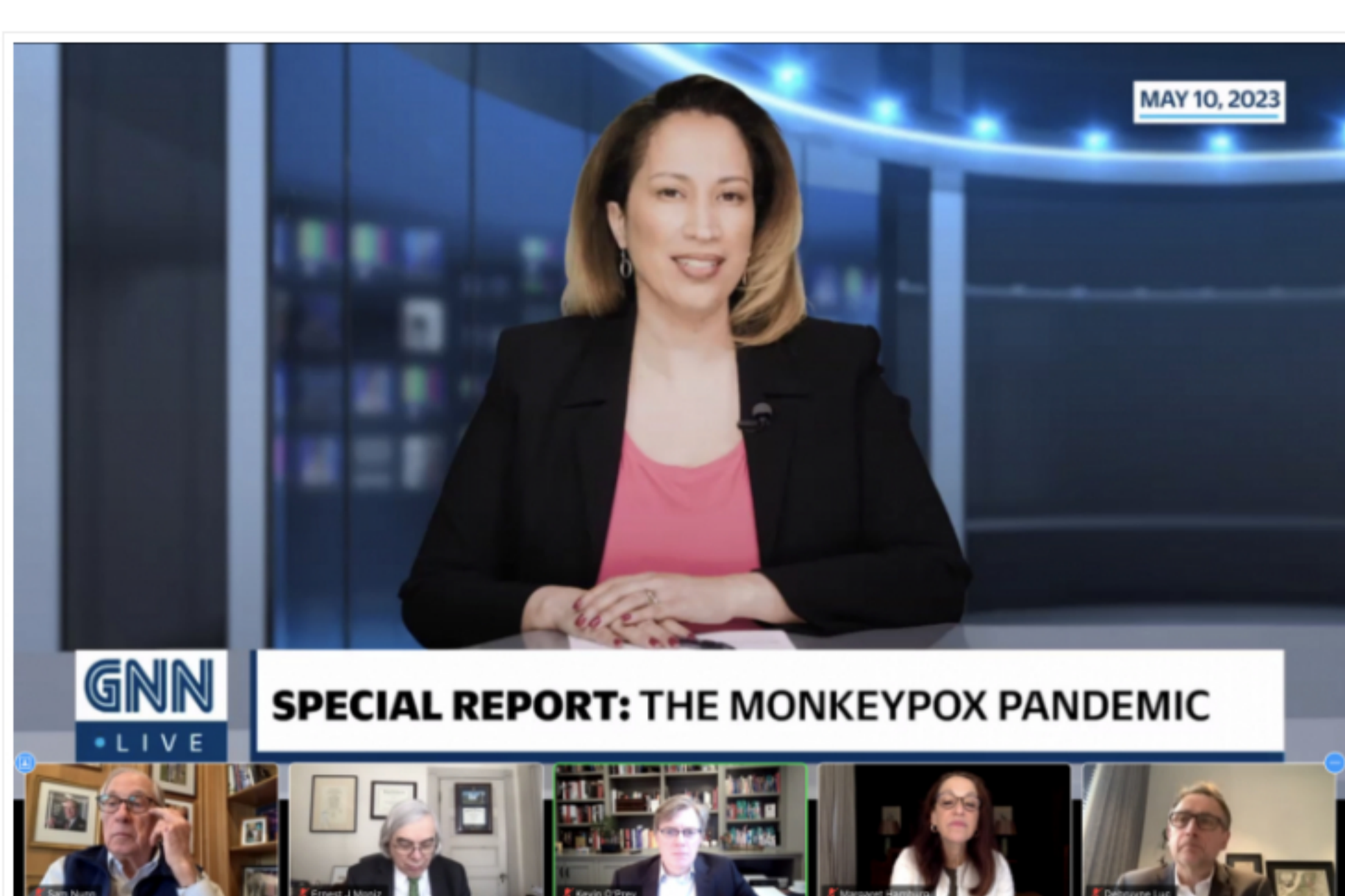


Monkeypox: Natural Outbreak or Engineered Bioterrorism?



