

**Virtual Town Hall #83  
April 20, 2022**

**Moderator: CDR Kimberly Piermatteo**

**CDR Kimberly Piermatteo:** Hello and welcome to virtual IVD Town Hall number 83 for SARS-CoV-2 test developers in which we'll discuss and answer your questions about diagnostic tests in response to COVID-19. Thank you for joining us today. This is Commander Kim Piermatteo of the United States Public Health Service. And I am the Education Program Administrator within the Division of Industry and Consumer Education and CDRH's Office of Communication and Education. I'll be your moderator for today's Town Hall.

A recording of today's Town Hall and a transcript will be made available on CDRH Learn under the section titled Specialty Technical Topics, and then the subsection titled, Coronavirus COVID-19 Test Development and Validation Virtual Town Hall Series.

The April 6<sup>th</sup> IVD Town Hall recording and transcript have been posted. The next scheduled IVD Town Hall will be on Wednesday, May 4<sup>th</sup>, 2022 at a new time. I repeat the IVD Town Hall on Wednesday, May 4<sup>th</sup>, 2022 will be at a new time. We are changing the time of these Town Halls moving forward. We will open the room at 12:00 noon Eastern Time and start the live program at 12:05 PM Eastern Time and end at 1:00 PM Eastern Time. Please take note of this new time for our future IVD Town Halls.

Our panelists for today's Town Hall are Dr. Timothy Stenzel, Director of the Office of In Vitro Diagnostics and Radiological Health, or OIR, which is also referred to as the Office of Health Technology Number Seven, or OHT7 in CDRH's Office of Product Evaluation and Quality. And joining Tim today on the panel is Dr. Kristian Roth, Deputy Director of the Division of Microbiology Devices also in OIR or OHT7.

For today's Town Hall, we'll begin with opening remarks, followed by answering your previously emailed questions and then proceed to answer your live questions. I'd now like to welcome Tim, who will provide today's opening remarks. Tim, the floor is yours.

**Timothy Stenzel:** Well, thank you, Kim. And welcome everyone. We look forward to another Town Hall call today. I'll make some brief introductory remarks. I'll turn it over to Kris, who will provide some answers for some of the pre-submitted questions. And then we'll open it up for live questions.

So first off, we have since the last Town Hall authorized two new over the counter at-home tests, one manufactured by Osang and the other by Boson. So that's an important addition to our OTC arsenal to fight the pandemic. Both of these are ITAP tests. So they were-- that's a collaboration between NIH and FDA to speed access to these particular kind of tests.

Next, is we have a rather unique authorization, and that is the first breath test. This is the InspectIR COVID-19 Breathalyzer. So we're excited to see new technology and not before seen for respiratory viruses enter the U.S. for purposes of primarily detecting COVID in asymptomatic individuals. So we're excited about that.

Next, I would like to go into just some general discussions. So first up is we are noting that there is a slight upswing in COVID prevalence in the United States. Overall now, it's just about 5% for the U.S. Obviously, there are areas that have higher prevalence than that. And so we do believe that it's still

possible to do the clinical studies in the U.S. and for point of care and over the counter, we still do recommend you at least start those studies in the U.S. If you, after a reasonable period of time, you're still struggling to get positive to reach out to us.

I wanted to also talk about a workload and review times for EUAs. So we are continuing to see a high number of EUA and pre-EUA test applications and other associated submissions related to EUA, IVD EUAs round about 130 a month. So our workload remains high into the well into the third year of the pandemic. That said, we do have more people who are resident experts in microbiology and virology working on these. And we've been able to hire staff. And the review times continue to trend downwards. And this is good. Our goal is to get feedback in some way, shape, or form within 10 days of the submission. If that is accepted for review, then you will be assigned in a reviewer shortly thereafter. And these are many times we're doing this more quickly than that.

And then, we take a look at the submission. And the submission, if it's complete, that is all elements have been provided, and then it does go for expert review. And we may get back to you rather quickly with a list of items that we would like feedback. Or we would like our questions answered on. And we ask that you return that as quickly as possible. Once you've returned those questions, answers to the questions we have, those are received and those are reviewed.

And there may be a period of time when we're spending time reviewing that, the entire submission. So we ask for patience during that time. We do take a look at overall applications. And if an application is complete, and our initial review shows that everything is in good order, we tend to prioritize those applications a little bit higher because we think we can get through the authorization more quickly.

