



July 6, 2020

To: Distribution

From: Pandemic Working Group

Re: **COVID-19: Oxford Vaccine ~ California Weekend ~ Gottlieb on the US ~ NHL**

Oxford in the Lead. As reported by the Economist over the weekend, Oxford University's Jenner Institute, which, prior to the pandemic had been described as a "slightly dusty corner of the university" specializing in vaccines for third world countries, may be leading the world in the development of a coronavirus vaccine. Oxford got a jump on the competition – there are now 180 vaccines in development globally – by starting work on January 11, the day after COVID-19's genetic material was sequenced. Sarah Gilbert and her team at the institute have engineered a chimpanzee virus to deliver a portion of COVID genetic material to the patient; it is uncertain at this stage whether this will elicit an immune response sufficient to guard against coronavirus and whether the vaccine is safe.



While China is administering a completely untested vaccine to military personnel, and multiple US trials are in early-stage, Oxford's vaccine is already in three late-stage trials in UK, Brazil and South Africa. Its efficacy may be clear by the end of August, which could allow for emergency use by October, which, in turn, could lead to full approval in early 2021. Given the fact that most vaccines take 10-15 years to develop, this best-case timeline would be remarkable. Oxford has contracted with AstraZeneca and the Serum Institute of India to produce two billion doses. Production starts in 200-liter bioreactors and is scaled up to 2000-liter bioreactors, four of which can produce one billion doses. According to AstraZeneca, each dose should cost about as much as a cup of coffee to make. In short, Oxford is poised to launch; they just need to determine that they have a safe, effective payload.

California Cases. As reported by ABC7News, coronavirus trends are up in nearly every category. In his daily briefing, Governor Gavin Newsom stated that the seven-day average of daily cases (7,876) is up statewide by 38%, and both the number of ICU patients (at 1,706) and positivity rate (at 6.8%) are up by 39% over the past two weeks. Consequently, the governor added Contra Costa, Colusa, Marin, Monterey and San Diego counties to his "watch list" of now 23 counties. The governor also noted that state agencies have reached out to 6,000 bars, 440,000 businesses

and about 350 salons/barber shops to ensure enforcement of coronavirus mandates. Pictured here from AP, he expressed confidence that we could “mitigate this increase” by physical distancing, washing of hands and, above, all, wearing face coverings, which he described as “a demonstration of character.” Those of us in Southern California should be prepared to abide by enhanced suppression measures well into the summer, as pandemic curves in populated areas do not turn on a dime. Also, we should expect that public health officials will be increasingly focused on hospital and ICU capacity.



Gottlieb on US. Speaking on CBS’s “Face the Nation,” Former FDA Commissioner, Scott Gottlieb, stated that, on a national scale, “we’re right back where we were at the peak of the epidemic during the New York outbreak,” except that now “we really have four major epicenters of spread: Los Angeles, cities in Texas, cities in Florida, and Arizona.” With 40 states having reported a surge in cases, he warned that over the next two weeks, “The total number of deaths is going to start going up again as the number of hospitalizations start to spike again.” Dr. Gottlieb hastened to add that, with improved therapeutic treatments, the mortality rate may decline, even though the number of fatalities may rise. He went on to warn that there is “not a clear line of sight on how we’re going to get this under control.”

The Greatest Show on Ice. As reported by NBCNews.com, 35 NHL players have tested positive for coronavirus since mid-June. The league had stopped play last March amid the onset of the pandemic and, as Phase 2 of their return, had invited 396 players to commence optional training today. Phase 3, a full expression of training, would precede the restart of games, which, according to YahooSports, is tentatively scheduled for August 1 with a 24-team playoff in the hub cities of Edmonton and Toronto without spectators. This would run in parallel with the NBA, which is reconvening its previously-interrupted 2019-2020 season in late July. Thus, within 25 days, sports commentary shows, which have amazingly continued to broadcast several hours per day during the pandemic, will have something to talk about other than “Last Dance” – no, not the smash-hit disco tune by Donna Summer, but the mini-series documentary on Michael Jordan of the same name.

If you have any questions or comments on this advisory, please contact either kellyw@amvac.com or timd@amvac.com.