

THE ALCIVAX

Alcimed prepares a summer reading list from Machiavelli to Freakonomics to understand the vaccine roller coaster.

www.alcimed.com



Edition #12 - 20 May 2020

The Immunity News Cycle

"We are no longer the knights who say Ni! We are now the knights who say ekki-ekki-ekki-pitang-zoom-boing!" — Graham Chapman, Monty Python and the Holy Grail. Yes that's right only 12 weeks in and we have reached a new level of surrealism in the world of COVID-19 that makes it worthy of being a well constructed Monty Python skit.



The Set up

First, in the race to develop a coronavirus vaccine, uncertainty has arisen over whether the immune system can mount a substantial and lasting response to coronavirus and whether protective immunity exists. A [recent study published in Cell demonstrated a robust antiviral immune response to the virus](#), dispelling fears that an effective vaccine may not be possible. Second, Sorrento Therapeutics of California is set to announce that it has [discovered an antibody that can completely block coronavirus](#). Referring to the antibody as a "cure", the company claims that the antibody could be used as a coronavirus treatment. Additionally, up to 200,000 doses could be made a month while Sorrento awaits FDA approval for the drug. Third, Verndari is working on a potential [adhesive patch vaccine, which would be kept at room temperature and even potentially distributed by mail](#) could make it easier to distribute, especially in developing countries. Finally, [early results from Moderna's phase 1 clinical trial show that participants developed neutralizing antibodies against the virus](#). If future studies go well, the company's vaccine could be available to the public as early as January. Huzzah!

The Left Turn

Given all this wonderful vaccine news you might have thought that the world would respond with great joy. Indeed, the [markets responded with a 900 point jump in the Dow](#), despite an otherwise dismal week of renewed news of pandemic related economic fallout. The hyperbolic reaction has even baffled the experts. With the abundance of possible vaccine candidates, it would also be possible to answer the [calls for practical social justice when distributing the vaccine to include low and middle income countries](#) by global health experts.

Rather the political response from developed countries has been more akin to a ruthless grab for power. The US, [the WHO's largest contributor, is threatening to permanently cancel payments and membership](#), if the WHO doesn't comply with its demands in 30 days. The call for a review of the pandemic response has passed but [included language potentially allowing for poor countries to waive patent rules for the sake of pandemic response](#). The WHO Chief is ignoring US calls for his removal, as China has pledged an additional \$2 B in WHO funding, potentially to aid in its continued efforts to keep Taiwan from obtaining WHO membership, a move largely supported by the US and Japan. This was not the only political vaccine posturing, as Sanofi announced last Wednesday that the [US was likely to get first access to their vaccine after receiving BARDA funding](#), but has back pedaled on the announcement after a [quick rebuke to the French company by President Macron](#). "It is necessary for a prince wishing to hold his own to know how to do wrong" Machiavelli. But how do you know who to side with?



The Ripple Effects

A previously concerted global effort has also seen some strains this week. On some fronts it seemed to be business as usual with Novavax receiving up to \$388 million from the International Coalition for Epidemic Preparedness ([CEPI](#)) [to continue development and manufacturing of Novavax' COVID-19 vaccine candidate](#). But fractures exist as despite most countries are abandoning the use of hydroxychloroquine, the [NIH has started a new clinical trial to evaluate whether the malaria drug, when combined with the antibiotic azithromycin, can prevent hospitalization and death from coronavirus](#). But even the US efforts are uncoordinated internally as [Trump announced he is taking hydroxychloroquine as a preventative outside of official FDA guidance](#).

The desire to go their own way may also explain why the [US approved Phlow Corp new pharma manufacturing rights](#), as the US seeks to lower its dependence on outside players for its drug production. Despite previous moves to secure vaccine from vaccine manufacturers that caused international political fallout, with "Operation Warp Speed", the US announced that a public-private partnership to manufacture 100s of millions of vaccine doses that it would of course share with other countries including China. Not to be outdone, [the EU is fast tracking Gilead's remdesivir sales to get out in front of the US](#).

With all this focus on COVID vaccination, it is important not to lose sight of routine vaccination, as experts worry that [lock down orders and loss of non-essential appointments could lead to measles outbreaks as MMR coverage rates drop](#).



Can we save summer?

Promising new research suggests that summer sun, heat, and higher humidity may slow the progression of COVID-19, suggesting that our hopes for beach vacations may not be entirely dashed. This news could not come at a better time for tourism. Europe's tourism industry has suffered in the wake of the coronavirus pandemic. However, cities and towns that depend on tourism to support the local economies are attempting to salvage something from the summer season. The European Travel Commission reported that demand decreased by 40% in the travel sector which accounts for about 10% of output. Similarly, social distancing circles to help grass loungers protect themselves have popped up in parks.

