuberculosis Infections In Humans
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

The widespread multi-drug-resistant serotype O12 Pseudomonas aeruginosa clone emerged through concomitant horizontal transfer of serotype antigen and antibiotic resistance gene clusters
Publication: Research - peer-review › Poster – Annual report year: 2015

The Widespread Multidrug-Resistant Serotype O12 Pseudomonas aeruginosa Clone Emerged through Concomitant Horizontal Transfer of Serotype Antigen and Antibiotic Resistance Gene Clusters
Publication: Research - peer-review › Journal article – Annual report year: 2015

Working in the biomedical engineering domain: opportunities and challenges
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Diversity Generation in Evolving Microbial Populations
Publication: Research › Ph.D. thesis – Annual report year: 2014

Environmental heterogeneity drives within-host diversification and evolution of Pseudomonas aeruginosa.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Staphylococcus aureus Alters Growth Activity, Autolysis, and Antibiotic Tolerance in a Human Host-Adapted Pseudomonas aeruginosa Lineage.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Within-host evolution of Pseudomonas aeruginosa reveals adaptation toward iron acquisition from hemoglobin.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Within-host evolution of Pseudomonas aeruginosa toward iron acquisition from hemoglobin in polymicrobial CF infections
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Archetypal analysis of diverse Pseudomonas aeruginosa transcriptomes reveals adaptation in cystic fibrosis airways
Publication: Research - peer-review › Journal article – Annual report year: 2013
Draft Genome Sequences of Pseudomonas aeruginosa B3 Strains Isolated from a Cystic Fibrosis Patient Undergoing Antibiotic Chemotherapy
Publication: Research - peer-review › Journal article – Annual report year: 2013

Evolution and Pathoadaptation of Pseudomonas aeruginosa in Cystic Fibrosis Patients
Publication: Research › Ph.D. thesis – Annual report year: 2016

Evolutionary remodeling of global regulatory networks during long-term bacterial adaptation to human hosts
Publication: Research - peer-review › Journal article – Annual report year: 2013

Genome Analysis of a Transmissible Lineage of Pseudomonas aeruginosa Reveals Pathoadaptive Mutations and Distinct Evolutionary Paths of Hypermutators.
Publication: Research - peer-review › Journal article – Annual report year: 2013

Systems Biology Investigations of Pseudomonas aeruginosa Evolution in Association with Human Airway Infections
Publication: Research › Ph.D. thesis – Annual report year: 2013

Typing of Pseudomonas aeruginosa from hemorrhagic pneumonia in mink (Neovison vison)
Publication: Research - peer-review › Journal article – Annual report year: 2013

Adaptation of Pseudomonas aeruginosa to the cystic fibrosis airway: an evolutionary perspective.
Publication: Research - peer-review › Journal article – Annual report year: 2012

Aspergillus hydrophobins - Identification, classification and characterization
Publication: Research › Ph.D. thesis – Annual report year: 2013

Deletion and acquisition of genomic content during early stage adaptation of Pseudomonas aeruginosa to a human host environment
Publication: Research - peer-review › Journal article – Annual report year: 2012

Evolution and diversification of Pseudomonas aeruginosa in the paranasal sinuses of cystic fibrosis children have implications for chronic lung infection
Publication: Research - peer-review › Journal article – Annual report year: 2011

Evolutionary dynamics of pseudomonas aeruginosa in CF
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2012

Multilocus Sequence Typing of Total-Genome-Sequenced Bacteria
Publication: Research - peer-review › Journal article – Annual report year: 2012

Mutations in 23S rRNA Confer Resistance against Azithromycin in Pseudomonas aeruginosa
Publication: Research - peer-review › Journal article – Annual report year: 2012

Aspergillus triggers phenazine production in Pseudomonas aeruginosa
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Bacterial adaptation during chronic infection revealed by independent component analysis of transcriptomic data
Publication: Research - peer-review › Journal article – Annual report year: 2011

Evolutionary dynamics of bacteria in a human host environment
Publication: Research - peer-review › Journal article – Annual report year: 2011
Microbial ecology and adaptation in cystic fibrosis airways
Publication: Research - peer-review › Journal article – Annual report year: 2011

