

BETH C. DRAIN, CA CSR NO. 7152

BEFORE THE
ACCESS AND AFFORDABILITY WORKING GROUP
OF THE
INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE
TO THE
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE
ORGANIZED PURSUANT TO THE
CALIFORNIA STEM CELL RESEARCH AND CURES ACT
REGULAR MEETING

LOCATION: VIA ZOOM

DATE: MAY 8, 2026
9:30 A.M.

REPORTER: BETH C. DRAIN, CA CSR
CSR. NO. 7152

FILE NO.: 2026-11

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MAY 8, 2026; 9:30 A.M.

CHAIRPERSON BONNEVILLE: GREAT. GOOD MORNING, EVERYONE. THANK YOU FOR ATTENDING TODAY'S ACCESS AND AFFORDABILITY WORKING GROUP MEETING. I'D LIKE TO CALL THIS MEETING TO ORDER. AND, CAMERON, CAN YOU PLEASE TAKE THE ROLL?

MR. MALIK: ABSOLUTELY.

MARIA BONNEVILLE.

CHAIRPERSON BONNEVILLE: PRESENT.

MR. MALIK: VITO IMBASCIANI.

CHAIRMAN IMBASCIANI: PRESENT.

MR. MALIK: ADRIANA PADILLA IS NOT PRESENT. TED GOLDSTEIN, ALSO NOT PRESENT. AMMAR QADAN.

DR. QADAN: PRESENT.

MR. MALIK: JAMES DEBENEDETTI.

MR. DEBENEDETTI: HERE.

MR. MALIK: MAHESWARI SENTHIL, NOT PRESENT. ADRIENNE SHAPIRO, NOT PRESENT. HARLAN LEVINE.

DR. LEVINE: RIGHT HERE.

MR. MALIK: THANK YOU. PAT LEVITT, NOT PRESENT. DARIUS LAKDAWALLA.

DR. LAKDAWALLA: HERE.

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1 MR. MALIK: THANK YOU. CHRISTINA HARTMAN.

2 MS. HARTMAN: PRESENT.

3 MR. MALIK: THANK YOU. KIM BARRETT.

4 DR. BARRETT: PRESENT.

5 MR. MALIK: THANK YOU. LIZ BOILEAU. SHE
6 TOLD ME SHE WOULD JOIN LATER. AND Yael WYTE. OH,
7 IT LOOKS LIKE PAT JUST JOINED.

8 DR. LEVITT: SORRY I'M LATE.

9 MR. MALIK: NO PROBLEM. ALL RIGHT.

10 CHAIRPERSON BONNEVILLE: GREAT. THANK
11 YOU. THERE ARE NO VOTING ITEMS TODAY. THESE ARE
12 ALL INFORMATIONAL.

13 I WANT TO START BY INTRODUCING DR. SHYAM
14 PATEL. HE'S THE NEW ASSOCIATE VICE PRESIDENT OF
15 PATIENT ACCESS. AND SOME OF YOU MAY ALREADY KNOW
16 HIM, BUT FOR THOSE OF YOU WHO DON'T, SHYAM HAS BEEN
17 AT CIRM FOR QUITE SOME TIME AND HAS HELD VARIOUS
18 ROLES IN HIS TENURE. AND MOST RECENTLY, HE WAS THE
19 ASSOCIATE VICE PRESIDENT OF PRECLINICAL DEVELOPMENT.
20 AND WE ARE VERY EXCITED TO HAVE HIM IN THIS NEW
21 ROLE.

22 OUR FIRST AGENDA ITEM IS A RECAP OF A
23 MEETING CIRM ORGANIZED AND CO-HOSTED IN MARCH ALONG
24 WITH ISSCR AND UCLA. THE MEETING BROUGHT TOGETHER
25 ACADEMICS, INCLUDING SEVERAL OF OUR OWN GRANTEES,

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1 ECONOMISTS, MANUFACTURERS, AND POLICYMAKERS. AND
2 SO, SHYAM, CAN YOU WALK US THROUGH SOME OF THOSE KEY
3 TAKEAWAYS?

4 DR. PATEL: OF COURSE. AND THANK YOU FOR
5 THE INTRODUCTION, MARIA.

6 AND SO JUST AS A LITTLE BIT OF BACKGROUND,
7 AS THE PATIENT ACCESS TEAM WORKS WITH MARIA TO GO
8 THROUGH THE TRANSITION AND TO ONBOARD NEW MEMBERS,
9 WE'LL BE WORKING WITH ALL THE AAWG MEMBERS GOING
10 FORWARD. AND TODAY WE'RE FOCUSING ON GIVING YOU
11 SOME UPDATES ON SOME OF THE BROADER ENGAGEMENT THAT
12 CIRM HAS BEEN PARTICIPATING IN ON THIS TOPIC OF
13 ACCESS AND AFFORDABILITY FOR CELL AND GENE THERAPIES
14 AS WELL AS A COUPLE OF OPERATIONAL UPDATES. ALL OF
15 THIS IS TO SET UP BROADER THE INTERACTIONS WITH THE
16 AAWG GOING FORWARD IN YOUR PARTNERSHIP ON VARIOUS
17 ITEMS THAT WE WANT TO EXECUTE ON ON OUR ACCESS AND
18 AFFORDABILITY STRATEGY. SO THIS WAS ONE KEY
19 COMPONENT OF THAT OUTREACH THAT WE WERE DOING AND
20 JUST BROADER ENGAGEMENT WITH DIFFERENT STAKEHOLDERS.

21 SO MARIA WAS INSTRUMENTAL IN CO-ORGANIZING
22 THIS EVENT WITH THE UCLA AND ISSCR TEAMS. AND
23 SEVERAL AAWG MEMBERS ATTENDED THIS MEETING, AND WE
24 INVITE THEM TO SPEAK UP IN JUST A SECOND. SO THIS
25 IS A SUMMIT FOCUSING ON TOPICS THAT ARE WELL WORN IN

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1 THE CELL AND GENE THERAPY FIELD AROUND HOW DO WE
2 MAKE THESE THERAPIES MORE ACCESSIBLE? HOW DO WE PAY
3 FOR THEM? AND WHAT ARE THE DIFFERENT STAKEHOLDERS'
4 CONSIDERATIONS, INCLUDING ACADEMIC INVESTIGATORS,
5 CLINICIANS, HEALTHCARE PROVIDERS, DRUG DEVELOPERS,
6 DRUG MANUFACTURERS, ALL THE DIFFERENT PAYERS, AS
7 WELL AS GOVERNMENT FUNDING AGENCIES.

8 AND THERE THE SIMILAR THEMES THAT WERE
9 DISCUSSED PREVIOUSLY: PAYER PARTICIPATION, EMERGING
10 POLICY AND AFFORDABILITY MODELS, AS WELL AS
11 MANUFACTURING AND REGULATORY INNOVATION, WHICH TENDS
12 TO BE VERY MUCH UPSTREAM OF COMMERCIAL PRODUCTS, BUT
13 DOES DRAMATICALLY IMPACT HOW THOSE PRODUCTS ARE MADE
14 AVAILABLE TO PATIENTS.

15 SOME OF THE KEY THEMES ARE IN THE NEXT
16 SLIDE, AND I'M GOING TO BRIEFLY DISCUSS THESE, AND
17 THEN I'M GOING TO TURN IT OVER AND ASK SOME OF THE
18 AAWG MEMBERS WHO ATTENDED TO SPEAK TO THEM AS WELL.
19 NEXT SLIDE, PLEASE, CAMERON.

20 SO AS WE ALL KNOW, FROM A MACROECONOMIC
21 PERSPECTIVE, THERE ARE SIGNIFICANT BENEFITS OF
22 HAVING THESE ONCE AND DONE CELL AND GENE THERAPIES
23 THAT COULD POTENTIALLY BE CURATIVE OR AT MINIMUM
24 BEING DISEASE-MODIFYING. HOWEVER, IT'S PRETTY CLEAR
25 THAT THAT MACROECONOMIC ARGUMENT DOESN'T ALWAYS

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1 FILTER DOWN TO THE INDIVIDUAL STAKEHOLDERS' ECONOMIC
2 INCENTIVES AND BENEFITS OR EVEN AT THE PATIENT
3 LEVEL.

4 AND SO, IN THAT SENSE, BEING ABLE TO
5 DELIVER, PAY FOR, AND PROVIDE THESE THERAPIES TO THE
6 PATIENTS WHO NEED THEM WILL REQUIRE EVOLUTION OF OUR
7 SYSTEMS. AND THAT WAS A KEY THEME THAT WAS BROUGHT
8 UP OVER AND OVER AGAIN. AND IN MANY INSTANCES SOME
9 OF THE PAYERS NOTED THAT THERE ARE VARIOUS OTHER
10 CONSIDERATIONS THAT THEY'RE THINKING ABOUT. BUT
11 THEY RECOGNIZE, GIVEN THE LARGE PIPELINE OF CELL AND
12 GENE THERAPIES THAT ARE IN DEVELOPMENT, THAT THIS IS
13 SOMETHING THAT NEEDS TO BE ADDRESSED AT A BROADER
14 LEVEL THAN ON INDIVIDUAL THERAPIES.

15 ON THE THERAPY DEVELOPER SIDE, THIS IS
16 SOMETHING THAT WE'VE WORKED WITH YOU TO STRESS IN
17 OUR AWARDS AS WELL. BUT GIVEN THE NATURE AND THE
18 COMPLEXITIES OF DELIVERING AND PAYING FOR CELL AND
19 GENE THERAPIES, DEVELOPERS NEED TO START PLANNING
20 EARLY. A LOT OF IT IS RESEARCH EARLY ON FOLLOWED BY
21 MORE DIRECT PLANNING FOR EVIDENCE GENERATION AND
22 STAKEHOLDER ENGAGEMENT AS THEY GO THROUGH LATER
23 CLINICAL DEVELOPMENT. AND SO THIS WAS REINFORCED
24 SEVERAL TIMES. AND ALSO IT WAS A POINT OF
25 DISCUSSION BETWEEN ACADEMICS, THERAPY DEVELOPERS,

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1 AND THE VARIOUS STAKEHOLDERS ON HOW THIS COULD BE
2 DONE MORE EFFECTIVELY GOING FORWARD.

3 AND LASTLY, MANUFACTURING INNOVATION IS
4 ESSENTIAL TO LONG-TERM AFFORDABILITY AND ACCESS,
5 PARTICULARLY, NOT ONLY AROUND REDUCING COGS, BUT
6 ALSO JUST MAKING IT MORE SCALABLE. ONE KEY AREA WAS
7 WHEN WE LOOK AT REGENERATIVE MEDICINE CELL
8 THERAPIES, THESE ARE DERIVED FROM PLURIPOTENT STEM
9 CELLS, AND THEY'RE USUALLY TARGETING BROADER
10 INDICATIONS WHERE BEING ABLE TO MANUFACTURE THESE
11 THERAPIES AT SCALE AND BEING ABLE TO DELIVER THEM TO
12 PATIENTS IS GOING TO BE CRITICAL TO MEET THE NEEDS
13 OF THOSE DISEASE INDICATIONS IN THOSE PATIENTS.

