We need a quick, cheap test for coronavirus antibodies. It also needs to be accurate

An inexpensive coronavirus test that millions of Americans could use at a pharmacy, in a workplace or even at home could prove to be a vital asset in allowing people to return to jobs and school. …

The technique often involves a technology—called a lateral flow assay—similar to that employed in home pregnancy tests. In the test, an antibody can bind to one of the spike proteins (the antigens) that cover the surface of the virus like the spines on a puffer fish. The tests are inexpensive to produce and simple to use, and they deliver results in minutes.

The goal is also to field a test that is just as accurate as the current standard, which uses polymerase chain reaction (PCR) to process the virus's genetic material and amplify it for detection. But major technical hurdles still remain.

…

Antigen tests used to diagnose viral infections such as the flu are even less sensitive, often reporting a negative result when the virus is actually present. Their specificity, or ability to correctly avoid false positive results, is often much higher. They can exceed 95 percent, meaning less than 5 percent of people without infection would test positive.

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