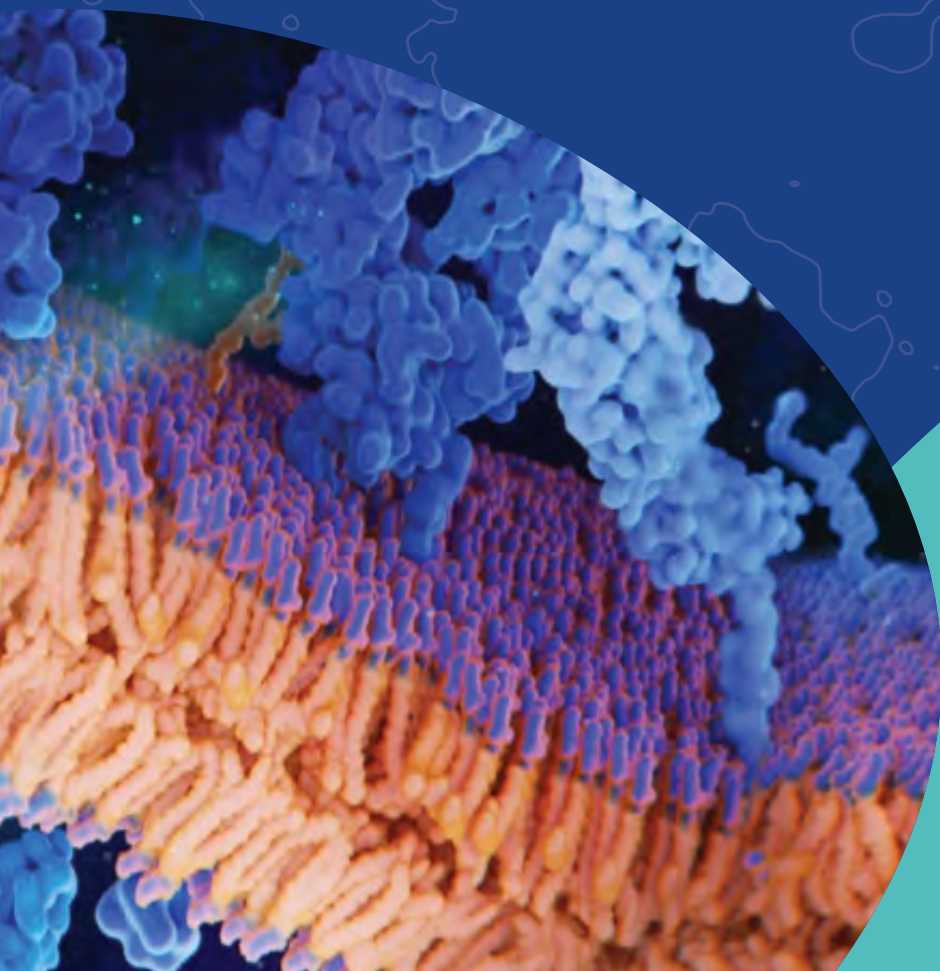
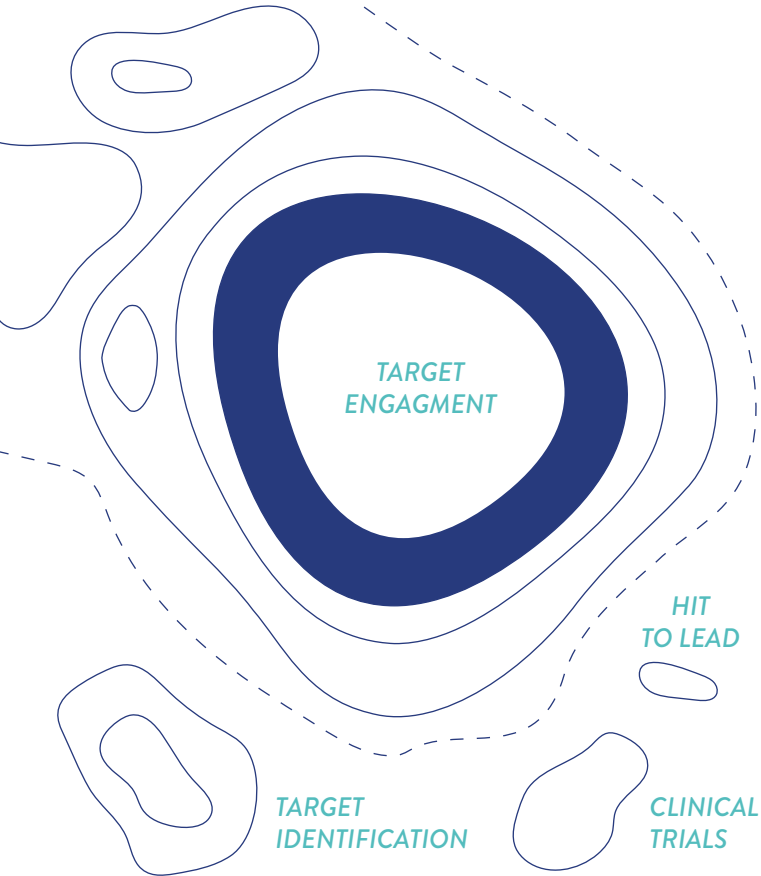




PELAGO
BIOSCIENCE

WHAT IS CETSA[®]?