14 SO I'M GOING TO PAUSE THERE, AND I'M GOING
15 TO ASK DR. DARIUS LAKDAWALLA, DR. HARLAN LEVINE, DR.
16 KIM BARRETT, AND MARIA AND J.T. IF YOU WANT TO ADD
17 ANYTHING. YOU WERE AT THIS SUMMIT. MANY OF YOU
18 SPOKE AS WELL. AND SO APPRECIATE ANY FEEDBACK AND
19 ANY PERSPECTIVES YOU CAN PROVIDE.

20 CHAIRPERSON BONNEVILLE: KIM.

21 DR. BARRETT: YEAH. I WAS REALLY EXCITED
22 TO BE AT THE SUMMIT. I THOUGHT IT WAS AN EXTREMELY
23 WELL-ORGANIZED AND VERY WORTHWHILE DAY. IT'S
24 CERTAINLY WORTH MY TIME TO BE THERE. IT WAS
25 EXTREMELY EDUCATIONAL.

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1 I THINK ONE OF MY KEY TAKEAWAYS WAS THAT
2 THERE ARE SOME REALLY SMART SOCIAL SCIENTISTS OUT
3 THERE THINKING ABOUT THESE ISSUES. AND I THINK I
4 SHOULD HAVE LOOKED UP THE NAME OF THE PERSON THAT
5 GAVE AN EARLY, SORT OF, KEYNOTE ON THE PAYMENT
6 MODELS AND THE ECONOMIC ASPECTS OF --

7 DR. LEVINE: DANA GOLDMAN?

8 DR. BARRETT: YEAH. BUT THAT WAS A REALLY
9 COMPELLING TALK FOR ME. AND THIS IDEA THAT OUR SORT
10 OF MODEL FOR HEALTH INSURANCE DOES NOT ALIGN WITH
11 THESE LIFELONG CURATIVE THERAPIES IS REALLY ONE THAT
12 I THINK HAS TO BE ADDRESSED VERY AGGRESSIVELY. I
13 THINK IT'S SOMETHING THAT CIRM SHOULD BE INVESTING
14 IN THAT TYPE OF ECONOMIC RESEARCH.

15 AND PROBABLY WHAT WE NEED IS SOME SORT OF
16 AMORTIZATION OF THE COSTS OF THESE THERAPIES ACROSS
17 THE HOPEFULLY SUBSTANTIALLY EXTENDED LIFE EXPECTANCY
18 FOR PEOPLE WHO WILL RECEIVE THESE CURATIVE
19 TREATMENTS.

20 THE OTHER TAKEAWAY FOR ME WAS THAT THIS
21 PROBLEM ABSOLUTELY HAS TO BE SOLVED OR IT WILL
22 REALLY BEGIN TO STIFLE INNOVATION AND, MORE
23 IMPORTANTLY, INVESTMENT IN THE SECTOR.

24 AND THEN FINALLY, I JUST COMPLETELY SECOND
25 THE COMMENTS ON MANUFACTURING. THAT WAS, FOR ME,

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1 ALSO A VERY INFORMATIVE AND USEFUL PANEL.

2 CHAIRPERSON BONNEVILLE: THANK YOU. J.T.

3 DR. THOMAS: MORNING, EVERYBODY. SO ONE
4 OF THE BIGGEST TAKEAWAYS, SORT OF A MACRO POINT FROM
5 MY PERSPECTIVE, WAS THE HIGHLY UNUSUAL COMBINATION
6 OF EXPERTISE THAT WAS GATHERED IN THE ROOM. THIS
7 WAS A SESSION THAT WAS REALLY UNLIKE ANY THAT I
8 THINK ANY OF US AT CIRM HAVE HAD IN BRINGING ALL THE
9 DISPARATE STAKEHOLDERS TOGETHER TO TALK ABOUT THESE
10 VARIOUS THEMES THAT SHYAM AND KIM HAVE BEEN
11 DESCRIBING.

12 AND SO BOTH IN THE PRESENTATIONS AND THE
13 PANEL DISCUSSIONS AND THE SIDEBARS, WHICH THESE
14 SORTS OF THINGS ARE ALWAYS REALLY IMPORTANT, THE
15 VALUE OF CONVENING THESE DIFFERENT STAKEHOLDER
16 GROUPS BECAME EVEN MORE EVIDENT THAN WE KNEW IT WAS
17 GOING TO BE GOING INTO IT. AND I KNOW THAT MARIA
18 AND THE ISSCR FOLKS, MARIA AND TEAM, WENT TO GREAT
19 LENGTHS TO CREATE THIS HYBRID SORT OF EVENT. AND I
20 THINK THAT IT SETS THE TABLE FOR TAKING GREAT
21 ADVANTAGE OF THE NETWORKING THAT CAME OUT OF IT TO
22 ADDRESS THE VARIOUS ISSUES THAT WERE ON THE TABLE.

23 SO THAT WAS, FOR ME, THE SINGLE GREATEST
24 VALUE OF WHAT WAS A VERY SUCCESSFUL DAY BY ALL
25 ACCOUNTS OF EVERYBODY THERE.

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1 CHAIRPERSON BONNEVILLE: THANK YOU, J.T.
2 DARIUS.

3 DR. LAKDAWALLA: THANKS. SO SHYAM DID A
4 GREAT JOB OF SUMMARIZING IT. SO I'LL BE QUICK ABOUT
5 IT. ONE THING I TOOK AWAY AS AN ECONOMIST WAS HOW
6 LITTLE WE HAVE INNOVATED VERSUS THE WAY THE BASIC
7 SCIENTISTS HAVE INNOVATED IN THIS AREA, AND THAT
8 ECONOMIC POLICY AND HEALTH POLICY NEED TO DO A LOT
9 OF WORK TO CATCH UP. THAT WAS NO. 1.

10 NO. 2, I WAS ACTUALLY QUITE SURPRISED AT
11 THE WIDESPREAD AGREEMENT ON A LOT OF THE ISSUES THAT
12 NEED TO BE SOLVED. AND THAT'S NOT ALWAYS SO COMMON
13 IN HEALTH POLICY CONTEXT. I THINK PEOPLE AGREE THAT
14 THE REIMBURSEMENT MODEL, IT NEEDS TO BE ABLE TO
15 ACCOUNT FOR OUTCOMES, IT NEEDS TO BE ABLE TO ACCOUNT
16 FOR THE MISMATCH BETWEEN THE TIMING OF PAYMENT AND
17 THE ACCRUAL OF BENEFITS, AND IT NEEDS TO DEAL WITH
18 THE FACT THAT OUR PRICE NEGOTIATION MODEL TODAY IS
19 PREDICATED ON DENIAL OF ACCESS, WHICH IS A REAL
20 PROBLEM WHEN YOU'RE TREATING RARE DISEASE WITH NOVEL
21 CELL AND GENE THERAPIES. SO THAT WAS HEARTENING.

22 ONE THING THAT WAS LESS HEARTENING TO ME
23 WAS I THINK THERE WAS APPROPRIATE SKEPTICISM ABOUT
24 THE EXTENT TO WHICH POLICY COULD BE CHANGED TO
25 ACCOMMODATE THESE SORTS OF INNOVATIONS, WHICH MEANS

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1 THAT THIS IS A PROBLEM THAT WE NEED TO, AND PROBABLY
2 CAN, MAKE PROGRESS AGAINST IN THE MARKETPLACE TO
3 DEVELOP NEW MODELS FOR FINANCIAL INTERMEDIATION.
4 IN PARTICULAR, THAT WAS A PROMISING AREA OF
5 DISCUSSION.

6 SO I CAME AWAY WITH A FAIR AMOUNT OF
7 CAUTIOUS OPTIMISM AND ALSO MORE FOCUS IN WHAT I
8 THINK WE ARE -- WHAT THE TASK LIES -- WHAT THE TASK
9 IS THAT LIES AHEAD OF US FROM THE STANDPOINT OF
10 HEALTH ECONOMICS AND HEALTH POLICY.

11 CHAIRPERSON BONNEVILLE: THANK YOU,
12 DARIUS.

13 AND I WANT TO HIGHLIGHT, BOTH DARIUS AND
14 HARLAN PRESENTED AND WERE SPEAKERS AT THE MEETING.
15 SO THANK YOU. AND DARIUS WAS PART OF THE ORGANIZING
16 COMMITTEE AS WELL.

17 CHRISTINA.

18 MS. HARTMAN: THANKS, MARIA. SORRY I
19 WASN'T ABLE TO JOIN THE MEETING. IT SOUNDS LIKE IT
20 WAS VERY SUBSTANTIVE.

21 JUST A COUPLE THINGS FROM MY PERSPECTIVE
22 IN WASHINGTON. AND AS A RARE PARENT, A COUPLE
23 THINGS THAT HAVE COME UP RECENTLY, WE'RE SEEING A
24 LOT OF COMPANIES THAT WANT TO FOCUS ON MORE COMMON
25 DISORDERS. AND THEY'RE LOOKING AT BEING ABLE TO

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1 FUND THEIR COMMERCIAL ENTERPRISES THROUGH THERAPIES
2 FOR COMMON DISORDERS. BUT MEANWHILE, THOSE OF US
3 WHO REALLY WANT TO FOCUS ON PEDIATRIC RARE DISEASE
4 IN PARTICULAR, THAT REMAINS A SIGNIFICANT CHALLENGE.

5 AND ONE OF THE CONCERNS I HAVE IS WHEN YOU
6 LOOK AT THE POTENTIAL PROFITABILITY OF DIFFERENT
7 ASSETS, MOST COMPANIES ARE CONCERNED WITH THAT PURE
8 PROFITABILITY. HOW MUCH CAN WE MAXIMIZE
9 PROFITABILITY? AND WHAT ASSET IS GOING TO TAKE US
10 TO THE TOP OF THAT RANGE? WE NEED TO SOMEHOW GET TO
11 A PLACE WHERE WE'RE CONSIDERING MAKING SURE THERE
12 ARE ASSETS IN THE RARE SPACE THAT CAN BE PROFITABLE.
13 THEY WON'T BE LIKE A GLP-1 LEVEL OF PROFITABILITY,
14 BUT THEY CAN STILL BE A PROFITABLE ASSET. AND
15 COMPANIES THAT BELIEVE THAT EQUALLY IMPORTANT TO
16 PROFITABILITY IS THE VALUE YOU DELIVER TO SOCIETY.

17 HAVING THAT BALANCE, I THINK, IS GOING TO
18 BE IMPERATIVE. AND IF WE CAN SOMEHOW GET BACK TO
19 THAT, THAT'S REALLY IMPORTANT BECAUSE THE INCENTIVES
20 ARE VERY DIFFERENT FOR RARE PEDIATRIC DISEASE. AND
21 THEY WILL NEVER BE WHAT YOU SEE FOR COMMON
22 DISORDERS. SO SOMEHOW MAKING SURE THAT THAT'S A
23 FOCUS.

24 THE OTHER TWO BIG THINGS I'VE SEEN IN
25 WASHINGTON RECENTLY IS THERE'S A LOT OF DISCUSSION

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1 ABOUT ACADEMIC VERSUS COMMERCIAL COMPANY MODELS.
2 THERE DOES NEED TO BE A MORE IN-DEPTH DISCUSSION, I
3 THINK, ABOUT WHAT CAN ACADEMIC MODELS ACCOMPLISH AND
4 WHAT ARE THE LIMITATIONS ON THAT VERSUS WHAT CAN YOU
5 DO COMMERCIALLY, PARTICULARLY WHEN YOU'RE THINKING
6 ABOUT DIFFERENT SIZED POPULATIONS AND THE ABILITY TO
7 SCALE.

