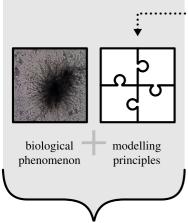CLINICAL RECORDS

historical data of
patient cases, treatments
and final outcomes

*additional data derived from
mechanistic hypothesis*

machine learning
(classification/regression)

inductive process to extract unseen
patterns existing in the data. Machine
learning models filter out irrelevant or
redundant information to discover
relevant co-occurrences and/or
dependencies

predictive model

biological
phenomenon
+
modelling
principles

*modelling principles derived
from the data*

mechanistic model
(simulation)

new hypothesis for a casual mechanism
observed in an experimental scenario
that is recreated through simulation
(mechanistic modelling) out of a series
of constructive principles

deductive model

INPUT

OUTPUT