

**BETH C. DRAIN, CA CSR NO. 7152**

BEFORE THE  
INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE AND  
THE APPLICATION REVIEW SUBCOMMITTEE OF THE  
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE  
ORGANIZED PURSUANT TO THE  
CALIFORNIA STEM CELL RESEARCH AND CURES ACT  
REGULAR MEETING

LOCATION: WESTIN SAN DIEGO BAYVIEW  
DIAMOND ROOM  
400 W BORADWAY  
SAN DIEGO, CALIFORNIA 92101

DATE: SEPTEMBER 26, 2024  
9 A.M.

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

FILE NO.: 2024-38

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SEPTEMBER 26, 2024; 9 A.M.

CHAIRMAN IMBASCIANI: GOOD MORNING,  
EVERYONE. I'M GOING TO CALL TO ORDER -- FIRST OF  
ALL, WELCOME EVERYONE TO SAN DIEGO, AND CALL THIS  
162D MEETING OF THE INDEPENDENT CITIZENS OVERSIGHT  
COMMITTEE OF CIRM TO ORDER AND THE 59TH MEETING OF  
THE APPLICATION REVIEW SUBCOMMITTEE.

I'D LIKE TO START THE MEETING WITH THE  
PLEDGE OF ALLEGIANCE IF WE'D ALL STAND AND FACE THE  
FLAG. SCOTT, WOULD YOU LEAD US PLEASE.

(THE PLEDGE OF ALLEGIANCE.)

CHAIRMAN IMBASCIANI: THANK YOU, SCOTT.  
WOULD YOU PROCEED WITH THE ROLL CALL PLEASE.

MR. TOCHER: ABSOLUTELY. EYAD ALMASRI.

DR. ALMASRI: PRESENT.

MR. TOCHER: DAN BERNAL. GEORGE  
BLUMENTHAL.

DR. BLUMENTHAL: HERE.

MR. TOCHER: MARIA BONNEVILLE.

VICE CHAIR BONNEVILLE: PRESENT.

MR. TOCHER: DEBORAH DEAS.

DR. DEAS: HERE.

MR. TOCHER: JUDY CHOU.

DR. CHOU: PRESENT.

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1 MR. TOCHER: LEONDRA CLARK-HARVEY.  
2 DR. CLARK-HARVEY: PRESENT.  
3 MR. TOCHER: HAL COLLARD FOR KEITH  
4 YAMAMOTO.  
5 DR. COLLARD: PRESENT.  
6 MR. TOCHER: ANNE-MARIE DULIEGE.  
7 DR. DULIEGE: PRESENT.  
8 MR. TOCHER: YSABEL DURON.  
9 MS. DURON: HERE.  
10 MR. TOCHER: MARK FISCHER-COLBRIE.  
11 DR. FISCHER-COLBRIE: HERE.  
12 MR. TOCHER: ELENA FLOWERS.  
13 DR. FLOWERS: PRESENT.  
14 MR. TOCHER: JUDY GASSON.  
15 DR. GASSON: HERE.  
16 MR. TOCHER: DAVID HIGGINS.  
17 DR. HIGGINS: HERE.  
18 MR. TOCHER: VITO IMBASCIANI.  
19 CHAIRMAN IMBASCIANI: HERE.  
20 MR. TOCHER: RICH LAJARA.  
21 MR. LAJARA: PRESENT.  
22 MR. TOCHER: PAT LEVITT.  
23 DR. LEVITT: HERE.  
24 MR. TOCHER: HALA MADANAT.  
25 DR. MADANAT: HERE.

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1 MR. TOCHER: LINDA MALKAS. SHLOMO MELMED.  
2 DR. MELMED: HERE.  
3 MR. TOCHER: CAROLYN MELTZER.  
4 DR. MELTZER: PRESENT.  
5 MR. TOCHER: CHRISTINE MIASKOWSKI.  
6 DR. MIASKOWSKI: PRESENT.  
7 MR. TOCHER: LAUREN MILLER-ROGEN. ADRIANA  
8 PADILLA.  
9 DR. PADILLA: HERE.  
10 MR. TOCHER: JOE PANETTA.  
11 MR. PANETTA: HERE.  
12 MR. TOCHER: JOYCE SACKY. MARVIN  
13 SOUTHARD.  
14 DR. SOUTHARD: HERE.  
15 MR. TOCHER: MICHAEL STAMOS.  
16 DR. STAMOS: HERE.  
17 MR. TOCHER: DON TAYLOR.  
18 DR. TAYLOR: HERE.  
19 MR. TOCHER: KAROL WATSON. KEVIN XU.  
20 GREAT. WE HAVE A QUORUM.  
21 CHAIRMAN IMBASCIANI: THANK YOU, SCOTT.  
22 THANK YOU. ONCE AGAIN, WELCOME TO SAN DIEGO,  
23 EVERYONE. I'M GLAD YOU COULD MAKE IT HERE FROM ALL  
24 YOUR VARIOUS POINTS THROUGHOUT THE STATE. BEFORE I  
25 START, I WANT TO TELL YOU THAT I INTEND AT THE END

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1 OF MY REMARKS TO PAY A MEMORIAL TRIBUTE TO OUR LATE  
2 BOARD MEMBER, MR. FRED FISHER, AND TO ENCOURAGE  
3 OTHERS AT THAT TIME TO DO THE SAME.

4 BUT LET ME START. I SHOULD LIKE TO FIRST  
5 APPRISE THE BOARD MEMBERS OF SOME TIMELY ITEMS. NO.  
6 1, I AM HAPPY TO REPORT THAT CIRM'S ANNUAL REPORT IS  
7 IN THE FINAL STAGES OF EDITING AND FACTCHECKING.  
8 ITS PUBLICATION ALMOST IMMINENTLY WILL CULMINATE A  
9 TEAM PROCESS THAT BEGAN MONTHS AGO WITH MEETINGS TO  
10 DEVISE A THEME, DECIDE UPON CONTENT, FORMULATE A  
11 CREATIVE BRIEF, APPROVE LAYOUT, AND SUFFER THROUGH  
12 SEVERAL ROUNDS OF REVIEWS AND EDITS. THIS WAS ALL  
13 VERY WELL MANAGED BY KOREN TEMPLE-PERRY, OUR SENIOR  
14 DIRECTOR OF MARKETING AND COMMUNICATIONS. THANK  
15 YOU, KOREN.

16 THE THEME OF THIS YEAR'S REPORT IS OUR  
17 20TH ANNIVERSARY. I THINK THIS ISSUE WILL VIVIDLY  
18 AND GRAPHICALLY PORTRAY THE IMPRESSIVE CONTRIBUTIONS  
19 CIRM HAS MADE TO THE FIELD OF REGENERATIVE MEDICINE  
20 OVER THE PAST TWO DECADES. WE DON'T HAVE AN EXACT  
21 RELEASE DATE YET, BUT I CAN ASSURE YOU YOU WILL BE  
22 AMONG ITS FIRST RECIPIENTS.

23 SECONDLY, I WAS INVITED BY THE  
24 INTERNATIONAL SOCIETY OF STEM CELL RESEARCH TO  
25 PARTICIPATE IN A SEMINAR TITLED "A GLOBAL DISCUSSION

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1 ON ISSCR INITIATIVES" IN HAMBURG IN JULY. IT WAS  
2 ATTENDED BY ABOUT 60 INDIVIDUALS FROM AROUND THE  
3 WORLD REPRESENTING LEADING INTERNATIONAL STEM CELL  
4 NETWORKS, SOCIETIES, AND INSTITUTE DIRECTORS.

5 THREE TOPICS WERE DISCUSSED. FIRST, THERE  
6 WAS A PUBLIC POLICY UPDATE. THE ISSCR ADVOCATES FOR  
7 INTEGRITY AND ETHICAL BEHAVIOR IN RESEARCH PRACTICES  
8 IS WORKING TO PREVENT THE PREMATURE MARKETING OF  
9 UNPROVEN STEM CELL-BASED INTERVENTIONS.

10 THAT WAS FOLLOWED BY AN UPDATE ON  
11 STANDARDS. AND I HOPE MANY OF YOU WILL FIND THIS  
12 INTERESTING. ISSCR IS ACTIVELY WORKING WITH  
13 JOURNALS TO IMPLEMENT THE USE OF A STANDARDIZED  
14 CHECKLIST FOR ALL OF THEIR RELEVANT PUBLICATIONS, A  
15 CHECKLIST TITLED "REPORTING PRACTICES FOR PUBLISHING  
16 RESULTS WITH HUMAN PLURIPOTENT AND TISSUE STEM  
17 CELLS." A TRIAL RUN USING THE CHECKLIST IS ONGOING  
18 IN STEM CELL REPORTS AND WILL SOON ADVANCE TO THE  
19 NEXT STAGE OF REQUIRING ITS USE IN ALL RELEVANT  
20 PUBLICATIONS.

21 ALSO, PROGRESS IS BEING MADE IN THE  
22 DEVELOPMENT OF A BEST PRACTICES VISUAL CURRICULUM TO  
23 ASSIST ACADEMICS AND BIOTECHNOLOGY COMPANIES IN  
24 TRANSLATING PSC-DERIVED THERAPIES. THIS CURRICULUM  
25 HAS SEVEN SECTIONS COVERING STARTING MATERIALS, CELL



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1 BANKING, ANCILLARY MATERIALS AND DEVICES, REGULATORY  
2 ISSUES, AND INFORMATION ON DRUG SUBSTANCES AND DRUG  
3 PRODUCTS.

4 THE THIRD SECTION I FOUND MOST INTERESTING  
5 FOR PERSONAL REASONS, THE EDUCATION COMMITTEE OF  
6 ISSCR REPORTED ON ITS DEVELOPMENT OF AN OPEN ACCESS,  
7 ON-DEMAND, CME ACTIVITY ON STEM CELL MEDICINE IN  
8 PARTNERSHIP WITH THE HARVARD MEDICAL SCHOOL FACULTY.  
9 IT CONSISTS OF TEN MODULES DESIGNED TO ENHANCE BOTH  
10 CLINICIANS' COMPETENCY IN STEM CELL SCIENCE,  
11 COVERING TOPICS SUCH AS STEM CELL BIOLOGY, CURRENT  
12 RESEARCH, AND PROVEN VERSUS UNPROVEN THERAPIES, AS  
13 WELL AS COMPETENCY IN HOW PHYSICIANS COMMUNICATE  
14 WITH PATIENTS TO OPTIMIZE HEALTH OUTCOMES.

15 I WAS VERY INTRIGUED BY THIS EFFORT AND  
16 CONTACTED THE COMMITTEE LEADER. AT THE END OF THAT  
17 CONVERSATION, I FOUND MYSELF TO BE A VOLUNTEER, TO  
18 BE, IN ESSENCE, A BETA TEST SITE FOR THE CME MODULES  
19 WHEN THEY BECOME AVAILABLE LATER THIS YEAR. MY  
20 OFFER TO READ THROUGH THEIR MODULES AND TAKE THE  
21 TEST WAS GRACIOUSLY RECEIVED PRIMARILY BECAUSE THE  
22 COMMITTEE MEMBERS THAT DEVELOPED THE CURRICULUM --  
23 MY FORWARD BUTTON IS NOT WORKING VERY WELL. I'VE  
24 LISTED THE MEMBERS OF THE ISSCR EDUCATIONAL  
25 COMMITTEE HERE. THESE MEMBERS THAT DEVELOPED THE

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1 CURRICULUM FELT IT COULD BENEFIT FROM A VOICE  
2 REPRESENTING THE PHYSICIAN COMPONENT OF THE LARGER  
3 AUDIENCE FOR THIS CME ACTIVITY WHICH HOPES TO  
4 INCLUDE NURSES, RESIDENT PHYSICIANS, AND CLINICAL  
5 FELLOWS.

6 THE DEVELOPMENT OF THIS CURRICULUM IS  
7 FURTHER EVIDENCE, I FEEL, THAT REGENERATIVE MEDICINE  
8 HAS EVOLVED TO THE POINT WHERE IT NOW MAKES SENSE  
9 FOR THE LARGER PHYSICIAN COMMUNITY TO BECOME AWARE  
10 OF THE SCIENCE AND TO DEVELOP COMPETENCY IN SPEAKING  
11 WITH PATIENTS IN AN AREA THEY ARE LIKELY TO BE  
12 UNFAMILIAR WITH. I LOOK ON THIS ACTIVITY AS  
13 CONSONANT WITH CIRM'S LARGER EDUCATIONAL MISSION  
14 SIMILAR TO THE KEYNOTE ADDRESS I GAVE MONTHS AGO TO  
15 THE ALPHA CLINIC SYMPOSIUM ON DEVELOPING A SIMILAR  
16 CURRICULUM FOR NURSING EDUCATION.

17 IT DOES ALLOW IN A SENSE, EVEN THOUGH  
18 THERE'S NO FORMAL CONNECTION OF CIRM TO THIS  
19 ACTIVITY, IT DOES ALLOW ME TO CONTRIBUTE IN A  
20 MEANINGFUL WAY TO PUBLIC EDUCATION. I THINK OF IT  
21 AS ADDING ANOTHER EVEN WIDER CONCENTRIC CIRCLE OF  
22 CLINICIANS WHO HERETOFORE HAVE HAD LITTLE OR NO  
23 EXPOSURE TO CELL AND GENE THERAPY.

24 MY THIRD ITEM TODAY CONCERNS THE AGENDA,  
25 WHICH WILL INCLUDE MAJOR PRESENTATIONS BY THE

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1 PRESIDENT AND CEO AND OUR SENIOR VICE PRESIDENT FOR  
2 SCIENTIFIC AFFAIRS. THIS WILL BOTH BE A CULMINATION  
3 OF MORE THAN A YEAR'S WORK ON THE GENERAL ISSUE OF  
4 PRIORITIZATION AS WELL AS THE START OF A FOLLOW-ON  
5 PROCESS THAT WILL EXTEND INTO THE NEW YEAR ON HOW TO  
6 PUT THESE RECOMMENDATIONS INTO CONCRETE FORM. OUR  
7 PRESIDENT, JONATHAN THOMAS, WILL LEAD THIS  
8 DISCUSSION.

9 BUT I WANT TO TAKE THIS OPPORTUNITY TO  
10 THANK EVERYONE AT CIRM WHO PARTICIPATED IN THE WORK  
11 THAT BROUGHT US TO TODAY. AND THAT INCLUDES  
12 INDIVIDUALS WORKING IN MANY OF CIRM'S DIVISIONS, THE  
13 LEADERSHIP TEAM, AND THE MEMBERS OF THE NEURO TASK  
14 FORCE AND THE SCIENCE AND GOVERNANCE SUBCOMMITTEES  
15 OF THE BOARD. THIS HAS BEEN A VERY BROAD AND DEEP  
16 TEAM EFFORT, AND WE ARE RIGHT TO CELEBRATE IT.

17 NOW I'D LIKE TO TAKE THIS OPPORTUNITY WITH  
18 THE FULL BOARD ASSEMBLED TO HONOR THE LIFE AND  
19 MEMORY OF OUR FELLOW BOARD MEMBER WHO DIED EARLIER  
20 THIS MONTH. FRED BARNETT FISHER JOINED CIRM IN 2021  
21 AS A BOARD MEMBER AND PATIENT ADVOCATE FOR  
22 NEURODEGENERATIVE DISEASE, ESPECIALLY PATIENTS  
23 SUFFERING FROM AMYOTROPHIC LATERAL SCLEROSIS AND  
24 MULTIPLE SCLEROSIS.

25 HIS LOSS WAS FELT KEENLY BY EVERY ONE OF

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1 US WHICH IS PARTLY IN TESTIMONY TO HOW MUCH  
2 INTELLIGENCE AND COMPASSION HE BROUGHT TO THE WORK  
3 OF THIS ORGANIZATION AND PARTLY TO HOW MUCH HE  
4 ACCOMPLISHED IN HIS YEARS WITH US. WE WILL ALL  
5 REMEMBER FRED'S QUESTIONING AFTER PRESENTATIONS FROM  
6 CIRM LEADERSHIP, THE PENETRATING CHALLENGES TO  
7 SUPPOSITIONS AND NUMBERS, HIS NOT SO GENTLE  
8 REMINDERS TO STICK TO THE RULES, THE UNWAVERING  
9 DEDICATION TO THE INTERESTS OF THE PATIENTS AND  
10 FAMILIES THROUGHOUT CALIFORNIA THAT HE REPRESENTED,  
11 HIS GENUINENESS, HIS AFFABLE NATURE.

12 ON OUR FIRST MEETING, FRED SHARED WITH ME,  
13 ALMOST IN PASSING, IN A VERY MATTER OF FACT MANNER,  
14 SOMETHING ABOUT HIS PERSONAL CHALLENGE, BUT THAT WAS  
15 THE LAST TIME HE EVER SPOKE ABOUT HIMSELF. IN ALL  
16 OUR SUBSEQUENT CHATS, HIS ONLY QUESTIONS WERE ABOUT  
17 CIRM, ABOUT HOW THE RESTRUCTURING WOULD STRENGTHEN  
18 OUR MISSION AND BROADEN OUR PROMISE TO THE PEOPLE OF  
19 THIS GREAT STATE.

20 AT FRED'S FUNERAL TWO WEEKS AGO, THE RABBI  
21 DEFINED FRED AS A CONSUMMATE PRACTITIONER OF TIKKUN  
22 OLAM, THE ANCIENT IMPERATIVE OF REPAIRING AND  
23 IMPROVING THE WORLD. SPEAKER AFTER SPEAKER MADE  
24 INELUCTABLY CLEAR FRED WAS ON A MISSION HIS ENTIRE  
25 LIFE TO IMPROVE THE WORLD. HE WAS THE DYNAMO AND

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1 THE SHINING CENTER OF SO MANY CONSTELLATIONS, HIS  
2 LOVING FAMILY, THE ALS COMMUNITY OF PATIENTS,  
3 CAREGIVERS, RESEARCH SCIENTISTS AND CLINICIANS, AND,  
4 OF COURSE, THE UNIVERSE THAT IS CIRM. HE GAVE SO  
5 MUCH OF HIMSELF THAT EACH OF THESE GROUPS PROBABLY  
6 THOUGHT THEY HAD EXCLUSIVE RIGHTS TO HIM. FOR EACH  
7 HE STROVE TO REPAIR AND IMPROVE THE WORLD, TO OFFER  
8 SUPPORT TO EASE THE BURDEN.

9 FRED DID GOOD IN THIS WORLD FOR HIS WIFE,  
10 FOR HIS CHILDREN, FOR THE GOLDEN WEST AND OTHER ALS  
11 CHAPTERS IN CALIFORNIA, FOR CIRM, AND FOR THE  
12 THOUSANDS OF PEOPLE WHOSE LIVES HE TOUCHED.  
13 DIRECTLY OR INDIRECTLY AND WHETHER THEY HAD THE  
14 FORTUNE TO KNOW HIM OR NOT, HE DID GOOD IN THIS  
15 WORLD AND HE DID IT UNTIL HIS VERY LAST DAY. HIS  
16 MEMORY AND HIS WORK WILL BE A BLESSING TO US ALL.

17 I'M GOING TO PASS THE MICROPHONE TO  
18 JONATHAN THOMAS. THANK YOU.

19 DR. THOMAS: THANK YOU, VITO, FOR THAT  
20 VERY MOVING TRIBUTE. I HAVE A FEW COMMENTS I WOULD  
21 LIKE TO SAY ABOUT FRED AS WELL AS HE WAS, AS YOU  
22 KNOW, A MAJOR FORCE HERE ON OUR BOARD FOR MANY  
23 YEARS.

24 FRED'S PASSING WAS A TREMENDOUS LOSS TO  
25 HIS FAMILY, THE ALS COMMUNITY, WHICH HE SO

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1 PASSIONATELY SUPPORTED, AND CIRM AMONG MANY OTHERS.  
2 AT CIRM FRED WAS ONE OF THE TRUE OPINION LEADERS ON  
3 THE BOARD. HE ACTIVELY SERVED ON THE APPLICATION  
4 REVIEW AND PRESIDENTIAL SEARCH SUBCOMMITTEES, AS  
5 WELL AS THE TASK FORCE ON NEURO SCIENCE AND  
6 MEDICINE. IN ADDITION, HE WAS A LONG-TIME MEMBER OF  
7 THE GRANTS WORKING GROUP, OR GWG, AND CO-CHAIRING THE  
8 STANDARDS WORKING GROUP, THE SWG. BUT IT WASN'T  
9 JUST THE FACT OF HIS PARTICIPATION. IT WAS THE  
10 QUALITY.

11 FOR ALL OF THESE ENTITIES, FRED WAS A  
12 CONSTANT, NOT MISSING ANY MEETINGS ALONG THE WAY  
13 WHETHER HE FELT BAD THAT DAY OR NOT. HE HAD A  
14 TRADEMARK PRINCIPLED APPROACH THAT DEMANDED  
15 ADHERENCE TO PROCESS ABOVE EVERYTHING ELSE. IN THAT  
16 CONNECTION, HE REMINDED US THAT WE OWED A  
17 RESPONSIBILITY TO THE TAXPAYERS OF CALIFORNIA AND  
18 HAD TO MAKE TOUGH PROCESS-DRIVEN DECISIONS  
19 ACCORDINGLY EVEN IF THEY WERE UNPOPULAR IN THE  
20 CONTEXT OF THE TOPIC AT HAND.

21 VITO REFERENCED HIS FUNERAL SERVICE, WHICH  
22 HE AND I HAD THE PRIVILEGE OF REPRESENTING CIRM AT A  
23 COUPLE WEEKS BACK, AND THAT SERVICE WAS, AS ONE  
24 WOULD EXPECT, A MIXTURE OF ELOQUENT PRESENTATION OF  
25 SADNESS, BUT OF HUMOR AS WELL, WHICH DID A WONDERFUL

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1 JOB OF CAPTURING FRED'S ESSENCE.

2 THERE WAS ONE STORY THAT I THOUGHT WAS ON  
3 THE HUMOROUS SIDE THAT I THOUGHT I'D PASS ALONG THAT  
4 I THINK YOU WILL APPRECIATE.

5 SO ONE OF THE EARLY EULOGIES GIVEN  
6 PASSIONATELY WAS BY A VERY CLOSE FIRST COUSIN OF  
7 FRED'S, WHO WAS SEVERAL YEARS OLDER THAN FRED. AND  
8 HE RECOUNTED THE STORY OF WHEN HE WAS NINE AND FRED  
9 WAS FIVE. AT A FUNERAL SERVICE FOR A FAMILY MEMBER,  
10 SOMEBODY GAVE A EULOGY. AND THIS COUSIN ASKED HIS  
11 MOTHER, "WHAT'S A EULOGY?" HIS MOTHER SAID, "WELL,  
12 A EULOGY IS WHERE SOMEBODY SPEAKS AT A FUNERAL AND  
13 SAYS VERY NICE THINGS ABOUT THE PERSON WHO HAD JUST  
14 PASSED AWAY." AND THE COUSIN THOUGHT TO HIMSELF,  
15 WELL, I CERTAINLY HOPE THAT I HAVE SOMEBODY WHO CAN  
16 CARRY ON IN THAT CAPACITY AND THOUGHT ABOUT WHO  
17 MIGHT THAT BE. AND HE SAID, "I THOUGHT ABOUT MY  
18 SIBLINGS, BUT THEY WERE OLDER THAN I WAS AND LIKELY  
19 TO NOT LIVE AS LONG AS ME. SO THAT DIDN'T WORK.  
20 AND I'VE GOT SOME FRIENDS WHO ARE MY AGE, AND I'M  
21 NOT SURE IF THEY'RE GOING TO LIVE LONGER THAN ME.  
22 SO THAT'S NOT GOING TO WORK EITHER. BUT FRED IS  
23 YOUNGER THAN ME, AND HE WILL BE THE ONE WHO WILL BE  
24 ABLE TO SAY VERY NICE THINGS ABOUT ME AT MY FUNERAL.  
25 AND SO FROM THAT DAY ON, I WAS UNFAILINGLY NICE TO

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1 FRED." AND AS I SIT HERE TODAY -- THIS IS HIM  
2 TALKING. "AND AS I SIT HERE TODAY, HAVING SEEN THE  
3 WAY THINGS HAVE PLAYED OUT, HAD I KNOWN THEN WHAT I  
4 KNOW NOW, THAT RELATIONSHIP WOULD HAVE BEEN ENTIRELY  
5 DIFFERENT."

6 FRED WAS A TRUE FORCE HERE. HE HAD A  
7 UNIQUE STYLE, AS WE WELL KNOW. AND BOARD MEMBERS  
8 ALL BRING TREMENDOUS AMOUNTS TO THE TABLE. FRED WAS  
9 CERTAINLY ONE OF THOSE. I HAVE A VERY DIFFICULT  
10 TIME ENVISIONING THE BOARD WITHOUT FRED. WE SPOKE  
11 TO HIM, JENN LEWIS AND I SPOKE TO HIM, I THINK,  
12 WITHIN A WEEK OF HIS PASSING. AND HE SEEMED HIS  
13 USUAL SELF, CONTRIBUTING GREATLY TO THE  
14 CONVERSATION, GIVING DIRECTION TO US ON HOW WE  
15 SHOULD PROCEED. AND HE WAS JUST A WONDERFUL,  
16 WONDERFUL PERSON TO HAVE ON THE BOARD. AND IT'S  
17 GOING TO BE DIFFICULT TO CARRY ON WITHOUT HIM. AND,  
18 FRED, I KNOW YOU'RE LISTENING UP THERE. WE WILL ALL  
19 MISS YOU VERY MUCH.

20 CHAIRMAN IMBASCIANI: IF ANY OTHER BOARD  
21 MEMBER WOULD LIKE TO SPEAK AT THIS TIME.

22 THIS MOMENT OF SILENCE -- I'M SORRY.

23 MR. FISCHER-COLBRIE: IT'S DIFFICULT TO  
24 EXPRESS THE CLARITY THAT FRED WAS ABLE TO PROVIDE TO  
25 EVERYBODY. AND I JUST FEEL TREMENDOUSLY TOUCHED AND



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1 BENEFITED FROM MY INTERACTION AND EXPOSURE WITH FRED  
2 ON MANY LEVELS. AND WITHIN THAT CONTEXT, I THOUGHT  
3 THAT HE PROVIDED LEADERSHIP, AND AT THE SAME TIME HE  
4 PROVIDED THE GUIDING LIGHT AROUND PROCESS AND OTHER  
5 KEY CRITERIA POINTS.

6 HE WAS ALSO OPEN TO A CHANGE THOUGHT,  
7 SUGGESTIONS. SO THAT WAS FROM A CONTEXT OF NOT A  
8 PEDANTIC ELEMENT. AND THAT THEN IS AN EXAMPLE OF  
9 THE COMMENTS THAT YOU HEARD FROM VITO AND J.T. IN  
10 THE CONTEXT THAT HE WAS AN INCREDIBLY WARM HUMAN  
11 BEING THAT HAD A BIG IMPACT ON EVERYBODY. AND I  
12 JUST WANTED TO THROW SOME WORDS IN TO ACKNOWLEDGE  
13 THAT ON A PERSONAL LEVEL. THANK YOU.

14 CHAIRMAN IMBASCIANI: THANK YOU, MARK.

15 VICE CHAIR BONNEVILLE: FRED WAS A HUGE  
16 PART OF MY SUCCESS HERE AT CIRM. HE WAS ALWAYS  
17 WILLING TO TALK, GIVE ADVICE, AND REMIND ME THAT  
18 THERE WERE SOME THINGS THAT I JUST NEEDED TO LET GO  
19 OF, AND TO TAKE A LOOK AROUND AND LOVE ALL THAT WAS  
20 AROUND ME.

21 HE WAS HONEST AND BRAVE AND VERY SMART,  
22 AND HE WAS A VALUED COLLEAGUE TO ALL THE BOARD  
23 MEMBERS, AND I WILL MISS HIS PRESENCE ON THE BOARD  
24 VERY MUCH.

25 CHAIRMAN IMBASCIANI: THANK YOU, MARIA.

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1 DR. CLARK-HARVEY: THANK YOU. FRED WAS MY  
2 APPOINTEE TWIN. BOTH HE AND I WERE APPOINTED AT THE  
3 SAME TIME BY THE LIEUTENANT GOVERNOR, AND WE HAD  
4 CROSSED PATHS PREVIOUSLY. THE FOUNDER OF MY  
5 ORGANIZATION HAD PASSED BECAUSE OF AN ALS DIAGNOSIS  
6 AND COMPLICATIONS. SO WE WERE CONNECTED IN THE  
7 ADVOCACY WORLD ALREADY, AND IT WAS EVEN MORE  
8 MEANINGFUL TO JOIN CIRM AT THE SAME TIME.

9 I WOULD DESCRIBE HIM AS A CONSUMMATE  
10 ADVOCATE FOR THE THINGS THAT HE BELIEVED IN. AND I  
11 THINK THAT THAT'S SOMETHING THAT I WILL HOLD ON TO  
12 FROM HIM AND APPRECIATE THE OPPORTUNITY TO SERVE  
13 WITH HIM IN THIS CAPACITY.

14 CHAIRMAN IMBASCIANI: THANK YOU, LEONDR A.  
15 AFTER A MOMENT OF SILENCE I'LL CONTINUE.

16 (MOMENT OF SILENCE.)

17 CHAIRMAN IMBASCIANI: THANK YOU. THIS  
18 MORNING, BEFORE THE FORMAL START OF TODAY'S BOARD  
19 MEETING, WE SWORE IN OUR TWO NEWEST BOARD MEMBERS.  
20 I WOULD LIKE THEM VERY, VERY MUCH NOW TO INTRODUCE  
21 THEMSELVES TO THE BOARD. IN ALPHABETICAL ORDER,  
22 FIRST FROM THE CITY OF SAN DIEGO, HALA MADANAT.

23 DR. MADANAT: GOOD MORNING, EVERYONE.  
24 THANK YOU FOR HAVING ME. HALA MADANAT, VICE  
25 PRESIDENT FOR RESEARCH AND INNOVATION AT SAN DIEGO

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1 STATE UNIVERSITY. IT'S A PLEASURE TO BE JOINING THE  
2 BOARD AND LEARNING FROM ALL OF YOU AS WELL. SO  
3 THANK YOU.

4 CHAIRMAN IMBASCIANI: WELCOME, HALA. AND  
5 FROM SACRAMENTO, DON TAYLOR.

6 DR. TAYLOR: THANK YOU SO MUCH. GOOD  
7 MORNING. I'M DON TAYLOR, CHIEF VENTURES OFFICER FOR  
8 UC DAVIS HEALTH. IT'S A GREAT HONOR TO SERVE ON  
9 THIS BOARD. I'M DR. KIM BARRETT'S ALTERNATE FROM UC  
10 DAVIS HEALTH WHEN SHE'S NOT ABLE TO ATTEND, AND SHE  
11 SENDS HER REGRETS FOR NOT BEING ABLE TO BE HERE  
12 TODAY.

13 IT'S AN INCREDIBLE BOARD. THE CIRM  
14 MISSION IS JUST SO POTENT. WE HEARD ABOUT THE  
15 EXTRAORDINARY STRUCTURE AND LEADERSHIP OF THE BOARD  
16 THROUGH FRED'S EXAMPLE. SO CLEARLY HE MADE A BIG  
17 IMPACT ON SO MANY. PERSONALLY TO ME I HAD A FAMILY  
18 MEMBER PASS FROM ALS. I HELD THEIR HAND AS THEY  
19 WENT. AND I WAS JUST THINKING ABOUT HOW UNFORTUNATE  
20 IT IS THAT WE DON'T HAVE THERAPIES TO TREAT PEOPLE  
21 LIKE THAT. AND REGENERATIVE MEDICINE IS REALLY THE  
22 SOLUTION. SO WHAT WE'RE DOING HERE TO SERVE THE  
23 MISSION OF GETTING RESEARCH TO CLINICAL IMPACT IS  
24 JUST SO IMPORTANT AND ESPECIALLY TO DO SO AFFORDABLY  
25 SO THAT EVERYBODY HAS ACCESS TO THOSE IMPORTANT

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1 MEDICINES. SO THANK YOU.

2 CHAIRMAN IMBASCIANI: THANK YOU, DON. AND  
3 WELCOME. WELCOME TO BOTH OF YOU.

4 THE CHAIR WILL NOW BE FOLLOWED BY THE VICE  
5 CHAIR, MARIA BONNEVILLE.

6 VICE CHAIR BONNEVILLE: GOOD MORNING,  
7 EVERYONE. I JUST WANTED TO BRING TO YOU SOME  
8 UPDATES ON ACTIVITIES AROUND ACCESS AND  
9 AFFORDABILITY, THE WORKING GROUP, AND ALSO THE  
10 INTERNAL TEAM WHO HELPS SUPPORT THE WORK OF THAT  
11 WORKING GROUP.

12 THE PATIENT SUPPORT PROGRAM LAUNCHED.  
13 IT'S VERY EXCITING. IT'S IN THE IMPLEMENTATION  
14 PHASE. THREE OF THE ALPHA CLINICS AND SEVEN TRIALS  
15 ARE PART OF THE PILOT. AND IF ALL GOES WELL, A FULL  
16 ROLLOUT TO ALL ALPHA CLINICS WILL OCCUR DURING Q1 OF  
17 2025.

18 THERE ARE TWO MEETINGS COMING UP, ONE IN  
19 DECEMBER AND ONE IN MARCH, WITH THE GOAL OF BRINGING  
20 KEY STAKEHOLDERS TOGETHER TO BRAINSTORM WAYS TO MAKE  
21 CELL AND GENE THERAPIES MORE AFFORDABLE AND MORE  
22 ACCESSIBLE. AND IF ANY BOARD MEMBERS ARE INTERESTED  
23 IN ATTENDING, YOU JUST NEED TO LET ME KNOW, AND I  
24 CAN SEND YOU INFORMATION. SO IF YOU JUST WANT TO  
25 SEND ME AN EMAIL, AND THEN WE CAN CONNECT THERE.

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1           IN CONSULTATION WITH THE AAWG AND ICOC  
2 MEMBERS, THERE WERE TWO NATIONAL POLICY DOCUMENTS  
3 THAT WERE DRAFTED -- THANK YOU, GEOFF, FOR LEADING  
4 THAT EFFORT -- IN JANUARY OF 2024, THE U.S. SENATE  
5 COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS  
6 REQUEST FOR INFORMATION, "HOW TO MAKE CELL AND GENE  
7 THERAPIES ACCESSIBLE." AND THEN ALSO JULY 2024 NIH  
8 OFFICE OF SCIENCE POLICY REQUEST FOR INFORMATION ON  
9 DRAFT NIH INTRAMURAL RESEARCH PROGRAM POLICY,  
10 PROMOTING EQUITY THROUGH ACCESS PLANNING.

11           SO, AGAIN, GEOFF LED THAT EFFORT  
12 INTERNALLY WITH COLLEAGUES AND THEN REACHED OUT TO  
13 AAWG MEMBERS WHO HAD EXPERTISE IN THESE AREAS AS  
14 WELL AS OTHER ICOC MEMBERS THAT WERE INTERESTED IN  
15 HELPING DRAFT THAT POLICY. WE CAN SEND THOSE TO YOU  
16 IF YOU ARE INTERESTED. ACTUALLY, GEOFF, LET'S DO  
17 THAT. THANK YOU.

18           MORE AROUND POLICY, THE TEAM HAS PROVIDED  
19 SUPPORT AND RECOMMENDED CONTENT AREA EXPERTS ON  
20 VARIOUS LEGISLATIVE HEARINGS. WE ENGAGED WITH  
21 SISTER AGENCIES IN STATE GOVERNMENT RELATED TO OUR  
22 MISSION AND FINDING WAYS TO WORK TOGETHER TO MAKE  
23 CELL AND GENE THERAPIES ACCESSIBLE. FOR EXAMPLE, ON  
24 DHCS, THEY HAVE A STAKEHOLDER GROUP FOR THE  
25 IMPLEMENTATION OF THE CALIFORNIA CANCER CARE ACT.

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1 SO WE'RE PART OF THAT STEERING COMMITTEE.

2 AND THE CCCA WAS IDENTIFIED EARLY ON BY  
3 THE AAWG AS A MODEL PIECE OF LEGISLATION FOR  
4 OVERCOMING ACCESS BARRIERS TO CLINICAL TRIALS. SO  
5 WE SIT ON THAT STEERING COMMITTEE, MOSTLY LISTEN,  
6 BUT ALSO OFFER ADVICE AROUND HOW OUR ALPHA CLINICS  
7 CAN BE INSTRUMENTAL IN HELPING IN THAT EFFORT.

8 ASGCT, WE PARTICIPATE IN THE GOVERNMENT  
9 RELATIONS WORKING GROUP AND RECENTLY FACILITATED AN  
10 ACCESS AND AFFORDABILITY PANEL DISCUSSION AT THE  
11 SEPTEMBER MEETING. GEOFF WAS THERE EARLIER THIS  
12 WEEK, AND HE'S GOING TO TELL YOU MORE ABOUT THAT.  
13 GEOFF, CAN YOU COME UP AND JUST GIVE A QUICK UPDATE  
14 TO THE BOARD ON THE PANEL?

15 DR. LOMAX: GOOD MORNING, EVERYONE. THANK  
16 YOU, MARIA.

17 SO THE AMERICAN SOCIETY FOR GENE AND CELL  
18 THERAPY, THEY'RE ONE OF OUR NATIONAL PARTNERS FOR  
19 ADVOCACY ON THE ISSUES, PARTICULARLY ISSUES OF  
20 EXPANDING ACCESS. SO THERE WAS A PANEL WE WERE  
21 ASKED TO FACILITATE. MARIA WAS GOING TO DO IT AND  
22 THEN SHE GRACIOUSLY PASSED THE BATON TO ME. THANK  
23 YOU VERY MUCH.

24 WHAT WE WERE LOOKING AT IS WHAT'S CALLED  
25 THE CELL AND GENE THERAPY ACCESS MODEL. I WANT TO

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1 EXPAND ON THAT A TINY BIT HERE SO YOU ALL HAVE  
2 VISIBILITY TO THIS MODEL BECAUSE IT'S A VERY  
3 IMPORTANT DEVELOPMENT IN THE FIELD AND CENTRAL TO  
4 ACCESS AND AFFORDABILITY. IT'S AN EFFORT BY CMS TO  
5 DEVELOP WHAT'S CALLED OUTCOME-BASED AGREEMENTS.  
6 THESE WOULD BE AGREEMENTS WHERE STATES WOULD PAY FOR  
7 THE PERFORMANCE OF A TREATMENT BASED ON ITS IMPACT  
8 ON PATIENTS. SPECIFICALLY, THEY'RE STARTING WITH  
9 THE TWO APPROVED SICKLE CELL THERAPIES. BUT THEY  
10 HAVE INDICATED A WILLINGNESS TO EXPAND TO FUTURE  
11 APPROVED THERAPIES. SO THAT'S VERY IMPORTANT. SO,  
12 AGAIN, A MODEL FOR SICKLE CELL GENE THERAPY ACCESS  
13 AND OPENNESS TO CONSIDERING FUTURE PRODUCTS, SOME OF  
14 WHICH WE HOPE MAY EMERGE FROM OUR PIPELINE.

15 AND THE IDEA HERE IS TO SUPPORT STATES IN  
16 DEVELOPING AGREEMENTS WHERE THEY CAN MAKE THESE  
17 TREATMENTS AVAILABLE TO PATIENTS. SO SPECIFICALLY  
18 WHAT CMS IS AIMING TO DO, BECAUSE THIS IS A VERY  
19 COMPLEX AREA WHICH MANY STATES DON'T HAVE  
20 EXPERIENCE, IS TO DEVELOP A MODEL CONTRACT WHICH  
21 WOULD UNDERLIE THE OUTCOME-BASED AGREEMENT. IF THE  
22 STATE WANTS TO SIGN ON, THEN THE MANUFACTURERS WOULD  
23 HAVE TO PROVIDE REBATES BASED ON OUTCOMES ACCORDING  
24 TO THE CONTRACT, WHICH IS, AGAIN, A NATIONAL MODEL.

25 AND THEN IN ADDITION, WHAT'S REALLY

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1     EXCITING AND I THINK VERY IMPORTANT IS STATES THAT  
2     CHOOSE TO PARTICIPATE IN THIS PROGRAM, CMS IS MAKING  
3     AVAILABLE 9.5 MILLION TO SUPPORT THE IMPLEMENTATION  
4     IN AREAS -- IN ASPECTS LIKE PATIENT NAVIGATION,  
5     EDUCATION, SOME OF THE IMPLEMENTATION ISSUES THE  
6     STATES ARE GOING TO ENCOUNTER. AND THESE DOLLARS  
7     ARE VERY IMPORTANT BECAUSE TYPICALLY THESE ARE  
8     ACTIVITIES THAT AREN'T TYPICALLY ELIGIBLE FOR THE  
9     USE OF THESE FUNDS. SO IT'S ALMOST ANALOGOUS TO A  
10    COMBINATION OF OUR CLINICAL INFRASTRUCTURE AND  
11    PATIENT SUPPORT PROGRAM, THOSE ADDITIONAL RESOURCES  
12    THAT ARE REALLY NEEDED TO MAKE THIS PROGRAM GO.

13            SO WE HAD A PANEL. I THINK THE CONSENSUS  
14    AMONG CERTAINLY STATE LEVEL MANAGERS OF THESE  
15    PROGRAMS IS THIS IS THE MOST IMPORTANT PUBLIC POLICY  
16    EFFORT TO DATE TO MAKE THESE TREATMENTS AVAILABLE,  
17    PARTICULARLY TO UNDERSERVED POPULATIONS. SO A REAL  
18    IMPERATIVE TO WORK WITH OUR NATIONAL STAKEHOLDERS TO  
19    SEE THE SUCCESS OF THIS PROGRAM.

20            AS MARIA ALLUDED TO, WE CERTAINLY REACHED  
21    OUT TO MEDI-CAL IN CALIFORNIA. I THINK THEY VIEW US  
22    AS A TRUSTED PARTNER. AND THEY HAVE A WHOLE SERIES  
23    OF QUESTIONS AROUND DATA MANAGEMENT IMPLEMENTATION,  
24    PATIENT NAVIGATION, WHICH WE ARE UNIQUELY POSITIONED  
25    TO ASSIST WITH GIVEN THAT OUR ALPHA CLINICS NETWORK



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1 ARE ALSO THE QUALIFIED TREATMENT CENTERS WHERE  
2 PATIENTS WOULD GO TO RECEIVE THESE TREATMENTS.

3 SO, AGAIN, THIS IS ALL -- I DON'T WANT TO  
4 SAY EARLY STAGE. IT'S MID-STAGE. WHAT THE STATES  
5 ARE REALLY WAITING FOR AT THIS POINT ARE THE DETAILS  
6 OF THE PROPOSAL, THE CONTRACT, AND WHAT  
7 IMPLEMENTATION MAY LOOK LIKE. AGAIN, OUR ROLE AND  
8 WHAT WE SPENT TIME AT ASGC DISCUSSING ARE WAYS WE  
9 CAN CONTINUE TO WORK TOGETHER TO FACILITATE THAT  
10 THROUGH AND THINK ABOUT HOW WE MIGHT BE ABLE TO  
11 DEPLOY SOME OF OUR CLINICAL RESOURCES TO MAKE THIS A  
12 REALITY. SO VERY EXCITING TIMES, AND WE'LL CONTINUE  
13 TO TRACK THAT. THANK YOU. THANKS FOR THE  
14 OPPORTUNITY.

15 VICE CHAIR BONNEVILLE: THANK YOU, GEOFF,  
16 SO MUCH.

17 AND LASTLY, DURING THE STRATEGIC  
18 ALLOCATION FRAMEWORK DELIBERATIONS AND DISCUSSIONS  
19 WITH BOARD MEMBERS AND WORKING GROUPS, THE CIRM TEAM  
20 GENERATED A SERIES OF OPTIONS FOR AAWG CONSIDERATION  
21 IN THE CONTEXT OF THIS PLAN AND GOAL NO. 5, ACCESS  
22 AND AFFORDABILITY. YOU WILL HEAR MORE ABOUT THAT  
23 FROM J.T. AND ROSA LATER THIS AFTERNOON.

24 AT A HIGH LEVEL, THE AAWG MET, AND THEY  
25 ENDORSED STAGE-APPROPRIATE ACCESS STRATEGIES TO BE

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1 CONSIDERED AND DEVELOPED IN CIRM CLINICAL PROGRAMS.  
2 SO YOU WILL HEAR MORE ABOUT THAT AND HOW THAT ENDED  
3 UP LATER THIS AFTERNOON.

4 SO THANK YOU SO MUCH. IF YOU HAVE ANY  
5 QUESTIONS, I'M HAPPY TO TAKE THEM NOW.

6 CHAIRMAN IMBASCIANI: THANK YOU, MARIA.

7 WE'RE NOW GOING TO PROCEED TO AGENDA ITEM  
8 NO. 5. I'M GOING TO INVITE JONATHAN THOMAS TO COME  
9 TO THE PODIUM TO GIVE HIS PRESIDENT'S REPORT. THANK  
10 YOU, JONATHAN.

11 DR. THOMAS: MR. CHAIR, MADAM VICE CHAIR,  
12 DISTINGUISHED MEMBERS OF THE BOARD, AND MEMBERS OF  
13 THE PUBLIC, THIS IS GOING TO BE A PRESIDENT'S REPORT  
14 THAT'S ACTUALLY DELIVERED IN PARTS THROUGHOUT THE  
15 COURSE OF THIS MEETING, BUT THIS IS THE INITIAL  
16 STATEMENT THAT I WANTED TO GIVE TO YOU TO KICK  
17 THINGS OFF.

18 IN A SPEECH DELIVERED TO THE HOUSE OF  
19 COMMONS BY WINSTON CHURCHILL ON AUGUST 20, 1940, HE  
20 FAMOUSLY QUIPPED TO THE BRITISH ROYAL AIR FORCE IN  
21 THE BATTLE OF BRITAIN, "NEVER IN THE FIELD OF HUMAN  
22 CONFLICT HAVE SO MUCH OWED SO MANY -- WAS SO MUCH  
23 OWED BY SO MANY TO SO FEW." WHEN THE ANNALS OF  
24 MEDICAL RESEARCH ARE WRITTEN IN THE COMING YEARS, I  
25 TRULY BELIEVE THAT IN THE UNENDING FIGHT AGAINST

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1 HUMAN SUFFERING FROM INCURABLE DISEASE, THAT QUOTE  
2 WILL SIMILARLY APPLY TO CIRM, A SMALL BAND OF BOARD  
3 AND TEAM MEMBERS IMPLEMENTING BOB KLEIN'S VISION IN  
4 2004 WITH THE DRAFTING OF PROPOSITION 71 AND FUELED  
5 BY THE VOTERS OF CALIFORNIA WHO RECOGNIZED THE  
6 STATE'S OPPORTUNITY TO LEAD THE WORLD IN STEM CELL  
7 RESEARCH IN THIS GOLDEN ERA OF SCIENTIFIC DISCOVERY.

8 2024 MARKS A WATERSHED YEAR IN CIRM'S  
9 EVOLVING STORY. AS YOU WILL HEAR LATER TODAY, MUCH,  
10 AGAIN, WAS ASKED OF FEW, THIS TIME TO CHART CIRM'S  
11 COURSE GOING FORWARD AT A TIME OF DWINDLING  
12 RESOURCES AND CONTINUING UNSURPASSED OPPORTUNITY.  
13 BUT MORE ON THAT LATER.

14 I WANT TO TURN IN THE PRESIDENT'S REPORT  
15 HERE, AS I OFTEN DO, TO RECOGNIZE MEMBERS OF OUR  
16 TEAM AND HAVE THEM ADDRESS YOU ON TOPICS OF INTEREST  
17 THAT HAVE COME UP OVER THE COURSE OF THE LAST THREE  
18 MONTHS SINCE WE LAST MET IN JUNE.

19 FIRST, I WOULD LIKE TO CALL TO THE PODIUM  
20 DR. KELLY SHEPARD TO DESCRIBE TO YOU TWO  
21 EXTRAORDINARY EVENTS THAT WERE HELD, BRINGING  
22 TOGETHER HIGH SCHOOL STUDENTS AT OUR ANNUAL SPARK  
23 CONFERENCE AS WELL AS MEMBERS OF ALL OF OUR OTHER  
24 EDUCATIONAL PROGRAMS WHO CONVENE FOR THE FIRST TIME  
25 EVER THE PAN EDUCATION CONFERENCE AT USC. EXCUSE

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1 ME. I FORGOT TO MENTION VERY IMPORTANTLY SPARK WAS  
2 AT UC RIVERSIDE. DEBORAH, THANK YOU VERY MUCH,  
3 ALTHOUGH I WILL SAY IT WAS 150 DEGREES THAT DAY.  
4 AND THE LATTER WAS AT USC AND WAS EXTRAORDINARY AS  
5 WELL. SO I'D LIKE KELLY TO SPEAK TO YOU NOW TO GIVE  
6 YOU SOME DETAIL ON THAT AS THIS IS ALWAYS ONE OF THE  
7 FAVORITE THINGS THAT WE DO ALL YEAR AT CIRM. KELLY.

8 DR. SHEPARD: THANK YOU, J.T. GOOD  
9 MORNING, MEMBERS OF THE BOARD, MR. CHAIR, MADAM VICE  
10 CHAIR, AND MEMBERS OF THE PUBLIC AND CIRM TEAM.  
11 IT'S MY PLEASURE TO COME HERE AND TELL YOU ABOUT  
12 THESE TWO EXCITING SUMMER CONFERENCES THAT WERE HELD  
13 THAT J.T. ALLUDED TO. GIVEN THAT THERE ARE SOME NEW  
14 BOARD MEMBERS HERE AND ALSO JUST TO REFRESH  
15 EVERYONE'S MEMORY, BEFORE I GO INTO THESE TWO  
16 CONFERENCES, I'M JUST GOING TO BRIEFLY GO OVER THE  
17 SCOPE OF THE EDUCATION PROGRAMS THAT WE SUPPORT AND  
18 HOW IT FITS INTO THESE CONFERENCES.

19 SO SINCE PROPOSITION 71 WAS FOUNDED, CIRM  
20 HAS BEEN SUPPORTING EDUCATION PROGRAMS TO TRAIN  
21 FUTURE SCIENTISTS AND TECHNICIANS IN ALL THE VARIETY  
22 AND MYRIAD OF SKILL SETS THAT WILL BE NEEDED TO  
23 BRING REGENERATIVE MEDICINE SOLUTIONS TO THE CLINIC.  
24 WE REQUIRE PEOPLE AT ALL LEVELS, TECHNICAL LEVELS,  
25 INNOVATION, EVERYTHING. AND SO A GOOD PORTION OF

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1 CIRM'S INVESTMENTS HAVE BEEN IN WORKFORCE  
2 DEVELOPMENT THROUGH THESE TRAINING PROGRAMS.

3 SO CURRENTLY WE HAVE FOUR CORE EDUCATION  
4 PROGRAMS THAT ARE ACTIVE. THREE OF THEM STARTED IN  
5 THE PROPOSITION 71 ERA AND HAVE BEEN FUNDED THROUGH  
6 COMPETITIVE RENEWALS OF SEQUENTIAL RFA'S THAT HAVE  
7 BEEN UPDATED TO STAY APACE WITH THE FIELD'S NEEDS  
8 OVER TIME.

9 THE FOURTH PROGRAM IS NEW SPECIFIC TO THE  
10 PROPOSITION 14 TRAINING PROGRAM, THE COMPASS  
11 PROGRAM. I'M GOING TO BRIEFLY JUST GIVE A HIGH  
12 LEVEL OVERVIEW OF WHAT EACH OF THESE TRAINING  
13 PROGRAMS ENTAILS, AND THEN I'LL TALK ABOUT THE  
14 CONFERENCES.

15 SO THE SPARK PROGRAM IS OUR EARLIER STAGE  
16 OF FUNDING. THIS SUPPORTS HIGH SCHOOL STUDENTS FROM  
17 ELEVEN PROGRAMS AROUND CALIFORNIA TO DO LABORATORY  
18 INTERNSHIPS IN REGENERATIVE MEDICINE LABORATORIES.  
19 AT THE END OF THE SUMMER, AFTER ABOUT EIGHT WEEKS OF  
20 RESEARCH FOR THESE STUDENTS, WE BRING THE STUDENTS  
21 FROM THE ELEVEN PROGRAMS TOGETHER FOR A CONFERENCE.  
22 AND THIS CONFERENCE, AS J.T. MENTIONED, TOOK PLACE  
23 IN RIVERSIDE, AND I'LL BE GETTING TO THAT SHORTLY.

24 THE COMPASS PROGRAM IS OUR NEWEST PROGRAM  
25 FUNDED A YEAR OR SO AFTER PROPOSITION 14 PASSED.

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1 NOW, THIS IS A PROGRAM THAT SUPPORTS EARLY  
2 UNDERGRADUATES, TYPICALLY TARGETING STUDENTS WHO ARE  
3 SOPHOMORES OR JUNIORS. AND IN PARTICULAR, THIS  
4 PROGRAM TARGETS STUDENTS WHO HAVE UNTAPPED TALENT.  
5 THEY MAY HAVE COME FROM UNDERRESOURCED SCHOOLS OR  
6 BACKGROUNDS, OR THEY MAY NOT HAVE THE NETWORKS OR  
7 CONNECTIONS TO REALIZE OR BE EVEN AWARE OF ALL THE  
8 DIFFERENT POSSIBILITIES THAT WOULD BE AVAILABLE TO  
9 THEM, INCLUDING MANY DIFFERENT CAREER PATHS, WHEN  
10 PURSUING A SCIENTIFIC BACHELOR'S DEGREE IN A  
11 BIOMEDICAL SCIENCE.

