



Transcript from

## **COVID-19 Testing Toolkit Webinar Series: Lessons from Ginkgo Bioworks and Concentric by Ginkgo**

**March 24, 2021**

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00:00:02.879 --> 00:00:13.410

Andrea Lapp: Welcome to today's webinar Kofi 19 testing toolkit webinar series lessons from ginkgo fireworks Dr G G groundball will now begin.

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00:00:22.740 --> 00:00:32.280

Gigi Gronvall: Thank you for joining us today i'm sheet grandfather's senior scholar at the Johns Hopkins Center for health, security and an associate professor at the Johns Hopkins Bloomberg school of public health.

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00:00:32.910 --> 00:00:41.010

Gigi Gronvall: Today we are launching a new webinar series uncovered 19 testing strategies and best practices from organizational leaders.

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00:00:41.520 --> 00:00:47.460

Gigi Gronvall: This webinar is part of our new coven 19 testing toolkit which is available on our Center website.

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00:00:48.000 --> 00:00:52.740

Gigi Gronvall: The toolkit is funded by lie to heal philanthropies and the Gordon and Betty more foundation.

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00:00:53.220 --> 00:01:00.450

Gigi Gronvall: The toolkit provides information to for organizations of all sizes to develop covert testing strategies to fit their needs.

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00:01:00.990 --> 00:01:09.390

Gigi Gronvall: testing is, as you know, crucial to stopping the spread of SARS could be too it's important to choose the right type of test to provide the most useful information.

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00:01:09.780 --> 00:01:18.480

Gigi Gronvall: The coven 19 testing tool kit provides information about the test and testing services to help employers and administrators develop strategies to fit their needs.

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00:01:19.200 --> 00:01:27.330

Gigi Gronvall: After the panel, we will answer questions from the audience Please submit questions in the Q amp a box and we're going to get to as many as we can.

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00:01:27.990 --> 00:01:35.820

Gigi Gronvall: Today we are speaking with two leaders from ginko fireworks on how they launched their covert testing service called concentric by ginkgo.

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00:01:36.300 --> 00:01:48.420

Gigi Gronvall: And their efforts to pilot the program and schools, the panelists will discuss the importance of testing to ensure safe school V openings as well as the role of biotechnology to counter future outbreaks and pandemics.

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00:01:48.780 --> 00:01:51.810

Gigi Gronvall: Our two panelists are matt mcknight and renee wacker said.

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00:01:52.350 --> 00:02:05.160

Gigi Gronvall: matt is the chief commercial Officer of ginko fireworks prior to ginko he spent seven years as an investor and was the President and CEO of decision resources group and as an active seed stage venture venture investor.

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00:02:05.640 --> 00:02:09.180

Gigi Gronvall: Early in his career he served as an officer in the US marine corps.

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00:02:09.510 --> 00:02:18.930

Gigi Gronvall: He completed a degree in history at Dartmouth, and as a graduate of the joint degree program at the Harvard Business School in the Harvard Kennedy school of government, where he was a sacrament fellow.

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00:02:19.800 --> 00:02:28.440

Gigi Gronvall: renee is Vice President of business development at ginko prior to joining, she was the program manager in the bio technologies office at DARPA.

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00:02:28.740 --> 00:02:37.380

Gigi Gronvall: where she leverage the tools of synthetic biology and gene editing to enhance biosecurity support the domestic bio economy and outpaced infectious disease.

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00:02:37.770 --> 00:02:47.550

Gigi Gronvall: Prior to joining DARPA Dr wegrzyn led to some private industry and biosecurity gene therapies synthetic biology and diagnostics so matt over to you.

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00:02:49.530 --> 00:02:55.410

Matt McKnight: Great Thank you jj really appreciate the opportunity to be here and thank you for everybody listening in.

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00:02:56.910 --> 00:03:09.390

Matt McKnight: yeah this has been this has been a amazing and challenging year for everybody, I mean i'll just give the 32nd background on ginko For those of you who aren't familiar kinko's a 12 year old company and our.

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00:03:09.930 --> 00:03:21.240

Matt McKnight: Prior to cover their entire existence is based on this fundamental principle right that cells are manufacturing platforms and they are manufacturing platforms that run on digital code in the form of DNA.

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00:03:21.870 --> 00:03:32.070

Matt McKnight: And for 12 years the founding team and now a 700 person team have built infrastructure to program those cells and do so increasingly efficient ways.

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00:03:32.940 --> 00:03:44.070

Matt McKnight: Our view is that the century in front of us, just like the century behind us was driven by chemistry and physics, going from science disciplines into engineering disciplines, essentially in front of us.

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00:03:44.460 --> 00:03:53.790

Matt McKnight: is one that will be defined by our ability to increasingly efficiently program cells and thus program those manufacturing platforms that create almost everything around us.

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00:03:54.810 --> 00:04:07.560

Matt McKnight: So when Kobe hit we kind of we had a soul searching moment That said, you know this is February, March we've got 250,000 square feet of robotic infrastructure engineering biology a massively capable team.

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00:04:07.890 --> 00:04:13.260

Matt McKnight: What can we do, like so many others across the country asked the same question, what can we do to help respond.

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00:04:13.980 --> 00:04:22.770

Matt McKnight: To this crisis and we really focus in two areas, we built this business called concentric are really that's our biosecurity pandemic response.

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00:04:23.580 --> 00:04:33.990

Matt McKnight: platform inside of ginko and we focus really into areas renee will touch on the first area, a little bit we work in the vaccine supply chain thinking about these amazing new.

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00:04:34.890 --> 00:04:41.670

Matt McKnight: em RNA vaccines and how we make them or make them from the same things that we do all day long right programming cells to produce.

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00:04:42.180 --> 00:04:52.590

Matt McKnight: plasmids and converting those those DNA plasmids into the amazing vaccines that we have today So how do you build scale when that was has been a research project for for many years.

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00:04:53.340 --> 00:04:58.500

Matt McKnight: But then, on the other side of it was really it was really focused time today as.

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00:04:59.220 --> 00:05:05.400

Matt McKnight: You know, it was very clear that we were going to spin up diagnostic testing right to draw the distinction and we did it an incredibly kind of.

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00:05:06.180 --> 00:05:16.860

Matt McKnight: Decentralized manner, but the idea that we were going to have enough PCR testing if you will, for a symptomatic individuals or close contacts that was going to be solved and we then asked ourselves for for.

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00:05:17.310 --> 00:05:25.950

Matt McKnight: a disease that is respiratory in nature, where many of the individuals that have it or asymptomatic how are we going to build massive scale surveillance testing.

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00:05:26.340 --> 00:05:34.890

Matt McKnight: And so, our entire focus from March has really been around the different ways to do mass scale asymptomatic surveillance testing, and we really.

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00:05:36.240 --> 00:05:40.590

Matt McKnight: we've tried a bunch of different things over the course of the over like really impressed, you know you take.

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00:05:40.860 --> 00:05:57.090

Matt McKnight: Take what the nba did, and in a leadership example showed how you can create a bubble now small group of people massive resources but early right and showed how you can use individual diagnostic tests in a regular and frequent manner to keep a population.

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00:05:58.170 --> 00:06:07.500

Matt McKnight: In a coven managed situation, then you watched what folks did with the burdens to did in New England college is primarily over the fall.

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00:06:08.160 --> 00:06:17.880

Matt McKnight: Or what you have I did, and, obviously, that was a many of those of you on this call are massively familiar with those programs, but it showed that there's this art of the possible.

