Israeli Researchers Come Up with New Method of Testing for Coronavirus

by Hugh Fitzgerald



Researchers at Israel's Technion-Israel Institute of Technology and Rambam Health Care Campus have successfully tested a new method, called "pooling," that they claim will dramatically increase the country's ability to test for COVID-19. Because the method enables simultaneous testing of dozens of samples, its implementation will greatly accelerate the rate of COVID-19 testing and detection, according to the researchers.

The hopeful story is <u>here</u>.

COVID-19 testing in Israel is currently focusing on

symptomatic individuals, because the current rate of testing—about 1,200 a day—does not allow for monitoring of asymptomatic carriers in the population, though such monitoring is vital to curb the epidemic.

To confirm the presence of COVID-19 virus in a sample, researchers must detect the virus's unique genetic sequence in a sample. The test takes several hours, so testing individual samples thus generates a bottleneck.

According to Dr. Yuval Gefen, director of the Rambam Clinical Microbiology Laboratory, "Today, we receive approximately 200 COVID-19 test samples a day, and each sample undergoes individual examination. According to the new pooling approach we have currently tested, molecular testing can be performed on a 'combined sample,' taken from 32 or 64 patients. This way we can significantly accelerate the testing rate. Only in those rare cases where the joint sample is found to be positive will we conduct an individual test for each of the specific samples."

Professor Roy Kishony, who heads the research group in the Technion's Faculty of Biology, said that while the new method involves some logistical challenges, it will "greatly increase" the rate of sample testing, which in turn will help "flatten the infection curve."

According to Technion President professor Uri Sivan, the experimental verification of this new testing method, which ordinarily would have taken months, was completed in under four days.

This experiment conducted by Technion and Rambam researchers is complex, and under normal circumstances would take months. This is a remarkable example of the mobilization of an outstanding team in a time of crisis. The initial experiment was completed in less than four days. This achievement emphasizes the importance of the close relationship between Technion and Rambam and between medicine and engineering. Technion researchers have been enlisted in the war against the coronavirus and this is one of the many activities currently underway at Technion to combat the spread of the disease."

Israeli scientists have come up with a much faster way of testing people for the coronavirus – molecular testing that can be performed on a "combined sample," taken from 32 or 64 patients. In cases where the joint sample is found to be positive, the scientists will then conduct an individual test for each of the specific samples.

Are you surprised that this advance in testing large populations came out of that speck on the world map, Israel? No, of course not. You have come to expect medical, technological, defense, agricultural, and every conceivable sort of advance from that tiny country. What would surprise you is if Israeli scientists played no part in coming up with better diagnostic tests, more useful therapies, and effective vaccines for coronavirus. In fact, both the Institute for Biological Research in Israel, and the state-funded Migal Galilee Research Institute also announced a breakthrough in the development of a vaccine for the new coronavirus. Both groups have promised to come up with a vaccine within "weeks" and no one doubts it. That does not mean that either vaccine is ready for immediate use; up to 18 months of further testing will be required to make sure they are safe for use in humans. But the point is that we are not surprised by any of this; we expect medical breakthroughs from Israel. No one expects anything similar - or indeed, expects any medical advances at all - from the 57 members of the Organization of the Islamic Conference. Shouldn't we be pondering what explains this colossal disparity?

The Israelis have come up with new treatments for many types of cancer, for heart disease – including 3-D hearts –and

recently, came up, too, with a single drug to effectively treat incurable inflammatory diseases such as Crohn's disease, ulcerative colitis, rheumatoid arthritis and multiple sclerosis, as well as neurodegenerative maladies such as Alzheimer's disease. Of course we expect them to come up with something; even their enemies are expecting Israeli medical advances.

That's why several prominent Muslims have seen fit to declare themselves on the troublesome question of whether Muslims should make use of a vaccine developed by the hated Israelis. One was Grand Ayatollah Makarem Shirazi in Iran, who was first quoted in an interview he gave to the newspaper Hamdeli, saying that he would sanction the use such a vaccine if there was no alternative:

"Is it permissible to use a coronavirus vaccine discovered and manufactured by Israel?" Hamdeli [the newspaper interviewing Shirazi] claimed to have asked the Ayatollah on March 11.

Makarem Shirazi responded, "It is forbidden to purchase or sell the vaccine if we know for certain that the profit made by the companies [producing it] will go to the Zionists and Israel unless this is the only medicine [available] and there is no other alternative."

Two days later, having reconsidered, and no doubt having been subject to an outpouring of criticism on-line, Ayatollah Shirazi said he had never been asked such a question (though both question and his answer had been read by Hamdeli's hundreds of thousands of readers) about the use by Muslims of a vaccine developed by Israelis, and he denied approving the purchase of a possible anti-coronavirus vaccine from Israel:

"The Q&A on the subject never took place, and it is absolutely fake news," the office [of Grand Ayatollah Shirazi] asserted. Meanwhile, throughout the Muslim lands, there have been plenty of conspiracy theories to explain the coronavirus epidemic.

Here are a half-dozen:

America was behind the coronavirus because it wanted to "destroy" the economy of China before the Chinese overtook the United States.

Allah sent the coronavirus as a way to punish the Chinese for mistreating the Muslim Uighurs.

American pharmaceutical companies had created the coronavirus because they wanted to make money from a vaccine they had developed.

The coronavirus escaped from a Chinese lab where it was being tested for use in bacteriological warfare.

The Israelis had come up with the coronavirus to attack only Muslims, but something went wrong, so that it infects non-Muslims, too.

Israeli scientists had come up with the coronavirus because they already had a vaccine against it, and they are preparing to sell that vaccine as soon as the pandemic becomes even more severe around the world, and a panicky public will pay any price.

That's how the Muslim lands are meeting the coronavirus challenge. No medical research, no breakthroughs, no contributions of any kind to the science of infectious diseases. Instead, they are consumed with crazy conspiracy theories, and also complaints – from Iran especially –that the Infidels are not giving them enough aid. Iran wants the IMF – which is supported primarily by rich Western donors –to send, through that institution, \$5 billion in aid to combat the coronavirus. Exactly why Iran needs such aid, when it can simply cut its \$15-\$20 billion dollars in annual aid to the

Houthis in Yemen, the Shi'a militias in Iraq, Hezbollah in Lebanon and – especially costly – to keep Bashir Assad in power in Syria, is unclear.

Meanwhile Israeli scientists are working away, developing novel ways of testing, new therapies to treat the infected, and vaccines to prevent infections in the first place, with the coronavirus. It would be quite something if indeed they were the first to come up with a viable vaccine as they have already come up with a much faster method of testing. How telling it would be to hear from those Muslims who would begrudgingly accept the need to use the vaccine, even if it came from "the Jews." And the spectacle of a large number of Muslims refusing the vaccine – or indeed any vaccine produced by Jews, or by other Infidels – no matter how devastating the result, would be most instructive.

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