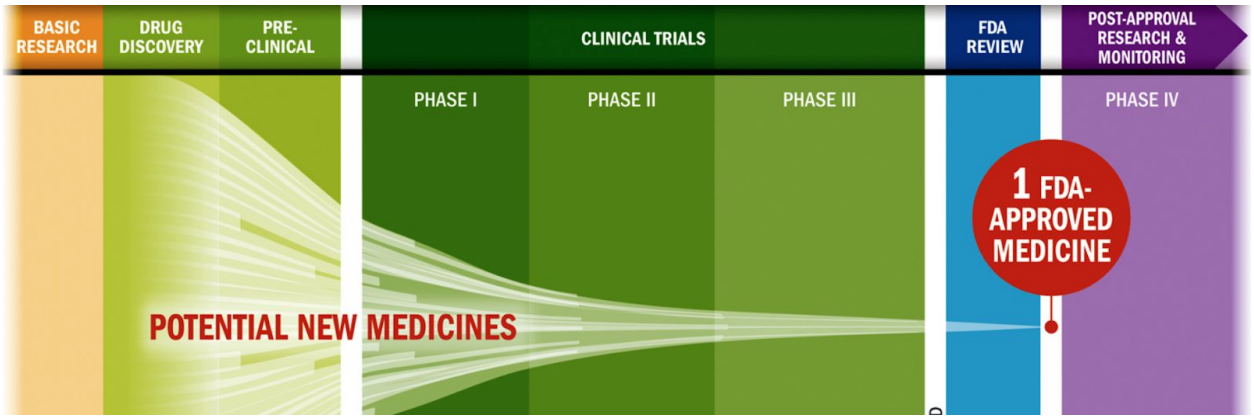


The 1st Blockbuster Drug Developed Using AI May Be Available By 2020

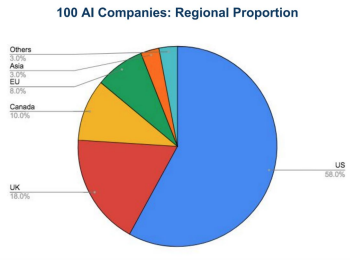
"AI is going to lead to the full understanding of human biology
and give us the means to fully address human disease.
The way we develop drugs and assess them in clinical trials
will all come down to very sophisticated pattern recognition."

Tom Chittenden, Founding Director,
Advanced AI Research Lab, WuXi NextCODE

Traditional drug discovery is a very long and expensive process involving many tests to determine the safety and efficacy of each new drug candidate. AI is making the hunt for new drugs quicker, cheaper and more effective. Drug companies are already conducting clinical trials for drugs developed using AI, so although no AI for Drug Discovery companies have brought a drug to market yet, we could see the arrival of the AI industry's first blockbuster drug as early as 2020. A drug discovered using AI will validate the AI approach and will cause an increase of investments and capitalization of this industry.

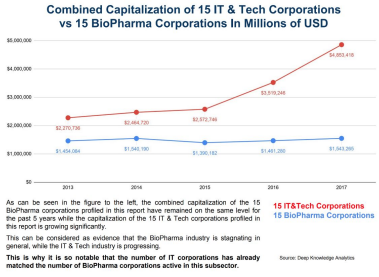
How AI is Transforming Drug Discovery

The primary factors driving AI in Drug Discovery are time and money. On average it takes about ten years of research and $2.6 billion for an experimental drug to move from lab to market, and only about 5% of experimental drugs make it to market at all. AI has the potential to expedite drug discovery by applying sophisticated algorithms to the analysis and mining of data to predict molecule behavior and suitability as drug targets. By determining factors such as toxicity very early in the process, AI could minimize the time in takes to assess and develop new drugs and lower the cost of research and development. AI is causing a dramatic paradigm shift in the drug development process by focusing on slashing inefficiencies in the preclinical drug design stage, cutting development time and cost, and accelerating the pace by which lifesaving drugs can be delivered from the lab and into the hands of doctors and patients. AI could drastically reduce the current ten year drug development cycle and get new drugs into life-saving clinical practice years sooner.