12 SO 16 COMPASS PROGRAMS WERE LAUNCHED  
13 AROUND THE STATE, AGAIN, TARGETING THESE EARLY  
14 UNDERGRADUATES, PROVIDING TWO OR THREE YEARS OF  
15 SUPPORT, WHICH INCLUDES FOUNDATIONAL COURSES,  
16 INTERNSHIPS, LABORATORY INTERNSHIPS UNDER A MENTOR,  
17 AND A HOST OF PROFESSIONAL DEVELOPMENT AND MENTORED  
18 ACTIVITIES TO PROVIDE THEM SUPPORT THROUGHOUT THEIR  
19 TRAINING. THERE IS ALSO A CULMINATING CONFERENCE  
20 FOR THIS PROGRAM INTENDED, AND WE WILL GET TO THAT  
21 TOWARDS THE END OF MY PRESENTATION.

22 THE THIRD PROGRAM IS THE BRIDGES PROGRAM.  
23 THIS PROGRAM ORIGINALLY LAUNCHED IN 2009, AND THERE  
24 ARE CURRENTLY 15 PROGRAMS AROUND THE STATE. WHAT'S  
25 UNIQUE ABOUT BRIDGES IS THESE ARE TARGETED

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1 SPECIFICALLY TO COLLEGES, CALIFORNIA STATE  
2 UNIVERSITIES, AND COMMUNITY COLLEGES THAT DON'T HAVE  
3 MAJOR FEDERAL RESEARCH INFRASTRUCTURE FOR  
4 REGENERATIVE MEDICINE OR FACULTY. SO THIS PROGRAM  
5 PROVIDES SPECIALIZED COURSEWORK TO THESE STUDENTS AT  
6 THEIR HOME INSTITUTIONS. AND THEN THEY ARE ABLE TO  
7 GO AND WORK FOR UP 12 MONTHS, A FULL YEAR, OF PAID,  
8 HANDS-ON INTERNSHIPS AT HOST INSTITUTIONS, WHICH ARE  
9 THESE MAJOR RESEARCH UNIVERSITIES WITH REGENERATIVE  
10 MEDICINE PROGRAMS AS WELL AS BIOTECHNOLOGY  
11 COMPANIES.

12 AND EVERY YEAR THERE HAS BEEN A  
13 CULMINATING CONFERENCE FOR THE BRIDGES PROGRAM. AND  
14 SOME OF YOU MAY HAVE ATTENDED THOSE IN THE PAST.

15 LAST, BUT NOT LEAST, IS THE CIRM SCHOLARS  
16 PROGRAM. THIS PROGRAM TARGETS PREDOCTORAL,  
17 POSTDOCTORAL, AND CLINICAL FELLOWS, PROVIDES THEM  
18 WITH SPECIALIZED COURSEWORK AND TWO TO THREE YEARS  
19 OF FELLOWSHIP SUPPORT. AND IN ADDITION, THERE IS  
20 FUNDING IN THESE AWARDS FOR TRAVEL TO SCIENTIFIC  
21 CONFERENCES.

22 SO THIS IS JUST A SUMMARY TO SHOW WHERE  
23 THESE PROGRAMS FIT ALONG THE SPECTRUM FROM HIGH  
24 SCHOOL TO CLINICAL FELLOWSHIPS. AND IT GIVES YOU AN  
25 IDEA OF THE SCOPE OF THE PROGRAMS. YOU CAN SEE HOW

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1 MANY STUDENTS HAVE COME THROUGH EACH OF THESE OVER  
2 THE YEARS AND HOW MANY MORE WILL BE SUPPORTED BY THE  
3 TIME THESE GRANTS COME TO THEIR END IN '25 AND 2026.

4 SO NOW ON TO THE CONFERENCES. SO THE  
5 FIRST ONE I'LL JUST BRIEFLY MENTION IS THE SPARK  
6 ANNUAL CONFERENCE FOR HIGH SCHOOL STUDENTS, TOOK  
7 PLACE IN RIVERSIDE, CALIFORNIA, HOSTED BY THE UC  
8 RIVERSIDE SPARK PROGRAM DIRECTOR, HUINAN LIU, WITH  
9 EXPERT ASSISTANCE FROM MAI TEMRAZ.

10 THERE WERE ABOUT 150 TRAINEES IN  
11 ATTENDANCE AT THIS WONDERFUL CONFERENCE. EVERY  
12 SINGLE ONE OF THE STUDENTS WERE ABLE TO GIVE  
13 LIGHTNING TALKS AS WELL AS POSTER PRESENTATIONS.  
14 THERE WERE SEVERAL DISTINGUISHED SPEAKERS INVITED,  
15 INCLUDING MEMBERS OF THE UC RESEARCH LEADERSHIP. A  
16 CAMPUS TOUR WAS OFFERED DESPITE THE -- IT WASN'T  
17 REALLY A HUNDRED FIFTY DEGREES, J.T., BUT 106, SO IT  
18 FELT LIKE 110 DEGREES. BUT THAT WAS ABSOLUTELY  
19 WONDERFUL.

20 THERE WERE NETWORKING ACTIVITIES. DR.  
21 DEAS PARTICIPATED IN THAT THE NIGHT BEFORE, WHICH  
22 THE STUDENTS REALLY APPRECIATED. THERE WAS A  
23 TRAINEE PANEL THAT INCLUDED SOME MEMBERS OF CIRM'S  
24 MORE MATURE, NOT MATURE, LATER STAGE TRAINING  
25 PROGRAMS, CIRM SCHOLARS AND BRIDGES.



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1           AND WHAT WAS REALLY EXCITING ABOUT THIS  
2           CONFERENCE IS THAT, SINCE UC RIVERSIDE HAS THREE  
3           CIRM TRAINING GRANTS, SPARK, COMPASS, AND CIRM  
4           SCHOLARS, MEMBERS OF ALL OF THOSE GROUPS HELPED OUT  
5           WITH THIS CONFERENCE. THEY LED THE TOURS, THEY  
6           PROVIDED INFORMATION TO THE STUDENTS, THEY PROVIDED  
7           NETWORKING AND SUPPORT. SO IT WAS REALLY FANTASTIC,  
8           AND I THINK EVERYBODY THOROUGHLY ENJOYED THEMSELVES.  
9           AND AS YOU CAN SEE IN THAT PICTURE ON THE LEFT, IT  
10          WAS LIKE SWARMS OF PEOPLE WERE AFTER J.T. HE WAS  
11          LIKE THE MOST FAMOUS PERSON THERE. VERY EXCITED TO  
12          TALK TO HIM. EVERYBODY WANTED THEIR PHOTO WITH HIM.  
13          OKAY. SORRY, J.T. ALL RIGHT.

14                 SO THANK YOU TO EVERYBODY WHO WAS ABLE TO  
15          ATTEND. ON MY LAST SLIDE, I WILL SHOW A LINK TO THE  
16          CONFERENCE WEBSITE IF ANYONE WOULD LIKE TO TAKE A  
17          CLOSER LOOK AT WHAT THE AGENDA LOOKED LIKE AND THE  
18          DETAILS AROUND THAT.

19                 THE SECOND CONFERENCE WAS A FIRST FOR  
20          CIRM. AS J.T. MENTIONED, THIS IS THE FIRST TIME WE  
21          HELD A CONFERENCE. WE NICKNAMED IT THE PAN TRAINING  
22          CONFERENCE BECAUSE IT BROUGHT TOGETHER TRAINEES FROM  
23          ACROSS OUR DIFFERENT PROGRAMS, IN THIS CASE,  
24          BRIDGES, COMPASS, AND THE CIRM SCHOLARS. AND WE  
25          CALLED THIS THE TRAINING NETWORKING CONFERENCE

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1 BECAUSE WE DECIDED TO MAKE THE FOCUS AROUND THIS  
2 OPPORTUNITIES TO NETWORK.

3 SO THE OBJECTIVE OF THIS CONFERENCE IS TO  
4 CATALYZE THE FORMATION OF A CIRM TRAINEE NETWORK,  
5 PROVIDE PEER-TO-PEER NETWORKING AND CAREER BUILDING  
6 OPPORTUNITIES, PROVIDE ATTENDEES WITH WORKSHOPS AND  
7 SESSIONS OF VALUE, INCLUDING TOPICS RELATED TO  
8 DIVERSITY, EQUITY, AND INCLUSION AND CAREER PANELS,  
9 AND ALSO TO PROVIDE ATTENDEES AN OPPORTUNITY TO  
10 SHARE THEIR RESEARCH AND THEIR ACCOMPLISHMENTS MORE  
11 BROADLY.

12 SO THIS ISN'T A SLIDE MEANT FOR YOU TO  
13 READ, BUT REALLY MEANT TO JUST SHOW THE LARGE  
14 VARIETY OF DIFFERENT TYPES OF ACTIVITIES THAT TOOK  
15 PLACE AT THIS CONFERENCE. IT WAS TWO AND A HALF  
16 DAYS. THERE WAS A MAIN STAGE WHERE EVERYBODY CAME  
17 TOGETHER TO HEAR SCIENTIFIC KEYNOTE PRESENTATIONS  
18 FROM IMPORTANT AND NOTABLE SCIENTISTS IN THE  
19 REGENERATIVE MEDICINE COMMUNITY. THERE WERE  
20 MULTIPLE PRESENTATIONS FROM PATIENT ADVOCATES, TWO  
21 OF WHOM PARTICIPATED IN CIRM-SUPPORTED CLINICAL  
22 TRIALS. THERE WERE VARIOUS CAREER PANELS, AND THERE  
23 WERE THEMED SESSIONS ON NEUROSCIENCE AND GENE  
24 THERAPY.

25 IMPORTANTLY, SOME TRAINEES WERE SELECTED

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1 FROM THEIR ABSTRACTS TO GIVE PRESENTATIONS DURING  
2 THIS MAIN SESSION. AND ALL TRAINEES GAVE POSTERS  
3 DURING THE POSTER SESSIONS.

4 IN ADDITION TO THE MAIN EVENTS, WE HAD  
5 MULTIPLE BREAKOUT SESSIONS BY VARIOUS THEMES. THIS  
6 IS ONLY A SMALL SUBSET OF THEM HERE. THE THEMES  
7 WERE DETERMINED BY THE PARTICIPANTS OF THE TRIAL IN  
8 SURVEYS PRIOR THE CONFERENCE. AND SO THEY WERE  
9 ORGANIZED AROUND SMALL CLASSROOMS WITH A DISCUSSION  
10 LEADER. AND MANY TRAINEES, INCLUDING COMPASS  
11 STUDENTS AND BRIDGES STUDENTS, WERE ABLE TO GIVE  
12 ORAL PRESENTATIONS, WHICH HAS NOT BEEN POSSIBLE IN  
13 THE PAST BRIDGES MEETINGS DUE TO TIME CONSTRAINTS.  
14 SO THIS WAS A REALLY EXCITING NEW INNOVATION AND  
15 SOMETHING WE'D LIKE TO CONTINUE GOING FORWARD.

16 AGAIN, THERE WERE A LOT OF NETWORKING  
17 ACTIVITIES, INCLUDING INFORMAL, AROUND THE MEALS  
18 ACROSS THEMED TABLES. THERE WAS A CIRM NETWORKING  
19 TABLE THAT WERE NETWORKING AROUND RESOURCES FOR  
20 BILINGUAL TRAINEES, LESSONS ON TIME MANAGEMENT,  
21 ETHICS, ET CETERA.

22 AND FINALLY, THERE WERE A COUPLE OF  
23 ORGANIZED ACTIVITIES, INCLUDING A BE THE MATCH WHERE  
24 PEOPLE COULD LEARN ABOUT HOW THEY CAN DONATE AND  
25 PERHAPS BE FOUND AS A MATCH AND SAVE SOMEBODY'S

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1 LIFE. AND THERE WERE NETWORKING DINNERS FOR THE  
2 PROGRAM DIRECTORS. AND THE SECOND DAY OF THE  
3 CONFERENCE WAS A PUBLIC SESSION. IT WAS RECORDED.  
4 AND IF ANYBODY IS INTERESTED, THAT IS POSTED ON  
5 CIRM'S YOUTUBE SITE AS WELL AS ON THE USC CONFERENCE  
6 SITE.

7 AND FORGIVE ME FOR FAILING TO ACKNOWLEDGE  
8 ORIGINALLY THAT THIS CONFERENCES WAS HOSTED BY USC  
9 BY DR. FRANCESCA MARIANI, WHO DID AN AMAZING JOB.  
10 SHE'S THE LEADER OF THE USC CIRM SCHOLARS PROGRAM  
11 AND ALSO PARTICIPATES IN THEIR COMPASS PROGRAM.

12 SO IN SUM, THE 2024 TRAINING NETWORKING  
13 CONFERENCE WAS THE FIRST PAN TRAINEE CONFERENCE.  
14 THERE WERE OVER 400 TRAINEES AND GUESTS IN  
15 ATTENDANCE. THERE WERE TRAINEE INPUT INTO THE  
16 AGENDA AS WELL AS THE WORKSHOP DESIGN. THERE WERE  
17 85 SPEAKERS, 44 MODERATORS AND PANELISTS. WE HAD  
18 PARTICIPATION FROM BOTH ACADEMICS AND INDUSTRY.  
19 THERE WERE FORMAL AND INFORMAL NETWORKING. THERE  
20 WERE CERTIFICATES AND AWARDS GIVEN FOR POSTERS AND  
21 PRESENTATIONS. AND THE LAST ONE, I JUST NEEDED TO  
22 MAKE THE SLIDE SYMMETRIC. THERE WAS AN EARTHQUAKE.  
23 NOBODY WAS HURT, BUT I THINK EVERYBODY HAVE FOUND  
24 THAT MEMORABLE.

25 SO THAT CONCLUDES MY PRESENTATION. I'VE

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1 INCLUDED SOME LINKS AT THE BOTTOM OF THE SLIDE HERE,  
2 LINKS TO THE CONFERENCE WEBSITE FOR THE USC PAN  
3 TRAINEE CONFERENCE AS WELL AS THE SPARK CONFERENCE.  
4 AND THEN THE FINAL LINK IS TO ALL THE EDUCATION  
5 PROGRAMS THAT I DESCRIBED TO YOU TODAY, WHICH  
6 COMPILES A LOT OF THESE RESOURCES IF ANYBODY WANTS  
7 TO LEARN MORE. THANK YOU VERY MUCH FOR YOUR TIME.  
8 JUDY.

9 MS. DURON: QUESTION. SORRY. I CAN'T SEE  
10 MYSELF.

11 DR. SHEPARD: OH, YSABEL. HI, YSABEL.

12 MS. DURON: HI. I LOVE THESE PROGRAMS. I  
13 THINK THEY'RE FABULOUS. WHAT I'VE BEEN ASKING FOR,  
14 THOUGH, AND WHAT I'D LIKE TO SEE, SINCE I THINK PART  
15 OF THE REASONS FOR THESE PROGRAMS WAS TO CREATE  
16 PROFESSIONAL PATHWAYS, EDUCATIONAL AND PROFESSIONAL  
17 PATHWAYS, FOR MARGINALIZED COMMUNITIES AND STUDENTS  
18 FROM THOSE COMMUNITIES THAT WE CAN BUILD AN  
19 OPPORTUNITY TO DIVERSIFY OUR WORKFORCE, OUR  
20 RESEARCHERS, ET CETERA, ET CETERA.

21 SO WHAT I REALLY WOULD LOVE TO SEE IS A  
22 DEMOGRAPHIC BREAKDOWN OF ALL OF THESE FABULOUS  
23 STUDENTS IN THESE PROGRAMS SO THAT I KNOW DIVERSITY  
24 IS, IN FACT, BEING IMPLEMENTED, IS WORKING. AND SO  
25 YOU JUST CREATE ONE OF THOSE AND SEND IT TO US. BUT

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1 IT'S ONE OF THE FIRST SLIDES I'D LIKE TO SEE, THAT  
2 DIVERSITY IS WORKING, OUR CLIENTS ARE WORKING TO  
3 INCREASE THESE PIPELINES FOR SOME OF THESE  
4 MARGINALIZED AND COMMUNITIES OF COLOR.

5 DR. SHEPARD: ABSOLUTELY. WE DO TRACK  
6 THOSE, AND WE EVEN HAVE SOME NEW METHODS THAT WE ARE  
7 IMPLEMENTING IN THE GMS TO ALLOW US TO CAPTURE MORE  
8 GRANULARITY AROUND THAT. SO THANK YOU VERY MUCH FOR  
9 THOSE COMMENTS.

10 WHEN I GIVE A FULLER PRESENTATION TO THE  
11 BOARD ON THE OUTCOMES OF OUR EDUCATION PROGRAMS, I  
12 WOULD ABSOLUTELY INCLUDE THAT. AND THANK YOU VERY  
13 MUCH.

14 MS. DURON: I SUGGEST, THOUGH, YOU SHOULD  
15 INCLUDE IT EVERY SINGLE TIME BECAUSE IT'S NOT JUST  
16 SOMEONE LIKE ME WHO'S GOING TO BADGER YOU, SORRY.  
17 BUT IT IS BECAUSE I THINK EVERYBODY SHOULD SEE THAT  
18 THIS PROGRAM IS WORKING FOR THE BETTER OF CALIFORNIA  
19 CITIZENS AND WORKERS SO THAT THEY CAN SEE THE WORK  
20 WE'RE DOING. SO IT'S NOT JUST A ONE-OFF SLIDE, BUT  
21 SOMETHING THAT WE SHOW REGULARLY, THAT DIVERSITY IS,  
22 IN FACT, ONE OF OUR MOST IMPORTANT PRODUCTS.

23 DR. SHEPARD: THANK YOU VERY MUCH. I'LL  
24 MAKE SURE TO INCLUDE THAT NEXT TIME I DO THIS.  
25 THANK YOU. JUDY.

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1 DR. GASSON: I JUST WANTED TO CONGRATULATE  
2 YOU ON A REALLY OUTSTANDING PRESENTATION. I THINK  
3 THIS WORK IS INCREDIBLY IMPORTANT, AND I KNOW IT'S  
4 VERY VALUABLE TO ALL OF US. NEXT TIME YOU HAVE A  
5 CHANCE -- I KNOW YOU'RE FOLLOWING THE OUTCOMES AND  
6 THAT THERE'S BEEN ENOUGH TIME NOW THAT WE CAN SEE  
7 WHAT THE IMPACT OF THIS PROGRAM HAS BEEN. SO I LOOK  
8 FORWARD TO HEARING ABOUT THAT AS WELL. SO THANK YOU  
9 VERY MUCH.

10 DR. SHEPARD: THANK YOU. ANY MORE  
11 QUESTIONS? ALL RIGHT. THANK YOU. AND I'LL YIELD  
12 BACK TO YOU, J.T.

13 DR. THOMAS: THANK YOU VERY MUCH, KELLY.  
14 AGAIN, THIS IS A WONDERFUL PAIR OF EVENTS. I WANTED  
15 TO MENTION ONE THING KELLY LEFT OUT, WHICH WAS SORT  
16 OF A PERSONAL FAVORITE OF THE PAN CONFERENCE. THE  
17 HOST OF THE DINNER AT THE NATURAL HISTORY MUSEUM,  
18 WHICH WAS REALLY A WILD EXPERIENCE, AS YOU'RE SORT  
19 OF SITTING THERE WITH THE LIONS AND WATER BUFFALO  
20 AND THE DIORAMAS STARING AT YOU WHILE YOU'RE  
21 ENJOYING YOUR FARE, AND WAS REALLY A ONE-OF-A-KIND  
22 OPPORTUNITY FOR EVERYBODY IN ATTENDANCE. SO THAT  
23 WAS VERY COOL AND SETS AN EXTREMELY HIGH BAR FOR  
24 MEALS GOING FORWARD AT FUTURE EVENTS.

25 I WANT TO JUST CONGRATULATE KELLY WHO

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1 CONTINUES TO DO INCREDIBLE WORK IN KEEPING TRACK AND  
2 RUNNING ALL OF OUR EDUCATIONAL EVENTS. I WANT TO  
3 GIVE A SPECIAL ACKNOWLEDGEMENT ALSO TO DR. DAISY  
4 XIN, WHO WORKED WITH KELLY AND HAS WORKED ON THE  
5 EDUCATIONAL PROGRAMS THROUGHOUT AND DOES A LIKEWISE  
6 FANTASTIC JOB.

7 (APPLAUSE.)

8 DR. THOMAS: SO SECONDLY, WANTED TO HAVE  
9 THE BOARD HEAR FROM DR. SHYAM PATEL, WHO WAS ONE OF  
10 THE ORGANIZERS OF A MOST INTERESTING CONFERENCE AT  
11 THE CALIFORNIA LIFE SCIENCES ORGANIZATION WHICH  
12 HAPPENS TO BE IN A BUILDING ADJACENT TO CIRM  
13 HEADQUARTERS. SO IT MADE FOR A VERY SHORT COMMUTE  
14 FOR THOSE OF US, AND MANY ATTENDED AND THOUGHT THAT  
15 SHYAM COULD ENLIGHTEN THE BOARD HERE WITH RESPECT TO  
16 TWO OR THREE, IN PARTICULAR, OF THE PRESENTATIONS  
17 THAT WERE GIVEN AT THAT EVENT. SO, SHYAM, PLEASE.

18 DR. PATEL: THANK YOU, J.T. AND GOOD  
19 MORNING TO THE BOARD. BEFORE I BEGIN MY  
20 PRESENTATION, JUDY, YOU ASKED A QUESTION EARLIER  
21 ABOUT THE IMPACT AND OUTCOME OF OUR EDUCATION  
22 PROGRAMS. AND I WILL JUST SHARE ANECDOTALLY THAT I  
23 PROBABLY MEET MAYBE ON A MONTHLY BASIS SOMEBODY WHO  
24 HAS BEEN AN ALUMNI OF THAT PROGRAM. SO IT INCLUDES  
25 LEADERS OF GMP MANUFACTURING FACILITIES, CONSULTANTS



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1 WHO ARE LEADING PRACTICES IN CELL AND GENE THERAPY.  
2 IT INCLUDES LOCAL GOVERNMENT MEMBERS, FACULTY  
3 MEMBERS WHO ARE NOW SUPPORTING CLINICAL TRIALS THAT  
4 CIRM IS FUNDING. AND SO IT'S A BROAD RANGE OF  
5 ALUMNI THAT WE SEE ACROSS ALL THESE PROGRAMS OVER  
6 THE YEARS. AND IT CONTINUES TO BE A REALLY  
7 WONDERFUL PROGRAM.

8 I HAD THE HONOR DURING THE RECENT PAN  
9 CONFERENCE TO SPEAK ABOUT CAREER PATHWAYS. I SPOKE  
10 ABOUT MY OWN MEANDERING JOURNEY, AND IT'S GOING TO  
11 GET MORE MEANDERING TODAY. A LOT OF THE STUDENTS  
12 REALLY WERE RECEPTIVE TO THAT, AND THEY'RE LOOKING  
13 AT THE BROAD RANGE OF CELL AND GENE THERAPY CAREERS.  
14 AND THE MAIN QUESTION THEY ASK IS HOW DO WE GET INTO  
15 THOSE PATHWAYS THAT ARE BEYOND RESEARCH PATHWAYS.  
16 AND SO I THINK AS AN ORGANIZATION, WE CAN HELP  
17 INFORM SOME OF THAT GOING FORWARD.

18 SO GET TO THE TOPIC AT HAND, WHICH J.T.  
19 WANTED ME TO SPEAK ABOUT, LAST WEEK WE HOSTED A CELL  
20 AND GENE THERAPY WORKSHOP IN PARTNERSHIP WITH THE  
21 CALIFORNIA LIFE SCIENCES ORGANIZATION. THIS IS A  
22 NON-PROFIT LIFE SCIENCE ADVOCACY ORG. AND SO THIS  
23 WORKSHOP INVOLVED COMPANIES, ACADEMICS, VENDORS,  
24 SERVICE PROVIDERS ALL IN THE CELL AND GENE THERAPY  
25 SPACE IN CALIFORNIA. IT WAS AN ALL-DAY, IN-PERSON

1 WORKSHOP.

2 AND I WANT TO HIGHLIGHT A TRIPLE PLAY OF  
3 PRESENTATIONS THAT WERE VERY -- THAT WAS FOR J.T. --  
4 THAT WERE VERY ILLUMINATING. AND SO WE STARTED THE  
5 MORNING WITH A KEYNOTE PRESENTATION FROM DR. DEEPAK  
6 SRIVASTAVA, WHICH MANY OF YOU KNOW. HE'S A  
7 PRACTICING CARDIAC -- PRACTICING PEDIATRIC  
8 CARDIOLOGIST AND ALSO THE PRESIDENT OF THE GLADSTONE  
9 INSTITUTES. HE INSPIRED THE AUDIENCE BY SPEAKING  
10 ABOUT HOW HIS RESEARCH AS WELL AS HIS CLINICAL  
11 PRACTICE HAVE LED TO MECHANISTIC INSIGHTS IN CARDIAC  
12 DEVELOPMENT AS WELL AS CARDIAC DISEASE. MANY OF  
13 THOSE HAVE GONE ON TO NOW BE TRANSLATED BY THE  
14 COMPANY THAT HE FOUNDED, TENAYA THERAPEUTICS, FOR  
15 GENETIC THERAPIES FOR THESE CARDIAC DISEASES, FOR  
16 BOTH RARE AND PREVALENT INDICATIONS. THE MOST  
17 PROMINENT OF WHICH WAS FUNDED BY CIRM IS THE VERY  
18 AMBITIOUS APPROACH TO DIRECTLY REPROGRAM CARDIAC  
19 FIBROBLASTS IN THE HEART TO CARDIOMYOCYTES.

20 HE ENDED HIS PRESENTATION WITH A LOVELY  
21 STORY ABOUT HOW IN HIS PRACTICE HE HAS COME ACROSS A  
22 FAMILY OF PATIENTS WHO HAVE AORTIC VALVE  
23 CALCIFICATION DUE TO GENETIC DEFECTS. AND HE HAS  
24 BEEN ABLE TO TRANSLATE THAT INTO SEVERAL SMALL  
25 MOLECULE THERAPIES, AND THEY HAVE A BROADER

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1 POTENTIAL FOR AGE-RELATED CALCIFICATION OF AORTIC  
2 VALVES AS WELL, WHICH, AS YOU ALL KNOW, IS A COMMON  
3 THEME FOR CELL AND GENE THERAPIES, WHICH IS HOW WE  
4 TRANSLATE GENETICALLY TARGETED CELL AND GENE  
5 THERAPIES TO THE BROADER POPULATION.

6 AFTER THAT, WE MOVED ON TO A MANUFACTURING  
7 SESSION. AND I'M SURE, AS YOU ALL ARE, WE'RE ALL  
8 VERY TIRED OF HEARING ABOUT THE CHALLENGES THAT  
9 MANUFACTURING POSES FOR CELL AND GENE THERAPIES. IT  
10 IS A CONSTANT BOTTLENECK FOR THE APPROVAL OF CELL  
11 AND GENE THERAPIES. WE WANT TO TAKE A LITTLE BIT  
12 DIFFERENT APPROACH TO INSPIRE AND MAYBE THINK  
13 OUTSIDE THE BOX.

14 AND SO WE INVITED DR. PAOLO GARGINI WHO  
15 FOR 30 YEARS WAS DIRECTING INTEL'S TECHNOLOGY  
16 STRATEGY TO ASK ABOUT HOW TO INSPIRE US AND TALK  
17 ABOUT HOW THE SEMICONDUCTOR INDUSTRY OVERCAME ITS  
18 OWN MANUFACTURING CHALLENGES TO ADVANCE THE FIELD TO  
19 GET TO HAVING SOME SEMICONDUCTORS IN EVERYTHING FROM  
20 REFRIGERATORS TO OUR CELL PHONES. AND HE STRESSED A  
21 FEW THINGS THAT ARE VERY RELEVANT TO US.

22 ONE OF THE MAIN ONES WAS HOW THERE IS A  
23 NECESSITY TO LOOK 15 YEARS AHEAD AND PLOT TECHNOLOGY  
24 BASED ON THAT. AND THEN TAKE A REALLY ACTIVE  
25 APPROACH TO FORM CONSORTIA OF ACADEMICS, INDUSTRY

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1 PARTNERS, AS WELL AS GOVERNMENT FUNDERS TO  
2 CONSTANTLY HIT ALL OF THOSE MILESTONES ALONG THE WAY  
3 TO GET TO YOUR 15-YEAR TECHNOLOGY VISION. AND  
4 THAT'S REALLY RELEVANT FOR OUR FIELD WHERE WE ARE AT  
5 THE EARLY STAGES OF MATURATION IN CELL AND GENE  
6 THERAPY MANUFACTURING.

7 LASTLY, IN THE AFTERNOON DR. PHIL CYR GAVE  
8 A PRESENTATION ABOUT HOW IT'S IMPORTANT TO THINK  
9 ABOUT PATIENT AND MARKET ACCESS VERY EARLY IN  
10 CLINICAL DEVELOPMENT. AND FOR THE AUDIENCE, HE HAD  
11 THREE VERY PRACTICAL TIPS. THE FIRST WAS TO FOCUS  
12 ON NATURAL HISTORY STUDIES EARLY ON BECAUSE THEY'RE  
13 GOING TO INFORM BOTH THE BASIS FOR YOUR THERAPIES AS  
14 WELL AS THE COMPARATOR. THEN TO FOCUS ON EARLY  
15 HEALTH ECONOMIC MODELS, WHICH WILL BE INFORMATIVE  
16 NOT ONLY FOR REIMBURSEMENT AND VALUE FRAMEWORKS, BUT  
17 ALSO INFORM CLINICAL TRIALS.

18 AND LASTLY, TO HAVE A VERY CONSISTENT  
19 LEXICON FOR YOUR THERAPY AND YOUR DISEASE THAT YOU  
20 CAN COMMUNICATE OUT TO PATIENTS, TO CARE PROVIDERS,  
21 TO REGULATORS, AND TO PAYERS. I THOUGHT THAT WAS  
22 REALLY INFORMATIVE AND PRACTICAL ADVICE TO GIVE TO  
23 GENE AND CELL THERAPY DEVELOPERS IN THE AUDIENCE.

24 AND LASTLY, TO ROUND OUT THE GRAND SLAM,  
25 ANOTHER BASEBALL REFERENCE, WAS A PRESENTATION BY

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1 GEOFF LOMAX, OUR OWN GEOFF LOMAX, TALKING ABOUT ALL  
2 OF CIRM'S INITIATIVES AS WELL AS HOW WE'RE PIECING  
3 EVERYTHING TOGETHER ON THE CLINICAL INFRASTRUCTURE  
4 SIDE TO SUPPORT ALL THE TRIALS THAT WE FUND AND ALSO  
5 THE FORWARD VISION THAT THE AAWG HAS FOR THIS FIELD  
6 FOR ACCESS AND AFFORDABILITY.

7 AND THAT WAS A LOVELY AND WONDERFUL DAY,  
8 AND WE'VE BEEN ASKED TO CONTINUE THAT SERIES GOING  
9 FORWARD. AND THERE'S A SPECIFIC REQUEST TO HAVE THE  
10 NEXT ONE IN SOUTHERN CALIFORNIA. HAPPY TO TAKE ANY  
11 QUESTIONS YOU MAY HAVE. THANK YOU. THANK YOU.

12 CHAIRMAN IMBASCIANI: THANK YOU, SHYAM.  
13 DOES THE PRESIDENT WANT TO CONTINUE?

14 DR. THOMAS: THANK YOU, SHYAM, VERY MUCH  
15 FOR THAT. I DO APPRECIATE THE MULTIPLE BASEBALL  
16 REFERENCES. I COULD HAVE DONE WITHOUT THE REFERENCE  
17 TO THE TRIPLE PLAY, WHICH, FOR THOSE OF YOU WHO  
18 AREN'T AWARE WHAT THAT WAS REFERRING TO, IS THE END  
19 OF THE BOTTOM OF THE NINTH, DODGERS LOSING A COUPLE  
20 NIGHTS AGO TO THE PADRES ON A TRIPLE PLAY. I'D LIKE  
21 TO POINT OUT FOR JOE'S BENEFIT THAT THE DODGERS BEAT  
22 THE PADRES IN A CRITICAL GAME LAST NIGHT. AND I'D  
23 LIKE TO PERSONALLY THANK GEOFF LOMAX AND ABLA  
24 CREASEY FOR STAYING WITH ME AT THE BAR THROUGH THE  
25 END OF THE GAME LAST NIGHT TO WATCH THE END OF THAT.

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1 SO THANK YOU. MR. CHAIR, THAT CONCLUDES THIS  
2 PORTION OF THE PRESIDENT'S REPORT.

3 CHAIRMAN IMBASCIANI: ARE YOU SURE, J.T.?  
4 THANK YOU VERY MUCH. GOOD. WE'VE ARRIVED AT THE  
5 CONSENT AGENDA PART OF THE MEETING, ITEMS NO. 6 AND  
6 7. I HOPE YOU'VE TAKEN A LOOK AT THE -- IT CONSISTS  
7 OF TWO ITEMS. I HOPE YOU'VE LOOKED AT THEM. THERE  
8 ARE MINUTES FROM THE PAST FOUR MEETINGS OF EITHER  
9 THE APPLICATION REVIEW SUBCOMMITTEE OF THIS BOARD OR  
10 OF BOTH, AND THEN THERE ARE THE CONSIDERATION OF  
11 APPOINTMENTS, 12 NEW AND THREE REAPPOINTMENTS, OF  
12 MEMBERS, SCIENTIFIC MEMBERS, TO OUR GRANTS WORKING  
13 GROUP.

14 I'VE LOOKED OVER ALL THESE DOCUMENTS,  
15 DON'T FIND ANYTHING MATERIAL; BUT IF YOU FIND  
16 ANYTHING THAT NEEDS CORRECTION, YOU NEED TO EXTRACT  
17 IT AND WE'LL CONSIDER IT SEPARATELY. AND HEARING  
18 NONE, I'LL ASK FOR A MOTION TO APPROVE.

19 DR. BLUMENTHAL: MOVE TO APPROVE.

20 DR. STAMOS: SECOND.

21 CHAIRMAN IMBASCIANI: SO WE HAVE A  
22 MOVEMENT TO APPROVE FROM GEORGE, AND MIKE STAMOS HAS  
23 SECONDED. THANK YOU.

24 ANY DISCUSSION? MOTION TO APPROVE AND  
25 SECONDED.

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1 MR. TOCHER: THAT'S RIGHT. IS THERE ANY  
2 PUBLIC COMMENT? I'M GOING TO GUESS NO. THE RECORD  
3 WILL REFLECT THAT LAUREN MILLER-ROGEN HAS JOINED THE  
4 CALL, AND WE WELCOME DAN BERNAL THIS MORNING RIGHT  
5 AFTER I FINISH TAKING ROLL. SO GOOD MORNING TO YOU  
6 BOTH. IT WILL BE A VOICE VOTE FOR THOSE IN THE  
7 ROOM, BUT I'LL HAVE TO POLL THE INDIVIDUAL MEMBERS  
8 WHO ARE JOINING REMOTELY.

9 SO ALL THOSE IN FAVOR SAY AYE. THOSE  
10 OPPOSED. ANY ABSTENTIONS?

11 AND ON THE PHONE. DAN BERNAL.

12 MR. BERNAL: AYE.

13 MR. TOCHER: ANNE-MARIE DULIEGE.

14 DR. DULIEGE: AYE.

15 MR. TOCHER: YSABEL DURON.

16 MS. DURON: YES.

17 MR. TOCHER: RICH LAJARA.

18 MR. LAJARA: YES.

19 MR. TOCHER: PAT LEVITT.

20 DR. LEVITT: YES.

21 MR. TOCHER: SHLOMO MELMED.

22 DR. MELMED: YES.

23 MR. TOCHER: CHRISTINE MIASKOWSKI.

24 DR. MIASKOWSKI: YES.

25 MR. TOCHER: LAUREN MILLER-ROGEN.

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1 MS. MILLER-ROGEN: YES.

2 MR. TOCHER: ADRIANA PADILLA.

3 DR. PADILLA: YES.

4 MR. TOCHER: GREAT. THANK YOU VERY MUCH.

5 DID I MISS ANYONE ON THE PHONE? GREAT.

6 CHAIRMAN IMBASCIANI: THANK YOU, SCOTT.

7 SO WE'RE GOING TO PROCEED NOW TO AGENDA ITEM NO. 11.

8 THIS IS WHERE WE CONSIDER APPLICATIONS THAT WERE

9 SUBMITTED IN RESPONSE TO THE DISCOVERY PROGRAM

10 ANNOUNCEMENT, DISC2. I'M GOING TO INVITE DR. GIL

11 SAMBRANO TO THE PODIUM TO MAKE THE INTRODUCTORY

12 PRESENTATION AND REVIEW THE GRANTS. THANK YOU, GIL.

13 DR. SAMBRANO: OKAY. THANK YOU. GOOD

14 MORNING, EVERYONE. SO TODAY I'M GOING TO PRESENT

15 THE RECOMMENDATIONS OF THE GRANTS WORKING GROUP

16 RELATED TO THE DISC2 OR QUEST PROGRAM.

17 AS ALWAYS, WE START WITH OUR MISSION. AND

18 THIS IS KEY BECAUSE AS WE MOVE FORWARD WITH ALL OF

19 THESE FUNDING OPPORTUNITIES, WE REMAIN FOCUSED ON

20 THIS GOAL OF ACCELERATING WORLD-CLASS SCIENCE TO

21 DELIVER TRANSFORMATIVE REGENERATIVE MEDICINE

22 TREATMENTS IN AN EQUITABLE MANNER TO A DIVERSE

23 CALIFORNIA AND WORLD.

24 SO TO BEGIN, I'M GOING TO GO OVER WHAT THE

25 QUEST2 PROGRAM IS ABOUT. THE OBJECTIVE OF THIS



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1 PROGRAM IS TO PROMOTE THE DISCOVERY OF PROMISING NEW  
2 STEM CELL-BASED AND GENETIC THERAPEUTIC CANDIDATES  
3 THAT CAN BE TRANSLATED FOR CLINICAL USE OR TO  
4 PROMOTE DISCOVERY OF PROMISING NEW BIOMARKER  
5 CANDIDATES THAT CAN BE TRANSLATED FOR CLINICAL USE,  
6 PARTICULARLY FOR DRUG DEVELOPMENT. AND SO THE TYPES  
7 OF PROJECTS THAT WE GET UNDER THIS OPPORTUNITY NEED  
8 TO FIT INTO THAT OVERALL OBJECTIVE.

9 NOW, THERE ARE SOME NEW ELEMENTS INTO THIS  
10 CYCLE OF THE DISC2 PROGRAM. WE INTRODUCE, BASED ON  
11 CONCEPT AMENDMENTS THAT WERE PASSED LAST DECEMBER,  
12 AND THEY INCLUDE AN INCREASE IN THE MAXIMUM DIRECT  
13 PROJECT COSTS FOR A THERAPEUTIC CANDIDATE, WHICH IS  
14 NOW 1.75 MILLION. AND WE HAVE ALSO ADDED A  
15 BIOMARKER CANDIDATE TRACK. SO NOW THERE ARE TWO  
16 TRACKS, A THERAPEUTIC TRACK AND BIOMARKER TRACK.  
17 AND THE BIOMARKER TRACK HAS A MAXIMUM DIRECT PROJECT  
18 COST OF \$1.5 MILLION.

19 THE DISC2 AWARDS NO LONGER SUPPORT  
20 STANDALONE MEDICAL DEVICES, TOOLS, OR PLATFORM  
21 TECHNOLOGIES. THOSE ARE NOW SUPPORTED UNDER THE  
22 DISC-0 PROGRAM.

23 THE REVIEW CRITERIA AND APPLICATION  
24 COMPONENTS, OF COURSE, WERE REVISED IN ORDER TO  
25 ACCOMMODATE THESE CHANGES AS WE MOVE FORWARD WITH

1 THIS CYCLE.

2 SO JUST A LITTLE BIT MORE DETAIL ON THE  
3 TWO TRACKS. FOR THE THERAPEUTIC TRACK, APPLICANTS  
4 ARE ALLOWED TO UNDERGO THESE STUDIES FOR UP TO THREE  
5 YEARS. THE EXPECTED OUTCOMES INCLUDE IDENTIFYING A  
6 SINGLE CANDIDATE THAT IS READY FOR TRANSLATION AND  
7 ESSENTIALLY READY TO QUALIFY FOR OUR TRANSLATION  
8 OPPORTUNITY TO DEVELOP A TARGET PRODUCT PROFILE AND  
9 TO SHOW DEMONSTRABLE DISEASE-MODIFYING ACTIVITY WITH  
10 THEIR THERAPEUTIC CANDIDATE. AND SO THAT IS WHAT WE  
11 HAVE TYPICALLY EXPECTED OF THESE TYPES OF PROJECTS  
12 BEFORE.

13 NOW, IN THE NEW BIOMARKER TRACK, WE HAVE,  
14 AGAIN, UP TO THREE YEARS TO ACCOMPLISH THE TASK.  
15 THE GOALS HERE ARE SELECTING A BIOMARKER CANDIDATE  
16 THAT HAS SPECIFICATION FOR THE CONTEXT OF USE, A  
17 DRAFT BIOMARKER CANDIDATE PROFILE, SELECTION OF AN  
18 ANALYTICAL METHOD FOR BIOMARKER ASSESSMENT WITH  
19 BASIC MEASURES OF PERFORMANCE AND REPRODUCIBILITY,  
20 DEMONSTRATION THAT THE BIOMARKER CAN BE MEASURED AT  
21 BIOLOGICALLY RELEVANT LEVELS, AND INITIAL PROOF OF  
22 CONCEPT STUDIES USING THAT RELEVANT CLINICAL DATA OR  
23 CLINICAL SAMPLES SUPPORTING RELEVANCE OF THE  
24 BIOMARKER. SO THAT IS THE BACKGROUND ON THE PROGRAM  
25 ITSELF.

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1 THE REVIEW OF THE APPLICATIONS THAT CAME  
2 IN GO THROUGH OUR TYPICAL PROCESS WHICH IS DIVIDED  
3 INTO THREE MAIN STAGES. THE FIRST IS BEING  
4 ELIGIBILITY, THE SECOND IS THE MERIT REVIEW, AND THE  
5 FINAL STEP IS THE FUNDING DECISION. FOR  
6 OPPORTUNITIES LIKE DISCOVERY AND ESPECIALLY THE  
7 DISC2 AND DISC-0 OPPORTUNITIES, WE DIVIDE THE MERIT  
8 REVIEW INTO A POSITIVE SELECTION PHASE, WHICH THE  
9 GRANTS WORKING GROUP SELECTS THE MOST PROMISING  
10 APPLICATIONS WHICH THEN ADVANCE TO THE FULL MERIT  
11 REVIEW. AND SO FOR THIS CYCLE WE HAD 125  
12 APPLICATIONS THAT WERE SUBMITTED, 120 THAT WERE  
13 ELIGIBLE AND 43 THAT ADVANCED FOLLOWING THE POSITIVE  
14 SELECTION PROCESS TO THE FULL MERIT REVIEW BY THE  
15 GRANTS WORKING GROUP.

16 THE COMPOSITION OF THE WORKING GROUP  
17 ITSELF THAT REVIEWS THESE APPLICATIONS INCLUDE THE  
18 SCIENTIFIC MEMBERS WHO PROVIDE A DIVERSITY OF  
19 EXPERTISE TO MAKE SURE THAT WE HAVE AND COVER ALL  
20 THE KNOWLEDGE THAT IS REQUIRED FOR REVIEW. FROM A  
21 SCIENTIFIC PERSPECTIVE, THEY ENTER SCORES FOR EVERY  
22 APPLICATION. AND SO THOSE ARE THE SCORES YOU SEE  
23 ARE COMING FROM THOSE MEMBERS.

24 WE ALSO HAVE GRANTS WORKING GROUP BOARD  
25 MEMBERS WHO ARE THE PATIENT ADVOCATE AND NURSE

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1 MEMBERS OF THE BOARD WHO PROVIDE THE PATIENT  
2 PERSPECTIVE ON SIGNIFICANCE AND POTENTIAL IMPACT OF  
3 THESE PROPOSALS AND ALSO OVERSIGHT ON THE PROCESS  
4 ITSELF. THEY DON'T ENTER FINAL SCORES, BUT MAY  
5 RECOMMEND SCORES.

6 AND THEN WE HAVE SCIENTIFIC SPECIALISTS  
7 WHO WE INCLUDE ON AD HOC APPLICATION REVIEWS TO MAKE  
8 SURE THAT WE HAVE ALL THE KNOWLEDGE THAT IS  
9 NECESSARY FOR EACH OF THE APPLICATIONS AS WE MOVE  
10 FORWARD THROUGH THAT REVIEW PROCESS.

11 THE SCORING FOR THESE APPLICATIONS IS  
12 BASED ON A MECHANISM OF ONE TO A HUNDRED WITH 85 TO  
13 A HUNDRED REPRESENTING EXCEPTIONAL MERIT AND  
14 WARRANTING FUNDING. SCORES BELOW THAT FROM 1 TO 84  
15 ARE NOT RECOMMENDED FOR FUNDING BY THE GRANTS  
16 WORKING GROUP. WE DO HAVE A RANGE BETWEEN 80 AND 84  
17 WHERE THE APPLICATION IS DEEMED TO HAVE EXCEPTIONAL  
18 MERIT AND REQUIRES PERHAPS ONLY MINOR REVISIONS.  
19 AND THOSE ARE ALLOWED TO RESUBMIT IN FUTURE ROUNDS  
20 OF THE COMPETITION, OF THE DISC2 COMPETITION, AND  
21 THEY CAN BYPASS THE POSITIVE SELECTION PROCESS AND  
22 AUTOMATICALLY GO TO THE FULL SCIENTIFIC REVIEW.

23 FOR THE CRITERIA THAT ARE USED BY THE  
24 GRANTS WORKING GROUP TO ASSIGN THESE SCORES, THEY  
25 USE THESE FIVE BASIC QUESTIONS TO GUIDE THEIR

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1 SCORING. DOES THE PROJECT HOLD THE NECESSARY  
2 SIGNIFICANCE AND POTENTIAL FOR IMPACT? DOES IT HAVE  
3 A GOOD RATIONALE? IS IT WELL PLANNED AND DESIGNED?  
4 IS IT FEASIBLE, INCLUDING HAVING ALL THE APPROPRIATE  
5 RESOURCES TO CARRY IT OUT? AND DOES IT UPHOLD THE  
6 PRINCIPLES OF DIVERSITY, EQUITY, AND INCLUSION?

7 ALL RIGHT. SO THIS IS THE SUMMARY TABLE  
8 FOR THIS CYCLE AND THE RECOMMENDATIONS OF THE GRANTS  
9 WORKING GROUP. OUT OF THE 43 APPLICATIONS, THERE  
10 WERE NINE THAT RECEIVED A SCORE OF 85 OR ABOVE AND  
11 DEEMED THEM RECOMMENDED FOR FUNDING. THE TOTAL  
12 APPLICANT REQUEST IS 22.45 MILLION. WE HAVE 28  
13 MILLION AVAILABLE FOR THE CYCLE. AND IN ADDITION,  
14 WE HAVE ONE THAT QUALIFIED FOR A MINORITY REPORT.

15 AND JUST TO REMIND YOU WHAT A MINORITY  
16 REPORT IS, THIS IS WHERE UNDER PROP 14 ANY  
17 APPLICATION THAT IS NOT RECOMMENDED FOR FUNDING, BUT  
18 WHICH HAD 35 PERCENT OR MORE OF THE MEMBERS SCORE TO  
19 FUND THE APPLICATION MUST INCLUDE A MINORITY REPORT.

20 AND SO WHAT THIS ESSENTIALLY IS IS A FEW  
21 PARAGRAPHS WITHIN THE REVIEW SUMMARY THAT HIGHLIGHT  
22 THE PERSPECTIVE FROM REVIEWERS WHO SCORED TO FUND  
23 IT. AND SO YOU CAN SEE THAT IN THE REVIEW SUMMARY  
24 FOR THIS ONE APPLICATION. AND SO THAT APPLICATION  
25 IS THE DISC2-16686 TITLED "DEVELOPMENT OF

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1 IPSC-DERIVED NEURAL PROGENITORS SECRETING GDNF FOR  
2 THE TREATMENT OF ALS." THE FUNDS REQUESTED FOR THAT  
3 ARE 2.7 MILLION, AND IT RECEIVED A SCORE OF 81. SO  
4 IT WAS BELOW THE FUNDABLE RANGE, BUT IT WAS WITHIN  
5 THE RESUBMISSION AND BYPASSING POSITIVE SELECTION  
6 PHASE.

7 SO FOR ANY APPLICATION THAT QUALIFIES FOR  
8 A MINORITY REPORT, THE INTERNAL SCIENTIFIC TEAM  
9 LOOKS AT THE COMMENTS FROM THE GRANTS WORKING GROUP  
10 AND ASSESSES WHETHER WE WANT TO MAKE A  
11 RECOMMENDATION ONE WAY OR THE OTHER ON THESE  
12 APPLICATIONS. AND FOR THIS ONE, THE CIRM TEAM  
13 SUPPORTS THE MAJORITY POSITION OF NOT FUNDING THE  
14 APPLICATION. AND FOR THE OVERALL RECOMMENDATION FOR  
15 THE WHOLE COHORT OF APPLICATIONS, THE CIRM TEAM  
16 RECOMMENDATION IS TO FUND THE NINE THAT RECEIVED A  
17 SCORE OF 85 OR ABOVE AND NOT FUND THE REMAINDER.

18 OKAY. SO THE LAST SLIDE IS JUST THE  
19 MEMBERS THAT HAVE A POSSIBLE CONFLICT OF INTEREST ON  
20 THIS SLIDE. SO PLEASE MAKE A NOTE OF THAT.

21 AND THEN WE'RE GOING TO PUT UP THE EXCEL  
22 SPREADSHEET IN ORDER TO SEE THE LISTING OF THE  
23 APPLICATIONS. AND YOU HAVE THAT BEFORE YOU. IT  
24 LOOKS LIKE THIS. THE TOP NINE ARE IN GREEN SO YOU  
25 CAN REFERENCE THAT IN YOUR MATERIALS OR ON THE

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1 SCREEN. AND WITH THAT, I WILL TURN IT BACK TO DR.  
2 IMBASCIANI.

3 CHAIRMAN IMBASCIANI: THANK YOU, GIL, FOR  
4 YOUR PRESENTATION. THE --

5 MR. TOCHER: MR. CHAIR.

6 CHAIRMAN IMBASCIANI: YES.

7 MR. TOCHER: JUST AS A POINT OF ORDER.  
8 FOR THE NEWER MEMBERS, OUR VETERANS WILL RECALL THIS  
9 PART OF THE CONFLICTS CONTROL PROCESS BECAUSE THIS  
10 PROGRAM IS OVERSUBSCRIBED IN TERMS OF THE OVERALL  
11 NUMBER OF POTENTIAL APPLICATIONS. THOSE MEMBERS WHO  
12 ARE IDENTIFIED ON THE PREVIOUS SLIDE AS HAVING A  
13 CONFLICT WITH AT LEAST ONE APPLICATION MUST NOT  
14 PARTICIPATE EITHER IN THE MAKING OR SECONDING OF A  
15 MOTION OR THE DISCUSSION OF THE MOTION UNTIL THE  
16 APPLICATION WITH WHICH THEY HAVE A CONFLICT IS  
17 OTHERWISE DISPOSED OF FROM A PRIOR MOTION.

18 SO WE'LL BE MONITORING THE CONVERSATION  
19 CAREFULLY, BUT PLEASE CHECK YOUR NOTES CAREFULLY TO  
20 MAKE SURE THAT YOU DON'T INADVERTENTLY TRY TO  
21 PARTICIPATE. I'LL HAVE AN INSTRUCTION LATER FOR THE  
22 MOTIONS ON HOW YOU SHOULD RECORD YOUR VOTE, BUT AT  
23 LEAST FOR THE DISCUSSION AND MOTION PURPOSES, THAT  
24 CAN ONLY COME FROM MEMBERS WHO DO NOT HAVE A  
25 CONFLICT WITH ANY APPLICATION IN THIS PROGRAM.

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1       THANK YOU, MR. CHAIR.

2                   CHAIRMAN IMBASCIANI:  THANK YOU FOR THE  
3       CLARIFICATION, SCOTT.  SO DR. SAMBRANO HAS MADE A  
4       PRESENTATION AND A RECOMMENDATION.  I WOULD LIKE TO  
5       ASK THE BOARD FOR -- A MEMBER OF THE BOARD FOR A  
6       MOTION IN RESPONSE TO THAT.

7                   VICE CHAIR BONNEVILLE:  I MOVE TO ACCEPT  
8       THE TEAM'S RECOMMENDATION TO FUND THE NINE  
9       IDENTIFIED.

10                  CHAIRPERSON IMBASCIANI:  THANK YOU.

11                  DR. SOUTHARD:  MARV SOUTHARD SECONDS.

12                  CHAIRMAN IMBASCIANI:  OKAY.  WE HAVE A  
13       MOTION AND A SECOND TO ACCEPT THE RECOMMENDATION OF  
14       THE REVIEW TEAM.  THE DISCUSSION IS NOW OPEN TO  
15       MEMBERS OF THE BOARD.  I WILL START WITH JOE  
16       PANETTA.  THANK YOU, JOE.

17                  MR. PANETTA:  THANK YOU, MR. CHAIRMAN.  
18       GIL, GOT A QUESTION FOR YOU.  THE APPLICATION THAT  
19       SCORED 81 GOT A MINORITY REPORT.  IT LOOKS LIKE THE  
20       VOTE WAS PRETTY EVEN, SIX TO EIGHT, YES/NO, AND HAD  
21       A HIGH SCORE OF 90.  IT'S A PRETTY IMPORTANT  
22       INDICATION.  SO CAN YOU JUST KIND OF GIVE US SOME  
23       COLOR ON THAT?

24                  DR. SAMBRANO:  YEAH.  ABSOLUTELY.  SO THIS  
25       APPLICATION, AS YOU NOTED, IS FOR AN IMPORTANT UNMET



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1 NEED FOR ALS. THEIR GOAL IS TO DEVELOP AN  
2 IPSC-BASED NEUROPROGENITOR CELL THERAPY THAT  
3 SECRETES GDNF. THIS IS SOMETHING THAT THE  
4 APPLICANTS HAVE DEVELOPED PREVIOUSLY, BUT NOT FROM  
5 IPSC. SO FROM A DIFFERENT SOURCE.