March 2021: The monkeypox pandemic exercise organized by the Munich Security Conference and the US Nuclear Threat Initiative. (NTI)

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Sprache auswähler

The two key questions concerning the ongoing international monkeypox outbreak.

According to international data, about 450 confirmed and suspected cases of monkeypox have been reported in [several Western countries](#) since early May. There is still significant uncertainty about the full extent of the current outbreak as the incubation period of monkeypox (time from infection until first symptoms) can be up to [three weeks](#).

So far, the ongoing monkeypox outbreak has affected almost only **homosexual men**, and many of the recent infections could be traced back to two large [gay festivals](#): the Gran Canaria pride festival – held from May 5 to May 15 and attended by about 80,000 people – and the Belgian Darklands Festival. Subsequent infections occurred in a [gay sauna in Madrid](#) and similar locations.

There are **two main hypotheses** to explain this pattern. Either there was a natural outbreak at one or more of these gay festivals, likely caused by one or more participants from west Africa (where monkeypox is endemic); or one or more of these gay festivals were targeted by an engineered, covert bioterrorism attack.

In the second scenario, the attack might later be blamed on a supposed terrorist group that “hates homosexuals and the Western lifestyle”, such as an Islamist terrorist group (possibly linked to Iran) or a Christian fundamentalist terrorist group (possibly linked to Orthodox Russia, such as the suspect [“Russian Imperial Movement”](#)), or on conservative Western “domestic terrorists”.

In fact, such a **state-sponsored monkeypox bioterrorist attack** was simulated just one year ago, in March 2021, by the NATO-linked Munich Security Conference and the US-based Nuclear Threat Initiative ([see report](#)). This 2021 US/NATO exercise assumed a monkeypox outbreak in May 2022 that would develop into a full-blown pandemic and that would be revealed only one year later, in May 2023, as a terrorist operation using genetically modified monkeypox virus.

Pandemic strategist Bill Gates has repeatedly warned of a potential smallpox bioterrorist attack, most recently during a talk in [November 2021](#). Back in October 2019, shortly before – or in parallel to – the outbreak of the coronavirus pandemic, the Gates Foundation and Johns Hopkins University had already [simulated](#) a SARS-like coronavirus pandemic. And just last week, a G7 meeting in Germany [simulated](#) a smallpox-like pandemic that had been planned “several months ago”. However, it is true that the pandemic potential of monkeypox has been known [for decades](#).

To evaluate the current real-world monkeypox outbreak, **two questions** are of paramount importance:

- First, what is the exact nature of the around 50 [nucleotide mutations](#) that have caused about 25 amino acid substitutions in the current monkeypox strain (compared to the last known ancestor)? Expert virologists have already [acknowledged](#) that the number of mutations is “far more than one would expect considering the estimated substitution rate for orthopoxviruses.”
- Second, what are the primary modes of transmission of this virus strain?

Concerning the **first question**, it is already known that the current monkeypox strain is closest to a [2018 strain](#) isolated either in Israel or in the UK; both of these strains go back to a 2017 monkeypox outbreak in Nigeria. Do the [additional mutations](#) increase transmission in any way? Are these mutations natural or artificial?

In the case of **SARS-CoV-2**, a very small and most likely lab-engineered genetic insertion [dramatically increased](#) transmission and enabled the recent coronavirus pandemic. Both the United States and China have been performing such high-risk coronavirus genetic insertions.

Concerning the **second question**, the key issue is whether there is any significant human-to-human aerosol transmission. If not, then the current outbreak may remain limited to the original homosexual clusters and may be stopped through contact tracing and quarantining. But if there is widespread human-to-human aerosol transmission, then all bets are off.

Importantly, neither monkeypox nor smallpox have ever been shown to be sexually transmitted diseases. Yet close contact during sexual intercourse can greatly increase the risk of transmission, especially if there are ulcers or skin lesions. There is preliminary evidence that homosexual men affected by the current outbreak show primarily [genital and oral ulcers](#), which would indicate such a **quasi-sexual mode of transmission** by skin-to-skin contact.