So for all developers who do submit something, know that once your application has been received, you've gotten some initial feedback. You have a reviewer assigned. We are working on it, OK. And we'll come to a decision as soon as possible. If there are still challenges with the submission at the time we make a decision, we do make our review information clear to the submitter. If there are outstanding things, we will let you know at least the most important ones.

And once we made a decision, if that's not a positive decision, you can address those concerns and re-submit, so just wanted to make that crystal clear. That has been the case from the beginning. But I don't know that I specifically mentioned that yet.

Alright, moving on to another important topic, so we get a lot of questions about expiration dating particularly with over-the-counter tests. So when we see the application at first, we do make an assessment based on available data on expiration date testing that the developer has performed. That could include data from launch prior to the U.S. submission. So there may be some firms that have much longer initial dating data that they provide to the FDA.

The FDA is willing to look at accelerated stability studies for those in the industry who know what this is. For the initial dating, we do limit that to six months. And then we do look at then real-time stability after six months in order to support those. And we do encourage all developers to extend their dating. We do track it for all of the OTC tests. And we do provide information relevant to those who within the U.S. government where that's important to know.

When a developer has an extension of the dating that the FDA has previously authorized, the FDA does authorize that. We do post that information on the FDA website where there is any updates to the

authorizations. So you can check any test that recently has been authorized for an extended date. That datings in there. It is the responsibility of the test developer, the test manufacturer to then update their packages and their labeling for distribution.

But they can also update customers in the field. And it's their responsibility to do that. And the FDA has been very flexible with product that has already been delivered to users, customers, whether they be any of those categories. And so those kits that are in the test that are already been distributed can be used for longer than the expiration dating on the box. So we are also at the FDA looking at ways to make this a little bit more easier to stay tuned on expiration dating so we are working on that. As soon as we can find a way to make this a little bit easier for all those interested in the current dating for their test that they have in their possession, we are looking.

Yeah, there's a little bit of background noise there.

We are looking for ways to make that a lot more transparent than it already is. And it's there on the FDA website already. But we know that can be sometimes difficult to navigate.

Finally, I wanted to end with the fact that there our office that looks at IVD tests remains very busy with non-COVID work. And there's a lot of test submissions for that. And the COVID test submissions do rival overall currently, those that we receive for non-COVID reviews. And the review times for those non-COVID applications are longer than our usual. We are working to bring them down into the normal range as soon as possible.

And with that, I'll turn it over to Kris. And Kris, you can take it from here on the responses to pre-submitted questions.

**CDR Kimberly Piermatteo:** Thank you, Tim. Like Tim said, we'll now move to your previously emailed questions. Please note we did receive some questions that are too detailed or too case specific that we will not address during today's Town Hall. For those questions, we will try to send a response in writing within a few days. If you have submitted a question, and you do not hear it addressed today, please look for a written response. If you do not receive a response within a few days, please feel free to reach back out to the [CDRH-EUA-Templates@fda.hhs.gov](mailto:CDRH-EUA-Templates@fda.hhs.gov) mailbox for an update.

Alright, Kris, I'll be directing these questions to you. The first question is due to the recent decline in COVID-19 positivity rates, is it acceptable to test frozen archived positive samples during the clinical evaluation for an antigen home use test?

**Kristian Roth:** Yeah, OK, thanks, Kim. So for COVID-19 home antigen tests, frozen retrospective samples are not appropriate or not an appropriate sample type at this time. We do recommend for OTC clinical studies that these studies be-- use fresh prospectively collected samples for the intended use. And this gives this study a chance to evaluate not only the testing but the lay-user collection process as well.

**CDR Kimberly Piermatteo:** Thank you, Kris. Our next question is how soon after EUA authorization do test developers need to scale up manufacturing capacity? And how do we justify test volume per instrument per week?

**Kristian Roth:** Yes, thanks. So as noted in the COVID-19 test policy guidance, which was recently updated on November 15, 2021, the FDA is currently prioritizing tests where the developer has

indicated the ability to scale up manufacturing capacity to 500,000 tests per week within three months of authorization. And then regarding instrument throughput, we do recommend providing a realistic estimate [INAUDIBLE], we consider the complete testing system in the sample to answer workflow -

**Timothy Stenzel:** Umm, Kris?

**Kristian Roth:** Yes.

**Timothy Stenzel:** Kris, we're having a hard time hearing you on this. There's some background noise not sure if that's on your end.