6 THE GOAL HERE IS TO CREATE A MORE  
7 RENEWABLE SOURCE OF THESE CELLS THAT THEY CAN MOVE  
8 FORWARD WITH. SO THE PROJECT WAS DEEMED TO BE  
9 FEASIBLE AND APPROPRIATE FOR THE GOALS STATED IN THE  
10 APPLICATION, BUT REVIEWERS WHO DID NOT SCORE IT IN  
11 THE FUNDING RANGE FELT THAT THIS WAS NOT  
12 PARTICULARLY INNOVATIVE. THIS IS SOMETHING THAT HAS  
13 ALREADY BEEN CREATED BY THE APPLICANTS. IT'S BEING  
14 TESTED IN SOME CLINICAL TRIALS, IN FACT. THEY  
15 THOUGHT IT WOULD BE MORE APPROPRIATE TO WAIT TO SEE  
16 FOR THE OUTCOMES OF SOME OF THOSE TRIALS AND STUDIES  
17 THAT ARE ONGOING TO DETERMINE IF IT MAKES SENSE TO  
18 ACTUALLY HAVE A RENEWABLE SOURCE IF ONE SHOULD  
19 INVEST IN THIS.

20 AND SO THEY FELT IT WAS A BIT EARLY, BUT  
21 OTHERWISE THE PROJECT WAS FEASIBLE AND WELL PLANNED  
22 AND SO FORTH.

23 CHAIRMAN IMBASCIANI: JOE, DO YOU WANT TO  
24 FOLLOW UP ON THAT?

25 MR. PANETTA: NO. THANK YOU.

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1 CHAIRMAN IMBASCIANI: ANYONE IN THE ROOM.  
2 LET'S SEE WHAT'S ON THE SCREEN.

3 MR. TOCHER: MARIA AND I ARE IN A  
4 STARE-DOWN AT THE MOMENT. I THINK MARIA WOULD LIKE  
5 TO JUST CLARIFY THE SCOPE OF HER MOTION FOR THE ROOM  
6 AND IF ANYONE HAS AN OBJECTION TO THE CLARIFICATION.

7 VICE CHAIR BONNEVILLE: IT WAS FOR THE  
8 FULL TEAM RECOMMENDATION. SO IT WAS TO FUND THE  
9 NINE AND NOT FUND THE REMAINDER. SORRY.

10 MR. TOCHER: I BELIEVE THE SECOND WAS MARV  
11 SOUTHARD.

12 DR. SOUTHARD: I ALSO AGREE WITH THAT.

13 CHAIRMAN IMBASCIANI: I THINK THAT MANY  
14 PROBABLY UNDERSTOOD THAT. THANK YOU FOR THE  
15 CLARIFICATION. SO WE HAVE -- I DON'T SEE ANY OTHER  
16 HANDS FROM BOARD MEMBERS. I'M GOING TO OPEN THE  
17 CONVERSATION TO THE PUBLIC AT THIS POINT.  
18 CLAUDETTE, CAN I ASK YOU TO MANAGE THIS?

19 MS. MANDAC: WE HAVE THREE MEMBERS IN THE  
20 ROOM.

21 CHAIRMAN IMBASCIANI: WE HAVE THREE  
22 MEMBERS IN THE ROOM. WE'D LIKE TO INVITE YOU TO  
23 COME UP IN NO PARTICULAR ORDER. WE WELCOME YOUR  
24 PRESENCE HERE TODAY, AND WE'LL BE HAPPY TO LISTEN TO  
25 YOUR COMMENTS. BECAUSE PUBLIC COMMENT CAN GO ON, WE

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1 DON'T KNOW HOW MANY OTHER PEOPLE MIGHT BE THE LINE,  
2 WE LIMIT EVERYONE TO THREE MINUTES. PRETTY  
3 STANDARD. THANK YOU SO MUCH. START BY IDENTIFYING  
4 YOURSELF.

5 DR. BOGOMOLOVAS: THANK YOU VERY MUCH FOR  
6 GIVING OPPORTUNITY TO TALK IN THIS COMMITTEE. MY  
7 NAME IS JULIUS BOGOMOLOVAS, AND I AM A PRINCIPAL  
8 INVESTIGATOR FOR GRANT PROPOSAL DISC2-16538 TITLED  
9 "A GENE THERAPY APPROACH TO CARDIAC TROPONIN I  
10 CARDIOMYOPATHY." AND I'M HERE TO APPEAL THE  
11 DECISION NOT TO FUND THIS CRUCIAL PROPOSAL.

12 MY COLLEAGUE FROM LEXEO THERAPEUTICS WILL  
13 ADDRESS THE SIGNIFICANT UNMET CLINICAL NEED FOR NEW  
14 THERAPIES FOR THE LARGE GROUP OF PATIENTS SUFFERING  
15 FROM HYPERTROPHIC CARDIOMYOPATHY. IN MY TALK I  
16 WOULD LIKE TO PINPOINT HOW TWO SMALL CONCERNS RAISED  
17 BY THE REVIEWERS ARE NOT CRITICAL TO THE OVERALL  
18 SUCCESS OF OUR PROJECT.

19 WE APPRECIATE THE REVIEWERS RECOGNIZED OUR  
20 SMALL AND LARGE ANIMAL MODEL-BASED APPROACH AND OUR  
21 STRONG PRELIMINARY DATA IN DEVELOPING A GENE THERAPY  
22 TO TREAT TROPONIN I CARDIOMYOPATHY. ALONG WITH  
23 MAJORITY OF REVIEWERS, WE BELIEVE THAT THE PROJECT  
24 IS FEASIBLE AND CAPABLE OF ADVANCING OUR THERAPEUTIC  
25 AGENT TO THE STAGE OF IND-ENABLING STUDIES. WE

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1 STRONGLY BELIEVE THAT CONCERNS RAISED DO NOT  
2 JEOPARDIZE THE SUCCESSFUL IMPLEMENTATION OF THIS  
3 PROJECT.

4 REVIEWERS POINTED OUT THAT THE PART OF OUR  
5 PROJECT INVOLVES HUMAN INDUCED PLURIPOTENT STEM  
6 CELLS IS SMALL IN SCOPE. WE AGREE WITH THIS  
7 COMMENT. THE PRIMARY PURPOSE OF USING IPSC'S IN  
8 THIS PROPOSAL IS TO VALIDATE PROMOTER AND TRANSGENE  
9 IN CONTEXT OF HUMAN CELLS. THEREFORE, WE BELIEVE  
10 THAT PROPOSED IPSC WORK IS SUFFICIENT TO SHOW  
11 EXPRESSION OF OUR THERAPEUTIC CANDIDATE IN CELLS.

12 WHILE THE MORE EXTENSIVE USE OF IPSC'S IN  
13 PRECLINICAL STUDIES CAN BE BENEFICIAL, THE  
14 FUNCTIONAL EFFICACY STUDIES ARE GENERALLY CARRIED  
15 OUT IN ANIMAL MODELS AS IN OUR CASE. AS EXAMPLE I  
16 WOULD LIKE TO BRING TO YOUR ATTENTION THE  
17 DEVELOPMENT PIPELINES FOR DANON DISEASE AND PKP2  
18 CARDIOMYOPATHY. IN THESE CASES, ALTHOUGH HUMAN  
19 IPSC'S WERE PART OF THE PRECLINICAL RESEARCH, THE  
20 EMPHASIS FOR GRANTING IND APPROVAL WAS PLACED ON  
21 RESULTS FROM ANIMAL STUDIES.

22 THE REVIEWERS RAISED CONCERN THAT IN OUR  
23 RESEARCH AS WELL WE ARE USING ANIMALS THAT HAVE TWO  
24 DEFECTIVE COPIES OF THE GENE; WHEREAS, HCM PATIENTS  
25 MOSTLY HAVE ONE. WE WOULD LIKE TO STATE THAT THE

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1 USE OF HOMOZYGOUS ANIMALS IN PRECLINICAL RESEARCH IS  
2 A VALID AND JUSTIFIED APPROACH THAT LEADS TO  
3 SUCCESSFUL DEVELOPMENT OF GENE THERAPIES OF HUMAN  
4 CARDIOMYOPATHIES. IN FACT, THERE ARE THREE ONGOING  
5 CARDIOMYOPATHY GENE THERAPY CLINICAL TRIALS THAT ALL  
6 USE HOMOZYGOUS ANIMALS IN THEIR IND-ENABLING  
7 STUDIES.

8 THUS, OUR APPROACH TO USE HOMOZYGOUS  
9 ANIMALS ALIGNS PERFECTLY WITH SUCCESSFUL PIPELINES  
10 IN HUMAN GENETIC CARDIOMYOPATHY GENE THERAPY THAT  
11 HAVE LED TO THE PROMISING CLINICAL TRIALS.  
12 THEREFORE, I RESPECTFULLY REQUEST THAT YOU  
13 RECONSIDER THE FUNDING DECISION, ALLOWING US TO  
14 BRING THIS POTENTIAL LIFESAVING THERAPY CLOSER TO  
15 PATIENTS WITH HCM. SO THANK YOU FOR YOUR TIME AND  
16 CONSIDERATION.

17 CHAIRMAN IMBASCIANI: THANK YOU VERY MUCH  
18 FOR YOUR COMMENT.

19 DR. BATRA. GOOD MORNING, DISTINGUISHED  
20 MEMBERS OF THE BOARD. I'M RAN BATRA. I AM THE VP  
21 OF DISCOVERY AND TRANSLATION AT LEXEO THERAPEUTICS.  
22 BEFORE THIS I WAS THE CO-FOUNDER OF LUCANA BIO, AND  
23 THAT LED TO \$160 MILLION OF FUNDING COMING TO THE  
24 STATE OF CALIFORNIA. I'M ALSO A MEMBER OF BIOCOM  
25 AND A PREVIOUS CATALYST AWARD WINNER AT BIOCOM.

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1 I JOINED LEXEO IN JANUARY, AND I WAS  
2 REALLY IMPRESSED BY LEXEO'S BACKGROUND. IT'S A  
3 CARDIOVASCULAR THERAPEUTICS COMPANY AND REALLY  
4 DEDICATED TO BRINGING TREATMENT FOR CARDIOMYOPATHIES  
5 INTO CLINIC.

6 AND WE HAVE A TRACK RECORD FOR THIS.  
7 YOU'VE ACTUALLY TAKEN A PROGRAM FROM UCSD PKP2 AND  
8 BROUGHT IT TO THE CLINIC. PATIENTS ARE NOW BEING  
9 DOSED FOR ARRHYTHMOGENIC RIGHT VENTRICULAR  
10 CARDIOMYOPATHY. AND I'M HERE TO APPEAL FOR THE  
11 DISC2 GRANT THAT JULIUS JUST APPEALED FOR, 16538,  
12 BECAUSE I THINK THAT WE'RE A DISC2 GRANT AWAY FROM  
13 TAKING THIS INTO MANUFACTURING AND DEVELOPMENT.

14 THE REASON I SAY THIS IS IT'S NOT A MATTER  
15 OF IF. IT'S A MATTER OF WHAT, WHICH MEANS THAT WE  
16 ALREADY HAVE A LEAD. THIS A GRANT FOR LEAD  
17 OPTIMIZATION. AND THIS THERAPEUTIC OPTION IS  
18 ALREADY REPRESENTED ON OUR WEBSITE AS A PUBLIC  
19 COMPANY. SO WE'RE DEDICATED TO TAKING THIS FORWARD,  
20 BUT WE DON'T HAVE AS A COMPANY THE MEANS TO DO THIS  
21 EARLY RESEARCH. AND WE RELY ON OUR ACADEMIC  
22 PARTNERS LIKE JULIUS TO USE THE THERAPEUTIC MODELS  
23 AND EARLY RESEARCH TO BRING THIS TO A STAGE WHICH IS  
24 READY AS THE DEVELOPMENT CANDIDATE THAT WE TAKE INTO  
25 MANUFACTURING AND DEVELOPMENT.

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1                   SECONDLY, LEXEO THERAPEUTICS, WHICH IS  
2 HEADQUARTERED IN NEW YORK, WE JUST RECENTLY SET UP A  
3 CALIFORNIA CENTER WHICH IS CALLED LEXEO-S. WE'RE IN  
4 BIO LABS IN CALIFORNIA. AND THE MISSION OF THIS  
5 RESEARCH CENTER IS TO WORK WITH OUR ACADEMIC  
6 PARTNERS THROUGHOUT CALIFORNIA TO BRING THESE  
7 THERAPIES FROM UCSD AND UCLA AND UC DAVIS INTO  
8 CLINIC.

9                   SO I IMAGINE IN THREE YEARS, NOT ONLY THAT  
10 THIS THERAPY WOULD BE IN THE CLINIC, BUT I ALSO  
11 IMAGINE THAT IN THE NEXT COUPLE OF YEARS WE CAN  
12 BRING IN TENS OF MILLIONS OF DOLLARS IN FUNDING  
13 TAKING THIS LEAD INTO THE CLINIC THAT'S GOING TO  
14 STIMULATE ECONOMIC GROWTH AND JOBS HERE IN  
15 CALIFORNIA. I'M REALLY DEDICATED TO THIS MISSION  
16 AND BRINGING THIS GROUNDBREAKING THERAPY INTO  
17 PATIENTS THAT CAN TRANSFORM PATIENT LIVES. THEIR  
18 QUALITY OF LIFE IS POOR WITH THIS DIAGNOSIS. THERE  
19 IS IMMENSE ECONOMIC COST FOR TREATING HYPERTROPHIC  
20 CARDIOMYOPATHIES. PATIENTS ARE SUFFERING. THEIR  
21 FAMILY IS SUFFERING. AND WE CAN ACTUALLY -- WE HAVE  
22 AN OPPORTUNITY TO A MAKE A DIFFERENCE IN THIS.

23                   SO I REALLY APPEAL TO YOU TO FUND JULIUS'  
24 GRANT SO WE CAN TAKE THIS TO A STAGE THAT IT'S READY  
25 FOR PRIME TIME, READY FOR DEVELOPMENT. THANK YOU

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1 VERY MUCH FOR YOUR ATTENTION.

2 CHAIRMAN IMBASCIANI: THANK YOU. GO RIGHT  
3 AHEAD.

4 DR. AVALOS: GOOD MORNING, DISTINGUISHED  
5 MEMBERS OF THE BOARD. THANK YOU FOR THE OPPORTUNITY  
6 TO SPEAK. I AM PABLO AVALOS FROM CEDARS-SINAI. I'M  
7 SPEAKING ON BEHALF OF THE DISC1-6686, THE ONE WITH A  
8 MINORITY REPORT, TO DEVELOP IPSC-DERIVED  
9 NEUROPROGENITOR CELLS SECRETING GDNF FOR ALS.

10 I THINK IT'S CLEAR THAT WE'VE SHOWN A  
11 TRACK RECORD OF BEING ABLE TO TRANSLATE THESE  
12 PRODUCTS INTO THE CLINIC. WE UNDERSTAND THAT IT'S  
13 NOT AN EXTREMELY DIFFERENT PRODUCT THAN WHAT WE'VE  
14 DEVELOPED IN THE PAST, BUT WE NEED TO THINK ABOUT  
15 THE PATIENTS. ALS IS A DEVASTATING DISEASE, AND WE  
16 UNDERSTAND THAT THE FETAL PRODUCT THAT WE HAVE IS  
17 GOING TO HAVE A LIMIT TO THE AMOUNT OF ALS AND  
18 PATIENTS THAT WE WILL BE ABLE TO TREAT.

19 WE HAVE PROMISING RESULTS FROM OUR  
20 CLINICAL TRIALS THUS FAR. WE SHOW LONG-TERM  
21 SURVIVAL OF THE CELLS. WE SHOW A TREND IN A  
22 POSITIVE EFFECT IN THE TREATMENT LEG IN THAT TRIAL.  
23 AND IF WE WAIT TO DEVELOP THIS PRODUCT ONCE WE'VE  
24 SHOWN ALL OF THE CLINICAL TRIALS, WE MAY NOT BE ABLE  
25 TO TREAT ALL THE PATIENTS THAT WE NEED TO. WE NEED



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1 TO BE ABLE TO DEVELOP THE PRODUCTS AHEAD OF TIME AND  
2 BE READY FOR THE PATIENTS WHEN THEY NEED IT. AND I  
3 THINK THE TIME FOR THIS IS NOW. THANK YOU FOR YOUR  
4 CONSIDERATION.

5 CHAIRMAN IMBASCIANI: I'LL ASK YOU IF  
6 THERE'S ANYONE ON THE PHONE.

7 MS. MANDAC: THERE ARE NO HANDS RAISED.

8 CHAIRMAN IMBASCIANI: OKAY. SO THANK YOU  
9 FOR PUBLIC COMMENT. I'LL ASK THE BOARD ONCE AGAIN  
10 IF THEY HAVE ANY FOLLOW-ON COMMENTS ON THE MOTION,  
11 WHICH IS TO ACCEPT THE RECOMMENDATION OF THE REVIEW  
12 TEAM. SEEING NONE, I THINK, SCOTT, WE'RE PREPARED  
13 TO VOTE.

14 MR. TOCHER: ALL RIGHT. FOR MEMBERS OF  
15 THE ARS WHO HAVE A CONFLICT, THESE ARE MEMBERS  
16 BERNAL, DURON, FLOWERS, AND MIASKOWSKI, PLEASE  
17 INDICATE YOUR VOTE AND THEN STATE EXCEPT AS TO THOSE  
18 APPLICATIONS WITH WHICH I HAVE A CONFLICT OR WORDS  
19 TO THAT EFFECT.

20 DAN BERNAL.

21 MR. BERNAL: YES, EXCEPT FOR THOSE WITH  
22 WHICH I HAVE A CONFLICT.

23 MR. TOCHER: MARIA BONNEVILLE.

24 VICE CHAIR BONNEVILLE: YES.

25 MR. TOCHER: JUDY CHOU.

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DR. CHOU: YES.

MR. TOCHER: LEONDRA CLARK-HARVEY.

DR. CLARK-HARVEY: YES.

MR. TOCHER: ANNE-MARIE DULIEGE.

DR. DULIEGE: YES.

MR. TOCHER: YSABEL DURON.

MS. DURON: YES, EXCEPT FOR THOSE WITH WHICH I HAVE A CONFLICT.

MR. TOCHER: ELENA FLOWERS.

DR. FLOWERS: YES, EXCEPT FOR THOSE WITH WHICH I HAVE A CONFLICT.

MR. TOCHER: MARK FISCHER-COLBRIE.

MR. FISCHER-COLBRIE: YES.

MR. TOCHER: DAVID HIGGINS.

DR. HIGGINS: YES.

MR. TOCHER: VITO IMBASCIANI.

CHAIRMAN IMBASCIANI: YES.

MR. TOCHER: RICH LAJARA.

MR. LAJARA: YES.

MR. TOCHER: CHRIS MIASKOWSKI.

DR. MIASKOWSKI: YES, EXCEPT FOR THOSE WITH WHICH I HAVE A CONFLICT.

MR. TOCHER: LAUREN MILLER-ROGEN.

MS. MILLER-ROGEN: YES.

MR. TOCHER: ADRIANA PADILLA.

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1 DR. PADILLA: YES.

2 MR. TOCHER: JOE PANETTA.

3 MR. PANETTA: YES.

4 MR. TOCHER: MARV SOUTHARD.

5 DR. SOUTHARD: YES.

6 MR. TOCHER: KAROL WATSON AND KEVIN XU.

7 GREAT. THANKS VERY MUCH. THE MOTION CARRIES.

8 CHAIRMAN IMBASCIANI: THANK YOU, SCOTT.

9 THANK YOU, BOARD MEMBERS. I'M GOING TO PROCEED  
10 BOARD MEMBER NO. 2. I WANT TO INVITE DR. HAYLEY LAM  
11 UP TO THE PODIUM TO BEGIN THE DISCUSSION,  
12 PRESENTATION ON ITEM NO. 10 OF THE AGENDA. THIS IS  
13 THE APPLICATION, SINGULAR, SUBMITTED IN RESPONSE TO  
14 THE CLINICAL TRIAL STAGE CLIN1 PROGRAM.

15 DR. LAM: GOOD MORNING TO THE BOARD. I'M  
16 HERE TO PRESENT THE APPLICATION, AS DR. IMBASCIANI  
17 POINTED OUT, UNDER CONSIDERATION TODAY FOR THE CLIN1  
18 PROGRAM.

19 AS ALWAYS, WE BEGIN WITH OUR MISSION,  
20 ACCELERATING WORLD-CLASS SCIENCE TO DELIVER  
21 TRANSFORMATIVE REGENERATIVE MEDICINE TREATMENTS IN  
22 AN EQUITABLE MANNER TO A DIVERSE CALIFORNIA AND  
23 WORLD.

24 THE CLINICAL PROGRAM BOOKENDS THE PROGRAM  
25 THAT YOU JUST DISCUSSED WITH THE DISCOVERY IN OUR

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1 TRANSLATIONAL PIPELINE AND FUNDS PROJECTS THAT  
2 ENABLE IND FILING, CLINICAL TRIALS THEMSELVES,  
3 EXECUTION OF THOSE, AND BLA READINESS WITH OUR  
4 CLIN1, CLIN2, AND CLIN4 PROGRAMS.

5 THE BOARD HAS ALLOCATED 145 AND A HALF  
6 MILLION TO THIS PROGRAM FOR THE CURRENT HALF OF THE  
7 FISCAL YEAR. THE BOARD HAS APPROVED THUS FAR EIGHT  
8 MILLION IN FUNDING. AND FOR CONSIDERATION TODAY IS  
9 ONE APPLICATION FOR SIX MILLION OR JUST UNDER SIX  
10 MILLION.

11 THE SCORING SYSTEM FOR THE CLINICAL  
12 PROGRAM IS A 1, 2, AND 3. A 1 IS A RECOMMENDATION  
13 FOR FUNDING. A 2 IS A DO NOT FUND AT THIS TIME, BUT  
14 INVITES THE APPLICANT TO RESUBMIT ON A SHORT-TERM  
15 BASIS. AND A SCORE OF 3 IS A DO NOT RECOMMEND AT  
16 THIS TIME, AND THE APPLICANT CANNOT RESUBMIT THE  
17 SAME PROJECT FOR AT LEAST SIX MONTHS.

18 AND THE WAY THAT THE SCIENTIFIC SCORING IS  
19 DETERMINED IS WITH THE SCIENTIFIC REVIEW CRITERIA.  
20 AND THESE ARE ACTUALLY THE SAME CRITERIA THAT DR.  
21 SAMBRANO JUST DISCUSSED FOR THE DISCOVERY PROGRAM,  
22 BUT APPLIED TO A LATER STAGE. SO DOES THE PROJECT  
23 HAVE VALUE? IS THE RATIONALE SOUND? DOES THE DATA  
24 SUPPORT MOVING THE PROJECT FORWARD? IS THE PROJECT  
25 FOR WHICH THE APPLICANT IS SEEKING CIRM FUNDING WELL

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1 PLANNED AND DESIGNED? IS THE PROJECT FEASIBLE?  
2 DOES THE TEAM HAVE THE PEOPLE AND THE INFRASTRUCTURE  
3 IN PLACE TO EXECUTE WHAT'S PROPOSED? AND DOES THE  
4 APPLICANT UPHOLD PRINCIPLES OF DIVERSITY, EQUITY,  
5 AND INCLUSION? SO DOES IT INCLUDE AND CONSIDER A  
6 PATIENT DIVERSITY WITHIN THE PLAN?

7 IN ADDITION TO THE SCIENTIFIC SCORE, THE  
8 CLINICAL PROGRAM IS ALSO SCORED SEPARATELY BY THE  
9 GRANTS WORKING GROUP BOARD MEMBERS WITH A DIVERSITY,  
10 EQUITY, AND INCLUSION SCORE. THE SCALE FOR THIS IS  
11 DIFFERENT. IT'S A SCALE OF ZERO TO TEN WITH TEN  
12 BEING AN OUTSTANDING RESPONSE. AND THE CRITERIA  
13 USED HERE ARE UNDER THE COMMITMENT TO THE DEI BY THE  
14 APPLICANT TEAM, THE PROJECT PLANS THAT THEY PROPOSE  
15 TO EXECUTE DURING THE AWARD, IF AWARDED, AND THE  
16 CULTURAL SENSITIVITY ACTIVITIES AND TRAINING.

17 THE PANEL CONSISTS OF THREE DIFFERENT  
18 TYPES OF MEMBERS. THE SCIENTIFIC GRANTS WORKING  
19 GROUP THAT SCORE A SCIENTIFIC SCORE FOR ALL  
20 APPLICATIONS, THE GRANTS WORKING GROUP BOARD MEMBERS  
21 WHO PROVIDE THE DEI SCORE FOR ALL APPLICATIONS AND  
22 ARE WELCOME TO PROVIDE SCIENTIFIC SUGGESTED SCORES,  
23 AND, FINALLY, OUR AD HOC SPECIALIST REVIEWERS  
24 PROVIDE SCIENTIFIC EVALUATION FOR THOSE APPLICATIONS  
25 FOR WHICH WE DON'T HAVE EXPERTISE ON OUR STANDING

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1 PANEL .

2 BEFORE I BEGIN DISCUSSION ON A SPECIFIC  
3 APPLICATION FOR TODAY, I JUST WANT TO POINT OUT THE  
4 TWO MEMBERS OF THE BOARD WITH CONFLICTS OF INTEREST,  
5 DRS. LEVITT AND MELTZER. SO IF YOU COULD REFRAIN  
6 FROM DISCUSSION ON THE FOLLOWING APPLICATION, IT  
7 WILL BE MUCH APPRECIATED.

8 SO THE APPLICATION FOR DISCUSSION TODAY IS  
9 CLIN1-14789. THIS IS A SECRETOME PRODUCT, WHICH IS  
10 ESSENTIALLY SECRETED FACTORS THAT COME FROM  
11 POLARIZED RETINAL PIGMENT EPITHELIAL CELLS WHICH ARE  
12 SUPPORT CELLS OF THE EYE. AS YOU CAN IMAGINE, THIS  
13 PROJECT IS AIMED AT GEOGRAPHIC ATROPHY, WHICH I'LL  
14 DISCUSS A LITTLE BIT MORE DETAIL SHORTLY, BUT IS A  
15 DISEASE OF THE EYE. AND THE GOAL OF THIS PARTICULAR  
16 PROJECT IS TO FILE AN IND BY THE END OF THE AWARD.  
17 AND FOR THAT, THE APPLICANT IS SEEKING JUST UNDER  
18 SIX MILLION IN FUNDING AND CURRENTLY DOES NOT HAVE  
19 ANY CO-FUNDING AND IS FROM A CALIFORNIA ENTITY.

20 SO A LITTLE BIT OF BACKGROUND ABOUT THE  
21 DISEASE AND THE PRODUCT. SO GEOGRAPHIC ATROPHY IS  
22 THE ADVANCED STAGE OF AGE-RELATED MACULAR  
23 DEGENERATION. SO WHAT THAT MEANS IS CAUSE OF VISION  
24 LOSS, ESPECIALLY COMMON IN THE DEVELOPED WORLD. AND  
25 WHAT HAPPENS IN THIS DISEASE IS THAT YOU START TO

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1 BEGIN LOSING CENTRAL VISION, WHICH IS WHAT YOU SEE  
2 FOR COLOR AND DETAIL IN THE ACTUAL CENTER OF YOUR  
3 VISION. AND SO THIS IS SORT OF A PROCESS BY THE  
4 BACK OF YOUR EYE IN THE RETINA, AND IT'S MORE  
5 SPECIFICALLY IN THE MACULA. AND THIS PART OF THE  
6 EYE HAS A VERY DEFINED STRUCTURE WITH VERY DISTINCT  
7 LAYERS.

8 AND SO WHAT BEGINS TO HAPPEN WITH THIS  
9 DISEASE IS THAT THE UNDERLYING SUPPORTIVE CELLS, SO  
10 NOT THE ONES THAT DETECT LIGHT SPECIFICALLY, BUT THE  
11 ONES BELOW THEM BEGIN NOT TO DO SO WELL AND  
12 EVENTUALLY AT THIS ADVANCED STAGE BEGIN TO DIE. AND  
13 AS THOSE CELLS BEGIN TO DIE, THE SUPPORTIVE LAYER  
14 UNDERNEATH BEGINS TO SORT OF DEGENERATE. AND THEN  
15 THOSE PHOTORECEPTORS THAT DO ACCEPT AND TAKE IN THE  
16 LIGHT ALSO BEGIN TO DIE. AND THEN YOU GET SOME  
17 VISION LOSS OVER TIME, OVER THE COURSE OF SEVERAL  
18 YEARS TYPICALLY.

19 SO IN THIS PARTICULAR PRODUCT, THEY'RE  
20 AIMING TO SUPPORT THAT ENVIRONMENT. AND IDEALLY  
21 THEY HOPE TO, IN THE BEST CASE SCENARIO, TO IMPROVE  
22 VISION FROM THE BASELINE OF WHEREVER THE PATIENT IS  
23 AT, BUT AT THE VERY LEAST TO SLOW DOWN THE  
24 PROGRESSION OF VISION LOSS.

25 THE CURRENT STATE OF AFFAIRS IS THAT THERE

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1 ARE TWO CURRENTLY APPROVED THERAPIES FOR THIS  
2 DISEASE, AND IT DOES SLOW DOWN THIS DEGENERATION OF  
3 THE UNDER LAYER, BUT DOES NOT SEEM TO AT THIS TIME  
4 SLOW DOWN THAT VISION LOSS OVER TIME. SO THAT'S THE  
5 GOAL.

6 AND THE PRODUCT IS ALSO POTENTIALLY  
7 CHEAPER TO PRODUCE AND EASIER TO MANUFACTURE. AND  
8 THEN WITHIN THE PURVIEW OF CIRM, THIS PROJECT IS  
9 DERIVED FROM STEM CELLS THAT ARE THEN DIFFERENTIATED  
10 INTO THE RETINAL PIGMENT EPITHELIAL CELLS.

11 SO CIRM PORTFOLIO PROJECTS, WE DO HAVE  
12 FIVE OTHER CURRENT AWARDS THAT ADDRESS THIS SAME  
13 INDICATION OR VERY SIMILAR INDICATIONS. TWO OF THEM  
14 ARE IN THE TRANSLATIONAL STAGE, ONE IN THE CLIN1,  
15 WHICH IS THE SAME AS THIS PARTICULAR APPLICATION,  
16 AND TWO IN THE CLINICAL TRIAL STAGE. I WILL POINT  
17 OUT THAT THE ONE KEY DISTINGUISHING FACTOR FOR THIS  
18 PARTICULAR APPLICATION IS THAT FOUR OUT OF THE FIVE  
19 CURRENT PROJECTS ARE ALL CELL-BASED THERAPIES AND  
20 THE FIFTH IS A GENE THERAPY.

21 THE APPLICANT TEAM HAS RECEIVED A  
22 SIGNIFICANT AMOUNT OF PRIOR FUNDING FROM CIRM. I  
23 WOULD LIKE TO POINT OUT THE TRANSLATIONAL AWARD,  
24 WHICH IS A DIRECT PROGRESSION EVENT, SO THIS  
25 AWARD -- THIS APPLICATION, IF AWARDED, WOULD



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1 CONTINUE A PRIOR FUNDED TRANSLATIONAL PROJECT. THE  
2 APPLICANTS HAVE ALSO RECEIVED PRIOR FUNDING FOR WHAT  
3 COULD BE TERMED AS SORT OF THE PRIOR VERSION OF THIS  
4 PRODUCT THAT WAS A CELL-BASED APPROACH FROM THE  
5 PRECLINICAL TO EARLY CLINICAL TRIAL STAGES.

6 SO FOR THE APPLICATION REVIEW SUBCOMMITTEE  
7 CONSIDERATION, WE HAVE CLIN1-14789. THE GRANTS  
8 WORKING GROUP RECOMMENDED THIS APPLICATION WITH  
9 EIGHT VOTES FOR A TIER I SCORE, SIX VOTES FOR A TIER  
10 II SCORE, AND NO VOTES FOR A TIER III. THE DEI  
11 SCORE FOR THIS APPLICATION WAS AN 8 ON A SCALE OF --  
12 OH, WE HAVE A TYPO HERE. SO IT SHOULD BE 0 TO 10.  
13 AND THE CIRM TEAM RECOMMENDATION CONCURS WITH THE  
14 GRANTS WORKING GROUP RECOMMENDATION FOR THE  
15 REQUESTED AMOUNT OF JUST UNDER 6 MILLION. SO I'LL  
16 PASS IT BACK TO THE BOARD.

17 CHAIRMAN IMBASCIANI: THANK YOU, HAYLEY,  
18 FOR YOUR PRESENTATION. SO WE HAVE ONE APPLICATION  
19 IN FRONT OF US. THE CHAIR WOULD LIKE TO ENTERTAIN A  
20 MOTION IN RESPONSE TO THE RECOMMENDATION FROM THE  
21 REVIEW TEAM.

22 DR. SOUTHARD: MARV SOUTHARD MOVES  
23 APPROVAL.

24 CHAIRMAN IMBASCIANI: THANK YOU, MARV.

25 DR. DULIEGE: SECOND.

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1 CHAIRMAN IMBASCIANI: I'M SORRY. WHO  
2 SECONDED?

3 VICE CHAIR BONNEVILLE: ANNE-MARIE.

4 CHAIRMAN IMBASCIANI: ANNE-MARIE. THANK  
5 YOU, ANNE-MARIE. OKAY. THE DISCUSSION ON THIS  
6 APPLICATION IS OPEN TO THE BOARD MEMBERS. OKAY. I  
7 DON'T SEE ANY. IS THERE ANY MEMBER OF THE PUBLIC IN  
8 THE ROOM OR ON THE PHONE WHO WOULD LIKE TO SPEAK TO  
9 THIS APPLICATION? THERE ISN'T ANY. OKAY. ALL  
10 RIGHT. SCOTT, I'M GOING TO PUT YOU TO WORK AGAIN.

11 MR. TOCHER: GREAT. THERE ARE NO MEMBERS  
12 OF THE ARS WITH A CONFLICT TO THIS APPLICATION.

13 DAN BERNAL.

14 MR. BERNAL: AYE.

15 MR. TOCHER: MARIA BONNEVILLE.

16 VICE CHAIR BONNEVILLE: YES.

17 MR. TOCHER: JUDY CHOU.

18 DR. CHOU: YES.

19 MR. TOCHER: LEONDRA CLARK-HARVEY.

20 DR. CLARK-HARVEY: YES.

21 MR. TOCHER: ANNE-MARIE DULIEGE.

22 DR. DULIEGE: YES.

23 MR. TOCHER: YSABEL DURON.

24 MS. DURON: YES.

25 MR. TOCHER: MARK FISCHER-COLBRIE.

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1 DR. FISCHER-COLBRIE: YES.  
2 MR. TOCHER: ELENA FLOWERS.  
3 DR. FLOWERS: YES.  
4 MR. TOCHER: DAVID HIGGINS.  
5 DR. HIGGINS: YES.  
6 MR. TOCHER: VITO IMBASCIANI.  
7 CHAIRMAN IMBASCIANI: YES.  
8 MR. TOCHER: RICH LAJARA.  
9 MR. LAJARA: YES.  
10 MR. TOCHER: CHRISTINE MIASKOWSKI.  
11 DR. MIASKOWSKI: YES.  
12 MR. TOCHER: LAUREN MILLER-ROGEN.  
13 MS. MILLER-ROGEN: YES.  
14 MR. TOCHER: ADRIANA PADILLA.  
15 DR. PADILLA: YES.  
16 MR. TOCHER: JOE PANETTA.  
17 MR. PANETTA: YES.  
18 MR. TOCHER: MARVIN SOUTHARD.  
19 DR. SOUTHARD: YES.  
20 MR. TOCHER: KAROL WATSON. KEVIN XU.  
21 AND THE MOTION CARRIES. THANK YOU.  
22 CHAIRMAN IMBASCIANI: THANK YOU VERY MUCH,  
23 SCOTT. AND I THINK AT THIS TIME WE'RE GOING TO TAKE  
24 A VERY SHORT BIO BREAK, BUT YOU ARE GOING TO TELL ME  
25 WHEN WE RECONVENE.

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1 MR. TOCHER: YES. LET'S RECONVENE IN  
2 SEVEN MINUTES AT 10:40.

3 CHAIRMAN IMBASCIANI: I'M A UROLOGIST. WE  
4 DO TIME THESE THINGS.

5 MR. TOCHER: I'LL GIVE YOU EIGHT IF YOU'RE  
6 NICE.

7 (A BREAK WAS TAKEN.)

8 CHAIRMAN IMBASCIANI: I'D LIKE TO COME  
9 BACK INTO SESSION AT THIS POINT FOR THE MOMENT WE'VE  
10 ALL BEEN WAITING FOR. TALK ABOUT YOU, J.T.

11 SO WE'RE NOW AT -- WE'VE REACHED THE POINT  
12 ON THE AGENDA FOR NO. 13, THE PRESENTATION BY OUR  
13 PRESIDENT AND CEO, JONATHAN THOMAS, ON WHAT THE TEAM  
14 HAS BEEN WORKING ON FOR A YEAR OR MORE NOW, THE  
15 STRATEGIC ALLOCATION FRAMEWORK AND ITS  
16 RECOMMENDATIONS. THE PODIUM IS YOURS.

17 DR. THOMAS: THANK YOU, MR. CHAIR. BEFORE  
18 I START, I WOULD JUST LIKE TO NOTE THAT I WAS  
19 APPRISED THAT WHEN I INVOKED WINSTON CHURCHILL IN MY  
20 COMMENTS, THAT MARIA HAD A VERY QUIZZICAL LOOK ON  
21 HER FACE, AT WHICH POINT OUR ESTEEMED COUNSEL RAFAEL  
22 TEXTED MARIA, AT LEAST HE DIDN'T QUOTE TOMMY  
23 LASORDA. SOUNDS LIKE I MIGHT HAVE TO EXPLAIN WHO  
24 TOMMY LASORDA IS.

25 ALL RIGHT, TEAM. IT'S SHOWTIME. HERE WE

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1 GO. OVER THE COURSE OF CIRM'S EXISTENCE, THERE HAVE  
2 BEEN A NUMBER OF INFLECTION POINTS WHERE  
3 CIRCUMSTANCES HAVE DICTATED CHANGE TO THE WAY CIRM  
4 OPERATES. SUCH TIMES HAVE YIELDED THE CREATION OF  
5 THE APPLICATION REVIEW SUBCOMMITTEE, CHANGES TO THE  
6 APPELLATE PROCESS, INCREASED EMPHASIS ON INDUSTRY  
7 PARTNERSHIPS, CIRM 2.0, WHICH PUT IN PLACE  
8 REGULARIZED INTERVALS FOR CIRM CLIN, TRAN, AND DISC  
9 REVIEWS, AMENDED ELIGIBILITY CRITERIA FOR CLIN  
10 AWARDS, MILESTONE PAYMENT AND CO-FUNDING  
11 REQUIREMENTS, AND STEPS FOR GRANT COUNSELING, THE  
12 LATTER DAY CLINICAL AND TRANSLATIONAL ADVISORY  
13 PANELS. EACH OF THESE CHANGES IMPROVED HOW WE DO  
14 BUSINESS AND CARRY ON TO AND THROUGH THIS DAY.

15 THE TAIL END OF 2023 MARKED ANOTHER OF  
16 THOSE INFLECTION POINTS. AS YOU WILL RECALL, DURING  
17 THAT PERIOD, CIRM SAW A DRAMATIC INCREASE IN DISC,  
18 TRAN, AND CLIN GRANT APPLICATIONS WITH CLIN IN  
19 PARTICULAR BEING AN IMMEDIATE CONCERN. WITH A STILL  
20 SIGNIFICANT, BUT FINITE AMOUNT OF PROPOSITION 14  
21 FUNDS LEFT TO DEPLOY AND THE POTENTIAL FOR DEMAND TO  
22 SUDDENLY EXCEED OUR BUDGET, WE WERE EFFECTIVELY A  
23 VICTIM OF OUR OWN SUCCESS AND NEEDED TO CHANGE THE  
24 WAY WE DO BUSINESS YET AGAIN.

25 THAT NEED FOR CHANGE CREATED AN

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1 OPPORTUNITY TO REFINE OUR CLINICAL REVIEW PROCESS  
2 THROUGH FLOW CONTROL AMENDMENTS APPROVED BY THE  
3 BOARD IN JUNE -- SHOUT-OUT HERE TO GIL AND THE WHOLE  
4 REVIEW TEAM -- AND TO REEXAMINE THROUGH A TARGETED,  
5 DATA-DRIVEN APPROACH HOW WE SHOULD SPEND OUR  
6 REMAINING FUNDS TO BEST SERVE THE RARE AND PREVALENT  
7 DISEASE NEEDS OF THE PATIENTS AND CITIZENS OF  
8 CALIFORNIA.

9 THIS EFFORT, A DE FACTO MAJOR AMENDMENT TO  
10 OUR LATEST STRATEGIC PLAN, CRESCENDOS TODAY IN THE  
11 FORM OF SWEEPING CHANGES TO CIRM'S DIRECTION AND  
12 ORGANIZATION. SPECIFICALLY, WE PRESENT FOR YOUR  
13 CONSIDERATION TODAY OUR REPRIORITIZATION PLAN IN THE  
14 FORM OF THE SO-CALLED STRATEGIC ALLOCATION FRAMEWORK  
15 OR SAF AS WELL AS A MAJOR REORGANIZATION OF OUR  
16 INTERNAL TEAM CONSTRUCTED TO ALIGN WITH THE NEEDS OF  
17 THE SAF GOING FORWARD.

18 BEFORE CONTINUING, I'D LIKE TO EMPHASIZE  
19 HERE THE LEVEL OF COLLABORATION BETWEEN THE BOARD  
20 AND THE TEAM TO MAKE THIS MAJOR CHANGE HAPPEN.  
21 WE'VE SEEN THIS BEFORE IN THE PAST, OF COURSE,  
22 WITNESSED THE BOARD'S TEN MEETINGS WITH THE TEAM  
23 BETWEEN MARCH AND JULY 2020 THAT RESULTED IN 17  
24 AWARDS FOR COVID RESEARCH THAT REPRESENTED CIRM'S  
25 EFFORT TO DO OUR PART AS THE WORLD BEGAN TO COPE

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1 WITH THE EMERGING PANDEMIC. BUT THIS YEAR HAS  
2 BROUGHT THAT COLLABORATION TO A NEW LEVEL.

3 BETWEEN FLOW CONTROL, THE SAF, AND  
4 REORGANIZATION, THERE'S BEEN A STEADY STREAM OF  
5 BOARD, SCIENCE SUBCOMMITTEE, NEURO TASK FORCE, AND  
6 GOVERNANCE SUBCOMMITTEE MEETINGS LAYING OUT THE  
7 TEAM'S STRATEGY IN GENERATING ROBUST BOARD  
8 DISCUSSION AND INPUT THROUGHOUT. ALL OF THAT HAS  
9 MADE POSSIBLE THE THOUGHTFUL AND WELL-CONCEIVED  
10 CHANGES WE PUT IN PLACE EARLIER THIS YEAR AND WILL  
11 HOPEFULLY APPROVE SHORTLY.

12 ON BEHALF OF OUR TEAM, I WANT TO SINCERELY  
13 THANK THE BOARD FOR ALL YOU'VE DONE TO WORK HAND IN  
14 HAND WITH US TO MAKE ALL OF THIS POSSIBLE. TOGETHER  
15 WE HAVE ACCOMPLISHED A GREAT DEAL, LAYING THE  
16 GROUNDWORK FOR EVEN BETTER THINGS TO COME IN OUR  
17 UNENDING QUEST TO SERVE PATIENTS WITH UNMET MEDICAL  
18 NEEDS. IN ADDITION TO THE BOARD, I'D LIKE TO FOCUS,  
19 LASTLY, ON THE EXTRAORDINARY EFFORTS OF OUR TEAM  
20 THAT HAS SIMILARLY MADE ALL OF THIS CHANGE POSSIBLE.

21 AT MY FIRST MEETING OF THE LEADERSHIP TEAM  
22 AFTER I STARTED AS INTERIM PRESIDENT IN JANUARY --  
23 AND, BY THE WAY, THANK YOU VERY MUCH FOR THE  
24 PERMANENT APPOINTMENT -- WE TALKED ABOUT THE NEED TO  
25 ALTER OUR APPROACH TO EVALUATING GRANTS AND HOW IT

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1 WAS TIME TO FUNDAMENTALLY REEXAMINE HOW WE'LL SPEND  
2 OUR REMAINING DOLLARS, INCLUDING A NEW STRATEGY FOR  
3 FUNDING RESEARCH ON RARE DISEASE.

4 WE SIMILARLY SPOKE OF THE NEED FOR A MAJOR  
5 REORGANIZATION OF THE CIRM TEAM TO MAKE ALL OF THAT  
6 HAPPEN. ANY ONE OF THESE TASKS WOULD BE A MAJOR  
7 UNDERTAKING, TAKING MANY MONTHS, PARTICULARLY AS THE  
8 WORK WOULD LAYER ON TOP OF EVERYBODY'S ALREADY BUSY  
9 DAY JOB. PERHAPS, UNREASONABLY, I ASKED THE TEAM TO  
10 DO ALL OF THEM AT ONCE AND TO HAVE EVERYTHING DONE  
11 IN NINE MONTHS.

12 I'M HERE TO REPORT TO YOU FROM THE FIRST  
13 SECOND OF THAT EARLY JANUARY DISCUSSION, THE TEAM  
14 SEIZED THE MOMENT AND HAS WORKED TOGETHER TIRELESSLY  
15 TO PULL EVERYTHING TOGETHER ON SCHEDULE. BY TEAM I  
16 MEAN LITERALLY EVERYBODY AT CIRM. EVERY SINGLE  
17 DEPARTMENT WAS TOUCHED BY THIS EFFORT, AND EVERY  
18 MEMBER OF EVERY TEAM DELIVERED IN A MAJOR WAY.  
19 NOWHERE WAS THAT EMBODIED MORE THAN THE DEVELOPMENT  
20 OF THE SAF, AN EXCEPTIONAL WORK PRODUCT THAT IS A  
21 TESTAMENT TO THE A-PLUS QUALITY OF OUR LEADERSHIP  
22 TEAM AND TEAM ACROSS THE BOARD.

23 I COULD NOT BE MORE PROUD OF THEM ALL AND  
24 HAVE BEEN PRIVILEGED TO HAVE DIRECTED AND BEEN A  
25 PART OF SUCH AN EXCEPTIONAL GROUP. SPECIAL THANKS



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1 TO ROSA WHO HAS DONE A PHENOMENAL JOB DRIVING THIS  
2 EFFORT AND TO SARA TAYLOR FOR HER TECHNOLOGICAL  
3 WIZARDRY IN PUTTING ALL THE PRESENTATIONS TOGETHER.

4 WITH THAT, I'LL TURN IT OVER TO ROSA FOR  
5 YOUR CONSIDERATION OF THE SAF AND WILL BE BACK TO  
6 YOU THEREAFTER TO LAY OUT THE NEW REORGANIZATION  
7 PLAN. ROSA.

8 DR. CANET-AVILES: THANK YOU, J.T. MR.  
9 CHAIRMAN, MADAM VICE CHAIR, DISTINGUISHED MEMBERS OF  
10 THE BOARD, MY COLLEAGUES, AND THE PUBLIC, ON BEHALF  
11 OF ALL THESE PEOPLE THAT J.T. WAS JUST MENTIONING, I  
12 AM GOING TO PRESENT THE FINAL RECOMMENDATIONS FOR  
13 THE STRATEGIC ALLOCATION FRAMEWORK. THE  
14 PRESENTATION IS DIVIDED IN ABOUT FOUR PARTS. GOALS  
15 1 AND 2 COME FIRST, THEN DISCUSSION, 3 AND 4,  
16 DISCUSSION, 5, DISCUSSION, AND 6, DISCUSSION AND  
17 FINAL. IT'S JUST TO GIVE A BIT OF A HEADS-UP OF  
18 WHAT'S COMING. THE PRESENTATION IS ABOUT 65 SLIDES,  
19 AS YOU'VE SEEN. THERE IS A MEMO EXPLAINING A LOT OF  
20 THE BACKGROUND IN CASE THAT YOU NEED DETAILS BECAUSE  
21 SOME OF THE SLIDES LIKE THE DATA SOURCES WE CANNOT  
22 GO PRETTY QUICKLY ESPECIALLY BECAUSE WE'VE GONE  
23 THROUGH THIS IN DETAIL THROUGH THE SCIENCE  
24 SUBCOMMITTEE AND THE NEURO TASK FORCE.

25 I WOULD ALSO LIKE TO THANK YOU VERY MUCH,

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1 THE CHAIR OF THE SCIENCE SUBCOMMITTEE, DR. MARK  
2 FISCHER-COLBRIE, AND THE CO-CHAIRS OF THE NEURO TASK  
3 FORCE, DR. CAROLYN MELTZER AND DR. PAT LEVITT, FOR  
4 ALL THEIR EFFORTS AND ALL THE PREMEETINGS AS WELL  
5 AND THE MEMBERS OF THOSE COMMITTEES AS WELL. SO  
6 WITH THAT SAID -- AND I WOULD LIKE TO ALSO THANK  
7 LARRY GOLDSTEIN, DR. LARRY GOLDSTEIN, WHO HELPED US  
8 A LOT. SO LET'S GET ROLLING. RIGHT. AND THAT'S  
9 NOT -- I HAVE NO, WHAT IS IT IN BASEBALL?

10 DR. THOMAS: WE'LL HAVE TO WORK ON THAT.

11 DR. CANET-AVILES: HE'S BEEN TRYING.

12 WHAT'S THE STRATEGIC ALLOCATION FRAMEWORK  
13 AS WE'VE SEEN? IT'S A STRUCTURED AND DATA-DRIVEN  
14 APPROACH TO PRIORITIZE OUR RESOURCE ALLOCATION AND  
15 PROVIDE RECOMMENDATIONS TO THE BOARD FOR CONTINUED  
16 IMPLEMENTATION OF OUR STRATEGIC PLAN. AND AS YOU  
17 ALL KNOW, SINCE JUNE OF THIS YEAR WHEN WE PRESENTED  
18 THE PROCESS AND THE BOARD ENDORSED IT, WE PLANNED TO  
19 GO THROUGH ALL THE SCIENCE SUBCOMMITTEE, NEURO TASK  
20 FORCE JOINT MEETINGS, RECEIVE FEEDBACK, GEARING  
21 TOWARDS TODAY'S MEETING WHERE WE WOULD BE PRESENTING  
22 THE FINAL RECOMMENDATIONS.

23 TODAY'S PRESENTATION RECAPS DETAILS THAT  
24 CAN BE REVIEWED IN THOSE FOUR LINKS. SO IF YOU GO  
25 INTO THE PRESENTATION, THOSE ARE HYPERLINKS TO THE

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1 VIDEO AND THE YOUTUBE THAT YOU JUST CAN GO DIRECTLY  
2 INTO THE BACKGROUND OF REVIEW AND EVERY ONE OF THE  
3 PAIRS OF GOALS THAT WE'VE BEEN PRESENTING.

4 AGAIN, THERE IS A MEMO FOR MORE DETAILS.  
5 AND GIVEN THAT WE HAVE A FINITE TIME LIMIT, I WILL  
6 NOT BE PRESENTING THE BACKGROUND BECAUSE WE'VE HEARD  
7 IT PLENTY OF TIMES. AND WE WILL JUST MOVE INTO THE  
8 OVERVIEW OF WHAT'S THE STRATEGIC ALLOCATION  
9 FRAMEWORK AT A HIGH LEVEL.

10 SO THESE ARE THE TWO ACTIONS FOR TODAY.  
11 FIRST, PRESENT AND DISCUSS THE SAF -- IT'S NOT SAFE;  
12 IT'S SAF -- GOALS AND RECOMMENDATIONS AND THEN  
13 OBTAIN APPROVAL FOR THOSE RECOMMENDATIONS AND GOALS  
14 FROM OUR DISTINGUISHED BOARD.

15 OKAY. PRESENTATION OVERVIEW IS HERE, AND  
16 WE ARE GOING TO START WITH AN OVERVIEW OF WHAT'S THE  
17 SAF. AS YOU ALL REMEMBER, THE SAF ORIGINATED AT A  
18 MEETING OF THE SCIENCE SUBCOMMITTEE BACK IN  
19 SEPTEMBER OF 2023, SO A YEAR AGO, IN WHICH MARK  
20 FISCHER-COLBRIE KICKED OFF A PRIORITIZATION  
21 DISCUSSION IN WHICH THE NEED FOR A STRATEGIC  
22 ALLOCATION PLAN WAS INTRODUCED. AND DURING THAT  
23 MEETING, YOU ALL ASKED THE STAFF AT CIRM TO COME  
24 BACK WITH SOME RECOMMENDATIONS FOR THAT  
25 PRIORITIZATION. SO THAT IS WHAT WE HAVE BEEN DOING

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1 SINCE THEN.

2 IN MARCH OF 2024 WAS THE FIRST TIME WHERE  
3 OUR TEAM, LED BY OUR PRESIDENT, DR. JONATHAN THOMAS,  
4 WE PRESENTED TO THE SCIENCE SUBCOMMITTEE AND THE  
5 ICOC WHAT THIS PROCESS WAS GOING TO BE. AND IT  
6 SEEMED THAT EVERYBODY WAS ALIGNED WITH THE WAY THAT  
7 WE WERE MOVING FORWARD. SO SINCE THEN TILL NOW IS  
8 WHAT WE'VE BEEN WORKING ON TO PRESENT THE  
9 RECOMMENDATIONS.

