GERBEN VOSHOL

Molecular Microbiology and Biotechnology

A PhD graduate from Leiden University with 10+ years of hands-on experience in Biotechnology and Bioinformatics. Inquisitive professional who likes working in a fast paced, collaborative environment with diverse work activities and opportunities for professional growth.

CONTACT DETAILS

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The Hague, the Netherlands

EXPERTISE

- Bacterial and Fungal genetics
- Synthetic biology
- Comparative genomics
- Artificial neural networks
- Metabolic pathway engineering
- Genome mining for novel enzymes
- Heterologous protein production and purification
- Ancestral sequence reconstruction
- Next generation sequence data analysis
- Plant-microbe interactions
- Agricultural and industrial biotechnology

LANGUAGE

Dutch (native)
English (fluent)

PERSONAL INFO

PROFESSIONAL EXPERIENCE

POSTDOC • INSTITUTE OF BIOLOGY LEIDEN (LEIDEN, THE NETHERLANDS) • FEBURARY 2015 – PRESENT

- Wrote and coordinated several research projects for PhD, MSc, BSc and minor students
- Experienced with heterologous protein production and purification in diverse microorganisms, including *Aspergillus, Streptomyces, Escherichia, Bacillus, Synechococcus.*
- Conducted genome mining and identified a novel family of lytic enzymes (these enzymes are critical for the degradation of plant biomass)
- Contributed in the development of several international R&D project proposals (cobiotech, BBSRC, STW)
- Performed patent landscaping and determined non-infringing mutations to engineer an enzyme for industrial application
- Successfully designed and used several artificial neural networks for protein engineering and signal peptide prediction.
- Developed novel methods for optimizing conventional protein secretion which resulted in a 3-fold higher productivity.

CONTRACT RESEARCH • BISOLBI-INTER LLC. (ST. PETERSBURG, RUSSIA) • MARCH 2018 – APRIL 2018

- Conducted the microbiome analysis of a new type of biomodified mineral fertilizer
- Participated in an international project on the isolation of novel beneficial microorganisms for agriculture from ancient crops
- Provided the company with advice regarding future R&D projects

CONTRACT RESEARCH • WEISSBIOTECH GMBH (ASCHEBERG, GERMANY) • NOVEMBER 2017 – DECEMBER 2017

- Performed a feasibility study (using *Aspergillus niger*) to support business decisions regarding future product development
- Made several synthetic designs of target genes and identified critical genomic features determining successful protein production.

CONTRACT RESEARCH • BISOLBI-INTER LLC. (ST. PETERSBURG, RUSSIA) • DECEMBER 2014 – JUNE 2015

- Planned and conducted a research project on genome sequencing and analysis of the key bacterial strain used in the company's products
- Provided insight into the genetic basis of its beneficial action and made a number of valuable recommendations based on strain's genetic potential
- Identified unique genomic signature sequences of this strain for its specific detection in a sample

TECHNICIAN • PLANT ECOLOGY AND PHYTOCHEMISTRY (LEIDEN, THE NETHERLANDS) • JANUARI 2007 – FEBRUARI 2007

- Mentored second year students in the application of advanced molecular techniques and bioinformatics tools
- Graded homework and practical assignments

TECHNICIAN • ONTWIKKELINGS- EN MOLECULAIRE GENETICA (LEIDEN, THE NETHERLANDS) • JULY 2004 – AUGUST 2004

- Analyzed a test cross to confirm the genotype of a homozygous dominant phenotype in Arabidopsis
- Refreshed and maintained the vector stock collection

EDUCATION

PH.D. • JANUARY 2015 • LEIDEN UNIVERSITY (THE NETHERLANDS)

Thesis: Biodiesel production using cyanobacteria

M.SC. MOLECULAR MICROBIOLOGY AND BIOTECHNOLOGY • SEPTEMBER 2008 • LEIDEN UNIVERSITY (THE NETHERLANDS)

Thesis: Biocontrol of tomato foot and root rot

B.SC. MOLECULAR MICROBIOLOGY AND BIOTECHNOLOGY • SEPTEMBER 2006 • LEIDEN UNIVERSITY (THE NETHERLANDS)

Thesis: Chloroplast and mitochondrial DNA variation in *Senecio jacobaea*

ADDITIONAL EXPERIENCE

Programming (C language)