8 AT ORCHARD WE HAVE A RARE PEDIATRIC GENE
9 THERAPY, LENMELDY, THAT WE EXPECT TO SEE 40 OR 50
10 BIRTHS A YEAR IN THE UNITED STATES THAT WOULD BE
11 ADDRESSABLE WITH OUR GENE THERAPY IF WE CAN FIND
12 THOSE KIDS IN TIME. SO THAT'S THE MAXIMUM RANGE FOR
13 OUR THERAPY.

14 UNFORTUNATELY, THERE ARE NOT A LOT OF
15 COMPANIES OUT THERE THAT ARE TRYING TO COMMERCIALIZE
16 RARE PEDIATRIC GENE THERAPIES FOR THESE SMALLER
17 POPULATIONS. WE'VE SEEN RECENTLY A LOT OF ATTENTION
18 FROM THE CURRENT ADMINISTRATION ON BABY KJ AND THAT
19 N OF 1 MODEL, WHICH IS VERY EXCITING, BUT, AGAIN,
20 VERY LIMITED IN TERMS OF WHAT WE CAN DO, AT LEAST IN
21 THE PRESENT DAY OR IN THE VERY NEAR FUTURE.

22 WE'VE ALSO SEEN A LOT OF DISCUSSION ABOUT
23 THE LARGER RARE DISEASES, LIKE SICKLE CELL. WE HAVE
24 THAT CENTERS FOR MEDICARE AND MEDICAID INNOVATION
25 CELL AND GENE THERAPY MODEL, THE DEMO, WHICH AGAIN,

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1 THAT'S GREAT WHEN YOU HAVE COMPETITORS IN A SPACE,
2 LIKE YOU HAVE THE LYFGENIA AND CASGEVY COMPETITORS.
3 OTHER RARE DISEASES DON'T HAVE COMPETITORS. LIKE
4 WITH LENMELDY, WE ARE THE ONLY THERAPY OUT THERE FOR
5 METACHROMATIC LEUKODYSTROPHY.

6 SO THE QUESTION REALLY I THINK WE'RE
7 LOOKING AT IN WASHINGTON IS WE'VE GOT A LOT OF FOCUS
8 AND ATTENTION AND POLICY ON THESE N OF 1S, LIKE BABY
9 KJ. WE'VE GOT A LOT OF ATTENTION AND FOCUS ON
10 POLICY FOR THESE LARGER RARE POPULATIONS LIKE THE
11 100,000 OR SO PEOPLE IN AMERICA WITH SICKLE CELL
12 DISEASE. BUT THERE'S REALLY NOTHING FOR THOSE TENS
13 AND HUNDREDS, THOSE RARE DISEASES WITH TENS AND
14 HUNDREDS OF PEOPLE. AND SO HOW DO WE SOMEHOW FOCUS
15 ON THAT AND INCENTIVIZE THAT AS WE'RE WORKING ON THE
16 N OF 1S AND WORKING ON THE MUCH LARGER RARE DISEASE
17 POPULATIONS? AND THEN WHERE'S THAT SWEET SPOT WITH
18 ACADEMIC VERSUS COMMERCIAL? BECAUSE I THINK THAT
19 THERE'S ROOM FOR EVERYTHING. AND AS WE KNOW, WITH
20 10,000 OR SO RARE DISORDERS, AS WE'VE DISCOVERED
21 WITH GENOMIC SEQUENCING, WE'VE ONLY GOT TREATMENTS
22 FOR ABOUT 5 PERCENT OF THEM. SO LONG WAY TO GO.

23 CHAIRPERSON BONNEVILLE: THANK YOU,
24 CHRISTINA. THAT WAS AMAZING. THANK YOU.

25 DOES ANYONE HAVE ANY OTHER COMMENTS?

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1 DR. LEVINE: IT'S HARD TO ADD TO THE
2 SUMMARY THAT HAD PROCEEDED, BUT I WOULD JUST SAY I
3 AGREE THAT DANA GOLDMAN'S PRESENTATION IS REALLY
4 INTERESTING. I HAD A SIDEBAR WITH HIM, AND HE
5 TALKED ABOUT THE LIFE VALUE, WHICH IS NOT JUST
6 MEDICAL SAVINGS, BUT PRODUCTIVITY TO SOCIETY, IS
7 ABOUT \$300,000 PER CANCER PATIENT SAVED.

8 SO IN RARE DISEASES, THE NUMBERS WERE LIKE
9 IN THE 150,000 TO \$200,000 RANGE BASED ON SOME
10 STUDIES. SO I MEAN REALLY INTERESTING DATA.

11 IN MY PANEL WHAT I TALKED ABOUT WERE
12 THEMES THAT WE TALKED ABOUT HERE, OR I'VE TALKED
13 ABOUT HERE BEFORE, WHICH IS THIS SYSTEM,
14 PARTICULARLY IN CALIFORNIA, AS WE FORM THESE TIGHT
15 MEDICAL GROUPS TO DELIVER COST-EFFECTIVE CARE, WE
16 OFTEN ARE LEAVING OUT THE EXPERTISE THAT PEOPLE
17 UNDERSTAND RARE CONDITIONS OR UNDERSTAND THE NEWER
18 TREATMENTS IN CANCER. AND THERE'S JUST LESS
19 REFERRAL IN FOR PROPER TESTING AND THEN FOR PROPER
20 TREATMENT.

21 AND THEN ALSO THE FACT THAT I THINK
22 SEVERAL HAVE MENTIONED THAT AS MEDICAL GROUPS ARE
23 BEING ASKED TO TAKE ON MEDICAL RISK, THERE'S TOO
24 STRONG INCENTIVE TO NOT WANT TO TEST AND REFER TO
25 GET PEOPLE TO GET THESE TREATMENTS. SO WE HAVE TO

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1 KIND OF FIX THOSE SYSTEMS. AND WE'RE BEGINNING TO
2 SEE DIFFERENT COMPANIES FORMING TO TRY TO AMORTIZE
3 THE COST THAT WE TALKED ABOUT.

4 I THINK THE COMMENT WAS MADE THAT THE
5 SCIENCE IS AHEAD OF THE SOCIOLOGIC RESPONSE TO IT,
6 OR THE BUSINESS RESPONSE, AND I THINK YOU'RE GOING
7 TO SEE THE SAME WAY THAT PEOPLE HAVE CARVED OUT,
8 LIKE, CATASTROPHIC ILLNESS -- CATASTROPHIC THINGS
9 LIKE EARTHQUAKES AND FIRES AND HURRICANES. I THINK
10 PEOPLE ARE GOING TO START TO CARVE OUT CATASTROPHIC
11 DISEASE AND TRY TO CREATE A DIFFERENT INSURANCE
12 MECHANISM FOR THAT. BUT WE'RE STILL EARLY DAYS FOR
13 SAYING THAT, BUT I THINK IT'S GOING TO BE REALLY
14 IMPORTANT BECAUSE THE WAY WE MANAGE RISK TODAY
15 REALLY IS NOT CONDUCIVE TO A FREE FLOW OF PATIENTS
16 INTO THESE SORTS OF TREATMENTS.

17 CHAIRPERSON BONNEVILLE: AGREE. THANK YOU
18 FOR THAT.

19 I THINK THE CONFERENCE OR THE SYMPOSIUM,
20 THE DAY FOR ME WAS, IT WAS GREAT TO SEE EVERYONE, AS
21 J.T. SAID, EVERYONE IN A ROOM TOGETHER AND TALKING
22 ABOUT THESE ISSUES. AND I THINK THE MORE WE CAN
23 CONVENE PEOPLE IN SITUATIONS LIKE THIS TO HAVE
24 CONVERSATIONS, I THINK EVERYONE WALKS AWAY LOOKING
25 AT IT FROM SOMEONE ELSE'S POINT OF VIEW. AND I

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1 THINK THAT THAT'S REALLY IMPORTANT BECAUSE A LOT OF
2 THE TIMES WE JUST GET VERY FOCUSED ON OUR OWN AREA
3 OF EXPERTISE OR OUR OWN AREA THAT WE LIVE DAY TO
4 DAY. AND I THINK BRINGING EVERYONE IN A ROOM
5 TOGETHER TO UNDERSTAND THE CHALLENGES IS VERY
6 IMPORTANT.

7 SO THANK YOU, EVERYONE WHO WAS THERE. AND
8 THANKS, SHYAM, FOR THIS OVERVIEW.

9 DR. PATEL: THANK YOU, MARIA. AND THANK
10 YOU, EVERYONE, FOR YOUR GREAT INPUT AND
11 PERSPECTIVES.

12 SO WE'LL MOVE ON TO THE NEXT FEW AGENDA
13 ITEMS.

14 CHAIRPERSON BONNEVILLE: THANK YOU.

15 DR. PATEL: THANK YOU, MARIA.

16 SO THE NEXT ITEM HERE IS THE FDA WORKSHOP.
17 SO THIS WAS RELATED TO SOME OF WHAT CHRISTINA WAS
18 TALKING ABOUT WITH RESPECT TO PEDIATRIC RARE
19 DISEASES. SO WE HAVE A RICH PORTFOLIO AT CIRM OF
20 PEDIATRIC RARE GENETIC DISEASE THERAPIES,
21 PARTICULARLY IN THE IN VIVO GENE THERAPY SIDE.

22 AND ONE OF THE KEY QUESTIONS THERE THAT
23 THE FDA HAD RAISED WAS -- TO THE COMMUNITY WAS DO WE
24 NEED TO RETHINK HOW CLINICAL TRIALS ARE GENERALLY
25 DONE FOR RARE PEDIATRIC DISEASE CELL AND GENE

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1 THERAPY TREATMENTS? IN PARTICULAR, AS MANY OF YOU
2 KNOW, A FIRST-IN-HUMAN TRIAL OFTEN WILL START IN
3 ADULT POPULATIONS TO DEMONSTRATE SAFETY BEFORE
4 MOVING ON TO A PEDIATRIC PATIENT POPULATION. AND
5 FOR CELL AND GENE THERAPIES, THAT IS NOT ALWAYS THE
6 APPROPRIATE ETHICAL OR SCIENTIFIC APPROACH BECAUSE
7 THOSE DISEASES ARE UNIQUE TO CHILDREN.

8 OFTENTIMES THE THERAPY HAS AN EFFICACY
9 DOSE THAT IS PROVIDED TO THOSE PATIENTS. AND SO IN
10 THAT RESPECT, HAVING THIS CONVERSATION, IT WAS
11 REALLY IMPORTANT.

12 THE OTHER PART THAT THIS WORKSHOP ALSO
13 ADDRESSED WAS AT WHAT POINT TO TREAT PATIENTS. IS
14 IT PRE-SYMPTOMATIC? IS IT EARLY SYMPTOMATIC? IS IT
15 LATE SYMPTOMATIC? AND REALLY, SORT OF, HOW TO
16 TARGET YOUR THERAPIES TO THE DISEASE PROFILE.