10 SO WHAT WERE THE DESIGN QUESTIONS? THESE  
11 WERE THE VERY HIGH LEVEL DESIGN QUESTIONS THAT WE  
12 CAME FIRST WITH. THE FIRST THING WAS HOW CAN CIRM  
13 MAKE THE GREATEST IMPACT ON ITS MISSION? THAT'S  
14 JUST HOW CAN WE DO THAT? RIGHT. AND HOW MIGHT WE  
15 EFFECTIVELY ALLOCATE THE REMAINING BUDGET OF \$3.86  
16 BILLION TO DO THAT? AND WITHIN THAT, BECAUSE OF  
17 PROP 14'S EARMARKING FOR NEURO, DISEASES OF THE  
18 BRAIN, HOW MIGHT CIRM EFFECTIVELY ALLOCATE THE  
19 REMAINING NEURO BUDGET OF \$1.14 BILLION. SO THAT IS  
20 WHERE WE STARTED.

21 AND THEN WE SAID, OKAY, WHAT'S THE  
22 PROCESS? THE PROCESS IS THE FOLLOWING. YOU'VE SEEN  
23 IT. IT'S AN ITERATIVE PROCESS, BUT BASICALLY WE  
24 DEFINED FIRST WHAT WERE THE CATEGORIES IN WHICH WE  
25 WOULD BE MAKING AN IMPACT. AND THOSE WERE FOUR

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1 CATEGORIES THAT WE WILL SEE IN A LITTLE BIT.

2 WITHIN THOSE CATEGORIES WE DEFINED GOALS.

3 SO MOST OF THE CATEGORIES HAVE TWO GOALS EACH. SO

4 IT'S TWO GOALS, TWO GOALS, ONE GOAL, AND ONE GOAL.

5 THEN WE SAID WHAT ARE THE GUIDING

6 QUESTIONS FOR THE SPECIFIC CATEGORIES AND WHAT DATA

7 WOULD WE NEED TO COLLECT IN ORDER TO ANALYZE AND GET

8 TO AN ANSWER FOR THE RECOMMENDATIONS? SO THAT WAS

9 THE ITERATIVE PROCESS THAT WE'VE BEEN ONGOING WITH

10 THE VERY HEAVY LIFT FROM OUR SCIENCE SUBCOMMITTEE

11 LEADERS AND MEMBERS AS WELL AS THE NEURO TASK FORCE

12 AND THE ACCESSIBILITY AND AFFORDABILITY WORKING

13 GROUP FOR GOAL 5.

14 SO A VERY IMPORTANT SLIDE. J.T. WENT

15 THROUGH. THERE'S A LOT OF PEOPLE AT CIRM THAT HAS

16 BEEN INVOLVED, BUT I REALLY WANT TO HIGHLIGHT THAT

17 THERE'S BEEN A LOT OF PEOPLE. AND THESE ARE THE

18 NAMES. SO THERE'S AN EXCEPTIONAL GROUP OF PEOPLE

19 THAT DID A LOT OF GATHERING, ANALYZING OF A LOT OF

20 THE DATA THAT'S IN THE MEMO AND THAT WILL BE IN SOME

21 OF THE SLIDES THAT WE'LL KIND OF GO QUICKLY THROUGH.

22 THESE PEOPLE ARE LISTED HERE. THERE'S A DEDICATED

23 TEAM OF PROJECT LEADS AND SCIENCE OFFICERS THAT

24 UNDERTOOK A DEEP DIVE INTO THE DIFFERENT ASPECTS OF

25 OUR PORTFOLIO AND LANDSCAPE ANALYSIS CAPTURED

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1 THROUGH DATABASES AS WELL AS PEER REVIEW PAPERS AND  
2 RESEARCH ARTICLES AS SOME OF THE DATA THAT IS NOT  
3 FOUND SOMETIMES IN REPORTS AND NEEDS TO BE EXTRACTED  
4 THROUGH LITERATURE AND EXPERT KNOWLEDGE.

5 I WOULD LIKE TO ACKNOWLEDGE THREE VERY  
6 SPECIFIC PEOPLE. J.T. MENTIONED DR. SARA TAYLOR,  
7 BUT I ALSO WANT TO MENTION THOMAS TRINH, WHO'S ALSO  
8 BEEN PROJECT MANAGING THROUGH THE SAF AND THE DATA,  
9 AND ALSO MY COLLEAGUE DR. SHYAM PATEL, WHO IS  
10 HOPEFULLY BEING PROMOTED THROUGH THE REORGANIZATION  
11 TO ASSOCIATE VP OF PRECLINICAL DEVELOPMENT, WHO TOOK  
12 A LOT OF THE EXTERNAL DATA GATHERING AND ANALYSIS.

13 SO WITH THAT, I'M JUST GOING TO MOVE INTO  
14 THE TIMELINE, AND WE WILL MOVE INTO THE IMPACT GOALS  
15 VERY QUICKLY.

16 SO THIS IS THE TIMELINE, THE UPDATED  
17 TIMELINE. YOU'VE SEEN IT MANY TIMES, BUT THE LITTLE  
18 TRIANGLES SHOW ALL THE DIFFERENT MEETINGS, SCIENCE  
19 SUBCOMMITTEE, NEURO TASK FORCE, AAWG THAT HAVE BEEN  
20 LEADING TO THE DISCUSSIONS AND FEEDBACK OF WHAT WE  
21 ARE PRESENTING TODAY. THAT HAS INCORPORATED THAT  
22 FEEDBACK, THE KICKOFF IN JUNE, AND TODAY'S MEETING.

23 AND AT THE END THERE'S ANOTHER SLIDE THAT  
24 WILL SHOW US WHAT HAPPENS AFTER THIS BECAUSE THIS IS  
25 JUST THE KICKOFF. IF YOU APPROVE IT, IT'S GOING TO

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1 JUST BE THE BEGINNING OF A LOT OF WORK THAT WE NEED  
2 TO IMPLEMENT THIS, BUT WE ARE READY.

3 SO THE IMPACT GOALS. AT THE OUTSET OF OUR  
4 STRATEGIC PLANNING PROCESS, WE BEGAN WITH A WORKING  
5 HYPOTHESIS THAT WAS BUILT AROUND THE FOUR KEY  
6 CATEGORIES. I'M JUST GOING TO SHOW THEM HERE RIGHT  
7 AWAY. AND THIS DRIVES OUR OVERARCHING MISSION.  
8 THIS INITIAL HYPOTHESIS FORMED THE BASIS FOR  
9 DEVELOPING A COMPREHENSIVE SET OF IMPACT GOALS. AND  
10 WE DID NOT GO AND SAID THIS IS THE IMPACT GOAL.  
11 WE'VE HAD A LOT OF ITERATION AND DISCUSSIONS TO  
12 REDEFINE -- DEFINE WITH GRANULARITY THOSE IMPACT  
13 GOALS. AND WE ALSO WANTED THEM TO BE MEASURABLE.

14 A VERY IMPORTANT PART OF THE REFINEMENT  
15 PROCESS INVOLVED IN-DEPTH ENGAGEMENT AND ROBUST  
16 DISCUSSION WITH THE MEMBERS OF THE ICOC THROUGH THE  
17 SCIENCE SUBCOMMITTEE AND THE NEURO TASK FORCE  
18 MEETINGS OVER THE PAST SIX MONTHS. AND THESE  
19 DELIBERATIONS WERE CRUCIAL IN SHAPING THE DIRECTION  
20 AND THE SCOPE OF OUR EFFORTS THAT HAVE ENSURED  
21 ALIGNMENT WITH CIRM'S OBJECTIVES AND THE EVOLVING  
22 LANDSCAPE OF REGENERATIVE MEDICINE.

23 THE RESULT HAS BEEN A SET OF SIX FINAL  
24 RECOMMENDATION IMPACT GOALS THAT HAVE BEEN FRAMED  
25 WITHIN THESE CATEGORIES, AND THEY WILL GUIDE OUR

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1 ACTIONS AND FUNDING OPPORTUNITIES.

2 THESE GOALS ARE DESIGNED TO ACCELERATE THE  
3 DISCOVERY AND TRANSLATION OF THERAPIES, ADVANCE  
4 CRITICAL APPROVALS FOR CELL AND GENE THERAPIES,  
5 IMPROVE ACCESSIBILITY AND AFFORDABILITY, AND ENSURE  
6 A DIVERSE AND SKILLED WORKFORCE CAPABLE OF  
7 SUSTAINING ADVANCEMENTS IN REGENERATIVE MEDICINE.

8 AND WE GO OVER THEM TODAY. SO I'M NOT GOING TO GO  
9 INTO EACH ONE OF THEM RIGHT NOW BECAUSE WE WILL DEEP  
10 DIVE INTO EACH ONE.

11 STARTING WITH GOALS 1 AND 2. SO GOALS 1  
12 AND 2, YOU CAN SEE THEM HERE. I'M GOING TO GO INTO  
13 THE FIRST GOAL. SO THE FIRST GOAL IS TO CATALYZE  
14 THE IDENTIFICATION AND VALIDATION OF AT LEAST FOUR  
15 NOVEL TARGETS AND BIOMARKERS, ENSURING INTEGRATION  
16 INTO PRECLINICAL OR CLINICAL RESEARCH FOR DISEASES  
17 IN CALIFORNIA.

18 THIS GOAL HAS BEEN INFORMED BY A SET OF  
19 QUESTIONS THAT YOU CAN SEE HERE. THE FIRST THING WE  
20 LOOKED AT WAS WHAT WAS THE PORTFOLIO AND DISEASE  
21 REPRESENTATION IN OUR PORTFOLIO? HOW CAN WE  
22 LEVERAGE COLLABORATION TO ACCELERATE ALL OF THIS?  
23 AND WHAT KIND OF INNOVATION AND TECHNOLOGY COULD  
24 ADVANCE THIS GOAL?

25 AND THE SECOND GOAL IS TO ACCELERATE



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1 DEVELOPMENT AND UTILIZATION OF FIVE TO EIGHT  
2 TECHNOLOGIES THAT HAVE THE POTENTIAL TO IMPROVE  
3 SAFETY, EFFICACY, AND/OR THE QUALITY OF CELL AND  
4 GENE THERAPIES. AT A HIGH LEVEL, WE LOOKED AT WHAT  
5 WERE THE CURRENT DEVELOPMENT BOTTLENECKS IN THE  
6 FIELD. WHAT KIND OF INNOVATION AND TECHNOLOGY  
7 RESEARCH METHODOLOGIES CAN BE UTILIZED TO ADDRESS  
8 ALL THIS DEVELOPMENT AND TRANSLATIONAL BOTTLENECKS?  
9 WHAT KIND OF INFRASTRUCTURE UTILIZATION AND THEN  
10 FOSTERING COLLABORATION AS WELL. COLLABORATION HAS  
11 BEEN A THEME FOR A LONG TIME AND ALSO ALIGNS WITH  
12 THE DATA.

13 SO THIS IS THE DATA. AND AS I MENTIONED,  
14 I'VE GONE THROUGH THE DIFFERENT MEETINGS IN DETAIL  
15 OF WHAT EACH ONE OF THESE DATASETS PROVIDED TO US  
16 AND HOW WE GOT ABOUT THEM. BUT THIS IS IN THE MEMO,  
17 AND FOR THE SAKE OF TIME, I'LL JUST GO QUICKLY ABOUT  
18 THIS.

19 SO OUR ANALYSIS AND RECOMMENDATIONS HAVE  
20 BEEN GUIDED BY A ROBUST, COMPREHENSIVE DATASET. AND  
21 OUR PROJECT HAS BEEN BOTH COMPREHENSIVE AND  
22 METICULOUS, ENSURING THAT EVERY STRATEGIC  
23 CONSIDERATION IS BACKED BY SOLID DATA AND REAL-WORLD  
24 INSIGHTS. EACH PAGE SHOWS THE MAIN SOURCES OF DATA  
25 THAT WE HAVE CONSULTED INTERNALLY AND EXTERNALLY.

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1 AN IMPORTANT POINT I WANT TO MAKE FOR ALL  
2 THE SLIDES, AND I'LL PROBABLY SAY IT AGAIN, IS THAT  
3 THE DATA THAT WE WILL BE SHOWING HERE IS A SNAPSHOT  
4 REPRESENTATIVE OF ALL THE DATA GATHERED THROUGH THE  
5 DATA SOURCES, WHICH IS NOT POSSIBLE TO SHOW IN 1.5-  
6 TO 2-HOUR MEETING. SO WE HAVE MORE APPENDICES, AND  
7 WE'VE GATHERED A LOT MORE DATA, BUT WHAT WE ARE  
8 SHOWING IS REPRESENTATIVE ON WHAT HAS BEEN INFORMING  
9 BEST OUR RECOMMENDATIONS.

10 SO THE NEXT FOUR SLIDES, THERE ARE FOUR  
11 SLIDES OF DATA, I THINK, FOR EACH ONE OF THE GOALS.  
12 FOUR SLIDES OF DATA FOR GOALS AND 1 AND 2. AND THEY  
13 PRESENT A SUMMARIZED SNAPSHOT OF OUR COMPREHENSIVE  
14 DATA WHICH IS CRUCIAL FOR GUIDING THE STRATEGIC  
15 ALLOCATION FRAMEWORK. AND AS I SAID, I WANT TO  
16 EMPHASIZE THAT THE TABLES DISTILL KEY ELEMENTS FROM  
17 A BROADER DATASET THAT HAS BEEN EXTENSIVELY GATHERED  
18 TO INFORM THE DECISION-MAKING PROCESS.

19 SO AS I MENTIONED, IN ORDER TO ASSESS OUR  
20 STRATEGIC FOCUS, WE FIRST TURNED OUR ATTENTION TO  
21 THE MOST COMMON DISEASES AFFECTING CALIFORNIANS.  
22 OUR ANALYSIS REVEALED A CRITICAL GAP IN OUR  
23 PORTFOLIO, A LACK OF BALANCED INVESTMENT IN  
24 CONDITIONS THAT ARE NOT ONLY WIDESPREAD, BUT ALSO  
25 CARRY SIGNIFICANT SOCIOECONOMIC AND DISEASE BURDENS

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1 FOR THE STATE'S POPULATION.

2 THIS HIGH LEVEL SUMMARY HIGHLIGHTS  
3 DISEASES BASED ON PATIENT COUNTS, INDICATING THE  
4 SCALE OF IMPACT FOR EACH CONDITION. THE SUMMARY IS  
5 NOT TO SHOW THE DISEASES THAT WE ARE PROPOSING --  
6 THIS IS IMPORTANT -- TO FUND, BUT AN IDEA OF WHAT  
7 NEEDS IN THE DISEASES THAT ARE AFFECTING MOST  
8 CALIFORNIANS IN ORDER TO ADVANCE AND ACCELERATE THE  
9 DEVELOPMENT OF THERAPIES. FOR INSTANCE, THERE ARE  
10 OVER 4.4 MILLION CALIFORNIANS LIVING WITH  
11 HYPERTENSION AND NEARLY 3 MILLION WITH TYPE 2  
12 DIABETES. THESE NUMBERS ARE NOT JUST STATISTICS.  
13 THEY REPRESENT A SUBSTANTIAL PORTION OF OUR  
14 COMMUNITY WHOSE QUALITY OF LIFE COULD POTENTIALLY BE  
15 DRAMATICALLY IMPROVED THROUGH FOCUSED EFFORTS.  
16 HOWEVER, IN ORDER TO UNDERSTAND WHETHER CIRM'S  
17 EFFORTS SHOULD BE PRIORITIZED, WE ALSO LOOKED AT  
18 OTHER FACTORS THAT COMBINED CAN HELP US EVALUATE THE  
19 IMPACT AND FEASIBILITY OF OUR PROPOSED  
20 PRIORITIZATION.

21 SO, FOR EXAMPLE, WE LOOKED INTO STEM CELL  
22 MODELING AND WHETHER EFFECTIVE STEM CELL MODELS  
23 EXIST FOR EACH DISEASE, WHICH IS PIVOTAL FOR  
24 ADVANCING CIRM-FUNDED RESEARCH INTO DISEASE  
25 MECHANISMS, FOR EXAMPLE. SO CONDITIONS LIKE TYPE 1

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1 AND TYPE 2 DIABETES, OSTEOARTHRITIS, LIVER FIBROSIS,  
2 ALZHEIMER'S DISEASE, AND RELATED DEMENTIAS, ET  
3 CETERA. THEY HAVE STEM CELL MODELS THAT COULD BE  
4 LEVERAGED FOR DISCOVERY OF DISEASE MECHANISMS, NOVEL  
5 TARGETS, BIOMARKERS, AND LEVERAGE OTHER CONSORTIA  
6 EFFORTS THROUGH DATA COLLABORATIVE EFFORTS TO  
7 ACCELERATE RESEARCH.

8 BUT ANOTHER ELEMENT THAT IS SUMMARIZED IN  
9 THE TABLE IS THE BIOMARKER NEEDS. AND THIS WASN'T A  
10 SLAM DUNK. WE HAD TO GO INTO A LOT OF PUBLICATIONS  
11 TO MAKE SURE WHAT THE STATE OF THIS WAS, LOW,  
12 MEDIUM, OR HIGH. BUT THERE A LOT OF WORK BEHIND  
13 THIS TABLE, RIGHT. AND THE BIOMARKERS NEED TO  
14 ENHANCE EARLY DETECTION AS WELL AS TREATMENT  
15 EFFECTIVENESS OR PATIENT CERTIFICATION, FOR EXAMPLE.  
16 SO THIS IS PARTICULARLY CRUCIAL FOR CONDITIONS LIKE  
17 ASTHMA, STROKE, ALZHEIMER'S DISEASE, AND RELATED  
18 DEMENTIAS, CARDIOVASCULAR DISEASE, DEPRESSION WHERE  
19 HIGH BIOMARKER NEEDS ALIGN WITH OUR OBJECTIVES TO  
20 REFINE DIAGNOSTIC AND THERAPEUTIC STRATEGIES.

21 SO THE ECONOMIC BURDEN OF THESE DISEASES  
22 WAS ALSO LOOKED AT ON THE CALIFORNIA HEALTHCARE  
23 STRATEGIC PARTNERSHIP 3.8 BILLION DUE TO LIVER  
24 FIBROSIS TO A STAGGERING 42.4 BILLION FOR TYPE 2  
25 DIABETES, OR 68 BILLION FOR CARDIOVASCULAR DISEASE.

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1 DID I DO IT RIGHT? YES. I THINK SO. OH, YES, YES.

2 I WAS LOOKING AT THE OTHER. YEAH. YEAH.

3 SO FINALLY, WE CONSIDERED NIH SPENDING AND  
4 THE COMPETITIVE INDUSTRY LANDSCAPE WHICH IS NOT  
5 SHOWN HERE. WE WILL SHOW ANOTHER SLIDE WITH  
6 SOMETHING ELSE FROM THE COMPETITIVE INFRASTRUCTURE  
7 LANDSCAPE. BUT THE NIH SPENDING SHOWN HERE IS FOR  
8 ALL MODALITIES. SO IT'S NOT ONLY CELL AND GENE  
9 THERAPIES, AND IT'S ALSO ACROSS DISCOVERY TO  
10 CLINICAL AND INFRASTRUCTURE. SO WE ARE NOT  
11 COMPARING APPLES TO APPLES, BUT IT GIVES US AN  
12 INDICATION OF ALIGNMENT AND AT A VERY HIGH LEVEL  
13 SOME OF THE GAPS AND NEEDS.

14 THE NEXT SLIDE, AND THIS IS NOT TO LIKE  
15 PAY ATTENTION TO CANCER, BUT IT'S BECAUSE WE  
16 COULDN'T FIT EVERYTHING ELSE. THIS NEXT SLIDE  
17 SUMMARY TABLE REPRESENTS THE MOST COMMON CANCERS  
18 THAT ARE AFFECTING CALIFORNIANS, NOT TO DRAW  
19 ATTENTION TO CANCER. WE JUST WANTED TO MAKE SURE  
20 THAT WE REPRESENTED THEM AS WELL. AS A REFERENCE,  
21 THE FIRST ONE, BRAIN CANCER -- BREAST CANCER, THE  
22 PATIENT COUNT IS 224,000. JUST SO YOU SEE THE  
23 SCALE, BACK TO TYPE 1 DIABETES IS ABOUT THE SAME  
24 AMOUNT JUST SO YOU CAN SEE WHERE IT IS ON THE LOWER  
25 BOTTOM OF THIS GRAPH. THAT'S JUST FOR SCALE.

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1 WE HAVE A VERY LARGE PORTFOLIO OF CANCER.  
2 WE HAVE ABOUT 130 TOTAL AWARDS WITH A SPENDING OF  
3 NEARLY \$600 MILLION WITH A BROAD RANGE OF  
4 SUBCATEGORIES, THE LARGEST BEING LEUKEMIA AND  
5 LYMPHOMA FOLLOWED BY BRAIN CANCER.

6 NOW, THIS SLIDE REPRESENTS A SUMMARY TABLE  
7 OF TECHNOLOGY GAPS. THIS WILL BE IMPORTANT FOR THE  
8 SECOND GOAL AND TECHNOLOGY PLATFORMS THAT WE WILL BE  
9 MAKING A RECOMMENDATION. JUST POINTING TO WHERE  
10 THIS GOES.

11 SO THESE ARE THE TECHNOLOGY GAPS IN THE  
12 FIELD OF REGENERATIVE MEDICINE FOR THE MOST COMMON  
13 DISEASES AFFECTING CALIFORNIANS. I JUST WANT TO  
14 CONFIRM THAT THE RED CHECKMARK INDICATES THAT THERE  
15 IS A GAP FOR THAT PARTICULAR DISEASE. BY  
16 UNDERSTANDING THESE AREAS, WE ENSURED THAT OUR  
17 INVESTMENTS ARE NOT JUST FILLING CURRENT NEEDS, BUT  
18 ARE ALSO STRATEGICALLY POSITIONED TO ADDRESS FUTURE  
19 CHALLENGES.

20 SO IN RED BACKGROUND OR ORANGE ARE  
21 TECHNOLOGY GAPS THAT ARE COMMON TO MANY IMPORTANT  
22 DISEASES AFFECTING CALIFORNIANS, SUCH AS DELIVERY  
23 AND SPECIFICITY. SO METHODS AND EFFECTIVENESS OF  
24 DELIVERING CELLS AND GENES TO TARGETED AREAS OR  
25 SYSTEMS IN OUR BODY AND IN SCALABLE MANUFACTURING AS

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1 WELL. THE FEASIBILITY TO MANUFACTURE THESE  
2 THERAPIES ON A LARGER SCALE WHILE MAINTAINING  
3 QUALITY AND EFFICIENCY IS A BIG TECHNOLOGY GAP THAT  
4 IS COMMON ACROSS ALL THESE DISEASE, NOT ONLY  
5 PREVALENT DISEASES, BUT ALSO LIKE RARE DISEASES. SO  
6 THOSE ARE SOME OF THE TECHNOLOGY GAPS THAT WE  
7 IDENTIFY.

8 THIS OTHER SLIDE POINTS MORE TO GOAL 1 AND  
9 WHAT IT SHOWS US IS WHAT ARE THE MAJOR KNOWLEDGE  
10 GAPS THAT ARE CURRENTLY LIMITING OUR ABILITY TO  
11 EFFECTIVELY DEVELOP TREATMENTS FOR A LARGE RANGE OF  
12 DISEASES. FOR EACH DISEASE LISTED, A CHECKMARK  
13 IDENTIFIES SPECIFIC AREAS WHERE UNDERSTANDING IS  
14 INSUFFICIENT AND REPRESENTS A BOTTLENECK IN OUR  
15 ABILITY TO DEVELOP EFFECTIVE THERAPIES. SO IN  
16 GENERAL, WE SEE THREE VERY COMMON BOTTLENECKS FOR  
17 THESE AREAS. ONE IS DISEASE HETEROGENEITY, THE  
18 VARIABILITY WITHIN THE DISEASE CATEGORY THAT CAN  
19 AFFECT TREATMENT RESPONSE AND EFFICACY. MECHANISM  
20 OF DISEASE, UNDERSTANDING THE UNDERLYING BIOLOGICAL  
21 AND DISEASE PROCESSES THAT CAUSE THE DISEASE.  
22 THAT'S SUPER IMPORTANT TO UNDERSTAND ALSO, COMMON  
23 MECHANISMS ACROSS DISEASES AS WELL. AND IMMUNE  
24 RESPONSE, HOW THE DISEASE INTERACTS WITH THE IMMUNE  
25 SYSTEM WHICH CAN BE CRUCIAL FOR THE DESIGN OF

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1 TREATMENTS TO AIM TO MODULATE THIS RESPONSE.

2 SO WITH THAT, THE FIRST SET OF  
3 RECOMMENDATIONS, BASED ON ALL THE DATA, WITH REGARDS  
4 TO THE FIRST GOAL, THE OBJECTIVE IS TO ENHANCE  
5 RESEARCH TO EXPLORE CROSS-DISEASE SYSTEMS AND  
6 INTERACTIONS AIMING FOR BREAKTHROUGHS IN NEW DISEASE  
7 MECHANISMS, TARGETS, AND BIOMARKERS. REDEFINING  
8 DISEASES WITH DATA AND FOCUSING ON THE CAUSAL  
9 BIOLOGY AND COMMON MECHANISMS ACROSS DISEASES.

10 SO THE APPROACH IS THROUGH THESE TWO  
11 RECOMMENDATIONS. THE FIRST ONE IS TO SUPPORT  
12 COMPREHENSIVE DISCOVERY RESEARCH THROUGH THE DISC4  
13 AND DISC5 FUNDING STRUCTURES THAT WE HAVE PILOTED  
14 WITH NEUROPSYCHIATRIC DISEASES. AND WE JUST FUNDED  
15 FIVE AWARDS AND ARE HAVING A RE-REVIEW IN NOVEMBER.  
16 SO THIS WOULD ENCOURAGE COLLABORATIVE  
17 MULTIDISCIPLINARY INNOVATION IN STEM CELL AND  
18 GENETIC RESEARCH ACROSS DIVERSE DISCIPLINES.

19 AND THE MULTIDISCIPLINARY INNOVATION ALSO  
20 BRINGS OTHER DISCIPLINES TO COMPLEMENT AND VALIDATE  
21 STEM CELL AND GENETIC RESEARCH DISCOVERIES AND  
22 DISEASE INDICATIONS WITH EARLY ENGAGEMENT OF  
23 INDUSTRY TO ADDRESS REPRODUCIBILITY AND SCALABILITY  
24 ISSUES. AND THE EARLY ENGAGEMENT OF INDUSTRY TO  
25 ADDRESS REPRODUCIBILITY AND SCALABILITY ISSUES WAS A



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1 VERY IMPORTANT PART THAT WE GOT AS A FEEDBACK FROM  
2 OUR BOARD MEMBERS THROUGH THE DISCUSSIONS OF THE  
3 SCIENCE SUBCOMMITTEE, THE NEURO TASK FORCE.

4 NOW, IN ORDER TO BE SUCCESSFUL WITH THESE,  
5 WE NEED TO HAVE A WAY TO COLLABORATE WITH THE DATA.  
6 AND I WANT TO MAKE SURE THAT THIS CONNECTS ACTUALLY  
7 TO J.T.'S REORGANIZATION LATER WHICH WILL TALK ABOUT  
8 A DATA FUNCTION THAT WE ARE PLANNING, IF THE BOARD  
9 APPROVES, WE COULD BE PLANNING TO MOVE TOWARDS  
10 HAVING AS ANOTHER ARM UNDER OUR PROGRAMS. SO THE  
11 SECOND RECOMMENDATION IS TO ESTABLISH A DATA  
12 COORDINATING AND MANAGEMENT CENTER OR DCMC TO  
13 STREAMLINE DATA MANAGEMENT AND ENHANCE THE UTILITY  
14 OF CROSS-DISEASE DATA.

15 SO WE COULD BE FUNDING AND DEVELOPING A  
16 CENTRAL HUB FOR DATA COORDINATION. MOST LIKELY THIS  
17 ONE WILL BE FOCUSED ON CERTAIN TYPES OF VERY  
18 SPECIFIC QUESTIONS OR SYSTEMS BECAUSE WE NEED TO  
19 MAKE SURE THAT WE ARE FOCUSED ON CERTAIN APPROACHES.  
20 BUT THIS COULD ALLOW US FOR BETTER INTEGRATION WITH  
21 CONSORTIA AND RESEARCH INITIATIVES AND ENABLING DATA  
22 SCIENCE COLLABORATIVE EFFORTS VIA DEDICATED GRANTS.  
23 THAT WAS ALSO A VERY IMPORTANT INPUT THAT OUR  
24 MEMBERS OF THE SCIENCE SUBCOMMITTEE AND NEURO TASK  
25 FORCE PROVIDED, SPECIFIC SCIENCE COLLABORATIVE

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1 EFFORTS AND THE DEDICATED DATA SCIENCE GRANTS.

2 SO THIS -- VERY QUICKLY, WE'VE DONE IT FOR  
3 ALL THE PAIRS OF GOALS. THIS FOR GOAL 1, WE ARE  
4 PROVIDING WHAT'S CURRENTLY UNDER OUR PIPELINE OF  
5 PROGRAMS AND WHAT ARE WE PROPOSING. THIS IS JUST A  
6 QUICK -- AND IT'S IN THE SLIDES. SO IF YOU NEED TO  
7 REFER TO WHEN WE ARE DISCUSSING, THAT'S GOING TO BE  
8 THERE.

9 GOAL 2, AS WE KNOW, BROAD APPLICABILITY OF  
10 CELL AND GENE THERAPIES FOR RARE AND PREVALENT  
11 DISEASES WILL REQUIRE THE IMPLEMENTATION OF  
12 TECHNOLOGY PLATFORMS THAT CAN ENSURE THE SAFETY,  
13 EFFICACY, AND RELIABILITY OF MULTIPLE CELL AND GENE  
14 THERAPIES. CURRENTLY CIRM'S PROGRAMS FOCUS ON  
15 SUPPORTING TECHNOLOGY IN THE CONCEPT OF SPECIFIC  
16 THERAPEUTIC CANDIDATE PROJECTS, OR WE OFFER A  
17 LIMITED FUNDING FOR EARLY STAGE DISCOVERY AND TOOL  
18 DEVELOPMENT. SO OUR CURRENT APPROACH IS NOT VERY  
19 EFFICIENT AND HAS NOT EFFECTIVELY ENCOURAGED  
20 MULTISTAKEHOLDER COLLABORATION WHICH IS CRUCIAL FOR  
21 THE TRANSLATABILITY AND DEVELOPMENT AND SUCCESS OF  
22 THESE TECHNOLOGIES.

23 SO THIS PROPOSED RECOMMENDATION IS FOCUSED  
24 AND COULD AIM TO REFINE OUR STRATEGIC APPROACH BY  
25 ADDRESSING THE SPECIFIC LIMITATIONS THAT WE HAVE

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1 IDENTIFIED. AND THE AIM COULD BE TO CREATE A MORE  
2 FLEXIBLE AND SUPPORTIVE ENVIRONMENT FOR THE  
3 DEVELOPMENT OF CELL AND GENE THERAPIES THAT COULD  
4 FOSTER PARTNERSHIPS BETWEEN ACADEMIC RESEARCHERS AND  
5 INDUSTRY PROFESSIONALS TO SUPPORT MULTISTAKEHOLDER  
6 TECHNOLOGY INCUBATION PROGRAMS THAT ACHIEVE DEFINED  
7 TECHNOLOGY READINESS LEVELS, THEREBY FACILITATING  
8 RAPID APPLICATION IN CELL AND GENE THERAPY  
9 DEVELOPMENT. THIS PROGRAM COULD BE A PILOT. IT'S  
10 PRECLINICAL DEVELOPMENT TRANSLATION. SO THIS COULD  
11 FALL WITHIN THE NEW RE-ORG UNDER PRECLINICAL  
12 DEVELOPMENT, WHICH COULD ALSO HAVE WHAT WE WOULD BE  
13 TALKING THROUGH GOAL 4 ON PRECLINICAL DEVELOPMENT  
14 PROGRAMS.

15 SO GOAL 2, PILOT INFRASTRUCTURE PLATFORMS,  
16 TECHNOLOGY PLATFORMS TO ENABLE ACCELERATED  
17 DEVELOPMENT OF THERAPIES. TACKLING VERY SPECIFIC  
18 TECHNOLOGY BOTTLENECKS AND GAPS COULD BE UNDER  
19 PRECLINICAL DEVELOPMENT WHICH WILL BE LED BY DR.  
20 SHYAM PATEL.

21 NOW, THIS, AGAIN, IS HOW WE DO IT NOW. SO  
22 WE HAVE A VERY BROAD APPROACH WITHOUT SPECIFIC FOCUS  
23 OR SCOPE. THERE'S NO REQUIREMENT FOR  
24 MULTIDISCIPLINARY ACADEMIC/INDUSTRY COLLABORATION,  
25 AND WE COULD BE MOVING TO A MORE FOCUSED APPROACH

1 WITH COLLABORATION.

2 AND NOW FOR THE MOMENT OF ZEN. THAT'S  
3 WHAT JOHN OLIVER SAYS. SO THE DISCUSSION. SORRY.  
4 I WENT SO FAST, I DIDN'T REALIZE I WAS GETTING TO  
5 THE DISCUSSION. SO NOW ANY QUESTIONS AND DISCUSSION  
6 BEFORE WE MOVE INTO GOALS 3 AND 4? SO WE ARE ABOUT  
7 A THIRD FROM OUR PRESENTATION. DAVID.

8 DR. HIGGINS: AT THE RISK OF GOING  
9 BACKWARDS TOO FAR, CAN YOU GO ABOUT THREE SLIDES  
10 BACK THAT HAD THE X'S?

11 DR. CANET-AVILES: YES. ABSOLUTELY. I  
12 CAN DO THAT.

13 DR. HIGGINS: SO I WANTED TO ASK, WHICH IS  
14 PROBABLY A VERY SIMPLE, FUNDAMENTAL QUESTION, AND  
15 THAT'S HOW TO INTERPRET THIS. WHAT DOES THAT X  
16 REPRESENT?

17 DR. CANET-AVILES: THE X MEANS THAT, SAY,  
18 LET'S GO TO TYPE 1 DIABETES, THERE ARE GAPS IN  
19 KNOWLEDGE ABOUT THE DISEASE HETEROGENEITY, THE  
20 VARIABILITY WITHIN THE DISEASE CATEGORY THAT CAN  
21 AFFECT TREATMENT RESPONSE AND EFFICACY IN TYPE 2  
22 DIABETES. SO WE DON'T KNOW ENOUGH, AND WE HAVE STEM  
23 CELL MODELS. SO THERE IS MECHANISTIC RESEARCH THAT  
24 WE CAN DO AROUND TYPE 2 DIABETES, FOR EXAMPLE, OR  
25 ALZHEIMER'S DISEASE OR MULTIPLE SCLEROSIS AROUND

1 DISEASE HETEROGENEITY.

2 SO WHAT THIS IS POINTING TOWARDS IS THE  
3 GOAL 1 WHERE WE TALK ABOUT CATALYZING THE  
4 MULTIDISCIPLINARY COLLABORATIONS TO ACCELERATE THE  
5 DISCOVERY OF NEW TARGETS, BIOMARKERS, UNDERSTAND  
6 BETTER DISEASE HETEROGENEITY AND IMMUNE RESPONSE,  
7 FOR EXAMPLE, WITH MODELING AND WITH COLLABORATION  
8 AND MULTIDISCIPLINARY APPROACHES. THAT'S WHAT THIS  
9 SLIDE WAS ABOUT.

10 DR. HIGGINS: FOR THE EXAMPLE THAT YOU  
11 JUST GAVE OR ADDRESSED, DOES THAT -- IS IT A SINGLE  
12 UNIT OF MEASURE? WHAT IS THE UNIT OF MEASURE? IS  
13 IT PUBLICATIONS? IS IT GRANT APPLICATIONS?

14 DR. CANET-AVILES: YEAH. SO THAT WAS OUR  
15 EXPERT SCIENCE OFFICERS, LIKE WE DIVIDED AND  
16 CONQUERED. AND EACH ONE OF THEM, THEY WENT THROUGH  
17 THE PORTFOLIO. THEY WENT THROUGH OUR PROGRAM  
18 SUPPORT TO SEE WHAT BOTTLENECKS PEOPLE ARE  
19 ENCOUNTERING THAT ARE NOT ALLOWING THEM TO MOVE  
20 FORWARD WITH THE PORTFOLIO, BUT ALSO REVIEWS  
21 LITERATURE AND CONSULTATIONS, ET CETERA. SO THAT  
22 WAS DONE. WE HAVE A LARGE AMOUNT OF DATA ABOUT --  
23 WHICH IS NOT ONLY USEFUL FOR THIS. IT'S ALSO GOING  
24 TO BE USEFUL FOR THE CONCEPTS. IF WE DEVELOP NEW  
25 CONCEPTS OR AMEND THEM, IT WILL HELP US PUT THE

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1 GRANULARITY ON WHAT WE ARE LOOKING AT.

2 DR. HIGGINS: THANK YOU.

3 DR. CANET-AVILES: THANK YOU FOR THE  
4 QUESTION. THAT'S VERY HELPFUL. DR. CHOU.

5 DR. CHOU: I HAVE COUPLE QUESTIONS JUST  
6 FOR CLARIFICATION AND THEN ONE BIGGER QUESTION FOR  
7 IN GENERAL, THE WHOLE PHILOSOPHY BEHIND THIS WHOLE  
8 PRIORITIZATION FRAMEWORK. SO JUST COUPLE OF  
9 QUESTIONS FIRST.

10 FOR THE GOALS 1 TO 6, DOES THAT MEAN LIKE  
11 THEN PRIORITIES ON GOAL 1 AND THEN GO LOWER, OR IS  
12 IT JUST --

13 DR. CANET-AVILES: NO. NO. ALL ARE EQUAL  
14 PRIORITIES. WHAT WE WERE TRYING TO DO IS LIKE CIRM  
15 PEOPLE, WE THINK ABOUT BLA APPROVAL,  
16 COMMERCIALIZATION. WELL, THERE HAS TO BE OTHER TYPE  
17 OF LEGACY. WE WILL NOT LIKELY HAVE COMMERCIALIZED  
18 FOR A PREVALENT DISEASE, BUT WE MIGHT BE ABLE TO  
19 MOVE THE NEEDLE IN ACCELERATING DEVELOPMENT OF  
20 THERAPIES FOR CERTAIN COMMON DISEASES. AND THAT'S  
21 WHY WE HAD SIX GOALS. AND IT'S ALSO IN MAPPING IT  
22 BACK TO OUR PROPOSITION 14 AND THE STRATEGIC PLAN.  
23 SO NO PRIORITY. IT'S JUST THAT THERE WERE SIX AND  
24 WE PUT THEM IN ORDER.

25 DR. CHOU: UNDERSTOOD. SO THIS PROBABLY

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1 WILL BE LATER ON MY PHILOSOPHICAL QUESTION, BUT I'LL  
2 SAVE THAT.

3 SECOND, JUST FOR CLARIFICATION PURPOSE,  
4 DID I HEAR YOU CORRECTLY ABOUT WE DID SOME ANALYSIS  
5 FOCUSED ON CALIFORNIA PATIENT OR CALIFORNIA NEED?  
6 WHEN WE SAY THE CALIFORNIA NEED, WHAT DOES THAT  
7 MEAN?

8 DR. CANET-AVILES: YES. BECAUSE OF  
9 PROPOSITION 14, PROPOSITION 14 IS TO ADVANCE  
10 KNOWLEDGE AND DEVELOP THERAPIES FOR CALIFORNIANS.  
11 OBVIOUSLY PROP 14 AND 71, THEY ARE VOTED AND PAID BY  
12 CALIFORNIAN TAXPAYERS. SO WE ARE FOCUSING ON  
13 DISEASES THAT AFFECT CALIFORNIANS. THAT DOESN'T  
14 MEAN THAT -- I WILL BE A LITTLE BIT DIGGING DEEPER  
15 INTO THIS WHEN WE DISCUSS GOALS 3 AND 4 AS WELL.

16 DR. CHOU: I UNDERSTAND THE PROPOSITION.  
17 I'M JUST THINKING TODAY WHEN WE TAKE THE SCIENTIFIC  
18 APPROACH, WHAT DOES THAT REALLY MEAN? THIS IS A  
19 VERY DYNAMIC POPULATION ALSO CALLED CALIFORNIAN.  
20 AND THEN I'M CURIOUS EVEN JUST IN OUR ANALYSIS, DID  
21 WE SEE THAT DRAMATIC DIFFERENT FROM THE REST OF  
22 AMERICA? IS SOMETHING CALIFORNIA --

23 DR. CANET-AVILES: NO, WE DIDN'T. WE DID  
24 LOOK AT THE REST OF AMERICA. AND ALSO WE LOOKED AT  
25 VARIATION BETWEEN '19, '20, UP TO '23. WE DON'T

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1 HAVE '24 DATA. AND THERE WASN'T A LOT OF VARIATION.  
2 ONLY COVID WAS KIND OF LIKE A DIFFERENT KIND OF  
3 MEASURE THERE. BUT IN GENERAL, THERE WASN'T THAT  
4 MUCH DIFFERENCE IN THE DISEASES, THE PREVALENCE.

5 BUT ONE OF THE THINGS THAT WE WANT TO MAKE  
6 SURE THAT WE DO IS THAT WE ENCOURAGE RECRUITMENT OF  
7 PATIENTS IN CALIFORNIA AND THAT WE FUND TRIALS FOR  
8 PATIENTS IN CALIFORNIA. WE DON'T WANT TO FLY IN  
9 PATIENTS FROM OTHER PLACES. WE HAVE TO DO THINGS  
10 THAT WILL BENEFIT THE CALIFORNIA POPULATION.

11 DR. CHOU: AND SO I'M ACTUALLY PLEASED TO  
12 HEAR THAT BECAUSE UNDERSTAND AGAIN THE PROPOSITION,  
13 BUT WE NEED (UNINTELLIGIBLE) THE WAY SCIENTIFICALLY  
14 AND ALSO TO PRACTICALITY ABOUT THIS IS ADDRESSING  
15 PRETTY MUCH JUST FIRST BEING A LITTLE BIT  
16 SELF-CENTERED TO SAY AT LEAST AMERICA NEEDS BECAUSE  
17 THAT'S MORE OR LESS REPRESENTING --

18 DR. CANET-AVILES: WELL, I THINK THE  
19 CALIFORNIANS PAID FOR THIS, RIGHT? SO I AM THINKING  
20 THAT WE SHOULD BE FOCUSING ON THE CALIFORNIA  
21 POPULATION THAT HAS A LOT OF DISEASE, AND IT'S  
22 COSTING A LOT OF MONEY TO THE STATE OF CALIFORNIA.  
23 IT'S A WAY OF FOCUSING AND PRIORITIZING THAT TO US  
24 AND FELT VERY ALIGNED WITH OUR MANDATE. THAT'S THE  
25 ONLY REASON.



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1 DR. CHOU: UNDERSTAND. BUT I THINK,  
2 AGAIN, AND MAYBE I REPEATING THAT QUESTION AGAIN.  
3 DID WE IDENTIFY ANYTHING REALLY ONLY IN CALIFORNIA  
4 NEED IN THE REGENERATION MEDICINE AREA SO FAR? SO  
5 MAYBE THAT'S ONE KEY THING THAT I'LL BE CURIOUS AS A  
6 BOARD MEMBER WE DID OUR OWN RESEARCH ACTUALLY  
7 SOMETHING PRETTY UNIQUE. AND THAT --

8 DR. CANET-AVILES: WE DIDN'T ACTUALLY LOOK  
9 SPECIFICALLY INTO THAT, BUT WE LOOKED AT WHERE THE  
10 DISEASES THAT AFFECTED MOST CALIFORNIANS, NOT  
11 WHAT -- AND THEN SO WE HAVEN'T GOTTEN TO GOALS 3 AND  
12 4, AND I WOULD JUST ADVISE THAT WE GO THROUGH 3 AND  
13 4 BECAUSE RIGHT NOW WHERE WE ARE FOCUSING IS AT THE  
14 LEVEL OF DISCOVERY AND TECHNOLOGY ADVANCEMENT, WHERE  
15 CIRM CAN MOVE THE NEEDLE? AND HOW CAN WE MOVE THE  
16 NEEDLE WITH STEM CELLS AND GENETIC RESEARCH?

17 SO WHAT WE DID IS WHAT ARE THE DISEASES  
18 THAT ARE AFFECTING MOST CALIFORNIANS? AND WHAT DO  
19 THESE DISEASES HAVE THAT WE CAN HELP WITH? AND THEY  
20 HAVE A NEED FOR BIOMARKERS, A NEED FOR NEW  
21 MECHANISTIC DISCOVERY, AND UNDERSTANDING BETTER  
22 DISEASE HETEROGENEITY IMMUNE RESPONSE. SO WHAT WE  
23 ARE TRYING TO SAY IS WITH THE STEM CELL MODELS AND  
24 DATA COLLABORATION AND NEW TECHNOLOGY PLATFORMS, WE  
25 CAN ACTUALLY MOVE THE NEEDLE FOR DISEASES THAT CIRM

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1 HAS NOT REALLY BEEN FOCUSING TOO MUCH BECAUSE THEY  
2 ARE NOT THE TYPICAL PARADIGM SHIFTING, HIGH IMPACT,  
3 LOW SCOPE OF CELL AND GENE THERAPIES LIKE RARE  
4 DISEASES, BUT WE CAN ACTUALLY AT THE LEVEL OF  
5 DISCOVERY MOVE THE NEEDLE.

6 SO IMAGINE THAT FOR ALZHEIMER'S DISEASE  
7 AND RELATED DEMENTIAS, THROUGH CIRM FUNDING AND  
8 COLLABORATIONS AND A COLLABORATIVE SYSTEM,  
9 MULTIDISCIPLINARY APPROACH, WE CAN ACTUALLY FIND A  
10 NEW BIOMARKER THAT WILL ALLOW US TO DETECT  
11 ALZHEIMER'S AT A MUCH EARLIER AGE IN THE BLOOD, FOR  
12 EXAMPLE. IF WE COULD DO SOMETHING LIKE THAT THROUGH  
13 COLLABORATIONS WITH THE NATIONAL INSTITUTE ON AGING,  
14 FOR EXAMPLE, THAT COULD REALLY BE OF HIGH IMPACT FOR  
15 CIRM WITHOUT HAVING REALLY LIKE GOTTEN A THERAPY.  
16 THE THERAPY MIGHT BE DEVELOPED BY ELI LILLY OR  
17 SOMEBODY ELSE OUTSIDE OF CALIFORNIA, BUT WE WILL BE  
18 ABLE TO SAY WE MOVED THE NEEDLE, AND THAT IS OF HIGH  
19 VALUE TO CALIFORNIANS.

20 I THINK DR. SACKY ALSO HAS A QUESTION.  
21 SHE'S HAD HER HAND RAISED FOR A LONG TIME. THANK  
22 YOU, DR. CHOU.

23 DR. SACKY: THANK YOU SO MUCH. THANK YOU  
24 FOR REALLY THIS VERY RIGOROUS ANALYSIS. IF I CAN  
25 ACTUALLY ASK YOU TO GO A COUPLE OF SLIDES BACK TO

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1 GOALS 1 AND 2 SUMMARY TABLE.

2 DR. CANET-AVILES: JUST THE  
3 RECOMMENDATIONS OR JUST THE --

4 DR. SACKY: GOALS 1 AND 2 WHERE YOU HAD  
5 ESSENTIALLY PREVALENCE OF DISEASES. I THINK IT'S A  
6 COUPLE OF SLIDES BACK. YES. THANK YOU. I THINK  
7 THIS ACTUALLY SLIDE ILLUSTRATES THAT CALIFORNIA IS A  
8 SUBSET OF THE COUNTRY. THE FACT THAT WE HAVE  
9 HYPERTENSION, DIABETES, AND CARDIOVASCULAR RISK  
10 TOPPING THE LIST IS ACTUALLY REPRESENTATIVE. AND  
11 CALIFORNIA IS SO DYNAMIC AND THE POPULATION IS SO  
12 DIVERSE THAT I WOULD IMAGINE THAT IF WE FOCUS SIMPLY  
13 ON PREVALENCE OF DISEASES AFFECTING CALIFORNIANS, WE  
14 EFFECTIVELY WILL BE ADDRESSING THE KEY AREAS OF  
15 MORBIDITY AND MORTALITY FOR THE NATION AT LARGE.

16 I GUESS MY QUESTION IS, I KNOW THIS IS A  
17 NASCENT AREA OF RESEARCH, BUT GIVEN THE FACT THAT  
18 THERE IS SOME EMERGENT EVIDENCE THAT CLIMATE CHANGE  
19 IS GOING TO FURTHER ACTUALLY INCREASE THE PREVALENCE  
20 OF SOME DISEASES IN A WAY THAT WE HAVEN'T EVEN BEGUN  
21 TO MAP, I WONDER TO WHAT EXTENT YOUR ANALYSIS IS  
22 ALSO LOOKING FORWARD INTO THE FUTURE SOMEWHAT TO  
23 PREDICT WHICH OF THESE DISEASES ARE GOING TO BECOME  
24 EVEN MORE PREVALENT IN CALIFORNIA BECAUSE OF THE  
25 OUTSIDE IMPACT OF CLIMATE CHANGE IN THIS STATE? SO

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1 THAT'S ONE QUESTION.

2 AND THEN THE OTHER QUESTION IS I'M  
3 FASCINATED BY THE FACT THAT YOU SHOWED THE  
4 CALIFORNIA ECONOMIC BURDEN NEXT TO NIH SPEND. AND  
5 SO I WONDER IF WE WANT TO ALSO LEVERAGE THAT AND SAY  
6 IF NIH IS NOT FOCUSING ON THOSE DISEASES THAT ARE  
7 ACTUALLY CAUSING MORE ECONOMIC BURDEN ON CALIFORNIA,  
8 MIGHT THAT BE A GOOD STRATEGY FOR US TO FILL THAT  
9 GAP, THAT FUNDING GAP, SO THAT WE CAN ACTUALLY BE  
10 AHEAD OF THE COUNTRY?

11 DR. CANET-AVILES: YEAH. SO THOSE WERE --  
12 SO I'LL ANSWER YOUR FIRST QUESTION FIRST. IN TERMS  
13 OF THE FUTURE, ALL I CAN SAY, AND UNLESS DR. PATEL,  
14 WHO ALSO WAS DOING THE EXTERNAL ANALYSIS WITH IQVIA  
15 AND OTHER DATA, WANTS TO ADD SOMETHING ELSE, WHAT I  
16 COULD SAY THERE IS THAT WE LOOKED AT A RANGE OF  
17 DISEASES. AND BESIDES THE COVID, WE DIDN'T SEE  
18 OTHER TENDENCIES. BUT YOU ARE ABSOLUTELY CORRECT,  
19 THAT THERE MIGHT BE -- AND THIS IS THE -- DOING  
20 THESE ANALYSES AND RECOMMENDATIONS DOESN'T MEAN THAT  
21 WE STOP HERE. IT MEANS THAT WE ARE GOING TO KEEP AN  
22 EYE ON THE TRENDS, ET CETERA.

23 SO WE NEED TO TAKE THAT INTO ACCOUNT, BUT  
24 WE HAVE NOT DONE A FUTURE PREDICTION. SHYAM, DO YOU  
25 WANT TO ADD ANYTHING ELSE THERE?

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1 DR. PATEL: SO I THINK ROSA HAS MENTIONED  
2 ALREADY THAT THE PRIMARY FOCUS OF THIS PARTICULAR  
3 ANALYSIS WAS TO IDENTIFY DISEASES THAT ARE HIGHLY  
4 SIGNIFICANT FOR THE CALIFORNIA POPULATION. YOU'VE  
5 ALL ADDRESSED THE POINT THAT IT'S ALSO RELEVANT TO  
6 NOT ONLY U.S., BUT POSSIBLY GLOBAL POPULATIONS AS  
7 WELL. AND THE INTENT WAS TO THEN TAKE THOSE AND  
8 IDENTIFY IS IT AMENABLE TO STEM CELL MODELS AND ARE  
9 THERE BIOMARKER NEEDS HERE THAT WE CAN TARGET OUR  
10 FUNDING TOWARD, AS WELL AS IN THE LATER SLIDES YOU  
11 WILL SEE ABOUT THERAPEUTIC DEVELOPMENT AS WELL. AND  
12 WE WANTED TO MAKE SURE THAT WHEN WE REPRESENTED  
13 NUMBERS, WE PRESENTED NUMBERS THAT ARE RELEVANT FOR  
14 CALIFORNIA POPULATIONS. SO LIKE THE PATIENT COUNT  
15 AS WELL AS THE ECONOMIC BURDEN.

16 SO THAT WAS THE FRAMEWORK. YOU'RE RIGHT  
17 THAT WE SHOULD BE THINKING ABOUT FUTURE AS WELL, AND  
18 THAT CAN BE PART OF THE RECOMMENDATIONS GOING  
19 FORWARD. BUT THE INTENT HERE WAS TO HAVE A SET OF  
20 DISEASES THAT WE CAN ANALYZE FOR AMENABILITY AND  
21 ADDRESSABILITY WITH THE WAYS THAT WE FUND RESEARCH  
22 GIVEN PROPOSITION 14'S MANDATE.

23 DR. CANET-AVILES: I THINK DR. BLUMENTHAL  
24 WAS FIRST. DR. BLUMENTHAL.

25 DR. BLUMENTHAL: THANK YOU. FIRST OF ALL,

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1 I WANT TO THANK YOU AND YOUR TEAM FOR ACTUALLY  
2 PUTTING TOGETHER A VERY COMPREHENSIVE PLAN. AND THE  
3 AMOUNT OF WORK THAT WENT INTO IT IS IMPRESSIVE, AND  
4 I THINK THE PRODUCT REFLECTS THAT. SO THANK YOU. I  
5 THINK IT'S GREAT THAT WE'RE ABLE TO HAVE THIS  
6 CONVERSATION TODAY.

