

# PROTEOMICS, CELLULAR TARGET PROFILING AND BIOMARKER DISCOVERY

*The capabilities of Evotec (München) comprise a unique combination of innovative technologies utilising state-of-the-art quantitative mass spectrometry and proprietary statistical and bioinformatics tool for highest accuracy analysis in living cells, animal models and patient samples:*

- ▶ **Global Proteome Profiling** identifies and quantifies proteins and posttranslational modifications in a global and unbiased manner, providing valuable knowledge about a drug's *in vivo* mode-of-action and allowing the identification of new targets.
  - **Deep Proteome Analyses** monitors the expression of proteins.
  - **PhosphoScout®** monitors phosphorylation events *in vivo*, highlighting the effect of a drug on signalling pathways.
  - **Mode of Action Analysis of Epigenetic Drugs** by monitoring posttranslational modifications, such as acetylations, *in vivo*.
- ▶ **Chemical Proteomics** reveals the molecular targets of small molecule compounds in the discovery and development process and determines their compound-target affinities.
  - **Cellular Target Profiling®** facilitates successful target deconvolution and off-target analysis for drugs with unknown mode-of-action on a proteome-wide basis.
  - **KinAffinity®** determines the cellular selectivity of kinase inhibitors, which represent the most important class of targeted cancer drugs.
- ▶ **Biomarker Discovery** utilises quantitative proteome or phosphoproteome profiling analyses for the unbiased (hypothesis-free) discovery of novel response prediction or pharmacodynamic biomarkers.
- ▶ **Targeted Proteomics** employs selected reaction monitoring for fast, multiplexed and robust quantification of up to hundred proteins in one experiment, allowing the validation of biomarkers identified in discovery phase.

*Projects are customised and adapted to meet the expectations of Evotec's partners; for more information please contact us at [proteomics@evotec.com](mailto:proteomics@evotec.com)*

**About Evotec:** Evotec is a drug discovery alliance and development partnership company focused on rapidly progressing innovative product approaches with leading pharmaceutical and biotechnology companies. We operate worldwide providing the highest quality stand-alone and integrated drug discovery solutions, covering all activities from target-to-clinic. The Company has established a unique position by assembling top-class scientific experts and integrating state-of-the-art technologies as well as substantial experience and expertise in key therapeutic areas including neuroscience, pain, metabolic diseases as well as oncology and inflammation. Evotec has long-term discovery alliances with partners including Bayer, Boehringer Ingelheim, CHDI, Genentech, Janssen Pharmaceuticals, MedImmune/AstraZeneca and Ono

Pharmaceutical. In addition, the Company has existing development partnerships and product candidates both in clinical and pre-clinical development. These include partnerships with Boehringer Ingelheim, MedImmune and Andromeda (Teva) in the field of diabetes, with Janssen Pharmaceuticals in the field of depression and with Roche in the field of Alzheimer's disease. For additional information please go to [www.evotec.com](http://www.evotec.com).

Evotec is built on integrated drug discovery know-how of more than 15 years and is a leading player in the drug discovery field. The Company's headquarters are located in Hamburg, Germany. Additional major sites are based in Oxford, UK, Göttingen, Munich, Germany, San Francisco, USA and Thane, India. The Company employs approximately 600 members of staff worldwide.

### **Dr. Henrik Daub - Summary of scientific career**

Dr. Henrik Daub received his PhD from the Max Planck Institute for Biochemistry in Martinsried/Munich, discovering fundamental signal transduction mechanisms in cell proliferation. He conducted his postdoctoral studies at the Medical Research Council Laboratory for Molecular Cell Biology in London studying signaling through Rho family GTPases. In 2000, Henrik joined the biotech company Axxima in Martinsried, heading a research group focusing on the development of chemical proteomics methods. In 2005, Henrik moved to the Max Planck Institute for Biochemistry, where he became a group leader in the department of the renowned cancer researcher Prof. Axel Ullrich. He was one of the founders and scientific advisor of Kinaxo, a Martinsried-based biotech company specializing on high-end proteomics services. In 2010, Henrik was appointed private lecturer ("Privatdozent") for biochemistry by the Technical University of Munich. The same year he joined Kinaxo, which was acquired by Evotec in 2011. He now serves as SVP Science & Technology at Evotec Munich, overseeing the development and application of cutting-edge proteomics technologies in drug and biomarker discovery. Henrik has published many papers in prestigious international journals and is a leading scientist in the fields of chemical proteomics and phosphoproteomics.

### **Dr. Christian Eckert - Summary of scientific career**

- Phd from the LMU Munich on the regulation of ion-channels via phosphorylation of tyrosine residues in 2006
- Scientist at the LMU Munich from 2006 to 2007
- Research Scientist at Kinaxo Biotechnologies GmbH since 2007
- Research Scientist at Evotec AG
- Senior Research Scientist and Team Leader at Evotec AG
- Project Manager at Evotec AG