**Kristian Roth:** Yeah.

**Timothy Stenzel:** Yeah, just want to-- you may want to go over that again. Or I can handle that question if there's any background noise issue.

**Kristian Roth:** Yeah. Would you mind handling that for now, Tim? Yes, thanks.

**Timothy Stenzel:** Ok, let me take that over. OK. Got to pop-up the question.

OK, this is a scale up question. And the question is how soon after EUA authorization do test developers need to scale up manufacturing capacity? And how do we justify test volumes per instrument per week? So we did provide great clarity of our expectations and recommendations with the November 15, 2021 test policy guidance. And in general, where there's a volume measurement, it's 500,000 tests per week within three months of authorization.

So the reasoning behind this is at this point in the pandemic with well over 400 tests authorized and some others on the market while we're reviewing them, we want to focus our review efforts on those that are going to expand greatly capacity in the U.S. for testing. And so having these volumes is important to be able to be impactful at this point in the pandemic. So it's 500,000 tests per week within three months of authorization.

We're authorizing some now that are way, way, way above that. Most of the ITAP program tests that have been authorized to date are providing hundreds of millions of tests per month now. So regarding instrument throughput, so this we didn't spell out, but we're looking for a realistic estimate of the total throughput, so not just the number of tests that are available for the U.S. market, but how many if there is an instrument, how many instruments are going to be available in the U.S. to be able to support that minimum testing throughput?

So we're looking at a realistic estimate of the throughput at either CLIA waiver sites or even if it's over the counter, it's a home test to be able to support a significant volume. So we do look at this as a complete testing system, sample to answer workflow, to evaluate the instrument throughput. So we'll look at how many realistically, how many tests could be run per instrument and at a point of care sites or at home to be able to look at that overall number. So the developers should make sure that they're producing instruments at the level that can support the minimum or number of tests per week.

Kris, I think you're back. And I think the dogs have been made happy in some way. And anything else you want to say on that question? Do you to take over the next question?

**Kristian Roth:** No, thank you. I can take the next question. I appreciate that.

**CDR Kimberly Piermatteo:** Alright, thank you Tim. So our next question, Kris, is if your home use antigen test has a similar design and instructions for use as a previously authorized home use antigen COVID-19 test, can we enroll less than 30 children to our clinical study?

**Kristian Roth:** Yes, thanks. So currently, we do recommend evaluating at least 30 children between the age of 2 and 13 years of age. And really, the template does outline that this information can come from a usability study or a clinical evaluation. In some instances, companies are making the comparison of usability of their test to usability of tests that are already on the market and making argument saying that there should be no differences in usability between their test and tests that are on the market.

In that instance, if there's going to be no additional usability testing, that we would recommend enrolling children in that age range, in that number in the clinical study. So we do want to remain flexible here. But we also do want to ensure that since these are OTC tests, that we are getting some information on how children can use the test and if it's in the population.

**CDR Kimberly Piermatteo:** Thank you, Kris. Alright, our last previously submitted question is, can test developers reference the InspectIR COVID-19 Breathalyzer EUA summary for recommended studies for COVID-19 tests using GC-MS platforms?

**Kristian Roth:** Yes, thanks. So there is no template for breath tests intended for asymptomatic screening for COVID-19. This particular question didn't mention that it was a breath test, but that's our assumption. And yes, for breath tests it is appropriate to reference the InspectIR COVID-19 Breathalyzer EUA summary for recommended analytical and clinical validation studies to support EUA authorization for COVID-19 testing using a GC-MS approach.

We're also glad to engage with breath test developers during the review of a pre-EUA. And that is likely a good approach because this is a new kind of technology. And there may be nuances to a new platform when compared with the InspectIR platform. So we would welcome pre-EUAs ways for these types of tests.

**CDR Kimberly Piermatteo:** Alright, thank you, Kris and Tim. That wraps up the previously submitted questions. We will now move to take your live questions. To ask a live question, please select the Raise Hand icon at the bottom of your Zoom screen. When you were called on, please follow the prompt in Zoom to unmute yourself. Then identify yourself and ask your question. Please remember to limit yourself to asking one question only. If you have an additional question, you may raise your hand again to get back into the queue. And I will call on you if time permits. And please remember we are not able to discuss specific submissions under review.