17 AND SO THIS PARTICULAR WORKSHOP, THE FDA
18 WORKSHOP WAS HOSTED AT THE FDA CAMPUS, AND IT WAS
19 CO-SPONSORED BY CIRM, AND IT WAS ORGANIZED BY THE
20 ALLIANCE FOR REGENERATIVE MEDICINE. IT BROUGHT
21 TOGETHER VARIOUS STAKEHOLDERS, INCLUDING CLINICIANS,
22 THE FDA LEADERSHIP, PARENTS, PATIENT ADVOCATES, AND
23 THE INDUSTRY.

24 AND I WILL TELL YOU THAT THE MOST FORCEFUL
25 AND MOST IMPACTFUL VOICE WAS COMING FROM THE PARENTS

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1 THEMSELVES, PARTICULARLY ON BOTH OF THE TOPICS THAT
2 I JUST MENTIONED. AND THERE WERE VARIOUS PATIENT
3 ACCESS CONSIDERATIONS THAT WERE BEING BROUGHT UP.

4 SO ON THE TOPIC OF DO YOU DESIGN A
5 CLINICAL TRIAL FOR PEDIATRIC PATIENTS FIRST, OR DO
6 YOU FIRST TEST IT IN ADULTS, THERE WAS A VERY RICH
7 DISCUSSION AROUND THIS, PARTICULARLY AROUND WHAT
8 EVIDENCE IS NEEDED AND HOW TO STRUCTURE THAT TRIAL.
9 AND THE PATIENT ADVOCATES AND THE PATIENT FAMILIES
10 REPEATEDLY REINFORCED THE FACT THAT PARENTS AND
11 PATIENT ADVOCATES MAKE RISK-BENEFIT DECISIONS ALL
12 THE TIME.

13 AND HERE THEY CAN BE APPROPRIATELY
14 INFORMED TO MAKE RISK-BENEFIT DECISIONS ON ENROLLING
15 IN CLINICAL TRIALS. AND THEY STRESS REPEATEDLY THAT
16 IT'S THE RESPONSIBILITY OF CLINICIANS, THERAPY
17 DEVELOPERS, AND REGULATORS TO ACTIVELY SEEK INPUT IN
18 THE DESIGN AND EXECUTION OF THESE TRIALS. RATHER
19 THAN TO JUST SIMPLY FOCUS ON PATIENT UNDERSTANDING
20 AND CONSENT, BRING THEM INTO THE PROCESS, ENGAGE
21 THEM ON THE TRIAL DESIGN AND EXECUTION. AND THAT
22 WAS A POINT THAT WAS REPEATEDLY ENFORCED OVER AND
23 OVER AGAIN. AND I THINK THE FDA AND THE DEVELOPERS
24 NOW HAVE THE INCENTIVE AND CLEAR MANDATE TO IMPROVE
25 HOW CLINICAL TRIALS ARE DESIGNED FOR PEDIATRIC RARE

1 DISEASE TREATMENTS.

2 ON THE OTHER ELEMENT, THERE WAS A RICH
3 DISCUSSION AROUND WHEN TO TARGET YOUR TREATMENT
4 BECAUSE A LOT OF THESE DISEASES ARE PROGRESSIVE.
5 AND SO DO YOU TREAT PRE-SYMPTOMATIC, IN THE EARLY
6 ONSET OF SYMPTOMS, OR DO YOU WAIT UNTIL YOU HAVE A
7 REALLY CLEAR, SORT OF COURSE OF ILLNESS TO TREAT
8 BECAUSE THESE ARE HIGH-RISK, HIGH-BENEFIT THERAPIES.

9 AND I THINK, IN THAT RESPECT, THE PATIENT
10 ACCESS COMPONENTS THAT WERE COMING UP WERE REALLY
11 FASCINATING. SO IF WE THINK ABOUT IT FROM, IF THE
12 FOCUS IS REALLY TO TREAT EARLY TO GET THE MAXIMUM
13 CLINICAL BENEFIT, YOU'RE LEAVING OUT PATIENTS WHO
14 COULD POTENTIALLY BENEFIT LATER IN THE COURSE OF THE
15 DISEASE. AND THIS IS SOMETHING THAT HAS PLAYED OUT
16 IN CIRM CLINICAL TRIALS.

17 ON THE OTHER HAND, IF YOU ARE GOING TO
18 FOCUS ON TREATING EARLY AND EVEN PRE-SYMPTOMATIC,
19 YOU REALLY HAVE TO MAKE SURE THAT THERE'S EQUITABLE
20 ACCESS TO DIAGNOSTIC AND SCREENING INFRASTRUCTURE
21 FOR PATIENTS SO THAT THEY CAN BE APPROPRIATELY
22 DIAGNOSED OR SCREENED AND ENROLLED IN THOSE TRIALS
23 OR EVENTUALLY HAVE ACCESS TO THOSE THERAPIES.

24 SO ALL OF THOSE THEMES WERE EXPLORED OVER
25 THE COURSE OF THE DAY. AND I THINK THE MAIN

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1 TAKEAWAY HERE WAS THAT THERE'S MUCH LEARNING,
2 LISTENING, AND COORDINATION TO BE DONE BETWEEN ALL
3 THE STAKEHOLDERS TO HELP ENSURE THAT SAFE AND
4 EFFECTIVE CELL AND GENE THERAPIES ARE DEVELOPED AND
5 MADE ACCESSIBLE TO CHILDREN.

6 CHAIRPERSON BONNEVILLE: THANK YOU, SHYAM.

7 DR. PATEL: I'LL MOVE ON.

8 CHAIRPERSON BONNEVILLE: DOES ANYONE HAVE
9 ANY QUESTIONS OR COMMENTS FROM THE WORKSHOP?

10 DR. LEVINE: THE ONLY COMMENT I WOULD MAKE
11 IS TO TIE IT TO WHAT I THOUGHT WAS ONE OF THE BEST
12 QUESTIONS AT THE SESSION A COUPLE WEEKS AGO WAS A
13 PEDIATRICIAN WAS SAYING SHOULDN'T THERE BE MORE
14 EMPHASIS ON STARTING TREATMENT EARLIER BECAUSE IT
15 SAVES MONEY TO INTERVENE QUICKER. LIKE YOU AVOID A
16 LOT OF UNNECESSARY COSTS AND YOU KEEP THE PERSON
17 HEALTHIER. AND OUR SYSTEM JUST ISN'T DESIGNED THAT
18 WAY AT ALL. AND I THOUGHT IT WAS A REALLY
19 INTERESTING QUESTION THAT, QUITE FRANKLY, I DIDN'T
20 UNDERSTAND THE QUESTION THE WAY IT WAS WORDED; BUT
21 AS I HEARD OTHERS RESPOND TO IT, I THOUGHT IT WAS
22 VERY THOUGHT-PROVOKING.

23 CHAIRPERSON BONNEVILLE: THANK YOU. ANY
24 OTHER QUESTIONS OR COMMENTS? OKAY. IF NOT, SHYAM,
25 NEXT ITEM.

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1 DR. PATEL: THANK YOU. SPEAKING OF
2 PEDIATRIC GENE THERAPIES, SO CIRM, ON MARCH 26TH, WE
3 HAD OUR FIRST APPROVED GENE THERAPY THAT CIRM HAD
4 FUNDED. AND THIS WAS BY ROCKET PHARMA. THE FDA
5 APPROVED ITS KRESLADI GENE THERAPY THROUGH THE
6 ACCELERATED APPROVAL PATHWAY ON MARCH 26TH OF THIS
7 YEAR. AND I'M GOING TO GO THROUGH A LITTLE BIT OF
8 THE BACKGROUND OF THIS THERAPY, THE PATIENT
9 POPULATION, CIRM'S ROLE IN IT, AS WELL AS
10 FORWARD-LOOKING WHAT THE COMPANY PLANS TO DO.

11 SO FIRST OF ALL, THIS IS A GENE THERAPY
12 TREATMENT FOR LEUKOCYTE ADHESION DEFICIENCY 1, WHICH
13 IS AN INBORN ERROR OF IMMUNITY. BASICALLY IT'S A --
14 YOU HAVE A GENETIC MUTATION THAT PREVENTS THE IMMUNE
15 SYSTEM FROM FUNCTIONING NORMALLY, AND IT RESULTS IN
16 PATIENTS BEING VERY SUSCEPTIBLE TO INFECTION. AND
17 IN THE MOST SEVERE FORMS OF THE DISEASE, YOU HAVE
18 LIFE-THREATENING INFECTIONS EARLY IN CHILDHOOD AND
19 IT'S OFTEN FATAL.

20 SO HERE SEVERE LAD1 PATIENTS ARE VERY
21 SUSCEPTIBLE TO DISEASE BECAUSE THEY HAVE A MUTATION
22 IN A GENE THAT IS NECESSARY FOR NORMAL NEUTROPHIL
23 FUNCTION. AND SO WITHOUT THAT, THE IMMUNE SYSTEM
24 CAN'T FIGHT OFF INFECTION, AND IT'S OFTEN FATAL FOR
25 THESE PATIENTS WITHIN THE FIRST FEW YEARS OF THEIR

1 CHILDHOOD.

2 THE ONLY STANDARD OF CARE IS BONE MARROW
3 TRANSPLANT. AND OFTENTIMES IT'S MATCHED-SIBLING
4 DONOR TRANSPLANT, WHICH IS VERY DIFFICULT. AND SO
5 IT'S IMPORTANT THAT, WHEN A PATIENT IS DIAGNOSED,
6 THAT THEY'RE TREATED EARLY BECAUSE OF THE
7 LIFE-THREATENING NATURE OF THIS DISEASE.

8 THIS PARTICULAR THERAPY IS A LENTIVIRAL
9 GENE THERAPY. SO THE PATIENT'S BONE MARROW CELLS,
10 BLOOD STEM CELLS, ARE HARVESTED. IN THE LAB THEY'RE
11 GENETICALLY MODIFIED WITH A LENTIVIRAL VECTOR, AND
12 THEN THEY'RE RE-INFUSED BACK INTO THE PATIENT WHERE
13 THEY PRODUCE NORMAL NEUTROPHILS AND ARE ABLE TO
14 FIGHT OFF INFECTIONS.

15 AND SO THIS PARTICULAR THERAPY WAS
16 APPROVED BASED ON A VERY SMALL CLINICAL TRIAL
17 BECAUSE THE PATIENT POPULATION IS VERY SMALL. THIS
18 IS AN ULTRA-RARE DISEASE. ROCKET ESTIMATES IT'S
19 GOING TO BE ABOUT 25 NEW CASES A YEAR. AND SO THEY
20 WERE ABLE TO GET ACCELERATED APPROVAL WITH A
21 NINE-PATIENT TRIAL. AND IT HAD MULTIPLE SITES
22 ACROSS THE COUNTRY -- SORRY -- ACROSS THE WORLD,
23 AND THE PRIMARY SITE WAS UCLA.

24 OUT OF THE NINE PATIENTS, SIX WERE TREATED
25 AT UCLA WITH CIRM FUNDING. SO CIRM HAD FUNDED THE

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1 UCLA PORTION OF THE TRIAL, AND MOST OF THE PATIENTS
2 WERE TREATED AT THAT UCLA SITE BY DR. DON KOHN,
3 WHO'S IN THE PICTURE HERE.

4 AND SO A COUPLE OF THE THINGS THAT I DO
5 WANT TO HIGHLIGHT IS THAT THIS, FOR US, WAS AN
6 EXAMPLE OF BOTH THE COMPANY AND THE CLINICAL SITE
7 GOING ABOVE AND BEYOND TO MAKE SURE THAT PATIENTS
8 AND THEIR FAMILIES WERE SUPPORTED THROUGH THE WHOLE
9 JOURNEY OF DIAGNOSIS, TREATMENT, AND FOLLOW-UP.

