**Moderna and OpenAI Partner to Accelerate the Development of Life-Saving Treatments**
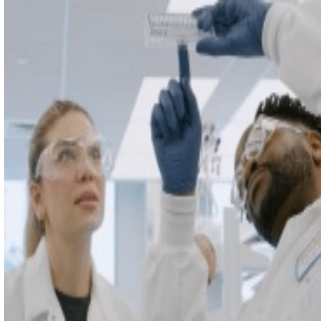


**Moderna and OpenAI partner to accelerate the development of life-saving treatments.**

Moderna partners with OpenAI to deploy ChatGPT Enterprise to thousands of employees across the company. Now every function is empowered with AI, creating novel use cases and GPTs that accelerate and expand the impact of every team.

Moderna has been at the intersection of science, technology, and health for more than 10 years. Moderna's mission is to deliver the greatest possible impact to people through mRNA medicines—with the COVID-19 vaccine being their most well-known breakthrough.

The company has partnered with OpenAI since early 2023. Now, ChatGPT Enterprise is evolving how Moderna operates across each function.

Moderna is using its platform for developing mRNA medicines to bring up to 15 new products to market in the next 5 years from a vaccine against RSV to individualized cancer treatments. In order to achieve its ambitions, Moderna has adopted a people-centric, technology-forward approach, constantly testing new technology and innovation that can increase human capacity and clinical performance.

> We believe very profoundly at Moderna that ChatGPT and what OpenAI is doing is going to change the world. We're looking at every business process from legal, to research, to manufacturing, to commercial and thinking about how to redesign them with AI.
>
> **Stéphane Bancel, CEO of Moderna**

## Moderna brings AI to everyone

Moderna adopted generative AI the same way Moderna adopts other technology: with the mindset of using the power of digital to maximize its positive impact on patients. To allow AI to flourish, they knew they needed to start with the user and invest in laying a strong foundation for change.

Moderna's objective was to achieve 100% adoption and proficiency of generative AI by all its people with access to digital solutions in six months. "We believe in collective intelligence when it comes to paradigm changes," said Miller, "it's everyone together, everyone with a voice and nobody left behind." For this, Moderna assigned a team of dedicated experts to drive a bespoke transformation program. Their approach combined individual, collective and structural change management initiatives.

Individual change management initiatives included in-depth research and listening programs, as well as trainings hosted in person, online and with dedicated AI learning companions. "Using AI to teach AI was key to our success", Miller points out. Collective change management initiatives included an AI prompt contest to identify the top 100 AI power users who were then structured as a cohort of internal Generative AI Champions. Moderna's culture of learning led to local office hours in every business line and geography, and scaled through an internal forum on AI, which now has 2,000 active weekly participants. Lastly, structural change management initiatives included engaging Moderna's CEO and executive committee members to foster AI culture through leadership meetings and town halls as well as incentive programs and sponsored events with internal and external experts.

This work led to an early win with the launch of an internal AI chatbot tool, mChat, at the beginning of 2023. Built on OpenAI's API, mChat was a success, adopted by more than 80% of employees across the company, building a solid foundation for the adoption of ChatGPT Enterprise.

90% of companies want to do GenAI, but only 10% of them are successful, and the reason they fail is because they haven't built

the mechanisms of actually transforming the workforce to adopt new technology and new capabilities.

**Brad Miller, Chief Information Officer of Moderna**

## Building momentum with ChatGPT Enterprise

With the launch of ChatGPT Enterprise, Moderna had a decision to make: continue developing mChat as an all-purpose AI tool, or give employees access to ChatGPT Enterprise?

"As a science-based company, we research everything," said Brice Challamel, Head of AI Products and Platforms at Moderna. Challamel's team did extensive user testing comparing mChat, Copilot, and ChatGPT Enterprise. "We found out that the net promoter score of ChatGPT Enterprise was through the roof. This was by far the company-favorite solution, and the one we decided to double down on," Challamel said.

Once employees had a way to create their own GPTs easily, the only limit was their imaginations. "We were never here to fill a bucket, but to light a fire," Challamel said. "We saw the fire spread, with hundreds of use cases creating positive value across teams. We knew we were on to something revolutionary for the company."

The company's results are beyond expectations. Within two months of the ChatGPT Enterprise adoption:

- Moderna had 750 GPTs across the company
- 40% of weekly active users created GPTs
- Each user has 120 ChatGPT Enterprise conversations per week on avera

## Augmenting clinical trial development with GPTs

One of the many solutions Moderna has built and is continuing to develop and validate with ChatGPT Enterprise is a GPT pilot called Dose ID. Dose ID has the potential to review and analyze clinical data and is able to integrate and visualize large datasets. Dose ID is intended for use as a data-analysis assistant to the clinical study team, helping to augment the team's clinical judgment and decision-making.

