The COVID-19 vaccine and the drive for profit

Frank Gaglioti 8 July 2020

Last month, Four Corners screened the episode Injection of Hope: The hunt for a COVID-19 vaccine on Australian television. Four Corners is the premier current affairs program for the Australia Broadcasting Corporation (ABC) and distinguished as their longest-running documentary television program, having first aired on August 19, 1961.

While over 100 laboratories spread across multiple nations are working to develop a COVID-19 vaccine, the program limits its focus to research conducted by Australia. Still, the program investigates the efforts by developers to ensure that if a vaccine is produced, it can be distributed equitably on an international scale. This is a significant concern, as a majority of the research funding comes from pharmaceutical giants that have an extremely pernicious record in this regard. This is presented as inevitable as no other institutions other than these conglomerates have the necessary capital to fund research into vaccines successfully. It has been estimated that it will take US\$2 billion to develop a viable vaccine against the coronavirus.

"It's very easy to criticize big pharma, but, to be quite blunt, until someone comes up with an alternative, we have to go with what we've got," said University of Queensland Professor (UQ) Ian Frazer, an immunologist.

This is a false paradigm as it completely accepts that governments have almost completely abandoned the responsibility to fund such necessary research, leaving the field to the giant pharmaceutical companies which will seek to exploit any research results ruthlessly.

Frazer and his team have developed a "molecular clamp," a genetically engineered protein like the spike-protein on the COVID-19 virus. COVID-19 is a type of coronavirus, named after the myriad of club-like features all over its surface, giving it the appearance of the sun's corona in electron micrographs. The virus uses spike-proteins to bind to and gain access to host cells. "Our clamp is sort of like a bulldog clip that holds that together and ensures that the right protein in the right structure is presented to the immune system as a vaccine," UQ Professor Paul Young, a member of the Covid-19 Vaccine Project, told the ABC.

Briefly, the spike-proteins, classified as "viral fusion proteins," are excellent candidates for an attack on enveloped viruses as they are the main targets of the protective neutralizing antibodies. For such vaccines, the "pre-fusion" form of the spike-protein is optimal. However, traditional approaches to the recombinant expression of these spike-proteins leads to a premature triggering,

which causes the spike-protein to change to its more stable postfusion form structurally. The molecular clamp allows these recombinant fusion proteins to remain in the pre-fusion form, which is more effective.

Frazer and Young's work is being funded by the Coalition for Epidemic Preparedness Innovations (CEPI), a foundation based in Oslo, Norway, organized through donations given by the public, private and philanthropic groups such as the Bill and Melinda Gates Foundation. CEPI operates under the motto of "new vaccines for a safer world." Their stated goals are to finance independent vaccine research projects against emerging infectious diseases. Initially conceived in 2015, CEPI was formally introduced at the World Economic Forum in Davos, Switzerland, in 2017. The Gates Foundation provided US\$460 million in capital to launch the venture.

Given the prohibitive costs for vaccine development and cutbacks for such projects by major universities and hospital research programs, several countries, that include Australia, Saudi Arabia, and Japan, have also funded CEPI's research initiatives.

In Australia, notably, eight positions in biosecurity research were cut in 2014 after the government cut AUD\$111 million from the budget of the Commonwealth Scientific and Industrial Research Organisation (CSIRO). Such cuts have a devastating impact on the uninterrupted research programs that are critical as emerging opportunistic pandemic infections have become a focus of global concerns. This funding was restored earlier this year when the Australian government provided an extra AUD\$220 million to an upgrade of the biosecurity facility. Incredibly, this work will not commence for another two years.

"Funding cuts and the reorganization of funding has been very challenging for us ... Basically, scientists in this area, a vaccine manufacturer and virology, in particular, were very dispirited, very disheartened," Doherty Institute Professor Damien Purcell told the ABC.

According to Jane Halton, who was previously a senior public servant in Australia and now the chair of the CEPI, the group was set up in response to fears of an Ebola outbreak devastating central Africa that could have pandemic potential. It was recognized that a vaccine was urgently needed to protect the population. However, as the virus outbreak became contained and remained restricted to the impoverished communities in the Congo, the funding spigots were quickly closed off. Investors saw no profits forthcoming from such a vaccine development.

Fast-forwarding to the present COVID-19 pandemic, "A group of global health experts, together with some people from the business community, got together to say, well, how can we prevent that kind of thing happening again?", Halton told the ABC.

The Bill Gates Foundation has expended US\$250 million to fight coronavirus. This includes US\$150 million for grant funding in Africa and South Asia.