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00:06:18.660 --> 00:06:33.540

Matt McKnight: With respect to using frequent testing and a repeated manner, in addition to other mitigation measures, measures masking distancing obviously ventilation to risk manager population via surveillance testing.

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00:06:34.290 --> 00:06:46.080

Matt McKnight: or routine and frequent testing, and then we kind of took a step back and really respecting what those programs proved and and, as we all tried to solve this together and said Okay, but what's the big problem left.

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00:06:46.680 --> 00:07:01.200

Matt McKnight: Well, the big problem left other than vaccine manufacturing and distribution, it was like a operations manufacturing logistics problem, the big problem was that there's 51 million and we started looking at this late September really 51 million K through 12 students in America.

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00:07:02.550 --> 00:07:13.920

Matt McKnight: Who are not about having fun we're not in regular in person learning and we're not and still aren't right and we asked ourselves the question how do you do the nba thing.

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00:07:14.670 --> 00:07:24.150

Matt McKnight: Or the New England college thing for that population and the basic the basic difference is, you have to design, from the beginning for scale.

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00:07:25.050 --> 00:07:34.860

Matt McKnight: Right you can't design a solution that just works for wealthy districts or privately funded institutions if you're going to solve the public education.

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00:07:35.610 --> 00:07:45.090

Matt McKnight: Regular every kid every week problem you have to figure out how to do it for 51 million kids so that is equitable and accessible across the country.

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00:07:45.540 --> 00:07:53.130

Matt McKnight: As a starting in September, October that's, but that was the design principle we started with how would you do this and as a non diagnostic testing company, we took a first principles approach to it.

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00:07:53.610 --> 00:08:04.800

Matt McKnight: And we said, what do you need to solve, and you needed to solve a couple of things, it has to be easy right you can't take lots of time out of a day and schools across the country such a diversity of schools.

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00:08:05.370 --> 00:08:12.930

Matt McKnight: It has to be you know something that we are not asking teachers to become nurses we're not asking schools to become clinics and.

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00:08:13.290 --> 00:08:18.450

Matt McKnight: It really needs to be a different mentality on how you do testing and and prior to the recent.

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Matt McKnight: Funding for K 12 testing K K 12 testing, it had to be cheap right like this is a massive scale problems, how do you do this inexpensively.

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00:08:28.170 --> 00:08:33.990

Matt McKnight: So basically two pieces of the puzzle that we tried to solve one very quickly realized actually the hard part of the problem.

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00:08:34.440 --> 00:08:45.660

Matt McKnight: is engaging schools and building the front end of how you build a system to allow schools to run their own testing programs to do every kid every week.

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00:08:46.350 --> 00:08:56.490

Matt McKnight: And unless you're doing every kid every week you're not truly designing a surveillance program that allows you to cue a more effective complimentary use of diagnostic testing.

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00:08:57.540 --> 00:09:06.510

Matt McKnight: or protocol based responses, for that matter, and so that's where we focus a lot of our attention we worked with schools all through the fall primarily Massachusetts but then across the country.

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00:09:06.870 --> 00:09:12.450

Matt McKnight: designing the system for scale, how would you do it easily in the classroom what we settled on we tried lots of different things we settled on.

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00:09:12.840 --> 00:09:24.930

Matt McKnight: A lot of learning from what the broad did in New England self swab lower nasal collection instead of saliva or other methodologies That was something that kids could do in school and we validated.

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00:09:25.890 --> 00:09:32.250

Matt McKnight: The the age groups that could do it and showed actually that within a school environment kids all the way down.

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00:09:32.790 --> 00:09:35.670

Matt McKnight: Through the lower grades were able to do a self swab.

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00:09:36.150 --> 00:09:42.360

Matt McKnight: And then we pushed on the pushing pushing pushing the problem to design the education materials, the outreach the onboarding materials.



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00:09:42.600 --> 00:09:57.090

Matt McKnight: So that schools could get kits and run this as a surveillance program as a tool for them, as opposed to something being placed on them, so we basically designed the program which is self swab five to 25 swabs into a 50 mil falcon tube.

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00:09:58.140 --> 00:10:11.400

Matt McKnight: And we run it the back end intuition was schools are in cohorts schools live in pods, especially in the context of pandemic mitigation so every tube is a cohort every tube is a classroom and following.

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00:10:12.480 --> 00:10:20.520

Matt McKnight: Obviously CDC guidance now but Rockefeller as well, every kid every week once per week, it takes about eight minutes per classroom to go through a class have everybody self swab.

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00:10:20.910 --> 00:10:30.630

Matt McKnight: This sits in a coffee mug at the front of the class kids drop the swab in and the results are then returned via standard PCR and so, then this was the second half of it, which was.

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00:10:31.650 --> 00:10:33.390

Matt McKnight: We decided we we said to ourselves.

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00:10:34.410 --> 00:10:42.600

Matt McKnight: This can't be about running all these tests in Boston, this is not build the mega lab for the country from Logan airports behind that window.

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00:10:43.200 --> 00:10:47.640

Matt McKnight: Right, and so we flip the script a little bit and we said why don't we use our lab capacity in our capability.

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00:10:48.000 --> 00:10:53.670

Matt McKnight: to validate this amazing network of labs around the country that had been built to run individual diagnostic PCR tests.

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00:10:54.240 --> 00:11:00.360

Matt McKnight: And so, every day, now we run collection of these to get human human sample at ginko.

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00:11:00.780 --> 00:11:08.160

Matt McKnight: We can try of samples we send them around the country and validate labs for this classroom cooling modality, we validated over 40 labs in our network now.

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00:11:08.580 --> 00:11:14.250

Matt McKnight: And we're running tests across the country with our design front end to make it easy for schools to run.

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00:11:14.550 --> 00:11:22.560

Matt McKnight: And then they are distributed through logistics network to labs in each region of the country we're running Maryland Maryland tests in Maryland.

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00:11:22.950 --> 00:11:26.250

Matt McKnight: Running Massachusetts tests in Massachusetts actually at northeastern university.

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00:11:26.670 --> 00:11:40.530

Matt McKnight: we're running California tests in labs regionally located close to California and we're doing that, on a nationwide basis so that was a big intuition flip to like be partners and leverage this this kind of amazing network that exists in the ecosystem.

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00:11:41.550 --> 00:11:45.180

Matt McKnight: So just to give people a sense of scale our entire focus.

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00:11:46.410 --> 00:11:54.120

Matt McKnight: has been and i'm sure we'll get into you know how our schools reacting to doing kind of cohort based testing, what do you do after a positive cohort.

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00:11:54.510 --> 00:12:06.330

Matt McKnight: But generally our entire focus has been K K 12 provide the tools available to do every kid every week, be a cloud be a classroom or pod testing we give the schools, the tools to do that.

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00:12:07.020 --> 00:12:14.040

Matt McKnight: So that they get to run their own programs they get to design their cohorts as a surveillance of we don't collect any pii.

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00:12:14.670 --> 00:12:18.390

Matt McKnight: We don't collect any personal information about the students, so we get a classroom ID.

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00:12:18.780 --> 00:12:26.520

Matt McKnight: And we enter a two by D and we report to that aggregate level the school manages how they and turns out in all of our experimentation.

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00:12:26.880 --> 00:12:37.470

Matt McKnight: Schools are pretty good at managing attendance, as you as might have been an easy easy thing to think about ahead of time, but they manage how they use that information and we have schools, doing everything from.