7 BUT I DO HAVE A QUESTION. AND I NOTICE  
8 THAT IN SEVERAL OF THE RECOMMENDATIONS, IN  
9 PARTICULAR RECOMMENDATIONS 1 AND 2, YOU HAVE  
10 SPECIFIC NUMBERS. FOR EXAMPLE, FOUR BIOMARKERS,  
11 FIVE TO EIGHT TECHNOLOGIES. AND I UNDERSTAND  
12 FURTHER THAT THOSE NUMBERS ARE BASED UPON THE KIND  
13 OF ANALYSIS THAT WAS SHOWN ON THE SLIDES OF  
14 PREVALENCE OF DISEASE AS WELL AS LACK OF INFORMATION  
15 CURRENTLY WHERE THERE'S ACTUALLY POTENTIAL  
16 SIGNIFICANT GAINS. I DO UNDERSTAND THAT. BUT THERE  
17 IS SOME TENSION AMONG THE DIFFERENT, THE SIX  
18 DIFFERENT GOALS. MORE RESOURCES IN ONE GOAL MIGHT  
19 VERY WELL MEAN FEWER RESOURCES IN ANOTHER GOAL.

20 SO MY QUESTION IS, IN ARRIVING AT THESE  
21 RECOMMENDATIONS IN TERMS OF THE NUMBERS, HAVE YOU  
22 ACTUALLY LOOKED AT RELATIVE PRIORITIES AMONG THE SIX  
23 GOALS, OR IS EACH RECOMMENDATION BASED ON ITS OWN  
24 ANALYSIS OF THAT PARTICULAR GOAL?

25 DR. CANET-AVILES: WE DID THE

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1 RECOMMENDATIONS BASED ON, NOT ONLY THE DATA, BUT  
2 LOOKING AT THE CURRENT PORTFOLIO AND THE PROGRAMS  
3 THAT ARE MAPPING AND WHAT ARE THE RESULTS OF THOSE  
4 PROGRAMS IN TERMS OF NUMBERS, ET CETERA. AND THEN  
5 WE APPLIED SOME ACCELERATING FACTORS. IF WE ARE  
6 GOING TO A TECHNOLOGY PLATFORMS FOCUS, THERE WILL BE  
7 AN ACCELERATING FOCUS FACTORED THERE. SO WE BASED  
8 IT ON THAT.

9 WE LOOKED AT IT IN ITS OWN FOR EACH ONE OF  
10 THEM IN THE WAY THAT WE PRIORITIZED THINGS SO FAR.  
11 SO WE WEIGHTED IT, AT LEAST FROM MY POINT OF VIEW,  
12 WE WERE WEIGHTING THINGS IN AN EQUAL MANNER AS TO  
13 THE RELATIVE AMOUNTS THAT WE'VE BEEN SPENDING SO FAR  
14 UNDER THE PILLARS. THAT'S HOW WE WERE LOOKING AT  
15 IT.

16 NOW IF, SAY, THE BOARD DECIDES THAT THEY  
17 WANT TO GIVE MORE EMPHASIS, JUST FOR THE SAKE OF  
18 DISCUSSION, TO THE ACCESSIBILITY AND AFFORDABILITY,  
19 FOR EXAMPLE, THEN WE MIGHT HAVE TO -- WELL, THAT  
20 GOAL IS ONE OF THE ONES THAT DOESN'T HAVE A  
21 QUANTIFIER TO THE DISCOVERY. THAT THE BOARD SAYS,  
22 NO, WE REALLY THINK THAT WE SHOULD HAVE MORE IMPACT  
23 IN PREVALENT DISEASES FOR CALIFORNIANS AND WE  
24 WANT -- SO THEN WE MIGHT HAVE TO WEIGH A LITTLE BIT  
25 MORE AND SAY IN FOUR, NO. IT'S GOING TO BE ACTUALLY

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1 SEVEN BECAUSE WE ARE GOING TO DOUBLE THE AMOUNT OF  
2 MONEY. SO THAT'S SOMETHING THAT YOU MIGHT WANT TO  
3 TAKE INTO ACCOUNT. SO THE WEIGHT HAS BEEN EQUAL AND  
4 BASED ON THE PREMISE OF WHAT WE'VE BEEN DOING NOW  
5 PER PILLAR.

6 DR. ALMASRI: THANK YOU. I THINK THIS IS  
7 A GREAT STRATEGY TO LOOK AT THE GAP BETWEEN NIH  
8 FUNDING AND THE CALIFORNIA BURDEN BECAUSE THIS IS  
9 AFTER ALL A CALIFORNIA PROGRAM. NOW, WHEN I LOOK AT  
10 WHAT IS THE MOST CALIFORNIA-SPECIFIC BURDEN, I THINK  
11 WHAT MAY BE MISSING FROM THIS LIST IS  
12 COCCIDIOIDOMYCOSIS, VALLEY FEVER. ALTHOUGH MANY OF  
13 US MAY THINK OF IT AS ENDEMIC AND INFECTIOUS, BUT WE  
14 KNOW THAT THERE IS A HUGE GENETIC COMPONENT TO THE  
15 NOT ONLY SUSCEPTIBILITY, WHO IS LIKELY TO DEVELOP  
16 THE DISEASE AFTER EXPOSURE AND WHO'S LIKELY TO  
17 DISSEMINATE DISEASE THAT HAS HUGE BURDEN OVER  
18 LIFETIME TREATMENT.

19 NOW, AND ALSO TO ADD TO DR. SACKY, IT'S  
20 ALSO THE CLIMATE CHANGE IS ACTUALLY SPREADING THIS  
21 FURTHER AND FURTHER. THIS IS ALSO A DISEASE THAT IS  
22 LACKING A LOT OF FUNDING FROM NIH. I CAN GUESS THAT  
23 PROBABLY THE GAP BETWEEN THE CALIFORNIA BURDEN AND  
24 NIH FUNDING IS PROBABLY THE GREATEST HERE. AND ALSO  
25 WE KNOW THAT WE HAVE LACK OF BIOMARKERS THAT WE



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1 CLINICIANS NEED TO HELP CALIFORNIA PATIENTS WITH  
2 THIS.

3 BY THE WAY, IT'S ALSO PRESENT IN ARIZONA,  
4 AND NOW WE CAN SEE IT HAPPENING IN OREGON AND OTHER  
5 STATES, BUT CALIFORNIA HAS ACTUALLY THE MAJOR BURDEN  
6 OF THIS DISEASE.

7 DR. CANET-AVILES: YEAH. THAT'S A GOOD  
8 POINT. I THINK -- I WAS LOOKING AT THE PREVALENCE  
9 RIGHT NOW OF VALLEY FEVER IN CALIFORNIA. IT'S ABOUT  
10 9,000 REPORTED CASES ANNUALLY IN CALIFORNIA AND MORE  
11 THAN 10,000 REPORTED CASES IN 2022 WHEN IT WAS THE  
12 HIGHEST. IT IS IMPORTANT. IT'S NOT AMENABLE TO  
13 CELL AND GENE THERAPIES, BUT IT HAS A NEED FOR  
14 BIOMARKER DISCOVERY, MECHANISTIC DISCOVERY. SO IF  
15 THERE ARE STEM CELL MODELS THAT WE CAN -- THAT COULD  
16 BE A DISEASE THAT -- WE ARE NOT GOING TO SAY WE ARE  
17 GOING TO FOCUS ON THIS DISEASE, BUT WE WILL ACCEPT  
18 APPLICATIONS BECAUSE, AS I WAS MENTIONING ON GOAL 1,  
19 WHICH IS A VERY GOOD POINT, BY THE WAY. WHAT I WAS  
20 SAYING IS WHAT WE WANT TO DO IS HAVE MORE OF A  
21 SYSTEMS APPROACH. SAY THAT YOU HAVE THE IMMUNE  
22 SYSTEM INVOLVED IN ALZHEIMER'S DISEASE, IN VALLEY  
23 FEVER, IN NEUROPSYCHIATRIC. SO LET'S INTERROGATE  
24 THE IMMUNE SYSTEM AND LET'S SEE WHAT KIND OF LIKE  
25 COMMON NODES ARE AROUND THOSE THAT WE CAN IDENTIFY

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1 TARGETS BECAUSE IT'S GOING TO BE MORE THE DISEASE  
2 MODEL, NOT SO LOGICAL ENTITY. WE ARE LOOKING AT  
3 WHAT IS THE PILL OR THE THERAPY THAT ONE DAY WE WILL  
4 TAKE TO TREAT THIS NODE THAT'S AFFECTING PATIENTS IN  
5 ALZHEIMER'S, IN DEPRESSION, IN VALLEY FEVER. YOU  
6 KNOW WHAT I MEAN?

7 SO IT'S MORE OF A SYSTEMS APPROACH THAT WE  
8 ARE PROPOSING. SO WE WILL BE INCLUDING DISEASES  
9 LIKE VALLEY FEVER IF THE MODEL IS THERE AND IT'S  
10 RIGOROUS AND THE GRANTS WORKING GROUP ACCEPTS IT.

11 ONE THING THAT I DIDN'T ANSWER TO DR.  
12 SACKY, AND I APOLOGIZE BECAUSE WE PASSED INTO  
13 ANOTHER QUESTION, BUT YOU HAD ASKED ABOUT THE NIH  
14 AND THE CALIFORNIA FUNDING. YES. THAT'S WHY WE  
15 WERE LOOKING, FOR EXAMPLE, IN CANCERS. MELANOMA  
16 DOES NOT RECEIVE A LOT OF FUNDING FROM THE NIH  
17 AMONGST ALL THE CANCERS. NCI HAS A VERY LARGE  
18 BUDGET, BUT IT DOES NOT HAVE A LOT -- AND MELANOMA  
19 IS ONE OF THE MOST PREVALENT CANCERS IN CALIFORNIA.

20 SO AS YOU CAN SEE, THE RECOMMENDATIONS  
21 HERE DO NOT HAVE LIKE A VERY SPECIFIC. WE COULDN'T  
22 DO THAT. WE DIDN'T WANT TO GO AND SAY THIS IS  
23 EXACTLY WHAT WE ARE GOING TO FUND. RIGHT? THAT IS  
24 GOING TO COME IF THE BOARD DEEMS THIS APPROVABLE,  
25 THEN WE ARE COMING TO YOU, AS YOU WILL SEE IN THE

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1 LAST SLIDE, WITH TRANCHES OF CONCEPTS AND AMENDMENTS  
2 THAT WILL PROVIDE THE GRANULARITY. AND THAT'S WHERE  
3 WE WILL SAY, OKAY, OF CANCERS WE WILL FUND, BUT IT'S  
4 GOING TO BE FOCUSED -- PRIORITIZATION WILL BE ON  
5 THIS ONE AND THIS ONE BECAUSE OF NIH NOT FUNDING IT  
6 OR AMENABILITY TO STEM CELL AND GENE THERAPIES, ET  
7 CETERA. THAT'S COMING IN JANUARY AND IN MARCH, ET  
8 CETERA. SO THAT'S AN EXCELLENT POINT. THAT'S WHY  
9 WE ADDED THAT DATA.

10 DR. SACKY: THANK YOU. THAT'S GREAT.

11 DR. THOMAS: ROSA, CAN I JUST ADD ON THE  
12 NIH POINT. SORT OF A BROADER THOUGHT IS THAT IF YOU  
13 GO BACK TO THE LANGUAGE OF PROP 71, ONE OF THE  
14 MANDATES OF IT WAS THAT CIRM FUND THINGS THAT NIH  
15 DOESN'T. AND TO THIS DAY WE HAVE THAT AS AN OVERLAY  
16 TO WHAT WE'RE LOOKING TO FUND. NOW, OBVIOUSLY WE'VE  
17 FUNDED STUFF THAT THEY DON'T. WE'VE FUNDED STUFF  
18 THAT THEY DO ON THE THEORY THAT THE MORE THINGS YOU  
19 FUND IN A GIVEN AREA, THE BETTER SHOT YOU HAVE OF  
20 GETTING A POSITIVE RESULT. BUT THAT QUESTION IS  
21 SOMETHING THAT IS A GUIDING FACTOR FOR HOW CIRM  
22 OPERATES AND HAS FOR THE LAST 20 YEARS. THANK YOU  
23 FOR ASKING THAT. IT'S A VERY IMPORTANT QUESTION.

24 DR. TAYLOR: THANK YOU SO MUCH. I HAVE A  
25 QUESTION ON SLIDE 22. THAT'S RELATED TO THIS NEW

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1 PROPOSED PROGRAM, FUNDING PROGRAM, DISC4, WHICH  
2 APPEARS TO ME AS VERY IMPORTANT FOR USE-INSPIRED  
3 RESEARCH FOR CELL AND GENE THERAPY, THE LARGER SCALE  
4 COLLABORATION WITH INDUSTRY TO ADVANCE THESE  
5 INNOVATIONS TO MARKET BECAUSE OF WE TALKED ABOUT  
6 SCALABILITY, DERISKING THE TECHNOLOGIES, HIGHER  
7 LIKELIHOODS OF SUCCESS IN THOSE COLLABORATIONS. BUT  
8 WITH THAT COMES A LOT OF COMPLICATION OR NUANCE TO  
9 INTELLECTUAL PROPERTY, INTELLECTUAL PROPERTY  
10 LICENSING.

11 AND SO I'M CURIOUS BECAUSE IT MAY REQUIRE  
12 SUBSTANTIAL NEW RESOURCES TO ADDRESS THOSE FUNDING  
13 MECHANISMS IN A WAY THAT MAINTAINS THE INTEGRITY OF  
14 ACCESS AND AFFORDABILITY FOR PATIENTS IN CALIFORNIA,  
15 FOR EXAMPLE.

16 SO CURIOUS ABOUT WHAT WE'RE DOING TO  
17 PREPARE ULTIMATELY FOR WHAT MIGHT BE A BIT OF A  
18 SHIFT IN HOW THOSE FUNDS ARE PROVIDED AND THE  
19 MECHANISMS IN PLACE TO MAINTAIN THE MISSION.

20 DR. CANET-AVILES: YEAH. THANK YOU. SO  
21 IN GENERAL OUR IP STAYS WITH THE APPLICANT  
22 INSTITUTION. RIGHT? SO THERE IS A COLLABORATIVE  
23 EFFORT AT THE LEVEL OF DISCOVERY. THERE MIGHT BE IP  
24 GENERATED WITH THE DISCOVERY OF A NEW TARGET, AND  
25 THAT COULD FALL WITHIN THE COLLABORATORS TO FIGURE

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1 IT OUT. SO IF INDUSTRY, FOR EXAMPLE, THEY MIGHT BE  
2 SHARING IP. RIGHT? IF THEY HAVE THE RIGHT MODEL AT  
3 AN INDUSTRY OR THEY WILL HAVE OTHER TYPES OF  
4 EXPERTISE, THAT COULD BE FALLING ON THEM. THAT'S AT  
5 THE DISCOVERY LEVEL. THAT COULD BE THE ANSWER.

6 BUT I'M NOT SAYING THAT WE MIGHT HAVE TO  
7 LOOK AT OTHER WAYS. SO I'LL GIVE YOU AN EXAMPLE OF  
8 OUR THINKING. SO WHEN WE FIRST DEVELOPED THE  
9 REMIND, WHICH IS THE DISC4 FOR NEUROPSYCHIATRIC  
10 DISEASES, ONE OF THE THINGS THAT WE ADDED, WHICH  
11 ACTUALLY BECAME A LITTLE MORE COMPLICATED BECAUSE  
12 APPLICANTS FOUND OTHER WAYS TO UTILIZE THAT MONEY,  
13 BUT THE IDEA WAS WE FUNDED \$10 MILLION, AND WE ALSO  
14 FUNDED AN EXTRA UP TO \$2 MILLION IF THE APPLICANTS  
15 WERE ABLE TO PROVIDE \$2 MILLION IN MATCHING FUNDS.

16 THE REASON WE DID THAT WAS BECAUSE ONE OF  
17 THE THINGS THAT PRECLUDES APPLICANTS FROM ENGAGING  
18 IN COLLABORATION, SAY, WITH OTHER PLACES, OTHER  
19 STATES, AND INSTITUTIONS THAT MIGHT HAVE GREAT  
20 EXPERTISE COMPLEMENTARY IS BECAUSE THE IP NEEDS TO  
21 STAY WITHIN THE CALIFORNIA INSTITUTION WITH  
22 CALIFORNIA FUNDING. SO WE DECIDED TO DO THAT  
23 BECAUSE THE OTHER FUNDING, THE MATCHING FUNDS, WERE  
24 COMING FROM THE OTHERS. RIGHT? SO THEY COULD FIND  
25 AN ARRANGEMENT THAT SOME OF THE IP COULD STAY, SAY,

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1 WITH THE BROAD OR SOMEWHERE ELSE. THAT'S WHY WE DID  
2 IT.

3 BUT IT COULD BE THAT -- I'M GOING TO THROW  
4 IT ONTO OUR LEGAL GENERAL COUNSEL, THAT WE MIGHT  
5 HAVE TO REVISE THOSE POLICIES OR THINK ABOUT HOW WE  
6 CAN -- RAFAEL, DO YOU WANT TO SAY SOMETHING?

7 MR. AGUIRRE-SACASA: THANK YOU, ROSA.  
8 DON, THAT'S RIGHT. WE'RE CONSTANTLY WORKING WITH  
9 THE TEAM TO SEE HOW WE CAN BEST SUPPORT THEM. AND  
10 IF WE NEED TO, WE'LL REVISE OUR POLICIES. WE'RE  
11 ACTUALLY CURRENTLY REVIEWING OUR EXISTING IP  
12 POLICIES TO SEE WHERE WE NEED TO MAKE CHANGES. AND  
13 WE'LL WORK WITH ROSA AND THE TEAM TO SEE HOW WE CAN  
14 BEST SUPPORT THEM FROM AN IP REGULATION PERSPECTIVE,  
15 BUT WE'LL BE HAVING FOLLOW-ON CONVERSATIONS, I  
16 IMAGINE, DON. THANK YOU.

17 DR. CANET-AVILES: SCOTT, SHALL I MOVE  
18 FORWARD?

19 MR. TOCHER: WE HAVE A TIME CONSTRAINT ON  
20 LUNCH, A VERY TIGHT WINDOW THAT WE'RE ALLOWED TO  
21 EAT.

22 DR. CANET-AVILES: IT'S MORE IMPORTANT  
23 THAN A YEAR OF DEVELOPMENT, BUT IT'S OKAY.

24 MR. TOCHER: SO WHAT I'M GOING TO SUGGEST  
25 IS THAT ROSA PRESENT GOALS 3 AND 4. THEN I'D SAY WE

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1 CAN GO MAYBE AS DEEP AS 12:10 FOR THAT. WE'LL MARCH  
2 UPSTAIRS REAL QUICK, RECHARGE, THIRD FLOOR, COME  
3 BACK DOWN AND OPEN THE DISCUSSION ON THOSE ITEMS.  
4 SO YOU'LL LET IT PERCOLATE A LITTLE BIT.

5 DR. CANET-AVILES: I'M GOING TO HIDE  
6 DURING LUNCH.

7 MR. TOCHER: WE'RE GOING TO COME BACK  
8 HIGHLY ENERGIZED, BUT DISCIPLINE IS THE ORDER OF THE  
9 DAY.

10 DR. CANET-AVILES: KEEP GOING. GOALS 3  
11 AND 4, I WANT TO THANK ESPECIALLY DR. CREASEY, WHO  
12 WAS VERY HELPFUL IN THE DEVELOPMENT OF THESE GOALS  
13 TOGETHER WITH DR. SHYAM PATEL AND EVERYBODY ELSE.  
14 IT WAS INPUT FROM DR. CREASEY.

15 SO AS WE CONTINUE TO DRIVE INNOVATION  
16 WITHIN REGENERATIVE MEDICINE, ONE OF THE MAJOR  
17 CHALLENGES THAT WE FACE AT CIRM IS ADDRESSING THE  
18 WIDER SPECTRUM OF DISEASES FROM RARE TO COMMON. AND  
19 EACH REQUIRES A NUANCED APPROACH AND SPECIFIC  
20 RESOURCES. HISTORICALLY OUR EFFORTS HAVE  
21 PREDOMINANTLY TARGETED RARE DISEASES, WHICH HAS  
22 ALLOWED US TO MAKE SIGNIFICANT STRIDES IN AREAS THAT  
23 OFTEN LACK ATTENTION AND FUNDING AND WERE MORE PRIME  
24 FOR CELL AND GENE THERAPIES. THEY WERE PART OF THE  
25 PARADIGM WITH HIGH IMPACT AND LOW SCALE.

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1 BY CONCENTRATING ON THOSE CONDITIONS, CIRM  
2 HAS CATALYZED ADVANCEMENTS IN THE TRANSLATION OF  
3 THESE FINDINGS INTO CLINICAL APPLICATIONS TO THE  
4 POINT THAT THE LARGEST PROPORTION OF PROJECTS THAT  
5 WILL BE READY TO BLA IN THE NEXT TWO TO FOUR YEARS  
6 FROM OUR PORTFOLIO CORRESPONDS TO THERAPIES  
7 TARGETING RARE AND ULTRA-RARE DISEASE.

8 SO IN THIS SLIDE WE OUTLINE OUR  
9 PRELIMINARY GOALS 3 AND 4 WHICH ARE GEARED TOWARDS  
10 NOT JUST MAINTAINING, BUT ACCELERATING THIS  
11 MOMENTUM. THE TWO GOALS THAT WE HAVE DEVELOPED  
12 FOCUS ON GOAL 3 WILL HELP US ADVANCE RARE DISEASE  
13 PROJECTS TO BLA BY LEVERAGING GENE EDITING  
14 TECHNOLOGIES AS WE WILL SEE VERY SOON. AND GOAL 4,  
15 ON THE OTHER HAND, SEEKS TO PROPEL THERAPIES  
16 TARGETING DISEASES THAT SIGNIFICANTLY AFFECT  
17 CALIFORNIANS TO LATE STAGE TRIALS.

18 THE OBJECTIVE HERE IS ACCELERATE THE  
19 TIMELINE TO LATE STAGE CLINICAL DEVELOPMENT FOR  
20 THERAPIES THAT TARGET DISEASES AFFECTING  
21 CALIFORNIANS, ANY DISEASE.

22 LET'S DELVE DEEPER INTO WHAT PROCESS DID  
23 WE FOLLOW TO MAKE THE RECOMMENDATIONS TO ACHIEVE  
24 THESE GOALS. SO THE FOCUS OF GOAL 3 IS TO ADVANCE  
25 FOUR TO SEVEN RARE-DISEASE PROJECTS TO BIOLOGICS



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1 LICENSE APPLICATION, AND THIS GOAL IS CRITICAL FOR  
2 THE SUCCESS OF OUR MISSION. TO ACHIEVE THIS, WE  
3 NEED TO EVALUATE OUR HISTORICAL AND CURRENT EFFORTS,  
4 INFRASTRUCTURE UTILIZATION, POTENTIAL NEW  
5 APPROACHES, AND ENSURE THAT WE HAVE THE RIGHT  
6 PARTNERSHIPS IN PLACE.

7 BY ADDRESSING THESE HIGH LEVEL QUESTIONS,  
8 WE WILL BE BETTER EQUIPPED TO REFINE OUR STRATEGIC  
9 INITIATIVES, ENSURING THAT CIRM'S RESOURCES ARE  
10 EFFECTIVELY UTILIZED TO ADVANCE RARE-DISEASE  
11 PROJECTS TOWARDS A BLA AND EVENTUALLY  
12 COMMERCIALIZATION, BUT BLA IS THE GOAL.

13 GOAL 4, ON THE OTHER HAND, IS CENTERED ON  
14 PROPELLING 15 TO 20 THERAPIES, AND THIS IS ALIGNED  
15 WITH DR. BLUMENTHAL'S QUESTION. THIS WAS WEIGHTED  
16 ON HOW WE SPEND MONEY ON THE TRANSLATIONAL, FOR  
17 EXAMPLE, PILLAR. FIFTEEN TO 20 THERAPIES TARGETING  
18 DISEASES AFFECTING CALIFORNIANS TO LATER STAGE  
19 TRIALS. THIS GOAL IS CRUCIAL IN ENSURING THAT  
20 THERAPIES FOR CONDITIONS PARTICULARLY RELEVANT TO  
21 CALIFORNIA POPULATION MOVE EFFICIENTLY THROUGH OUR  
22 PIPELINE AND TO LATER STAGE DEVELOPMENT.

23 THIS GOAL WILL ALSO LEVERAGE SOME OF THE  
24 GOAL 2 INFRASTRUCTURE TECHNOLOGY PLATFORM INITIATIVE  
25 THAT WE SPOKE ABOUT BECAUSE THIS IS WHAT WILL MAKE

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1 OUR TRANSLATIONAL PIPELINE, THE PRECLINICAL  
2 DEVELOPMENT TOGETHER WITH THE TECHNOLOGY PLATFORMS.  
3 SO BY ADDRESSING THE HIGH LEVEL QUESTIONS HERE, WE  
4 WILL BE ABLE TO REFINE THE STRATEGIC INITIATIVES AND  
5 ENSURE THAT CIRM EFFECTIVELY SUPPORTS THE  
6 ADVANCEMENT OF THERAPIES TARGETING DISEASES THAT ARE  
7 HIGHLY RELEVANT TO THE CALIFORNIANS.

8 THESE ARE THE DATA SOURCES, AGAIN, IN THE  
9 MEMO WITH DETAILS, BUT I WOULD LIKE TO HIGHLIGHT  
10 AGAIN THAT WHAT WE ARE SHOWING HERE IS JUST A  
11 SNAPSHOT REPRESENTATIVE OF ALL THE DATA GATHERED  
12 THROUGH THESE DATA SOURCES WHICH IS NOT POSSIBLE TO  
13 SHOW IN A TWO-HOUR PRESENTATION.

14 NOW, LET'S DIG INTO THE FOUR SLIDES WITH  
15 DATA. THIS SLIDE PROVIDES AN OVERVIEW OF HOW MUCH  
16 OF CIRM'S HISTORICAL R&D PORTFOLIO IS RARE VERSUS  
17 ULTRA-RARE. THIS IS THE HISTORICAL PORTFOLIO. THE  
18 NEXT SLIDE IS THE ACTIVE PORTFOLIO, JUST TO SAY WHAT  
19 YOU ARE LOOKING AT RIGHT NOW.

20 SO THE DATA ON CIRM'S HISTORICAL PORTFOLIO  
21 REVEALS A NOTABLE TREND. AT THE DISCOVERY LEVEL AND  
22 TRANSLATIONAL STAGES, THERE'S A SLIGHT MAJORITY  
23 FOCUS ON PREVALENT DISEASES -- THAT'S ALIGNED WITH  
24 WHAT WE WERE SAYING, THE READINESS -- WITH THE  
25 DISTRIBUTION BEING APPROXIMATELY 55 PERCENT

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1 PREVALENT VERSUS 45 PERCENT RARE AND ULTRA-RARE.  
2 HOWEVER, AS WE MOVE INTO THE LATER STAGES OF  
3 DEVELOPMENT, PARTICULARLY THE IND-ENABLING AND POST  
4 IND, CLIN2 ACTIVITIES, THIS TREND SHIFTS. AND IN  
5 THESE LATER STAGES, THE FOCUS STILL IS TOWARDS RARE  
6 AND ULTRA-RARE DISEASE WITH THE POSITION REVERSING  
7 TO APPROXIMATELY 45 FOR PREVALENT VERSUS 55 FOR RARE  
8 AND ULTRA-RARE.

9 THIS SHIFT UNDERSCORES CIRM'S STRATEGIC  
10 EMPHASIS ON ADVANCING THERAPIES FOR RARE AND  
11 ULTRA-RARE DISEASES AS THEY PROGRESS CLOSER TO  
12 CLINICAL APPLICATION AND POTENTIAL MARKET APPROVAL.  
13 AND THIS WILL BE REFLECTED IN THE RECOMMENDATIONS.

14 THE CHIEF REASON FOR FOCUSING ON PREVALENT  
15 DISEASES IN THE EARLY STAGES OF THE CIRM PIPELINE TO  
16 RARE AND ULTRA-RARE DISEASES IN THE LATER STAGE,  
17 PARTICULARLY IN THE CONTEXT OF CELL AND GENE  
18 THERAPIES, CAN BE ATTRIBUTED TO SEVERAL FACTORS.  
19 SOME OF THEM ARE THE TARGETED NATURE OF CELL AND  
20 GENE THERAPIES, REGULATORY INCENTIVES, AND MARKET  
21 OPPORTUNITIES, THE COMPLEXITY AND THE COST OF THE  
22 DEVELOPMENT, AND THE UNMET NEED AND THE IMPACT AS  
23 WELL.

24 NEXT SLIDE SHOWS THE ACTIVE PORTFOLIO.  
25 THE MAIN MESSAGE HERE IS THAT THE TREND IS

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1 MAINTAINED. SO BASICALLY AT THE DISCOVERY AND  
2 TRANSLATIONAL WE HAVE A LITTLE BIT MORE IN THE  
3 PERCENTAGE OF PREVALENT VERSUS RARE/ULTRA-RARE;  
4 WHEREAS, WHEN WE GO INTO YOU CAN SEE FOR CLIN2, FOR  
5 EXAMPLE, PREVALENT IS ABOUT 45 PERCENT VERSUS --  
6 ACTUALLY IT WAS 46 PERCENT VERSUS 54 PERCENT FOR  
7 RARE AND ULTRA-RARE, WHICH ARE NEARLY 50-50, NOT  
8 EXACTLY. SO THAT'S JUST TO GIVE YOU THE IMAGE OF  
9 HOW OUR PORTFOLIO IS VERY EMPHASIZED AT THE CLINICAL  
10 LEVEL WITH RARE AND ULTRA-RARE DISEASES.

11 NOW, THIS SLIDE PROVIDES AN OVERVIEW OF  
12 THE CURRENT LANDSCAPE OF CELL AND GENE THERAPY  
13 CANDIDATES ACROSS VARIOUS DISEASES, INCLUDING BOTH  
14 RARE AND NONRARE CONDITIONS. WHAT WE OBSERVE HERE  
15 IN THIS SLIDE IS THAT WHILE THERE'S A SIGNIFICANT  
16 ACTIVITY IN THE CELL AND GENE THERAPY PIPELINE WITH  
17 MANY CANDIDATES ACROSS A RANGE OF DISEASES -- AGAIN,  
18 THIS IS MOSTLY THE DISEASES THAT AFFECT  
19 CALIFORNIANS -- THE MAJORITY OF THESE AREAS ARE  
20 STILL IN THE PRECLINICAL OR EARLY CLINICAL STAGES.  
21 CIRM HAS YET TO FUND A PROJECT THAT HAS SUCCESSFULLY  
22 LED TO AN APPROVED THERAPY, WHICH REFLECTS THE  
23 BROADER REALITY OF THE FIELD. MOST CELL AND GENE  
24 THERAPY EFFORTS ARE STILL IN THE EARLY STAGES AND  
25 HAVE NOT YET REACHED COMMERCIALIZATION FOR PREVALENT

1 DISEASES.

2 EXCEPTIONS ARE FEW WITH APPROVALS  
3 PRIMARILY SEEN IN AREAS LIKE TYPE 1 DIABETES,  
4 MELANOMA, AND PROSTATE CANCER, WHICH I WILL SHOW IN  
5 THE SECOND SLIDE THAT SHOWS CANCERS. AND THIS  
6 UNDERSCORES THE ONGOING CHALLENGES AND THE LONG  
7 DEVELOPMENT TIMELINES ASSOCIATED WITH BRINGING THESE  
8 INNOVATIVE THERAPIES TO MARKET AND THE RELEVANCE TO  
9 THIS STRATEGIC EXERCISE LEADING TO RECOMMENDATIONS  
10 THAT WILL HELP US WITH ADVANCING THIS.

11 THIS IS, AGAIN, NOT TO HIGHLIGHT CANCER,  
12 BUT JUST TO ADD THE CANCER DATA. AND AS YOU CAN  
13 SEE, PROSTATE CANCER AND MELANOMA ARE THE ONLY ONES  
14 THAT HAVE AN APPROVED THERAPY IN THE CGT ARENA IN  
15 THE U.S. AND INTERESTINGLY MELANOMA RECEIVES LESS  
16 MONEY FROM THE NCI, BUT THEY HAVE AN APPROVED  
17 THERAPY VERSUS ALL THE CANCER. AND THESE ARE THE  
18 MOST RELEVANT. AND THIS WAS THERE JUST AS A  
19 REFERENCE TO COMPARE TO THE PREVIOUS GRAPH IN TERMS  
20 OF HOW PREVALENT THE DISEASE IS.

21 SO THIS IS SLIDE IS AN ANIMATED SLIDE.  
22 THIS SHOWS OUR PORTFOLIO FROM -- R&D PORTFOLIO  
23 CURRENT. AND IT PROVIDES -- IT'S GOING TO PROVIDE  
24 AN OVERVIEW OF THE ELEMENTS THAT ARE CRITICAL AS WE  
25 NAVIGATE THE COMPLEXITIES OF DEVELOPING INNOVATIVE

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1 THERAPIES AND THE FRAMEWORK ESTABLISHED BY PROP 14,  
2 WHICH MANDATES SUPPORT OF THERAPIES THAT BENEFIT  
3 CALIFORNIANS. AND THIS IS MAPPED TO OUR PIPELINE  
4 AGAIN.

5 SO IN TERMS OF TRANSLATIONAL GAPS AND  
6 OPPORTUNITIES, A SIGNIFICANT CHALLENGE IN OUR  
7 PIPELINE IS THE DISCONNECT BETWEEN THE EARLY AND  
8 LATE TRANSLATIONAL PHASE. BRIDGING THAT GAP AND  
9 BETTER ALIGNING THE PROGRAMS IS ESSENTIAL FOR US TO  
10 ENSURE THAT PROMISING DISCOVERIES THAT WE FUND CAN  
11 MOVE EFFICIENTLY FROM THE LAB TO CLINICAL  
12 DEVELOPMENT. IN ADDITION TO THAT, AS THE FIELD  
13 MATURES, THERE ARE OPPORTUNITIES TO STREAMLINE THESE  
14 PROCESSES, REDUCING TIME AND COST TO ACCELERATE THE  
15 TRANSITION TO CLINICAL TRIALS.

16 IN TERMS OF REGULATORY AND LATER STAGE  
17 CHALLENGES, AS WE MOVE INTO THE CLINICAL PHASES,  
18 REGULATORY INNOVATION PRESENTS AN OPPORTUNITY TO  
19 ENHANCE EFFICIENCY OF CLINICAL STUDIES -- SORRY --  
20 DEVELOPMENT AND COMPLEXITIES. SO WHAT I MEANT TO  
21 TALK IS ABOUT THE DEVELOPMENT COMPLEXITIES FOR RARE  
22 DISEASES, WHICH ACTUALLY IS SOMETHING THAT DR.  
23 CREASEY IS LEADING. AND WE WILL TALK ABOUT THE RARE  
24 DISEASE PLATFORM, BUT DEVELOPING GENE THERAPIES IS  
25 COSTLY AND TIME CONSUMING, MAKING IT PARTICULARLY

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1 CHALLENGING TO SCALE THESE EFFORTS ACROSS THE  
2 THOUSANDS OF RARE DISEASES THAT EXIST. THIS  
3 COMPLEXITY HIGHLIGHTS THE NEED FOR INNOVATIVE  
4 APPROACHES, WHICH IS WHAT DR. CREASEY HAS BEEN  
5 DEVELOPING TO MAKE THESE THERAPIES MORE ACCESSIBLE  
6 TO A BROADER RANGE OF RARE CONDITIONS.

7 NOW, REGULATORY AND LATER STAGE  
8 CHALLENGES, AS WE MOVE INTO THE CLINICAL PHASES, THE  
9 REGULATORY INNOVATION AND OPPORTUNITY TO ENHANCE  
10 EFFICACY OF CLINICAL STUDIES IS NECESSARY. THIS CAN  
11 BE ACHIEVED THROUGH MASTER PROTOCOLS THAT ALLOW THE  
12 SIMULTANEOUS EVALUATION OF MULTIPLE THERAPIES FOR  
13 DIFFERENT DISEASES, POTENTIALLY SPEEDING UP THE  
14 DEVELOPMENT PROCESS. MOREOVER, LATER STAGE PROGRAMS  
15 OFTEN REQUIRE EXTENSIVE INVESTMENT, PARTICULARLY IN  
16 CMC. AND THESE REQUIREMENTS CAN DELAY READINESS FOR  
17 BLA APPLICATIONS, UNDERSCORING THE NEED FOR  
18 STRATEGIC PLANNING AND RESOURCE ALLOCATION IN THE  
19 LATER STAGES OF DEVELOPMENT. JUST TO SAY ALL THESE  
20 OPPORTUNITIES AND CHALLENGES ARE GOING TO BE MAPPED  
21 TO THE RECOMMENDATIONS. THAT'S WHY WE PUT THEM IN  
22 THIS WAY.

23 BY ADDRESSING THESE CHALLENGES, THERE IS A  
24 SIGNIFICANT POTENTIAL TO STREAMLINE THE TRANSLATION  
25 AND DEVELOPMENT PIPELINE, REDUCING BARRIERS, AND

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1 ACCELERATING THE PATH FROM DISCOVERY TO PATIENT  
2 ACCESS.

3 IN SUMMARY, WHILE THE CELL AND GENE  
4 THERAPY R&D PIPELINE FACES SEVERAL CHALLENGES, THEY  
5 ALSO PRESENT OPPORTUNITIES FOR INNOVATION AND  
6 IMPROVEMENT. AND WE WILL BE ADDRESSING THIS THROUGH  
7 GOALS 3 AND 4 AND THE RECOMMENDATIONS THAT COME WITH  
8 THAT.

9 SO FOR GOAL 3 THE OBJECTIVE IS TO ADVANCE  
10 RARE DISEASE THERAPIES TO BLA APPLICATION AND  
11 POTENTIAL APPROVAL. IT FOCUSES ON ADVANCING FOUR TO  
12 SEVEN RARE-DISEASE PROJECTS TO BLA. AND ACHIEVING  
13 THIS GOAL REQUIRES ADDRESSING KEY BOTTLENECKS IN THE  
14 PIPELINE AND IMPLEMENTING STRATEGIC INITIATIVES TO  
15 ENHANCE THE EFFICIENCY AND SCALABILITY OF CELL AND  
16 GENE THERAPY DEVELOPMENT FOR RARE DISEASES, MORE  
17 GENE THERAPIES.

18 AS I MENTIONED, ONE SIGNIFICANT BOTTLENECK  
19 IS THE ADVANCEMENT OF RARE-DISEASE THERAPIES IS THE  
20 EXTENSIVE INVESTMENT REQUIRED FOR LATER STAGE  
21 PROGRAMS, PARTICULARLY IN CMC. AND THESE CHALLENGES  
22 OFTEN PREVENT OR DELAY BLA READINESS, HINDERING THE  
23 PROGRESSION OF PROMISING THERAPIES. SO OUR  
24 RECOMMENDATION IS TO OVERCOME THESE CHALLENGES, WE  
25 PROPOSE TO INCREASE AND SCALE THE CLIN4 FUNDING.



1 AND THIS FUNDING WILL COMPREHENSIVELY ADDRESS BLA  
2 READINESS GAPS IN MANUFACTURING, CLINICAL, AND  
3 NONCLINICAL RESEARCH, AS WELL AS  
4 PRECOMMERCIALIZATION ACTIVITIES. AND BY DOING SO WE  
5 CAN INCREASE THE SPEED AND PROBABILITY OF SUCCESS  
6 FOR BLA SUBMISSIONS, ULTIMATELY ACCELERATING THE  
7 AVAILABILITY OF THERAPIES TO PATIENTS IN NEED.

8 NOW, THE CHALLENGE IN THE DEVELOPMENT OF  
9 GENE THERAPIES IS INTEGRALLY COSTLY AS WELL AND  
10 TIME-CONSUMING. AND THIS POSES A SIGNIFICANT  
11 CHALLENGE ESPECIALLY WHEN SCALING ACROSS THOUSANDS  
12 OF RARE DISEASES. THE TRADITIONAL APPROACH TO  
13 DEVELOP THERAPIES ON A CASE-BY-CASE BASIS IS NOT  
14 SUSTAINABLE GIVEN THE DIVERSITY AND NUMBER OF RARE  
15 DISEASES.

16 SO THE RECOMMENDATION TO ADDRESS THIS  
17 ISSUE, WE RECOMMEND IMPLEMENTING A PILOT  
18 PLATFORM-BASED APPROACH FOR GENE THERAPY DEVELOPMENT  
19 THAT IS BEING LED BY DR. ABLA CREASEY. AND THIS  
20 APPROACH WILL FOCUS ON LIFE THREATENING MONOGENIC  
21 NEUROLOGICAL DISORDERS AS A TEST CASE. AND BY USING  
22 A PLATFORM-BASED MODEL, WE AIM TO DEMONSTRATE THAT  
23 THIS METHOD CAN ENABLE THE RAPID, SUSTAINABLE, AND  
24 SCALABLE DEVELOPMENT OF GENE THERAPIES THAT CAN BE  
25 APPLIED TO MULTIPLE RARE DISEASES.

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1 SO IN CONCLUSION, BY INCREASING CLIN4  
2 FUNDING AND PILOTING A PILOT PLATFORM-BASED  
3 APPROACH, WE CAN STRATEGICALLY ADDRESS THE  
4 BOTTLENECKS THAT CURRENTLY HINDER THE PROGRESS OF  
5 RARE-DISEASE THERAPIES. THESE RECOMMENDATIONS ARE  
6 DESIGNED TO ENHANCE OUR ABILITY TO BRING  
7 LIFE-CHANGING THERAPIES TO PATIENTS MORE EFFICIENTLY  
8 AND AT A GREATER SCALE, FULFILLING CIRM'S MISSION TO  
9 ADVANCE INNOVATIVE TREATMENTS FOR THOSE WHO NEED  
10 THEM MOST. SO THAT WAS GOAL 3.

11 NOW LET'S GO TO GOAL 4. THE OBJECTIVE OF  
12 THIS GOAL IS TO ACCELERATE THE TIMELINE TO CLINICAL  
13 PROOF OF CONCEPT FOR THERAPIES THAT TARGET DISEASES  
14 AFFECTING CALIFORNIANS, BOTH RARE, ULTRA-RARE, AND  
15 PREVALENT DISEASES.

16 SO THE FIRST APPROACH THAT WE COULD TAKE  
17 WOULD BE STREAMLINING PRECLINICAL DEVELOPMENT  
18 PROGRAMS. THERE'S AN OPPORTUNITY HERE. AS I  
19 MENTIONED EARLIER ON, CURRENTLY OUR TRANSLATIONAL  
20 PIPELINE INCLUDES FIVE PROGRAMS AND IS AT TIMES  
21 DISCONNECTED AND REDUNDANT, CREATING DELAYS IN  
22 ADVANCING THERAPIES TO THE CLINICAL STAGE. AS THE  
23 FIELD OF CELL AND GENE THERAPIES MATURES, THERE'S AN  
24 OPPORTUNITY TO STREAMLINE PRECLINICAL DEVELOPMENT.

25 SO THE SOLUTION THAT WE PROPOSE WITH THE

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1 RECOMMENDATION IS THAT WE WOULD RECOMMEND  
2 CONSOLIDATING THESE TWO, TRAN1, 2, 3, 4 AND CLIN1,  
3 TO ACCELERATE PRECLINICAL DEVELOPMENT, INCENTIVIZING  
4 MULTIDISCIPLINARY COLLABORATION, AND FOSTERING RAPID  
5 PROGRESSION TO IND. AND THIS COULD BE WITHIN THE  
6 PRECLINICAL DEVELOPMENT TEAM THAT COULD ALSO HAVE  
7 THE TECHNOLOGY PLATFORMS AND MANUFACTURING. SO YOU  
8 COULD BE ALTOGETHER UNDER THE DR. SHYAM PATEL'S  
9 LEADERSHIP.

10 SO THE SECOND RECOMMENDATION IS TO --  
11 WITHIN THE FIRST SET OF RECOMMENDATIONS, TO  
12 PRIORITIZE INNOVATIVE THERAPIES FOR CALIFORNIANS.  
13 SO PROPOSITION 14 MANDATES THAT CIRM SUPPORTS  
14 THERAPIES FOR DISEASES AFFECTING CALIFORNIANS. THIS  
15 IS ESSENTIAL THAT OUR FUNDING AND PRIORITIZATION  
16 PROCESSES REFLECT THIS EXPECTATION. SO WE PROPOSE  
17 INCORPORATING, AND THAT WILL BE AT THE CONCEPT  
18 LEVELS, A PRIORITIZATION MECHANISM WITHIN OUR  
19 TRANSLATIONAL AND CLINICAL PROGRAMS THAT EMPHASIZES  
20 INNOVATIVE THERAPIES TARGETING DISEASES WITH  
21 SIGNIFICANT IMPACT ON CALIFORNIANS. THIS APPROACH  
22 WILL ENSURE THAT WE ARE FUNDING THE DEVELOPMENT OF  
23 THERAPIES THAT PROVIDE THE GREATEST BENEFIT TO  
24 CALIFORNIAN PATIENTS, FULFILLING THE MANDATE OF OUR  
25 PROPOSITION.

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1 THE SECOND SET OF RECOMMENDATIONS HAS TO  
2 DO WITH UPDATING THE CLIN2 PROGRAM. AND THAT WOULD  
3 COME IN THE FORM OF A CONCEPT AMENDMENT. SO THE  
4 OPPORTUNITY FOR REGULATORY INNOVATION OFFERS A  
5 PATHWAY TO ENABLE CLINICAL STUDIES OF MULTIPLE  
6 THERAPIES ACROSS MULTIPLE DISEASES THROUGH MASTER  
7 PROTOCOLS WHICH CAN GREATLY ENHANCE EFFICIENCY OF  
8 CLINICAL -- THE EFFICIENCY OF CLINICAL TRIALS.

9 SO THE SOLUTION IS THAT WE RECOMMEND  
10 UPDATING THE CLIN2 PROGRAM TO SUPPORT EMERGING NOVEL  
11 CLINICAL TRIAL DESIGNS. THIS INCLUDES THE ADOPTION  
12 OF MASTER PROTOCOLS THAT ALLOW FOR SIMULTANEOUS  
13 EVALUATION OF MULTIPLE THERAPIES.

14 THE SECOND COULD BE TO ENHANCE PATIENT  
15 ACCESS THROUGH MARKET STRATEGY AND  
16 PRECOMMERCIALIZATION. EVEN WHEN THERAPIES ARE  
17 APPROVED, THEY OFTEN FACE SIGNIFICANT CHALLENGES IN  
18 TERMS OF PATIENT ACCESS, PARTICULARLY DUE TO GAPS IN  
19 MARKET ACCESS STRATEGIES AND PRECOMMERCIALIZATION  
20 PLANNING. SO THE SOLUTION HERE, TO MITIGATE IT, WE  
21 COULD PROPOSE THAT THE CLIN2 PROGRAM ALSO  
22 INCENTIVIZE STAGE-APPROPRIATE MARKET ACCESS STRATEGY  
23 DEVELOPMENT AND PRECOMMERCIALIZATION ACTIVITIES TO  
24 ENSURE THAT, AS THE THERAPIES ARE ADVANCING, THEY  
25 ARE ALSO POSITIONED AND PREPARED FOR SUCCESSFUL

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1 MARKET ENTRY AND PATIENT ACCESS.

2 AND THIS RECOMMENDATION IS LINKED TO GOAL  
3 5 FROM OUR ACCESS AND AFFORDABILITY. AS I WILL  
4 MENTION, THERE IS A CONNECTION WITH THIS. THIS IS  
5 ALL VERY HOLISTIC AS AN ECOSYSTEM. SO ALL THESE  
6 RECOMMENDATIONS, THEY CONNECT WITH EACH OTHER.

7 SO THIS IS A SUMMARY THAT BY STREAMLINING  
8 PRECLINICAL DEVELOPMENT PROGRAMS, PRIORITIZING  
9 THERAPIES FOR CALIFORNIANS, EMBRACING INNOVATIVE  
10 CLINICAL TRIAL DESIGNS, AND ENHANCING MARKET ACCESS  
11 STRATEGIES, WE CAN OVERCOME THE EXISTING BOTTLENECKS  
12 AND SEIZE THE OPPORTUNITY TO PROPEL PROMISING  
13 THERAPIES TO LATER STAGE TRIALS AND ULTIMATELY ALSO  
14 TO PATIENTS WHO NEED THEM.

15 SO THAT'S THE SUMMARY. AND THIS IS THE  
16 HIGH LEVEL SUMMARY OF OUR CURRENT PROGRAMS, AND I  
17 CAN ENTERTAIN A LITTLE BIT MORE BECAUSE THAT'S THE  
18 LAST SLIDE, AND I'M TEN MINUTES EARLY, SCOTT. THANK  
19 YOU VERY MUCH. I WAS SAYING I'M TEN MINUTES, I'M  
20 NEARLY TEN MINUTES EARLY, SO I CAN ENTERTAIN A BIT  
21 THIS SLIDE. SO CURRENTLY WE HAVE --

22 MR. TOCHER: YES. YES, YOU MAY.

23 DR. CANET-AVILES: WE HAVE THE CLIN2 AND  
24 CLIN4 PROGRAMS. THE SCOPE OF CLIN2 AND CLIN4  
25 PROGRAMS IS FOR PREVALENT, RARE, AND ULTRA-RARE

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1 DISEASES ARE ELIGIBLE FOR THE SAME FUNDING  
2 OPPORTUNITIES. CLIN2 SUPPORTS INDIVIDUAL CLINICAL  
3 TRIALS FOR SINGLE CANDIDATES AND SUPPORTS A SUBSET  
4 OF PRECOMMERCIALIZATION ACTIVITIES; WHEREAS, CLIN4  
5 FUNDING IS INSUFFICIENT FOR ALL ACTIVITIES NEEDED TO  
6 REACH BLA READINESS. AND WE RECEIVED INPUT FROM  
7 CLIN2 APPLICANTS AND ADVISORS ON THAT. THAT EFFORT  
8 HAS BEEN LED BY DR. CREASEY.

9 AND MULTIPROGRAM PRECLINICAL PATH, THIS IS  
10 OUR TRANSLATIONAL PIPELINE, FROM DISC2 TO CLIN1.  
11 THOSE PROGRAMS, THEY HAVE THEIR OWN APPLICATIONS,  
12 AND THEY ARE KIND OF DISCONNECTED AT TIMES. SO WHAT  
13 WE ARE PROPOSING IS, A, FOR THE CLIN IS UPDATING  
14 CLINICAL PROGRAMS WITH CLIN2 SUPPORTING INNOVATIVE  
15 CLINICAL TRIAL DESIGN AND INCENTIVIZING MARKET  
16 ACCESS STRATEGY DEVELOPMENT AND PRECOMMERCIALIZATION  
17 ACTIVITIES. AND CLIN4 FUNDING INCREASES AND SCALES  
18 TO COMPREHENSIVELY ADDRESS BLA READINESS GAPS AND  
19 PRIORITIZE INNOVATIVE THERAPIES FOR DISEASES THAT  
20 AFFECT CALIFORNIANS. THERE IS ALSO THE PILOT  
21 RARE-DISEASE PLATFORM PROGRAM WITH RARE AND  
22 ULTRA-RARE DISEASES AS A FOCUS AND REQUIREMENT FOR  
23 ACADEMIC AND INDUSTRY PARTNERSHIPS.

24 AND THEN THE LAST RECOMMENDATION HAS TO DO  
25 WITH OUR PRECLINICAL DEVELOPMENT PROGRAM. WE COULD

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1 DEVELOP A STREAMLINED PRECLINICAL PROGRAM  
2 CONSOLIDATED AND PRIORITIZE INNOVATIVE THERAPIES FOR  
3 DISEASES THAT AFFECT CALIFORNIANS.

4 SO WITH THAT, WE ARE LEAVING -- I CAN  
5 LEAVE THIS SLIDE IF YOU WANT BECAUSE THEN IS THE  
6 DISCUSSION AND WE COULD MOVE INTO GOALS 5 AFTER  
7 THAT. SO DO YOU WANT TO TAKE ANY QUESTIONS, OR YOU  
8 WANT TO GO TO LUNCH?

9 MR. TOCHER: IT'S REALLY THE --

10 DR. CANET-AVILES: IT'S THE BOARD'S --

11 MR. TOCHER: IF YOU WANT TO TAKE TEN  
12 MINUTES, WE CAN TAKE TEN MINUTES TO GET SOME  
13 QUESTIONS.

14 DR. CANET-AVILES: THIS IS WARMING IN THE  
15 BRAINS.

16 MR. TOCHER: WHAT A LOVELY THOUGHT BEFORE  
17 LUNCH.

18 DR. CANET-AVILES: SO QUESTIONS.

19 VICE CHAIR BONNEVILLE: ROSA, I HAVE A  
20 COMMENT MORE THAN A QUESTION. SO THANK YOU FOR  
21 THIS. I KNOW ALL THE HARD WORK IN TRYING TO  
22 DETERMINE HOW TO PRESENT THE GOALS AND HOW YOU WILL  
23 GET TO THEM.

24 ONE THING, AND I MENTIONED THIS TO YOU,  
25 I'VE MENTIONED IT TO J.T., AND I'VE DEFINITELY

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1 MENTIONED IT TO GIL. WE'RE MAKING ALL OF THESE  
2 WONDERFUL CHANGES AND WE'RE CONTEMPLATING ALL OF  
3 THESE WAYS OF SETTING THESE GOALS AND CHANGING HOW  
4 WE'RE LOOKING AT THINGS. AND IT STANDS TO REASON  
5 THAT WE WOULD THEN HAVE TO LOOK AT AT GWG AND  
6 UNDERSTAND IF THE COMPOSITION IS RIGHT TO ADDRESS  
7 SOME OF THE NEEDS WE HAVE AND WHO WE CAN ADD TO THAT  
8 GWG WITHIN THE CONSTRAINTS THAT WE HAVE WITH PROP  
9 14, BUT ALSO PERHAPS THE MANDATE THEY HAVE, HOW THEY  
10 LOOK AT THINGS. AND I WELCOME OTHER OF THE BOARD  
11 MEMBERS WHO SIT ON THE GWG WITH ME.

12 I JUST THINK THAT IT'S SOMETHING WE'RE  
13 GOING TO HAVE TO LOOK AT, AND I KNOW IT'S NOT PART  
14 OF THIS PRESENTATION, BUT I REALLY ENCOURAGE THAT  
15 WORK TO BE DONE INTERNALLY WITH THE TEAM SO THAT IT  
16 DOESN'T GET STUCK SORT OF THE WAY WE'VE ALWAYS DONE  
17 THINGS AT THE GWG AND CAN REALLY EVOLVE TO GET THIS  
18 THROUGH THE PROCESS.

