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Research outputs:

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

Developing a CRISPR/CAS9-assisted recombineering system for natural soil pseudomonads
Research output: Research - peer-review › Conference abstract in proceedings – 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

The identification and study of adaptive intergenic mutations in bacterial pathogens
Research output: Research - peer-review › Conference abstract in proceedings – 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

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

A Bacteriophage-Acquired O-Antigen Polymerase (Wzyβ) from P. aeruginosa Serotype O16 Performs a Varied Mechanism Compared to Its Cognate Wzyα
Research output: Research - peer-review › Journal article – Annual report year: 2016

Antibiotic combination therapy can select for broad-spectrum multidrug resistance in Pseudomonas aeruginosa
Research output: 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
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2016

Curbing the development and spread of 'high risk' bacterial pathogens
Research output: 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
Research output: Research - peer-review › Journal article – Annual report year: 2015

Genome Sequence of Pseudomonas aeruginosa Strain DK1-NH57388A, a Stable Mucoid Cystic Fibrosis Isolate
Research output: Research - peer-review › Journal article – Annual report year: 2016

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

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

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

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

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

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

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
Research output: Research – Ph.D. thesis – Annual report year: 2018

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

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

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

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

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

Interactions between fish probiotic roseobacters and the natural microbiota in aquaculture settings  
Project: PhD

Microbial variation landscapes: Single-cell resolution mapping of functional diversity and coordination within polymicrobial communities
Mass spectrometry imaging (MSI) based investigation of interdependent agent-host response

Multiplex elucidation of parameters governing resistance gene dissemination

In vivo evolution of antimicrobial resistance

Microbial genome evolution

Diversity of the Microflora in Cystic Fibrosis Airways

Characterization of microbial growth and adaption in models of human lungs

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

Studying the human microbiome and antibiotic resistance

Pseudomonas species as a platform for biofuels and biochemicals

Evolution and Pathoadaptation of Pseudomonas aeruginosa in Cystic Fibrosis Patients

Microbial exo-Interactomics and its relevance for biotechnological use of secondary metabolites, hydrophobins and extracellular enzymes

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

Population dynamics in microbial cell factories

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

Diversity Generation in Evolving Microbial population

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