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00:12:38.100 --> 00:12:46.260

Matt McKnight: Completely protocol based responses positive classroom everybody goes home for the for the local guideline duration of time.

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00:12:46.560 --> 00:12:52.320

Matt McKnight: To Massachusetts friends their entire program the dp he has authorized the use of by next now rapid antigen tests.

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00:12:52.650 --> 00:13:03.420

Matt McKnight: immediately upon a positive pool to find positives when we talk about the pros and cons of that but that's what the entire State of Massachusetts is running on and we run both of those but our focus has been on this layer of.

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00:13:03.930 --> 00:13:11.220

Matt McKnight: Every kid every week, the only way to logistically do every kid every week is being hot or cohort at that 51 million scale.

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00:13:11.820 --> 00:13:26.910

Matt McKnight: So that's been really exciting we're running just to give a couple hundreds and hundreds of thousands of kids now across the country or in schools that have signed up we split the Massachusetts program with the broad institute we run baltimore city Montgomery county and Maryland.

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00:13:28.260 --> 00:13:35.790

Matt McKnight: Actually it'll be it'll, be it was approved last night of the school board meeting and Newark has signed up for the program they'll have a press release this morning.

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00:13:36.270 --> 00:13:43.890

Matt McKnight: And so it's been really exciting to see just the adoption of this modality across the country.

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00:13:44.490 --> 00:13:50.250

Matt McKnight: And I don't see it as a replacement for anything it's just we're over a year into this, we just keep getting better.

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00:13:50.640 --> 00:13:59.190

Matt McKnight: As a country at using the tools available and there'll be different tools available six months from now, but the idea that we would have infrastructure that allows you to do.

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00:13:59.520 --> 00:14:04.140

Matt McKnight: Every kid every week surveillance on a pod basis to focus the use of diagnostic tests.

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00:14:04.440 --> 00:14:15.780

Matt McKnight: To then use those more efficiently to keep more kids in classrooms because you're giving data to decision makers to make better risk manage decisions in the context of masking vaccines distancing.

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00:14:16.230 --> 00:14:25.470

Matt McKnight: it's just like a really powerful concept for us, and I think our view is that, like it's not the only piece, but it was a big missing piece to build a scalable solution to do.

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00:14:26.190 --> 00:14:34.110

Matt McKnight: Every kid every week across the country as opposed to in specific Community, so I will pause there and turn it over to renee.

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00:14:35.220 --> 00:14:44.100

Matt McKnight: Who will talk a bit about our more broad concentric offering and it will just also queue up renee a little bit like the idea that.

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00:14:44.610 --> 00:14:52.500

Matt McKnight: In every crisis through human history, did you mentioned the history major so I like kind of go down this path we've learned something.

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00:14:53.160 --> 00:15:05.370

Matt McKnight: that we can then use and be more efficient afterwards, either to prepare ourselves better for the next time or to become more efficient, as a society like for me this idea that we might be building better tools to respond.

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00:15:05.880 --> 00:15:15.390

Matt McKnight: to something like this, God forbid the next time it happens and using the experience of trying to get kids back into classrooms, which is such a massively important mission to do so.

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00:15:15.660 --> 00:15:24.690

Matt McKnight: it's like a really powerful driving concept for what we're doing it ginko but, again, thank you Judy for letting us have the opportunity to speak here and record the questions i'll turn it over to renee.

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00:15:26.430 --> 00:15:32.730

Renee Wegrzyn: Great thanks matt and thanks dd and the Center for for having us and for all the attendees it's actually great to see.

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00:15:33.270 --> 00:15:42.690

Renee Wegrzyn: A lot of folks on the participant list, who i've known for over a decade working on things like biosecurity, and so we know that this is, you know, an event of our lifetimes.

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00:15:43.440 --> 00:15:48.480

Renee Wegrzyn: And so it is really our our chance to to come up and and and have a solution here that we hope can help.

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00:15:49.110 --> 00:15:56.250

Renee Wegrzyn: build a stronger national security infrastructure, using i'd like to use the example of the K through 12 testing that matches described.

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00:15:56.820 --> 00:16:00.630

Renee Wegrzyn: To really set us up and how can we use a plan like that longer term.

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00:16:00.990 --> 00:16:08.700

Renee Wegrzyn: And really maintain and have a permanent infrastructure going forward because I don't we all wish this was in place, but before this pandemic that we would have had a way.

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00:16:09.030 --> 00:16:21.900

Renee Wegrzyn: To have a an early Sentinel smoke detector to say hey here's the first outbreak, or you know wow here's the UK variant we caught it at the airport it didn't get any further than that, but we didn't have that in place So how do we build this going forward.

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00:16:22.320 --> 00:16:26.190

Renee Wegrzyn: To be a better system, you know note, no doubt, this year was.

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00:16:26.760 --> 00:16:31.680

Renee Wegrzyn: The powerful biology that was observed just from the natural pandemic, but I think you know biotechnology.

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00:16:31.950 --> 00:16:44.700

Renee Wegrzyn: Industry has also been a very powerful year showing a company like ginko who wasn't built to to respond to a pandemic, but could pivot our infrastructure that that matt described our cell engineering platform to.

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00:16:45.000 --> 00:16:56.040

Renee Wegrzyn: To actually respond so you know one important lesson I think that we need to take forward here is that we have to keep innovating this continued innovation is is really going to be key going forward before that ginko I was at DARPA.

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00:16:56.640 --> 00:17:05.640

Renee Wegrzyn: Eight years ago, you know Madonna was for people and talking about this crazy technology to encode in Mr nate as which is now the priority solution now so we can't slow down there.

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00:17:06.180 --> 00:17:17.400

Renee Wegrzyn: And so, so you know ginko is going to continue to to make biology easier to engineer and understand how we can respond through about security and take the responsibility to do so because honestly we're not going to have the luxury.

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00:17:17.730 --> 00:17:25.620

Renee Wegrzyn: of knowing what's coming next, and so, for this pandemic here's concrete ways that ginko was addressing this and thinking about how we can extend this into the future.

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00:17:26.070 --> 00:17:33.900

Renee Wegrzyn: matt mentioned testing there's you know a lot of work left to do so we're just starting to build this infrastructure of have a network of labs across the country that bring.

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00:17:34.200 --> 00:17:40.590

Renee Wegrzyn: That testing close by, in terms of geographically to those schools and places that testing needs to be administered.

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00:17:41.070 --> 00:17:44.880

Renee Wegrzyn: matt didn't mention our digital technology that actually is a foundational layer

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00:17:45.510 --> 00:17:51.270

Renee Wegrzyn: Of this platform that you know these labs need to be able to communicate with each other with us, with the pH with parents.

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00:17:51.630 --> 00:17:58.620

Renee Wegrzyn: And this is a really critical piece that that was key to scaling this infrastructure, importantly, you know when you think of the information flow now.

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00:17:58.830 --> 00:18:00.960

Renee Wegrzyn: it's kind of all flowing in the direction of public health.

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00:18:01.200 --> 00:18:10.350

Renee Wegrzyn: But what if something changes in this pandemic and there's there's a new variant or something else that we need to adapt that network becomes actually that information pipeline to push information out to schools.

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00:18:10.740 --> 00:18:17.940

Renee Wegrzyn: out to the lab there, for you know really creating this this bio security infrastructure and platform that we haven't had previously.

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00:18:18.630 --> 00:18:21.900

Renee Wegrzyn: And to maintain that testing every K through 12 students every week.



