Research outputs:

**Extraction, enrichment, and in situ electrochemical detection on lab-on-a-disc; monitoring the production of a bacterial secondary metabolite**
Research output: Research - peer-review › Journal article – Annual report year: 2019

**Genome editing of lactic acid bacteria: opportunities for food, feed, pharma and biotech**
Research output: Research - peer-review › Journal article – Annual report year: 2019

**Simultaneous quantification of multiple bacterial metabolites using surface-enhanced Raman scattering**
Research output: Research - peer-review › Journal article – Annual report year: 2019

**A Capture-SELEX Strategy for Multiplexed Selection of RNA Aptamers Against Small Molecules**
Research output: Research - peer-review › Book chapter – Annual report year: 2018

**Bacterial cells with improved tolerance to diacids**
Research output: Research › Patent – Annual report year: 2018

**Bacterial Genome Editing Strategy for Control of Transcription and Protein Stability**
Research output: Research - peer-review › Book chapter – Annual report year: 2018

**Genome-wide identification of tolerance mechanisms towards p-coumaric acid in Pseudomonas putida**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Injection molded lab-on-a-disc platform for screening of genetically modified E. coli using liquid-liquid extraction and surface enhanced Raman scattering**
Research output: Research - peer-review › Journal article – Annual report year: 2018

**Methods for decoupling cell growth from production of biochemicals and recombinant polypeptides**
Research output: Research › Patent – Annual report year: 2018

**Multiplex Genome Editing in Escherichia coli**
Research output: Research - peer-review › Book chapter – Annual report year: 2018

**Towards Improved Biophysical Calculations to Identify Disease-Causing Mutations**
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2018
Bacterial cells with improved tolerance to isobutyric acid
Research output: Research › Patent – Annual report year: 2017

Improved biological processes for the production of aryl sulfates
Research output: Research › Patent – Annual report year: 2017

Improved process for producing a fermentation product from a lignocellulose-containing material
Research output: Research › Patent – Annual report year: 2017

Bacterial cells with improved tolerance to polyols
Research output: Research › Patent – Annual report year: 2017

Bacterial cells with improved tolerance to polyamines
Research output: Research › Patent – Annual report year: 2017

Application of the thermostable β-galactosidase, BgaB, from Geobacillus stearothermophilus as a versatile reporter under anaerobic and aerobic conditions: Alternative title; Application of the thermostable beta-galactosidase, BgaB, from Geobacillus stearothermophilus as a versatile reporter under anaerobic and aerobic conditions
Research output: Research › peer-review › Journal article – Annual report year: 2017

CRISPR/Cas9-based genome editing for simultaneous interference with gene expression and protein stability
Research output: Research › peer-review › Journal article – Annual report year: 2017

Detection of p-coumaric acid from cell supernatant using surface enhanced Raman scattering
Research output: Research › peer-review › Conference abstract in journal – Annual report year: 2017

Development and Application of Efficient Forward and Reverse Genetic Tools
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2017

Exploiting the potential of gas fermentation
Research output: Research › peer-review › Journal article – Annual report year: 2017

Genetic toolbox for controlled expression of functional proteins in Geobacillus spp.
Research output: Research › peer-review › Journal article – Annual report year: 2017

Increased production of L-serine in Escherichia coli through Adaptive Laboratory Evolution
Research output: Research › peer-review › Journal article – Annual report year: 2016

Lab-on-a-disc platform for screening of genetically modified E. coli cells via cell-free electrochemical detection of p-Coumaric acid
Research output: Research › peer-review › Journal article – Annual report year: 2017

Lactobacilli and pediococci as versatile cell factories - Evaluation of strain properties and genetic tools
Research output: Research › peer-review › Review – Annual report year: 2017

Quantification of a bacterial secondary metabolite by SERS combined with SLM extraction for bioprocess monitoring
Research output: Research › peer-review › Journal article – Annual report year: 2017

Surface Enhanced Raman Scattering for Quantification of p-Coumaric Acid Produced by Escherichia coli
Research output: Research › peer-review › Journal article – Annual report year: 2017
Thermodynamics and economic feasibility of acetone production from syngas using the thermophilic production host Moorella thermoacetica
Research output: Research - peer-review › Journal article – Annual report year: 2017

Using A Metabolic Model Of Acetobacterium woodii For Insights Into Its Utility For Biotechnological Purposes
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Genetically modified microorganisms having improved tolerance towards l-serine.
Research output: Research › Patent – Annual report year: 2016

Method for the production of l-serine using genetically engineered microorganisms deficient in serine degradation pathways.
Research output: Research › Patent – Annual report year: 2016

A two-cassette reporter system for assessing target gene translation and target gene product inclusion body formation
Research output: Research › Patent – Annual report year: 2016

A process for producing a fermentation product from a lignocellulose-containing material.
Research output: Research › Patent – Annual report year: 2016