Alright, our first question is from Enes. Enes, I'm going to unmute you. Please unmute yourself and ask your question. Enes, are you able to unmute yourself and ask your question?

Alright, we'll go ahead and we'll move to the next question. The next question comes from Abdul. Abdul, I am unmuting you. Please unmute yourself and ask your question. Abdul, are you able to unmute yourself?

**Abdul Tabuni:** Oh, OK, can you hear me now?

**CDR Kimberly Piermatteo:** I can hear you, yes.

**Abdul Tabuni:** I'm sorry. I thought I raised my hand. So I can only allow one question, correct?

**CDR Kimberly Piermatteo:** Yes, please.

**Abdul Tabuni:** OK, so my question is why there is no neutralizing antibody test for COVID template or guidelines for home use?

**Timothy Stenzel:** Can you ask that question again? I think it had to do with serology.

**Abdul Tabuni:** Yes, so why there's no neutralizing antibody test template? So there is one, but there's not specifically for home use.

**Timothy Stenzel:** Yeah, so at the present time, we are not prioritizing home use serology or home collection serology.

**Abdul Tabuni:** Can I—can I --

**Timothy Stenzel:** Ask a follow up, yeah, that's fine.

**Abdul Tabuni:** OK, follow up, OK, so would you I mean, if we going for POC, would you prefer POC or home use at this moment?

**Timothy Stenzel:** So we are not reviewing home use or home collection for serology tests. We are reviewing neutralizing antibody and fully quantitative serology assays at this time. But they are limited to central lab or CLIA waived sets.

**Abdul Tabuni:** Because the accessibility according to the guidelines or to the policy, it says the accessibility is important for neutralizing antibody test. And the policy specifically mentioned specific 500,000 and accessibility, so still can be POC can be accessibility. I mean, that's one of the questions on the focus of the FDA regarding the POC or regarding the accessibility. I thought--

**Timothy Stenzel:** So I'm going to have to finish up this. So yeah, it's just our current policy that we're reviewing laboratory or point-of-care based assays that are high volume and can either determine whether the antibodies are neutralizing or that they're fully quantitative. We've authorized the number of serology tests that don't meet that already. And as we look forward to what's important for the pandemic, it's determining whether or not we can decide if there's a level of antibodies, whether total or neutralizing that can impart any sort of immunity that can be reported out.

So those studies are ongoing. And we're trying to support the potential for that by reviewing those types of serology assays. So we do need to move on to the next question. Thank you.

**Abdul Tabuni:** Thank you.

**CDR Kimberly Piermatteo:** Yep, thank you, Tim. Our next question comes from Josh. Josh, I am unmuting your line. Please unmute yourself and ask your question.

**Josh Collins:** OK, thank you. So my question is for a product that is going to be white labeled for that there's an already approved EUA test, and it's now there's interest in white labeling in already authorized test and that in the new outer box packaging is going to, would be required, but the swab is too long. If the swab supplier is able to provide an identical swab but shorter to allow it to fit into the packaging, what approvals and validations would be required to switch to the shorter length swab?

**Timothy Stenzel:** Yeah, so this is going to be too specific for us to address. So please submit a pre-EUA to our template's email box. White label for those that may not know is basically rebranding under another label. And if there are going to be modifications to the test, then the FDA will want to take a look at those modifications.

**Josh Collins:** Understood, thank you.

**CDR Kimberly Piermatteo:** Alright, our next question is coming from Homer. Homer, I have unmuted your line. Please unmute yourself and ask your question.

**Homer Wu:** Hi, thanks for taking my call. I'm from Hopkins Meditech Compliance. We just finished a study for molecular tests in POC settings. So at this time, we still accept EUA application, right? Or we have to go through 510(k) now?

**Timothy Stenzel:** As long as it meets our November 15, 2021 priority list, we still are reviewing EUAs. But whatever, you can submit when you have, we'll do an initial review. And if it doesn't meet our priorities, we will let you know that. Especially if you were say, beginning studies, and you want to make sure that it meets our current priorities, that's a good thing to ask of our FDA staff.

**Homer Wu:** I'm sorry. We already finished the study. We are preparing.

**Timothy Stenzel:** That's fine. Yeah, I answer for your question and always because people are interested. So if you've already submitted it, you should have already-- that submission should have been acknowledged. Within about 10 days, we will do an assessment about whether that meets priority review. So if you can double check with whoever you submitted that, whatever email. If you have a review, or you double check with your reviewer, or you can check on the status by sending an email to the templates. But do give us up to 10 days to make the initial assessment.