19 DR. THOMAS: SO THANKS, MARIA. WE DID  
20 TALK ABOUT THIS, AND WE'VE BEGUN DISCUSSIONS ON THE  
21 TOPIC. AND YOU AND I TALKED ABOUT THIS AT LUNCH A  
22 FEW DAYS AGO THAT WAS SPECIFICALLY GEARED AT IF  
23 WE'RE LOOKING TO GET PROJECTS ACROSS THE BLA AND  
24 INTO COMMERCIALIZATION, THAT PERHAPS WE NEED, FOR  
25 EXAMPLE, SOMEBODY ON THE GWG WHO'S MORE AN EXPERT ON



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1 THE BACK END OF THINGS AS OPPOSED TO STRICTLY  
2 SCIENTIFIC RESEARCH AND ANALYSIS. AND SO I'VE  
3 TALKED TO GIL ABOUT THAT. I'VE TALKED TO ROSA. AND  
4 WE'RE GOING TO HAVE THAT PARTICULAR QUESTION AS A  
5 SUBJECT MATTER FOR AN UPCOMING EXECUTIVE TEAM  
6 MEETING.

7 BUT THE POINT IS WELL TAKEN, THAT WE DO  
8 NEED TO VIEW THINGS UNDER THE PRISM OF THE NEW  
9 REGIME THAT'S COMING TO BE ABLE TO ADEQUATELY  
10 ADDRESS ALL YOUR SORTS OF QUESTIONS. SO THANK YOU  
11 FOR THAT POINT.

12 MR. TOCHER: ANNE-MARIE DULIEGE HAS HER  
13 HAND RAISED.

14 DR. DULIEGE: YES. AGAIN, THANK YOU FOR  
15 THIS COMPREHENSIVE REVIEW TO YOU, THE ENTIRE TEAM.  
16 BUT COMMENT, IT'S NOT A QUESTION, AND I DON'T THINK  
17 YOU WILL HAVE THE ANSWER RIGHT NOW. BUT AS I VOICED  
18 IN THE PAST, I APPLAUD THE FOCUS ON THE RARE  
19 DISEASES. THE ULTRA-RARE DISEASE CATEGORY, WHILE  
20 BEING A CONTINUUM, POSES A QUESTION OF PRIORITIES  
21 VERSUS FUNDING ALLOCATION IN AN EXTRAORDINARILY  
22 DIFFICULT SET OF DISEASES TO STUDY SIMPLY BECAUSE OF  
23 THE VERY LIMITED NUMBERS, INCLUDING IN CALIFORNIA.

24 SO NOTWITHSTANDING THE IMPORTANCE OF THIS  
25 FOR FAMILIES WHO HAVE SUFFERED FROM EXTREME

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1 ULTRA-RARE DISEASES, I JUST WANT TO POINT THAT OUT  
2 AS PROBABLY FOR ME A CONSTANT CHALLENGE FOR THE  
3 CIRM. THAT'S ALL. THANK YOU.

4 DR. CANET-AVILES: THANK YOU, ANNE-MARIE.  
5 IT'S A VERY VALID POINT. DAVID.

6 CHAIRMAN IMBASCIANI: WE ARE AT A  
7 STRATEGIC PAUSE. DAVID, SORRY.

8 DR. HIGGINS: I JUST WONDERED DO YOU HAVE  
9 A POINT AS YOU ARE GOING ALONG THIS PATHWAY AND  
10 DIFFERENT PHASES AND DIFFERENT STAGES, DO YOU HAVE A  
11 DROP DEAD? SO IF WE GET STUCK HERE, WE'RE GOING TO  
12 GNAW ON IT FOR A LITTLE BIT, BUT THEN WE'RE GOING TO  
13 MOVE ON AND DROP THIS PROJECT? IS THERE A BUILT-IN  
14 MECHANISM TO --

15 DR. CANET-AVILES: YOU MEAN FOR A  
16 PARTICULAR PROJECT THAT COULD BE -- WELL, THAT COULD  
17 BE AT THE LEVEL OF PROGRAM MANAGEMENT AND PROGRESS  
18 REPORTING AND SETTING UP MILESTONES AND SUCCESS  
19 CRITERIA. SO ONE OF THE THINGS THAT WE ARE  
20 IMPLEMENTING WITH THE RE-ORG, IF APPROVED BY THE  
21 BOARD, IS REVAMPING OF INTERNAL PROCESSES GIVEN THAT  
22 THERE IS A PROPOSAL TO HAVE ALL PROGRAMS UNDER ONE  
23 UMBRELLA. IN COLLABORATION WITH OUR GRANTS  
24 MANAGEMENT AND OUR REVIEW TEAM, WE ARE THINKING  
25 ABOUT -- WE ARE REVISING CURRENTLY HOW ARE WE

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1 EVALUATING PROGRESS, HARMONIZING IT, AND MAKING SURE  
2 THAT WE HAVE MILESTONE-BASED PAYMENTS AND, ET  
3 CETERA. SO ALL OF THAT IS TOTALLY CURRENTLY UNDER  
4 REVIEW. SO THANK YOU, DAVID. THAT'S A VERY  
5 IMPORTANT QUESTION. ELENA.

6 DR. FLOWERS: THANKS, ROSA. THAT WAS  
7 REALLY GREAT. AND BUILDING ON -- I COMPLETELY AGREE  
8 WITH WHAT MARIA SAID AND THEN ANNE-MARIE. IT SEEMS  
9 LIKE WE MIGHT WANT TO BE STRATEGIC AND PROACTIVE  
10 ABOUT THE MESSAGING AND SHIFTING OF FOCUS TO THE  
11 DISEASES THAT AFFECT CALIFORNIANS AND ENSURE THAT  
12 WE'RE STILL GETTING THE MESSAGE OUT THERE THAT WE  
13 ARE STILL LOOKING AT RARE AND EXTREMELY RARE  
14 DISEASES BECAUSE I CAN SEE THAT REALLY KIND OF  
15 BACKFIRING, NOT NECESSARILY WITH THE SCIENTISTS, BUT  
16 AS THAT SORT OF UNFOLDS WITH PATIENT COMMUNITIES.  
17 AND I DON'T THINK THAT WE'RE STEPPING BACK FROM A  
18 COMMITMENT TO THOSE CONDITIONS, BUT I THINK WE  
19 SHOULD, AGAIN, BE VERY PROACTIVE ABOUT TRYING TO  
20 MAKE IT CLEAR THAT WE'RE NOT -- IT'S NOT A COMPLETE  
21 DEPARTURE.

22 DR. CANET-AVILES: THANK YOU FOR ASKING  
23 THIS QUESTION OR MAKING THE COMMENT BECAUSE IT'S AN  
24 EXTREMELY IMPORTANT QUESTION, AND WE WANT TO  
25 REASSURE CALIFORNIANS AND APPLICANTS IN CALIFORNIA

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1 THAT THAT'S DEFINITELY NOT OUR INTENTION. I'M JUST  
2 SHOWING WHERE OUR PIPELINE IS RIGHT NOW. THAT  
3 PIPELINE IS ACTIVE CURRENTLY. SO WE HAVE A LOT OF  
4 RARE AND ULTRA-RARE. AND MOST OF THE OPPORTUNITIES,  
5 BECAUSE OF THIS PARADIGM SHIFTING OF CELL AND GENE  
6 THERAPIES TO HIGHER IMPACT, LOW NUMBERS OF PATIENTS,  
7 WE WILL STILL HAVE A VERY STRONG RARE AND  
8 POTENTIALLY ULTRA-RARE, BUT MAYBE THE ULTRA-RARE  
9 WILL COME THROUGH THE PILOT PLATFORM THAT DR.  
10 CREASEY IS LEADING WITH A PRIORITY IN NEURO  
11 DISEASES.

12 BUT DEFINITELY WE HAVE -- WHAT WE ARE  
13 SAYING IS THAT WE ALSO NEED TO TAKE INTO ACCOUNT HOW  
14 CAN WE MOVE THE NEEDLE TO PREVALENT. WE'RE NOT  
15 SAYING WE'RE NOT DOING THIS. NO. WE ARE SAYING WE  
16 ALSO WANT TO DO THAT. AND THAT'S THE MAIN CHANGE  
17 HERE. AND WE ARE GOING TO DO IT WITH ACCELERATING  
18 THINGS.

19 DR. FLOWERS: YEAH. I THINK THAT'S WELL  
20 UNDERSTOOD IN THE ROOM HOPEFULLY, BUT I DO THINK  
21 LIKE PERHAPS THE COMMUNICATIONS TEAM NEEDS TO BE  
22 INVOLVED WITH MAKING SURE.

23 DR. CANET-AVILES: SO I THINK KOREN  
24 TEMPLE-PERRY, WHO IS IN HERE, SHE'S TAKING NOTES OF  
25 THAT. SO THANK YOU. VERY GOOD.

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1 CHAIRMAN IMBASCIANI: OKAY. WE NEED A  
2 PAUSE?

3 MR. TOCHER: YEAH. LET'S TAKE A PAUSE FOR  
4 LUNCH. IT IS UPSTAIRS AGAIN WHERE YOU HAD BREAKFAST  
5 THIS MORNING ON THE THIRD FLOOR. WE'LL MAKE A GOAL  
6 TO TRY TO COME BACK BY 12:50 AND RESUME FROM THERE.  
7 SO FOR THOSE OF YOU ON THE PHONE, ENJOY YOUR LUNCH,  
8 AND WE'LL SEE YOU IN 40 MINUTES.

9 (A RECESS WAS TAKEN.)

10 CHAIRMAN IMBASCIANI: OKAY, EVERYONE.  
11 THANK YOU. I HOPE YOU ALL ENJOYED -- I WOULD LIKE  
12 TO CONVENE US BACK INTO SESSION. WE'RE GOING TO  
13 RECONVENE, AND WE'RE GOING TO TAKE UP WHERE ROSA  
14 LEFT OFF, WHICH, I THINK, IS THE START OF  
15 CONVERSATION ON GOAL NO. 5. WE MAY START, RIGHT?  
16 OKAY. ROSA, THE PODIUM IS YOURS AGAIN.

17 DR. CANET-AVILES: THANK YOU, MR.  
18 CHAIRMAN, MADAM VICE CHAIR, AND EVERYONE ELSE. I  
19 WAS GOING -- SORRY. I'M JUST GETTING OVER THE  
20 POSTPRANDIAL THING.

21 DO WE WANT TO HAVE -- ARE THERE ANY MORE  
22 QUESTIONS BEFORE WE MOVE INTO GOAL 5? OKAY. LET'S  
23 GO INTO GOAL 5.

24 SO GOAL 5 IS UNDER THE CATEGORY OF  
25 ACCESSIBILITY AND AFFORDABILITY OF OUR FUNDED CELL

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1 AND GENE THERAPIES. AND THE GOAL IS TO ENSURE THAT  
2 EVERY BLA-READY PROGRAM HAS A STRATEGY FOR ACCESS  
3 AND AFFORDABILITY. AS YOU ALL KNOW, THIS IS A NEWER  
4 MANDATE FROM OUR NEWEST PROPOSITION. SO ALL  
5 PROGRAMS UNDER THIS GOAL ARE NOT PROGRAMS THAT WE  
6 HAVE HAD UNDERGOING FOR MANY YEARS. THIS IS ALL  
7 MUCH NEWER. BESIDES THE ALPHA CLINICS, IT'S A LOT  
8 NEWER. SO THE RECOMMENDATIONS REFLECT THAT. WE'VE  
9 JUST STARTED WITH MANY OF THESE RECOMMENDATIONS OR  
10 WHAT THE PROGRAM WILL ENABLE.

11 SO THESE ARE THE QUESTIONS AT A HIGH  
12 LEVEL. WE'VE GONE OVER LANDSCAPE IN TERMS OF  
13 FACTORS THAT WILL HELP US ACHIEVE ACCESS AND  
14 AFFORDABILITY OF THE THERAPIES, ET CETERA, AND THE  
15 RESEARCH NEEDED. THEN IN TERMS OF PROGRAMS, WHAT  
16 KIND OF ENHANCEMENTS CAN WE DO TO OUR PROGRAMS?  
17 WHAT DO WE HAVE RIGHT NOW? WHAT ARE THE GAPS, AND  
18 WHAT CAN WE DO TO ENHANCE ACCESSIBILITY MOSTLY, AND  
19 WHAT IS IT THAT WE NEED TO DO IN TERMS OF  
20 AFFORDABILITY?

21 AND THEN IN TERMS OF EXTERNAL ENGAGEMENTS,  
22 WHO ARE THE MOST IMPORTANT PARTNERS TO IMPACT POLICY  
23 CHANGE, WHICH IS MORE ABOUT THE AFFORDABILITY PART  
24 OF THIS.

25 SO THE DATA SOURCES ARE SHOWN HERE, AGAIN

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1 ALSO IN THE MEMO AND DELINEATED, AND I WENT THROUGH  
2 THE NATURE OF ALL THESE DATA SOURCES BACK WHEN WE  
3 PRESENTED AT THE SCIENCE SUBCOMMITTEE AND NEURO TASK  
4 FORCE JOINT MEETING ON SEPTEMBER 13. SO IN THE  
5 VIDEO, YOU CAN GO THROUGH THE DETAILS.

6 SO THIS SLIDE PRESENTS A SUMMARY, AND NOW  
7 WE ARE GETTING INTO THE DATA. AND I THINK WE HAVE  
8 TWO SLIDES FOR ACCESS AND AFFORDABILITY BECAUSE IT'S  
9 JUST ONE GOAL. THE SLIDE PRESENTS A SUMMARY OF HOW  
10 THE CIRM CLINICAL INFRASTRUCTURE PROGRAMS, WHICH ARE  
11 ON THE LEFT COLUMN, ARE DESIGNED TO REDUCE PATIENT  
12 BARRIERS TO CLINICAL TRIALS, WHICH ARE SHOWN IN THE  
13 RIGHT PART OF THE SLIDE. AND I'M JUST GOING TO GO  
14 OVER WHAT EACH ONE OF THOSE BARRIERS IS ABOUT.

15 SO WE START WITH CLINICAL EXPERTISE.  
16 CLINICAL EXPERTISE HAS TO DO WITH DELIVERING THE  
17 COMPLEX CELL AND GENE THERAPIES, AND THAT REQUIRES  
18 COORDINATION AND SPECIALIZED SKILLS, INCLUDING  
19 MANUFACTURING, PROCESSING, PRODUCT PREPARATION,  
20 TREATMENT DELIVERY, AND PATIENT MONITORING AND  
21 FOLLOW-UP. SO WE NEED TO BE ABLE TO CREATE TEAMS  
22 AND SYSTEMS NECESSARY TO DELIVER THESE TREATMENTS  
23 AND COORDINATED CARE FOR PATIENTS RECEIVING SUCH  
24 TREATMENTS. SO AS YOU CAN SEE, THAT IS SOMETHING  
25 THAT THE ALPHA CLINICS PROVIDE OF OUR PROGRAMS.

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1 THE SECOND BARRIER TO ACCESS IS COHORT  
2 DEVELOPMENT. WHAT THIS ENTAILS IS THAT CLINICAL  
3 TRIALS HAVE VERY SPECIFIC ELIGIBILITY AND ENROLLMENT  
4 CRITERIA. AND THEY UTILIZE PATIENT REGISTRIES,  
5 IDENTIFY PATIENTS, AND NAVIGATORS TO ACHIEVE  
6 CLINICAL TRIAL RECRUITMENT OBJECTIVES. AND THERE  
7 ARE TWO OF OUR PROGRAMS THAT DEAL WITH THIS BARRIER.  
8 AND THAT'S THE ALPHA CLINICS AND THE COMMUNITY CARE  
9 CENTERS OF EXCELLENCE WHICH HASN'T LAUNCHED YET.  
10 IT'S LAUNCHING IN 2025. WE HAVE A REVIEW SCHEDULED  
11 SOON.

12 THE NEXT ONE IS THE GEOGRAPHY. TREATMENT  
13 PROTOCOLS ARE DEMANDING, AND THEY REQUIRE FREQUENT  
14 VISITS TO TREATMENT CENTERS. SO TIME AND DISTANCE  
15 ARE REQUIRED TO PARTICIPATE -- REQUIRED TO  
16 PARTICIPATE IS ACTUALLY A BARRIER FOR MANY PATIENTS.  
17 AND EXPANDING THE GEOGRAPHIC REACH OF CENTERS WILL  
18 REDUCE BARRIERS TO PARTICIPATION. AND THIS IS  
19 ACTUALLY SOMETHING THAT THE COMMUNITY CARE CENTERS  
20 OF EXCELLENCE TAKE INTO ACCOUNT IN THEIR PROGRAM.  
21 SO THEY WILL HELP FACILITATE OVERCOMING THAT  
22 BARRIER. AND THE PATIENT SUPPORT PROGRAM, WHICH IS  
23 ALSO LAUNCHING IN 2025, WILL BE FACILITATED BECAUSE  
24 THIS ADDRESSES FINANCIAL AND LOGISTICAL NEEDS OF  
25 PATIENTS IN OUR FUNDED CLINICAL TRIALS.



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1 ANOTHER BARRIER IS THE PATIENT KNOWLEDGE.  
2 PATIENTS MAY BE UNAWARE, FOR EXAMPLE, OF CLINICAL  
3 TRIAL OPPORTUNITIES OR MAYBE THEY DON'T TRUST  
4 RESEARCH. SO WE NEED TO FIGURE OUT HOW TO OVERCOME  
5 THIS BARRIER AND EXTEND PATIENT KNOWLEDGE AND  
6 EDUCATION TO COMMUNICATE AND INVOLVE COMMUNITY-BASED  
7 ORGANIZATIONS AND COMMUNITY HEALTH WORKERS, AND  
8 IMPLEMENT SYSTEMS, INCLUDING THE PATIENT SUPPORT  
9 PROGRAM, FOR EXAMPLE, AND THROUGH COLLABORATION WITH  
10 COMMUNITY CARE CENTERS OF EXCELLENCE TO ALLOW  
11 PATIENTS TO IDENTIFY WHICH CLINICAL TRIALS THEY CAN  
12 BENEFIT FROM.

13 AND THE LAST BARRIER IS FINANCIAL.  
14 PATIENTS INCUR VERY LARGE COSTS TO PARTICIPATE IN  
15 THESE CLINICAL TRIALS. AND THIS MAY LEAD TO  
16 ATTRITION OR THE POSSIBILITY OF PARTICIPATING. SO  
17 PROVIDING FINANCIAL SUPPORT AND LOGISTICAL  
18 COORDINATION TO REDUCE BURDENS ON PATIENTS AND  
19 INCREASING THE LIKELIHOOD OF PATIENTS TO COMPLETE  
20 THESE TREATMENTS IS IMPORTANT. AND THE PATIENT  
21 SUPPORT PROGRAM ALSO COVERS THAT.

22 SO PATIENT ACCESS PROGRAMS ARE NASCENT, AS  
23 I MENTIONED WHEN I WAS INTRODUCING THIS, BUT THEY  
24 AIM TO REDUCE THESE BARRIERS TO CLINICAL TRIALS.  
25 AND THIS IS AN OVERVIEW OF HOW OUR PROGRAMS ALREADY

1 ARE TRYING TO DO THAT.

2 THIS SLIDE PRESENTS A SUMMARY OF HOW THE  
3 CIRM CLINICAL INFRASTRUCTURE PROGRAMS ARE DESIGNED.  
4 IT'S NOT ADVANCING. ONE SECOND. I HAVE THE MONITOR  
5 HERE AND IT'S NOT ADVANCING, AND I SEE BETTER HERE.  
6 NO, IT'S NOT DOING IT. NO. IT IS THERE, BUT NOT  
7 HERE. LET ME JUST GO BACK AND FORWARD.

8 SO THIS IS A TWO-PART SLIDE. AND THE  
9 FIRST ONE HIGHLIGHTS SOME OF THE KEY BARRIERS THAT  
10 WE MUST ADDRESS TO ENSURE THAT CELL AND GENE  
11 THERAPIES CAN REACH THE PATIENTS WHO NEED THEM MOST.

12 THE SECOND SLIDE WILL COME AT THE END WITH  
13 THE RECOMMENDATIONS IN WHICH WE WILL SHOW HOW OUR  
14 PROGRAMS, NOT ONLY THE PATIENT ACCESS PROGRAMS OF  
15 ALPHA CLINICS, COMMUNITY CENTERS, AND PATIENT  
16 SUPPORT PROGRAM ADDRESS THIS, BUT ALSO THE WHOLE  
17 ECOSYSTEM OF CIRM. SO WHAT ARE THESE BARRIERS?

18 THE FIRST ONE IS LIMITED CLINICAL  
19 EVIDENCE. SO THERE'S LIMITED CLINICAL EVIDENCE  
20 GENERATED PRIOR TO APPROVAL TO INFORM LONG-TERM  
21 EFFICACY AND DURABILITY VERSUS THE STANDARD OF CARE.

22 THE SECOND ONE IS THAT THERE ARE VERY HIGH  
23 INITIAL COSTS OF TREATMENT COMPARED TO SMALL  
24 MOLECULES OR BIOLOGICALS. AND CGT'S OFTEN COME WITH  
25 A PRICE TAG THAT'S SIGNIFICANTLY HIGHER THAN OUR

1 TRADITIONAL THERAPIES.

2 ANOTHER MAJOR CHALLENGE IS THE NECESSITY  
3 OF SPECIALIZED TREATMENT CENTERS. THE DELIVERY OF  
4 CELL AND GENE THERAPIES REQUIRES SPECIALIZED SKILLS  
5 AND INFRASTRUCTURE THAT ARE NOT WIDELY AVAILABLE,  
6 WHICH LIMITS PATIENT ACCESS TO THESE TREATMENTS  
7 BASED ON GEOGRAPHICAL LOCATION.

8 AND THEN THE VARIABILITY IN COVERAGE AND  
9 REIMBURSEMENT RATES ACROSS MEDICARE, MEDICAID, AND  
10 PRIVATE INSURANCE ADDS ANOTHER LAYER OF COMPLEXITY.  
11 AND WITHOUT CONSISTENT AND ADEQUATE REIMBURSEMENT  
12 POLICIES, PATIENTS MIGHT FIND IT DIFFICULT TO AFFORD  
13 THESE TREATMENTS, LEADING TO DISPARITIES IN ACCESS.

14 AND LASTLY IS THE COMPLEX MANUFACTURING  
15 AND SUPPLY CHAIN, PARTICULARLY FOR AUTOLOGOUS  
16 GENE-MODIFIED CELL THERAPIES THAT POSE LOGISTICAL  
17 CHALLENGES. THESE THERAPIES OFTEN REQUIRE A  
18 PERSONALIZED APPROACH WHERE CELLS ARE TAKEN FROM THE  
19 PATIENT, MODIFIED, AND THEN RETURNED FOR TREATMENT.  
20 SO THE INTRICACIES OF THIS PROCESS CAN RESULT IN  
21 DELAYS AND ADDITIONAL COST.

22 SO IN SUMMARY, WHILE CELL AND GENE  
23 THERAPIES HOLD IMMENSE PROMISE, THESE CHALLENGES  
24 HIGHLIGHT THE NEED FOR COORDINATED EFFORTS TO  
25 IMPROVE THE EVIDENCE BASE, REDUCE COST, EXPAND

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1 ACCESS TO SPECIALIZED CENTERS, STANDARDIZED  
2 REIMBURSEMENT PRACTICES, AND STREAMLINE  
3 MANUFACTURING PROCESSES. AND ADDRESSING THESE  
4 BARRIERS IS ESSENTIAL FOR THE SUCCESSFUL INTEGRATION  
5 OF CELL AND GENE THERAPIES INTO MAINSTREAM  
6 HEALTHCARE AND ENSURING THE PATIENTS CAN BENEFIT  
7 FROM THESE GROUNDBREAKING THERAPIES. SO WE WILL MAP  
8 THESE RECOMMENDATIONS AT THE END AGAINST THESE  
9 CHALLENGES.

10 SO THESE ARE THE RECOMMENDATIONS. WE HAVE  
11 TWO TYPES OF RECOMMENDATIONS. ONE IS ABOUT  
12 LEVERAGING CLINICAL INFRASTRUCTURE AND RESOURCE  
13 CLINICAL TRIAL PROGRAMS TO ACHIEVE ENROLLMENT  
14 OBJECTIVES AND STAGE APPROPRIATE ACCESS PLANNING.

15 AND THE SECOND TYPE OF RECOMMENDATIONS  
16 WHICH COMES ON THE OTHER SLIDE, THE NEXT ONE, IS  
17 ABOUT INFLUENCING POLICY THAT WILL IMPACT ACCESS AND  
18 AFFORDABILITY THROUGH ADVOCACY PARTNERSHIPS.

19 SO THIS SLIDE SHOWS RECOMMENDATIONS  
20 DESIGNED TO MAXIMIZE HOW TO LEVERAGE THE CLINICAL  
21 INFRASTRUCTURE. FIRST, WE AIM TO STRENGTHEN THE  
22 CLINICAL INFRASTRUCTURE CONNECTIVITY BY BUILDING  
23 ROBUST INTERCONNECTIVITY AND PERFORMANCE METRICS  
24 ACROSS OUR CLINICAL INFRASTRUCTURE, WHICH INCLUDES,  
25 AS WE SHOWED EARLIER ON, THE ALPHA CLINICS, THE

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1 COMMUNITY CARE CENTERS OF EXCELLENCE, AND THE  
2 PATIENT SUPPORT PROGRAM.

3 WITH THAT, WE AIM TO ENHANCE OUR  
4 CAPABILITIES IN REFERRING, ENROLLING, AND RELATING  
5 CALIFORNIA PATIENTS IN CLINICAL TRIALS, AND THIS IS  
6 CRUCIAL FOR ENSURING THAT OUR ADVANCEMENTS ARE NOT  
7 ONLY REACHED BUT ALSO EFFECTIVELY ADMINISTERED AND  
8 BENEFICIAL TO PATIENTS ACROSS THE STATE. AND WHAT  
9 DO WE THINK ABOUT -- WHAT KIND OF EXAMPLES CAN WE  
10 PROVIDE IN TERMS OF INTERCONNECTIVITY BUILDING HERE?  
11 SO COORDINATING PATIENT NAVIGATION, FOR EXAMPLE,  
12 THAT COULD BE ONE THING. UNDERSTANDING ELIGIBILITY  
13 AND INSURANCE CONSIDERATIONS, ADDRESSING LOGISTICAL  
14 BARRIERS, AND FINANCIAL BARRIERS. SO CONNECTING THE  
15 COMMUNITY CARE CENTERS, THE PATIENT SUPPORT PROGRAM,  
16 AND THE ALPHA CLINICS AT THAT LEVEL SO WE CAN  
17 LEVERAGE EACH OTHER'S EFFORTS.

18 THE OTHER ONE, INTERCONNECTIVITY, IS ABOUT  
19 PROPOSALS THAT IMPACT PATIENT RETENTION. THAT HAS  
20 TO DO WITH WORKFORCE DEVELOPMENT, FOR EXAMPLE. AND  
21 THAT COULD CONNECT WITH OUR EDUCATION  
22 INFRASTRUCTURE. SO ALPHA CLINICS SITES CAN  
23 COLLABORATE WITH THE COMMUNITY CARE CENTERS TO TRAIN  
24 FOR ACCREDITATION FOR DELIVERY OF CELL AND GENE  
25 THERAPIES AND IMMUNE SURVEILLANCE. THE COMMUNITY

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1 CARE CENTERS OF EXCELLENCE AT THE SAME TIME WILL  
2 ENROLL STUDENTS IN ALPHA CLINICS CLINICAL RESEARCH  
3 COORDINATOR TRAINING CERTIFICATE PROGRAMS AND SO ON.  
4 SO THOSE ARE SOME OF THE EXAMPLES.

5 SO, SECONDLY, WE LOOKED AT THE DEVELOPMENT  
6 OF MARKET ACCESS AND REIMBURSEMENT STRATEGIES. AND  
7 THIS ONE IS CONNECTED TO GOAL 4 -- GOAL 2 -- GOAL 3.  
8 SORRY. WITH THE CLINICAL2, SO THIS IS THE CLIN2  
9 GOAL TO TAKE INTO ACCOUNT FUNDING FOR ACCESS -- FOR  
10 PRECOMMERCIALIZATION ACTIVITIES AS WELL. SO WE ALSO  
11 WANT TO PROVIDE -- RESOURCE CLINICAL PROGRAMS TO  
12 SUPPORT THE STAGE-APPROPRIATE PLANNING AND EVIDENCE  
13 GENERATION TO INFORM ROBUST MARKET ACCESS AND  
14 REIMBURSEMENT STRATEGIES. SO THEY ARE ALL CONNECTED  
15 HERE.

16 NOW, THE NEXT SET OF RECOMMENDATIONS FOR  
17 ACCESSIBILITY AND AFFORDABILITY HAVE TO DO WITH  
18 INFLUENCING POLICY AND ENHANCING PARTNERSHIPS.  
19 CONTINUING WITH OUR COMMITMENT TO THIS GOAL, THE  
20 THIRD RECOMMENDATION IS TO FURTHER INFLUENCE POLICY.  
21 THROUGH THE RESOURCES OF THE ACCESS AND  
22 AFFORDABILITY WORKING GROUP, WE COULD ADVOCATE FOR  
23 POLICIES THAT DIRECTLY INFLUENCE CLINICAL TRIAL  
24 ACCESS AND THE BROADER ADOPTION OF APPROVED  
25 THERAPIES. SO, FOR EXAMPLE, EVOLVING STATE AND

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1 NATIONAL POLICIES IMPACT ACCESS TO CLINICAL TRIALS  
2 AND APPROVED PRODUCTS.

3 AND THE FOURTH RECOMMENDATION IS TO  
4 ENHANCE PARTNERSHIPS. OUR WORK DOESN'T END WITH  
5 POLICY INFLUENCE. TO STRENGTHEN ACCESS TO CLINICAL  
6 TRIALS AND APPROVED THERAPIES, CIRM WILL INTENSIFY  
7 ITS COLLABORATIONS WITH INFLUENTIAL ORGANIZATIONS  
8 ACROSS THE SPECTRUM, INCLUDING CALIFORNIA MEDICAL  
9 CENTERS, ASCGT, ASH, ISSCR, THE FDA, MEDI-CAL, ET  
10 CETERA. SO BY CONVENING WORKSHOPS AND BUILDING  
11 CONSENSUS AROUND SUPPORTIVE POLICIES, WE ARE NOT  
12 JUST PARTICIPATING IN A CONVERSATION, BUT WE ARE  
13 LEADING IT. AND OUR AIM IS TO PRESENT SOLUTIONS  
14 THAT POLICYMAKERS CAN ACT ON AND ENSURING THAT  
15 ACCESS TO REGENERATIVE MEDICINE IS JUST NOT A  
16 POSSIBILITY, BUT A REALITY.

17 AND CIRM ALREADY HAS RELATIONSHIPS AND  
18 PARTNERSHIPS WITH ORGANIZATIONS THAT INFLUENCE THE  
19 CELL AND GENE THERAPY ACCESS AND REIMBURSEMENT  
20 POLICY. AND THAT HAS BEEN LED FOR A LONG TIME BY  
21 OUR CO-CHAIR MADAM BONNEVILLE -- MADAM CO-CHAIR.  
22 SORRY. GOSH, THIS AFTER LUNCH, NOT RECOMMENDED.  
23 BUT ALSO IN COLLABORATION WITH DR. LOMAX, GEOFF  
24 LOMAX, WHO HAS BEEN COLLABORATING, AND UNDER THE  
25 AUSPICES ALSO OF THE ACCESS AND AFFORDABILITY

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1 WORKING GROUP. HOPEFULLY I'M KEEPING EVERYBODY  
2 AWAKE. THAT'S THE MOST IMPORTANT THING. RIGHT?  
3 SO THIS SLIDE FOCUSES ON THE CHALLENGES.  
4 SO THIS IS THE SECOND PART OF THE SLIDE. WE'VE SEEN  
5 THE APPROVED CELL AND GENE THERAPY ACCESS  
6 CHALLENGES. AND NOW WE ARE MAPPING THESE TO THE  
7 CIRM PROGRAMS AND INITIATIVES, MAPPING IT TO  
8 RECOMMENDATIONS WE JUST MADE, BUT ALSO OTHER ASPECTS  
9 FROM OTHER PROGRAMS.  
10 SO IN THE LAST SLIDE WE ALIGN THE  
11 SIGNIFICANT APPROVED CELL AND GENE THERAPY  
12 CHALLENGES. AND THEN ON THE RIGHT SIDE WE DETAIL  
13 THE CIRM PROGRAMS AND INITIATIVES IN OVERCOMING  
14 THESE HURDLES. SO FOR THE LONG-TERM EFFICACY AND  
15 DURABILITY, WE COULD BE UPDATING THE CLIN2 PROGRAM  
16 TO ADAPT OUR CLIN2 PROGRAMS TO INCENTIVIZE THE  
17 DEVELOPMENT OF ACCESS STRATEGIES AND TO PROVIDE  
18 ROBUST ACCESS AND AFFORDABILITY WORKING GROUP  
19 SUPPORT. SO CONNECTING THOSE PARTS.  
20 THE SECOND ONE HAS TO DO WITH THE HIGH  
21 COST, AND OUR PATIENT ASSISTANCE FUNDS WILL ENSURE  
22 BROADER ACCESS TO CIRM-FUNDED TREATMENTS, HELPING  
23 PATIENTS OVERCOME FINANCIAL BARRIERS.  
24 IN TERMS OF THE SPECIALIZED CENTERS, WHICH  
25 IS REQUIRED FOR DELIVERING OF THESE SPECIALIZED



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1 TREATMENTS, THE COMMUNITY CARE CENTERS, ALPHA CLINIC  
2 PARTNERSHIPS WILL EXPAND OUR NETWORK TO ADDRESS THE  
3 NECESSITY FOR SPECIALIZED TREATMENT CENTERS AND  
4 ENHANCED PATIENT ACCESS STATEWIDE.

5 AND THEN THE FOURTH CHALLENGE WHICH HAS TO  
6 DO WITH THE VARIABLE COVERAGE, THAT WILL BE TAKEN  
7 INTO ACCOUNT WITH OUR POLICY ENGAGEMENT. WE'RE  
8 ACTIVELY ENGAGING, AS I JUST MENTIONED, WITH POLICY  
9 PARTNERS TO SHAPE FRAMEWORKS THAT FACILITATE ACCESS  
10 AND ARE DEPLOYING ACCESSIBILITY AND AFFORDABILITY  
11 WORKING GROUP RESOURCES TO BOLSTER ADVOCACY EFFORTS  
12 UNDER THE LEADERSHIP OF OUR CO-CHAIR MARIA  
13 BONNEVILLE.

14 THEN THE FIFTH ACCESS CHALLENGE IS THE  
15 COMPLEX MANUFACTURING AND SUPPLY CHAIN. AND THIS IS  
16 VERY CONNECTED WITH THE TRANSLATIONAL PILLAR, WHICH  
17 IS NOW LED BY DR. SHYAM PATEL, AND THE TECHNOLOGY  
18 AND MANUFACTURING NETWORKS WILL HELP US ADDRESS  
19 BOTTLENECKS IN MANUFACTURING AND SUPPLY. AND OUR  
20 TECHNOLOGY PLATFORM COULD OPTIMIZE PRODUCTION,  
21 PROCESSES, AND INFRASTRUCTURE.

22 SO THIS IS A SUMMARY OF HOW CIRM AT A HIGH  
23 LEVEL PLANS TO ADDRESS THESE CHALLENGES IN A  
24 COORDINATED AND HOLISTIC MANNER THROUGH OUR PROGRAMS  
25 AND THE SUPPORT OF THE ACCESS AND AFFORDABILITY

1 WORKING GROUP.

2 AND WITH THAT, WE ARE OPEN FOR DISCUSSION  
3 ON THOSE GOALS. GEOFF, BE READY. QUESTIONS? YES.  
4 DR. BLUMENTHAL.

5 DR. BLUMENTHAL: WELL, THIS MAY BE MORE OF  
6 A COMMENT THAN A QUESTION, BUT FEEL FREE TO RESPOND.  
7 I'VE BEEN THINKING ABOUT -- IN LISTENING TO THESE  
8 GOALS, I'VE BEEN THINKING ABOUT THE ISSUE OF  
9 INFRASTRUCTURE THAT CIRM FUNDS. AND WE FUND  
10 INFRASTRUCTURE IN SUPPORT OF A NUMBER OF THESE  
11 GOALS. IN TERMS OF GOAL 4, WE HAVE A COLLABORATIVE  
12 RESEARCH INFRASTRUCTURE. IN TERMS OF ACCESS AND  
13 AFFORDABILITY, WE HAVE THE ALPHA CLINICS, FOR  
14 EXAMPLE, AND OTHER INFRASTRUCTURE THAT WE FUND FOR  
15 GOOD REASONS. BUT INFRASTRUCTURE FUNDING MAY NOT  
16 LAST BEYOND CIRM.

17 AND SO ONE ISSUE THAT I THINK WE WILL HAVE  
18 TO COME TO ADDRESS OVER THE COMING MONTHS AS WE  
19 THINK ABOUT IT IS TO WHAT EXTENT DO WE VALUE FUNDING  
20 INFRASTRUCTURE THAT MAY OR MAY NOT SURVIVE BEYOND  
21 THE LIFETIME OF CIRM? AND HOW DO WE VALUE THE  
22 LIKELIHOOD OF ITS CONTINUING TO SURVIVE? SO THAT'S  
23 KIND OF AT THE MOMENT AN UNANSWERED QUESTION, BUT  
24 IT'S ONE THAT WE'RE GOING TO HAVE TO THINK ABOUT AS  
25 WE GO FORWARD. I JUST RAISE THAT AS AN ISSUE.

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1 DR. CANET-AVILES: THAT'S AN EXCELLENT  
2 POINT, DR. BLUMENTHAL. AND I THINK THAT THAT'S --  
3 YES, MARIA.

4 VICE CHAIR BONNEVILLE: I WAS GOING TO  
5 MENTION MOST OF THE RFA'S HAD COME WHEN THEY APPLIED  
6 THAT THEY NEEDED SUSTAINABILITY PLANS SO THAT WHEN  
7 CIRM WERE NO LONGER TO EXIST, WHAT WOULD THEY DO.  
8 AND SO I THINK, BECAUSE WE STILL HAVE EXISTED, WE  
9 HAVEN'T TESTED THAT SORT OF WHAT IS THE PLAN MOVING  
10 FORWARD. BUT I COMPLETELY AGREE, AND IT IS  
11 SOMETHING THAT WE NEED TO ADDRESS WITH OUR  
12 INFRASTRUCTURE GRANTEES AND SEE SORT OF WHERE THEY  
13 ARE IN THAT CONTINUUM. SEVERAL OF THEM I DON'T  
14 THINK BELIEVE THAT THEY COULD SURVIVE WITHOUT CIRM  
15 FUNDING.

16 DR. CANET-AVILES: IT'S A VERY GOOD POINT.  
17 THANK YOU, MARIA. ONE OF THE THINGS I WAS GOING TO  
18 MENTION IS WHEN WE DEVELOPED THE SHARED RESOURCE  
19 LABS, THIS SECOND ROUND OF IT, ONE OF THE THINGS  
20 THAT WE DID IS IMPLEMENT TIMELINE AND MILESTONES  
21 THAT WAS GOING TO BE PHASING OUT THE INVESTMENT --  
22 THE SUPPORT FROM CIRM IN THE SECOND PHASE. SO AT  
23 THE SECOND PHASE, ONCE THEY HAVE IMPLEMENTED THE  
24 MODELS AND EVERYTHING AND THEY'VE DONE THE BUILDING  
25 AND EQUIPPING AND THEY HAVE ESTABLISHED THE MODEL

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1 FOR SHARING THE STEM CELL MODELS, ET CETERA, THEN  
2 THEY HAVE TO OPERATE AT 50 PERCENT OF OUR FUNDING.

3 SO WE ARE GOING TO HAVE TO THINK, FOR  
4 EXAMPLE, WHAT ARE WE GOING TO DO AFTERWARDS, BUT I  
5 THINK WE NEED TO THINK IN TERMS OF THE ALPHA CLINICS  
6 AND THE CCC, WHAT IS IT THAT WE ARE GOING TO  
7 IMPLEMENT. AND MAYBE THAT WILL REQUIRE AN AMENDMENT  
8 TO THE NOTICE OF AWARD, FOR EXAMPLE, TO MAKE SURE  
9 THAT THERE IS A MILESTONE THERE THAT SHOWS US THAT  
10 THEY CAN OPERATE ON THEIR OWN. IF THEY CAN'T, THEN  
11 MAYBE THAT'S A SIGN THAT THIS IS NOT GOING TO  
12 HAPPEN. THANK YOU.

13 ALSO, SOMETHING THAT WE NEED TO DO MORE  
14 CAREFULLY IS MAKE SURE THAT OUR CLINICAL TRIALS ARE  
15 UTILIZING THE INFRASTRUCTURE THAT WE'VE PUT  
16 TOGETHER. AND THAT'S SOMETHING THAT WE ARE  
17 CONNECTING VERY STRONGLY RIGHT NOW.

18 OKAY. ANY MORE QUESTIONS? IF THERE ARE  
19 NONE, WE'RE GOING TO MOVE INTO GOAL 6. I'M GETTING  
20 A HEADS-UP. THIS, HOW DO YOU SAY THIS? THUMBS UP.  
21 NO HEADS-UP. THUMBS UP. GEEZ, LOUISE.

22 GOAL 6. BY THE WAY, GOAL 5 WAS DEVELOPED  
23 IN COLLABORATION WITH DR. LOMAX AND CO-CHAIR  
24 BONNEVILLE AND EMILY. AND I JUST FORGOT. AND  
25 BLANCA, YES.

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1 NOW, THIS GOAL HAS BEEN DEVELOPED IN  
2 COLLABORATION WITH OBVIOUSLY DR. SHEPARD AND DR. XIN  
3 AND SARA AS WELL, DR. TAYLOR. OKAY. LET'S GET ON  
4 WITH THIS.

5 SO UNDER GOAL 6 WE ARE FOCUSING ON  
6 BOLSTERING CIRM'S WORKFORCE DEVELOPMENT PROGRAMS TO  
7 EFFECTIVELY ADDRESS THE GAPS AND MEET THE EVOLVING  
8 DEMANDS IN REGENERATIVE MEDICINE. AND THIS GOAL, AS  
9 WE ALL KNOW, IS CRUCIAL AS IT UNDERPINS OUR ABILITY  
10 TO SUSTAIN INNOVATION AND EXCELLENCE IN OUR FIELD  
11 AND KEEP MAINTAINING THE DEVELOPMENT OF THESE  
12 THERAPIES OBVIOUSLY.

13 SO WE ARE TACKLING THIS GOAL BY  
14 CONSIDERING THREE AREAS IN OUR QUESTIONS. ONE IS  
15 IDENTIFYING COMPETENCY GAPS. THE SECOND WAS  
16 INCREASING DIVERSITY AND REPRESENTATION. AND THE  
17 THIRD WAS HOW DO WE LEVERAGE COLLABORATIONS AND BEST  
18 PRACTICES? AND EACH OF THESE AREAS HAS REPRESENTED  
19 AN APPROACH TO WORKFORCE DEVELOPMENT, ENSURING THAT  
20 WE NOT ONLY KEEP WITH THE PACE, BUT ALSO LEAD IN THE  
21 RAPID EVOLUTION LANDSCAPE OF REGENERATIVE MEDICINE.

22 THESE SOURCES HAVE INFORMED OUR  
23 UNDERSTANDING OF THE WORKFORCE GAPS AND THE EVOLVING  
24 DEMANDS IN REGENERATIVE MEDICINE. AND THEY ARE ALL,  
25 AGAIN, IN THE MEMO, AND THE DATA THAT WE WILL SHOW

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1 IS ONLY REPRESENTATIVE OF THE MOST IMPORTANT DATA  
2 THAT WE THOUGHT THAT COULD HELP INFORM THE  
3 RECOMMENDATIONS, BUT THERE IS A LOT MORE THAT HAS  
4 BEEN DERIVED FROM THESE DATA SOURCES.

5 AND WHAT'S INTERESTING IS THE WAY THAT  
6 WE'VE PACKAGED THE DATA. I HAVE TO CREDIT IT TO  
7 DR. SARA TAYLOR IN COLLABORATION WITH OTHERS, AND  
8 THOMAS AS WELL, THOMAS TRINH, BECAUSE I'M PRETTY  
9 AMAZED HOW WE'VE BEEN ABLE TO PUT ALL THESE DATA  
10 TOGETHER INTO LIKE A SMALL SLIDE SOMETIMES.

11 SO WHAT DOES THIS SLIDE TELL US? THIS  
12 SLIDE HIGHLIGHTS THE ALIGNMENT OR THE LACK THEREOF  
13 OF BETWEEN THE CURRENT COMPETENCIES IN CELL AND GENE  
14 THERAPY SECTOR AND THE TRAINING OPPORTUNITIES THAT  
15 ARE AVAILABLE THROUGH ACADEMIC AS WELL AS  
16 CIRM-SPONSORED PROGRAMS. SO UNDERSTANDING THE  
17 COMPETENCIES.

18 ON THE LEFT WE HAVE THE COMPETENCIES  
19 LISTED AND ARE DERIVED FROM A COMPREHENSIVE ANALYSIS  
20 OF TECHNICAL NEEDS, HIGH DEMAND BIOTECH JOB LISTINGS  
21 THAT ARE RELEVANT TO CELL AND GENE THERAPIES, AS  
22 WELL AS A GAP ANALYSIS FROM STAKEHOLDERS IN THE  
23 TYPES OF SKILLS AND POSITIONS THAT ARE MOST NEEDED  
24 AS THE NASCENT CELL AND GENE THERAPY FIELD  
25 PROGRESSES TOWARDS IND'S AND REGULATORY APPROVALS.

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1 THE NEXT COLUMN IS THE ACADEMIC TRAINING.  
2 AND THAT MEANS CERTIFICATE, DEGREE PROGRAMS OFFERED  
3 TO INDIVIDUALS THROUGH POST-HIGH SCHOOL EDUCATION,  
4 FOR EXAMPLE, PUBLIC UNIVERSITIES AND COLLEGES LIKE  
5 THE UCS, THE CSU'S, AND THE COMMUNITY COLLEGES IN  
6 CALIFORNIA, AS WELL AS SOME PRIVATE EDUCATIONAL  
7 INSTITUTIONS THAT HAVE ACCESS TO CELL AND GENE  
8 THERAPY FACULTY AND PROGRAMMING.

9 AND THEN WE HAVE THE CIRM INFRASTRUCTURE  
10 FOR EDUCATION -- CIRM EDUCATION AND INFRASTRUCTURE  
11 TRAINING OPPORTUNITIES. HERE WE HAVE THE ONES THAT  
12 HAVE BEEN IMPLEMENTED, BUT THE COMMUNITY CARE  
13 CENTERS OF EXCELLENCE, FOR EXAMPLE, ARE NOT SHOWN  
14 HERE BECAUSE THEY HAVEN'T IMPLEMENTED IT YET, RIGHT,  
15 BUT THEY WILL BE PART OF THIS. AND THE CIRM  
16 INFRASTRUCTURE AND EDUCATION OPPORTUNITIES, THE  
17 CHECKMARKS IN THERE INDICATE THE EXTENT TO WHICH  
18 TRAINEES IN CIRM'S VARIOUS EDUCATIONAL PROGRAMS,  
19 LIKE THE SPARK, THE COMPASS, THE BRIDGES, AND  
20 OTHERS, HAVE OPPORTUNITIES TO GAIN EXPERIENCE IN  
21 THESE KEY AREAS.

22 THE HOLLOW CIRCLE DENOTES THAT SOME  
23 TRAINEES GAIN THIS EXPERIENCE POSSIBLY THROUGH  
24 INTERNSHIPS WHILE A SOLID CIRCLE MEANS MOST ALL DO.  
25 SO, FOR EXAMPLE, ALL THE TRAINEES IN THE

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1 MANUFACTURING PROGRAM, THEY GAIN MANUFACTURING  
2 RELATED SKILLS, BUT ONLY A SUBSET IN THE BRIDGES OR  
3 COMPASS PROGRAMS MIGHT GAIN THAT SKILL.

4 AND THEN BY ADDRESSING THE GAPS THAT WE  
5 SEE HERE AND LEVERAGING NEW AND EXISTING PROGRAMS,  
6 WE WILL AIM TO ENHANCE THE READINESS OF OUR  
7 WORKFORCE IN CALIFORNIA TO MEET THE EVOLVING DEMANDS  
8 OF THE REGENERATIVE MEDICINE INDUSTRY EFFECTIVELY.  
9 SO THIS IS TO SHOW WHAT IS IN DEMAND AND WHAT DO WE  
10 NEED TO DO TO ENHANCE OUR PROGRAM. AND THAT WILL  
11 LINK TO THE FIRST SET OF RECOMMENDATIONS.

12 NOW, THIS SLIDE WAS HARD TO PUT THE DATA.  
13 SO WE SUMMARIZED IT LIKE THIS. AND THE DATA SOURCES  
14 FOR THIS SLIDE ARE AT THE BOTTOM. BUT WHAT THIS  
15 SLIDE EMPHASIZES IS THE VITAL ROLE THAT HYBRID SKILL  
16 SETS ARE PLAYING IN DRIVING INNOVATION AND ANYTHING,  
17 BUT ESPECIALLY IN OUR CASE, THE REGENERATIVE  
18 MEDICINE FIELD. SO IF WE WANT TO BRIDGE THE GAP  
19 BETWEEN MULTIPLE DISCIPLINES, FOSTERING A WORKFORCE  
20 THAT EMBODIES DIVERSE HYBRID SKILL SETS BECOMES  
21 PARAMOUNT.

22 SO BEYOND THE GROWING NEED FOR TRAINED  
23 PROFESSIONALS WITH THE COMPETENCIES NOTED, IT IS  
24 IMPORTANT TO MENTION THAT THE CELL AND GENE THERAPY  
25 FIELD IS NASCENT, RELATIVELY NASCENT, AND MUCH



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1 INNOVATION IS NEEDED THROUGH THAT TRADITIONAL DRUG  
2 DEVELOPMENT SKILL SET TO THE PROCESS OF TRANSLATING  
3 COMPLEX PRODUCTS WITH AN UNCHARTERED REGULATORY PATH  
4 TO SAFE AND AVAILABLE TREATMENTS WITH REGULATORY  
5 APPROVALS.

6 SO WHAT REALLY DRIVES TRANSFORMATIVE  
7 INNOVATION IS THE COMBINATION OF SKILL SETS IN  
8 DIVERSE INDIVIDUALS AND A HOLISTIC UNDERSTANDING OF  
9 PROCESSES TO BE DEVELOPED. SO INNOVATION EMERGES,  
10 AS WE KNOW, WHEN A DIVERSITY OF THOUGHT MARRIED TO  
11 STRONG TECHNICAL COMPETENCIES PLUS THE  
12 CURIOSITY-DRIVEN APPROACHES TO PROBLEM SOLVING. AND  
13 THERE ARE FEW OPPORTUNITIES CURRENTLY TO GAIN THIS  
14 TYPE OF TRAINING WHILE PURSUING HIGHER EDUCATION.  
15 AND INDIVIDUALS WITH SUCH HYBRID SKILL SETS ARE IN  
16 HIGH DEMAND. SO WE ARE GOING TO PROVIDE A  
17 RECOMMENDATION THAT ADDRESSES THIS.

18 SO THIS IS THE LAST SLIDE. AND I KNOW  
19 YSABEL IS LOOKING, BUT HOPEFULLY SHE'S THERE. THIS  
20 SLIDE ILLUMINATES A CRITICAL ISSUE IN THE  
21 DEMOGRAPHIC TRENDS WITHIN OUR EDUCATION SYSTEM,  
22 PARTICULARLY HIGHLIGHTING THE ATTRITION OF  
23 UNDERREPRESENTED GROUPS THAT BEGIN EARLY AND PERSIST  
24 THROUGH HIGHER EDUCATION.

25 SO THIS IS AN OVERVIEW OF ACADEMIC

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1 DEMOGRAPHICS. THE BARS REPRESENT THE DEMOGRAPHIC  
2 COMPOSITION FROM K-12 THROUGH TO COMMUNITY COLLEGES,  
3 STATE UNIVERSITIES, AND THE UC SYSTEM. AND AS WE  
4 SEE, THE DIVERSITY PRESENT IN EARLY EDUCATION  
5 DIMINISHES AS THE STUDENTS PROGRESS TO HIGHER LEVELS  
6 OF ACADEMIA. SO THERE ARE SOME CHALLENGES THAT WE  
7 WANT TO HIGHLIGHT.

8 THE DATA REVEALS A SIGNIFICANT REDUCTION  
9 IN REPRESENTATION PARTICULARLY OF HISPANIC/LATINO  
10 STUDENTS AS THEY TRANSITION FROM K-12 INTO HIGHER  
11 EDUCATION SECTORS. AND THIS DIMINISHING DIVERSITY  
12 IS JUST NOT A STATISTIC, BUT IT REPRESENTS A LOSS OF  
13 POTENTIAL TALENT AND INNOVATION IN FIELDS CRITICAL  
14 TO OUR FUTURE.

