

AI Innovation Lab

The AI innovation lab is the Novartis engine and go-to place for AI. In collaboration with Microsoft, the lab aims to bolster our AI capabilities. From research through commercialization, we aim to accelerate discoveries and the development of transformative medicines for patients worldwide.

Vas Narasimhan announcing the AI innovation lab

[Video of Vas Narasimhan announcing the AI innovation lab.](#)

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Intelligent Molecular Design

Our intent is to discover and create better molecules that work more precisely and more efficiently in the body. AI aims to build these molecules inside a machine and quickly extract patterns from our vast array of chemical knowledge. This allows our experts to focus on more diverse sets of molecules that work more efficiently.

Intelligent Molecular Design strives to help support the next generation of optimally effective and safe molecules as they make their way to the patient.

Optimized Re-Engineered Cells

We aim to optimize the process that transforms a patient's T Cells into cancer fighting machines that will produce optimal clinical outcomes for each patient.

We also aim to improve the process of separating plasma and T Cells from human blood, re-engineering the T Cells with a specific virus. This personalized process allows us to transform a patient's T Cells into cancer fighting machines, supporting optimal clinical outcomes for each patient.

Personalized Smart Dosing

We plan to focus on more personalized guidance to clinicians on dosing frequency and treatment plans for patients suffering from age-related macular degeneration (AMD). This condition is a leading cause of severe and irreversible vision loss worldwide.

Machine learning models can help provide a more personalized adaptive treatment and dosing plan for each patient, and every retina, based on what can be seen. Data from a patient's OCT scan and other associated healthcare fields will be drawn upon during the process.

AI Empowerment

Novartis/Microsoft strategic alliance allows us to empower our associates across all of our businesses with the capability of AI by making it accessible to all, regardless of their knowledge of data science. This way, we create a new crop of citizen data scientists who are able to utilize AI as they unlock valuable new insights from our rich and diverse store of data.

The lab will aim to bring the power of AI to the desktop of every Novartis associate. By bringing together vast amounts of Novartis datasets with Microsoft's advanced AI solutions, the lab will aim to create new AI models and applications that can augment our associates' capabilities to take on the next wave of challenges in medicine.

Source URL: <https://www.novartis.com/our-focus/data-and-digital/artificial-intelligence/ai-innovation-lab>

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