10 SO TO GIVE YOU AN EXAMPLE, ONE OF THE
11 FAMILIES THAT WAS ENROLLED IN THIS TRIAL, ALL THREE
12 OF THE SIBLINGS WERE DIAGNOSED WITH LAD1. AND SO
13 THAT FAMILY HAD TO TRAVEL TO L.A. ALL THREE
14 SIBLINGS HAD TO BE TREATED, AND THEY HAD TO STAY IN
15 L.A. FOR WEEKS FOR ALL THE FOLLOW-UP. AND SO BOTH
16 THE UCLA TREATMENT SITE AS WELL AS ROCKET WORKED
17 TOGETHER TO MAKE SURE THAT THEY COULD HANDLE THE
18 LOGISTICS, THE HOUSING, AS WELL AS ALL OF THE
19 TREATMENT FOR THOSE THREE KIDS.

20 THERE WERE ALSO A SIGNIFICANT PROPORTION
21 OF INTERNATIONAL PATIENTS. AND IN THAT RESPECT, THE
22 SPONSOR HAD TO ENSURE THAT THEY COULD QUICKLY
23 ARRANGE FOR TRAVEL PLANS, ENTRY TO THE COUNTRY, AS
24 WELL AS LANGUAGE SUPPORT WHEN THEY WERE HERE IN L.A.
25 BEING TREATED AND FOLLOWED UP FOR THE THERAPY. AND

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1 SO IN THAT INSTANCE, THIS IS AN EXAMPLE OF REALLY
2 GOING ABOVE AND BEYOND FOR THIS PARTICULAR PATIENT
3 POPULATION AND THEIR FAMILIES TO MAKE SURE THAT THEY
4 HAD ACCESS TO THIS THERAPY IN THE CLINICAL TRIAL
5 SETTING.

6 AFTER APPROVAL, ROCKET PLANS TO LAUNCH
7 THIS PRODUCT AT THE END OF THIS YEAR. AND AS YOU
8 KNOW, ALL CIRM-FUNDED THERAPIES THAT REACH THE
9 APPROVAL STAGE ARE REQUIRED TO SUBMIT AN ACCESS PLAN
10 TO CIRM WITHIN TEN DAYS OF BLA APPROVAL. IN THIS
11 PARTICULAR INSTANCE, ROCKET HAS BEEN GRANTED AN
12 EXTENSION TO PROVIDE THEIR ACCESS PLAN. IT'LL BE
13 REVIEWED BY CIRM AND ALSO WILL BE AVAILABLE FOR
14 PUBLIC COMMENT. AND WE EXPECT THAT THIS PARTICULAR
15 PRODUCT WILL STAY ON ITS LAUNCH TRAJECTORY FOR THE
16 END OF THIS YEAR.

17 CHAIRPERSON BONNEVILLE: THANK YOU, SHYAM.
18 DOES ANYONE HAVE ANY COMMENTS OR QUESTIONS ABOUT
19 THAT? IT'S VERY EXCITING NEWS, AS YOU CAN IMAGINE.
20 SO I DON'T KNOW IF THERE'S ANY QUESTIONS ABOUT THE
21 ACCESS PLAN OR ANYTHING SHYAM JUST MENTIONED.

22 DR. LEVITT: SHYAM, WHAT ARE THE
23 FINANCIALS OF THIS, THE ESTIMATED FINANCIALS?

24 DR. PATEL: GOOD QUESTION. THEY HAVE NOT
25 DISCLOSED PRICING. THEY WILL DO SO AS THEY GET

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1 CLOSER TO A LAUNCH OF THE PRODUCT. SIMILAR
2 THERAPIES, LENTIVIRAL GENE THERAPIES FOR OTHER
3 IMMUNE DISORDERS, CHRISTINA CAN COMMENT ON THAT MUCH
4 BETTER THAN I CAN.

5 DR. LEVITT: SO IS THE PLAN FOR THE
6 HOSPITALS TO EAT THE DIFFERENCE BETWEEN
7 REIMBURSEMENT AND THE PRICING?

8 DR. PATEL: SO IN THAT PARTICULAR CASE, IN
9 TERMS OF REIMBURSEMENT, WHAT OUR UNDERSTANDING IS IS
10 THAT FOR THESE ULTRA-RARE THERAPIES, THERE IS A
11 REIMBURSEMENT PATHWAY FOR THEM FOR THE THERAPY.
12 BUT, AGAIN, I WOULD DEFER TO CHRISTINA WHO MIGHT
13 HAVE MORE COMMENTS ON THAT.

14 MS. HARTMAN: YEAH. I MEAN, I CAN TELL
15 YOU MY EXPERIENCE WITH BLUEBIRD AND NOW ORCHARD.
16 WHERE AT BLUEBIRD FOR LYFGENIA, THE SICKLE CELL GENE
17 THERAPY THAT WE HAD, LENTIVIRAL, THE PATIENT
18 POPULATION MIX WAS ABOUT 50 PERCENT MEDICAID -- I'M
19 SORRY -- 50 PERCENT COMMERCIAL, 40 PERCENT MEDICAID,
20 10 PERCENT MEDICARE. MOST PEOPLE WEREN'T LIVING
21 LONG ENOUGH TO BE ON MEDICARE AT ORCHARD.

22 AND JUST A QUICK COMMENT FROM THE
23 DISCUSSION BEFORE. FOR MOST OF OUR KIDS, WE CAN'T
24 TREAT THEM ONCE THEY'RE TOO SYMPTOMATIC. RIGHT? SO
25 THE GENE THERAPY DOESN'T WORK IF THEY'RE TOO FAR

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1 PROGRESSED TO TREAT. SO THAT'S WHY YOU HAVE TO
2 DIAGNOSE AND GET THEM EARLY, WHICH IS THE BIG
3 CHALLENGE THERE. BUT AT ORCHARD, WE ARE ACTUALLY
4 FINDING THAT IN PRACTICE, WE ARE SEEING ABOUT 70
5 PERCENT MEDICAID AND 30 PERCENT COMMERCIAL. WE HAD
6 EXPECTED IT TO BE ABOUT A 50-50 SPLIT. IN PRACTICE,
7 I THINK IN LARGE PART BECAUSE THESE KIDS ARE SO
8 SICK, IT'S 70 PERCENT MEDICAID AND 30 PERCENT
9 COMMERCIAL IS WHAT WE'RE CURRENTLY SEEING.

10 THE CHALLENGE THAT WE'VE HAD AT BOTH
11 PLACES THAT I'VE BEEN CONSISTENTLY ARE THE DELAYS IN
12 COVERAGE WHEN IT COMES TO MEDICAID. SO THE
13 HOSPITALS NEED TO BE CONFIDENT THAT THEY'RE GOING TO
14 BE REIMBURSED SEPARATELY FOR THE DRUG PRODUCT, BUT
15 THEN ALSO FOR THE ANCILLARY CARE AND SERVICES. THE
16 WAY THAT THESE AUTOLOGOUS EX VIVO LENTIVIRAL VECTOR
17 GENE THERAPIES ARE BEING DELIVERED IS VIA A
18 HEMATOPOIETIC STEM CELL TRANSPLANT. AND SO THAT
19 HOSPITALIZATION, ALL THE ANCILLARY CARE AND SERVICES
20 IS SIGNIFICANT, AND THE HOSPITALS NEED TO BE
21 CONFIDENT THAT THEY'RE GOING TO RECEIVE THE
22 REIMBURSEMENT FOR BOTH.

23 AS A COMPANY, WE ALSO HAVE TO BE CONFIDENT
24 THAT WE ARE GOING TO BE ABLE TO PROCEED WITH THE
25 MANUFACTURING. RIGHT? THE HOSPITAL HAS TO SIGN OFF

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1 ON THAT PURCHASE ORDER BEFORE WE CAN PROCEED. WE
2 ALSO HAVE LIMITED MANUFACTURING SPOTS. I MEAN, WE
3 ARE MANUFACTURING AROUND THE GLOBE FOR LENMELDY IN
4 THE U.S., LIBMELDY IN EUROPE. AND WE ALSO ARE
5 RUNNING CLINICAL TRIALS FOR OTHER DISORDERS. SO
6 THERE'S LIMITED MANUFACTURING SPACE. SO ALL OF THAT
7 COMES INTO PLAY.

8 YOU'RE ALSO WORKING WITH THE PATIENT'S OWN
9 CELLS. RIGHT? SO THERE'S A LIMITED AMOUNT OF THAT
10 THERE AS WELL. BUT I DO THINK THE BIGGEST ISSUE
11 THAT WE'VE SEEN, WHEN I WAS AT BLUEBIRD, WE SAW
12 DELAYS OF 6 TO 24 MONTHS FOR MEDICAID PATIENTS.
13 AT ORCHARD THAT 6- TO 24-MONTH DELAY WOULD BE DEATH.
14 SO WE HAVE BEEN ABLE TO WORK SUCCESSFULLY WITH
15 ELECTED OFFICIALS AND OTHERS TO MAKE SURE THAT THEY
16 CAN EXPEDITE THE COVERAGE FOR THIS VERY SMALL NUMBER
17 OF PATIENTS. BUT IT'S NOT SOMETHING THAT A COMPANY
18 SHOULD HAVE TO DO, AND I DON'T THINK THAT IT IS
19 FEASIBLE TO CONTINUE TO DO THAT IN THE LONG TERM.
20 AND FOR COMPANIES THAT MAY NOT HAVE HAD THE
21 INVESTMENT AND SOPHISTICATION AND BACKING THAT WE'VE
22 HAD, IT MAY NOT BE POSSIBLE.

23 SO IT'S NOT A GREAT SITUATION, AND I THINK
24 THERE'S A LOT THAT NEEDS TO EVOLVE THERE.

25 DR. LEVITT: YEAH. WELL, I COULDN'T AGREE

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1 MORE. AND IT'S THE POSTER CHILD FOR SCIENCE WAY
2 AHEAD OF POLICY.

3 CHAIRPERSON BONNEVILLE: YES.

4 DR. LEVITT: AND IT'S LIKE, NOT EVEN LIKE,
5 AHEAD OF. IT'S LIKE WAY, WAY, WAY AHEAD OF. AND
6 THAT'S A PROBLEM BECAUSE THERE'S LIKE -- THERE'S
7 CURRENT STATE OPPORTUNITIES. RIGHT? LIKE OUR
8 HOSPITAL, I THINK, HAS, LIKE, 13 CELL AND GENE
9 THERAPIES THAT ARE ONGOING NOW AND WAITING FOR
10 REIMBURSEMENT. AND NOT EVEN KNOWING EXACTLY WHAT
11 THE REIMBURSEMENT IS IS JUST A KILLER. I DON'T KNOW
12 OF A HOSPITAL THAT HAS LARGE AMOUNTS OF GOLD
13 BULLION, CASH ON HAND TO BE ABLE TO -- RIGHT? I
14 MEAN, THAT'S THE PROBLEM. I'LL STOP THERE, BUT IT'S
15 DISHEARTENING.