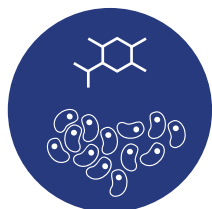
SET COURSE ON THE RIGHT TARGET WITH CETSA®

For a drug to be effective and safe, the compound must selectively bind to the target protein at the intended site of action. Conventional methods for assessing target engagement often do not deliver accurate results causing high failure rates in the drug discovery process. However, there is already one promising solution. The Cellular Thermal Shift Assay (CETSA®) enables direct, physiologically relevant TE quantification within intact cells and tissues, based on the fundamental principle of thermal shift assays.

THE CETSA® PRINCIPLE

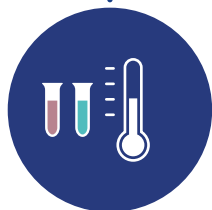
TREAT

Incubate cells, lysate or tissue with or without compound.



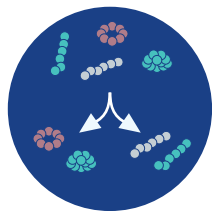
HEAT

Expose the sample to a range of different temperatures to melt the proteins.



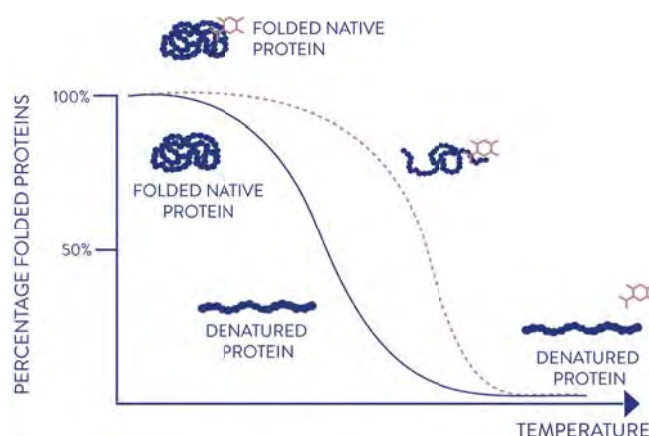
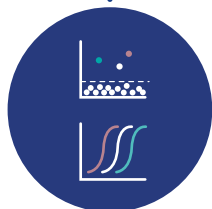
SEPARATE

Separate unfolded proteins from the soluble fraction. The remaining soluble protein indicates the amount of protein that has stayed folded.



DETECT

Detect the target interaction with one of the methods applicable to our different experimental setups.



THERMAL SHIFT

If the compound has bound to the target protein the latter becomes more or less resistant to heat, causing a change in thermal stability. Quantifying the amount of protein that remains soluble after heat shock and plotting this to a range of different temperatures gives the CETSA® melt curve of the protein.

A concentration-response experiment at a single temperature then determines the TE potency at half-maximal effect concentration (CETSA® EC₅₀).

ONE PROVEN ASSAY. MANY FLEXIBLE FORMATS.



CETSA®
NAVIGATE



CETSA®
NAVIGATE MS



CETSA®
NAVIGATE HT



CETSA®
EXPLORE



number
of targets

single

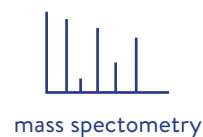
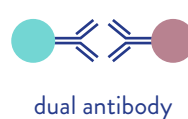
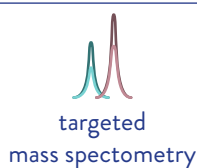
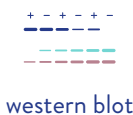
1-10

single

proteome-
wide
(up to 8000 proteins)



detection
method



number of
compounds

≤10

≤10

10-500k

≤14



project
timeline

8
weeks

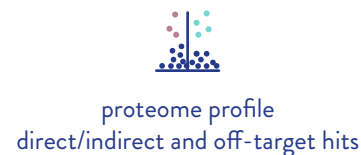
8
weeks

10
weeks

12
weeks



results

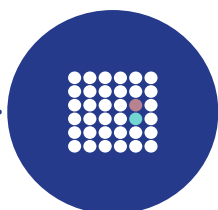


APPLICABLE AT EVERY STAGE

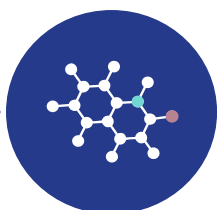
TARGET
IDENTIFICATION



LEAD
GENERATION



LEAD
OPTIMISATION



PRECLINICAL
STUDIES



CLINICAL
TRIALS



APPROVED
DRUGS





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