

Dr. Andreas Worberg

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Date of Birth: 07.06.1975

Nationality: German

Status: married, no children



Bridging the gap in the bio-based economy - In workflows, technologies and minds.

My privileged journey so far made me a bridge between different worlds and players in the biotechnology value chain. Translational understanding to connect high-tech science with production and industrial mindset, brand owners, incubators and investors, technology enablers and accelerators.

Self-motivated and highly autonomous Manager, Business Developer, Biotechnologist, Process Engineer and Botanist with almost 20 years of cross-functional experience in international projects for the design, engineering and process development of bulk, specialty and fine chemicals, food and feed and nutrition, sugar and biomass-to-liquid technologies. Ambitious and determined with a never-ending passion and enthusiasm for the bio-based economy. Firm grounding in engineering disciplines, economy and team leadership with an emphasis on intercultural and interdisciplinary tasks.

Expertise in process and product development, technical transfer packages, process analysis, tracking and optimization, cost reduction, downstream recovery for food-, polymer-, pharma-grade products, bioreactor design, pilot-, demo-, production plant startups and commissioning, strain evaluation, media development and optimization, scale-up/scale-down experience from plate to 400,000l on microbial cell-factories. Longtime experience with diverse organisms (prokaryotes, yeast and microalgae) and bio-based commodity products (Lactic Acid, Polylactic Acid, Succinic Acid, PBS, BDO, DDDA, various Amino acids, Industrial Enzymes, Oligosaccharides, Human Hormones, Alkaloids, Feed additives, Dietary Supplements, Solvents and Fuel, 1st and 2nd Generation biomass conversion etc.).

Specialized in first-of-its-kind technologies, their techno-economic analysis, implementation and change management of project and process development, Front End Loading (FEL1-3), cost estimation, start up and commissioning across the globe. Expert for integration, teambuilding and leadership practice.

CAREER HISTORY

Chief Commercial Officer

The Novo Nordisk Foundation
Center for Biosustainability
Kongens Lyngby, Denmark

Section Leader of the Sustainable Chemicals area at DTU Biosustain. Responsible for the innovation, entrepreneurship and commercialization of technologies at the center. Further managing external partnerships with industry and the private sector. Member of the Executive Board.

*October 2020
– present*

Director Translational Core

The Novo Nordisk Foundation
Center for Biosustainability
Kongens Lyngby, Denmark

Managing the fully integrated Strain Engineering, Bioprocessing Scale-Up and Piloting Facility as well as the Analytical Core Facilities. Responsible for the ideation, feasibility, acceleration and commercialization of bio-based chemicals and proteins. Member of the Executive Board.

*July 2017
– October 2020*

Director Pre-Pilot Plant

The Novo Nordisk Foundation
Center for Biosustainability
Kongens Lyngby, Denmark

Establishing smart Scale-Up/-Down, separation and purification facilities at the Center, integrated workflows and inter-disciplinary teams for complete bioprocess development.

*February 2016 –
June 2017*

Senior Sales Manager

Organic Chemicals and Polymers
Division
thyssenkrupp Industrial Solutions
AG
Bad Soden a.Ts., Germany

Developing Business and Projects for the tkIS Biotechnologies plus Organic Chemicals and Polymers Divisions worldwide.

*November 2013 –
January 2016*

Focusing on Partnering and Sales along the complete Value Chain from the agro-chemical and chemical industry towards technology providers, converters and applicators, producers and brand owners for commodities and specialty products.

Head of Process / Engineering

Biotechnologies Division
thyssenkrupp Industrial Solutions
AG
Leuna, Germany

Responsible for the execution and commercialization of Industrial Biotechnology Projects, including full Engineering, Procurement, Construction scope (EPC-M), Project Management, Sales and Business Development.

Administration of personnel, material and budget planning and leading of a ~10 people interdisciplinary team. Reporting and Interacting with the Corporate Functions. Engineering and Project Management for Studies, FEED, PDP, Value, Basic and Detail Engineering.

**Commissioning and Start-up
Manager**

UHDE Corporation of America,
ThyssenKrupp Inc.
Lake Providence, LA, U.S.A.

In charge of the Commissioning and Start-Up of a First-of-its-kind 15,000mt bio-based Succinic Acid Plant.

*January 2013 –
July 2013*

Responsible for the day-to-day organization, schedule and management of a ~50 people commissioning team and the concerted efforts to successful Start-Up.

Engineering and Project Manager

UHDE Corporation of America,
ThyssenKrupp Inc.
Spartanburg, SC /
Quincy, MA, U.S.A.

Engineering Manager during Detail Engineering at the Contractor's Office of Lockwood Greene / CH2M Hill.

*July 2011 –
October 2013*

Project Manager during the construction phase at the client's office and at the construction site.

Lead Process Engineer

UHDE GmbH,
ThyssenKrupp AG
Bad Soden a.Ts., Germany

Leading the Process Engineering Team of ~15 people and performing Engineering Management tasks during an Extended Basic Engineering.

*September 2010 –
June 2011*

Implementing the Processes for Industrial Biotechnology into the standard engineering procedures of the TK UHDE Group.

Senior Engineer

UHDE GmbH,
ThyssenKrupp AG
Leipzig, Germany

As the first biologist hired at TK UHDE responsible for the assessment, development and commercialization of new bio-based Process Technologies for the Chemical Industry, including Organic Acids and Biomass-to-Liquid Technologies, bio-based Ethanol and Butanol; Due-diligences to acquire technologies based on Bacteria, Yeast and Algae.

*December 2007 –
August 2010*

Profound knowledge of full-scale Fermentation technologies (laboratory to industrial scale), Separation and Purification technologies (Micro-, Ultra-, Nano-Filtration, RO Systems, Centrifugation, Evaporation, Crystallization, Ion Exchange, SMB Chromatography), Sanitary and Hygienic Design (non-GMP).

EDUCATION

**Dr. rer. nat., Molecular Biology
Diploma, Biology**

Rhein. Fried.-Wilh.-Universität
Bonn, Germany

Specialized in Molecular Systematics and Evolution with a very sound knowledge of botanical and zoological organism biology. Finished with Magna Cum Laude.

2001 - 2007

**Studies of Biology and
Mathematics**

Ruhr-Universität
Bochum, Germany

Focus on Marine Developmental Biology, Vertebrate Embryology, Surgery and Anatomy.

1996 – 2001

Profound knowledge of Bioinformatics.

ADDITIONAL SKILLS

Language Proficiency

German, English: Native or bilingual; Danish, French: Elementary

S1-Project Manager

European certified S1-Project Manager for genetically modified work at BSL1

Business Economics

Certificate on Business Economics at the European School for Management and Technology ESMT, Ertstadt, Germany