15 AND ON THE RIGHT YOU CAN SEE HOW CIRM'S  
16 TRAINING PROGRAMS, SUCH AS THE SPARK, COMPASS,  
17 BRIDGES, AND SCHOLARS, ARE DESIGNED TO ENGAGE  
18 STUDENTS AT VARIOUS EDUCATIONAL LEVELS. WHILE SPARK  
19 TARGETS EARLY, YOUNGER STUDENTS IN GRADES 10 TO 12,  
20 THE COMPASS AND BRIDGES EXTEND INTO COLLEGE AND  
21 BEYOND, AIMING TO SUPPORT AND SUSTAIN INTEREST AND  
22 PARTICIPATION IN SCIENTIFIC RESEARCH ACROSS ALL  
23 DEMOGRAPHICS. SO THERE'S STRATEGIC OUTREACH NEEDED.  
24 THE UNDERLYING MESSAGE IS CLEAR. TARGETED AND  
25 CONSISTENT OUTREACH FROM EARLY EDUCATION, K THROUGH

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1 10TH GRADE, IS CRUCIAL. BY ENGAGING STUDENTS EARLY,  
2 WE CAN BETTER SUPPORT THEIR ACADEMIC JOURNEYS AND  
3 HELP PREVENT THE ATTRITION OF UNDERREPRESENTED  
4 STUDENTS IN HIGHER EDUCATION AND SUBSEQUENTLY IN THE  
5 WORKFORCE.

6 SO WITH THAT, THIS IS A SUMMARY OF THE  
7 ANALYSIS. WE HAVEN'T DONE IT FOR THE OTHERS, BUT WE  
8 ARE DOING IT JUST FOR THIS LAST GOAL. SO THE FIRST  
9 ONE WAS IDENTIFYING COMPETENCY GAPS. OUR FINDINGS  
10 INDICATE THAT THERE ARE SIGNIFICANT GAPS IN EXPOSURE  
11 AND TRAINING WITHIN OUR ACADEMIC LANDSCAPE,  
12 PARTICULARLY IN MANUFACTURING AND CLINICAL CAREER  
13 PATHS RELATED TO CGT. ADDITIONALLY, THERE IS A LACK  
14 OF AWARENESS AROUND CAREER PATHS AND POSITIONS THAT  
15 REQUIRE THESE COMPETENCIES. AND THERE IS  
16 CONSIDERABLE INNOVATION NEEDED TO ADAPT THESE  
17 COMPETENCIES TO AN EMERGING SET OF DEMANDS.

18 INCREASING DIVERSITY REPRESENTATION AS  
19 WELL. WE HAVE IDENTIFIED A WORRYING TREND OF  
20 DEMOGRAPHIC ATTRITION THAT BEGINS PRIOR TO COLLEGE  
21 ENTRY, HIGHLIGHTING A LOSS OF DIVERSE PERSPECTIVE  
22 EARLY IN THE EDUCATIONAL PIPELINE. AND TO  
23 COUNTERACT THIS, PROACTIVE OUTREACH AND SUPPORT MUST  
24 BEGIN EARLIER. AND WE WILL TALK ABOUT THIS WITH OUR  
25 RECOMMENDATIONS.

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1                   AND THEN FINALLY, LEVERAGING  
2           COLLABORATIONS AND BEST PRACTICES, OPPORTUNITIES TO  
3           INCREASE CONNECTIVITY, AND INTERPROGRAM  
4           COLLABORATION. AND JUST SO YOU KNOW, THERE'S AN  
5           UPCOMING -- IN THE NEXT FEW MONTHS, WE WILL HAVE AN  
6           UPDATE ON WHAT WE CALL THE CIRM HUB THAT IS  
7           INTERCONNECTING OUR EDUCATION AND OUR INFRASTRUCTURE  
8           PROGRAMS AND EVERYBODY THAT'S PART OF THAT. AND  
9           KELLY HAS BEEN LEADING THIS WITH OTHER MEMBERS OF  
10          THE TEAM, THOMAS AND SHYAM AND GEOFF AND DAISY AND  
11          SARA AND JANIE BYRAM. SO WE ARE LOOKING FORWARD TO  
12          HEARING AN UPDATE FROM THEM AT THE ICOC. I THINK  
13          YOU WILL BE FINDING THIS VERY INTERESTING.

14                   NOW, THIS IS THE ONLY SLIDE FOR THE  
15          RECOMMENDATIONS. THE OBJECTIVES ARE TO INCREASE  
16          ACCESS TO IN-DEMAND CELL AND GENE THERAPY WORKFORCE  
17          COMPETENCIES THAT ARE CURRENTLY LIMITED IN ACADEMIC  
18          TRAINING PROGRAMS AND TO INCREASE THE DIVERSITY OF  
19          THE FUTURE CELL AND GENE THERAPY WORKFORCE.

20                   THE FIRST RECOMMENDATION IS TO PROVIDE  
21          HIGH DEMAND TECHNICAL TRAINING BY BRIDGES AND  
22          COMPASS PROGRAM UPDATES, INCREASING TRAINING  
23          OFFERINGS, DIVERSIFYING INTERNSHIP TYPES, AND  
24          INCREASING THE INTEGRATION WITH CIRM R&D GRANTS.

25                   THE SECOND RECOMMENDATION IS TO CREATE A

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1 NEW TRAINING PROGRAM THAT WILL SPECIFICALLY INSTILL  
2 INDIVIDUALS WITH HYBRID SKILL SETS OF VALUE THAT ARE  
3 NECESSARY TO MOVE THE NEEDLE IN THE TRANSLATION OF  
4 CELL AND GENE THERAPIES FROM BENCH TO BEDSIDE. THIS  
5 PROGRAM COULD BE TARGETING INDIVIDUALS WITH  
6 EXPERTISE IN ONE KEY DISCIPLINE TO GAIN HANDS-ON  
7 EXPERIENCE IN A COMPLEMENTARY DISCIPLINE AS INFORMED  
8 BY OUR RESEARCH WHEN DEVELOPING THIS GOAL.

9 SO, FOR EXAMPLE, ONE VERY VALUABLE  
10 COMBINATION WOULD BE THE INTERNSHIP IN GMP  
11 PROCESSES, QUALITY ASSURANCE/QUALITY CONTROL, FOR  
12 EXAMPLE, REGULATORY AFFAIRS FOR THOSE THAT HAVE AN  
13 ACADEMIC BACKGROUND. SO THAT COULD BE SOMETHING  
14 THAT COULD BE ENHANCING THE PROFILE OF THESE PEOPLE  
15 AND THAT FUTURE WORKFORCE.

16 AND FINALLY, THE THIRD RECOMMENDATION IS  
17 TO LAUNCH OUTREACH CAMPAIGNS TO EDUCATE THE PUBLIC  
18 AND INCREASE DIVERSITY OF CALIFORNIA'S REGENERATIVE  
19 MEDICINE WORKFORCE, DEVELOPING PROGRAMS TO SUPPORT  
20 OUTREACH EDUCATION EFFORTS FOR K TO 12 TEACHERS AND  
21 COMMUNITY MEMBERS VIA COLLABORATION WITH KEY  
22 STAKEHOLDERS. AND WE HAVE STARTED THIS ALREADY  
23 BECAUSE IT JUST BECAME ORGANIC. THEY CAME TO US.  
24 WE STARTED DOING THINGS. SO THIS IS ALREADY  
25 ONGOING, BUT I THINK WE REALLY NEED TO TAKE IT AND

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1 MOVE IT FORWARD WITH A LOT MORE IMPETUS.

2 AND THIS IS JUST THE PROPOSED CHANGES TO  
3 THE TRAINING PROGRAMS. RIGHT NOW WE HAVE THE  
4 EDUCATION PROGRAMS, THE BRIDGES AND COMPASS  
5 PROGRAMS, THAT COULD THEN GET INCREASED HIGH DEMAND  
6 TECHNICAL TRAINING IN THE UPDATED -- WELL, THESE  
7 PROGRAMS, THE FIRST ONE, THE BRIDGES, WILL BE  
8 RENEWED -- IS TO BE RENEWED, IF THE BOARD APPROVES  
9 IT, OBVIOUSLY IN FY 25/26. SO WE COULD BE AMENDING  
10 THE CONCEPT AND THE PROGRAM ANNOUNCEMENT WITH THIS.

11 AND THEN WE COULD CREATE A SKILL SET, A  
12 HYBRID SKILL SET TRAINING PROGRAM. THIS COULD BE  
13 ANOTHER NEW PROGRAM, TO DEVELOP AND LAUNCH NEW  
14 PROGRAMS THAT DEVELOP HYBRID SKILL SETS IN TRAINEES.

15 THEN IN TERMS OF OUTREACH AND EDUCATION,  
16 WE HAVE THE SPARK PROGRAM FOR HIGH SCHOOL, AND  
17 OUTREACH TO K-12 AND TEACHERS IS AD HOC, AND THEN WE  
18 COULD RELAUNCH SPARK AND DEVELOP PROGRAMMING FOR  
19 K-12 TEACHERS AND COMMUNITY MEMBERS VIA THE EDUC1  
20 MECHANISM TO COLLABORATIONS THAT YOU WILL SEE IN AN  
21 ADDITIONAL RECOMMENDATION THAT WE HAVE.

22 AND THEN THE CIRM COLLABORATION HUB. AS I  
23 MENTIONED, THAT WILL BE A PRESENTATION IN A FUTURE  
24 ICOC, BUT WE RECENTLY LAUNCHED TO LINK THE EDUCATION  
25 AND INFRASTRUCTURE PROGRAMS ROLLOUT IN PROGRESS.

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1 AND WE WILL CONTINUE THE HUB ROLLOUT TO INCREASE  
2 CAREER PATH AWARENESS FOR TRAINEES.

3 AND WITH THAT, WE HAVE NOW AN OPPORTUNITY  
4 TO HAVE A DISCUSSION. THANK YOU.

5 CHAIRMAN IMBASCIANI: DEBORAH.

6 DR. DEAS: YES. YOU MENTIONED THE  
7 CREATION OF A NEW EDUCATION PROGRAM. AND I'VE BEEN  
8 THINKING ABOUT THE CLINICIANS AND THE BIOMEDICAL  
9 SCIENTISTS WHO MAY HAVE INTEREST IN REGENERATIVE  
10 MEDICINE, BUT HAVE NOT DEVELOPED THOSE SKILL SETS,  
11 AND HOW WE MIGHT TARGET THEM TO GET THIS TRAINING SO  
12 THAT WE CAN INCREASE THE WORKFORCE IN THAT GROUP. I  
13 KNOW WE'VE PUT A LOT OF FOCUS IN THE SPARK AND THE  
14 COMPASS AND THE PATHWAY PROGRAM, BUT YOU ALSO HAVE  
15 THE GROUP OF CLINICIAN AND BIOMEDICAL SCIENTISTS WHO  
16 MAY WANT TO SORT OF PIVOT AND GET MORE TRAINING.

17 I ALSO THINK ABOUT COMMUNITY CARE CENTERS  
18 OF EXCELLENCE. AND WHEN WE TALK ABOUT THIS  
19 PARTNERSHIP WITH ALPHA CENTERS IN THAT PARTNERSHIP,  
20 THERE COULD BE KIND OF TRAINING SO THAT YOU BRING UP  
21 THOSE CLINICIANS AND THE BIOMEDICAL SCIENTISTS SO  
22 THAT THEY BECOME MORE VERSED AND DEVELOP THOSE  
23 HYBRID SKILL SETS.

24 DR. CANET-AVILES: SO WITH THE COMMUNITY  
25 CARE CENTERS, GEOFF, GO AHEAD. I THINK THAT'S

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1 ALREADY TAKEN INTO ACCOUNT.

2 DR. LOMAX: THANK YOU SO MUCH FOR THAT  
3 QUESTION. AND WE'VE JUST RECEIVED APPLICATIONS. SO  
4 I CAN'T SAY ANYTHING TERRIBLY SPECIFIC. BUT I CAN  
5 GIVE SOME EXAMPLES OF WHAT'S BEING PROPOSED,  
6 PARTICULARLY ON THE POINT OF THE CLINICIANS AT  
7 COMMUNITY SITES DEVELOPING THE SKILLS AND  
8 ACCREDITATION NECESSARY TO WORK IN THE REGENERATIVE  
9 MEDICINE SPACE. SO THERE ARE A NUMBER OF APPLICANTS  
10 THAT HAVE IN THE PROPOSAL DEVELOPMENT PROCESS  
11 ENGAGED WITH ALPHA CLINICS SITES. THERE'S BEEN A  
12 CONSIDERABLE AMOUNT OF FOCUS ON THE FACT  
13 ACCREDITATION, THE ACCREDITATION NECESSARY TO MANAGE  
14 PATIENTS, PARTICULARLY THE IMMUNE MONITORING AND THE  
15 IMMUNOSURVEILLANCE THAT'S MANDATORY FOR THOSE TYPES  
16 OF TREATMENTS.

17 SO WE'RE VERY EXCITED TO SEE A NUMBER OF  
18 APPLICANTS PROPOSING THAT LEVEL OF ACTIVITY IN  
19 COLLABORATION WITH THE ALPHA CLINIC SITES SO THEY  
20 CAN INCREASE, GET THEIR WORKFORCE TO A LEVEL WHERE  
21 THEY CAN MANAGE THOSE PATIENTS, WHICH IS ACTUALLY  
22 VERY IMPORTANT BECAUSE IT REPRESENTS A BOTTLENECK  
23 FOR THE FIELD OVERALL. THERE'S ONLY SO MANY BMT  
24 CENTERS THAT CAN MANAGE PATIENTS. SO IF WE DON'T  
25 SPREAD THAT WORKLOAD, WE'RE GOING TO HIT A POINT



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1 WHERE WE'RE NOT ABLE TO TREAT PATIENTS BEYOND A  
2 CERTAIN CAPACITY.

3 SO THOSE COLLABORATIONS ARE IN THERE, AND  
4 WE JUST HAVE TO WAIT AND SEE WHERE THE CHIPS FALL IN  
5 TERMS OF THE REVIEW, BUT I IMAGINE A NUMBER OF THOSE  
6 PROPOSALS WILL BE LOOKED UPON FAVORABLY BY THE  
7 GRANTS WORKING GROUP.

8 CHAIRMAN IMBASCIANI: THANK YOU, GEOFF.  
9 NEXT IS DR. MELMED.

10 DR. MELMED: THANK YOU. I WANTED TO JUST  
11 RELATE TO THE COMMENTS ABOUT OUR CLINICIANS AND OUR  
12 PRACTITIONERS. ACTUALLY IN THE LAST STRATEGIC PLAN  
13 ITERATION, THE BOARD MAY REMEMBER THAT WE ACTUALLY  
14 DISCUSSED THE CONCEPT OF CREATING AN ACCREDITED  
15 FELLOWSHIP PROGRAM IN REGENERATIVE MEDICINE, AND  
16 THAT WE ARE WELL POISED TO BE THE LEADERS IN THE  
17 COUNTRY, PERHAPS EVEN IN THE WORLD, FOR THIS. AND  
18 ACTUALLY I'VE HAD SOME DISCUSSIONS WITH OUR BOARD  
19 CHAIR ABOUT THIS, AND HOPEFULLY WE COULD BE ABLE TO  
20 HAVE THE BOARD CREATE AN APPROACH TO TRY AND  
21 FORMALIZE GME TRAINING FOR REGENERATIVE MEDICINE  
22 BASED HERE IN CALIFORNIA.

23 DR. CANET-AVILES: THANK YOU, DR. MELMED.

24 CHAIRMAN IMBASCIANI: DON.

25 DR. TAYLOR: THANK YOU SO MUCH.

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1 MS. DURON: CAN I BE HEARD?

2 CHAIRMAN IMBASCIANI: YSABEL, YOU ARE  
3 GOING TO FOLLOW DON TAYLOR.

4 DR. TAYLOR: THANK YOU SO MUCH. SO  
5 RELATED TO DIVERSE WORKFORCE DEVELOPMENT, THE  
6 ACADEMIC DEMOGRAPHICS, AND THE HYBRID SKILL SET FOR  
7 INNOVATION, JUST CURIOUS HOW INTENTIONAL AND  
8 STRATEGIC AND PROACTIVE ARE WE IN CULTIVATING  
9 DISCIPLINES THAT EXTEND INTO THE ARTS, SOCIAL  
10 SCIENCES, BIOETHICS, AND OTHER SORT OF NONOBVIOUS  
11 STEM-RELATED DISCIPLINES. ARE WE INTENTIONALLY  
12 FOCUSED TO DRAW THOSE DISCIPLINE INTO THESE  
13 FRAMEWORKS?

14 DR. CANET-AVILES: THANK YOU, DON. WE ARE  
15 NOT, BUT, KELLY, DO YOU WANT TO SAY MORE THAN THAT?  
16 WE ARE NOT BECAUSE IT'S NOT PART OF OUR  
17 PROPOSITION'S MANDATE. AND I THINK WE ALSO ARE  
18 TRYING TO HAVE A FOCUS ON THE HIGHEST NEEDS THAT WE  
19 HAVE, AND RIGHT NOW THESE ARE THE HIGHEST NEEDS.  
20 AND I THINK THERE MIGHT BE OTHER ORGANIZATIONS THAT  
21 CAN ACTUALLY PROVIDE THAT. SO IT'S ABOUT WHAT CAN  
22 WE DO, THE BANG FOR THE BUCK, IN TERMS OF OUR  
23 DIVERSE WORKFORCE DEVELOPMENT FOR CGT. SO WE'VE  
24 IDENTIFIED THE SPECIFIC TRAININGS, THE HYBRID SKILL  
25 SETS, AND THEN THE OUTREACH. BUT KELLY HAS BEEN

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1 LEADING THIS. SO WOULD YOU LIKE TO ADD, KELLY?

2 DR. SHEPARD: SURE. SO FIRST, GETTING  
3 BACK TO THE POINT OF PROVIDING TRAINING FOR  
4 PHYSICIANS POTENTIALLY WITH AN OPPORTUNITY TO GAIN  
5 REGENERATIVE MEDICINE SKILL SETS. IN TERMS OF THE  
6 HYBRID SKILL SET TRAINING PROGRAM, WE AREN'T  
7 THINKING NECESSARILY OF TARGETING IT TO A SPECIFIC  
8 LEVEL. LIKE COMPASS IS SPECIFICALLY TARGETED TO  
9 THIS PARTICULAR YEAR OF UNDERGRADUATE. BRIDGES IS  
10 TARGETING THESE LATER STAGES OF UNDERGRADUATE OR  
11 MASTER'S. WE'RE THINKING THE COMBINATION OF SKILL  
12 SETS ARE WHAT'S NEEDED IN AN INDIVIDUAL THAT IT'S  
13 APPROPRIATE FOR. SO SOMEONE WHO IS AN ENGINEER IN  
14 PROCESSING AND INDUSTRY MIGHT COME DO AN INTERNSHIP  
15 IN REGENERATIVE MEDICINE IN AN ACADEMIC LAB. SO  
16 THEN THAT WOULD MARRY THOSE TWO SKILL SETS.

17 YOU COULD ENVISION A TYPE OF HYBRID SKILL  
18 SET THAT WOULD COMBINE PHYSICIANS WITH SOME OTHER  
19 ASPECT OF A TECHNICAL NEED IN REGENERATIVE MEDICINE.

20 SO BASICALLY -- AND THEN TO THE QUESTION  
21 ABOUT WOULD WE BE PRESCRIPTIVE ABOUT DIFFERENT TYPES  
22 OF HYBRID DISCIPLINES PUT TOGETHER. THERE ARE SOME  
23 VERY SPECIFIC HYBRID SKILL SETS THAT WE KNOW THAT  
24 LEADERS IN THE REGENERATIVE MEDICINE FIELD FEEL ARE  
25 ESSENTIAL TO OVERCOMING AND INNOVATING AROUND

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1 BOTTLENECKS THAT ARE REALLY HOLDING THE FIELD BACK.  
2 SO I THINK THOSE WOULD BE OUR HIGHEST  
3 PRIORITY, BUT YOU GAVE ME THE IDEA THAT IN OUR  
4 OUTREACH CAMPAIGNS, ESPECIALLY WHEN WE ARE TARGETING  
5 THE K THROUGH 10 STUDENTS, BUT EVEN NOT NECESSARILY  
6 THAT OUTREACH. ALL OF OUR CURRENT TRAINING PROGRAMS  
7 HAVE PART OF THEIR ACTIVITIES AS DOING COMMUNITY  
8 OUTREACH. AND I THINK MAYBE DOING OUTREACH INTO ART  
9 CLASSES AND OTHER TYPES OF DISCIPLINES WHICH HAVE  
10 DIFFERENT DEMOGRAPHICS THAN STEM DOES. STEM HAS  
11 DISPROPORTIONATELY LOSS OF CERTAIN GROUPS MORE SO  
12 THAN OTHERS, BUT IT'S DIFFERENT. EVEN FIELD TO  
13 FIELD IS DIVERSE. SO THAT COULD BE ANOTHER WAY TO  
14 GAIN DIVERSITY OF PERSPECTIVE IS TO TARGET OTHER  
15 DISCIPLINES WHERE THOSE STUDENTS MAY NOT HAVE HAD  
16 THIS AWARENESS AND MAY BE INTERESTED AND MAYBE COULD  
17 BRING SOME NEW TYPES OF THINKING TO IT THAT WOULD BE  
18 A BENEFIT TO ALL OF US.

19 DR. TAYLOR: THANK YOU. JUST A FOLLOW-ON  
20 CLARIFICATION. THAT'S PRECISELY IT, TO BE ABLE TO  
21 DRAW FROM THOSE OTHER DISCIPLINES, ART, SOCIAL  
22 SCIENCES, AND SO FORTH, AROUND CELL AND GENE THERAPY  
23 BECAUSE THOSE PERSPECTIVES CAN REALLY ILLUMINATE  
24 IDENTIFYING UNMET NEEDS, PROBLEM SOLVING, LOOKING AT  
25 THE PROBLEM IN DIFFERENT WAYS AND ALLOWING THEM

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1 TO -- BECAUSE THEY MAY NOT BE SELF-SELECTING INTO  
2 CELL AND GENE THERAPY BECAUSE FOR SOME THAT MAY NOT  
3 BE INHERENTLY IN STEM, IT CAN BE INTIMIDATING, BUT  
4 WE COULD HAVE A GREAT SOLUTION DEVELOPMENT FROM  
5 SOMEBODY WHO HAS AN EXPERTISE IN THESE OTHER AREAS  
6 THAT CAN BE DEPLOYED TO REGENERATIVE MEDICINE.

7 DR. CANET-AVILES: THANK YOU, KELLY.  
8 THANK YOU, DON.

9 CHAIRMAN IMBASCIANI: SO NEXT IS YSABEL  
10 FOLLOWED BY ELENA, AND THEN, CAROLYN, YOU WILL BE A  
11 THIRD.

12 MS. DURON: THANK YOU VERY MUCH, MR.  
13 CHAIR. ROSA, CONGRATULATIONS TO YOU AND ALL OF THE  
14 TEAM FOR THESE DEEP DIVES. REALLY APPRECIATED BEING  
15 ABLE TO SEE ALL OF YOUR THOUGHTFUL THINKING AND, OF  
16 COURSE, THE KINDS OF STEPS AND THINKING WE AS THE  
17 BOARD NEED TO HAVE IN ORDER TO BE SUPPORTIVE AND  
18 EVEN INVOLVED. SO THANK YOU FOR THAT.

19 BUT, FINALLY, I DO WANT TO SAY THANK YOU  
20 VERY MUCH FOR THE OVERARCHING LOOK YOU TOOK AT, IN  
21 FACT, ALL OF OUR EDUCATIONAL PROGRAMS BECAUSE I  
22 THINK IT IS VERY CRITICAL TO LOOK AT MEASURES AND  
23 METRICS AGAINST THE NUMBERS OF PEOPLE WE INITIALLY  
24 MIGHT BRING INTO THE PROGRAM, BUT WHO ARE THEY AND  
25 WHERE ARE THEY FROM AND ARE THEY STICKING. AND AS

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1 YOU POINTED OUT, GOING INTO HIGHER EDUCATION AND  
2 SURVIVING IT AND ESPECIALLY IN THE SCIENCES IS VERY  
3 DIFFICULT FOR SOME MARGINALIZED COMMUNITIES. AND A  
4 LOT OF IT HAS TO DO WITH COST AND OTHER ISSUES  
5 RELATED TO FAMILY.

6 SO I THINK IT'S REALLY CRITICAL, WHICH IS  
7 WHY I ASKED KELLY TO SHOW ME THE DEMOGRAPHIC  
8 BREAKDOWN, BUT TO FOLLOW IT, AND AS YOU SHOWED IN  
9 THAT ONE SLIDE, BE ABLE TO SEE IF, IN FACT, OUR  
10 STUDENTS, PARTICULARLY THOSE FROM UNDERSERVED  
11 COMMUNITIES, ARE MOVING INTO THE UPPER EDUCATION AND  
12 THEN INTO THE WORKFORCE. BECAUSE AS IT'S POINTED  
13 OUT, IT IS SO CRITICAL TO BRING DIFFERENT LIVED  
14 EXPERIENCE, DIFFERENT THINKING, DIFFERENT WAYS OF  
15 MEASURING WHAT CAN BE DONE WITH THIS FABULOUS KIND  
16 OF SCIENCE, BUT WHERE IT'S MISSING IN TERMS OF  
17 CERTAIN COMMUNITIES. SO I REALLY APPRECIATE THAT  
18 YOU TOOK THE TIME TO REALLY DELVE INTO THIS ISSUE.  
19 AND I HOPE WE'LL SEE A LITTLE MORE EVEN AS WE GO  
20 ALONG, WHICH IS MEASURING OR FINDING OUT OR EVEN  
21 SURVEYING SOME OF THE STUDENTS WE LOST WHY WE LOST  
22 THEM IN THE PROGRAM, OR WHY THEY DIDN'T MOVE ON IN  
23 THE PROGRAM. I THINK THAT'S KIND OF CRITICAL TO  
24 KNOW IF WE'RE GOING TO ALSO BUILD IN SOME STOPGAPS  
25 OR SOME SUPPORT SYSTEMS. SO THANK YOU VERY MUCH

1 AGAIN.

2 DR. CANET-AVILES: THANK YOU, YSABEL, FOR  
3 YOUR SUPPORT AND ALWAYS YOUR CONSTANT FEEDBACK AND  
4 PRESSURE TESTING OUR PROGRAMS AND ASSUMPTIONS. WE  
5 REALLY APPRECIATE IT.

6 CHAIRMAN IMBASCIANI: ELENA.

7 DR. FLOWERS: THANKS. AND THANKS, YSABEL,  
8 FOR BASICALLY A PERFECT LAYUP FOR MY COMMENTS, WHICH  
9 ARE THAT I THINK POINTS DEFINITELY TAKEN ABOUT GME  
10 AND EDUCATING PHYSICIANS, BUT I REALLY STRONGLY  
11 ENCOURAGE US TO THINK MORE BROADLY AND INCLUSIVE OF  
12 THE NURSING WORKFORCE. IT SPEAKS TO SOME OF THE  
13 ISSUES THAT YSABEL AND DON BROUGHT UP AROUND THE  
14 VAST MAJORITY OF NURSES IN CALIFORNIA ARE BEING  
15 EDUCATED AT CSU'S AND COMMUNITY COLLEGES AND NOT AT  
16 THE UC'S. SO IT'S GOING TO HELP INCREASE THE  
17 REPRESENTATION IN CELL AND REGENERATIVE MEDICINE  
18 OVERALL OF MORE DIVERSE RACE AND ETHNIC GROUPS. AND  
19 I THINK WE'RE GOING TO REALLY NEED A LOT MORE -- I  
20 THINK WE'RE JUST GOING TO NEED A MUCH LARGER  
21 WORKFORCE AS THESE TECHNOLOGIES INCREASINGLY ARE  
22 BECOMING AVAILABLE.

23 AND I THINK WE'RE GOING -- THERE'S GOING  
24 TO NEED TO BE AN INFLUX OF MONEY FROM SOMEWHERE TO  
25 DEVELOP KIND OF A TRAIN THE TRAINER MODEL WHERE WE

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1 CAN LAUNCH A COUPLE OF TRAINING PROGRAMS TO GET SOME  
2 EXPERTS OUT THERE WHO CAN THEN GO DISSEMINATE THIS  
3 AT OTHER INSTITUTIONS. AND THIS ALSO REALLY SPEAKS  
4 TO THE ISSUE OF COMMUNITY CARE CENTERS OF EXCELLENCE  
5 AND GEOGRAPHIC ACCESSIBILITY. SO I THINK -- SOME OF  
6 YOU KNOW THAT I FEEL STRONGLY ABOUT THIS, BUT I  
7 WOULD ENCOURAGE US ALL TO THINK ABOUT IT FURTHER.

8 DR. CANET-AVILES: THAT'S SUPER IMPORTANT,  
9 VERY RELEVANT. WE WILL BE TAKING THAT INTO ACCOUNT  
10 AS WE DEVELOP THE PROGRAMS, THE CONCEPT. THOSE WILL  
11 BE THINGS THAT WE BRING BACK ONCE WE PRESENT THE  
12 CONCEPTS AND IN COLLABORATION WITH GEOFF AND WITH  
13 KELLY IN TERMS OF INFRASTRUCTURE CONNECTION. THANK  
14 YOU.

15 DR. MELTZER: THIS IS FANTASTIC, ROSA. I  
16 WANTED TO PULL ON A THREAD THAT DON MENTIONED IN  
17 TERMS OF BIOETHICS. I THINK THAT'S A PART OF MOST  
18 OF THE TRAINING PROGRAMS IN SOME REGARD. BUT IS IT  
19 INCORPORATED -- COULD IT MORE INCORPORATED INTO THE  
20 ALPHA CLINIC STRUCTURE? IT'S REALLY UNDERDEVELOPED  
21 IN THIS SPACE.

22 DR. CANET-AVILES: THANK YOU, CAROLYN.  
23 ACTUALLY IN TERMS OF BIOETHICS, GEOFF LOMAX HAS BEEN  
24 ONE OF OUR LEADING THINKERS. AND WE'VE BEEN IN  
25 COLLABORATION WITH DR. JEFF KHAN AT JOHN HOPKINS



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1 UNIVERSITY TALKING ABOUT BIOETHICS IN OTHER ASPECTS  
2 IN TERMS OF EMBRYO, THE UTILIZATION OF HUMAN  
3 EMBRYONIC STEM CELLS, BUT THIS IS SOMETHING THAT  
4 COULD UTILIZE THAT KIND OF EXPERTISE AND BRING IT  
5 INTO POTENTIALLY THE ALPHA CLINICS AND THE COMMUNITY  
6 CARE CENTERS. SO THANK YOU. WE WILL THINK ABOUT  
7 THAT. IT MIGHT REQUIRE AN AMENDMENT OR SOMETHING,  
8 BUT THAT'S SOMETHING THAT WE'LL TAKE INTO ACCOUNT.  
9 THANK YOU.

10 CHAIRMAN IMBASCIANI: I DON'T SEE ANY  
11 OTHER HANDS, ROSA. I THINK GO TO YOUR --

12 DR. CANET-AVILES: WE WILL JUST -- WE HAVE  
13 A COUPLE MORE ADDITIONAL RECOMMENDATIONS, AND THESE  
14 WERE NOT FRAMED WITHIN THE GOALS, BUT THEY ARE VERY  
15 IMPORTANT. SO AS YOU KNOW, WE PAUSED THE CONFERENCE  
16 GRANTS. SO WHAT WE ARE RECOMMENDING IS TO RESTART  
17 THE GRANTEE CONFERENCE THAT WE USED TO HAVE. IT  
18 COULD BE -- WE HAVEN'T DECIDED IF WE CAN DO IT EVERY  
19 YEAR OR EVERY TWO YEARS, BUT WE COULD START IT WITH  
20 THE MAIN OBJECTIVE OF REPORTING PROGRESS ON THE  
21 STRATEGIC ALLOCATION FRAMEWORK GOALS. SO WE COULD  
22 BE HAVING SIX STREAMS IN THAT CONFERENCE, GRANTEE  
23 CONFERENCE. AND WE COULD BE PROVIDING PROGRESS AND  
24 REPORTING ON PROGRESS IN THE CONTEXT OF THOSE GOALS.  
25 SO THAT COULD BE THE STRUCTURE, WHICH I THINK COULD

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1 ALLOW US TO HAVE A VERY DELINEATED AND TIMELY  
2 PROGRESS REPORT FOR THE BOARD AND OTHER  
3 STAKEHOLDERS.

4 AND THE SECOND IS TO KEEP THE CONFERENCE  
5 GRANTS FOR SPECIFIC CIRM NEEDS THROUGH THE SECOND  
6 MECHANISM. SO THAT'S A MECHANISM WHERE THE GRANTEE  
7 REMAINS -- RETAINS THE PRIMARY RESPONSIBILITY FOR  
8 PLANNING, DIRECTING, AND EXECUTING THE PROPOSED  
9 EVENT, BUT CIRM TEAM WORKS VERY CLOSELY WITH THE  
10 GRANTEE TO DESIGN AND IMPLEMENT AND BE RESPONSIVE TO  
11 A SPECIFIC CIRM NEED. SO WE TALKED ABOUT THIS IN  
12 TERMS OF THE -- IN THE CONTEXT OF THE EDUCATION  
13 CONFERENCES, BUT ALSO ABOUT PROGRAMS LIKE THE REMIND  
14 WILL HAVE THE MANUFACTURING, DIFFERENT PROGRAMS HAVE  
15 NEEDS TO MEET MAYBE ONCE A YEAR OR ONCE EVERY TWO  
16 YEARS, AND THAT COULD BE THE MECHANISM THAT WE WOULD  
17 UTILIZE. AND THEN AD HOC NEEDS THAT WE MIGHT HAVE  
18 AS WE DEVELOP THINGS.

19 SO THOSE ARE THE TWO RECOMMENDATIONS. AND  
20 THIS IS JUST TO SHOW CURRENTLY WHAT WE HAVE. WE  
21 DON'T HAVE THE GRANTEE CONFERENCE. WE HAVE THE TWO  
22 MECHANISMS. AND THE FIRST ONE IS THE ONE THAT WE'VE  
23 ELIMINATED -- DISCONTINUED. AND THAT ONE IS THE ONE  
24 WHERE THE GRANTEE IS SOLELY RESPONSIBLE FOR THE  
25 PROPOSED CONFERENCE. AND THE EVENT MUST BE RELEVANT

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1 TO CIRM'S MISSION. SO ONE WOULDN'T -- WE FOUND THAT  
2 THERE WAS A LOT OF -- IT WASN'T KNOWN THAT WE HAD  
3 THAT CONFERENCE GRANT MECHANISM. WE ALWAYS HAD THE  
4 SAME APPLICANTS, AND IT'S NOT BEING AS EFFECTIVE TO  
5 OUR MISSION'S DEVELOPMENT AS WE WANTED. SO THAT'S  
6 HOW WE ARE PROPOSING THIS TO MOVE FORWARD.

7 SO WITH THAT, I THINK WHAT I COULD DO IS  
8 DO YOU WANT TO DISCUSS THIS? THOSE ARE TWO  
9 ADDITIONAL RECOMMENDATIONS. ANY DISCUSSION OR  
10 QUESTIONS BEFORE WE MOVE INTO THE FINAL?

11 CHAIRMAN IMBASCIANI: THAT WOULD BE GOOD  
12 IF THERE'S ANY DISCUSSION FROM ANY BOARD MEMBER ON  
13 THESE LAST TWO RECOMMENDATIONS THAT ARE DETACHED  
14 FROM THE PRIMARY GOALS. IF NOT, ROSA, MAYBE WE  
15 COULD HAVE A CONCLUDING CONVERSATION, AND THEN I'LL  
16 PROCEED TO ENTERTAIN A MOTION.

17 DR. CANET-AVILES: THERE'S QUITE A BIT  
18 OF -- THERE'S STILL A FEW MORE SLIDES. SO --

19 CHAIRMAN IMBASCIANI: I STAND CORRECTED.

20 DR. CANET-AVILES: IT'S ALL GOOD. SO THIS  
21 IS THE REMINDER OF THE TIMELINE THAT WE'VE ALL GONE  
22 THROUGH. AND WE'VE GOTTEN TO TODAY. WE'VE DONE IT  
23 NOW. SO CONGRATULATIONS TO US ALL. AND NOW WHAT  
24 COMES NEXT? SO WHAT COMES NEXT IS THAT WE ARE GOING  
25 TO HAVE ABOUT SEVEN TO EIGHT CONCEPT AMENDMENTS AND

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1 ABOUT FIVE NEW CONCEPTS IF THE BOARD DEEMS THAT THE  
2 RECOMMENDATIONS SHOULD MOVE FORWARD.

3 AND IN LINE WITH THE STRATEGIC DIRECTION  
4 THAT WE ARE PROPOSING FOR ENDORSEMENT BY THE BOARD  
5 AND TO ENSURE EFFECTIVE AND TIMELY IMPLEMENTATION OF  
6 NEW INITIATIVES, WE WILL NEED TO PAUSE THE REVIEW OF  
7 CURRENT PROGRAMS DURING THIS PERIOD TO ENSURE THAT  
8 WE CAN IMPLEMENT ALL OF THIS.

9 SO THIS PAUSE IS GOING TO BE CRITICAL AS  
10 IT WILL ALLOW US TO CONCENTRATE OUR EFFORTS ON THE  
11 DEVELOPMENT OF THESE 13 NEW AND AMENDED CONCEPTS  
12 WHILE SIMULTANEOUSLY STREAMLINING OPERATIONS AND  
13 ENHANCING IN TERMS OF COLLABORATIONS IN ALIGNMENT  
14 WITH THE REORGANIZATION THAT J.T. IS GOING TO BE  
15 PRESENTING AFTER MY PRESENTATION.

16 SO, AS YOU CAN SEE, WE COULD BE HAVING  
17 THREE TRANCHES OF PRESENTATIONS OF CONCEPTS. SO LET  
18 ME JUST POINT OUT. THE RESEARCH BUDGET THAT YOU ALL  
19 MIGHT BE WONDERING AS WELL WILL BE COMING. IN  
20 COLLABORATION WITH THE VICE PRESIDENT OF OPERATIONS,  
21 WE WILL BE DEVELOPING THIS WITH EVERYBODY, BUT WE'LL  
22 BE COMING IN DECEMBER. THAT COULD BE THE FINALIZE  
23 FOR THIS YEAR AS WE CAME WITH AN INTERIM RESEARCH  
24 BUDGET. AND THAT WILL TAKE INTO ACCOUNT ANY OF THE  
25 CONCEPTS THAT MIGHT BE IMPLEMENTED AND LAUNCHED AND

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1 AWARDED BETWEEN NOW AND JUNE. SO IT MIGHT NOT  
2 CHANGE VERY MUCH, BUT SOMETHING MIGHT NEED TO  
3 CHANGE.

4 BUT THEN WHAT'S IMPORTANT IS WHAT'S COMING  
5 IN THE NEXT TRANCHES. WE HAVE THREE -- IT'S A  
6 LITTLE FADED, BUT WE HAVE THREE CONCEPTS THAT COULD  
7 BE COMING IN JANUARY. SO THE FIRST ONE COULD BE THE  
8 REVISED DISC4, 5 FOR DISCOVERY RESEARCH NOT JUST  
9 FOCUSED ON NEUROPSYCHIATRIC, BUT AT A SYSTEMS LEVEL  
10 IN ALL DISEASE.

11 THEN WE COULD HAVE -- IN JANUARY THE  
12 PRECLINICAL DEVELOPMENT IS A NEW CONCEPT. SO THAT'S  
13 NOT AN AMENDMENT. IT'S A NEW CONCEPT AND IS GOING  
14 TO BE COMPLEX BECAUSE IT'S THE ONE THAT CONSOLIDATES  
15 FIVE PROGRAMS. AND WE WILL HAVE TO THINK ABOUT HOW  
16 TO DO THIS ONE IN TERMS OF DO WE HAVE ONE ENTRY, TWO  
17 ENTRIES TO THE PROGRAM, ET CETERA. AT THE HOW DO WE  
18 REVIEW THESE, ET CETERA. AT THE SAME TIME WE ARE  
19 THINKING ABOUT WHAT DR. BONNEVILLE SAID EARLIER ON  
20 ABOUT THE REVIEW PROCESSES, THE RE-REVIEW OF THAT.  
21 THAT NEEDS TO HAPPEN IN THIS TIME FRAME.

22 AND THEN THE THIRD CONCEPT WOULD BE THE  
23 CLINICAL2 UPDATE. SO WE'VE PRIORITIZED THE BASIC  
24 R&D PIPELINE PROGRAMS TO COME IN JANUARY. SO THAT'S  
25 A LOT OF WORK BETWEEN NOW AND JANUARY. AND THEN THE

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1 SECOND TRANCHE COULD BE IN MARCH, THE CLIN4 UPDATES.  
2 THERE COULD BE ALSO THE EDUC1 CONFERENCE GRANT  
3 UPDATES. AM I MISSING ANYTHING? THAT'S IT. AND  
4 THEN OTHER THINGS TBD AS YOU CAN SEE THERE, BUT THAT  
5 COULD COME IN THE NEXT TRANCHE.

6 SO ALL OF THIS IS TO -- AND THE RARE  
7 DISEASE PILOT PLATFORM, WHICH IS VERY IMPORTANT, AND  
8 DR. CREASEY CAN COMMENT TO IT, BUT THIS IS IN  
9 DEVELOPMENT, AND I THINK SHE'S PLANNING ABOUT -- I  
10 DON'T WANT TO SAY WHEN. YOU WILL SAY IT, ABLA.

11 DR. CREASEY: TO BE DETERMINED.

12 DR. CANET-AVILES: TO BE DETERMINED. SO  
13 WITH THAT, I THINK WHAT WE CAN GO INTO THE MAIN  
14 RECOMMENDATIONS. I WON'T REPEAT THEM BECAUSE WE'VE  
15 GONE THROUGH THIS. IT'S JUST A VERY HIGH LEVEL  
16 OVERVIEW OF WHAT WE JUST TALKED ABOUT THAT WE  
17 DISCUSSED VERY THOROUGHLY. AND THEN WHAT I'M GOING  
18 TO DO IS ASK FOR THE REQUEST. SO ON BEHALF OF THE  
19 SCIENCE SUBCOMMITTEE AND THE NEURO TASK FORCE THAT  
20 ENDORSED THIS AND ON BEHALF OF THE CIRM STAFF TEAM,  
21 WE REQUEST A MOTION THAT THE ICOC APPROVE THESE  
22 GOALS AND RECOMMENDATIONS AND WHAT COMES WITH IT.  
23 AND THAT'S IT. AND THANK YOU VERY MUCH, EVERYBODY.

24 CHAIRMAN IMBASCIANI: THANK YOU VERY MUCH,  
25 ROSA. THIS WAS AS CLOSE TO A TOUR DEFORCE AS I

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1 THINK I'VE HEARD, AND YOU CERTAINLY HAVE GOTTEN A  
2 LOT OF COMPLIMENTS THROUGHOUT FROM MANY BOARD  
3 MEMBERS THIS MORNING AND THIS AFTERNOON.

4 SO THE CHAIR IS READY TO ENTERTAIN A  
5 MOTION TO ACCEPT THE RECOMMENDATION.

6 VICE CHAIR BONNEVILLE: SO MOVED.

7 DR. BLUMENTHAL: SECOND.

8 CHAIRMAN IMBASCIANI: I HEARD DR.  
9 BLUMENTHAL AND A SECOND. YES. OKAY. BOARD  
10 MEMBERS, FLOOR IS YOURS. THE MOTION IS THAT WE  
11 SHOULD ACCEPT ALL OF THESE GOALS AND  
12 RECOMMENDATIONS. ANNE-MARIE, GO AHEAD.

13 MS. DURON: LET'S VOTE.

14 CHAIRMAN IMBASCIANI: YES. GO AHEAD,  
15 ANNE-MARIE.

16 DR. DULIEGE: JUST BECAUSE IT SOUNDS LIKE  
17 WE SHOULD SAY SOMETHING AT THIS POINT BUT VERY  
18 BRIEFLY BECAUSE WE ACTIVELY PARTICIPATED TO THE  
19 DISCUSSION THROUGHOUT THE BETTER PART OF THIS  
20 MEETING. SO THAT'S WHY THERE'S SILENCE HERE. I  
21 THINK WE JOINTLY, FROM WHAT I'VE HEARD, APPLAUDED  
22 THE INTENSITY OF THE WORK THAT HAS LED TO THIS  
23 PRESENTATION AND THE COMPREHENSIVENESS OF THIS  
24 PRESENTATION. I CAN SPEAK FOR MYSELF, BUT I'M SURE  
25 I'M NOT THE ONLY ONE. THE NEXT STEPS WHICH YOU JUST

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1 HIGHLIGHTED ARE VERY IMPORTANT, AND WE'RE LOOKING ON  
2 HOW THESE EXCELLENT INTENTIONS AND PLANS TRANSLATE  
3 INTO ACTION ITEMS ON ALL LEVELS, RARE DISEASE,  
4 DIVERSITY, INCLUSIVENESS, AND WITH TIMELINES BECAUSE  
5 OUR TIME STILL IS COUNTED IN A NUMBER OF YEARS, BUT  
6 NOT AT INFINITY FOR THE LIFE OF THE FUND THAT WE ARE  
7 JOINTLY RESPONSIBLE FOR.

8 SO THANK YOU, CONGRATS, AND LOOKING FOR  
9 THE SPECIFICS SOMETIME NEXT YEAR.

10 CHAIRMAN IMBASCIANI: THANK YOU,  
11 ANNE-MARIE. IS THERE ANY MEMBER OF THE PUBLIC THAT  
12 WOULD LIKE TO SPEAK ON THIS MOTION? NOTHING ON THE  
13 PHONE OR -- OKAY. PLEASE IDENTIFY YOURSELF. WE CAN  
14 HEAR YOU. JUST IDENTIFY YOURSELF.

15 DR. ADELSON: THANK YOU SO MUCH. THIS IS  
16 CELIA ADELSON WITH THE UCLA STEM CELL RESEARCH  
17 CENTER. SO I'M JUST REQUESTING CLARIFICATION  
18 BECAUSE IT'S UNCLEAR TO ME FROM THE MATERIALS HOW  
19 THE PAUSE ON APPLICATIONS WOULD AFFECT THE CURRENTLY  
20 ANNOUNCED DISC-0 RFA AND THE RESUBMISSION OF THE  
21 CIRM REMIND CONCEPT. AND I WOULD REQUEST A  
22 CLARIFICATION ON THOSE TWO POINTS. THANK YOU SO  
23 MUCH.

24 DR. CANET-AVILES: THANK YOU, CELIA. SO  
25 DISC-0 COULD BE POSTPONED TILL FEBRUARY, BUT



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1 APPLICATIONS COULD BE OPEN AS PLANNED. AND THE  
2 WEBINAR WILL HAPPEN AS PLANNED. AND THE REASON --IS  
3 IT DELAYED, THE WEBINAR? THE WEBINAR WILL BE  
4 DELAYED, BUT APPLICATIONS ARE READY TO GO, AND THEY  
5 WILL BE OUT SO THAT THERE IS MORE TIME TO APPLY.  
6 BUT WE COULD BE DELAYING THE DEADLINE FOR  
7 APPLICATIONS OF DISC-0 COULD BE FEBRUARY.

8 WITH REGARDS TO REMIND, THE RESUBMISSION  
9 OF THE TIER II FOR REMIND IS HAPPENING AS EXPECTED.  
10 SO THERE ARE SOME THINGS THAT WILL NEED TO CONTINUE  
11 TO HAPPEN. SO THERE IS A TRANSLATIONAL REVIEW.  
12 THERE IS A COMMUNITY CARE CENTERS OF EXCELLENCE  
13 REVIEW PLAN. ALL THOSE ARE ALREADY ONGOING BECAUSE  
14 WE'VE RECEIVED APPLICATIONS. THE SAME FOR THE  
15 REMIND THAT WAS ALREADY IN PLACE.

16 SO WHEN WE SAY A PAUSE, THAT DOESN'T MEAN  
17 THAT WE ARE GOING TO BE SCRATCHING OUR BELLY. WE  
18 HAVE A LOT OF THINGS THAT WE'LL STILL BE DOING, BUT  
19 WE ARE ASKING FOR -- THAT'S NOT. SO I HOPE THAT'S  
20 HELPFUL, CELIA.

21 DR. ADELSON: YES. THAT IS VERY HELPFUL.  
22 AND THEN JUST CONFIRMING THAT THE CLIN2 WILL  
23 RETURN -- CLIN1 AND 2S WILL RETURN TO ICOC.

24 DR. CANET-AVILES: NO. I CAN CLARIFY  
25 THAT. I'M GOING TO CLARIFY THAT. SO CLIN1 IS GOING

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1 TO PAUSE NOW BECAUSE WE ARE CONSOLIDATING THAT  
2 PROGRAM, AND WE ARE GOING TO BE MAKING AMENDMENTS.  
3 SO IT DOESN'T MAKE ANY SENSE FOR US TO BE ACCEPTING  
4 APPLICATIONS FOR SOMETHING THAT WE ARE GOING TO BE  
5 CHANGING IN THE MEANTIME. SO WE NEED TO STOP THAT.

6 SO OUR RECOMMENDATION IS TO STOP THE  
7 REVIEWS OF THE CLIN1S AND THE CLIN2S RESUBMISSION OF  
8 TIER IIS BETWEEN NOW AND MARCH WHEN WE WILL HAVE THE  
9 NEXT PROGRAM AMENDMENT OUT. SO THAT COULD BE OUR  
10 RECOMMENDATION.

11 CHAIRMAN IMBASCIANI: OKAY. THANK YOU,  
12 ROSA.

13 DR. ADELSON: THANK YOU FOR THE  
14 CLARIFICATIONS. THEY'RE VERY HELPFUL.

15 CHAIRMAN IMBASCIANI: ANY OTHER COMMENT,  
16 CLAUDETTE OR LANA? NOTHING. OKAY.

17 DR. CANET-AVILES: J.T. HAS SOMETHING.

18 DR. THOMAS: ROSA, I THINK WITH RESPECT TO  
19 THE TIER IIS, WE'RE LOOKING AT THAT SITUATION  
20 SPECIFICALLY AND MAY GET BACK TO THE BOARD WITH A  
21 FURTHER RESPONSE ON THAT.

22 CHAIRMAN IMBASCIANI: UNDERSTOOD. THANK  
23 YOU, J.T.

24 NO FURTHER DISCUSSION FROM THE BOARD,  
25 SCOTT, I THINK, AND THE PUBLIC HAVING BEEN HEARD

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1 FROM, WE CAN PROCEED TO A VOTE.

2 MR. TOCHER: ALL RIGHT. I'LL TAKE A VOICE  
3 VOTE IN THE ROOM, AND I'LL POLL THE MEMBERS  
4 INDIVIDUALLY ON THE PHONE. ALL THOSE IN THE ROOM IN  
5 FAVOR SAY AYE. ANY OPPOSED? ANY ABSTENTIONS?

6 AND ON THE PHONE, DAN BERNAL. ANNE-MARIE  
7 DULIEGE.

8 DR. DULIEGE: AYE.

9 MR. TOCHER: YSABEL DURON.

10 MS. DURON: YES.

11 MR. TOCHER: RICH LAJARA.

12 MR. LAJARA: YES.

13 MR. TOCHER: CHRIS MIASKOWSKI.

14 DR. MIASKOWSKI: YES.

15 MR. TOCHER: LAUREN MILLER-ROGEN. ADRIANA  
16 PADILLA.

17 DR. PADILLA: YES.

18 MR. TOCHER: DID I MISS ANYONE ON THE  
19 PHONE? SHLOMO MELMED.

20 DR. MELMED: YES.

21 MR. TOCHER: GREAT. THANK YOU, SHLOMO.  
22 THANK YOU. THE MOTION CARRIES.

23 CHAIRPERSON IMBASCIANI: OKAY. THANK YOU  
24 VERY MUCH. THANK YOU, ROSA.

25 (APPLAUSE.)

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1           CHAIRPERSON IMBASCIANI: J.T., IF YOU WILL  
2 COME TO THE PODIUM AGAIN AND PRESENT THE ITEM NO.  
3 14, AN UPDATE TO CIRM'S ORGANIZATIONAL CHART.

4           DR. THOMAS: SO FIRST OF ALL, THANK YOU TO  
5 ROSA AND EVERYBODY AGAIN. IN MY EXPERIENCE WE  
6 HAVEN'T HAD ANY INITIATIVE THAT HAS HAD THIS MUCH  
7 WORK IN MY 13 YEARS TO GET TO THIS POINT. SO IT'S A  
8 TRUE TESTAMENT TO THE TEAM EFFORT HERE. AND, AGAIN,  
9 THANKS SO MUCH FOR THE BOARD FOR YOUR SUPPORT ALONG  
10 THE WAY, BUT FOR YOUR APPROVAL HERE OF THE FINAL  
11 WORK PRODUCT.

12           I DO WANT TO, A BIT IN FULL CIRCLE FROM  
13 EARLIER TODAY, RECOGNIZE THE GREAT ROLE THAT FRED  
14 PLAYED AS A MEMBER OF THE NEURO TASK FORCE IN THE  
15 DELIBERATIONS ALL ALONG THE WAY HERE THAT GOT US TO  
16 THIS POINT. JUST ANOTHER THANK YOU TO FRED.

17           I WILL, OF COURSE, NEED TO MENTION THAT  
18 WE, IN THE INTEREST OF TIME, WE ACTUALLY HAD A GOAL  
19 7 WHICH WE DIDN'T WANT TO GET INTO TOO MUCH DETAIL  
20 BECAUSE IT, IN MY OPINION, DOESN'T REALLY NEED MUCH  
21 DELIBERATION, WHICH, OF COURSE, IS THAT THE DODGERS  
22 WIN THE WORLD SERIES.

23           SO OKAY. SO WITH THAT, TO RECOGNIZE THE  
24 GOALS AND IMPLEMENT THE RECOMMENDATIONS OF THE SAF,  
25 I WAS CHARGED WITH RECONSTRUCTING OUR TEAM IN A

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1 MANNER THAT, ONE, DIRECTLY ALIGNS WITH THE  
2 CONSIDERABLE HEAVY LIFT THAT LIES AHEAD IN THE  
3 COMING MONTHS AND YEARS. AND, TWO, ADDRESSES THE  
4 RECOMMENDATIONS OF THE PERFORMANCE AUDITORS THAT I  
5 REDUCE THE NUMBER OF DIRECT REPORTS TO THE  
6 PRESIDENT.

