

Sanofi, OpenAI, Formation launch Muse, an AI tool for patient recruitment

by Andrew Dunn on November 12th, 2024



A flashy collaboration between Sanofi, OpenAI and Formation Bio produced its first AI-powered tool, aiming to speed up the process of recruiting patients into clinical trials.

The tool is called Muse and is largely built by customizing GPT-4o, one of the newest large language models behind OpenAI's ChatGPT. Tuesday's announcement is the first out of the trio's collaboration, [which was announced in May](#). Sanofi and Formation Bio both plan to use Muse in their own clinical trials, including upcoming Phase 3 multiple sclerosis studies run by Sanofi.

Formation CEO Benjamin Liu told *Endpoints News* the teams started working on clinical enrollment when they first signed the partnership, which hopes to tackle many key problems in drug development.

"Patient recruitment was one that really came to top of mind, given it's one of the most costly" issues for drug developers, Liu said. "So many medicines and trials are delayed because of patient recruitment."

For other problems the trio is working on, Liu said one could imagine topics like preparing NDA submissions, writing protocols or forming strategic development plans as possible examples.

“If we think about all the drug development activities, we think there’s a Muse for everything,” he said. “This all ladders up to a broader AI R&D scientist.”

For now, the output of tools like Muse needs to be reviewed by human experts. That human feedback not only catches errors today but should make the system better at these tasks over time, Liu said. While that raises the possibility of making these steps faster and cheaper for drugmakers, it could also make certain skills and tasks obsolete that employees do right now.

Muse performs a variety of tasks related to recruiting patients into studies. This includes segmenting patients into different groups and then suggesting different plans to engage with those segments. For instance, Formation shared an example of Muse suggesting a segment of arthritis patients that include middle-aged women, with the suggested approach of “empathy-driven virtual support groups.”

The software can also produce content like social media posts to advertise a trial. The team has built-in specific features, like an Institutional Review Board compliance assistant that reviews and makes suggestions for elements that may run afoul of regulations or laws.

At Sanofi, the \$129 billion drugmaking giant, CEO Paul Hudson has pitched an “all in on AI” vision for its future. In a press release, Sanofi chief digital officer Emmanuel Frenehard called Muse “another proof point in Sanofi’s journey to becoming the first pharma company powered by AI at scale.”

Formation also plans to use Muse for its own clinical trials. The 140-employee biotech has pivoted from being a contract researcher to a drug developer, most recently [raising a \\$372 million Series D round in June](#). Liu said his startup plans to put a currently undisclosed program into the clinic in 2025, with Muse playing a role in that effort.

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