However, contrary to claims by most health authorities, the historic evidence [strongly suggests](#) that the main mode of transmission of smallpox was neither “droplets” nor direct or indirect skin-to-skin contact, but **close-range respiratory aerosols**. Furthermore, the fact that monkeypox has not yet achieved efficient human-to-human transmission (unlike smallpox) is almost certainly due to the fact that monkeypox has not yet achieved efficient aerosol transmission in humans.

If natural or artificial genetic mutations increase human-to-human aerosol transmission, this could greatly enhance the epidemic and pandemic potential of monkeypox. While it is true that there are several [non-classified studies](#) that mention “**aerosolized monkeypox virus**”, these studies refer to artificial aerosol lab experiments, not to genetic virus engineering to achieve aerosolization.

Both the [United Kingdom](#) and the [United Arab Emirates](#) recently appear to have detected individual monkeypox cases in [travelers from Nigeria](#) without any link to the European gay festivals. This might indicate that there is an ongoing, still unreported monkeypox outbreak in west Africa that may have served as the source of the current multi-country outbreak.

On the positive side, it is believed that smallpox and monkeypox are transmitted only by **symptomatic individuals** (unlike [influenza and covid](#)); on the negative side, infectiousness of smallpox/monkeypox patients can last [several weeks](#). If the monkeypox virus should [spill back to rodents](#) in Europe or North America, the situation would become even more complex.

In terms of **fatality rates**, many media outlets have shared greatly exaggerated figures of [up to 10%](#) based on an outdated and incomplete survey from the Congo. Yet if immuno-compromised individuals are excluded, the actual infection fatality rate in central and western Africa is [about 1%](#), and it is likely to be a fraction of 1% in Western countries.

For instance, during the well-known 2003 outbreak in the US – without human-to-human transmission – about 50 people were infected but [nobody died](#). Nevertheless, monkeypox is certainly not a trivial disease, and novel mutations may increase or decrease disease severity. In smallpox, death typically occurred through viral [immune suppression](#) and [cytopathic effects](#).

Concerning **vaccine protection**, there are claims that prior smallpox vaccination, which in most Western countries was performed until the early or late 1970s, offers [about 80%](#) protection against monkeypox infection. Yet this figure is again based on a single outdated study from the Congo. A study of the 2003 US outbreak found [no significant vaccine protection](#). Novel mutations could further reduce vaccine protection (which was the case in the above-mentioned NATO exercise).

Concerning a potential engineered bioterrorism event, the best known precedent are the **2001 US anthrax letter attacks**, which were [closely linked](#), in multiple ways, to the September 11 operation. The US media and the US government initially tried to blame the anthrax letters on “Al Qaeda” and Iraq (based on various false claims), but they were caught off-guard when a leading private lab, using recently developed genomic sequencing technology, [could show](#) that the anthrax strain originated from a US military lab or from one of its military-intelligence contractors ([more](#)).

More recently, genetic analysis showed that both the 2009 swine flu strain and the SARS-2 coronavirus were [almost certainly lab-engineered](#). The 2003 SARS-1 outbreak likely had a natural origin (and didn’t cause a pandemic), but the SARS-1 virus later leaked [from multiple biolabs](#) in Asia. The 1977 flu pandemic is known to [have emerged](#) from Soviet vaccine research.

In conclusion, preliminary evidence indicates that the ongoing monkeypox outbreak may be either a natural or an engineered event, and it may remain limited to existing homosexual clusters or spill over into the general population. To further evaluate the outbreak, the role of the 50 nucleotide mutations and potential human-to-human aerosol transmission must be determined.

References

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- [MSC/NTI monkeypox pandemic exercise report](#) (2021)
- [Monkeypox outbreak global dashboard](#) (Caramia)
- [Monkeypox genomic epidemiology](#) (NextStrain)
- [Monkeypox mutations overview](#) (GenSpectrum)