**Homer Wu:** Alright, thank you.

**CDR Kimberly Piermatteo:** Alright, thank you for that question, Homer. Our next question is coming from Anjali. Anjali, I've unmuted your line. Please unmute yourself and ask your question.

**Anjali Zimmer:** Hi, thanks for taking the question. I really appreciate Tim your update about the timeline of reviewing. We submitted a pre-EUA for OTC antigen test about three weeks ago. We didn't get an acknowledgment. Is that timeline applied pre-EUA as well? Or is it just for full EUA submissions?

**Timothy Stenzel:** That's primarily for EUAs. But we're trying to turn around pre-EUAs quickly as well. So if it meets our priority on the list, well, it depends on what the question is. But if you want to, you can

send an email to the templates email box and you can identify the test, the EUA number, and the authorized contact for the developer and ask that it be forwarded to Kris and Tim. And we'll take a look at that, see if we can't get you an answer back, OK?

**Anjali Zimmer:** OK, great. Thanks so much.

**CDR Kimberly Piermatteo:** Thank you. Our next question is from Caroline. Caroline, I have unmuted your line. Please unmute yourself and ask your question.

**Caroline H.:** Hi, thank you for taking my question. This is regarding the antigen test for POC use. Does the claim testing population need to capture the number of days since symptom onset? Or can this be broadened to patients who are suspected of COVID-19 by a health care provider?

**Timothy Stenzel:** So we do need date from symptom onset. Antigen tests have a narrower window for performance than molecular tests as is well known. And we want to make sure that the initial window from symptoms is adequately assessed and we know the performance, particularly in the first five days of symptoms. Some antigen tests have gone out further than five days, seven days and some longer.

And that depends on the clinical sensitivity of the test. The more sensitive the test is, sometimes the more days that they can extend. But sometimes that's just the determination of how many days of symptoms from onset that a developer wishes to pursue and the inclusion exclusion criteria that they set for their clinical study.

**Caroline H.:** OK, thank you very much.

**CDR Kimberly Piermatteo:** Thank you. Our next question is coming from Liwei. Liwei, I unmuted your line. Please unmute yourself and ask your question.

**Liwei:** Can you hear me?

**CDR Kimberly Piermatteo:** Yes, we can.

**Liwei:** Yes. OK, thank you. So my question is about the breath testing. Yeah the-- we are developing our own breath testing. And when we do the clinical study, do we need to use the InspectIR as the comparator method?

**Timothy Stenzel:** No, no, so if you, I recommend you send a pre-EUA in. And we have a breath test, believe it or not, we have a breath test team that can make an assessment of how you want to validate this and how you and can give you feedback on that and any other recommendations you might seek that apply. I would look at the current authorized breath test. And look at the studies that they did.

We are asking for more studies, more patients in those studies than we do for the known technologies of serology antigen tests and molecular. Unfortunately, we've seen many novel technologies that have not been able to do as good a job as we would like. And so the new technologies, until they're firmly established looking at the same potentially the same markers in the same manner, we're going to be in a situation where we do we need more information to be able to make our assessment.

So I think you'll get a good idea of what we're looking for in the publicly available information on the FDA website about that first breath test.

**Liwei:** OK, so for to initiate a pre-EUA discussion for this topic, do I need to provide any kind of identical data like to initiate the discussion? Or I can just open the general request for EUA?

**Timothy Stenzel:** No, you can say I got a breath test with this technology. And you can propose studies that you want to do. Again, you can look at what's publicly available about the first one on the FDA website and design studies around that and ask questions around that, OK?

**Liwei:** OK, great, thank you.

**CDR Kimberly Piermatteo:** Thank you, Tim. Alright, our next question comes from Deirdre. Deirdre, I've unmuted your line. Please unmute yourself and ask your question.

**Deirdre Daniels:** Hello, thank you so much. Can you hear me?

**Timothy Stenzel:** Yes.

**Deirdre Daniels:** Alright, wonderful. So we have a question regarding the sensitivity of the PCR comparator compared to an OTC test. Obviously, the EUA template mentions a high sensitivity PCR test. However, there's not a whole lot of specifics about what that sensitivity level is for what you would desire, what the agency would desire in terms of the level of sensitivity. Do you have any additional insight you would be willing to share on that?

