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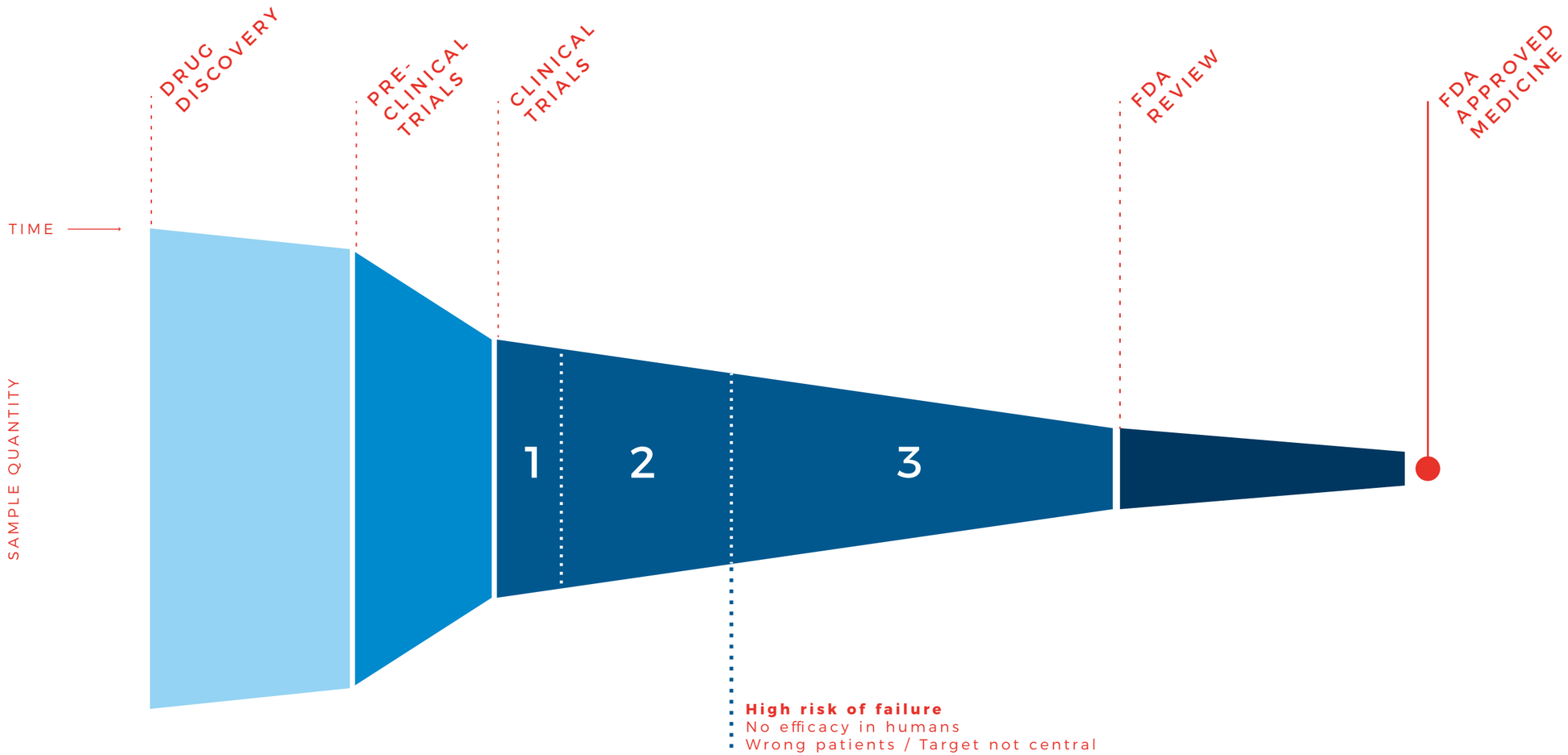
Data Science for Biomedicine

