GESELLSCHAFT DEUTSCHER CHEMIKER

KOLLOQUIUM

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Titel

Decrypting Drug Mechanism of Action by Proteomics

Vortragender

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Abstract

Drugs exert their effects in a dose-dependent fashion, but a central challenge in drug discovery and pharmacology is to bridge the gap between observed phenotypic and the often complex underlying molecular mechanisms. Important questions to answer are: which proteins are physically bound by the compound, which pathways are engaged in the cell and how is the cell molecularly and physiologically reprogrammed en route to its eventual, drug-determined fate? In light of the advances in quantitative mass spectrometry speed and sensitivity over the past decade, it has become feasible to perform systematic full dose-response experiments at the level of: (1) target deconvolution; (2) pathway engagement; (3) proteome reprogramming; and (4) cellular consequences. Each enables the extraction of potency and effect size information for thousands of proteins and post-translational modification sites in parallel. In this talk, the conceptual framework of system-level dose-response measurements is outlined and key examples from our lab will be used to illustrate how such data inform successive layers of drug mechanisms of action.

Ort

Chemie, HS1 – Campus Nord, Otto-Hahn-Straße 6
Anfahrt: http://www.ewit.ccb.tu-dortmund.de/gdch/anfahrt.html

Zeit

Freitag, 17.04.2026, Vortrag 16:00 ct, Chemie HS1

gez. Professor Dr. Andreas Steffen
Gesellschaft Deutscher Chemiker
Ortsverband Dortmund