16 DR. PATEL: AS CHRISTINA MENTIONED,
17 THERE'S A COUPLE OF -- AND, PAT, AS YOU NOTED --
18 THERE'S A COUPLE OF POINTS THERE. ONE IS AROUND THE
19 COVERAGE DECISIONS, AND WE CAN TALK A LITTLE BIT
20 MORE ABOUT THE CASE AGREEMENTS HERE BECAUSE OF THE
21 FACT THAT OFTENTIMES THERE'S LIMITED TREATMENT
22 CENTERS. SO PATIENTS ARE TRAVELING TO OTHER STATES,
23 AND THAT CREATES ALL THE AGREEMENTS THAT NEED TO BE
24 MADE BETWEEN THE STATE MEDICAID AGENCIES.

25 AND, PAT, TO YOUR POINT, WE'VE HEARD

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1 REPEATEDLY FROM VARIOUS PROVIDERS THAT THE DELAYS IN
2 GETTING REIMBURSED ARE REALLY PILING UP ON THEIR
3 BUSINESS LINES IN TERMS OF JUST HOW SLOW SOME PAYERS
4 MAY BE IN MAKING PAYMENT EVEN AFTER THEY'VE AGREED
5 TO DO SO.

6 CHAIRPERSON BONNEVILLE: KIM.

7 DR. BARRETT: YEAH. I JUST WANT TO SECOND
8 PAT'S COMMENT ABOUT THE FINANCIAL STRESS THIS PLACES
9 ON PROVIDERS. AND IT WOULD BE SIGNIFICANT NO MATTER
10 WHAT THE TIMING; BUT GIVEN THE CURRENT SET OF
11 STRESSES AND UNCERTAINTIES ON THE SYSTEM FROM
12 FACTORS TOTALLY INDEPENDENT OF ALL THIS, IT'S JUST
13 GOING TO MAKE PEOPLE EVEN MORE CAUTIOUS AND
14 RISK-AVERSE.

15 AND THEN, SHYAM, JUST FROM AN
16 ACCOUNTABILITY STANDPOINT, COULD YOU TELL US WHY
17 ROCKET WAS GIVEN AN EXTENSION TO PROVIDE THE ACCESS
18 PLAN AND WHEN YOU EXPECT TO RECEIVE THAT?

19 DR. PATEL: YEAH. SO WITHIN -- AND RAFAEL
20 IS PROBABLY BEST SUITED TO ANSWER THIS QUESTION.
21 BUT WE DO HAVE A MECHANISM WHERE THEY CAN REQUEST AN
22 EXTENSION. AND IN THIS PARTICULAR INSTANCE, BECAUSE
23 THE PRODUCT LAUNCH IS NOT TILL THE END OF THIS YEAR,
24 WE GRANTED THAT EXTENSION.

25 MR. AGUIRRE-SACASA: THAT'S RIGHT, SHYAM.

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1 KIM, THE IP REGULATIONS ACTUALLY PERMIT UP TO A
2 30-DAY EXTENSION, AND THE ACCESS PLAN IS DUE MAY
3 13TH, WHICH IS NEXT WEDNESDAY, IF I'M NOT MISTAKEN.

4 DR. BARRETT: THANK YOU.

5 CHAIRPERSON BONNEVILLE: AMMAR.

6 DR. QADAN: FIRST OF ALL, CONGRATULATIONS.
7 THIS IS REALLY GREAT NEWS FOR PATIENTS.

8 MY QUESTION IS MORE AROUND THE FACT THAT
9 MANY COUNTRIES OUTSIDE THE U.S., THEY WERE ABLE TO
10 BRING -- LIKE CARVE OUT PATHWAYS AND POLICIES FOR
11 THOSE ULTRA-RARE DRUGS. AND SO THE QUESTION IS
12 SHOULD MAYBE THE BUSINESS MODEL CONSIDER THAT, WHICH
13 IS THE FACT THAT OUTSIDE THE U.S., THERE MIGHT BE A
14 VIABLE WAY BETTER THAN THE U.S.?

15 CHAIRPERSON BONNEVILLE: SHYAM, DO YOU
16 HAVE ANY COMMENTS ON THAT? ANY OF OUR OTHER GWG --
17 OR AAWG MEMBERS?

18 DR. PATEL: AND THIS IS ONE OF THE AREAS
19 THAT CIRM IS INVESTIGATING MORE DEEPLY IS AROUND
20 THE -- THERE'S SO MUCH, SO MANY OTHER FINANCIAL
21 INSTRUMENTS AT PLAY HERE. THERE'S STOP LOSS,
22 THERE'S CARVE-OUTS, AND ALL THAT THAT ARE BEING
23 DONE. THERE'S ALSO NEWER COMPANIES EMERGING THAT
24 ARE DOING THIS. AND WE'RE TRYING TO UNDERSTAND
25 REALLY HOW THOSE ARE BEING LEVERAGED FOR CELL AND

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1 GENE THERAPIES, WHAT'S ACTUALLY EFFECTIVE, WHAT'S
2 ACTUALLY BEING USED, AND HOW DOES THAT IMPACT BOTH
3 THE PROVIDER SIDE AS WELL AS THE PAYER SIDE.

4 FOR EXAMPLE, MANY COMPANIES NOW HAVE BEEN
5 LEVERAGING SPECIALTY PHARMA SOLUTIONS TO BE THE
6 INTERMEDIARY BETWEEN THE MANUFACTURER AND THE
7 PROVIDER. AND SO IN THAT INSTANCE, WE DON'T KNOW
8 HOW EFFECTIVE THAT HAS BEEN ACROSS SOME OF THE MORE
9 EXPENSIVE CELL AND GENE THERAPIES AS WELL AS SOME OF
10 THE OTHER FINANCIAL INSTRUMENTS. THAT'S PART OF
11 WHAT WE WANT TO ADDRESS GOING FORWARD IS
12 UNDERSTANDING PRACTICALLY HOW THOSE ARE ACTUALLY
13 BEING IMPLEMENTED AND HOW THEY'RE BENEFITING THE
14 HEALTHCARE SYSTEM.

15 CHAIRPERSON BONNEVILLE: DARIUS.

16 DR. LAKDAWALLA: I THINK AMMAR MAKES A
17 GREAT POINT. AND JUST ONE PRACTICAL NOTE I'LL ADD
18 TO THAT IS, TO THE EXTENT THAT THAT IS GOING TO BE
19 PURSUED, THEN COMPANIES HAVE TO HAVE A VERY SPECIFIC
20 AND APPROPRIATE HEALTH TECHNOLOGY ASSESSMENT
21 APPLICATION PLAN.

22 AND I MEAN THE GOOD NEWS IS THAT THERE'S A
23 LOT -- THERE ARE A LOT OF EXCEPTIONS MADE FOR RARE
24 DISEASES INCREASINGLY AROUND THE WORLD. MAYBE THAT
25 WILL EXPAND WITH MOST FAVORED NATION PRESSURE, I

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1 DON'T KNOW; BUT WHATEVER THE CASE IS, IT'S IMPORTANT
2 FOR PEOPLE TO BE READY FOR THAT KIND OF OPPORTUNITY
3 BECAUSE IT'S PROBABLY WORTHWHILE.

4 CHAIRPERSON BONNEVILLE: THANK YOU. IF
5 THERE ARE NO OTHER COMMENTS OR QUESTIONS FOR THIS
6 AGENDA ITEM, SHYAM?

7 DR. PATEL: THANK YOU. SO A COUPLE
8 OPERATIONAL UPDATES ON OUR SIDE. THIS NEXT ONE I'M
9 GOING TO MAKE QUICK, AND THEN I'LL TURN IT OVER TO
10 GEOFF TO TALK ABOUT THE CCCE.

11 SO AS YOU REMEMBER, LAST YEAR WE WORKED
12 WITH THE WORKING GROUP HERE TO DEVELOP A SET OF
13 REQUIREMENTS AND GUIDANCES FOR OUR PRECLINICAL AND
14 CLINICAL STAGE AWARDEES TO INCORPORATE ACCESS AND
15 AFFORDABILITY PLANNING STRATEGIES INTO THEIR CIRM
16 AWARD AND FOR US TO BE ABLE TO TRACK
17 STAGE-APPROPRIATE PLANNING AS THEY PROGRESS FROM
18 PRECLINICAL TO EARLY CLINICAL TO LATE CLINICAL.

19 AND SO IN THAT RESPECT, WE HAVE UPDATED
20 SOME OF THAT BASED ON THE LAST FEW MONTHS OF
21 INTERACTIONS WITH THE BOARD. SO OVER THE LAST FEW
22 MONTHS WITH THE BOARD, THE CIRM TEAMS ARE WORKING
23 CLOSELY TO RE-EVALUATE HOW WE SELECT, REVIEW, AND
24 FUND APPLICATIONS FOR OUR CORE FUNDING PROGRAMS.
25 THIS IS DISCOVERY, PRECLINICAL DEVELOPMENT, AND

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1 CLIN2. AND PAT HAS BEEN A VERY STRONG VOICE IN THAT
2 AS WELL AS REALLY SUPPORTING US THROUGH THAT
3 PROCESS.

4 SO AS PART OF THAT, THERE WAS ALSO
5 FEEDBACK ON THE ACCESS AND AFFORDABILITY PLANNING
6 REQUIREMENTS. IN PARTICULAR, THE BOARD AGREED THAT
7 ACCESS STRATEGY IS REALLY IMPORTANT AND IT SHOULD BE
8 A CONSIDERATION IN CERTAIN FUNDING DECISIONS AS WELL
9 AS SOMETHING THAT IS TRACKED OVER THE COURSE OF THE
10 AWARD.

11 HOWEVER, THEY DID NOT FEEL THAT
12 AFFORDABILITY, GIVEN THE COMPLEXITY OF AFFORDABILITY
13 IN THE U.S. HEALTHCARE SYSTEM, THAT THAT SHOULD BE
14 SOMETHING THAT'S FACTORED INTO THE CIRM FUNDING
15 DECISION ON AN INDIVIDUAL PROJECT LEVEL. AND THEY
16 ALSO WANTED TO MAKE SURE THAT WE PROVIDED CLEAR
17 GUIDANCE TO ALL APPLICANTS AND REVIEWERS ABOUT WHAT
18 WE MEAN BY HAVING A CLEAR PATIENT ACCESS STRATEGY.

19 AND FINALLY, THEY WANTED TO MAKE SURE THAT
20 THE PATIENT VOICE AND EXPERT INPUT ON THIS ARE
21 PRESERVED IN THE EVALUATION PROCESS. AND SO COMING
22 OUT OF ALL OF THAT, TAKING INTO ACCOUNT BOARD'S
23 APPROVALS AND RECOMMENDATIONS, WE HAVE UPDATED HOW
24 WE EVALUATE ACCESS STRATEGIES IN OUR PRECLINICAL AND
25 CLINICAL PROGRAMS.

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1 SO FIRST OF ALL, WE REFRAMED IT AS A
2 PATIENT ACCESS STRATEGY TO FOCUS MORE BROADLY ON
3 ACCESS CONSIDERATIONS THAT ARE WITHIN THE CONTROL OF
4 THE SPONSOR.

