Developing Countries Vaccine Manufacturers Network

DCVMN PSPT Project
Technical Workshop 10
Thursday August 26th 2021

Attendees: Anissa Wari Murti (AWM), Apichai Supasanatorn (ASP), Arun Bhardwaj (AB), Christina Von Hunolstein (CVH), Deepak Mahajan (DM), Dewi Sulanjari (DS),Dini Hiayati (DH), Dionne David (DD), Elizabeth Ika Prawahju (EP),Gautam Sanyal (GSL), Gopal Singh (GSH), Irma Riyanti (IR), Jim Saylor (JS), Maya Ramdas (MR), Muhammad Erdiansyah (ME), Pradip Das (PD), Pavel Mitrenga (PM), Rajinder Suri (RS), Sunil Gairola (SG), Sreenivasulu Reddy B (SR), Surender Reddy (SRR), Tim Schofield (TS), Zulfa Noerhidayati (ZN), Laura Viviani (LV), Sonia Pagliusi (SP),Sonia Villaseñor (SV), Supaporn Phumiamorn (SPh), Sivashen Cunden (SC)
Apologies: Arjen Sloots (AS), Coenraad Hendriksen (CH), Pavlinka Stoyanova (PS), Ute Rosskopf (UR), Sivakumar Sakthivel (SS), Sekar Thangaraj (ST), Wereyarmarst Jaroenkunathum (WJ)

Welcome and AOB — LV

LV served as chair for the session and introduced the workshop. Apologies from Pavlinka Stoyanova, Ute Rossekopf and Arjen Sloots were given.

1. PSPT Project Update — LV

- Currently all participants who submitted their state of the project tables have started the testing phase of the project and updates will be given in agenda item 3

DCVMN activities

- DCVMN has requested from all laboratories to provide estimate costs of their activities as part of the reporting responsibilities to NIIMBL.
- LV would like to remind all participants who have not sent their cost estimates to do so ASAP.
- DCVMN will be joining the NIIMBL member forum on the 26th of August to present the PSPT project to NIIMBL members.
- DCVMN are still awaiting a reply from NIBSC/PHE regarding the management of the coating antigen. Options are to be discussed with the Steering Group and presented to the Consortium after a meeting with NIBSC/PHE.

Data collection platform

- During testing upload section is operational and lab books can be uploaded.
- PSPT results section has been completed and will be opened to upload documents in September.

2. PSPT Results spreadsheet — TS/DD

- DD explained there are now 2 PSPT Results spreadsheets which are to be chosen based on study option each participant will be conducting.
- The instructions have been updated and made clearer for ease of use.
- While the template has been updated the tutorial video on the PSPT platform should still provide a clear walkthrough of how to fill the spreadsheet.
- The spreadsheet has been designed to be linked and that populating the plates in step 1 will automatically fill in the later steps. To view the generated data per plate you will have to unhide the plate in question in step 2.
- Titer calculations in step 3 will only examine the 25%-75% linear range.
- 5 additional tabs have been added relating to the PLA for FL1, FL2A, FL2B, FL3 and FL3 Alt.
- In each PLA tab the only data participants should add is the potency of the reference used in IU/vial to aid with calculation.
- TS demonstrated of how to use the spreadsheet using generated data.
- TS stressed the importance of the parallelism and linearity p-values as values lower than 0.5 show a problem in the data collected to get a valid relative potency. This is a reading that is observed by the European pharmacopeia
- To satisfy the USA pharmacopeia the ratio of slopes has also been added to the templates

Discussion

- PD stated that within their lab they are using a reference standard correlating with 10 IOU/vial but following the SOP dilution factor of 1/400, the laboratory is measuring OD values of 2-1. Therefore, optimization of the dilution factor maybe needed to record results that provide readings that would be significant for the linearity of the results and standard curves.
- DD commented that the higher OD/ overflow would be an issue for the template, and this may be due to the lab using Biotin-IGG and Strep-HRP (PD confirmed).
- The labs should conduct a pilot test to check their positive control over your reference control and try and titrate out your IGG and get within a range that is measurable.
- This should be done before changing the sera dilutions as this would make analyse of the results more difficult.
- TS agreed with titrating down the Biotin-IGG to bring into range.
- DD stressed that the positive control must have the 8 points of data
- PD commented that each lab may have same dilutions for immunization and different dilutions for the ELISA in the positive control. DD replied that this is not ideal but will need to be handled if this is the case but if a 2-fold dilution is kept on the plate the issue would be how adjust on the plate.
- MR asked if there is non-specific death or is omitted should only n<12 animals be reported in the spreadsheet
- DD replied that the excel is set for 12 animals and therefore if this does happen keep the plate layout the same and for the missing animal replace with buffer solution.
- DD stated that this would look like a non-responder and effect the standard deviation etc. therefore if a mouse does die the labs are expected to record and report his in the during testing lab books