**Timothy Stenzel:** Well, we still have posted on the FDA website as one measure of sensitivity the reference material results for--

**Deirdre Daniels:** Yes, and I have seen that.

**Timothy Stenzel:** And yeah, so we take that information into account. There's other information that we have that is not public in assessing. So our recommendation is that you do check with the FDA to make sure that the comparator you plan to use and the sample type relative to the sample type of your candidate device are a good match.

**Deirdre Daniels:** OK, and we have submitted a pre-EUA for this. So I assume we will get additional feedback in that realm.

**Timothy Stenzel:** Yes, yes.

**Deirdre Daniels:** OK.

**Timothy Stenzel:** So yes you will.

**Deirdre Daniels:** OK, thank you so much.

**CDR Kimberly Piermatteo:** OK, thank you. Our next question is coming from David. David I've unmuted your line. Please unmute yourself and ask your question.

**David Bastian:** Hi, my name is David Bastian from Nephron Pharmaceuticals. Following up on the comparator test, does the RTPCR comparator test gene need to match the target gene for the proposed antigen test?

**Timothy Stenzel:** No, no, it just needs to be a high sensitivity central molecular test that does report out cycle thresholds.

**David Bastian:** Alright, thank you.

**CDR Kimberly Piermatteo:** Thank you, David, for that question. Alright keep moving on. Our next question is coming from Ezra. Ezra I have unmuted your line. Please unmute yourself and ask your question. Ezra, are you able to unmute yourself?

Alright, we will go ahead and move on to the next question. The next question is coming from Paul. Paul, I've unmuted your line. Please unmute yourself and ask your question.

**Paul Chapman:** Thanks very much for taking my question, Paul Chapman from Domus Diagnostics. In terms of a molecular at home test, is there guidance on visual readouts, pink to red for an RT lamp for instance or pink to yellow, sorry.

**Timothy Stenzel:** OK, so this is an in-liquid color change?

**Paul Chapman:** Yeah, so it is a bead that then when combined with the extracted fluids would turn from pink to yellow if positive.

**Timothy Stenzel:** Well, as you know, there are inherent challenges in that sort of readout even for a trained laboratorian.

So whatever you can do to make sure that that's very clear to users, and you have instructions for use that clearly allows home users to identify a positive or a negative, that's what we'll be looking for, right? And there will be the analytical studies that also look at this.

It is going to from our experience, it is going to, even in COVID, it's going to be more challenging to have that readout. Kris, do you have any other thoughts about that?

**Kristian Roth:** Just the one comment. We have seen this approach before and usability really starts to become challenging for folks, especially if they're untrained users. So anything you can do to improve the user's ability to detect that color change, some folks have included some color reference material along with the test. And that does seem to help.

**Paul Chapman:** I also was on the last call where you guys talked about identification software not being a priority. But that's something that could be added later on, too.

**Timothy Stenzel:** Yeah, if you had any instrument that determined the result, and especially if it wasn't necessarily visually read. But it's read by an instrument. And obviously, if it's a color change, that's a simpler instrument than fluorescent or anything like that.

**Paul Chapman:** This is this is an instrument-free, electricity-free. So we're trying to keep it bells and whistles free. Yeah, but I had one other quick question if I could regarding multiplexing. I assume if you're doing a COVID, molecular test again. If you're doing a COVID flu test, that's not on your priority list for a EUAs, right? That would be a De Novo 510(k)?

**Timothy Stenzel:** If it's a multiplex assay that has COVID on it and additional respiratory viruses like flu. That remains a priority. It's in the November 15, 2021 guidance

**Paul Chapman:** I gotcha. OK, good. That's great. Thank you very much. I submitted one that didn't get answered. I'll assume I'll get a written response. Thanks again.

**Timothy Stenzel:** If you submitted a question, and we didn't directly address it, yes, everybody's going to get within a couple of days a written response.

**Paul Chapman:** Thanks very much.

**CDR Kimberly Piermatteo:** Alright, thank you. Our next question is coming from Andy. Andy I have unmuted your line. Please unmute yourself and ask your question.

**Andy Wang:** Thank you for taking my question. This is Andy Wang from PGIA. My question is related to the previous one. For multiplex infectious disease testings such as the rapid antigen POC or RTPCR for flu AB COVID, et cetera, what is the clinical trial size requirement? And what are the general submission acceptance criterias?

