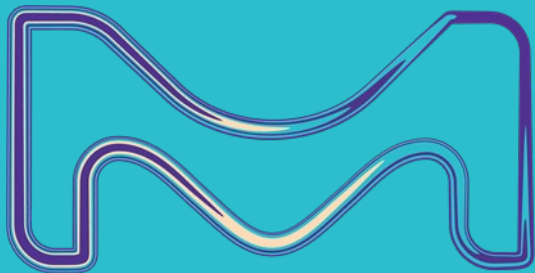


The Healthcare business of Merck KGaA, Darmstadt, Germany
operates as EMD Serono in the U.S. and Canada.

ML pipeline for clinical trial data

SDSS Abstract #1966

Juliane Manitz, Aslihan Gerhold-Ay, Pascal Kieslich
EMD Serono/Merck Healthcare KGaA Darmstadt Germany



**EMD
SERONO**

Phase 3 Clinical Trial Data

Survival data from case-control study comparing a novel immuno-oncology drug with conventional chemotherapy.



Research Question

Is there a subpopulation that will particularly benefit from a novel immuno-oncology (IO) treatment in comparison to conventional chemotherapy?

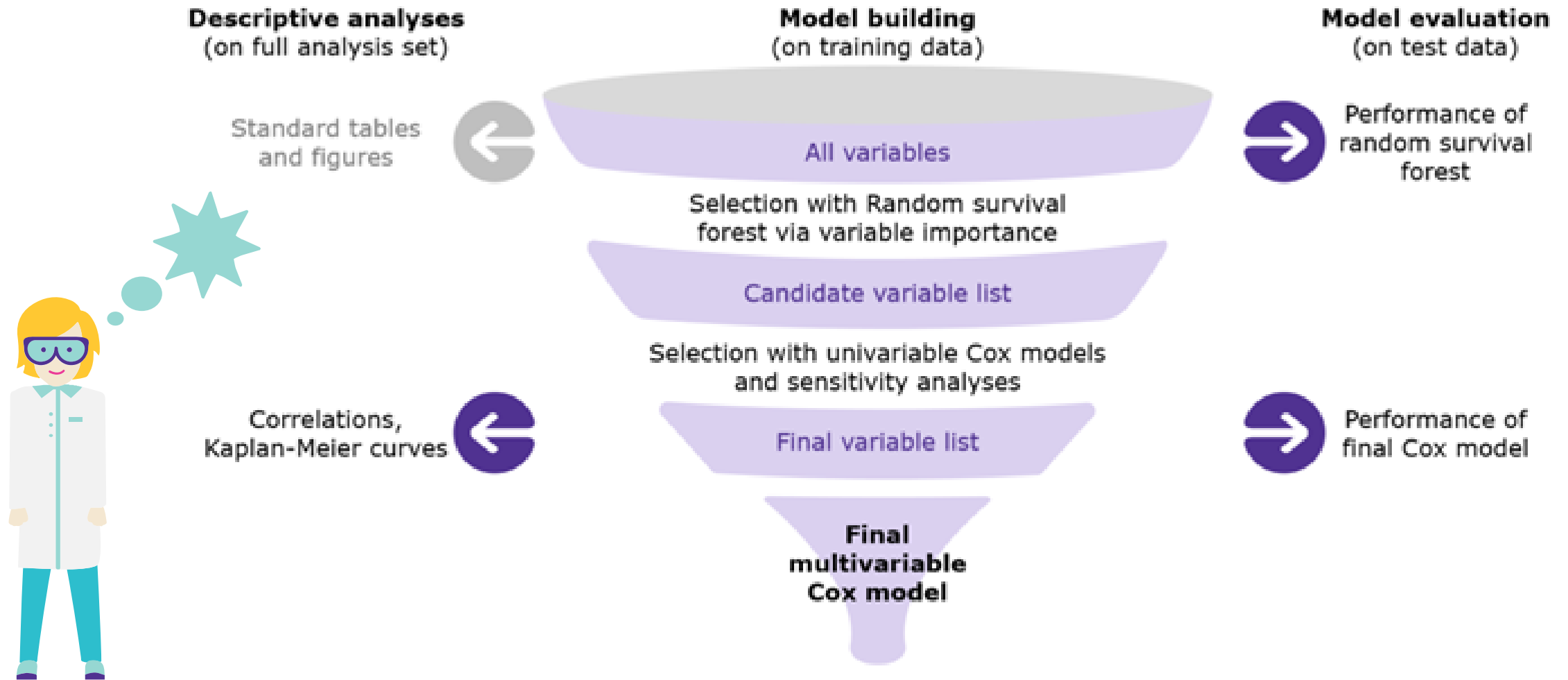
Definition as ML Problem

Dependent variable: **Overall survival**, the time from treatment initiation to death from any cause; patients alive or lost to follow-up are censored.

Features: **Treatment** group, patient demographics, **disease characteristics**, laboratory values, patient-reported outcomes, biomarkers, etc.



Illustration of the Machine Learning Pipeline



You Want to Know more Details?