Biological processes for the production of aryl sulfates.
Research output: Research › Patent – Annual report year: 2016

Processes for the production of hydroxycinnamic acids using polypeptides having tyrosine ammonia lyase activity.
Research output: Research › Patent – Annual report year: 2016

Broad host range ProUSER vectors enable fast characterization of inducible promoters and optimization of p-coumaric acid production in Pseudomonas putida KT2440
Research output: Research - peer-review › Journal article – Annual report year: 2016

Consortia based production of biochemicals
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Consortia based production of biochemicals
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

CRMAGE: CRISPR Optimized MAGE Recombineering
Research output: Research - peer-review › Journal article – Annual report year: 2016

Developing Lactic Acid Bacteria for the conversion of brown macroalgae into green chemicals and fuels
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Engineering of High Yield Production of L-serine in Escherichia coli
Research output: Research - peer-review › Journal article – Annual report year: 2015

Enhanced protein and biochemical production using CRISPRi-based growth switches
Research output: Research - peer-review › Journal article – Annual report year: 2016

Genome-wide Escherichia coli stress response and improved tolerance towards industrially relevant chemicals
Research output: Research - peer-review › Journal article – Annual report year: 2016
Increasing production yield of tyrosine and mevalonate through inhibition of biomass formation
Research output: Research - peer-review » Journal article – Annual report year: 2016

Lab-on-a-disc device for screening of genetically engineered E.coli cells
Research output: Research - peer-review » Poster – Annual report year: 2017

Moorella thermoacetica, a workhorse creating value from various gaseous substrates
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2016

Predictable tuning of protein expression in bacteria
Research output: Research - peer-review » Journal article – Annual report year: 2016

Production of Sulfated Organic Compounds in Cell Factories
Research output: Research » Poster – Annual report year: 2016

Surface Enhanced Raman Spectroscopy detection of p-coumaric acid from cell supernatant using gold-capped silicon nanopillar substrates
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2016

Surface Enhanced Raman Spectroscopy detection of p-coumaric acid from cell supernatant using gold-capped silicon nanopillar substrates
Research output: Research - peer-review » Poster – Annual report year: 2016

Thermophilic acetogens for the production of higher value compounds from (biomass derived) waste gas streams
Research output: Research - peer-review » Conference abstract for conference – Annual report year: 2016

The Ser protein (T1E_1405) from Pseudomonas putida DOT-T1E enables oligonucleotide-based recombineering in platform strain P. putida EM42
Research output: Research - peer-review » Journal article – Annual report year: 2016

CasEMBLR: Cas9-Facilitated Multiloci Genomic Integration of In Vivo Assembled DNA Parts in Saccharomyces cerevisiae
Research output: Research - peer-review » Journal article – Annual report year: 2015

CrEdit: CRISPR mediated multi-loci gene integration in Saccharomyces cerevisiae
Research output: Research - peer-review » Journal article – Annual report year: 2015

Differential expression of small RNAs under chemical stress and fed-batch fermentation in E. coli
Research output: Research - peer-review » Journal article – Annual report year: 2015

Differential expression of small RNAs under chemical stress and fed-batch fermentation in Escherichia coli
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2015

Differential Expression Of Small Rnas Under Chemical Stress And Fed-batch Fermentation In Escherichia Coli
Research output: Research - peer-review » Conference abstract in proceedings – Annual report year: 2015

Editorial overview: Chemical biotechnology: Interdisciplinary concepts for modern biotechnological production of biochemicals and biofuels
Research output: Research - peer-review » Editorial – Annual report year: 2015

Highly Active and Specific Tyrosine Ammonia-Lyases from Diverse Origins Enable Enhanced Production of Aromatic Compounds in Bacteria and Saccharomyces cerevisiae
Moorella Strains for the Production of Biochemicals from Syngas
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Moorella Strains for the Production of Biochemicals from Syngas
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Seven gene deletions in seven days: fast generation of *Escherichia coli* strains tolerant to acetate and osmotic stress
Research output: Research - peer-review › Journal article – Annual report year: 2015

Accelerating Genome Editing in CHO Cells Using CRISPR Cas9 and CRISPy, a Web-Based Target Finding Tool
Research output: Research - peer-review › Journal article – Annual report year: 2014

Increased tolerance towards serine obtained by adaptive laboratory evolution
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Trash to treasure: Production of biofuels and commodity chemicals via syngas fermenting microorganisms
Research output: Research - peer-review › Journal article – Annual report year: 2014

Comparative study on aptamers as recognition elements for antibiotics in a label-free all-polymer biosensor
Research output: Research - peer-review › Journal article – Annual report year: 2013

Characterization of a Feedback-Resistant Mevalonate Kinase from the Archaeon *Methanosarcina mazei*
Research output: Research - peer-review › Journal article – Annual report year: 2011