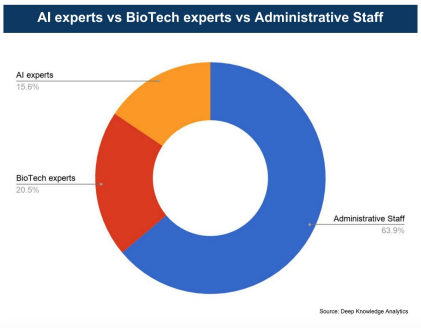
Regional Diversification

Although the US has historically dominated the AI for Drug Discovery industry, Asian investors have recently started aggressively investing in AI for Drug Discovery companies. With their desire to rapidly advance their global leadership position in AI , China could overtake the US in this sub-sector within 3-5 years.



IT and Tech companies are overtaking BioPharma companies

Another interesting development is this area is the stagnation of the BioPharma industry and simultaneous growth in the IT and Tech industries. The combined capitalization of top BioPharma companies has remained at the same level for the past 5 years, while the capitalization of IT and Tech companies has increased significantly.



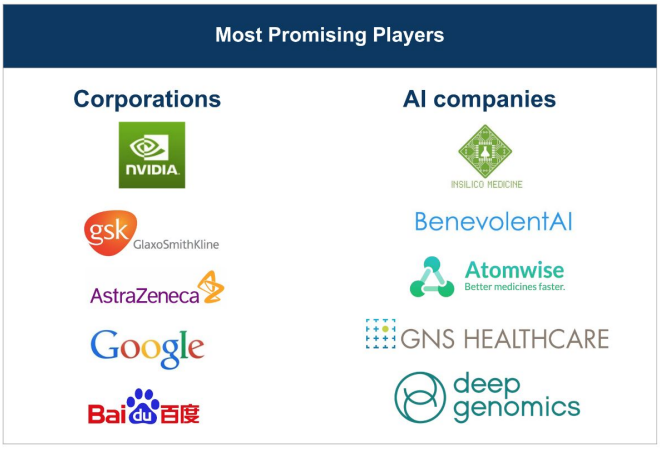
"More than 90% of the molecules discovered using traditional techniques and tested in mice fail in human clinical trials. Our goal is to develop advanced end-to-end AI solutions to discover the optimal pre-clinical candidates."

Alex Zhavoronkov, PhD, Founder & CEO, Insilico Medicine

About AI For Drug Discovery

Deep Knowledge Ventures focuses on early stage investments in disruptive DeepTech. Deep Knowledge Ventures' analytical subsidiary, Deep Knowledge Analytics, regularly produces analytical reports on topics including AI in Drug Discovery, AI in Healthcare, Blockchain, the Longevity Industry, the Crypto Economy, and the Convergence of Technological MegaTrends. The report classifies AI for Drug Discovery companies according to their type and number of distinct industry applications, proportion of AI specialists, number of patents and publications, use of next-generation AI technologies (e.g. GANs vs ML), and whether they utilize AI as a core component of their R&D or as a complementary element to enhance their primary, non-AI focus and business model.

Our report AI for Drug Discovery, Biomarker Development and Advanced R&D 2018 Q2 is available on the Deep Knowledge Analytics website. This 600 page report is the most comprehensive and analytically rigorous report on the AI for Drug Discovery space. The report features up-to-date coverage of the industry and in-depth analysis of the most important industry events in 2018. The report provides an in-depth comparative and quantitative analysis of the entire AI for Drug Discovery landscape, utilizing advanced infographics and tangible parameters. The report includes rankings of various AI for Drug Discovery companies according to their levels of scientific validation, clinical development, R&D and industry-application diversification, and overall prospects for future growth.



This article was written by Margaretta Colangelo and Dmitry Kaminskiy.

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Deep Knowledge Ventures is an investment fund focused on DeepTech. Investment sectors include AI, Precision Medicine, Longevity, and Neurotech. Deep Knowledge Ventures led Insilico Medicine's seed funding round in 2014 and has remained a close advisor in the company's journey towards becoming a global leader in the application of advanced AI, particularly deep learning and GANs.

Deep Knowledge Ventures has two subsidiaries. Deep Knowledge Analytics produces analytical reports on topics related to DeepTech including AI in Drug Discovery and AI in Healthcare. Aging Analytics Agency produces analytical reports on the topics of Longevity, personalized medicine, and preventive medicine. Aging Analytics Agency is the only analytics company focused exclusively on Aging, Geroscience, and Longevity @DeepTech_VC

The quote from Tom Chittenden was extracted from How artificial intelligence is changing drug discovery, Nature, May 30, 2018. The banner image is from Phrma.