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00:18:22.500 --> 00:18:32.520

Renee Wegrzyn: And thinking about what's next to maybe it's influenza maybe we we can establish that on an annual basis coated, unfortunately, is probably here to stay, even with vaccines that we're going to be looking at an endemic.

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00:18:33.060 --> 00:18:37.320

Renee Wegrzyn: SARS coby to circulation, that we need to understand what's what's circulating they're.

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00:18:38.400 --> 00:18:47.370

Renee Wegrzyn: The really important part that we haven't talked about, yet we spoke a lot about testing, but under the same roof NGO, we also use this platform that we've developed to do things like.

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00:18:47.940 --> 00:18:59.490

Renee Wegrzyn: Create vaccines and therapeutics and add events and other technologies that can be used as part of this medical countermeasure response and so early in the pandemic we collaborated with Madonna just as one example.

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00:19:00.060 --> 00:19:07.290

Renee Wegrzyn: helping them in their their early manufacturing to make sure that that that is most efficient as possible, they hadn't scaled this either before.

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00:19:07.980 --> 00:19:16.170

Renee Wegrzyn: So when you're all of a sudden, you know told to to make a billion doses of something, then you really have to fundamentally change how you you approach that to make sure you're getting.

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00:19:16.440 --> 00:19:23.730

Renee Wegrzyn: The maximum number of doses per production run and so so ginkgo as well, some other companies can start to provide some of those raw materials.

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00:19:23.970 --> 00:19:32.790

Renee Wegrzyn: To help that process along a lot of people think about phil and finish the last steps, the last mile the vaccine, but those very first steps are just as important to make sure that this.

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00:19:33.330 --> 00:19:41.550

Renee Wegrzyn: can actually stay at scale going forward, and you can see, with with biotechnology having something like testing and ability to measure and sequence variants early on.

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00:19:42.060 --> 00:19:56.070

Renee Wegrzyn: Coupled with this ability to to make vaccines under one roof really can be used to shorten the cycle time for biosecurity going forward so as we get better at that, instead of it taking you know, a year to get vaccine and arms let's.

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00:19:56.700 --> 00:20:04.350

Renee Wegrzyn: have the potential to make that much shorter and shorter and we're determined to do so, working with our partners, including that the Community that that's here.

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00:20:05.460 --> 00:20:15.390

Renee Wegrzyn: As a bio security career person when i'm really excited about what's next is the opportunity that this affords to make this permanent so in so many examples in the past we've kind of ramped up.

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00:20:15.780 --> 00:20:24.300

Renee Wegrzyn: Bio surveillance and biosecurity only to to have all those efforts fall dormant after the end of the pandemic and I hope, here we have.

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00:20:24.600 --> 00:20:31.830

Renee Wegrzyn: The potential, especially as we push this out and show that we can hopefully help schools reopen that this is a technology that that's here to stay.

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00:20:32.790 --> 00:20:43.080

Renee Wegrzyn: And that we can really you know, think about some fundamental changes through technology so so the good news, if you even just think about 10 years ago or last pandemic was H1 and one that that we are all around for.

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00:20:43.530 --> 00:20:50.610

Renee Wegrzyn: We didn't have em RNA vaccines, then we do now, and so we were actually able to have vaccines arrived in time that it can impact this outbreak.

139

00:20:51.000 --> 00:20:58.350

Renee Wegrzyn: Of for H1 anywhere anyone that vaccines arrived after the outbreak was over, so that it didn't really save as many lives as it could have is if it came earlier.

140

00:20:58.860 --> 00:21:05.280

Renee Wegrzyn: And then, with diagnostics as matt mentioned, we finally have a way to scale so again during the H1 no pandemic, we had.

141

00:21:05.610 --> 00:21:13.680

Renee Wegrzyn: About 15 UAE authorized tests that became available, but actually could not be scaled so we're never really used to impact that pandemic.

142

00:21:14.010 --> 00:21:17.850

Renee Wegrzyn: And that's fundamentally different now so i'm excited that we're putting this into place.

143

00:21:18.510 --> 00:21:29.100

Renee Wegrzyn: As these you know smoke detector and a vaccine way to mitigate that risk going forward, we have to maintain this in it flexible manner and a resilient manner, so that we can continue to respond.

144

00:21:30.000 --> 00:21:41.760

Renee Wegrzyn: We want to grow this and in in K through eight is as as matt mentioned, but you know also let's think about other communities that this could really have an impact on so so longer term is as vaccine.

145

00:21:42.990 --> 00:21:48.090

Renee Wegrzyn: I want to say solves the challenge of covert 19 but really helps address the pandemic domestically.

146

00:21:48.420 --> 00:21:55.860

Renee Wegrzyn: Our ports of entry, our airports, our borders are going to be a potential vulnerabilities and we need to think about how can we have.

147

00:21:56.160 --> 00:22:00.960

Renee Wegrzyn: Use of testing there to prevent new outbreaks and detect any new variants that that may be of concern.

148

00:22:01.710 --> 00:22:09.510

Renee Wegrzyn: also make sure that this testing is available to to all communities, and so you know, not just those that are that are wealthy and privileged but but really.

149

00:22:09.870 --> 00:22:15.090

Renee Wegrzyn: Those in rural settings that are otherwise difficult to to deliver healthcare solutions.

150

00:22:15.630 --> 00:22:25.200

Renee Wegrzyn: Something like a simple slob that a kindergartener qaeda minister and fedex back to a laboratory for testing is we really see as an opportunity, moving forward.

151

00:22:26.010 --> 00:22:38.820

Renee Wegrzyn: So I think you know biosecurity now is becoming fundamentally national security so so preventing that disruption of our economy and of our of our health infrastructure going forward this is really going to become a guiding principle.

152

00:22:39.180 --> 00:22:47.670

Renee Wegrzyn: And it's up to us here to really create that permanent flexible and scalable biosecurity infrastructure for the future and really excited to work with with matt and the Center.

153

00:22:47.670 --> 00:22:48.330

Gigi Gronvall: And our.

154

00:22:48.360 --> 00:22:54.090

Renee Wegrzyn: partners in industry to make this happen so thanks again and back over to you gigi.

155

00:22:55.080 --> 00:23:02.070

Gigi Gronvall: This is great and there's some really good questions and in the Q amp a, but I have a few days to start.

156

00:23:02.820 --> 00:23:16.890

Gigi Gronvall: So so where just basics Where would you suggest a school administrator teacher school board where should they start when creating a testing plan or like how to reach out to you for testing service.

157

00:23:17.940 --> 00:23:21.810

Matt McKnight: yeah no, thank you for that, and I will get to some of the questions as well they're they're.

158

00:23:22.890 --> 00:23:33.150

Matt McKnight: Exactly the questions we answer a daily basis and the right ones that's an easy answer right so we've built a little bit crazy for cell engineering platform has been known as a you know.

159

00:23:34.290 --> 00:23:47.940

Matt McKnight: kind of fancy biotech company in Boston we built 115 person team since March solely focused on this concentric testing business and that team is entirely focused right now on K K 12.

160

00:23:48.450 --> 00:23:59.790

Matt McKnight: pooling for classrooms so you can get the large scale surveillance programs launched in schools to facilitate this very hard question right like it.

161

00:24:00.360 --> 00:24:07.680

Matt McKnight: The reason communities are struggling to get kids back into classroom even in the first place, let alone less and hybrid models.

162

00:24:08.070 --> 00:24:16.290

Matt McKnight: Is because it's a very hard problem is not easy, and we should solve it, because it's multi constituent there's teachers there's parents their school boards and there's kids.

