

ESCMID: Sanofi's Nuvaxovid COVID-19 vaccine showed better tolerability than mNEXSPIKE in head-to-head study

- First head-to-head, double-blind, randomized phase 4 study powered to directly compare the tolerability profiles of these vaccines in adults in a real-world setting
- Results were presented today at the European Society of Clinical Microbiology and Infectious Diseases Global Congress in Munich, Germany.

Paris, April 18, 2026. Sanofi's protein-based non-mRNA COVID-19 vaccine Nuvaxovid (NVX-CoV2705) demonstrated statistically significant lower systemic reactogenicity (the expected side effects that might occur following vaccination) compared to mNEXSPIKE (mRNA-1283), Moderna's latest mRNA COVID-19 vaccine, across all pre-specified endpoints in the COMPARE study. The randomized, double-blind study, which enrolled 1,000 adults in the US, was presented at the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) Global Congress in Munich, Germany.

These results address a persistent challenge: despite the end of the pandemic, COVID-19 continues to cause significant hospitalizations and deaths globally, while placing considerable strain on health systems during seasonal peaks. Yet vaccination uptake remains low, with concerns about vaccine side effects ranking among the top reasons cited by adults for not getting vaccinated against COVID-19.

In the COMPARE study, when side effects did occur with Nuvaxovid, they were less severe and shorter in duration compared to mNEXSPIKE. Severe systemic symptoms (body-wide reactions such as fatigue, headache, or fever) that prevent people from carrying out their normal daily activities were more than 50% less frequent with Nuvaxovid, affecting fewer than one in ten Nuvaxovid recipients compared to one in five mNEXSPIKE recipients, an analysis of the data showed. Severe local symptoms (reactions at the injection site such as pain, redness, or swelling) with Nuvaxovid were rare, and more than 75% less frequent compared to mNEXSPIKE. This was reflected in the study participants' own experience: those who received Nuvaxovid were nearly twice as likely as mNEXSPIKE recipients to say they would definitely choose the same vaccine type again the following year.

The study met its primary endpoint – the probability of experiencing at least one systemic reaction within seven days of vaccination – with statistical significance, with 91.6% of mNEXSPIKE recipients affected compared to 83.6% of Nuvaxovid recipients (risk difference: 8.0%; 95% CI: 4.0%–12%; $p < 0.001$).

The study also showed that 61.3% of mNEXSPIKE recipients experienced moderate-to-severe (Grade 2 or 3) systemic symptoms versus 43.1% of Nuvaxovid recipients (risk difference: 18%; 95% CI: 12%–24%; $p < 0.001$), and 58.7% of mNEXSPIKE recipients experienced moderate-to-severe local symptoms versus 38.7% of Nuvaxovid recipients (risk difference: 20%; 95% CI: 14%–26%; $p < 0.001$).

*"This study was designed to answer a question that matters deeply to clinicians and patients alike: how do different COVID-19 vaccines compare in terms of reactogenicity and patient experience? The answer is clear," said **Dr. Marcel E. Curlin**, Principal Investigator of the COMPARE study and Professor of Medicine at Oregon Health & Science University. "Across every measure we evaluated, we observed that the recombinant protein-based vaccine consistently exhibited lower reactogenicity and less disruption to patient activities than the comparator mRNA vaccine. Individuals cite side effects as a reason they avoid COVID-19 vaccination. These differences could have a significant impact on improving vaccination uptake."*

*"The patient experience with vaccination is essential, because it determines not only whether people get vaccinated, but also whether they come back year after year for routine protection," said **Thomas Triomphe**, Executive Vice President, Vaccines, Sanofi. "These results show that Nuvaxovid can play a meaningful role in making routine COVID-19 vaccination a reality for more people, which is how we can help address the continued burden of this disease on patients and health systems."*

Beyond clinical measures, the COMPARE study also captured patient-reported outcomes reinforcing the real-world relevance of Nuvaxovid's tolerability profile. Nuvaxovid recipients reported less disruption to daily activities, including work, school, recreational activities, and caretaking responsibilities, over the seven days following vaccination. Notably, more than half of all participants reported scheduling their vaccination on a specific day of the week in anticipation of potential side effects, highlighting the extent to which tolerability concerns shape vaccination behavior. Together, these findings suggest that a better tolerability experience may favor greater vaccine confidence and willingness to return for routine immunization.

About COVID-19

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill resulting in hospitalization and death.

The disease not only causes immediate health impacts but also increases the long-term risk of cardiovascular complications, including heart attacks and strokes, and older adults hospitalized for COVID-19 face substantially higher mortality risk than those hospitalized for influenza. Older adults and those with chronic conditions - including cardiovascular disease, chronic lung disease, diabetes, and obesity - face the highest risk of severe illness. In the US, an estimated 74% of adults have at least one such risk factor, underscoring the scale of the vulnerable population that stands to benefit from effective and well-tolerated COVID-19 vaccination.

About Nuvaxovid

Nuvaxovid (NVX-CoV2705) is a protein-based, adjuvanted vaccine for active immunization to prevent COVID-19 caused by SARS-CoV-2. It is developed using the recombinant technology, an established platform with a long track record across multiple vaccine types. Nuvaxovid has been shown to have a tolerable side-effect profile suitable for routine vaccination and has also demonstrated high efficacy against COVID-19 as a primary vaccination in two pivotal phase 3 studies.

As the pandemic has now evolved into an endemic phase, having multiple vaccine options becomes increasingly important for sustainable public health strategies. Nuvaxovid offers healthcare systems a protein-based vaccine option with an established safety and tolerability profile to add to their routine vaccination programs. This diversity is particularly valuable for addressing vaccine hesitancy.

Nuvaxovid was originally licensed by Novavax. Sanofi is now market authorization holder for Nuvaxovid in the US, the EU and the United Kingdom. Building on its commercial launch in the US, Taiwan, and Morocco in 2025, Sanofi is expanding Nuvaxovid's availability to additional markets - including the United Kingdom, Germany, and Canada - from 2026 onwards.

About Sanofi

Sanofi is an R&D driven, AI-powered biopharma company committed to improving people's lives and delivering compelling growth. We apply our deep understanding of the immune system to invent medicines and vaccines that treat and protect millions of people around the world, with an innovative pipeline that could benefit millions more. Our team is guided by one purpose: we chase the miracles of science to improve people's lives; this inspires us to drive progress and deliver positive impact for our people and the communities we serve, by addressing the most urgent healthcare, environmental, and societal challenges of our time. Sanofi is listed on Euronext: SAN and NASDAQ: SNY

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