Same side, the pandemic has impacted the outdoor industry as lockdown restrictions have temporarily closed everything: state and local parks; ski resorts; hiking, running, and cycling trails; and beaches. Beyond closures, the pandemic has caused job losses and revenue hits. As an example, in the US, the OIA, the outdoor recreation economy generates \$887 billion in consumer spending and 7.6 million direct national jobs. Pools themselves pose minimal risk to the spread of the virus, the greater risks to spread would include poor air circulation for indoor pools, crowds, and contaminated surfaces such as handrails.

Even the seafood industry is hoping to keep your seaside vacations expectantly delicious. As restaurants closed around the world, the seafood industry was forced to adapt. Businesses started selling frozen fish to home cooks as a new way to compensate for the lack of sales. This provided a new distribution channel for companies forced to content with a seafood supply chain that was drastically altered by the pandemic.

Your vacation plans may be safer either within driving distance or using a rental car, as Uber Technologies Inc. is cutting several thousand additional jobs, closing more than three dozen offices and re-evaluating its investment in areas ranging from freight to self-driving technology. While the company has eliminated 3,700 jobs, it intends to save more than \$1 billion in costs and is also exploring the option of selling non-core businesses.

Will summer 2020 be when sunscreen with hand sanitizer gets invented?



COVID is Destroying Your Insta

Through out the pandemic, social media has not been able to avoid wandering into the pandemic fray, overflowing with news updates, heightening political debates and a growing outlet for lock down essentials, such as digital access to arts, culture, entertainment, and family and friends. But it may also force social media to change its business model. Here are some of the warning signs.

- The social media influencer industry is valued at \$8 billion. Users with 100,000 to 250,000 followers can earn anywhere from \$2,000 to \$6,000 for each sponsored post, and those with over a million followers can command up to \$10,000 or more for each sponsored post. Before the pandemic, nearly 80 percent of major brands funded influencer campaigns on Instagram but the shifts in the economy could change the entire business model. With consumer activity declining, it is unlikely that companies will continue to heavily invest in social media marketing campaigns.
- These concerns are in line with the continuously growing number of retail fashion groups filing for bankruptcy including J. Crew, True Religion, and the Neiman Marcus Group, JCPenny, Aldo, BCBG Max Azria, Barneys New York, Roberto Cavalli, and Forever 21.
- Coronavirus has drastically changed the landscape of the entertainment industry. Social distancing guidelines, travel restrictions and the economic impact of slated projects has left thousands of individuals in the film industry out of work—more than 100,000 entertainment industry workers have lost their jobs. Inevitably this will only exacerbate social media's ad revenue woes.

Medicine, Tech, & Space

The pandemic may make some strange but mutually beneficial industrial bedfellows. Primary care clinics in the US, as in other countries, have made massive pushes towards online consultation, but this has drained already limited resources putting many practices in danger of going out of business. A new Microsoft Healthcare cloud bundle is attempting to ease the strain with better patient connection between healthcare facilities to aid follow-up.

Before the pandemic, the global space industry was valued at \$360 billion. Since, smaller startups are grappling with how to move forward with the lack of financial assistance and government contracts available. This may force the industry to look farther afield for new sources of revenue and investment.



In EU, Telemedicine has also faced challenges with bandwidth in more rural areas, but according to Alcimed, the struggling space industry may be able to provide solutions.

[Click here to read Alcimed's full analysis](#)



All Joking Aside



Lock downs easing can lead people to become too excited and forget to social distance, so in Germany pool noodle hats remind you to

keep a safe distance all summer long.

You may find that being among people again is actually pretty tiring. If so sit back and relax on your couch while Michele Obama reads you a story.

No summer vacation plans? A chef in Sweden is making several course meals delivered via basket to a meadow for a table of one. Since you decide what to pay, you can afford it even if the conversation turns out to be bad.



Overwhelmed by the new flurry of activity? Don't worry a priest in Detroit will bless you with holy water via water pistol.

Do you like your COVID humor high brow or low brow?

Surreal Reopening



Adam Zyglis, Cagle Cartoons

Challenging, Not Impossible



Adam Zyglis, Cagle Cartoons

Barber 1st, Vacuum 2nd



Gatis Sulka, Cagle Cartoons

Where's Einstein when you need him?



Gatis Sulka, Cagle Cartoons