5 WE'VE ALSO MADE SURE THAT THE ACCESS PLANS
6 ARE STAGE APPROPRIATE ACROSS THOSE DIFFERENT STAGES
7 OF DEVELOPMENT AND HAVE IMPROVED INSTRUCTIONS,
8 REVIEW CRITERIA, AND TRAINING TO ENSURE THAT THIS IS
9 ALL BEING FAIRLY ADJUDICATED DURING THE APPLICATION
10 SELECTION, RECOMMENDATION, AND APPROVAL PROCESS.

11 AND OVERALL, WE'VE ACTUALLY LEANED MORE
12 HEAVILY INTO PATIENT ACCESS STRATEGY BEING A KEY
13 COMPONENT OF THE CLIN2 AND PDEV APPLICATIONS IN THE
14 SENSE THAT THIS IS NOW BEING INCORPORATED INTO THE
15 GWG REVIEW AS A WHOLE.

16 AND FINALLY, THE PATIENT ADVOCATE BOARD
17 MEMBERS WHO PARTICIPATE IN THE GRANTS WORKING GROUP
18 REVIEW WILL HAVE A MORE DEFINED SCORING ROLE. AND
19 SO THEIR VOICE WILL BE MORE CLEAR AND WILL ALSO
20 REFLECT IT IN THEIR SPECIFIC SCORING AS TO HOW THEY
21 FELT ABOUT THE APPLICATION, ITS PATIENT ACCESS
22 STRATEGY, HOW IT'S IMPACTING THIS CALIFORNIA
23 POPULATION, AND HOW IT'S POSITIONED TO MOVE FORWARD.

24 CHAIRPERSON BONNEVILLE: THANK YOU, SHYAM.
25 ARE THERE ANY COMMENTS FROM ANY OF THE BOARD MEMBERS

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1 ABOUT THIS? I MEAN ANYONE CAN COMMENT, OBVIOUSLY,
2 BUT BOARD MEMBERS WHO WENT THROUGH THIS PROCESS.

3 PAT?

4 DR. LEVITT: WHAT DO YOU WANT ME TO SAY?
5 I MEAN WE HAD LOTS OF ROBUST CONVERSATION ABOUT
6 THIS. I THINK THE WAY IT'S STRUCTURED NOW, I THINK,
7 MAKES SENSE FROM AN INVESTIGATOR PERSPECTIVE IN
8 TERMS OF WHAT THEY SHOULD BE PAYING ATTENTION TO AND
9 WHAT THEY NEED TO BE DEALING WITH. AND I THINK THE
10 ROLE OF THE PATIENT ADVOCATES, WHICH I HEARD ABOUT
11 MORE YESTERDAY AT ANOTHER CIRM MEETING, I THINK IT'S
12 GREAT. SO I THINK IT'S BEEN INCORPORATED AND
13 INTEGRATED REALLY WELL. AND I THINK THE
14 AFFORDABILITY COMPONENT, WHICH WE'VE HEARD AT THIS
15 MEETING, IT'S JUST BEYOND WHAT AN INVESTIGATOR TEAM,
16 RIGHT, APPLYING FOR A GRANT IS GOING TO BE ABLE TO
17 DEAL WITH.

18 SO WHILE THEY CAN CERTAINLY ACKNOWLEDGE
19 THESE CHALLENGES, I THINK EXPECTING THEM TO COME UP
20 WITH A PLAN. SO, SHYAM AND TEAM, I THINK YOU ALL
21 CAME UP WITH GREAT FRAMING FOR THIS. LOOKS GOOD.

22 CHAIRPERSON BONNEVILLE: THANK YOU.

23 IF THERE ARE NO OTHER COMMENTS, I THINK WE
24 ARE AT OUR LAST AGENDA ITEM, AND THAT'S GEOFF LOMAX.

25 DR. LOMAX: GOOD MORNING, EVERYONE, AND

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1 THANK YOU. COULD WE GO TO THE FIRST SLIDE THERE.

2 THANKS VERY MUCH.

3 SO THE AIM OF THIS PRESENTATION IS TO
4 UPDATE YOU ALL ON THE COMMUNITY CARE CENTERS OF
5 EXCELLENCE PROGRAM. I THINK, AS MOST OF YOU ARE
6 AWARE, THIS IS A PROGRAM THAT IS CALLED OUT IN
7 PROPOSITION 14 WITH THE AIM OF EXPANDING CIRM'S
8 CLINICAL INFRASTRUCTURE, SPECIFICALLY SITES THAT CAN
9 PERFORM CELL AND GENE THERAPY CLINICAL TRIALS AND
10 THE DELIVERY OF APPROVED PRODUCTS TO EXPAND THOSE
11 DELIVERY PLATFORMS TO AREAS IN CALIFORNIA THAT HAVE
12 HISTORICALLY BEEN UNDERSERVED OR CERTAINLY PATIENTS
13 WOULD HAVE TO TRAVEL CONSIDERABLE DISTANCE IF THEY
14 WERE TO ACCESS THE ACADEMIC MEDICAL CENTERS WITHIN
15 OUR EXISTING ALPHA CLINICS NETWORK.

16 SO YOU ALL WERE VERY INFORMATIVE FROM THE
17 GET-GO, BOTH IN TERMS OF OUR EARLY NEEDS ASSESSMENT
18 THROUGH TO THE CONCEPT PLAN. LAST FALL WE WERE ABLE
19 TO BRING A SET OF RECOMMENDATIONS TO THE BOARD WHERE
20 THEY APPROVED THREE AWARDS, AND THESE AWARDS WERE
21 LAUNCHED ON MARCH 1ST.

22 WHEN WE SAY LAUNCH, THAT MEANS WE'VE
23 SIGNED THE CONTRACTS WITH THE AWARDEES, AGREED TO
24 TERMS AND CONDITIONS, MILESTONES, ALL THE THINGS
25 THAT ARE BEHIND A SUCCESSFUL CIRM AWARD.

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1 SORRY. COULD YOU JUST STAY ON THAT SLIDE
2 FOR ONE MOMENT? YEAH. THANK YOU. EACH OF THE
3 AWARDS IS 9 MILLION. THEY ARE FIVE-YEAR AWARDS.
4 AND AS PART OF -- IMMEDIATELY AFTER KICKOFF, THE
5 FIRST ORDER OF BUSINESS, IF YOU WILL, WAS TO HAVE AN
6 ORIENTATION SESSION WITH THE ALPHA CLINICS. AS PART
7 OF THE AWARD, THE AWARD REQUIRES EXTENSIVE
8 COLLABORATION AND COORDINATION WITH OUR EXISTING
9 CLINICAL TRIAL NETWORK. THOSE DISCUSSIONS WERE, I
10 WOULD CHARACTERIZE AS -- WHAT WAS REALLY HEARTENING
11 TO SEE IS THEY WERE VERY BI-DIRECTIONAL WHERE THE
12 COMMUNITY CARE CENTERS HAD ALREADY HAD ASSETS THEY
13 WERE BRINGING TO THE TABLE THAT THE ALPHA CLINICS
14 WERE INTERESTED IN. AND THE ALPHA CLINICS, IN
15 RETURN, WERE WILLING AND ABLE PARTNERS IN AREAS
16 WHERE SOME OF THE SITES WERE LOOKING FOR SUPPORT.

17 MOST NOTABLY, I THINK WHERE THE ALPHA
18 CLINICS CAN BE AN IMMEDIATE ASSIST TO THE LAUNCHING
19 PROGRAMS ARE IN SOME OF THE AREAS AROUND TRAINING
20 AND DELIVERY OF PRODUCTS. THERE WAS DEFINITELY SOME
21 REQUESTS IN THAT AREA AROUND TRAINING, BOTH ON THE
22 DELIVERY SIDE AND EVEN THE ADMINISTRATION AND HOW TO
23 MOVE THESE PRODUCTS THROUGH THEIR SERVICE LINES.

24 SO, AGAIN, GOOD DISCUSSIONS. PEOPLE ARE
25 GETTING CONNECTED. AND THOSE PEER-TO-PEER

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1 CONNECTIONS ARE STARTING.

2 THE CIRM TEAM WILL BE VISITING EACH OF THE
3 SITES OVER THE NEXT ABOUT SIX WEEKS WITH THE AIM OF,
4 AGAIN, GETTING INTO A BIT MORE DETAIL IN TERMS OF
5 NEEDS, HOW WE CAN HELP, AND JUST TO ADDRESS
6 BREAD-AND-BUTTER QUESTIONS ABOUT THE AWARDS
7 THEMSELVES, THE ADMINISTRATION, AND THE OVERALL
8 PROGRAM.

9 SO WITH THAT, COULD WE GO TO THE NEXT
10 SLIDE, PLEASE. JUST GIVE YOU A LITTLE BIT OF COLOR
11 ON THE THREE AWARDS WE HAVE SO FAR. THE SITE, THE
12 LUNDQUIST SITE, IS IN TORRANCE, CALIFORNIA. AND
13 THAT SITE IS REALLY FOCUSED ON -- THIS IS OUR FIRST
14 REAL BIG PUSH INTO ENGAGING PATIENTS THAT WOULD BE
15 IN THE COUNTY HEALTH SYSTEMS. SO THESE ARE
16 HISTORICALLY UNDERSERVED PATIENTS ACROSS THE
17 HEALTHCARE SPECTRUM, INCLUDING, CERTAINLY, CLINICAL
18 TRIALS AND REGENERATIVE MEDICINE THERAPIES AS WELL.
19 AND SO THAT SITE REALLY PROPOSES VERY MUCH A DEEP
20 DIVE INTO POPULATIONS IN SOUTH CENTRAL LOS ANGELES
21 THAT ARE PRIMARILY SERVED THROUGH THE COUNTY
22 HOSPITAL SYSTEM. AND ALREADY THERE'S BEEN A LOT OF
23 ENGAGEMENT WITH BOTH UC IRVINE AND UCLA'S ALPHA
24 CLINIC AND CEDARS. SO SORT OF ALPHA CLINICS THAT
25 SORT OF TOUCH ON THOSE BOUNDARIES ALREADY OFFERING

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1 SUPPORT WHERE THAT SITE HAS BEEN INTERESTED IN,
2 AGAIN, GETTING TECHNICAL ASSISTANCE, TRAINING, AND
3 SUPPORT.

4 THE INLAND EMPIRE, WHICH IS LOMA LINDA,
5 THAT REALLY GIVES US NOW A MUCH MORE EXPANSIVE
6 FOOTPRINT INTO RIVERSIDE COUNTY, THE DESERT REGION.
7 AND LOMA LINDA, VERY INTERESTING, IS VERY KEEN TO
8 LEAN INTO AREAS OF THE NEUROLOGICAL SPACE. THAT IS
9 SOMETHING THAT THEY'RE DEVELOPING AT THEIR CENTER
10 AND HAVE BECOME VERY INTERESTED IN THE PROGRAMS THAT
11 ALIGN NICELY WITH OUR EFFORTS TO SUPPORT DISEASES OF
12 THE BRAIN AND NERVOUS SYSTEM. SO LOMA LINDA SHOULD
13 BE A BIG ASSET IN TERMS OF THOSE PROGRAMS.

