

Contact

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Top Skills

Biochemistry
Protein Chemistry
Biotechnology

Tom Beardslee

Biotechnology Professional | Inventor | Synthetic Biology
Carlsbad, California, United States

Experience

Rynetech Bio
Founder/CEO
October 2018 - Present (5 years 10 months)
Carlsbad, CA

Verdezyne, Inc.
9 years 7 months
Vice President, Research and Development
October 2012 - May 2018 (5 years 8 months)
Carlsbad, CA

- Led a team of 50 scientists comprising metabolic engineering, fermentation process development, bioinformatics, protein engineering, analytical chemistry and downstream product isolation.
- Developed a unique yeast fermentation technology platform for the conversion of renewable fatty acid feedstocks to high value target chemicals. Demonstrated metabolic engineering proof of concept for the production of sixteen different chemicals achieving commercially relevant production for five.
- Supervised the scale-up of two fermentation processes (up to 180m3) working with external partners for the production of industrial chemicals.
- Inventor on over 20 patents and patent applications.
- Won the 2016 E.P.A. Presidential Green Chemistry Challenge for the production of renewable dodecanedioic acid.

Senior Director, Renewable Chemicals
July 2011 - October 2012 (1 year 4 months)

Director, Renewable Chemicals
November 2008 - July 2011 (2 years 9 months)

CODA Genomics
Director of Project Design
October 2007 - November 2008 (1 year 2 months)

- Reported to the Senior Vice President of Research and Development

- Directly interfaced with potential customers to design custom projects solving protein expression problems. Services managed include gene sequence optimization, gene variant library design, custom cloning, expression testing (E. coli, S. cerevisiae, and P. pastoris), small-scale protein expression, pilot protein expression, and protein purification.
- Developed strategic corporate partnerships to broaden the company's product offering.
- Evaluated new technology and R&D programs, providing guidance on research direction for the company as a whole.

Invitrogen Corporation

5 years 4 months

Senior Scientist

October 2006 - October 2007 (1 year 1 month)

- Program manager, Human Proteome Organization (HUPO) proteomic standards for mass spectrometry. Coordinated all aspects of new product development with team members from marketing, engineering, intellectual property, regulatory and manufacturing.
- Collaborated with HUPO leadership in the development and testing of a panel of highly purified recombinant human proteins. Twenty tagless recombinant human proteins were expressed in E. coli, purified to >95%, formulated at 5 picomoles per protein, and sent to HUPO test labs around the world for validation.
- Coordinated the transfer of recombinant protein production and purification manufacturing processes to Invitrogen Bioservices India (Bangalore).
- Contributed scientific evaluation of technologies in strategic planning for future directions of new product development.
- IDEO University, trained in the process used by one of the world-leading industrial engineering firms, IDEO, for product and process innovation.

Scientist

July 2002 - October 2006 (4 years 4 months)

- Development of new electrophoresis technologies for proteomic analysis: IPG strips, solution phase IEF, and precast mini-gels for denaturing and native electrophoresis.
- Program manager, Native Complex Purification & Analysis program. Products launched Q1, 2006 include NativePAGE™ gels for blue-native electrophoresis, NativePAGE™ sample preparation kit, NativeMark™ unstained markers, and NativePure™ vectors for mammalian expression (pcDNA and lentiviral based) and purification of native protein complexes.

- Presented proteomics sample preparation seminars to customers at research centers across the country.
- R&D contact for the Technical Services department to support detailed technical resolution of customer issues with all proteomics products in the ZOOM® product line. Technical assistance included direct customer interaction via email, phone, and in person for customers at academic, research institution, and industrial accounts.

University of Nebraska-Lincoln
Postdoctoral Research Associate
May 2000 - June 2002 (2 years 2 months)

Education

University of Nebraska-Lincoln
Ph.D., Biochemistry · (1996 - 2000)

Creighton University
B.S., Chemistry · (1989 - 1993)