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VIA EMAIL/FEDERAL EXPRESS

April 18, 2022

Robert Califf, M.D.
FDA Commissioner
Food and Drug Administration
commissioner@fda.hhs.gov

Members, Vaccines and Related Biological
Products Advisory Committee
Food and Drug Administration
VRBPAC@hhs.fda.gov

Members, U.S. Senate Committee on
Appropriations, Subcommittee on
Agriculture, Rural Development, Food and
Drug Administration, and Related Agencies
Room 3-128, The Capitol
Washington, D.C. 20510

Members, U.S. House Committee on
Appropriations, Subcommittee on
Agriculture, Rural Development, Food and
Drug Administration, and Related Agencies
2362-A Rayburn House Office Building
Washington D.C. 20510

Re: April 6, 2022 VRBPAC Meeting: “Considerations for Covid-19 Vaccine Booster Doses and Process for Covid-19 Vaccine Strain Selection to Address Current and Emerging Variants”

Dear Commissioner Califf, VRBPAC Members, Senators, and Representatives:

We write on behalf of our client, Informed Consent Action Network (“**ICAN**”), to bring to your attention several concerns in connection with the FDA’s Vaccines and Related Biological Products Advisory Committee (“**VRBPAC**”) meeting on April 6, 2022, during which the committee discussed a possible “framework” for evaluating future Covid-19 shots.

A large body of literature shows that pharmaceutical companies design clinical trials in their favor by asking the wrong questions.¹ ICAN has observed a similar pattern with the FDA and VRBPAC: they consistently get the wrong answers because they ask the wrong questions. As we will explain below, “which Covid-19 vaccine strain do we select” is the wrong question for numerous reasons. The FDA and VRBPAC should instead focus on therapeutics for preventing and reducing harm from SARS-CoV-2.

I. Repeating the Same Mistakes from the Flu Strain Selection Process

We wrote to the FDA and VRBPAC on March 23, 2022, to share concerns about the March

¹ Richard Smith, (2005). Medical journals are an extension of the marketing arm of pharmaceutical companies. *PLoS Medicine*, 2(5), 364–366 available at <https://doi.org/10.1371/journal.pmed.0020138>.

3, 2022 VRBPAC meeting in which members considered strain selections for flu vaccines for the 2022-2023 influenza season.² As we observed in that letter, the global and U.S. flu surveillance programs and VRBPAC's selection of flu strains for vaccine production have been a total failure. At best, FDA's own data show flu vaccine effectiveness in the previous season was between 8% and 14%.³ Evidence from an influenza outbreak at a large university campus showed flu vaccine effectiveness was zero.⁴

Strain selection for flu vaccines makes manufacturing cheaper and easier and thus increases profits for pharmaceutical companies – but it has no discernable positive impact on health. As we pointed out in our March 23, 2022 letter, the failure year after year of the FDA's flu vaccine strain selection process should engender a certain humility and prompt a re-examination of the committee's whole approach. **But instead, the FDA and VRBPAC appear on the verge of expanding this failed approach to future Covid-19 shots.**

Einstein's definition of insanity, "doing the same thing over and over and expecting different results," appears to be a painfully accurate description of the FDA's proposed approach to future Covid-19 vaccine boosters. This poses a grave threat to our nation and the well-being of its citizens.

While the flu strain selection process has been a failure, there are reasons to believe that applying this same failed approach to Covid-19 shots will produce even worse outcomes.

As ICAN and others have pointed out, the SARS-CoV-2 virus was never a good candidate for a vaccine because it evolves too fast. Covid-19 shots fail for the same reason that there has never been a successful vaccine against the common cold or HIV – these viruses are also characterized by rapid evolution. Vaccinating against rapidly evolving viruses increases the risk of original antigenic sin and antibody dependent enhancement. Some experts also fear that doing so will lead to highly infectious and highly virulent variants of SARS-CoV-2 that will be resistant to any spike-based Covid-19 vaccines.⁵

Indeed, as Trevor Bedford shared with you in his presentation, in 2021 there were 12 mutations just in the S1 subunit of the spike protein, SARS-CoV-2 evolves two to 10 times as fast as the flu virus, and these mutations "substantially" reduce vaccine effectiveness.⁶ That should have set off massive alarm bells for committee members as to whether this virus is suitable for a vaccine, let alone an annual or twice-yearly shot. Yet, aside from some concerns raised by Dr. Cody Meissner (which were not adequately addressed), there was little critical discussion at all. In 2022, with the emergence of the Omicron variant, the number of mutations in the S1 subunit of

² That letter is appended as Exhibit A.