**Timothy Stenzel:** So I don't know how much is spelled out separately for some of this. I believe for the non-COVID targets, there are recommendations in the templates. So I would look there. We have mentioned for both antigen and molecular for multi-analyze situation. So look there first. If you have further questions, you can submit a pre-EUA. Kris, anything to add on that?

**Kristian Roth:** No, there's a lot of detail in those templates. And I think some of the numbers that you're looking for as far as sensitivities needed for flu and other analyze are definitely listed in either the home use template or the molecular or antigen templates.

**CDR Kimberly Piermatteo:** Alright, thank you Tim and Kris. Our next question is coming from Annabel. Annabel, I've unmuted your line. Please unmute yourself and ask your question.

**Annabel:** Hello?

**CDR Kimberly Piermatteo:** Hello, we can hear you.

**Annabel:** Great. I'm calling on behalf of a manufacturer of an assay that already has EUA authorization. And we are starting to look at evaluating CMOs in order to expand our production. So I noticed that in our authorization letter, like anyone else's authorization letter, there are certain waivers to GMP requirements. And I'm wondering if those waivers to GMP requirements would also apply, or would also extend to our CMOs. Thank you.

**Timothy Stenzel:** So I'll take an initial crack at this. Kris, you can add anything. So if there-- I would look to the initial authorization, actually the current authorization. We are in some cases, requiring more

than we did in the beginning and those whatever criteria are in your current authorization that can be utilized here as well. I mean we are interested in CMOs, contract manufacturing organizations. We are interested in making and encouraging use of experience in a contract manufacturing organizations with making regulated tests and not looking to somebody who hasn't done it before at this point in the pandemic. So that's what we would encourage. I believe you're allowed to change manufacturing sites without an authorization. But Kris, can you-- do they still need to submit that to the FDA and we update their authorization?

**Kristian Roth:** Yeah, we would want to see that as an amendment. So you could provide your new manufacturing location. And if they have an FEI number, we would like to know that as well. But there would be no reissuance of the letter. This would just be an update to the information we have for your test on file.

**CDR Kimberly Piermatteo:** OK.

**Annabel:** Great, thank you.

**CDR Kimberly Piermatteo:** OK, thanks, Annabel. Alright, our next question comes from Ray. Ray, I'm unmuting your line. Please unmute yourself and then ask your question.

**Ray Bandziulis:** Hello, my name is Ray Bandziulis. I'm from LGC Bio Search Technologies. Thank you for taking the question and for continuing these programs. My question is a more of a programmatic one. Is FDA aware, or can you point me towards resources where at a national level, there would be a monitoring or surveillance program for the population on the hunt for the emergence of new variants, et cetera especially where molecular tests may be applicable? Thank you.

**Timothy Stenzel:** Yeah, so both the CDC operates a sequencing-based program and NIH RADx, which operates a genotyping operation across the country. Those would be where I would refer you to. So if you send an email to the templates email address, and you ask for Kris and Tim to be forwarded the email, I can put you in contact with key contacts at both organizations.

**Ray Bandziulis:** Oh, thank you very much, much appreciated.

**CDR Kimberly Piermatteo:** Thank you. Alright, our next question comes from Ying Zhou. I am unmuting your line. Please unmute yourself and ask your question.

**Ying Zhou:** Yes, can you hear me?

**CDR Kimberly Piermatteo:** Yes, we can.

**Ying Zhou:** Thank you for taking my question. So I only have one question regarding whether there is specific quality or clinical guidelines on testing kit based on synthetic biology or genetically edited living cells?

**Timothy Stenzel:** OK, so this would use, it's a cellular based assay is what you're saying?

**Ying Zhou:** Correct.

**Timothy Stenzel:** OK, well, we're going to have specific questions around that. We don't have a template around that technology. So I would suggest a pre-EUA way to explain the technology and what its purpose is so that we can make sure that it would be a priority review for us. And then we can also give you feedback on your plans for validation.

**Ying Zhou:** Thank you so much.

**CDR Kimberly Piermatteo:** Thank you, Tim. Alright, looks like Liwei, you have another question. I am going to unmute you. Please unmute yourself and ask your question.

