



## Principal Investigator Grant

### Project

«Getting new insights out of failed AD trials»

<b>Granted amount</b>	CHF 75'750
<b>Starting date</b>	1.4.22
<b>Duration</b>	18 months



### Main applicant

Prof. Andreas Monsch  
Memory Clinic  
University of Basel  
Burgfelderstrasse 101  
4055 Basel

### Getting insights out of failed trials

Alzheimer's Disease (AD) is the number one cause of mortality for which not a single disease modifying drug is approved. Despite the fact that over the last 20 years, thousands of patients have been enrolled in 156 clinical trials, together costing 250-300 billion USD. 152 of them turned out negative, bringing only four new drugs to the market.

Why did so many fail? Across all of the failed trials, there were successes at the individual patient level; but little is published, or understood, about why such successes emerged.

To change this, we propose to apply a semi-mechanistic machine learning methodology to quantitatively assess clinically relevant biomarkers driving AD progression. We will identify novel imaging biomarkers; predict trajectories of clinical decline in the placebo arm; and evaluate drug response at the patient level in the treatment arm.

In addition, University Basel gets access to state of the art know-how in data modelling and use of Artificial Intelligence / Machine Learning application.