"Dose ID has provided supportive rationale for why we have picked a specific dose over other doses. It has allowed us to create customized data visualizations and it has also helped the study team members converse with the GPT to further analyze the data from multiple different angles," said Meklit Workneh, Director of Clinical Development at Moderna.

Dose ID uses ChatGPT Enterprise's advanced data analysis feature to automate the analysis and verify the optimal vaccine dose selected by the clinical study team, by applying standard dose selection criteria and principles. Dose ID provides a rationale, references its sources, and generates informative charts illustrating the key findings. This allows for a detailed review, led by humans and with AI input, prioritizing safety and optimizing the vaccine profile prior to further development in late-stage clinical trials.

"The Dose ID GPT has the potential to boost the amount of work we're able to do as a team. We can comprehensively evaluate these extremely large amounts of data, and do it in a very efficient, safe, and accurate way, while helping to ensure security and privacy," added Workneh.

## Improving compliance and telling the company's story

Moderna's legal team boasts 100% adoption of ChatGPT Enterprise. "It lets us focus our time and attention on those matters that are truly driving an impact for patients," said Shannon Klinger, Moderna's Chief Legal Officer.

Now, with the Contract Companion GPT, any function can get a clear, readable summary of a contract. The Policy Bot GPT helps employees get quick answers about internal policies without needing to search through hundreds of documents.

Moderna's corporate brand team has also found many ways to take advantage of ChatGPT Enterprise. They have a GPT that helps prepare slides for quarterly earnings calls, and another GPT that helps convert biotech terminology into approachable language for investor communications.

"Sometimes we're so in our own world, and AI helps the brand think beyond that," explained Kate Cronin, Chief Brand Officer of Moderna. "What would my mother want to know about Moderna, versus a regulator, versus a doctor? How do we tell our story in an effective way across different audiences? That's where I think there's a huge opportunity."
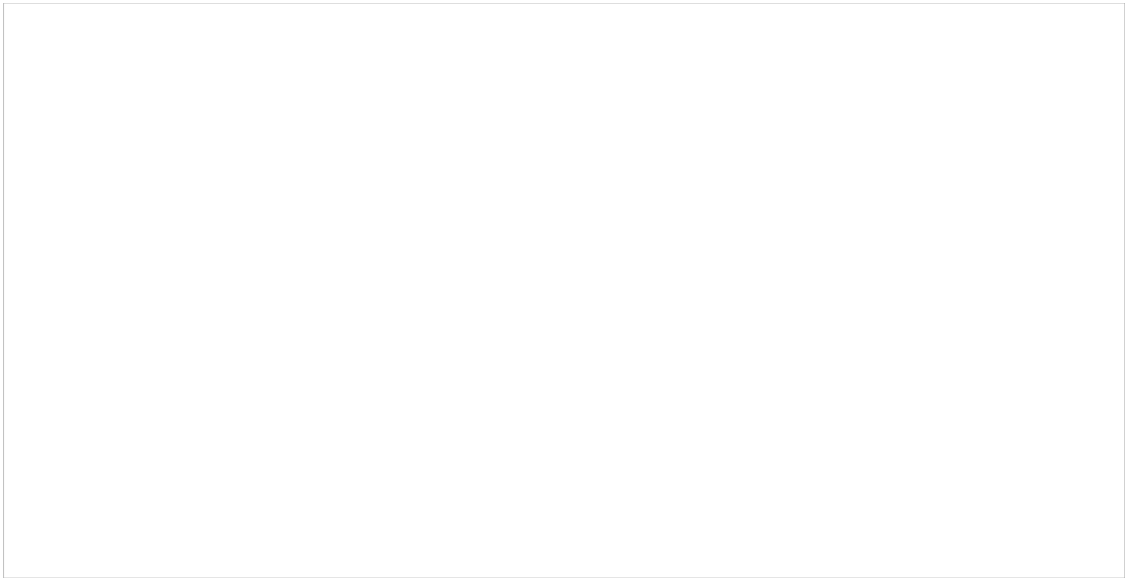
## A team of a few thousand can perform like a team of 100,000

With an ambitious plan to launch multiple products in the next few years, Moderna sees AI as a key component to their success—and their ability to stay lean as a business while setting new benchmarks in innovation.

"If we had to do it the old biopharmaceutical ways, we might need a hundred thousand people today," said Bancel. "We really believe we can maximize our impact on patients with a few thousand people, using technology and AI to scale the company."

Moderna has been well positioned to leverage generative AI having spent the last decade building a robust tech stack and data platform. The company fosters a culture of learning and curiosity, attracting employees that excel in adopting new technologies and building AI-first solutions.

By making business processes at Moderna more efficient and accurate, the use of AI ultimately translates to better outcomes for patients. "I'm really thankful for the entire OpenAI team, and the time and engagement they have with our team, so that together we can save more lives," Bancel said.

**Source & Image Credit: [OpenAI](OpenAI)**

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