**Liwei:** Yes, can you hear me?

**CDR Kimberly Piermatteo:** Yes we can.

**Liwei:** OK, thank you. Yeah, I'm waiting in line for another question. So we also have another OTC antigen test product under development. My question is I noticed that recently, all the EUA approved the product of the OTC antigen test. They have changed their reagent tube from a screw cap to a pre-sealed aluminum foil pre-sealed tube. My question is this change mandatory by FDA or just another manufacturer's own decision?

**Timothy Stenzel:** So far we don't have that recommendation. But we do like to see that any tubes that come with the assay ideally are pre-filled. Any time a user or even a laboratory user or a CLIA waived site user, especially maybe a home user, if they have to transfer liquids, it is an extra step. And it does cause more usability issues. And we put out a safety communication for because some home users have taken the buffer that comes in a separate tube that they add to another tube and thought it was eye drops and put it in their eyes.

So those are the sort of safety things we would like to avoid. But obviously, we've authorized tests that have that. It's more a usability. We are encouraging developers to make this as easy as possible for users. I mean, there are some users who benefit from easier workflow. And they may have, say vision issues or dexterity issues and things like that. So the easier the workflow is the better it's going to be for everybody. So but obviously, we still are authorizing tests that do have an extra step here and there with buffers

**Liwei:** OK, thank you very much.

**CDR Kimberly Piermatteo:** Alright, our next question is coming from Ezra. Ezra, I have unmuted your line. Please unmute yourself and ask your question.

**Ezra:** Hello, can you hear me?

**CDR Kimberly Piermatteo:** Yes, we can.

**Ezra:** Oh thank you. Thank you for taking my question. So I got a quick question is, what's the difference between the ITAP program and the EUA where you prioritize the ITAP to facilitate the assessment. Thank you.

**Timothy Stenzel:** Yeah, so ITAP is Independent Test Assessment Program. That's jointly run by the NIH and FDA. So if you look at our priorities for on November 15, 2021, one of the priorities of any government funded COVID test project, and that would fall under that category.

So all of the tests that meet the priorities have-- meet those priority, do get priority at the FDA for review. And what happens then is that it depends on the quality of the submission. And those submissions that are high quality, all the tests are performed. The data is clear. It's easily absorbed because the submission is well organized. The less questions the FDA has about the submission, the faster it goes through the process, which just makes sense.

**Ezra:** OK, terrific. Thank you very much. Thanks a lot.

**CDR Kimberly Piermatteo:** Thank you. Tim, I think we have time for one more quick question. We'll go to Caroline. Caroline, I've unmuted your line. Please ask your question.

**Caroline H.:** Hi, thank you for giving me the chance to ask one more question. In the antigen template regarding studies to support POC use, can the supplemental contrived studies be conducted as a separate study? Or does this need to be conducted at the same time of the clinical study?

**Timothy Stenzel:** Oh, that's a detail that I can't respond to. Kris, I don't think they have to be done at the same time. But I would prefer Kris answer, or if it's important that we have you send an email to the templates box.

Kris, can you address this today?

**Kristian Roth:** I don't think they need to be done at the same time. But I suspect there's a little bit more to this question. So I would say maybe send me an email of your question. And we can kind of discuss the particulars of it.

**Timothy Stenzel:** Yeah, so just send it to the templates email address and ask for it to be forwarded to Kris. And he will address any more details that are important there.

**Caroline H.:** OK, thank you very much.

**CDR Kimberly Piermatteo:** Alright, thank you Caroline. Thank you, Tim and Kris. That wraps up our live portion for today's Town Hall. We appreciate everyone's participation. And thank you to Tim and Kris for all of your feedback.

As I mentioned earlier, a recording of today's Town Hall will and transcript will be made available on CDRH Learn. Please visit CDRH Learn at the link provided on this slide. You will find the recording and transcript under the section titled Specialty Technical Topics and then the subsection titled Coronavirus COVID-19 Test Development and Validation Virtual Town Hall Series.

For additional questions about today's Town Hall and COVID-19 IVD topics in general, please send an email to [CDRH-EUA-Templates@fda.hhs.gov](mailto:CDRH-EUA-Templates@fda.hhs.gov).

And lastly, please remember to join us for the next IVD Town Hall scheduled for Wednesday, May 4<sup>th</sup>, 2022 at our new time from 12:00 noon to 1:00 PM Eastern time. This concludes our Town Hall for today. Thank you and have a great day.

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