³ See <https://www.fda.gov/media/156627/download> slide 13 at p. 12.

⁴ See <https://www.fda.gov/media/156627/download> at p. 9.

⁵ See https://uploads-ssl.webflow.com/616004c52e87ed08692f5692/6244c3b09ad5701f3ec17765_GVB_s%2Banalysis%2Bof%2BC-19%2Brevolutionary%2Bdynamics.pdf (G. Vanden Bossche, March 2022)

⁶ See <https://www.fda.gov/media/157471/download> at p. 9.

the virus appears to have more than doubled, causing vaccine effectiveness to plummet.⁷

II. Authorizing new formulations based on inadequate data

ICAN wants to be clear on what the FDA and VRBPAC are doing so that neither entity can later claim that it did not realize that this disaster was about to be inflicted upon the American people: the FDA, through VRBPAC, is setting up a “framework” so that all future Covid-19 shots, regardless of the formulation, will be authorized and/or approved as “safe and effective” based on antibody response, and not based on health outcomes in real world clinical trials. This is a reckless and dangerous idea.

As numerous members of VRBPAC pointed out, and a large body of literature in vaccinology underscores, antibody response does not necessary tell one if a vaccine will work.⁸ In fact, B and T cells may be more important but the vaccine manufacturers, FDA, and CDC do not have sufficient data on B and T cell response (or if they do have that data, it has not been publicly released).

What the FDA and VRBPAC are in the process of setting up is a scenario where FDA and VRBPAC will claim that future Covid-19 vaccines are safe and effective based on this proxy measure. The results for public health very well could deepen the current public health catastrophe and further harm the public’s faith in the FDA and the federal government.

While the April 6, 2022 VRBPAC meeting was described as an initial exploratory conversation, future meetings will likely rush to approve this Potemkin framework because manufacturers want a decision on vaccine strain selection (which is a flawed idea in general) by May in order to deliver shots for autumn vaccination appointments. Indeed, the print edition of the *NY Times* on April 7, 2022, declared, “Agencies Running Out of Time to Reconfigure Covid Vaccines for Fall.”⁹

III. A Slippery Slope into Multivalent Covid-19 Vaccines, Even Though There Is No Data on Effectiveness and Considerable Reason to Worry About Safety

At the VRBPAC meeting, multivalent (bi-, tri-, or quadrivalent, meaning two, three, or four different strains of antigens, in this case mRNA spike proteins, per injection) were discussed as a foregone conclusion. The logic appears to be that the failed flu vaccine program generally uses a quadrivalent vaccine, selecting four strains appears to hedge one’s bet, so future Covid-19 shots should use a multivalent approach as well.

The FDA currently has no data on safety or efficacy of multivalent Covid-19 shots

⁷ See <https://www.fda.gov/media/157471/download> at p. 8.

⁸ See <https://www.youtube.com/watch?v=x8rq247E80I&t=31027s> starting at 3:32:09 (Dr. Rubin stated: “We don’t really have the great, very specific, level of antibody that correlates highly with protection...It’s hard to know where [among antibody levels] ...protection is occurring...We know what kind of antibody response can be generated, we just don’t know if it works.” The response to his concern is that this “is a reasonable criticism.”).

⁹See <https://www.nytimes.com/2022/04/06/us/politics/fda-coronavirus-vaccines-variants.html>.

