
Coronavirus Standards Working Group

Steering Committee Meeting Summary 10 April 2020

Next meeting 17 April 2020 0800PDT

Thanks to all attending for your ideas and solid guidance. Thanks especially to Jim Huggett and Pete Vallone for their work on the Standards and Assay Inventory sheet and prototyping of a list of attributes that will make up a Minimum Information Standard; and to Preston Estep for your tour of the basis and considerations for the serology measurements.

Slide decks are available on the [WG Slack](#) and on the JIMB website here: [WG Webpage](#).

Key follow-ups

- Technical Paper Preprint planning call Tuesday 14 April 1330PDT
- WG Communications planning call Wednesday 15 April 1400PDT (tentative)
- Next SC meeting 17 April 2020 0800PDT
- Follow-up call TBA to identify standards needs for serology

Discussion topics

We briefly reviewed WG scope, reviewed a high-level roadmap (slides), then Jim and Pete presented their progress on the annotated inventory (slides).

There was recognition that our survey is observing wide variability in practices and interpretations of the assays, and in available information about both assays and standards inspired a call for getting the word out. Jim and Pete are developing a set of systematic queries for the standards/control vendors, and are accruing the content. There was anecdotal discussion of differences in PCR assay approaches and especially in how assay results are interpreted in SARS-CoV2 testing.

This triggered animated discussion of plans and models for communications, including a rich chat transcript that will be deposited on the Slack, and we came to our two key follow-ups -- 1) rapidly develop a technical preprint describing the WG's work, and 2) develop a communications plan and longer-term strategy, including identification of stakeholders, audience, targeted messaging, venues, and channels.

Preston Estep of the Harvard PGP Project presented an overview of serological testing highlighting functional and diagnostic differences from RNA diagnostics.

Preston's slides are available on the Slack and on the website -- an overview is:

- a foundational background on immune response to respiratory viruses
- principles of ELISA immunoassay
- the SARS-CoV2 proteome
- an overview of recent results showing antibody response time courses, including a direct comparison with RNA diagnostics
- Preston's review of the literature identified possible candidate standards proteins, including some that had been used for the SARS-CoV targets
- Preston covered emerging methods to map potential assay targets, and analysis of protein microarray data to identify specific antigens that differentiate COVID-19 patients from controls
- There are open research questions and the field is rapidly evolving

We will schedule a follow-up call with other teams working in serology, and work to develop consensus on standards needs and a recommendation for our WG path forward for serology.