163

00:24:16.680 --> 00:24:23.580

Matt McKnight: Right and so we're very active in doing is having a team that sits and helps those schools.

164

00:24:23.910 --> 00:24:30.990

Matt McKnight: work through all of the different things they need to be thinking about, obviously, with a focus on we provide the regular testing piece.

165

00:24:31.440 --> 00:24:34.440

Matt McKnight: But helping them think about how do you navigate those conversations.

166

00:24:35.190 --> 00:24:43.290

Matt McKnight: How do you navigate the school i've presented in 10 school board meetings across the last three weeks just helping people understand the guidance, which is.

167

00:24:43.890 --> 00:24:58.440

Matt McKnight: A holistic guidance from masking to distancing to testing What role does it play, how do you do follow up testing what Should I be doing, and so the long answer to a short question which is we're happy to work with school districts directly.

168

00:25:00.060 --> 00:25:15.840

Matt McKnight: superintendent Roger Leone and Newark he and I worked on this for two months now directly with our team and his team same thing in baltimore city same thing in Massachusetts so we're structured to bring those folks into help them directly in figuring that out.

169

00:25:17.010 --> 00:25:21.840

Matt McKnight: And then there's the second piece of it like What do you do I think there's some great guidance out there, I think.

170

00:25:22.290 --> 00:25:30.660

Matt McKnight: Rockefellers done an amazing amount of work, I think you'll see further stuff coming from them in the near future, but it's really centering around this idea that.

171

00:25:31.200 --> 00:25:43.770

Matt McKnight: rate and CDC is really appreciate the leadership coming from CDC over the last couple of months to to lay out guidance and says yes regular testing is the right idea for this pandemic.

172

00:25:44.760 --> 00:25:59.280

Matt McKnight: And there are a bunch of different ways to do that, obviously, but that that all of that governmental and kind of general guidance really helps and then we can be there to come in and do that, like tactical details, with a school, how do you do this, how do you how do you expand it.

173

00:26:00.750 --> 00:26:10.590

Gigi Gronvall: How is, how is the you mentioned variance like how are those handled, you know you can you detect them and what happens after after that.

174

00:26:11.430 --> 00:26:12.300

Matt McKnight: eliminate them.

175

00:26:13.620 --> 00:26:22.530

Renee Wegrzyn: yeah so it's a great question in our in our lab network if we get a pool a positive pulled sample we can send that back to go for a sequencing.

176

00:26:23.040 --> 00:26:26.580

Renee Wegrzyn: And we have actually been able to detect variants in those pools.

177

00:26:27.270 --> 00:26:37.590

Renee Wegrzyn: So it's a it's an important i'd say at this point, important piece of information to understand sort of what geography, those are coming from and and and what's popping up, of course, because we don't take the individual information.

178

00:26:38.340 --> 00:26:51.720

Renee Wegrzyn: From from the students, we don't know who has contributed that but, but from a public health and epidemiological perspective, being able to even just you know locate some of the geographies where where we're seeing a variant emerge can be a critical tool moving forward.

179

00:26:53.130 --> 00:27:00.570

Gigi Gronvall: let's take some of the questions in the Q amp a because they're really they're really good Rachel do you want to read them so that we can read the first one.

180

00:27:02.100 --> 00:27:10.590

Rachel West: So to start out a couple of participants are wondering, a bit about financial and logistical aspects of testing so.

181

00:27:11.010 --> 00:27:24.300

Rachel West: becky provo asks how do you ensure that there'll be enough supply to test every child every week 51 million cells have tests per week is quite a bit, so how much of President vitamins \$10 billion will cover this.

182

00:27:25.020 --> 00:27:33.990

Matt McKnight: yeah that's a great question, and this is like the design principle from the beginning it was like so the challenge of 51 million students you can't solve with individual diagnostics.

183

00:27:34.650 --> 00:27:41.910

Matt McKnight: By definition, we have two and a half million plus or minus tests per day capacity on PCR on the country, right now, plus or minus.



184

00:27:42.390 --> 00:27:47.010

Matt McKnight: You literally could not do without massive infrastructure build, which would be too late.

185

00:27:47.520 --> 00:27:51.990

Matt McKnight: If you even wanted to do it, you could not do every kid every week via individual diagnostics.

186

00:27:52.380 --> 00:27:59.040

Matt McKnight: Right, and so we looked at that okay that's not possible there's enough antigen test supply in theory but there's a lot of challenges.

187

00:27:59.520 --> 00:28:07.020

Matt McKnight: It is not a national answer to how do we do certificate of waiver, what is the staffing required to use antigen on site.

188

00:28:07.380 --> 00:28:14.190

Matt McKnight: there's not a like a national regulatory framework that allows it to be easy and then it's hard for schools to implement right and then that's aside from the.

189

00:28:14.610 --> 00:28:22.740

Matt McKnight: The ongoing and very interesting debate about sensitivity specificity and whether they are appropriate for that us so we said to ourselves, like.

190

00:28:23.820 --> 00:28:29.760

Matt McKnight: You got to answer the capacity question and the cost question is real, especially before the 10 billion.

191

00:28:31.380 --> 00:28:39.930

Matt McKnight: And so the short piece of that is we've qualified these tubes to be up to 25 swap between five and 25 swaps school chooses to do that.

192

00:28:40.410 --> 00:28:53.460

Matt McKnight: So, if you think about that multiplying effect a lab that has 10,000 tubes per day of capacity which many, many in the country do now is a 250,000 student per day.

193

00:28:54.570 --> 00:28:55.170

Matt McKnight: or.

194

00:28:56.430 --> 00:29:08.610

Matt McKnight: A 1.25 million student per week because you're doing once per week testing capacity, out of 10,000 tubes so when we look across our lab network and renee may have the exact numbers.

195

00:29:09.480 --> 00:29:19.200

Matt McKnight: I don't want to put her on the spot, but essentially there's vast majority that like a the capacity to do every kid in America exists already we just had to unlock it.

196

00:29:19.710 --> 00:29:28.950

Matt McKnight: And by using the validation process, we did and validating this 40 plus labs across the country we've unlocked that layton capacity to run lots and lots of students.

197

00:29:29.250 --> 00:29:47.460

Matt McKnight: And then focuses your use of diagnostic testing, so you can really efficiently in a pool of 20 that's positive instead of testing a whole school with individual diagnostics you're using them appropriately for a suspected population that has been exposed to to source code be too.

198

00:29:48.600 --> 00:29:55.530

Matt McKnight: So that's that piece of it, then the cost pieces, the other side of it, it was like, how do you get to actually a \$6 test actually being all in.

199

00:29:56.160 --> 00:30:11.370

Matt McKnight: and make it easy for school, so this like our program comes with digital tech shipping labels materials to put on the classroom door training materials for this for the teachers and to be able to observe for the nurses to be able to.

200

00:30:12.600 --> 00:30:19.980

Matt McKnight: To be able to manage the entry into the data platform it all comes together and it's about our like list price.

201

00:30:20.490 --> 00:30:27.870

Matt McKnight: Is 150 bucks for the whole 25 so that's how you get to six bucks per kid and it's not just six bucks for the test is six months for the whole system.

202

00:30:28.380 --> 00:30:42.540

Matt McKnight: Which are oftentimes these hidden costs of these programs, and the only way to do that was to divide the cost of doing molecular testing by a larger number of students, so you can get it expansively to lots of different communities and to answer the other question.

203

00:30:43.710 --> 00:30:44.370

Matt McKnight: We have.

