TIMO ULLRICH

Scientist

SUMMARY

I am looking a challenging position in the industry where I can apply my expertise in the development of biologics. My goal is to advance my team leadership skills as well as my technical knowledge. I want to be part of a company that fosters career growth, continuous innovation and scientific excellence, values teamwork and provides a respectful, collaborative work environment.

CONTACT

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EDUCATION AND EXPERIENCE

Doctorate of natural sciences (Dr. rer. nat.)
Max-Planck-Institute for Biology Tübingen [Mar 2020 – Feb 2024]

International Max Planck Research School (IMPRS) 'From Molecules to Organisms'
Final grade: Magna cum laude (1.0)
Thesis: Computational Design and Optimization of G-CSFR Modulators

- Independent establishment and optimization of methods and assays.
- Successful collaborations with interdisciplinary partners.
- Experience with diverse molecular biological and biophysical analysis methods.
- Experience with computer-based analysis of molecules and data sets.

Master of Science (M.Sc.)
University of Stuttgart [Apr 2018 – Feb 2020]
Field of study: Technical Biology (Molecular Epigenetics, Biomaterials and nanobiotechnology, Antibody Engineering)
Final grade: 1.0
Thesis: Development of an epigenetic memory system based on DNA methylation in *Escherichia coli*

Bachelor of Science (B.Sc.)
University of Stuttgart [Oct 2014 – Mar 2018]
Field of study: Technical Biology (Natural sciences, Cell biology, Microbiology, Biochemistry)
Final grade: 1.6
Thesis: RNA-stabilized protein pores from plant viral building blocks: new components for bioaffinity coupling of a Phi29 DNA polymerase

CONFERENCES

APFED22 Advances in Protein Folding, Evolution, and Design
Bayreuth, Germany
6. – 8.4.2022
Poster presentation

Alpbach Workshop on: COILED-COIL, FIBROUS & REPEAT PROTEINS
Alpbach, Austria
4 – 9.9.2022
Oral presentation

Kind-Philipp Meeting
Wilsede, Germany
31.5 – 3.6.2023
Oral presentation

PUBLICATIONS

Ullrich, Timo, *et al.* "A strategy to design protein-based antagonists against type I cytokine receptors." PLoS biology 22.11 (2024): e3002883.

Ullrich, Timo, *et al.* "Tuning of granulopoietic signaling by *de novo* designed agonists." *bioRxiv* (2023): 2023-11 and under revision at *Molecular Therapy (2024)*.

Maksymenko, Kateryna, *et al.* "The design of functional proteins using tensorized energy calculations." *Cell Reports Methods 3.8* (2023).

Ullrich Timo, Sara Weirich, and Albert Jeltsch. "Development of an epigenetic tetracycline sensor system based on DNA methylation." *PLOS ONE* 15.5 (2020): e0232701.

REFERENCES

Available upon request

WORK EXPERIENCE

Max-Planck-Institute for Biology Tübingen, Wrap-up-Postdoc
[Mar 2024 – Oct 2024]

- Development of novel protein therapeutics and insight into their patenting process.
- Planning, conducting and analyzing experiments using a variety of methods.
- Interdisciplinary collaboration to collect a broad range of preclinical data (e.g. in vivo activity in zebrafish and mouse models and deimmunization of final protein design candidates).
- Management and structuring of parallel projects as well as supervision and close collaboration with students and doctoral candidates in an international team.

SKILLS

Techniques
Protein design, chromatography methods for protein purification, High-throughput optimization of proteins and peptides with computer-guided library design, protein fragment complementation and display methods, library generation, mammalian cell culture assays, flow cytometry, circular dichroism, nano-differential scanning fluorimetry, surface plasmon resonance, microscale thermophoresis, fluorescence spectrometry, microscopy, cloning techniques, *in vitro* transcription, western blot, northern blot, RNA modification, reverse transcription, fluorescence *in situ* hybridization

Language skills
German (mother tongue), English (excellent)

Digital skills
Unix shell (advanced), Python (advanced), R (basic), Microsoft Office, Inkscape, Fiji (image analysis), PyMol (protein structure visualization, modelling and design), AlphaFold (protein structure prediction), Damietta (tensor-based energy calculations for protein structures), ProteinMPNN, VMD

Soft skills

- Ability to analyze and evaluate scientific data in detail to produce meaningful results.
- Excellent written and oral communication skills, with experience in presenting at international conferences and publishing scientific papers.
- Efficient time management of parallel projects and tasks to deliver timely results.
- Ability to work effectively in a dynamic and international environment, adapt quickly to new challenges and foster a productive work environment through open communication.