Developing Countries Vaccine Manufacturers Network

DCVMN 3Rs Working Group Meeting Q2 Minutes – May 25th2022

Attendees: Pradip Kumar Das (Biological E) *chair*, Zebun Nahar (Incepta Vaccine), Deepak Mahajan, ThirunavukkarasuAngappan (Panacea Biotec), Irma Riyanti(BioFarma), RajanathanChozhavel (Zydus Cadila), Sunil Goel (Serum Institute of India), Leena Madhuri (Indian Immunologicals),Juliana Galvao Da Silva (Butantan), D Mahesh (Indian Immunologicals),Laura Viviani (DCVMN), SivashenCunden (DCVMN),Rajinder Suri (DCVMN)Excused: Sonia Pagliusi (DCVMN), Indrajeet Poredi (Bionet Asia), Vu Tien Dung (Vabiotech), Taehyun Kim (LG-CHEM), , S. Sivakumar (Pasteur Institute of India), Hassan Ahmed (Amson), Lingyun Zhou (Shanghai Zerun Biotechnology).

Brief introduction of participants and agenda

Pradip Das (PD) welcomed all participants and introduced the agenda.

1. Virtual Reality Experience on Monocyte Activation Test and DCVMN current VR project
2. Results of the ATT Survey and next steps
3. Results of the Single Dilution Survey and next steps
4. External Collaborations, Future Projects Opportunities
    - DCVMN PSPT Project
    - External meetings and conferences
5. DCVMN Possible New 3Rs Projects
6. AOB

1. Virtual Reality Experience on Monocyte Activation Test and DCVMN current VR project

Sivashen Cunden (SC) and Aila Marini (AM)presented the now available VR experiences dedicated to the Monocyte Activation Test and the current VR project, respectively. The MAT VR experiences are available to be downloaded in the DCVMN website: https://www.dcvmn.org/Vaccine-testing-using-Monocyte-Activation-Test where instructions on how to install the software on the Oculus Quest 2 VR. After administering a dedicated survey to its members, DCVMN has begun development on a manufacturing process VR specifically looking at the health & safety precautions during the fill-finish process and steps taken to ensure room sterility. The development of the experience will be led by a Swiss Based VR Lab and expected delivery will be in June-July 2022.

2. Results of the ATT Survey and next steps

Laura Viviani (LV) informed about the status of the follow up actions agreed during the AFSA/EFPIA workshop **"Accelerating Global Deletion of the Abnormal Toxicity Test. Planning common next steps"** *on October 14th, 2021* (all materials available here: https://www.afsacollaboration.org/biologicals/att-deletion-workshop/). The International Conference of Drug Regulatory Authorities (ICDRA), organized by WHO, won't take place in 2022, however the topic of ATT deletion and promotion of 3Rs implementation has been taken into consideration by the organizers for the 2023 meeting. LV thanked all the participants to the survey dedicated to the ATT deletion which registered the participation of 34 people from 25 different DCVMN companies. The survey confirmed a quite complex situation where the deletion or the waiver of ATT is not granted by local regulatory authorities despite the WHO recommendation and similar initiative taken by Europe, US, Canada, Brazil, Argentina, South Africa, India (ATT has now been deleted from the vaccine monographs after Addendum to IP was published in July 2020), Japan (waiver). Some regulators are in the process of considering the waiver or deletion (South Korea, Indonesia, China) while others not yet (Mexico, Turkey, Vietnam, etc.). A not clear situation which will require a dedicated follow up is with Thailand. Approved waivers have been obtained for Zambia, Nepal, Kenya, Indonesia (case specific), South Africa. While some companies are waiting for a decision in Egypt, Malaysia, Thailand, Saudi Arabia, Laos, Myanmar, Philippines, GCC, Mexico, Iran. Those data will be joined by the ones from IFPMA and published in an anonymous map by AFSA/HSI. The link will be made available once published. Further local and global discussions are needed in order to promote the full deletion of the test.

3. Results of the Single Dilution Survey and next steps

LV thanked the members answering the survey dedicated to the next DCVMN project "Planning the implementation of the Single Dilution Assay for DT-containing vaccines". The project will support members to plan the implementation of the assay (not in scope will be the concrete implementation, perhaps a second project can be organized and funds sought). 7 companies expressed their interest to participate to the project, and 3 companies to join the technical support. A call with the external laboratories (ISS/Italy, Sciensano/Belgium, PEI/Germany) will be organized in the next weeks to assess their availability to support the companies from the scientific and technical aspects. Dedicated communication will follow to the all 3Rs WG in the next weeks.

4. External Collaborations, Future Projects Opportunities

a. Pertussis Serological Potency Test (PSPT) Project
DCVMN 3Rs WG members invited to participate to the project final meeting that will take place as hybrid on July 5th and 6th. Registration link: https://www.dcvmn.org/-PSPT-consortium-57- and the final agenda will be available soon.

b. LV thanked the members for participating to the NC3Rs Asia Workshop. Recordings and presentation will be available on the NC3Rs project page (https://www.nc3rs.org.uk/events/implementing-3rs-who-guidelines).
c. LV informed that the next workshop NC3Rs Workshop dedicated to the PANAMERICAN stakeholders will take placein the next future (date not yet available).
d. DCVMN will have a session dedicated to the regulatory alignment for non animal approaches in vaccine batch release at the World Vaccine Congress, Barcelona, Oct 11-14, 2022.
e. Event on Pyrogenicity organized by EDQM and EPAA, Q1, 2023 - stay tuned for more details.
f. Workshop on MAT organized by BraCVAM and HSI – June 21st – Youtube (only in Portuguese – more local event will be taking place - http://www.bracvam.fiocruz.br/seminario-tecnico/).
g. Webinar on Next Generation Sequencing organized in collaboration with IABS will take place on July 20th. Register here: https://www.dcvmn.org/DCVMN-Webinar-Next-Generation-Sequencing-IABS

5. **DCVMN Possible New 3Rs Projects**
LV shared some possible future projects that DCVMN could plan (and start seeking adequate funds to donors):

- Tetanus-Diphtheria-Pertussis (whole-cell; acellular)
  - In vivo -> in vitro potency
- Rabies
  - In vivo -> in vitro potency
- Hepatitis B/A
  - In vivo -> in vitro potency
- IPV
  - In vivo -> D-antigen
- Adventitious/extraneous agents
  - In vivo ->Next Generation Sequencing.

The discussion focused on what could be considered a priority for DCVMN and the possibility to work on the DTP in vitro potency assay got the majority of the attention of the group because of the number of animal used for such test and the experience on the in vitro assay gathered by the VAC2VAC project. DCVMN will organize a workshop on that sharing the work done by the VAC2VAC Consortium members (NIBSC, Sciensano, multinational companies). Also, the possibility to replace with Rabies NIH test has been discussed, however because of the ongoing international collaborative study, where some DCVMN are also engaged, it has been agreed that a webinar on the status of that study will be organized by end of this year. Interest on the ELISA for the Hepatitis B and A has been expressed. LV mentioned that a dedicated presentation has been made at the 3Rs WG Q3 2021 call, but if further needs of examples or support might be needed, a dedicated session can be organized. About the Next Generation Sequencing, the working group members would like to learn more about it before considering any specific project. Further discussions and opportunities can continue at the next call.

6. AOB
No additional topic has been proposed by the working group.

The next 3Rs WG meeting will take place via Zoom on August 24th, 2022. The calendar invitation has been already sent.

The meeting was adjourned 13:05 CET.

Signature

Pradip Das, Chair 3Rs WG