(although apparently some clinical trials are underway). So the committee does not know whether multivalent vaccines offer more or possibly less robust immunity, or how long this protection might last. To *assume* that this approach will work is not science, it's faith.

Furthermore, Covid-19 shots are an experimental new technology (mRNA) and they do not work like flu vaccines so making assumptions based on a comparison between these two very different technologies is unwarranted. In clinical trials of inactivated virus vaccines, adverse event rates are often similar between the treatment group (who receive the antigen + adjuvants) and the “control” group (who just receive the adjuvants) – which suggests that the amount of inactivated antigen is not necessarily the biggest factor in adverse outcomes. But mRNA vaccines are different. The amount of mRNA in a shot, because it enters the cell and hijacks the RNA production process, significantly impacts antibody production and adverse event rates (which may be one reason why Moderna shots with 100 micrograms of mRNA seemingly cause significantly more cases of myocarditis than Pfizer Covid-19 vaccines that contain 30 micrograms of mRNA).¹⁰

So will these imagined future multivalent Covid-19 vaccines contain two, three, or four times more mRNA? Or will the total amount of mRNA (whether that is 100 or 30 micrograms) be split across two, three, or four virus strains (which presumably would reduce effectiveness against any one particular variant)? Furthermore, how would an increase in the amount or diversity of mRNA impact the type and severity of adverse events? We do not know the answers to any of these important questions because no one on VRBPAC asked them. Given the FDA's and VRBPAC's historical unwillingness to discuss real world efficacy or safety, ICAN wonders if these questions will ever be asked or adequately answered at all.

IV. The IHME, Which Incorrectly Modeled Covid-19 Prevalence and Mitigation Measures an 2020 and 2021, Was Brought to VRBPAC to Model Future Outbreaks As Well

In 2017, the Bill and Melinda Gates Foundation (“**BMGF**”) announced a ten-year \$279 million grant to the Institute for Health Metrics and Evaluation (“**IHME**”) at the University of Washington.¹¹ When the Covid-19 pandemic hit in 2020, IHME had the institutional capacity to quickly model the pandemic in the U.S. and around the world. While its simple green and white graphics conveyed a clear message, its extensive modeling of future events was almost entirely wrong.¹² Federal and state policies including masks, social distancing, lockdowns, flattening the curve, and preserving hospital capacity were all based on IHME models that lacked a sound

¹⁰ See <https://www.reuters.com/business/healthcare-pharmaceuticals/moderna-covid-19-shot-more-likely-cause-heart-inflammation-than-pfizers-study-2021-12-17/>.

¹¹ See <https://www.healthdata.org/about/director-statement>.

¹² There is now a vast literature on how IHME's modeling failures led to disastrous policy decisions. See, e.g.: John P.A. Ioannidis, Sally Cripps, and Martin A. Tanner. “Forecasting for COVID-19 has failed.” *International journal of forecasting* (2020), available at <https://doi.org/10.1016/j.ijforecast.2020.08.004>. See also Vincent Chin, Noelle I. Samia, Roman Marchant, Ori Rosen, John Ioannidis, Martin A. Tanner, and Sally Cripps. “A case study in model failure? COVID-19 daily deaths and ICU bed utilisation predictions in New York state.” *European Journal of Epidemiology* 35, no. 8 (2020): 733-742 available at <https://doi.org/10.1007/s10654-020-00669-6> and Nicholas P. Jewell, Joseph A. Lewnard, and Britta L. Jewell. “Caution warranted: using the Institute for Health Metrics and Evaluation model for predicting the course of the COVID-19 pandemic.” *Annals of internal medicine* 173, no. 3 (2020): 226-227, available at <https://doi.org/10.7326/M20-1565>.

epidemiological basis and they have not held up well over time.¹³ Moreover, at no point did IHME ever model the non-covid health impacts of their preferred policy prescriptions even though we know that high unemployment and social isolation increase rates of suicide, alcoholism/overdose deaths, and heart attacks.¹⁴ Today, IHME is still modeling the future health impacts of masks and third doses of vaccines even though there are no proper RCTs supporting mask use¹⁵ and boosters show only limited short term effects that quickly fade (notably, IHME does not model rates of vaccine adverse events either).

Given IHME's consistent failures, it was odd to see IHME brought to VRBPAC to model the pandemic into the future. IHME's failures throughout the pandemic were disastrous for public health but helped create the market demand for Covid-19 vaccines.

If the FDA is going to invite IHME in to do modeling despite its failures, why not also invite critical scholars who have been correct about the Covid-19 pandemic from the beginning? Geert Vanden Bossche, John Ioannidis, Martin Kulldorff, Sunetra Gupta, Jay Bhattacharya, and Mathew Crawford, to name a few, have all done objectively more accurate work on Covid-19 than IHME. Scientific norms require one to wrestle with all of the data and welcome robust debate from different perspectives. It is troubling that FDA and VRBPAC discourage debate and only select speakers who conform to a predetermined narrative.

V. Questions Left Unanswered

VRBPAC member Dr. Cody Meissner has recently posed valid and important questions during meetings. These are rarely answered, and the meeting goes on as if nothing happened – no one protests the lack of answers and the failure to provide the requested information almost never impacts the final decisions. Questions that Dr. Meissner asked that went unanswered in this meeting include:

“At what point will we say that the vaccine is not working well enough?”

“Why are we seeing so many variants?”

“Why do we see mutations in SAR-CoV-2 that are greater than in influenza?”

Answering these questions is essential and, yet again, ICAN has no confidence that FDA or anyone on VRBPAC will answer them. ICAN believes that the answer to the first question is, “Now!” What Dr. Meissner appears to be getting at with his second and third questions is whether Covid-19 vaccines are accelerating the evolution of the virus in ways that increase the likelihood of viral escape. The fact that the FDA is unable to answer these essential questions, after 564 million doses of this product have already been injected into Americans, is astonishing.¹⁶

¹³ See <https://sites.krieger.jhu.edu/iae/files/2022/01/A-Literature-Review-and-Meta-Analysis-of-the-Effects-of-Lockdowns-on-COVID-19-Mortality.pdf>.

¹⁴ See https://wellbeingtrust.org/wp-content/uploads/2020/05/WBT_Deaths-of-Despair-COVID-19-FINAL.pdf.

¹⁵ See discussion here: <https://vinayprasadmmp.substack.com/p/mask-studies-reach-a-new-scientific>.

¹⁶ See <https://www.nytimes.com/interactive/2020/us/covid-19-vaccine-doses.html>.

VI. Eric Rubin Strikes Again

Eric Rubin has an admirable tendency to blurt out confessions of derelictions of duty. At the October 26, 2021 VRBPAC meeting, he famously said about injecting children, “We’re never going to learn about how safe this vaccine is unless we start giving it. That’s just the way it goes.” No, that’s not “just the way it goes.” The entire purpose of the FDA and VRBPAC review process is to determine safety and effectiveness based on a review of clinical trials *prior* to introducing these products to market, especially a pediatric market.

At the April 6 meeting, Dr. Rubin did it again. He stated, “We know what kind of antibody response can be generated, we just don’t know if it works.”¹⁷ While ICAN appreciated Dr. Rubin’s candor, what he has described is a stopping condition. If you do not know if it works, you cannot proceed. Said differently, you cannot proceed unless you can clearly determine correlates of protection, which would require large properly administered clinical trials using real world health outcomes – exactly the sorts of trials that this framework is trying to circumvent.

VII. Does Anyone on the Committee Actually Listen to the Open Public Hearing?

The Open Public Hearing at the recent meeting included insightful analysis by a range of critical scholars from around the world and first-person testimony from at least nine people who were injured by Covid-19 vaccines that were authorized by the FDA and VRBPAC. After the Open Public Hearing, no one on VRBPAC said a single word about their testimony which leads us to believe that the members of the committee likely walk away from their computers and tune out while the public testifies. Such disregard for the harms caused by their actions is egregious.

VIII. ICAN Is Asking the FDA and VRBPAC to Stop with This Charade Immediately

Global flu surveillance and FDA flu strain selection is performative. It gives the appearance of scientific methodology and provides the imprimatur of a federal agency which implies that these products are safe and effective. But the entire process has failed. Flu vaccines have a dismal performance record.¹⁸ If the FDA accurately measured adverse outcomes from flu shots (particularly the “enhanced” flu shots given up to 80% of the time, especially to seniors),¹⁹ it is likely that the harms of this program outweigh its benefits.

The idea that the FDA and VRBPAC are about to expand this failed strategy to Covid-19 vaccines is troubling. As Ofer Levy, VRBPAC voting member, said at the meeting, “We are at risk of doubling down on a failed strategy.” Regardless of how much one may like other types of

¹⁷ See <https://youtu.be/x8rq247E80I?t=12762> from 3:32:42 to 3:32:42.

¹⁸ The U.S. went from 12 million influenza vaccine doses administered in 1980 to 193 million doses administered in 2020 (<https://www.cdc.gov/flu/prevent/vaccine-supply-historical.htm>) with **no discernible impact** on monthly influenza mortality (see: <https://link.springer.com/article/10.1007/s13524-019-00809-y>).

¹⁹ See <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-02-23-24/03-influenza-morris-508.pdf> at p. 2.

vaccines, objectively the Covid-19 virus mutates too fast and there is no evidence that a multivalent approach will solve the considerable problems of efficacy and safety associated with Covid-19 vaccines (in fact, this approach very well might make matters worse). If indeed Covid-19 vaccines are accelerating the evolution of Covid-19 variants that evade vaccines, this new framework for authorizing future Covid-19 shots in perpetuity with no clinical trial evidence will add considerable fuel to the pandemic fire.

ICAN asks that you to scrap this framework immediately.

IX. Conclusion

ICAN should not have to point any of this out. If the FDA and VRBPAC were doing their jobs and upholding foundational scientific principles, these issues would have been addressed and resolved in the interests of the American public at the April 6 meeting. All of the scientific evidence recommends against any framework for Covid-19 strain selection.

Therefore, ICAN strongly encourage the FDA, VRBPAC, and Congress to engage with these foregoing critiques immediately. History will not be kind to those who proceed with a strategy that everyone knows in advance will fail.

Regards,

A handwritten signature in blue ink, appearing to read 'ASiri', is positioned above the typed name.

Aaron Siri, Esq.
Elizabeth A. Brehm, Esq.

Exhibit A

March 23, 2022

VIA EMAIL

Members, Vaccines and Related Biological Products Advisory Committee
Food and Drug Administration
VRBPAC@hhs.fda.gov

Re: March 3, 2022 meeting, recommendations on the selection of strains to be included in the influenza virus vaccines for the 2022-2023 influenza season

We write on behalf of the Informed Consent Action Network (“**ICAN**”) to bring to your attention several concerns in connection with your meeting on March 3, 2022 during which you discussed and recommended strains for use in the influenza vaccines for the upcoming flu season.

As you know, VRBPAC met a year ago – on March 5, 2021 – to recommend four strains to include in influenza vaccines for the 2021-2022 flu season. The evidence subsequently presented by Captain Lisa Grohskopf at the ACIP meeting February 23, 2022 and at the VRBPAC meeting March 3, 2022 showed that your plan did not work. Evidence from the 7 sites that participate in the U.S. Flu Vaccine Effectiveness Network showed that the influenza vaccine that you recommended is only **8% effective** against influenza A and **14% effective** against influenza A/H3N2.¹ The 95% confidence intervals included the **possibility of negative efficacy** against both of those strains.

What is more, evidence presented by Captain Grohskopf from “an influenza outbreak at a large university campus” during October-November 2021 showed that the vaccine effectiveness was zero.² Paul Offit attempted to save the narrative by asking if perhaps the vaccine prevented hospitalizations? Captain Grohskopf answered, “no data on that.”

