CybergenX

VISION

Engineered cells will be the factories of the future, revolutionising manufacturing across all sectors from developing new materials to producing medicine and food. This shift holds the promise of significantly reducing the reliance on fossil fuels in the creation of everyday products, thereby contributing to the achievement of the net zero goal. Engineered cells will be "living robots" that we'll be able to program to accomplish the most challenging tasks.

CHALLENGE

Our ability to engineer and control cells today is hampered by a fundamental gap: unlike the internal dynamics of robots, we know very little of what happens inside a cell, our picture of intracellular dynamics lacks depth and resolution. To fully realise the potential, we need bespoke AI foundational models that, like ChatGPT, achieve unprecedented predictive power on biodynamics data. The challenge is: ChatGPT was trained on a huge body of data, "internet-scale" data. Engineering Biology lacks ChatGPT-level models because it lacks rich and big data.

SOLUTION

Enter CybergenX, a pioneering Focused Research Organisation dedicated to addressing this challenge by developing a technology that will transform the way we understand and interact with biological systems. In doing so CybergenX will usher in the era of Generative Pretrained Transformers (GPT) in Engineering Biology.

CybergenX technology will increase by 1000 times the number of intracellular signals measured and the frequency at which they are sampled. We will then use this data to train a new type of AI foundational model that takes inspiration from the transformers used in ChatGPT and specialise them to biological dynamics.

BENEFITS

Open access to data, models and protocols for industrially relevant cells

- The highest resolution dynamic data
- Most predictive biological models

Transform Engineering Biology through the power of AI

- Unlocks the full potential of a predicted trillion-dollar emerging sector*
- Provides cost-effective, risk-reduced, high-rewarding solutions

Follow-on commercial opportunities

** McKinsey report, 2020*

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