204

00:30:45.630 --> 00:30:49.380

Matt McKnight: programs that are launching in the Mississippi river valley and not just Adams county.

205

00:30:51.180 --> 00:31:03.390

Matt McKnight: All the way across to large urban school districts, it was designed from that first point to be you didn't have to have massive extra resources to use it and it was really important design principle for us.

206

00:31:03.930 --> 00:31:10.140

Gigi Gronvall: So, using the distributed laboratories you, you probably that probably affects your speed as well, I mean if you.

207

00:31:11.250 --> 00:31:16.710

Gigi Gronvall: Ship everything back to Boston that would be that would add many hours to the event.

208

00:31:17.370 --> 00:31:27.810

Matt McKnight: We actually proved it in the in our pilots early in the fall like we failed in turn around time when we're trying to prove the front end with some schools are working within the Northwest because.

209

00:31:27.990 --> 00:31:32.010

Matt McKnight: We were shipping them through snowstorms back to Boston it made no sense right and.

210

00:31:32.850 --> 00:31:48.090

Matt McKnight: And ultimately, we were building the lab network at that point in the fall, but now those tests can be run locally in Washington, using the common front and infrastructure that renee renee mentioned was you talked about the digital tech piece yeah we like learned it by screwing it up.

211

00:31:48.360 --> 00:31:49.320

Matt McKnight: Right like and that's.

212

00:31:49.500 --> 00:31:55.680

Matt McKnight: that's the coolest thing about product development is like when you can actually iterate really fast to do and we'll keep doing that right, this is the idea.

213

00:31:56.910 --> 00:32:09.270

Renee Wegrzyn: Guy just just add one supply chain piece is, you know that the labs that we partnered with across the country, we also allow them to bring their their molecular test, and so what that means is, we have a diversity of tests that are that are running.

214

00:32:09.930 --> 00:32:16.020

Renee Wegrzyn: Across the infrastructure, so if there should be a supply chain issue with one of those types of tests, we can divert capacity.

215

00:32:16.320 --> 00:32:27.090

Renee Wegrzyn: To to the other labs in the network, so what we're trying to solve for all of those things longer term as as we go forward so that's I think unique advantage of the way that we built this sorry go ahead, DG.

216

00:32:29.760 --> 00:32:31.350

Gigi Gronvall: Rachel why don't you ask the next question.

217

00:32:32.460 --> 00:32:33.450

Rachel West: or and tasks.

218

00:32:33.510 --> 00:32:48.480

Rachel West: So follow on to that for your partnership network of my Apps is there a rush for clia certification, it sounds like with the separate tests available is great capacity, but have you encountered any capacity issues have you overcome that.

219

00:32:50.400 --> 00:32:52.890

Matt McKnight: yeah honestly, we are.

220

00:32:54.750 --> 00:33:02.580

Matt McKnight: we're really happy with the capacity available and the biggest challenge, all of this is the the outreach piece and building the system to make sure that schools know.

221

00:33:03.330 --> 00:33:09.210

Matt McKnight: kind of can cut through the noise and and know that this is an option that they should be doing because right now, you have a situation where.

222

00:33:09.540 --> 00:33:15.240

Matt McKnight: People are struggling to figure out how to get back or they figured it out and but they're doing so without testing as a key piece of that.

223

00:33:15.540 --> 00:33:24.420

Matt McKnight: You know overall holistic puzzle, and for us it's really about engaging those districts to your to your previous question and helping them.

224

00:33:24.660 --> 00:33:40.440

Matt McKnight: figure out what the right protocols are in practice right and actually like who, what do I need to set up, how do I do the onboarding how do I do schools where do

the kids show up all of that is really is really what stands in the way not capacity really  
Rachel I think that that's the.

225

00:33:41.610 --> 00:33:50.970

Matt McKnight: I think that that's the exciting clip because this whole pandemic has been  
Oh, we don't like capacity is limited or supply chains to raise money that's limited it's  
actually it's actually the reverse of this point.

226

00:33:53.820 --> 00:34:04.110

Rachel West: Thanks, for now, on another question from aging easily is what about issues  
regarding the results, who have access to the results and how is this information to be  
stored.

227

00:34:05.430 --> 00:34:11.100

Matt McKnight: yeah So this is the big, this is the important piece of drawing the distinction  
between surveillance testing or.

228

00:34:11.490 --> 00:34:21.540

Matt McKnight: aggregate testing and individual diagnostic testing, so our platform runs  
both and renee referred to it and Massachusetts we run both but on the classroom pooling  
side.

229

00:34:22.470 --> 00:34:28.560

Matt McKnight: And this has been really valuable along with creating incredibly simplified  
consents in partnership with places like baltimore New York.

230

00:34:30.120 --> 00:34:39.300

Matt McKnight: We don't take any KPI we don't take any of the kids information we have a  
classroom ID and a tube ID and we report to that classroom level.

231

00:34:39.780 --> 00:34:46.140

Matt McKnight: And we don't know who is in the tube and so, then who has access to that  
resulting information is organizational.

232

00:34:46.650 --> 00:34:54.450

Matt McKnight: So does the the superintendent largely decides who will have access on a school by school or district by district level, and then, what action to take.

233

00:34:54.810 --> 00:34:59.520

Matt McKnight: With the with the information that we receive nationwide we're seeing about 1.15% across our whole network.

234

00:34:59.850 --> 00:35:11.100

Matt McKnight: of positive pools so like one out of 100 and sure that question will come up it's pretty amazing actually when you take into account all of the mitigation measures that communities take and you follow the guidelines it's it's really pretty.

235

00:35:12.210 --> 00:35:22.710

Matt McKnight: it's a proof positive of of the risk mitigation that can take place to get kids back into school when you start to see the real data for the first time in thousands and thousands and thousands of classroom pools.

236

00:35:23.520 --> 00:35:32.970

Matt McKnight: But you know, ultimately, for us it's great because we can make it very easy and the schools can decide how to use that information within their own unique Community contacts.

237

00:35:35.070 --> 00:35:48.930

Gigi Gronvall: there's a couple of questions about consent and how consent is is is how you manage that and also like how young can people do this, how how what's the age minimum.

238

00:35:50.760 --> 00:35:52.230

Matt McKnight: rena you want any of these or I can.

239

00:35:53.580 --> 00:35:58.890

Renee Wegrzyn: Sure, I mean I think we've seen kids down to kindergarteners swab solve themselves I don't think there's any.

240

00:35:59.220 --> 00:36:07.530

Renee Wegrzyn: age limit per se it's it's it's what what the kid is is capable of, and I think Oliver kind of said really impressed us over over time.

241

00:36:08.340 --> 00:36:21.450

Renee Wegrzyn: With regard to the consent that's actually built into the digital platform and we work with our school partners or district partners to make sure that there's consensus get out to the parents first so that when when testing day is getting set up that that's all all ready to go.

242

00:36:24.450 --> 00:36:24.930

Gigi Gronvall: Rachel.

243

00:36:27.030 --> 00:36:36.870

Rachel West: So one question was what about manufacturing actual swabs and are there any supply chain limits in that sense.

244

00:36:41.700 --> 00:36:48.870

Matt McKnight: yeah I lost a little bit the end of the question, but this is a huge, this has been every day, you should comment on, as well as well, I know you're really close to the teams on this, but.

245

00:36:49.830 --> 00:36:53.040

Matt McKnight: From the first principle back to the 51 million.