In outlining a US\$50 million outlay, Gates stated: "To beat the Covid-19 pandemic the world needs more than breakthrough science. It needs breakthrough generosity. And that's what we're seeing today as leaders across the public and private sectors are stepping up to support Gavi—especially Prime Minister (Boris) Johnson." Gavi is the Vaccine Alliance, a non-profit immunization organization.

Any discussion of Johnson's "generosity" is extremely misplaced, as he is centrally responsible for the pandemic raging across the UK due to his unabashed herd immunity policy. His government's investment in underdeveloped countries is only to advance the interests of British imperialism.

Moreover, the massive amounts of money donated by super-rich figures such as Gates are utterly demeaning to the working class and the oppressed masses around the world. Access to a vaccine for the COVID-19 virus, if, and when, it is produced, should be a social right and not left to the largesse of wealthy individuals.

In society today, there is a return to the aristocratic principle that reigned before the bourgeois revolutions where social rights such as education, adequate health care, and the right to culture were left to the whim of the aristocracy (see Facebook founder's gift to Newark schools: The return of the aristocratic principle).

The effect of philanthropy is to undermine government-funded research initiatives in university and hospital laboratories, i.e., public enterprises in the interest of the population for the common good and benefit, a primary tenet of democratic principles. Researchers' dependence on the super-rich and the pharmaceutical giants, with the accompanying pressures to "warp-speed" a product for consumption, has also led to a situation where crucial safety mechanisms embedded into scientific research are being bypassed for purposes of expediency. These shortcuts with protocols can only lead to concerns over the efficacy and safety of vaccines.

After the development of their candidate COVID-19 vaccine, Oxford University's research team undertook initial safety testing in animals at a CSIRO facility in Australia. Yet, as soon as the ferrets were inoculated with the experimental treatment, researchers in Britain had already initiated the human phase one trial without waiting for results to guide the next phase.

The Director of Health and Biosecurity of CSIRO, Dr. Rob Grenfell, told ABC, "When Oxford announced that they were starting their phase one trials and we're thinking, 'we've only just immunized our ferrets.' I'm going, 'Wow!""

On May 26, a laboratory in Melbourne, Australia, began phase one trials on behalf of US researchers Novavax, with the plan to inject 131 volunteers, testing the safety of their vaccine NVX-CoV2373 and evaluating for possible signs of efficacy. Preliminary immunogenicity and safety results are expected in July, at which point the second phase of the vaccine trial can begin

in the US and multiple other countries. The US Department of Defense (DoD) is providing \$60 million to the biotech company to deliver 10 million doses of its vaccine to the DoD this year even before preliminary phase 1 data was available.

In the most flagrant and possibly hazardous diversion from the safety protocols, some members of the US Congress have proposed so-called "human challenge trials." This is the deliberate exposure of humans with live COVID-19 virus to fast-track the development of a vaccine (see "Human challenge trials are being pushed to develop a vaccine against the coronavirus").

"That is really going down a path where not many people have gone before. I think that purposely challenging people is going to be quite a difficult thing to accept ethically," said Professor Purcell.

As the pandemic rages across the planet with now 11 million cases and more than 500,000 deaths, the struggle to develop a vaccine has become an urgent task. But the urgency for the capitalist class is based on profits and economic nationalism. The vaccines will be weaponized for geopolitical purposes, not for the promises to provide such treatments equitably on a global scale.

The program concludes warning of the pitfalls of what Halton calls "vaccine nationalism, where countries basically are not prepared to contribute to the global effort. The best thing we can do at the moment is advocate for that, to advocate that actually if there's any of this disease anywhere in the world, it's in nobody's interest." However sincere these sentiments may be, they are a utopic outlook under capitalism.

The program of the capitalist class is the immediate return to work, and herd immunity, whether or not a vaccine is developed. The repeated optimism and euphoria for vaccine development in the media serve as publicity stunts to cloud the minds and hearts while providing investors opportunities to cash in early regardless of the benefits these vaccines will or will not provide.

The working class must understand that the race to find a vaccine is being driven by the enormous profits that would be made by any successful candidate and not the well-being of humanity or the eradication of the coronavirus. Hopes that such a treatment would be made available to them is a dubious proposition. Such critical work and lifesaving treatment should be removed from profit incentives.

Pharmaceutical companies must be brought under social ownership. Research must proceed to allow the full cooperation of scientists internationally. This will require the intervention of the working class, placing control of the research facilities under democratic processes where research is conducted for the need of humanity and not the corporate interests of the pharmaceutical giants.



To contact the WSWS and the Socialist Equality Party visit:

wsws.org/contact