A Bistable Switch and Anatomical Site Control *Vibrio cholerae* Virulence Gene Expression in the Intestine
Research output: Research - peer-review › Journal article – Annual report year: 2010

tpaA- and luxO-independent biofilms of *Vibrio cholerae*
Research output: Research - peer-review › Letter – Annual report year: 2007

RpoS controls the *Vibrio cholerae* mucosal escape response
Research output: Research - peer-review › Journal article – Annual report year: 2006

The *Vibrio cholerae* chitin utilization program
Research output: Research - peer-review › Journal article – Annual report year: 2004

Single nucleotide polymorphism genotyping using locked nucleic acid (LNA)
Research output: Research - peer-review › Journal article – Annual report year: 2003

In situ examination of microbial populations in a model drinking water distribution system
Research output: Research - peer-review › Journal article – Annual report year: 2002

In situ identification of polyphosphate- and polyhydroxyalkanoate-accumulating traits for microbial populations in a biological phosphorus removal process
Research output: Research - peer-review › Journal article – Annual report year: 2001

Multiplex SNP genotyping using Locked Nucleic Acid and microfluidics
Research output: Research - peer-review › Journal article – Annual report year: 2001
Monitoring of cellular activities in multispecies bacterial surface communities
Research output: Research › Article in proceedings – Annual report year: 2000

Quantification of biofilm structures by the novel computer program COMSTAT
Research output: Research - peer-review › Journal article – Annual report year: 2000

Role of commensal relationships on the spatial structure of a surface-attached microbial consortium
Research output: Research - peer-review › Journal article – Annual report year: 2000

Distribution of bacterial growth activity in flow-chamber biofilms
Research output: Research - peer-review › Journal article – Annual report year: 1999

Identification of a novel group of bacteria in sludge from a deteriorated biological phosphorus removal reactor
Research output: Research - peer-review › Journal article – Annual report year: 1999

Molecular tools for study of biofilm physiology
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Projects:

Application and optimization of genetic systems for two-stage fermentation technology
Project: PhD

Development of an innovative bioprocess for protease production in Bacillus subtilis by integrating cell factory optimization and bioreactor engineering
Project: PhD

Accessing the catalytic potential of the soil bacterium Pseudomonas putida through dedicated synthetic biology tools
Project: PhD

Harnessing the Oxidative Power of Enzymes
Project: PhD

Inducible growth decoupling systems for improved production of biochemicals
Project: PhD

Synthetic Biology tool Development for Protein engineering and study of adaptive evolution in Bacteria
Project: PhD

Engineering of Thermophilic bacteria for the production of industrially relevant chemicals
Project: PhD

Synthetic biology solutions to phenotypic instability in cell factory engineering
Project: PhD

Fysiologisk karakterisering af mikrobielle overfladesamfund
Project: PhD

Aptameric Biosensor Arrays for Metabolic Engineering
Project: PhD
Decouple Growth from Central Metabolism in order to Control Growth during Production of Biochemicals
Project: PhD

Bioactive compounds in mixed marine bacterial communities
Project: PhD

Standardization of DNA Vector Design-Processes
Project: PhD

Utilize Gasified Biomass and Waste Products (Synthesis Gas) for the Production of Biochemicals
Project: PhD

The structure, dynamics and complexity of the bacterial transcriptome
Project: PhD

Generate Prototype Expression Platforms for Membrane Integrated Enzymes in E. coli
Project: PhD

Biosensors for Fermentation
Project: PhD

Production of biochemicals using P.putida as a host
Project: PhD

Mining Bacteria Genomes for Novel Bioactive Compounds
Project: PhD

Development of new metabolic engineering technologies for the production of biochemicals
Project: PhD

A riboswitch based method for in vivo selection of biocatalysts from large libraries
Project: PhD

Microbial platform for expression of membrane integrated enzymes and sustainable production of high value chemicals
Project: PhD

Microbial electrosynthesis for acetate production from carbon dioxide: innovative biocatalysts leading to enhanced performance
Project: PhD

Bacterial physiology in biofilms
Project: Research

Activities:

Current Opinion in Biotechnology (Journal)
Activity: Research › Journal editor

Novo Nordisk Foundation Cluster Days
Activity: Talks and presentations › Conference presentations
DuPont Research Seminar Series
Activity: Talks and presentations › Conference presentations

Technical University of Denmark (External organisation)
Activity: Membership › Membership in review committee

Aarhus University (External organisation)
Activity: Membership › Membership in review committee

The 7th Copenhagen Bioscience Conference
Activity: Attending an event › Participating in or organising a conference

Stuttgart University, Institut für Technische Biochemie, Seminar Series
Activity: Talks and presentations › Conference presentations

C1NET – CHEMICALS FROM C1 GAS CONFERENCE
Activity: Talks and presentations › Conference presentations

University of Nottingham (External organisation)
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar