DCVMN COVID-19 Committee
Meeting Minutes
December 9th, 2021

Attendees: Adriansjah Azhari (AA), Apoorv Kumar (AK), Benoit Hayman (BH), Bernadette Hendrickx (BeH), Hari Prasad Raju (HPR), Huong Ngo (HH), Laura Viviani (LV), Marcos Freire (MF), Martin Reers (MR), Matthew Downham (MD), Meei-Yun Lin (ML), Muzammal Haque Asim (MHA), Paul Torkehagen (PT), Ping Zhao (PZ), Prerna Kumar (PK), Rajinder Suri (RS), Sanjay Maheshwari (SM), Sivashen Cunden (SC), Sonia Pagliusi (SP), Sonia Villasenor (SV), Tamires Lacerda (TL), Tarek Ibrahim (TI).

DCVMN COVID-19 Committee at 12.00 CET and finished at 12:53 CET

AA chaired the meeting and welcomed the participants. AA set the context that some of our members have been successful in rolling out COVID vaccines and also in receiving the WHO EUL. These vaccines have been effective, however with the emergence of COVID variants, we need to have some means to support for the acceleration of future vaccines for these and future emerging variants. AA introduced Dr. Matthew Downham (MD), from CEPI to give some highlights on this important issue.

MD shared that CEPI is considering a "What if" scenario; what if a COVID variant requires a completely different vaccine; and how is it going to be managed, how is it going to be effectively delivered moving forward. MD together with Adam Hacker are thinking how CEPI can play a key role in supporting vaccine manufacturers at least the regulatory pathway to accelerate process in the regulatory review and approval for any new COVID vaccine.

As it currently happens with the Flu vaccine every year, win which strains are changed, and regulators grant the approval for manufacturers rapidly upon reviewing a basic preset of documents. So, this strain change supplement is where they think regulators need to go for COVID. To facilitate this, CEPI is going to need to gather information from the different manufacturers and get some understanding of what manufacturers have done to adapt the platform technology to other COVID strain. e.g. for mRNA platform, maybe some manufacturers have been thinking of developing Delta, Omicron or other strain vaccine; so the question is how does that development work resulting in data that demonstrates that, irrespective of what strain comes along, mRNA platform can be switched to the other strain, only plugging in whatever is needed for the switch. If that is the case, we can go to the regulators with information demonstrating that their platform technology, irrespective of which vaccine candidate is, has the same characteristics in terms of CMC, manufacturability, assays developed and used to test and release the vaccine that have been used for the Wuhan strain; so to create an expedited path for regulatory approval. The same with other platforms like adenoviral or others. So this information CEPI needs will be useful to talk with the regulatory agencies to negotiate, maybe reduction in different aspects of process validation, the number of PPQ batches required and so on.

MD shared that he had a meeting with Prof. Sarah Gilbert from Oxford University and she says they have already started to have this kind of conversations with regulators to refine the kind of information that is appropriate to gather for this kind of vaccine made in adenoviral platform. He asked for the participants aim to participate in this project and opened the floor for questions.

AA said that one of the key challenges for a strain variation would be how to bring in line all the regulators of different countries into a harmonized regulatory perspective. This needs to be discussed.

BeH said that COVID strains variations are not comparable to those of Flu. She said it Is too early and we need a better understanding of the epidemiology. So, the risk-benefits need also to be well understood.

MD agreed and added that risk-benefit balance is needed to have the conversation with the regulators to start addressing the questions they might be having. It is about gathering what we can today with the experience that maybe many manufacturers got already with multiple candidate vaccines.

MF expressed his agreement on the need to change strain on the vaccines, but at the same time expressed his concern on how easy it is to change the strain in the different platforms. For mRNA is easier than for the Adenovirus platform, in which to change strain you have to change the entire seed lot system, then need to be characterized; so, to approve the new seed lot, how the regulatory authorities are considering this could be done.

MD agreed there will be different nuances for each platform such as the adenoviral and the protein sub-unit. Therefore, it is necessary to open the discussions with regulators per platform technology, considering all of the platforms being used today as they will be the base for the next generation of vaccines.

MF also added his concern regarding on how safe it is to change the seed lot in these new technologies, how long will it take, if clinical trials will be needed to asses safety and immunogenicity, so he requested CEPI to help the manufacturers and regulatory authorities to address this issue.

MF said that in the discussion with Sara Gilbert, they also talked about clinical trials. What kind of clinical trials are the regulators expecting to see in the event to a strain change. Since many persons have been already vaccinated, even 1 to 3 times, and others have been exposed to COVID, how can a clinical trial be designed that doesn't' involve tens of thousands of people; these would take a long time, even to at least make a rapid safety and tolerability antigenicity trial to show that the vaccine has got the caveat required to move into the clinic as rapidly as possible. This is one of the biggest questions the regulators are going to have to address rapidly.

PT asked if this effort is somehow aligned with or if it is independent from WHO working group in which also this kind of discussions are being held. He also requested how can manufacturers better help CEPI on moving forward after this discussion.

MD clarified that CEPI's work on this is meant to be complementary to what WHO is doing and has even had also conversations with IFPMA members and Vaccines Europe to try to involve as many manufacturers as possible. CEPI is making efforts to try to build longevity to the regulatory harmonized process for strain changing, which will most probably be needed within the next 6 months. MD said that CEPI is aware that there might be much confidential information but what they look for is rather a granular data of manufacturers who have been working in a strain change vaccine candidate and the pin points of where the challenges may be, and how flexible these platforms are for strain changing. He will be sending 3 questions for manufacturers to address:

1. What strain are you working on besides the Wuhan strain?
2. Whether there is comparability with how the Wuhan strain performed in your respective technology platform.
3. Where are the pinpoints (challenges)?

The idea is to have these conversations before the strain change is needed.

AK said that in has been seen across several countries is that they have different standards of provisions, so in the case a variant vaccine is required, then the regulations required to give the EUA. Could CEPI talk with regulators so that there would be a baseline requirement to provide EUL and then from there build a rolling basis maybe for a market authorization. It is also important to discuss with the regulators on how will they manage situations in which a manufacturer based in a country A supplies to a country B where a specific variant vaccine is needed, so would it be necessary an evaluation within the country of origin or if an independent evaluation can be made within the external country?

MR asked if there have been discussions about having a multivalent vaccine.

MD said it is something that has been considered, but there is a lot of work to be made to demonstrate the formulations are stable, the competition of the elements and other things. There have been discussions even considering if it could be formulated together with influenza. MR considers this would be more complicated, maybe the best would be to start with a bivalent and then add on.

AA asked if there is a possibility of having a central seed bank for COVID as there is for Flu. CEPI will be launching an expression of interest in the new year to establish a network of vaccine developers and manufacturers that can fulfill this activity of continually developing COVID candidate strains, critical reagents, standard and characterization and their manufacturability and also for other pathogens that are largely unmet. Such as having an inventory of candidates that can be pulled of the shelf and plugged into manufacturing platforms. Adam has been having discussions with WHO on this.

AA asked MD about a paper CEPI is planning to drafting a position paper on this and if there is a chance for DCVMN to support this. MD said it is still being discussed and DCVMN members will be welcome to contribute.

MD finally announced that CEPI will be hosting a manufacturing workshop possibly mid to end February for Southeast Asia and the Western Pacific to review CEPI data on the survey they made on the landscape for vaccine manufacturing to start putting together a roadmap to develop vaccine capacity and capability further and how can we make more efficient or whether there are problems to be solved and start thinking about how from a manufacturing perspective there are needs, moving forward to be better prepared to respond in the future. Future workshops may move into more governance, political financing and organizationally kind of workshop. Invitations will be shared later for these regions manufacturers.

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Notes taken by SV

Adriansjah Azhari
Chair DCVMN COVID-19 Committee,
December 9th, 2021