246

00:36:53.850 --> 00:37:03.150

Matt McKnight: salt, but point we have made sure that every step of the way that the procurement piece was top priority, because it's one thing to design the system and not be able to deliver it.

247

00:37:03.480 --> 00:37:18.570

Matt McKnight: We are we feel very comfortable with the with the swabs that we have in generally the swap supply chain has come around and a decent way and we feel very



comfortable about both what we have secured proactively but also this the general systematic nature of what's happening.

248

00:37:20.640 --> 00:37:32.730

Gigi Gronvall: How, how do you keep the sample collection safe, especially if kids are like slapping themselves, and you know, at the same time, like how is what about infection control of that process.

249

00:37:34.020 --> 00:37:49.260

Matt McKnight: i'm gonna let it run a comment about some of that I will just say one thing this reflects back to one of your questions you like people should go to concentric by ginkgo COM we've made it made a huge effort, a you can get in touch with us that way really easily but be.

250

00:37:50.640 --> 00:37:58.830

Matt McKnight: On that website, we post all of our validation of all the labs that we work very transparently like this is it relates to consensus well for us this is.

251

00:37:59.250 --> 00:38:09.600

Matt McKnight: we're testing kids in classrooms so everything that we do needs to be out there and front facing and people need to be able to digest and understand it themselves from validation to.

252

00:38:10.050 --> 00:38:19.560

Matt McKnight: Like we have these great videos that we don't even make right like like when kids get back into the classroom and baltimore Montgomery county we got user generated kids in Philadelphia have been like.

253

00:38:20.040 --> 00:38:28.140

Matt McKnight: doing a YouTube videos showing how they self swab and you can go check out all those people should look at them, is it like makes it personally like Okay, this is.

254

00:38:28.530 --> 00:38:33.900

Matt McKnight: This is not scary, this is one of the newspapers, I saw the other day, had a front page article of like.

255

00:38:34.830 --> 00:38:50.850

Matt McKnight: classroom testing, and it was like an early pandemic photo of like a kid being like squeezed by their parent and having a nasal pharyngeal swab stuck up their nose right and that was like the headline for school testing is you know requested by X communities parents, whatever.

256

00:38:51.390 --> 00:38:57.540

Matt McKnight: And so, like part of this is just making it accessible and understanding what we're actually saying is like you put your mask down like you drink a.

257

00:38:57.990 --> 00:39:06.720

Matt McKnight: SIP of water you put your mouse down you swab and you put your mouse back up it's an asymptomatic it's a population be at a station you assume doesn't have Kobe.

258

00:39:07.290 --> 00:39:14.430

Matt McKnight: it's not the reverse is not the assumption of a testing station renee you can come on the specific measures we take, but like it's a mentality shift of.

259

00:39:14.910 --> 00:39:22.800

Matt McKnight: This is a Community you expect not to because if you expected people to have it, you would ask them to stay home right so it's a it's a flip from what we experienced so far.

260

00:39:23.910 --> 00:39:30.660

Renee Wegrzyn: yeah I mean the nitty gritty it's it's all CDC guidelines are observed social distancing but you know each of the schools has even.

261

00:39:31.530 --> 00:39:38.370

Renee Wegrzyn: Created their own ways of addressing it, I mean when the kids are done swabbing they have to put it into the tube one student described is bigger side down.

262

00:39:38.700 --> 00:39:47.730

Renee Wegrzyn: Like there's no question which side goes down in that case so that's been something that that would that we've used now repeatedly like wow that's a great way to describe it some classrooms have created songs.

263

00:39:48.750 --> 00:39:59.280

Renee Wegrzyn: We asked them to swab for for kind of floor circulations in each nostril so they can they can build a song around that and it's it's been it's been really great to just kind of see that the Community response, of course, while.

264

00:39:59.550 --> 00:40:02.820

Renee Wegrzyn: still maintaining that the social distancing at the desk while they're collecting.

265

00:40:03.870 --> 00:40:12.330

Gigi Gronvall: I know that this webinar is focused on schools but are there other organizations that you're also doing testing for, in addition to schools.

266

00:40:14.460 --> 00:40:23.700

Matt McKnight: This is a we're really excited about this we're like laser focused on K K 12 because it is actually like just on a society level, we have to solve this problem.

267

00:40:24.300 --> 00:40:32.910

Matt McKnight: Like even places that are back there back hybrid we can't go into the fall and not have as many kids in classrooms as humanly possible all the things need to be true.

268

00:40:33.510 --> 00:40:44.550

Matt McKnight: All of the mitigation measures to make it a risk mitigated environment need to exist, including testing, but like that's where our laser focus is right now, but I will say like there's no reason.

269

00:40:45.120 --> 00:40:54.690

Matt McKnight: Why this shouldn't be much more broadly utilized method, especially as we go later into the detail of this pandemic, we have worked in congregate settings nursing homes.

270

00:40:55.290 --> 00:41:02.130

Matt McKnight: Primarily, as well as other high risk of vulnerable populations and and are active in those places.

271

00:41:02.700 --> 00:41:07.380

Matt McKnight: Despite the focus on K two K 12 and it shouldn't be expanded brothers no supply chain issues should be done.

272

00:41:07.800 --> 00:41:13.890

Matt McKnight: it's a matter of just education, honestly and like people making sure and understanding that it's available, right now, you should comment about some of our.

273

00:41:14.520 --> 00:41:22.110

Matt McKnight: Work with the military Federal Government, something that we we think really as a as an opportunity for us to think about this in the future.

274

00:41:23.190 --> 00:41:35.850

Renee Wegrzyn: yeah and in the same with a classroom is a logical unit in a in a school, there are also structures within the military, for example, that that make a lot of sense to us for pods for barracks.

275

00:41:36.420 --> 00:41:45.060

Renee Wegrzyn: Whatever that might be going forward and so certainly talking with those communities moving forward, who have also you know interest in intercepting and mitigating.

276

00:41:45.720 --> 00:41:54.120

Renee Wegrzyn: This virus not only domestically, but but as they're deployed abroad, this is a really important tool for for those communities so certainly continuing all of those conversations.

277

00:41:54.600 --> 00:42:01.710

Renee Wegrzyn: And thinking about how we can be long term partners to sustain this you know post, the end of this pandemic, we want to keep this in place.

278

00:42:02.550 --> 00:42:03.360

Matt McKnight: Well i'll just add one.

279

00:42:03.390 --> 00:42:06.150

Matt McKnight: One thing that we may be obvious to many people on the call, but like.

280

00:42:07.170 --> 00:42:19.260

Matt McKnight: it's about code right but but, like the the very cool thing of using molecular assays is we already have validated or essays and so number of our labs for flu.

281

00:42:20.190 --> 00:42:29.700

Matt McKnight: there's no eating the same sample can be used exact multiple pathogen both current known ones and future ones, so, even if the military hasn't had a major problem with.

282

00:42:30.660 --> 00:42:42.210

Matt McKnight: This pandemic largely minus ships shutting down, etc, which could be solved by this this kind of complimentary approach of pool testing plus individual diagnostics.

283

00:42:43.260 --> 00:42:50.220

Matt McKnight: which I think is a big enough problem to use it now, but because of the age of the military it hasn't been something that has caused lots of.

284

00:42:51.060 --> 00:42:54.600

Matt McKnight: Lots of casualties, if you will, that doesn't mean the next one won't.

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00:42:55.350 --> 00:43:02.400

Matt McKnight: And it doesn't mean that we shouldn't use these lessons to be prepared, like a radar right it's early warning radar we spend a lot of money and Missile Defense.