Suppression of Aspergillus by Pseudomonas aeruginosa
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Early adaptive developments of Pseudomonas aeruginosa after the transition from life in the environment to persistent colonization in the airways of human cystic fibrosis hosts
Publication: Research - peer-review › Journal article – Annual report year: 2010

In situ growth rates and biofilm development of Pseudomonas aeruginosa populations in chronic lung infections
Publication: Research - peer-review › Journal article – Annual report year: 2008

Complete genome sequence of the myxobacterium Sorangium cellulosum
Publication: Research - peer-review › Journal article – Annual report year: 2007

Molecular epidemiology and dynamics of Pseudomonas aeruginosa populations in lungs of cystic fibrosis patients
Publication: Research - peer-review › Journal article – Annual report year: 2007

Enhancer-binding proteins with a forkhead-associated domain and the sigma(54) regulon in Myxococcus xanthus fruiting body development
Publication: Research - peer-review › Journal article – Annual report year: 2005

σ54 enhancer binding proteins and Myxococcus xanthus fruiting body development
Publication: Research - peer-review › Journal article – Annual report year: 2004

Cell behavior and cell-cell communication during fruiting body morphogenesis in Myxococcus xanthus
Publication: Research - peer-review › Journal article – Annual report year: 2003

Coupling gene expression and multicellular morphogenesis during fruiting body formation in Myxococcus xanthus
Publication: Research - peer-review › Journal article – Annual report year: 2003

Pattern formation by a cell surface-associated morphogen in Myxococcus xanthus
Publication: Research - peer-review › Journal article – Annual report year: 2002

Pattern formation: fruiting body morphogenesis in Myxococcus xanthus
Publication: Research - peer-review › Journal article – Annual report year: 2000

The cell-surface associated, intercellular C-signal induces behavioral changes in individual Myxococcus xanthus cells during fruiting body morphogenesis
Publication: Research - peer-review › Journal article – Annual report year: 1999

Projects:

Microbial variation landscapes: Single-cell resolution mapping of functional diversity and coordination within polymicrobial communities
Project: PhD

Multiplex elucidation of parameters governing resistance gene dissemination
Project: PhD
Microbial genome evolution
Project: PhD

Antimicrobial peptides and peptide analogues as novel antiinfective agents
Project: PhD

Protein Nitrosylation: Identification and characterisation of nitrosylated proteins as markers of cellular functions and in disease
Project: PhD

Population dynamics in microbial cell factories
Project: PhD

Micro- and nano-sensors for early diagnosis of bacterial infections
Project: PhD

Microbial interactions and evolutionary dynamics in a multispecies community
Project: PhD

Development of the Human Gut Microbiota during Early Life
Project: PhD

Evolution and Adaption of Clinical Pseudomonas aeruginosa Isolates from Early Cystic Fibrosis Airway Infections
Project: PhD

Diversity of the Microflora in Cystic Fibrosis Airways
Project: PhD

Evolutionary modifications of gene regulatory networks in pseudomonas aeruginosa during long-term growth in human hosts
Project: PhD

Exploring the Human Gut Microbiota: Interactions, Stability and Antibiotic Resistance
Project: PhD

Analysis of regulatory mutations in bacteria following long term growth in human hosts
Project: PhD

Studying the human microbiome and antibiotic resistance
Project: PhD

Diversity Generation In Evolving Microbial population
Project: PhD

Evolution and Pathoadaptation of Pseudomonas aeruginosa in Cystic Fibrosis Patients
Project: PhD

Pseudomonas species as a platform for biofuels and biochemicals
Project: PhD
The effect of antibiotics on bacteria
Project: PhD

Systems biology investigations of Pseudomonas aeruginosa evolution in association with human airway infections
Project: PhD

Microbial exo-interactomics and its relevance for biotechnological use of secondary metabolites, hydrophobins and extracellular enzymes
Project: PhD

Characterization of microbial growth and adaption in models of human lungs
Project: PhD

Simulation of the Cystic Fibrosis patient airway habitats using microfluidic devices
Project: PhD

Pseudomonas Aeruginosa Host Interactions: Common Traits in Chronic Infections
Project: PhD

Protein-Tyrosine Phosphorylation in Bacillus Subtilis Signal Transduction
Project: PhD