STATUS QUO – DRUG DEVELOPMENT



Drug development is costly and time consuming, failure rates are high

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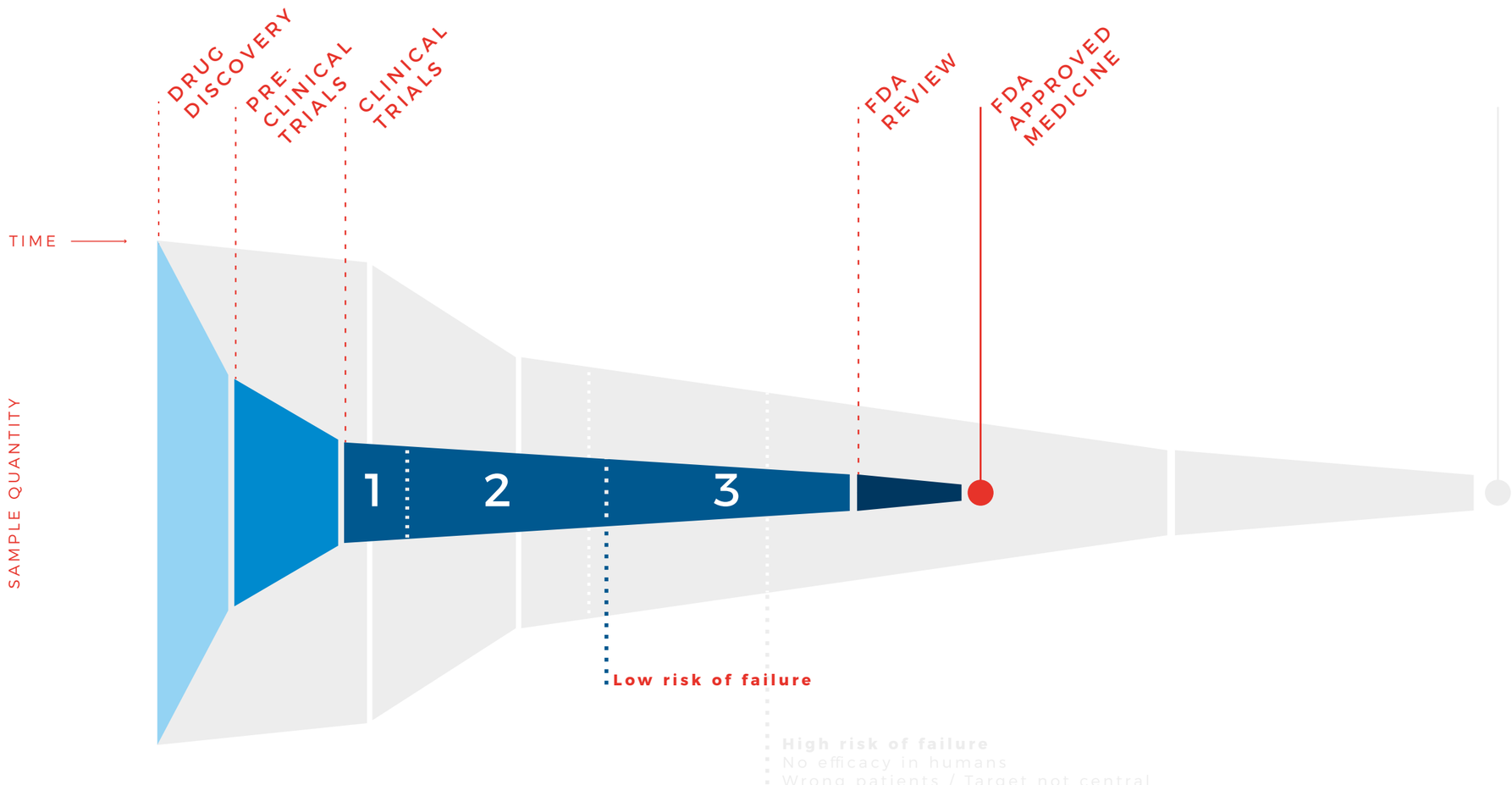
BIOTX.AI – GAME CHANGER IN PHARMA



Biotx.ai reduces cost and time + boosts the success rate

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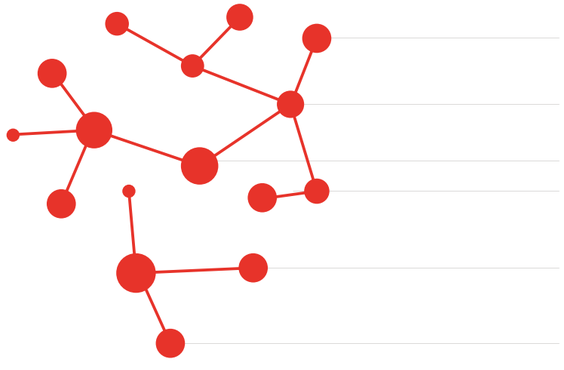
WHY BIOTX.AI?

Usual method



Variants tested one by one

1
2
3
...

No new insights, most single gene effects already known

Lack of accuracy in predicting disease status / drug efficacy

No straight-forward connection to pathways, drug targets

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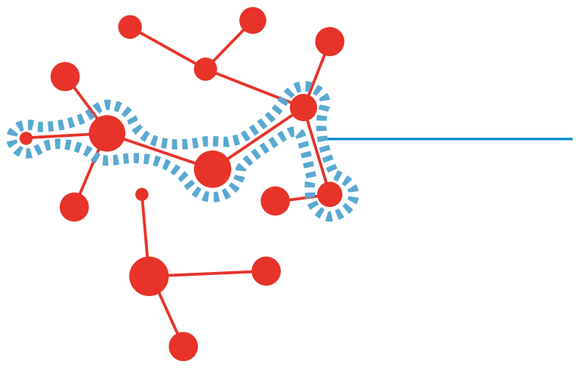

Polygenic Interactions

Biomarkers accurately predict disease status or drug efficacy

Illuminates signaling pathways

High-quality, verified drug targets

Novel medical uses

CASE STUDY 1 – Late Onset Alzheimer's Disease (LOAD)

1

In genome wide association data our AI platform discovered a polygenic biomarker with additional risk and rescue gene

- Predicts LOAD at 80% accuracy (vs. 65% standard APOE4 marker)
- Novel risk gene codes for drugable enzyme
- An approved medication that inhibits that enzyme exists
- Medical use patent files

Allows for accurate assessment of AD risk + preventive therapy for high risk patients

CASE STUDY 2 – Crohn's Disease (inflammatory bowel disease)

2

In genome wide association data our AI platform discovered a polygenic biomarker with additional risk genes

- Predicts Crohn's at 20% better accuracy than the standard NOD2 test
- Novel risk genes code for known and novel drug targets

Test accurately predicts which patient should receive which medication

CASE STUDY 3 – Cholesterol-lowering medication (statins)

3

In genome wide association data our AI platform discovered a poly-genic biomarker with additional genes that influence efficacy of statins

- First accurate prediction of statin-response based on genomics

- Previous tests only predict adverse-effects

Allows for stratification of patients into strong responders to statins, as well as weak responders who need antibody therapy instead

WE OFFER

!

- Machine learning / AI
- Polygenic biomarkers for patient stratification
- Verification of drug target linkage
- Novel medical uses

We use data provided to us by pharma, as well as our own
(With access to data on all major pathologies and rare diseases)