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00:43:02.970 --> 00:43:12.750

Matt McKnight: Waiting did trying to detect any missile launch somewhere just sitting there, this is the same idea, if not more important given the powerful nature of.

287

00:43:13.320 --> 00:43:20.580

Matt McKnight: of biology right, so we do think that there's a really important I put my marine corps hat on like if I think about it, like.

288

00:43:20.910 --> 00:43:31.500

Matt McKnight: What tools, what I want, if I was for deployed in an environment that might have biological risk I would want this type of tool as a regular mechanism to measure what my what my marines were exposed to.

289

00:43:32.850 --> 00:43:35.880

Gigi Gronvall: Absolutely Rachel do want to ask more questions.

290

00:43:36.690 --> 00:43:41.100

Rachel West: or others are great questions for nate actually already answered, but just to reiterate it.

291

00:43:41.730 --> 00:43:52.260

Rachel West: From pain do lists are all of the tests under ways and renee insert that most are easy ways, but they also use a few led TVs and they have a really rigorous validation process.

292

00:43:52.620 --> 00:44:01.470

Rachel West: in place to ensure the performance and the limited detection are in line with the FDA guidelines and another question from Laura clancy was.

293

00:44:01.920 --> 00:44:06.960

Rachel West: asking if you can get in the weeds of how retesting works in case of a positive tests.

294

00:44:07.470 --> 00:44:19.050

Rachel West: She breaks their assumptions about local pediatric testing capacity, particularly in Pearl in low income areas, especially work for schools are in Philadelphia in camden it's much harder than it shouldn't need to get your kid of retest.

295

00:44:20.640 --> 00:44:29.220

Matt McKnight: yeah This is where we're really so there's basically three things that people do, and this is experienced from the actual partners choosing, because what we do is we.

296

00:44:29.550 --> 00:44:37.770

Matt McKnight: give people the tools to do surveillance testing, and then we are resources there to help them figure out what their answer is reflex because every community is different to your point.

297

00:44:40.380 --> 00:44:45.810

Matt McKnight: This is also where we're really excited about what the current administration has done, both with.

298

00:44:46.470 --> 00:44:54.900

Matt McKnight: What should be coming with the hhs hub program but also with the \$10 billion allocated the States, because this has been a cost issue as well for folks.

299

00:44:55.560 --> 00:45:06.120

Matt McKnight: But the basic answer is, you have a pool one out of 100 you have a positive pool plus or minus and there are three approaches, we have schools doing protocol only approaches so simply.

300

00:45:06.510 --> 00:45:15.450

Matt McKnight: The same thing you would do if somebody called in, and said i'm so sorry i'm a caregiver of so, and so, and they tested positive they've been in class for three days that class goes home no testing required.

301

00:45:16.620 --> 00:45:26.430

Matt McKnight: In its protocol based response, all the way to the Massachusetts model where Massachusetts has made its by next now rapid antigen tests allocated from the Federal Government available to every school.

302

00:45:26.730 --> 00:45:36.840

Matt McKnight: and paid for the implementation of programs and every school and then they did a concordance study with vcr and by next now and became comfortable in a risk mitigated environment.

303

00:45:37.170 --> 00:45:41.250

Matt McKnight: With using by next now immediately to find the positive student.

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00:45:42.180 --> 00:45:46.500

Matt McKnight: Now you don't always find the positive student, obviously we can talk about what happens there, but those are the two extremes.

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00:45:46.890 --> 00:45:57.180

Matt McKnight: We then have a number of programs where baltimore city actually brings PCR and makes it available on on campus or on the school location, the next day and kids can come in and get a test.

306

00:45:57.570 --> 00:46:10.830

Matt McKnight: And there's other male and PCR options that folks are using it is a wide variety what we're excited about is as these resources do become available, we have answers for people it's just a matter of, and if it were paid for, we can provide it immediately.

307

00:46:11.940 --> 00:46:23.460

Matt McKnight: And that that is something that we are excited about the federal government really leaning in to help solve the both sides of that problem, but it really is a, it is a Community by Community decision of what people are comfortable with.



308

00:46:25.290 --> 00:46:27.360

Gigi Gronvall: We have time for one more question.

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00:46:28.470 --> 00:46:41.700

Rachel West: Okay, so for the last question, have you approved saliva tests being pulled I know that you mentioned that for for children, you found it was really best to have the lower nasal swabs but Have you looked into cool saliva testing at all.

310

00:46:43.530 --> 00:46:50.940

Matt McKnight: We have spent a lot of time and saliva testing, and I mean again not being a diagnostic I mean we've tried everything I mean.

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00:46:51.600 --> 00:46:59.430

Matt McKnight: Try to and again the focus was how do you do box of kids and what we found is you got to keep it simple you got to keep it efficient it's got to work for everybody.

312

00:46:59.820 --> 00:47:11.610

Matt McKnight: it's got to be accessible, and so we think highly of the folks that have figured out pooled saliva testing for different age groups, but for us we've said, what can we do to solve that nationwide problem laser focused in.

313

00:47:12.330 --> 00:47:20.280

Matt McKnight: there's been a lot of money on saliva, by the way, and then said nope like the big scale problem is solved by lower nasal swabs that can be broadly utilized.

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00:47:22.710 --> 00:47:28.020

Gigi Gronvall: Before we wrap up matt renee do you have any closing closing thoughts for this webinar.

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00:47:31.980 --> 00:47:37.290

Renee Wegrzyn: i'll just say you know I think we're poised and ready to go and and you know are excited to be helping.

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00:47:37.800 --> 00:47:49.470

Renee Wegrzyn: Open schools and in partnership with those schools, making our testing better and and you know iterating through the process and matt matt said, even the saliva point he smiled because those are there are some gross times there as well as we've built this out.

317

00:47:50.400 --> 00:47:56.220

Renee Wegrzyn: And you know just just really happy to help open schools this year and getting back open for the fall.

318

00:47:57.240 --> 00:47:58.410

Matt McKnight: yeah I couldn't say it better.

319

00:47:59.640 --> 00:48:12.210

Matt McKnight: Literally anybody that has questions on this webinar or colleagues or friends or communities or superintendents or teachers we're happy to talk to anybody, that is what we were doing 16 hours a day right now.

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00:48:13.320 --> 00:48:18.720

Matt McKnight: So, thank you very much for the time, thank you to the Center we really appreciate the opportunity and.

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00:48:19.530 --> 00:48:29.430

Matt McKnight: The only way kids are getting back in the classroom is everybody on this webinar and everybody else around the country works together to solve it, because it's not a it's not a solvable thing by one company or one group of people.

322

00:48:29.940 --> 00:48:32.880

Matt McKnight: And we really have appreciated the partnership across the country to do so.

323

00:48:34.050 --> 00:48:43.590

Gigi Gronvall: Well, thank you and, especially, personally, as a baltimore city schools parent i'm personally grateful and thank you very much to our panelists and to all of our attendees.

324

00:48:44.160 --> 00:48:56.460

Gigi Gronvall: This recording will be available if you want to go back to it or learn more from it, we put links in the chat we also come visit our website, we have the website links for.

325

00:48:57.030 --> 00:49:14.520

Gigi Gronvall: For ginko by consent are concentric by ginko and we are happy to provide any information to any questions you have that are not answered in any of these sites, so thank you all to every Thank you very much, everyone, and we look forward to seeing you at our next webinar take care.

326

00:49:15.510 --> 00:49:17.760

Renee Wegrzyn: Everybody bye take care.