The complete failure of your recommendations from the year before should prompt critical questions and a re-examination of the committee’s whole approach before moving forward this year. Instead, however, the committee repeated the exact same failed steps from the year before (one-size-fits-all recommendations from the World Health Organization, rubber stamped by VRBPAC). It is alarming to see scientific experts doing the same thing over and over again and expecting a different result. The American people deserve better.

¹ <https://www.fda.gov/media/156627/download> slide 13 at p. 12.

² <https://www.fda.gov/media/156627/download> at p. 9.

Vaccines that are less than 50% effective should not be recommended, period. If these flu vaccines were coming before the FDA for the first time as novel vaccines (instead of being grandfathered in, year after year, despite changing formulations) they would not be approved. Based on the data presented at the VRBPAC meeting, the FDA/VRBPAC and CDC/ACIP have a duty of care to remove approval and recommendation for this product.

Relatedly, it is troubling that Dr. Wentworth seemingly does not understand some of the statistics he is discussing regarding vaccine efficacy. During the recent meeting, Dr. Wentworth stated that, “There is no such thing as negative VE. That negative number does not mean that the vaccine causes more flu.” That is simply not the case. There is a large body of literature on original antigenic sin and antibody-dependent enhancement that shows that some vaccines do indeed lead to more cases and worse outcomes than not vaccinating at all.³ ICAN asks that VRBPAC members challenge him on this point and raise these important issues of original antigenic sin and antibody-dependent enhancement.

Further, the absence of any discussion regarding adverse events over the course of the four-hour meeting recommending a vaccine is concerning. It is impossible to assess the tradeoff between risks and benefits from a product without discussing adverse events.

In her presentation to ACIP on February 23, Sinead Morris noted that 80% of people who receive the flu vaccine receive the “enhanced” formulation (enhanced in this case refers to “high dose, adjuvanted, and recombinant flu vaccines”).⁴ The enhanced formulations come with a safety profile that must be factored into any risk benefit calculations. For example, FLUAD and FLUAD Quadrivalent are adjuvanted with MF59, an “oil-in-water emulsion of squalene oil.”⁵ Squalene has been linked with a wide range of adverse effects including autoimmunity.⁶ Any discussion of the use of enhanced flu vaccines must incorporate valid real-world estimates of the increased rate of adverse events. Anyone who is considering receiving these injections must be presented with accurate information about risks and benefits or informed consent is impossible.

To be clear, influenza is a concern. But there is little to no evidence from the VRBPAC meeting that your response to the flu offers any improvement over doing nothing at all. Indeed, given the historic low efficacy and high rate of adverse events, the recommendations of VRBPAC will likely leave patients worse off which is a violation of your duty of care.

Assuring that no shortcuts are taken in reaching your conclusion, including assuring complete data and careful analysis, is critical because, as you know, many institutions convert your recommendations into rights-crushing and informed consent-eliminating mandates.

³ See e.g. Anup Vatti et al. “Original antigenic sin: a comprehensive review.” *Journal of autoimmunity* 83 (2017): 12-21. <https://doi.org/10.1016/j.jaut.2017.04.008>

⁴ <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-02-23-24/03-influenza-morris-508.pdf> at p. 2.

⁵ <https://www.cdc.gov/flu/prevent/adjuvant.htm>

⁶ See e.g. Yehuda Shoenfeld, Nancy Agmon-Levin, and Lucija Tomljenovic (Editors), *Vaccines and Autoimmunity*. (2015). <https://www.amazon.com/Vaccines-Autoimmunity-Yehuda-Shoenfeld/dp/1118663438>.

Unfortunately, it appears that VRBPAC continues to stick with a failed strategy in spite of the abundant evidence that it should change course. ICAN looks forward to your response to the concerns we have raised.

Very truly yours

A handwritten signature in blue ink, appearing to be 'AS' or similar initials, written in a cursive style.

Aaron Siri, Esq.
Elizabeth A. Brehm, Esq.

Cc: Peter Marks, Peter.Marks@fda.hhs.gov
Janet Woodcock, Janet.Woodcock@fda.hhs.gov