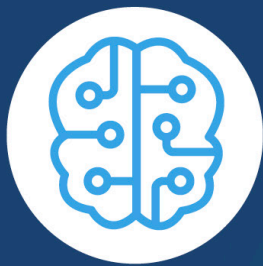IQVIA

IQVIA Drug Discovery & Development Services

AI/ML-backed consulting expertise empowers pharmaceutical R&D

Innovate to succeed

Apply the latest Artificial Intelligence and Machine Learning (AI/ML) methodologies to accelerate drug discovery and development.

5 YEARS TO 1

AI Drug Discovery reduces the time from target identification to investigational new drug from five years to one[1].

Deliver faster with greater accuracy

The development of a new drug has historically required a major investment of capital, technological expertise and time (10-15 years). IQVIA's Drug Discovery & Development Services provide solutions aimed at dramatically improving those statistics.

Utilizing artificial intelligence (AI) and machine learning (ML) in clinical research and development is not only providing a paradigm shift around the speed of bringing drugs to market, but also improving accuracy and lowering costs. Our expert machine learning engineers and data scientists leverage IQVIA's unparalleled data to produce solutions for pharmaceutical partners that shorten the drug development cycle so much-needed therapies can be brought to patients more quickly.

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[1]Tsao, D. N. (2021, June 10). Ai in drug discovery cuts timelines from 5+ years to months. Artificial Intelligence Research. Retrieved April 12, 2022, from https://www.onartificialintelligence.com/articles/24011/ai-in-drug-discovery-cuts-timelines-from-5-years-to-months

Pair analytics with domain expertise from discovery to development — and beyond

MOLECULAR DESIGN AND LEAD OPTIMIZATION

Our data scientists leverage computational methods rooted in deep learning to automate the molecular generation process. By using machine learning with a generative adversarial network (GAN), we can automatically generate new compounds and map molecular representations to desired properties quickly and effectively.

BIOMARKER IDENTIFICATION

Our innovative approaches, such as deep computational phenotyping, identify and validate biomarkers to aid patient stratification and increase knowledge of disease progression. AI-powered biomarker identification and validation supports R&D in rare diseases by enabling precise identification of potential patients through prognostic and predictive markers.

DRUG REPURPOSING

Using natural language processing and other AI/ML techniques, we can mine existing and failed compounds, assets and drugs for new uses to potentially bypass early drug discovery stages, thus increasing speed to market, lowering costs and improving the probability of clinical trial success.

CLINICAL TRIAL SUCCESS PREDICTIONS

IQVIA's Asset Intelligence tool provides AI-enabled forecasting based on real-world data, generating insights into the drug approval process for a given pathway. These predictions not only support investment decisions, but also enable a better understanding of the impact of clinical trial features on the potential success of an asset.

Partnering with IQVIA brings you

Depth of patient data, including genomics and electronic health record (EHR) data

Robust data processes, such as machine learning and natural language extraction

Hundreds of AI/ML experts who understand drug discovery and development

See how IQVIA's Drug Discovery & Development Services can help you produce novel drug designs, predict patient subpopulations for trial and protocol design, augment R&D teams with proven expertise and optimize trial success — all which can lead to reduced timelines and costs.

Learn more at IQVIA's Drug Discovery & Development Services

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