14 AND THEN COMMUNITY HEALTH SYSTEMS IN
15 FRESNO, THEY, INITIALLY IN THEIR APPLICATION AT THE
16 TIME, FOCUSED QUITE A BIT ON CAR-T AND CANCER
17 ONCOLOGY, BUT ARE ALREADY VERY MUCH, AS IS A TREND
18 IN THE FIELD, REALLY LOOKING NOW AT CAR-T AS A
19 PLATFORM THAT COULD TREAT ACROSS A NUMBER OF DISEASE
20 AREAS, INCLUDING, BUT NOT LIMITED TO, ONCOLOGY AND
21 HOW TO MAKE SURE THAT THEY'VE GOT A DELIVERY SYSTEM
22 THAT IS ACCREDITED AND ABLE TO MANAGE CONDITIONS,
23 AGAIN, THAT MAY BE AMENABLE TO CAR-T THERAPY ACROSS
24 THE SPECTRUM. SO VERY EXCITING PROGRAM. AND,
25 AGAIN, WE'LL BE VISITING THESE SITES AND LEARNING

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1 MORE OVER THE NEXT FEW WEEKS.

2 NEXT SLIDE, PLEASE. SO ONE THING THAT DID
3 COME UP WHEN WE BROUGHT THESE PROGRAMS FORWARD TO
4 THE BOARD WAS A CONCERN, IF YOU LOOK AT THE GRAPH OR
5 THE PICTURE TO THE RIGHT HERE, IS THAT OUR CLINICAL
6 INFRASTRUCTURE, WHILE EXPANDING TO AREAS THAT,
7 AGAIN, WERE HISTORICALLY UNDERSERVED AND WE WERE
8 ACHIEVING THE AIMS OF THE PROGRAM, THERE WAS STILL
9 NO AWARD THAT WAS RECOMMENDED FOR FUNDING THAT WOULD
10 COVER THE NORTHERN THIRD OF CALIFORNIA. THIS
11 REPRESENTS APPROXIMATELY 3 MILLION RESIDENTS. IT'S
12 GEOGRAPHICALLY ONE-THIRD OF THE AREA OF THE STATE.
13 AND THE BOARD ASKED US TO GO BACK AND EXPLORE
14 OPPORTUNITIES TO IDENTIFY OTHER SITES THAT WE COULD
15 BRING BACK IN, IN PART BECAUSE OF THE ORIGINAL
16 CONCEPT PLAN, THE BUDGET DID ALLOW FOR THE FUNDING,
17 WOULD ALLOW FOR UP TO FOUR AWARDS. AND AS I JUST
18 MENTIONED, THREE WERE RECOMMENDED FOR FUNDING AND
19 SUBSEQUENTLY APPROVED BY THE BOARD.

20 SO THERE WAS A BUDGET REMAINING AS WELL.
21 SO IN MARCH THE ICOC VOTED TO REOPEN THE PROGRAM,
22 ALLOWING FOR THAT REMAINING BUDGET TO BE DEPLOYED IF
23 WE WERE TO HAVE A SUCCESSFUL APPLICANT COME THROUGH
24 THE PROCESS. BUT SPECIFICALLY WHAT'S UNIQUE TO THAT
25 REOPENING IS THERE IS A PROVISION THAT WILL LIMIT

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1 THE APPLICANTS TO CENTERS THAT ARE GEOGRAPHICALLY
2 LOCATED WITHIN THE MAP, WHICH I'M SHOWING YOU,
3 WITHIN THIS AREA HERE.

4 SO THE APPLICATION IS CURRENTLY OPEN. IT
5 WILL BE OPEN TILL THE BEGINNING OF JUNE. AND WE'VE
6 HAD SOME PRODUCTIVE INTERACTIONS WITH POTENTIAL
7 APPLICANTS. SO WE LOOK FORWARD TO RECEIVING ROBUST
8 APPLICATIONS WITH THE HOPE THAT THEY WILL BE
9 REVIEWED FAVORABLY ONCE THEY ARE SUBMITTED.

10 AND I THINK THAT COVERS IT. IS THERE
11 ANYTHING ELSE IN THE DECK HERE?

12 MR. MALIK: THAT'S IT.

13 DR. LEVINE: HEY. HEY, GEOFF, CAN I ASK A
14 COUPLE -- I GUESS I SHOULD RAISE MY HAND.

15 CHAIRPERSON BONNEVILLE: HARLAN, GO AHEAD.

16 DR. LEVINE: I DON'T SEE ANYONE AHEAD OF
17 ME HERE.

18 CHAIRPERSON BONNEVILLE: NO. NO. GO
19 AHEAD. I LIKE THAT.

20 DR. LEVINE: YEAH.

21 CHAIRPERSON BONNEVILLE: OLD SCHOOL HAND
22 RAISE.

23 DR. LEVINE: GEOFF, I KNOW WE HAVE
24 RIGOROUS CRITERIA FOR INCLUSION OR GETTING GRANTED.
25 WHAT DO WE HAVE SET UP TO MONITOR? AND THEN DO WE

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1 HAVE KPI'S TO KNOW THAT WE'RE BEING SUCCESSFUL?

2 DR. LOMAX: WE DO. WE'VE ACTUALLY -- THAT
3 WAS A VERY EXTENSIVE EFFORT EARLY ON. IN THE
4 CONTRACTING PROCESS, WE HAD A LOT OF BACK AND FORTH
5 WITH THE AWARDEES. THEY'VE AGREED TO WHAT I WOULD
6 CHARACTERIZE AS A VERY ROBUST SET OF KPI'S. I DON'T
7 HAVE THEM ON THE TIP OF MY TONGUE, BUT --

8 DR. LEVINE: YEAH. BUT THEY'RE
9 ESTABLISHED. OKAY.

10 DR. LOMAX: THEY'RE ESTABLISHED. AND I
11 THINK, TO THE EXTENT THEY'RE DIFFERENT THAN THE
12 ALPHA CLINICS, BECAUSE I HOPE THIS GIVES YOU A
13 LITTLE MORE DEPTH IN TERMS OF WHERE WE'RE GOING WITH
14 THIS, THIS GOES BACK TO, JUST IF YOU MAY RECALL,
15 VERY EARLY DISCUSSIONS ABOUT WHAT MEASURES OF
16 SUCCESS WOULD BE FOR THIS PROGRAM. AND IT WAS
17 BRINGING VISIBILITY, CERTAINLY VISIBILITY, AND
18 OPTIMALLY REFERRALS OF PATIENTS WHO OTHERWISE JUST
19 HISTORICALLY HAVE NOT HAD VISIBILITY OR ACCESS TO
20 CLINICAL TRIALS, THAT MOVING PATIENTS FROM, SAY, THE
21 PRIMARY CARE OR SPECIALTY CARE PHYSICIAN LEVEL TO AT
22 LEAST HAVING AN OPPORTUNITY TO KNOW THAT THERE IS A
23 CLINICAL TRIAL THAT MAY BE APPLICABLE OR IS
24 APPLICABLE TO THEIR CONDITION AND HAVING THEM HAVE
25 THAT OPPORTUNITY TO PARTICIPATE.

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1 AND SO THE KPI'S, PARTICULARLY FOR THE
2 COMMUNITY CARE CENTER PROGRAMS, REALLY DO TRY TO GET
3 AT THAT CHAIN OF THAT PATIENT JOURNEY FROM EARLY
4 AWARENESS, ENGAGEMENT, THROUGH MULTIPLE --
5 ENGAGEMENT THROUGH MULTIPLE AREAS, THROUGH BOTH
6 CAREGIVER, COMMUNITY-BASED ORGANIZATIONS, PATIENT
7 ADVOCACY ORGANIZATIONS, THAT INITIAL ENGAGEMENT TO
8 CLINICAL TRIAL OPPORTUNITY, AND CAPTURING METRICS
9 ALONG THAT CHAIN TO SEE IF WE CAN MOVE THE NEEDLE IN
10 TERMS OF ACCESS TO POPULATIONS THAT HAVE
11 HISTORICALLY BEEN UNDERREPRESENTED IN CLINICAL
12 TRIALS.

13 DR. LEVINE: THANK YOU.

14 DR. LOMAX: AND I MIGHT JUST ADD THAT WAS
15 SOMETHING THE SCIENCE SUBCOMMITTEE WAS VERY ADAMANT
16 ABOUT IN TERMS OF PROGRAM DESIGN. SO I WANT TO
17 ACKNOWLEDGE THE SCIENCE SUBCOMMITTEE'S ROLE IN
18 PUSHING US TO MAKE SURE WE CAPTURE THAT ASPECT OF
19 THE PATIENT JOURNEY.

20 CHAIRPERSON BONNEVILLE: ARE THERE ANY
21 OTHER QUESTIONS FROM ANY OF THE MEMBERS OF THE
22 WORKING GROUP?

23 I DO WANT TO ADD, THIS PROGRAM, WHEN WE
24 TALK ABOUT IT OUTSIDE OF CIRM AND OUTSIDE OF THE
25 USUAL FOLKS THAT WE INTERACT WITH AND GO BEYOND TO

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1 NEW STAKEHOLDERS AND PEOPLE WHO ARE INTERESTED IN
2 CIRM, THIS IS UNIVERSALLY A PROGRAM THAT EVERYONE
3 FINDS INNOVATIVE AND THRILLING AND EXCITED THAT
4 WE'VE UNDERTAKEN THIS SORT OF PROGRAM.

5 SO I WANT TO THANK THE TEAM FOR REALLY
6 WORKING HARD TO MAKE IT WHAT IT IS AND LOOK FORWARD
7 TO SEEING HOW IT WORKS.

8 I WOULD BE REMISS IF I DID NOT ASK FOR ANY
9 PUBLIC COMMENT. CAMERON, DO YOU KNOW IF THERE'S ANY
10 PUBLIC COMMENT?

11 MR. MALIK: THERE DOES NOT APPEAR TO BE
12 PUBLIC COMMENT IN THE YOUTUBE CHAT. BUT FOR THOSE
13 WHO WANT TO MAKE A PUBLIC COMMENT, PLEASE PRESS STAR
14 AND 9 TO RAISE YOUR HAND IN ZOOM, AND THEN STAR 6 TO
15 UNMUTE WHEN WE CALL ON YOU. SO STAR 9 IF YOU'D LIKE
16 TO MAKE PUBLIC COMMENT. THERE DOES NOT APPEAR TO BE
17 ANY PUBLIC COMMENT.

18 CHAIRPERSON BONNEVILLE: GREAT. THANK
19 YOU. I WANT TO THANK EVERYONE FOR TAKING TIME, AND
20 WE'VE GONE A FEW MINUTES OVER SCHEDULE, BUT I REALLY
21 APPRECIATE ALL THE WORK THAT YOU ALL PUT IN AND YOUR
22 SERVICE TO CIRM. AND WE WILL SEE YOU AGAIN SOON.
23 THANKS SO MUCH. HAVE A GREAT WEEKEND.

24
25 (THE MEETING WAS THEN CONCLUDED.)

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REPORTER'S CERTIFICATE

I, BETH C. DRAIN, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF CALIFORNIA, HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT OF THE VIRTUAL PROCEEDINGS BEFORE THE ACCESS AND AFFORDABILITY WORKING GROUP OF THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD ON MAY 8, 2026, WAS HELD AS HEREIN APPEARS AND THAT THIS IS THE ORIGINAL TRANSCRIPT THEREOF AND THAT THE STATEMENTS THAT APPEAR IN THIS TRANSCRIPT WERE REPORTED STENOGRAPHICALLY BY ME AND TRANSCRIBED BY ME. I ALSO CERTIFY THAT THIS TRANSCRIPT IS A TRUE AND ACCURATE RECORD OF THE PROCEEDING.

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