



The **Protein Bioinformatics group** led by **Vikram Alva** at the Max Planck Institute for Biology offers a

Bioinformatics postdoctoral position to investigate the structure, function, and evolution of prokaryotic cell-surface proteins (m/f/d)

All cells employ intricate molecular machinery to interact with and respond to mechanical stimuli from their environment. We study prokaryotic cell-surface proteins to address key questions pertaining to the organization of the cell envelope and the molecular basis and evolution of mechanosensing modalities in prokaryotes (for recent publications, see [PNAS, 2022, PMID 35943982](#); [Cell Rep., 2021, PMID 34818541](#); and [Trends Microbiol., 2021, PMID 33121898](#)). For instance, in a cross-disciplinary project funded by an HFSP early-career grant, we are collaborating with Tanmay Bharat (MRC-LMB, Cambridge) and Alex Bisson (Brandeis University) to explore the molecular basis of mechanosensing in archaea – our evolutionary sister – combining bioinformatics, live-cell and single-molecule microscopy, and cryo-electron microscopy and tomography (cryo-EM/ET). To support our studies on cell-surface proteins, **we are seeking a new colleague who will contribute expertise in molecular evolution, comparative genomics, analysis of protein-structure-function relationships, and development of computational resources**. The successful candidate will work closely with our collaborators.

Your profile

- Ph.D. degree in bioinformatics, biochemistry, microbiology or related fields
- Demonstrated expertise in the analysis of protein-structure-function relationships
- Strong background in Linux, Python, and high performance computing
- Experience in comparative genomics of microbes or machine learning is a strong advantage

Our offer

- The position is initially offered for three years
- Earliest preferred start date is October 3, 2022 (earlier start dates can be discussed)
- Salary is per pay group E13 of the German collective agreement for the public sector (TVöD) (at least €4,187 gross monthly salary)

Apply before September 30, 2022:

Please send (email preferred) your detailed CV, one-page statement of research interests, and the names and email addresses of two academic referees to:

Dr. Vikram Alva
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Email: vikram.alva@tuebingen.mpg.de
Webpage: <http://people.tue.mpg.de/vikram>



The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply. The Max Planck Society strives for gender equality and diversity.