3. Laboratories: status of activities

1. **CDSCO Kasauli India**
   - Immunization of animals - 16th of August
   - Bleeding due on 13th September
   - Altered batch was incubated from 19th July -10th August
   - ELISA will be carried out end September
   - Results to be sent early October
2. **Bharat Biotech**
   - Immunization completed for Kendrick test and KT underway 9th August- 6th September
   - PSPT immunization has been completed ELISA to commence on the 10th of August
   - Alteration of FL3 batch completed 16th July -6th August
   - Project to be completed 18th of September
3. **Biofarma**
   - Study design 2 therefore PSPT ELISA to be split into 2 experiments
   - Altered batch was incubated from 9th July-30th July
   - KT was carried out 5th August – 2nd September
   - PSPT immunization to be carried out and bleeding on 2nd September
   - PSPT ELISA EXP1 – 6th -7thSeptember
   - PSPT ELISA EXP2 – 27th -28th September
   - Completion of project and results submission 29th-30th September

4. **Biological E Limited**
    - Study design 1
    - Alteration of FL3 batch 13th July- 3rd August
    - KT to take place on 12th August -13th September
    - PSPT immunization 18th August-15th September
    - Bleeding date 15th September
    - PSPT ELISA 16th-24th September
    - Project completion and results submission 27th September
5. **BulBio**
    - Study design 1
    - Alteration of FL3 batch 7th-28rd July
    - KT to take place on 7th September -5th October
    - PSPT immunization 12th October-9th November
    - Bleeding date 9th November
    - PSPT ELISA 12th November- 15th December
    - Project completion and results submission 11th January 2022

6. **Department of Medical Sciences Thailand**
    - Study design 1
    - Alteration of FL3 batch completed
    - Bleeding date 28th July
    - PSPT ELISA 26th July – 31st August
    - Project completion and results submission 15th September

7. **NCL Indonesia**
    - Study design 1
    - Alteration of FL3 batch 9th-30rd July
    - KT to take place on 11th-27th Aug
    - PSPT immunization 19th August-16th September
    - Bleeding date 16thth September
    - PSPT ELISA 20th September- 21st September
    - Project completion and results submission 27thth September
    - All sentinel mice negative

8. **Panacea Biotech**
    - Study design 1
    - Alteration of FL3 batch manually 21 days at 43°C
    - KT completed
    - PSPT immunization 4th August-1st September
    - Bleeding date 1st September
    - Project completion and results submission end September

9. Sanofi

- Study design 1
- Alteration of FL3 batch completed 28th July
- PSPT immunization 16th August
- Sub-potent immunization to be done another date due to animal constraints
- Sub-potent batch can be stored in fridge at same temp as unaltered batch till needed. Consortium in agreement.

10. Serum Institute of India

- Study design 2
- Alteration of FL3 batch 21st June-12th July
- KT completed and results can be uploaded
- PSPT sera is ready and lab books are needed
- Pilot scale-up has been completed
- 2 dilutions have been tested and 1/8000 was selected due to 1/4000 being too high values
- DD commented that if OD for 1/400 sera and 1/8000 is measurable lab may proceed
- PSPT ELISA EXP1 and 2 – 1st -20thSeptember
- Completion of project and results submission 20th-25th September
- For non-responders or values below limit a 2.5IU will be entered
- DD and TS have added instructions regarding non-responders or values below limit into the Exel.

5. Next steps

- Participants to send the DCVMN an updated state of the art table if there are any changes to current timelines.
- Participants to send the estimated project costs.
- Participants to upload results and lab books on the DCP platform
- PSPT SG and DCVMN to discuss the management of the antigen before next workshop.

Meeting closed at 13:15

Notes taken by SC.

Signed