Research outputs:

A Major Mycobacterium tuberculosis outbreak caused by one specific genotype in a low-incidence country: Exploring gene profile virulence explanations
Research output: Research - peer-review › Journal article – Annual report year: 2018

HldE Is Important for Virulence Phenotypes in Enterotoxigenic Escherichia coli
Research output: Research - peer-review › Journal article – Annual report year: 2018

Immense diversity found in secondary metabolite gene clusters in filamentous fungi and bacteria using comparative genomics
Research output: Research - peer-review › Poster – Annual report year: 2018

Intergenic evolution during host adaptation increases expression of the metallophore pseudopaline in Pseudomonas aeruginosa
Research output: 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
Research output: 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
Research output: Research - peer-review › Book chapter – Annual report year: 2017

Elucidating the Molecular Factors Implicated in the Persistence and Evolution of Transferable Antibiotic Resistance
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2017

Reconstruction of the metabolic network of Pseudomonas aeruginosa to interrogate virulence factor synthesis
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2017
Clinical utilization of genomics data produced by the international *Pseudomonas aeruginosa* consortium
Research output: Research - peer-review › Journal article – Annual report year: 2015

Epistatic Mutations And Unpredictable Phenotypes In *Pseudomonas Aeruginosa*
Research output: 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

Evolutionary insight from whole-genome sequencing of *Pseudomonas aeruginosa* from cystic fibrosis patients
Research output: Research - peer-review › Journal article – Annual report year: 2015

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

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

Metabolic adaptation of a human pathogen during chronic infections - a systems biology approach

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

Substantial Molecular Evolution In Prolonged Latent *Mycobacterium Tuberculosis* Infections In Humans
Research output: 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
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2015

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

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

Environmental heterogeneity drives within-host diversification and evolution of *Pseudomonas aeruginosa*.
Research output: 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.
Research output: Research - peer-review › Journal article – Annual report year: 2014
Within-host evolution of *Pseudomonas aeruginosa* reveals adaptation toward iron acquisition from hemoglobin.
Research output: Research - peer-review › Journal article – Annual report year: 2014

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

Archetypal analysis of diverse *Pseudomonas aeruginosa* transcriptomes reveals adaptation in cystic fibrosis airways
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2013

Evolution and Pathoadaptation of *Pseudomonas aeruginosa* in Cystic Fibrosis Patients

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

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

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

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

*Aspergillus hydrophobins* - Identification, classification and characterization
Research output: 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
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2011

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

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

Mutations in 23S rRNA Confer Resistance against Azithromycin in *Pseudomonas aeruginosa*
Research output: Research - peer-review › Journal article – Annual report year: 2012
Aspergillus triggers phenazine production in Pseudomonas aeruginosa
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

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

Evolutionary dynamics of bacteria in a human host environment
Research output: Research - peer-review › Journal article – Annual report year: 2011

Microbial ecology and adaptation in cystic fibrosis airways
Research output: Research - peer-review › Journal article – Annual report year: 2011

Suppression of Aspergillus by Pseudomonas aeruginosa
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2010

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

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

Molecular epidemiology and dynamics of Pseudomonas aeruginosa populations in lungs of cystic fibrosis patients
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2005

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

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

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

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

Pattern formation: fruiting body morphogenesis in Myxococcus xanthus
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 1999
Projects:

Experimental evolution of bacterial virulence and plant beneficial traits
Project: PhD

Control of microbial soil communities by Pseudomonas produced secondary metabolites
Project: PhD

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

Mass spectrometry imaging (MSI) based investigation of interdependent agent-host response
Project: PhD

Multiplex elucidation of parameters governing resistance gene dissemination
Project: PhD

In vivo evolution of antimicrobial resistance
Project: PhD

Microbial genome evolution
Project: PhD

Diversity of the Microflora in Cystic Fibrosis Airways
Project: PhD

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

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

Studying the human microbiome and antibiotic resistance
Project: PhD

Pseudomonas species as a platform for biofuels and biochemicals
Project: PhD

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

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

Systems biology investigations of Pseudomonas aeruginosa evolution in association with human airway infections
Project: PhD
Population dynamics in microbial cell factories  
Project: PhD

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

Diversity Generation in Evolving Microbial population  
Project: PhD

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

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

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

The effect of antibiotics on bacteria  
Project: PhD

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

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

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

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

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

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

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