Editorial

Does the "world" still need to keep live samples of the smallpox virus?

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Earlier this year (2022), the world witnessed sporadic outbreaks of monkeypox disease in countries other than those in which the disease is endemic. For instance, as of June 10, the United Kingdom had witnessed as least 7 cases of the disease; the first case having been reported on the 7th May 2022 and thought to have been brought into the country by a traveller returning from Nigeria. A week later, two more cases had been diagnosed in that country with health authorities reporting these were not related to the initial case. Other countries on both sides of the Atlantic have reported cases. The monkeypox outbreaks have rekindled an old discussion as to whether it is prudent that the world (defined as the United States and Russia) continues to keep stocks of live smallpox virus.

Smallpox, currently eradicated, was transmitted from one person to another even as far back as when the pharaohs ruled Egypt. Caused by the variola virus, the disease was fatal to about 30 percent of those who contracted it; survivors were often left disfigured. With an effective vaccine in place, the World Health Organisation (WHO) declared its eradication in 1980. Since 1984, smallpox has been held in just two places in the world: at the United States Centers for Disease Control and Prevention (CDC) laboratories in Atlanta, and the Vector Laboratory near Novosibirsk in Siberia (Russia). All research with the live virus samples requires approval from a special World Health Organisation committee of experts. The World Health Assembly originally scheduled smallpox virus destruction in 1993. To date (2022), the virus samples have not been destroyed as there is continued justification for their storage.

Some people who justify the continued storage of the live smallpox virus argue that these are needed for the production of, or further development of new vaccines. This justification is wanting as often animal model poxviruses are, and can be used instead. These animal poxviruses are adequate for this purpose. The second justification is that in a potential biological warfare where either or both of the two countries with live viruses were to genetically modify and use as a weapon, then the existing samples would become handy to create vaccines to counteract the threat. This is also lame as scientists would need samples of the genetically modified virus to develop any new vaccines and therapeutics, i.e. they would not use the templates of the existing viruses for that purposes. Finally, the smallpox samples have no identifiable role in the current monkeypox outbreaks, because scientists can access the actual monkeypox virus for their experiments.

I am not sure what will convince the United States and Russia to voluntarily dispense with these live samples, which are only good for biological welfare? And the question is even louder noting that biological war is illegal by international law. Any country and governments which use such kind of weapon cannot be left scot free. Perhaps it is time now for both Russia and the United States to finally let go of their live smallpox viruses.

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