7 I BEGAN THE PROCESS IN APRIL WITH THE  
8 PROMOTION OF JENN LEWIS TO VICE PRESIDENT OF  
9 OPERATIONS IN CHARGE OF GRANTS MANAGEMENT, I.T., AND  
10 FINANCE. SINCE THAT TIME I, IN CONSULTATION WITH  
11 SENIOR LEADERSHIP, HAVE NOW COMPLETED THE  
12 ORGANIZATIONAL REVIEW AND PRESENT THE RESULTS OF  
13 THOSE DELIBERATIONS HERE FOR YOUR CONSIDERATION.

14 AS BACKGROUND, WHAT YOU'RE LOOKING AT  
15 HERE, THIS SLIDE REFLECTS THE ORG CHART AS LAST  
16 REVISED IN 2021. IT SPECIFIES EIGHT DIRECT REPORTS  
17 IN THE REFERENCED POSITIONS WHICH TOGETHER IN THE  
18 AGGREGATE COMPRISE THE BULK OF THE LEADERSHIP TEAM  
19 OR LT THAT MET WEEKLY WITH THE PRESIDENT. I SHOULD  
20 NOTE THAT THE LT WAS SUBSEQUENTLY EXPANDED, RAISING  
21 THE TOTAL OF NUMBER OF DIRECT REPORTS TO THE  
22 PRESIDENT TO ELEVEN. THIS STRUCTURE, AMONG OTHER  
23 THINGS, CENTRALIZED THE OVERSIGHT OF ALL SCIENTIFIC  
24 PROGRAMS WITH THE PRESIDENT INSTEAD OF HAVING  
25 LAYERED AUTHORITY OVER THE VARIOUS SCIENTIFIC

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1 PROGRAMS SPREAD THROUGHOUT THE AGENCY. THAT  
2 STRUCTURE WAS ULTIMATELY DEEMED SUBOPTIMAL UNDER THE  
3 SAF AND WAS, AS A RESULT, REVISED INTO THE NEW ORG  
4 STRUCTURE I SHALL PRESENT MOMENTARILY.

5 AN EXECUTIVE SUMMARY OF KEY GOALS FROM THE  
6 SAF THAT DROVE THIS REORGANIZATION EFFORT INCLUDE,  
7 NO. 1, ENHANCING CROSS-DEPARTMENTAL COLLABORATION TO  
8 CREATE AN INTEGRATED WORKING ENVIRONMENT ACROSS THE  
9 AGENCY; NO. 2, INCREASING THE ORGANIZATIONAL  
10 PRODUCTIVITY THROUGH SUCH COLLABORATION AND  
11 STREAMLINED PROCESSES TO EFFECTIVELY IMPLEMENT OUR  
12 STRATEGIC INITIATIVES; NO. 3, ALIGNING  
13 FUNCTIONS WITH STRATEGIC PRIORITIES TO, AGAIN,  
14 MAXIMIZE COLLABORATION IN FURTHERANCE OF OUR  
15 STRATEGIC MISSION; NO. 4, STRENGTHENING DATA  
16 INFRASTRUCTURE TO IMPROVE ACCESS TO DATA GENERATED  
17 BY FUNDED RESEARCH; AND, FINALLY, NO. 5, SUPPORTING  
18 STRATEGIC INNOVATION TO FURTHER CIRM'S PAST PRACTICE  
19 OF NIMBLY ADDRESSING CHALLENGES AND EMBRACING  
20 INNOVATION IN THE FIELD.

21 THE KEY ORGANIZATIONAL CHANGES THAT  
22 UNDERLIE THIS REORGANIZATION, REFLECTIVE OF THE  
23 PRINCIPLES I JUST ENUNCIATED, ARE AS FOLLOWS: NO.  
24 1, WE'RE GOING TO CREATE THE OFFICE OF THE CHIEF  
25 SCIENTIFIC OFFICER, WHO IS GOING TO BE ROSA, WHICH

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1 IS A CENTRALIZED POSITION TO OVERSEE ALL PROGRAMS,  
2 DISC, PRECLINICAL DEVELOPMENT, CLINICAL DEVELOPMENT,  
3 INFRASTRUCTURE, EDUCATION, AND PATIENT ACCESS.

4 NO. 2, IN CREATING A PRECLINICAL  
5 DEVELOPMENT GROUP, WHICH YOU JUST APPROVED, WE ARE  
6 NOW CREATING THE POSITION OF ASSOCIATE VICE  
7 PRESIDENT FOR PRECLINICAL DEVELOPMENT, WHICH IS  
8 GOING TO BE SHYAM. THAT GROUP, AS NOTED EARLIER, IS  
9 GOING TO BE CONSOLIDATING THE DISC2, TRAN, AND CLIN1  
10 PROGRAMS. ALSO UNDER THAT POSITION WILL BE  
11 MANUFACTURING AND THE DATA INFRASTRUCTURE THAT ROSA  
12 DESCRIBED MINUTES AGO.

13 NO. 3, THE CREATION OF A NEW EXECUTIVE  
14 STRATEGIC OFFICER FOR RARE DISEASE POSITION, WHICH  
15 IS GOING TO BE ABLA, WHICH WILL STRENGTHEN OUR  
16 EMPHASIS ON RARE DISEASE THROUGH THE DEVELOPMENT OF  
17 A CENTRAL RARE DISEASE PILOT PROGRAM.

18 NO. 4, WE HAVE A NEW SENIOR SCIENCE  
19 OFFICER POSITION FOR DATA INFRASTRUCTURE, WHICH IS  
20 GOING TO BE DR. JANIE BYRAM, WHICH INVOLVES THE  
21 ESTABLISHMENT OF AN R&D DATA INFRASTRUCTURE FUNCTION  
22 TO MANAGE CIRM'S R&D PROGRAMS TO MAKE FUNDED  
23 RESEARCH DATA FINDABLE, ACCESSIBLE, INTEROPERABLE,  
24 AND REPRODUCIBLE.

25 THE LAST KEY ORGANIZATIONAL CHANGE IS THE

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1 INTEGRATION OF CLINICAL DEVELOPMENT WITH PATIENT  
2 ACCESS. THESE TWO TEAMS NEED TO WORK HAND IN HAND  
3 AS MANY OF THE CIRM-FUNDED CLIN TRIALS ARE  
4 ADMINISTERED BY THE ALPHA CLINICS OVERSEEN BY THE  
5 PATIENT ACCESS TEAM.

6 WITH THAT, I GIVE YOU THE NEW ORG  
7 STRUCTURE. POINTS OF NOTE, NO. 1, I HAVE FORMED A  
8 STREAMLINED EXECUTIVE TEAM OR ET TO REPLACE THE  
9 LARGER LT. THAT TEAM IS COMPRISED OF THE HEADS OF  
10 PROGRAMS, ROSA; OPERATIONS, JENN; LEGAL, RAFAEL;  
11 REVIEW, GIL; AND MYSELF. THIS BODY MEETS WEEKLY AND  
12 WILL DIRECTLY ADVISE THE PRESIDENT ON ALL STRATEGIC  
13 AND FINANCIAL MATTERS OF THE AGENCY. I SHOULD NOTE  
14 PARENTHETICALLY THAT, IN ANTICIPATION OF TODAY'S  
15 VOTE ON THE ORG CHART, THE ET HAS ALREADY MET TWICE  
16 FOR A TOTAL OF OVER FOUR AND A HALF HOURS.

17 POINT NO. 2, OPERATIONS AND PROGRAMS EACH  
18 HAVE A NUMBER OF DIRECT REPORTS WHICH LEAD THE  
19 VARIOUS OPERATING TEAMS. AS YOU CAN SEE, OPERATIONS  
20 HAS MANAGEMENT, I.T., AND FINANCE AND PROGRAMS HAS  
21 DISC, EDUCATION, PRECLINICAL, CLINICAL, AND PATIENT  
22 ACCESS, AND DATA AS I NOTED EARLIER.

23 FINALLY, SEPARATE FROM THE ET, THE HEADS  
24 OF COMMUNICATIONS, HR, AND THE EXECUTIVE STRATEGY  
25 OFFICER FOR RARE DISEASE WILL REPORT DIRECTLY TO THE



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1 PRESIDENT AS WELL.

2 SO, MR. CHAIR, THIS HAS BEEN VETTED  
3 ALREADY, AS YOU KNOW, BY THE GOVERNANCE  
4 SUBCOMMITTEE, WHICH HAD A CONSENSUS TO ENDORSE,  
5 PASSED ALONG TO THE BOARD. AND THAT THEN CONCLUDES  
6 MY PRESENTATION, AND I'M HAPPY TO TAKE QUESTIONS AND  
7 COMMENTS AT THIS TIME.

8 CHAIRMAN IMBASCIANI: THANK YOU, J.T.,  
9 FOR THE PHILOSOPHY UNDERPINNING THIS AND THE  
10 GRAPHIC, WHICH IS VERY EASY TO TAKE IN. I NEED A  
11 MOTION TO ACCEPT THIS.

12 DR. MELTZER: SO MOVED.

13 CHAIRMAN IMBASCIANI: CAROLYN, WAS THAT  
14 YOU? CAROLYN MOVED. I NEED A SECOND.

15 DR. CLARK-HARVEY: SECOND.

16 CHAIRMAN IMBASCIANI: LEONDRAS SECONDED.  
17 THANK YOU. ANY QUESTIONS FOR J.T. OR DISCUSSION  
18 AMONGST OURSELVES? I SEE NONE. IT'S A MOTION. SO  
19 WE CAN ELICIT COMMENT, BUT NOT QUESTIONS FROM THE  
20 PUBLIC. NONE. THERE ARE NONE. OKAY.

21 J.T., I GUESS YOU'LL TAKE THAT AS A  
22 COMPLIMENT, AND WE CAN PROCEED TO A VOTE.

23 DR. THOMAS: YOU GUYS ARE VERY AGREEABLE.  
24 THANK YOU VERY MUCH.

25 MR. TOCHER: ALL THOSE IN THE ROOM IN

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1 FAVOR SAY AYE. ANY OPPOSED? ABSTENTIONS?  
2 ON THE PHONE: DAN BERNAL. ANNE-MARIE  
3 DULIEGE.  
4 DR. DULIEGE: AYE.  
5 MR. TOCHER: YSABEL DURON.  
6 MS. DURON: YES. IT MUST BE SIESTA TIME,  
7 J.T.  
8 MR. TOCHER: RICH LAJARA.  
9 MR. LAJARA: YES.  
10 MR. TOCHER: PAT LEVITT.  
11 DR. LEVITT: YES.  
12 MR. TOCHER: SHLOMO MELMED.  
13 DR. MELMED: YES.  
14 MR. TOCHER: CHRIS MIASKOWSKI.  
15 DR. MIASKOWSKI: YES.  
16 MR. TOCHER: LAUREN MILLER-ROGEN. ADRIANA  
17 PADILLA.  
18 GREAT. THANK YOU VERY MUCH. THE MOTION  
19 CARRIES.  
20 DR. THOMAS: THANK YOU, MEMBERS OF THE  
21 BOARD.  
22 CHAIRMAN IMBASCIANI: THANK YOU, MR.  
23 PRESIDENT. AND WE CAN MOVE TO AGENDA ITEM NO. 8. I  
24 WOULD LIKE TO INVITE CHIEF COUNSEL RAFAEL  
25 AGUIRRE-SACASA TO THE PODIUM TO UPDATE US ON OUR

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1 MANAGEMENT'S RESPONSE TO OUR RECENT PERFORMANCE  
2 AUDITS.

3 MR. AGUIRRE-SACASA: OKAY. ON THE HEELS  
4 OF THOSE TWO VERY INTERESTING PRESENTATIONS, I'M  
5 SURE YOU WILL ALL BE KEENED ON THE UPDATES TO THE  
6 PERFORMANCE AUDIT, WHICH IS OBVIOUSLY WHY YOU'RE ALL  
7 HERE TODAY.

8 AGAIN, START OFF WITH OUR MISSION:  
9 ACCELERATING WORLD-CLASS SCIENCE TO DELIVER  
10 TRANSFORMATIVE REGENERATIVE MEDICINE TREATMENTS IN  
11 AN EQUITABLE MANNER TO A DIVERSE CALIFORNIA AND  
12 WORLD.

13 AGENDA, IF YOU REMEMBER CORRECTLY, WE  
14 STILL HAD SOME OPEN ITEMS FROM THE 2019/20  
15 PERFORMANCE AUDIT, SO I'LL UPDATE YOU ON THOSE AS  
16 WELL AS THE MOST RECENT AUDIT FROM 22/23.

17 AND STARTING OFF HERE, AGAIN, THE  
18 RECOMMENDATION WAS TO, ALONGSIDE THE SEARCH OF A NEW  
19 CEO, TO LOOK AT REORGANIZATIONAL STRUCTURES FOR THE  
20 ORGANIZATION. J.T. JUST DID A COMMENDABLE JOB, AND  
21 I WON'T BELABOR THE POINTS, AS YOU CAN SEE. WE HAVE  
22 NEW POSITIONS, WE HAVE A FIVE MEMBER EXECUTIVE TEAM,  
23 AND THE DIRECT REPORTS HAVE BEEN REDUCED FROM TWELVE  
24 TO EIGHT.

25 WITH RESPECT TO THIS ONE, THE TOPIC WAS

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1 THE ENGAGEMENT OF THE BOARD OF DIRECTORS AND MEETING  
2 PRACTICES. AS YOU PROBABLY ALL KNOW, THE BOARD  
3 GOVERNANCE TEAM HAS BEEN MAKING EXTRA EFFORTS TO  
4 ENCOURAGE IN-PERSON ATTENDANCE AT FULL MEETINGS.  
5 FOUR TO FIVE PER YEAR WILL BE SITUATED IN NORTHERN  
6 AND SOUTHERN CALIFORNIA, AND THIS WILL PROVIDE AN  
7 OPPORTUNITY TO ENGAGE THE CIRM TEAM OUTSIDE OF SUCH  
8 MEETINGS.

9 THE BOARD GOVERNANCE TEAM ALSO CONDUCTED A  
10 SURVEY IN MARCH OF 2024 TO IDENTIFY WAYS TO IMPROVE  
11 THE BOARD MEMBER EXPERIENCE. AND THEY'RE IN THE  
12 PROCESS OF ADDRESSING POINTS RAISED IN THE SURVEYS.  
13 FOR EXAMPLE, THEY'RE DEVELOPING AN INTUITIVE  
14 EXTRANET, TAKING GREATER EFFORT TO INFORM ALL  
15 MEMBERS OF MONTHLY ACTIVITIES OF THE BOARD AND CIRM  
16 OVERALL WITH DIRECTED COMMUNICATIONS.

17 BOARD GOVERNANCE AND THE CIRM TEAM ARE  
18 ALSO DEVELOPING A SERIES OF SMALL PRIMERS ON KEY  
19 POLICIES AND ACTIVITIES FOR BOARD MEMBERS. DON,  
20 YOU'LL BE INVITED TO SOME OF THOSE IN YOUR ROLE FOR  
21 THE IP TEAM.

22 NEXT ONE, DEVELOP A PROCESS FOR REPORTING  
23 SOLE-SOURCE CONTRACTS. CURRENTLY SOLE-SOURCE  
24 CONTRACTS ARE NOW IDENTIFIED IN THE CONTRACTS  
25 REPORT, WHICH IS PROVIDED TO THE ICOC EVERY SIX

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1 MONTHS.

2 WITH RESPECT TO OUR LOAN ELECTION POLICY  
3 HERE, I'M FINDING FOUR. WE HAD A REFERENCE TO  
4 LIBOR. WE ARE CURRENTLY USING THE SECURED OVERNIGHT  
5 FINANCING RATE OR SOFR INSTEAD OF LIBOR IN OUR  
6 NOTICE OF AWARDS. THIS WILL BE CODIFIED IN OUR NEXT  
7 UPDATE TO THE GRANTS ADMINISTRATION POLICY WHICH WE  
8 WILL GET TO IN THE NEXT -- LATER THIS FISCAL YEAR.  
9 AND IT WILL PRESENTED TO THE BOARD, OBVIOUSLY, FOR  
10 REVIEW AND APPROVAL.

11 THIS ONE IS NEAR AND DEAR TO MY HEART.  
12 OUR AWARDEES ARE REQUIRED TO SUBMIT DISCLOSURE  
13 SURVEYS. WE, CIRM, CONDUCTED AN INITIAL SURVEY, AND  
14 WE HAD GOTTEN RESPONSES FROM A LITTLE BIT OVER 60  
15 PERCENT OF GRANTEES. THAT NUMBER IS OVER 75 PERCENT  
16 AS WE CONTINUE TO FOLLOW UP WITH THEM, AND WE WILL  
17 CONTINUE TO IMPROVE ON THAT AND WILL REPORT THAT  
18 NEXT TIME.

19 THE DOWNSIDE IS THAT ANY NONRESPONDER IS  
20 INELIGIBLE FOR ANY ADDITIONAL CIRM FUNDING UNTIL  
21 THEY SUBMIT ALL OF THEIR DEFICIENCIES AND REPORTS.  
22 AGAIN, WE ARE TAKING THIS SERIOUSLY.

23 THE RECOMMENDATION WAS THAT, AS WE  
24 IMPLEMENT THE PSP, WE SHOULD CONDUCT REGULAR  
25 REPORTING TO THE ICOC ON NUMBER OF PATIENTS SERVED

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1 AND AVERAGE COST PER PATIENT. REPORTING THESE  
2 PERFORMANCE METRICS IS A REQUIREMENT IN THE PSP  
3 APPLICATION, AND SPECIFIC OPERATIONAL DETAILS ARE  
4 PART OF OUR BUSINESS RULES AND REPORTING PROCESS  
5 WITH THE AWARDEE. THIS DATA WILL ALSO BE PROVIDED  
6 TO THE AAWG SO THAT THEY CAN PROVIDE RECOMMENDATIONS  
7 FOR REACH AND DURATION OF THESE.

8 ROSA TOUCHED UPON THIS A LITTLE BIT, SO  
9 DID J.T. THE RECOMMENDATION WAS ESTABLISH A DATA  
10 GOVERNANCE STRUCTURE TO CAPITALIZE ON THE REPORTING  
11 FROM GRANTEES, ET CETERA. WE'RE DEVELOPING A  
12 COMPREHENSIVE DATA INFRASTRUCTURE FRAMEWORK FOR ALL  
13 RESEARCH DATA. THIS INCLUDES THE DEPLOYMENT OF  
14 METADATA DASHBOARD SCHEDULED FOR PRODUCTION BY THE  
15 END OF SEPTEMBER 2024 AND THE LAUNCH OF AN ONLINE  
16 DATA SHARING AND MANAGEMENT PLAN THAT HAVE BEEN  
17 IMPLEMENTED FOR ALL OF OUR DISCOVERY AWARDS.  
18 EXISTING DSMP'S AND 172 ADDITIONAL DATASETS FROM  
19 OLDER GRANTS HAVE BEEN DIGITIZED WITH THE POTENTIAL  
20 FOR FURTHER DATA EXPANSION AS OUR FUNDING ALLOWS.

21 ADDITIONALLY, THROUGH THE RECENT  
22 ORGANIZATIONAL RE-ORG, CIRM HAS ESTABLISHED A  
23 DEDICATED DATA INFRASTRUCTURE FUNCTION TO LEAD AND  
24 MANAGE THESE INITIATIVES, ENSURING STREAMLINED DATA  
25 SHARING, STANDARD TERMINOLOGY, AND ENHANCED

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1 COLLABORATION AMONGST OUR SHAREHOLDERS.

2 THE RECOMMENDATION WAS TO INCORPORATE A  
3 DATA-DRIVEN WORKLOAD ANALYSIS THAT INCLUDES  
4 REALISTIC TIMELINES AND STAFFING NEEDS. AS PART OF  
5 THIS REORGANIZATION, WHICH NOW INCLUDES HR REPORTING  
6 TO THE CEO, THE HR TEAM AND THE LEADERSHIP TEAMS ARE  
7 EVALUATING JOB DUTIES TO ENSURE THAT WORKLOADS ARE  
8 APPROPRIATE AND MAKE NECESSARY ADJUSTMENTS.  
9 REALISTIC, MANAGEABLE TIMELINES WILL BE SET BASED ON  
10 TEAM CAPACITY JUST LIKE THE SAF. IF STAFFING GAPS  
11 ARE IDENTIFIED, WE MAY USE TEMPORARY EMPLOYEES AND  
12 CONTRACTORS SUPPORTED BY A RECRUITMENT PLAN TO MEET  
13 OUR WORKLOAD DEMANDS.

14 WITH RESPECT TO ADOPTING A CHANGE  
15 MANAGEMENT STANDARD, THE HR TEAM IS DOING A BANG-UP  
16 JOB. THEY'VE CREATED A STANDARDIZED ORGANIZATIONAL  
17 CHANGE MANAGEMENT PROCESS WHICH WILL HOPEFULLY  
18 PROMOTE COMMUNICATION AND ACCOUNTABILITY THROUGHOUT  
19 THE INTERNAL ALIGNMENT ON THE TYPE AND EXTENT OF ANY  
20 UPCOMING CHANGES. OBVIOUSLY THEY'RE WORKING VERY  
21 HARD RIGHT NOW ON THE SAF AND THE REORGANIZATION.  
22 THEY'VE BEEN INTIMATELY INVOLVED WITH J.T. AND ROSA.  
23 SO KUDOS TO THEM.

24 THEY'RE SETTING GOALS, DEFINING HOW  
25 ORGANIZATIONAL STRUCTURES AND ROLES WILL SHIFT AND

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1 GETTING BUY-IN FROM THE STAKEHOLDERS. IN ADDITION,  
2 THE HR TEAM HAS HELD MEETINGS WITH THE EMPLOYEES TO  
3 DISCUSS ROLES AND SCOPES OF RESPONSIBILITIES AND  
4 ANSWERING ANY QUESTIONS THEY MIGHT HAVE WITH RESPECT  
5 TO THE REORGANIZATION.

6 ALL RIGHT. AGAIN, WITH RESPECT TO THE  
7 RECOMMENDATION, CONTINUE TO AUTOMATE HR PROCESSES  
8 AND EMPLOYEE SELF-SERVICE OPPORTUNITIES, AND TO  
9 DOCUMENT KEY HR PROCEDURES IN A CENTRALLY AVAILABLE  
10 LOCATION. AS YOU KNOW, THE ICOC APPROVED NEW  
11 COMPENSATION AND LOCATION POLICIES IN JUNE 27TH OF  
12 2024. HR IS WORKING WITH I.T. TO CREATE AN INTERNAL  
13 INTRANET PORTAL WHERE OUR EMPLOYEES WILL HAVE EASY  
14 ACCESS TO HR POLICIES AND PROCEDURES, OUR BENEFITS  
15 INFORMATION, AND ANY OTHER TRAINING AND RELEVANT HR  
16 MATERIALS.

17 HR ALSO PROVIDES SELF-SERVICE TRAINING  
18 OPTIONS SUCH AS CAL LEARNS TO OUR EMPLOYEES. I CAN  
19 VERIFY THAT BECAUSE I'VE BEEN PINGED MULTIPLE TIMES  
20 ON MY TRAINING OR LACK THEREOF.

21 THE RECOMMENDATION WAS TO DEVELOP DOCUMENT  
22 STANDARD OPERATING PROCEDURES FOR HIRING AND  
23 ONBOARDING PROCESS. HR HAS REVIEWED AND REVISED OUR  
24 HIRING AND ONBOARDING PROCESSES, AND THESE, AS I  
25 HAVE MENTIONED, HAVE BEEN DOCUMENTED ALREADY.



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1 RECOMMENDATION, COMPLETE REVISION OF THE  
2 COMP POLICY TO PREVENT FUTURE INSTANCES OF PAY  
3 INEQUITY AND EXAMINE EXISTING PAY INEQUITIES, ET  
4 CETERA. AS I MENTIONED BEFORE, THEY ICOC REVIEWED  
5 AND APPROVED A NEW COMP PLAN AND UPDATED POSITIONAL  
6 SALARY LEVELS JUNE 27TH. SO, AGAIN, WE FEEL THAT  
7 WE'VE COMPLETED WITH THIS RECOMMENDATION HERE.  
8 OBVIOUSLY, IT'S SOMETHING THAT WE DO ON A REGULAR  
9 BASIS TO MAKE SURE THAT WE ARE CONSISTENT WITH THE  
10 MARKET PRACTICES AND WHAT WE'RE REQUIRED TO DO TO  
11 KEEP OUR EMPLOYEES.

12 RECOMMENDATION WAS TO EVALUATE OUR WORK  
13 FROM HOME POLICY AND MAKE SURE THAT THERE WAS  
14 CONSISTENT APPLICATION THEREOF. WE IMPLEMENTED A  
15 NEW POLICY AWHILE BACK, AND FEEDBACK SUPPORTS THE  
16 UPDATED TELEWORK POLICY WHICH REQUIRES TWO ANCHOR  
17 DAYS IN THE OFFICE SO THAT WE CAN FACILITATE  
18 COLLABORATION AND COMMUNICATION AND ACTUAL WORK.

19 SO THAT CONCLUDES THE REVIEW FOR THE 22/23  
20 PERFORMANCE AUDIT. NOW I'M GOING TO GO BACK TO  
21 CLOSE OUT SOME OF THE ISSUE FROM THE 2019/2020  
22 PERFORMANCE AUDIT. SO BEAR WITH ME.

23 WE TALKED ABOUT THIS ONE. THERE'S NOTHING  
24 ELSE TO SAY. SO THIS ONE IS COMPLETED AND WAS LAST  
25 TIME, NO FURTHER UPDATES.

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1           THIS ONE TALKS ABOUT THE MISSING  
2           DOCUMENTATION AND REPORTS FROM SOME OF OUR AWARDEES.  
3           AS I MENTIONED BEFORE, THE LEGAL TEAM IS FOLLOWING  
4           UP WITH THESE AWARDEES, AND WE'RE DOWN TO JUST A  
5           HANDFUL. AND WE'LL CONTINUE TO POUND THE PAVEMENT  
6           ON THOSE.

7           THE RECOMMENDATION FROM OUR AUDITORS WAS  
8           TO IMPLEMENT A CRM SYSTEM TO SUPPORT AUTOMATED  
9           PROACTIVE MONITORING OF OUR AWARD PUBLICATIONS, ET  
10          CETERA. OUR SOFTWARE DEVELOPMENT TEAM HAS  
11          IDENTIFIED THREE POTENTIAL CRM VENDORS AND WILL HAVE  
12          MADE A FINAL CHOICE BY EARLY OCTOBER. THEY'RE  
13          PRESENTING IT TO THE ET, I BELIEVE, IN THE NEXT WEEK  
14          OR SO. SO WE WILL HAVE A NEW CRM VENDOR HOPEFULLY.

15          ON THIS ONE, THIS IS WITH RESPECT TO OUR  
16          DEI EFFORTS. THE RECOMMENDATION DEALT WITH  
17          COMMUNITY REVIEW AND RECOMMENDATION GRANTS AND  
18          MONITOR AND EVALUATE THE GRANTS WORKING GROUP. WE  
19          PARTNERED WITH AN EXPERT DEI CONSULTANT, DIVERSITY  
20          NORTH, TO ASSESS AND ENCOURAGE DIVERSITY AMONG THE  
21          GWG.

22          CIRM RECEIVED RECOMMENDATIONS AND PROVIDED  
23          TRAINING TO THE GWG LAST YEAR. WE CONTINUE TO  
24          SOLICIT FEEDBACK FROM BOARD MEMBERS AND MAKE EFFORTS  
25          TO RECRUIT NEW GWG MEMBERS THAT DIVERSIFY THE SKILLS

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1 AND EXPERIENCE OF OUR EXPERT REVIEW PANELS, OF  
2 COURSE.

3 ADDITIONALLY, WE ARE WORKING ON AN RFP FOR  
4 ADDITIONAL CONSULTING SERVICES WITH THE GOAL OF  
5 RETAINING ADVISORS TO HELP ASSESS OUR INTERNAL DEI  
6 PROTOCOLS. AND THIS IS MOSTLY FOR CIRM ITSELF, NOT  
7 WITH RESPECT TO OUR GRANTEES. AND MAKE  
8 RECOMMENDATIONS FOR STRENGTHENING THESE PROTOCOLS.  
9 THESE WILL OBVIOUSLY BE PRESENTED TO THE ICOC AT THE  
10 TIME.

11 THIS ONE DOES NOT HAVE GREEN JUST BECAUSE  
12 THERE IS NO UPDATE. WE SUBMITTED OUR RECORDS  
13 RETENTION SCHEDULE TO THE SECRETARY OF STATE, AND  
14 WE'RE WAITING TO HEAR BACK FROM THEM. SO AS SOON AS  
15 WE DO, I WILL UPDATE OR CLOSE THIS ONE OUT.

16 WHEN IMPLEMENTING A NEW DOCUMENT  
17 MANAGEMENT SYSTEM, THE AUDITORS RECOMMEND THAT WE  
18 DEVELOP AN ADOPTION STRATEGY THAT INCLUDES AMPLE  
19 COMMUNICATION, GUIDANCE, ET CETERA. WE TALKED ABOUT  
20 THIS AGAIN. AS OF SEPTEMBER 30TH, THE I.T.  
21 DEPARTMENT WILL HAVE FULLY MIGRATED TO MICROSOFT  
22 OFFICE 365 AND SHAREPOINT, AND THAT HAS BEEN GOING  
23 VERY WELL. SO KUDOS TO THE I.T. TEAM AS WELL. I  
24 KNOW THERE'S A LOT OF WORK TO BE DONE WITH US THERE.

25 CONTINUING ON WITH OUR SOFTWARE

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1 DEVELOPMENT TEAM, THEY WANTED TO SEE HOW WE CAN  
2 ENHANCE GMS CAPABILITIES TO AUTOMATE PROCESSES,  
3 CENTRALIZE DATA, AND ENHANCE ACCESS.

4 THE SOFTWARE DEVELOPMENT TEAM HAS  
5 COMPLETED THE SOFTWARE PERFORMANCE AND SECURITY  
6 AUDITS. THE GRANTS MANAGEMENT SYSTEM IS CURRENTLY  
7 UNDERGOING SIGNIFICANT IMPROVEMENTS IN TERMS OF  
8 PERFORMANCE, ROBUSTNESS, AND DATA INTEGRATION FOR  
9 REPORTING. THE PERFORMANCE AND ROBUSTNESS WORK  
10 TAKES PLACE ON AN ONGOING BASIS AND HAS ALREADY  
11 RESULTED IN INCREASED USER SATISFACTION AND EVIDENCE  
12 OF IMPROVED THROUGHPUT, FOR EXAMPLE, OUR LONG  
13 RUNNING REPORTS.

14 FOR ANALYTICS THERE'S A SEPARATE PROJECT  
15 TO INTEGRATE THE GMS DATA INTO MICROSOFT POWERBI.  
16 AND THIS HAS RESULTED IN IMPROVED AD HOC REPORTING  
17 CAPABILITIES AND DASHBOARDING. SO, AGAIN, KUDOS TO  
18 THE SOFTWARE DEVELOPMENT TEAM AND THE GRANTS  
19 MANAGEMENT TEAM ON THIS.

20 CONSIDER IMPLEMENTING AN INTEGRATED  
21 DATABASE AND CUSTOMER RELATION MANAGEMENT SYSTEM.  
22 TALKED ABOUT THAT BRIEFLY. THE I.T. TEAM HAS  
23 COMPLETED ITS ANNUAL CYBERSECURITY PENETRATION TEST,  
24 RESULTING IN NO MAJOR FINDINGS AND HAS DRAFTED A  
25 CYBERSECURITY POLICY THAT IS BEING REVIEWED

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1 INTERNALLY BY THE EXECUTIVE TEAM. FOLLOWING ON, YOU  
2 WILL HEAR A PRESENTATION BY MY COLLEAGUE BEN CHAU ON  
3 OUR CYBERSECURITY EFFORTS. SO HOLD ONTO YOUR HATS  
4 FOR THAT.

5 CIRM SOFTWARE DEVELOPMENT TEAM HAS ALSO,  
6 AS I MENTIONED, HAS IDENTIFIED THE CRM VENDORS AND  
7 WILL MAKE A DECISION BY EARLY OCTOBER.

8 AND THAT'S IT FROM ME. THANK YOU VERY  
9 MUCH. ANY QUESTIONS?

10 CHAIRMAN IMBASCIANI: RAFAEL, THANK YOU SO  
11 MUCH. THAT'S GREAT.

12 BEN CHAU. BEN'S GOING TO GIVE A LECTURE  
13 ON OUR CYBERSECURITY THREAT LANDSCAPE.

14 MR. CHAU: GOOD AFTERNOON, MR. CHAIRMAN,  
15 MADAM VICE CHAIR, MEMBERS OF THE BOARD, AND MY  
16 COLLEAGUES, MEMBER OF THE PUBLICS.

17 TO FOLLOW UP WITH MY COLLEAGUES, RAFAEL  
18 MENTIONED ABOUT CYBERSECURITIES. I'M HERE TO -- THE  
19 PURPOSE OF MY PRESENTATION IS TO PROVIDE THE BOARD  
20 AN UNDERSTANDING OF CIRM CYBERSECURITY PROGRAMS.

21 IN TODAY'S WORLD THE IMPORTANCE OF  
22 CYBERSECURITY FOR BUSINESSES, PARTICULARLY  
23 GOVERNMENT AGENCY LIKE OURS, CANNOT BE OVERSTATED.  
24 WITH THE INCREASING RELIANCE ON THE INTERNET AND  
25 TECHNOLOGIES, CYBER THREAT BECOMING MORE AND MORE

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1 SOPHISTICATED, AND IT'S MORE FREQUENT AND POSE  
2 SIGNIFICANT RISKS TO BUSINESSES OF ALL SIZES.

3 SO WHY CYBERSECURITY IMPORTANT TO US?  
4 FIRST OF ALL, CYBERSECURITY PROTECT DIGITAL ASSET,  
5 CONFIDENTIAL INFORMATION, SENSITIVE DATA, ENSURE  
6 OPERATION CONTINUITY, AND ALSO UPHOLD CIRM  
7 INTEGRITY. CYBER ATTACK COULD CAUSE SERIOUS LOSS  
8 AND BUSINESS DISRUPTIONS. SO A STRONG CYBERSECURITY  
9 RESPONSE WILL HELP US PREPARE TO RESPOND TO CYBER  
10 INCIDENTS AND MINIMIZE LOSSES. AFTER ALL, STRONG  
11 CYBERSECURITY BOOSTS CIRM'S CREDIBILITY AND PUBLIC  
12 TRUST BY SHOWING THAT WE COMMITMENT TO TRANSPARENCY,  
13 ACCOUNTABILITY, AND DATA HANDLING. ACTUALLY ENHANCE  
14 PUBLIC PERCEPTIONS AND SECURE OUR GRANTEE TRUST.

15 SO COMPLIANCE WITH STATE AND FEDERAL LAWS  
16 IS ESSENTIAL TO AVOID LEGAL REPERCUSSIONS. AND  
17 ALSO, OF COURSE, CYBERSECURITY AFFECT EVERY PART OF  
18 OUR ORGANIZATIONS AS WE INTEGRATE SECURITY INTO OUR  
19 BUSINESS DECISIONS TO AVOID CYBER BREACHES AND AVOID  
20 DAMAGES TO OUR REPUTATIONS.

21 SO WHERE ARE WE WITH OUR CYBERSECURITY?  
22 AS FAR AS FROM OUR ORGANIZATIONAL RISK, WE ARE LOW  
23 TO MODERATE. THAT'S WHERE MOST STATE AGENCY ARE.  
24 JUST RECENTLY MY COLLEAGUES MENTIONED EARLIER, WE  
25 JUST COMPLETED OUR CYBERSECURITY ASSESSMENT. AND I

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1 JUST WANT, AGAIN, ECHO I'M VERY HAPPY TO INFORM YOU  
2 NO MAJOR FINDINGS.

3 WE PUT IN PLACE INDUSTRY ACCEPTABLE  
4 TECHNOLOGIES, ANTIVIRUS, ANTIMALWARE. WE HAVE GOOD  
5 BACKUP SYSTEM. WE ALSO VERIFY AND CONFIRM THAT OUR  
6 BACKUP ARE RECOVERABLE. IN 2023 WE INSTITUTE A 24/7  
7 SECURITY ACTIVE MONITORING TOOL OF ALL OF OUR  
8 DEVICES. SO WHICH MEAN THAT IF THERE'S A CYBER  
9 THREAT TO CIRM'S DEVICE, WE CAN PROACTIVELY RESPOND  
10 AND ERADICATE. WE ALSO IMPLEMENT SMART MULTIFACTOR  
11 AUTHENTICATIONS, MFA. SO IN ADDITION TO PASSWORD,  
12 CIRM USER ALSO REQUIRED TO HAVE A SECONDARY  
13 AUTHENTICATION SUCH AS IPHONES. WE ALSO IMPLEMENT A  
14 TRAVEL RESTRICTION POLICIES TO MINIMIZE RISK WHEN  
15 CIRM EMPLOYEES TRAVEL FOR WORK.

16 AS FAR AS CULTURE, CYBERSECURITY CULTURE,  
17 WE PROMOTE AND CONTINUE TO STRENGTHEN OUR  
18 CYBERSECURITY PROGRAMS TO ENSURE THAT OUR STAFF  
19 PRACTICE CYBER-SAFE HABITS.

20 IN 2022 WE IMPLEMENTED CYBERSECURITY  
21 WELLNESS PROGRAMS BY HAVING STAFF GO THROUGH A  
22 ANNUAL SECURITY TRAINING AND TECHNIQUE TESTERS. WE  
23 ALSO IMPLEMENT MONTHLY PFISHING TEST, AND WE ALSO  
24 PROVIDE FOLLOW-UP TRAINING FOR STAFF WHO NEED MORE  
25 HELP. WE ADOPTED CALIFORNIA STATE SECURITY

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1 GUIDELINES. AND WHEN IT COMES TO CYBER INCIDENTS,  
2 IT'S NOT A MATTER OF IF. IT'S ACTUALLY A MATTER OF  
3 WHEN.

4 SO CYBERSECURITY IS AN ONGOING PROCESS.  
5 WE CONTINUE TO REFINE AND CONTINUE TO WORK AND  
6 REFINE OPERATIONAL SECURITY PROGRAMS TO STRENGTHEN  
7 OUR ORGANIZATION RESILIENCE AND TO ADDRESS ANY  
8 EVOLVING THREATS.

9 JUST LIKE TO TAKE THIS OPPORTUNITY TO  
10 SPECIFICALLY SAY THANK YOU TO RAFAEL, JENN LEWIS FOR  
11 SPONSOR OUR CYBERSECURITY PROGRAMS, DOUG GUILLEN,  
12 WHO'S NOT HERE TODAY. HE'S WORKED WITH ME ON  
13 CYBERSECURITY GOVERNANCE AND POLICIES. AND, OF  
14 COURSE, BEHIND THE SCENES OUR I.T. TEAM AND SOFTWARE  
15 TEAMS. THEY ACTUALLY WATCHING OVER OUR  
16 CYBERSECURITY 24/7. THANK YOU.

17 (APPLAUSE.)

18 CHAIRMAN IMBASCIANI: MARK FISCHER-COLBRIE  
19 HAS A QUESTION.

20 MR. FISCHER-COLBRIE: I'VE GOT THREE  
21 QUESTIONS. FIRST OF ALL, I'M NOT SURE OF WHAT THE  
22 CONDITIONS WOULD BE AROUND INSURANCE IN CASE WE ARE  
23 ATTACKED. ARE WE COVERED THROUGH THE STATE OF  
24 CALIFORNIA EFFECTIVELY? JUST WANTED TO CONFIRM  
25 THAT.



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1           AND THEN THE SECOND QUESTION IS AROUND THE  
2           PFISHING, SOME OF THE PFISHING HAS GOTTEN INCREDIBLY  
3           SOPHISTICATED. MY COMPANY, ITS EMAILS FROM ME TO  
4           THE HR DEPARTMENT SAYING PLEASE RELEASE THE SOCIAL  
5           SECURITY NUMBERS RIGHT AWAY BECAUSE BLAH, BLAH,  
6           BLAH, WHATEVER. SO I ASSUME THAT THOSE KINDS OF  
7           TESTING OF VERY SOPHISTICATED PFISHING IS PART OF  
8           WHAT YOU'VE DONE. SO I JUST WANTED TO CONFIRM  
9           THAT.

10           AND THEN THE THIRD THING IS ON ANOTHER  
11           LEVEL THERE ARE A NUMBER OF ORGANIZATIONS THAT WILL  
12           NOT ALLOW THEIR STAFF MEMBERS TO HAVE TIKTOK ON  
13           THEIR PERSONAL PHONES. SO I DON'T KNOW WHERE WE  
14           STAND ON THAT PARTICULAR QUESTION OR ISSUE. I DON'T  
15           HAVE A POSITION. I'M NOT SOPHISTICATED ENOUGH TO  
16           KNOW, BUT JUST WANTED TO ASK THE QUESTION ABOUT  
17           THAT.

18           MR. CHAU: THANK YOU FOR YOUR QUESTION.  
19           SO I'D LIKE TO ANSWER THE FIRST QUESTION IS THAT,  
20           BECAUSE WE ARE A STATE AGENCY, SO WE COVER UNDER  
21           CALIFORNIA INSURANCE, CYBER INSURANCE POLICY. WE  
22           ACTUALLY WENT AND CHECKED WITH THE OTHER DEPARTMENTS  
23           OF TECHNOLOGY, AND THEY CONFIRM THAT.

24           SECOND QUESTION, YES. PFISHING IS GETTING  
25           MORE SOPHISTICATED. AS A MATTER OF FACT, JUST

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1 BEFORE THIS, JUST A COUPLE WEEKS AGO, WE SENT OUT A  
2 PHISHING TEST TO ALL OF STAFF. IT'S COME FROM HR.  
3 AND OUR STAFF NOW, INTERESTING, AFTER TWO YEARS WHEN  
4 WE IMPLEMENT USER TRAINING, THE NUMBER OF MALICIOUS  
5 SUSPECTED EMAIL REPORTING TO I.T., WE CALLING THAT  
6 PHISHING, ACTUALLY INCREASED. SO, YES. YES, WE  
7 HAVE A TOOL THAT THEN THEY CAN REPORT JUST BY A  
8 MATTER OF CLICKING. WE CALL IT PHISH ALERT BUTTONS,  
9 AND I.T. WOULD THEN EVALUATE IT. AND THEN WHETHER  
10 TO ERADICATE THE EMAIL OR TO RELEASE THE EMAIL IF  
11 IT'S SAFE.

12 AND THEN YOUR THIRD QUESTION IS ABOUT?  
13 I'M SORRY. WHAT WAS THE THIRD QUESTION?

14 MR. FISCHER-COLBRIE: TIKTOK IS BANNED AT  
15 A THE FEDERAL LEVEL.

16 MR. CHAU: WE ACTUALLY IN COMPLIANCE. WE  
17 FOLLOW STATE GUIDELINES. SO WE DON'T ALLOW ANY  
18 PARTICULAR SOFTWARE OR ANYTHING. SO ALL OF OUR  
19 DEVICES FROM PHONE TO LAPTOP ARE BEING RESTRICTED  
20 AND HAVE TO GO THROUGH A VETTING PROCESS FROM I.T.  
21 TO ENSURE THAT SECURITY IS -- MEET OUR SECURITY  
22 REQUIREMENT BEFORE WE CAN DEPLOY THE SOFTWARE. SO  
23 TIKTOK DEFINITELY WERE BANNED.

24 MR. FISCHER-COLBRIE: SO THAT WOULD BE  
25 FROM PERSONAL PHONES THAT PEOPLE HAVE AS WELL; IS

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1 THAT CORRECT?

2 MR. CHAU: JUST WORK PHONE. WE DON'T HAVE  
3 ACCESS -- WE CANNOT ENFORCE ANY RESTRICTIONS ON  
4 PERSONAL PHONES.

5 MR. FISCHER-COLBRIE: OKAY.

6 MR. CHAU: THANK YOU.

7 CHAIRMAN IMBASCIANI: ANY OTHER QUESTIONS  
8 OF BEN OR OF RAFAEL? NO. THANK YOU SO MUCH. I  
9 KNOW I'M GOING TO SLEEP BETTER TONIGHT. THANK YOU.

10 OKAY. WE'RE GOING MOVE NOW TO OUR LAST  
11 PRESENTATION, AGENDA ITEM 9, AN UPDATE FROM OUR  
12 COMMUNICATIONS DEPARTMENT. KOREN, THANK YOU.  
13 PODIUM IS YOURS.

14 MS. TEMPLE-PERRY: GOOD AFTERNOON,  
15 EVERYONE. MY NAME IS KOREN TEMPLE-PERRY. I AM THE  
16 SENIOR DIRECTOR OF MARKETING COMMUNICATION HERE AT  
17 CIRM. THANK YOU FOR THE OPPORTUNITY TO ADDRESS THE  
18 BOARD TODAY AT THE VERY END OF THE DAY AND TO  
19 PROVIDE A SUMMARY OF OUR COMMUNICATIONS SUBCOMMITTEE  
20 MEETING WHICH WE HELD LAST WEEK.

21 SO LAST WEEK WE WERE ABLE TO SHARE  
22 NUMEROUS UPDATES ON THE PROGRESS OF KEY COMPONENTS  
23 OF OUR COMMUNICATIONS PLAN. AND THERE WERE NUMEROUS  
24 PROJECTS HIGHLIGHTED. WE SHARED EXCITING PROGRESS  
25 ON THE DEVELOPMENT OF OUR QUARTERLY PUBLICATION

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1 WHICH WE ARE NAMING "CIRM COMMUNITY CONNECTIONS."  
2 AND AS UP AN UPDATE, THIS PUBLICATION REALLY AIMS TO  
3 DEEPEN OUR ENGAGEMENT WITH THE PATIENT ADVOCATE  
4 COMMUNITY, PROVIDE TIMELY UPDATES ON THE RESEARCH  
5 THAT WE FUND, AND REALLY STRENGTHEN OUR  
6 RELATIONSHIPS WITH KEY PARTNERS.

7 SO IT WAS GREAT. WE WERE ABLE TO SHARE  
8 THE CREATIVE CONCEPTS AND THE BRANDING THAT WE  
9 DEVELOPED. THE PUBLICATION WILL BE BOTH DIGITAL AND  
10 PRINT. IT WILL BE QUARTERLY, AND WE ARE EXCITED TO  
11 LAUNCH THE DIGITAL VERSION THIS FALL.

12 IN ADDITION, WE SHARED A NUMBER OF PATIENT  
13 IMPACT STORIES. THIS INCLUDED THE STORY OF CONNOR  
14 WHO IS A 15-YEAR-OLD WITH AN ULTRA-RARE DISEASE. HE  
15 HAS SUFFERED FROM NUMEROUS SEIZURES, AND HE HAD A  
16 MOVEMENT DISORDER THAT WAS ASSOCIATED WITH THAT.

17 AND AFTER RECEIVING A CIRM-FUNDED THERAPY,  
18 HE ACTUALLY BEGAN RECENTLY WALKING AND TYPING. SO  
19 WE PROFILED HIS INCREDIBLE STORY. AND THESE WERE  
20 JUST A NUMBER OF THE PATIENT STORIES THAT WE'VE  
21 SHARED RECENTLY ON OUR BLOG. ALSO WE SHARED A  
22 NUMBER OF RESEARCHER STORIES AS WELL AS STORIES FROM  
23 TRAINEES. AND SO WE WILL CONTINUE TO FEATURE THAT  
24 ACROSS OUR MANY CHANNELS.

25 WE ALSO SHARED AN EXCITING UPDATE WHICH

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1 WAS THAT OVER THE LAST YEAR WE INCREASED OUR MEDIA  
2 COVERAGE BY 32 PERCENT. SO WE'VE SECURED COVERAGE  
3 IN REGIONS ACROSS CALIFORNIA. THIS INCLUDES MEDIA  
4 ON OUR PATIENT STORIES AS WELL AS CIRM-FUNDED  
5 RESEARCH, AND OUR VERY OWN J.T., WHO WAS FEATURED  
6 ACROSS THE MEDIA. AND WE HAD HIM LOOKING VERY  
7 SPIFFY IN A LOT OF THE PHOTOS WE TOOK.

8 WE ALSO HIGHLIGHTED THE MANY OUTREACH  
9 EVENTS THAT WE ATTENDED IN BOTH NORTHERN CALIFORNIA  
10 AND SOUTHERN CALIFORNIA. SO FROM FARMER'S MARKETS  
11 TO HEALTH ADVOCACY EVENTS, WE'VE REALLY HAD A  
12 SIGNIFICANT PRESENCE IN THE COMMUNITY ACROSS THE  
13 STATE.

14 IN ADDITION TO THAT, WE HIGHLIGHTED OUR  
15 EVENT MARKETING SUPPORT FOR SPARK AND USC TRAINING  
16 CONFERENCES. AND WE SHOWCASED HOW WE SUPPORTED  
17 THOSE EVENTS. AND DR. SHEPARD HIGHLIGHTED THE  
18 IMPACT OF THAT EARLIER BECAUSE THESE ARE TWO MAJOR  
19 EVENTS THAT CIRM HAS DONE INCREDIBLE WORK FOR AND TO  
20 REALLY ILLUSTRATE OUR EDUCATION PROGRAMS.

21 AND SO TO SUPPORT THOSE INCREDIBLE EVENTS,  
22 WE PROVIDED LOT OF BRANDING SUPPORT. AND SO YOU ALL  
23 REMEMBER THOSE WONDERFUL DISCUSSIONS MONTHS AGO  
24 ABOUT OUR LOGO AND HOW TO SPELL OUT OUR NAME. WELL,  
25 WE FINALLY GOT TO THIS GREAT POINT, AND SO NOW WE

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1 HAVE IMPLEMENTED OUR BRANDING.

2 SO WE SUPPORTED THESE TWO EVENTS. IN  
3 PARTICULAR, WE'VE DEVELOPED A BRANDED MEDIA WALL,  
4 WHICH YOU CAN SEE IN THE PHOTO. WE CREATED  
5 BROCHURES FOR EDUCATION PROGRAMS, REALLY PROVIDING  
6 HIGH LEVEL INFORMATION ABOUT THEM.

7 WE'VE ALSO PRODUCED A ONE-PAGER ON CIRM  
8 WHICH REALLY ILLUSTRATES OUR IMPACT, AND IT'S BEEN  
9 VERY, VERY HELPFUL WHEN WE TAKE IT TO THESE NUMEROUS  
10 EVENTS TO SHOWCASE THAT. AND SO THIS INFORMATION  
11 REALLY DOES HELP TO UNIFY OUR BRAND AND STRENGTHEN  
12 OUR MESSAGE AROUND OUR PROGRAMS.

13 AS DR. SHEPARD HIGHLIGHTED AROUND THE  
14 SPARK CONFERENCE, WE PROVIDED A LOT OF  
15 COMMUNICATIONS SUPPORT THERE. SO IN TERMS OF THE  
16 PRE-EVENT, WE COLLABORATED WITH THE UC RIVERSIDE  
17 MEDIA TEAMS TO PUT OUT CONTENT ON THE UPCOMING  
18 EVENTS. WE COLLABORATED ON THE PROMOTION OF THE  
19 EVENT ACROSS SOCIAL AND VIA EMAIL.

20 FOR THE ACTUAL EVENT, WE CREATED AN  
21 INNOVATIVE SOCIAL MEDIA WALL WHICH FEATURED A SELFIE  
22 STATION, AND WE HAD THESE REALLY COOL SCIENTIST  
23 PROPS. THE KIDS LOVED THEM. YOU CAN SEE A PHOTO OF  
24 THAT DOWN BELOW. AND I'M NOT SURE WHO HAD MORE FUN,  
25 WHETHER IT WAS J.T. OR SCOTT, BUT WE HAVE PLENTY OF

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1 PHOTOS WITH EVIDENCE OF PEOPLE HAPPILY PARTICIPATING  
2 IN THE SOCIAL MEDIA SELFIE WALL. AND SO WE  
3 ENCOURAGED EVERYONE TO TAKE PHOTOS AND TO TAG US ON  
4 SOCIAL MEDIA USING THE HASHTAG CIRMSPARKLAB. AND  
5 ALTOGETHER WE REACHED MORE THAN 4,000 ACCOUNTS ON  
6 TWITTER X AS WELL AS INSTAGRAM DURING THE EVENT.

7 AND PRIOR TO THE EVENT, WE ACTUALLY  
8 DEVELOPED A SOCIAL MEDIA CHALLENGE, WHICH IN THE  
9 PAST WE USED TO DO THESE. AND SO WE REALLY WANTED  
10 TO BRING SOME OF THESE INNOVATIVE WAYS TO PROMOTE  
11 PROGRAMS BACK. AND SO WE INVITED OUR SPARK INTERNS  
12 TO PARTICIPATE IN THIS CHALLENGE AND TO RECORD SORT  
13 OF A DAY IN THE LIFE TO BE REALLY CREATIVE TO GIVE  
14 PEOPLE AN IDEA OF WHAT IT'S LIKE TO BE AN INTERN IN  
15 THE LAB BECAUSE, BY HEARING THEIR STORIES AND THEIR  
16 WORDS AND PROMOTING ACROSS OUR OWN CHANNELS, IT  
17 REALLY WILL HELP TO DIVERSIFY, BE THE NEXT  
18 GENERATION OF SCIENTISTS.

19 AND SO THE VIDEOS WERE REALLY, REALLY WELL  
20 DONE. WE FEATURED IN OUR BLOG, AND I AM DEFINITELY  
21 HAPPY TO SHARE THAT LINK WITH YOU ALL SO THAT YOU  
22 ALL CAN WATCH IT BECAUSE THEY WERE REALLY, REALLY  
23 GREAT.

24 IN ADDITION, WE ALSO SUPPORTED THE CIRM  
25 TRAINEE NETWORK CONFERENCE. SO WE COLLABORATED WITH

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1 THE USC MEDIA TEAMS ON PROMOTION AND COVERAGE. WE  
2 SUPPORTED THE EVENT BY CONNECTING THE ORGANIZERS TO  
3 PATIENT ADVOCATES WHO ACTUALLY SPOKE DURING THE  
4 EVENT. WE HAD A BOOTH WHICH WAS WONDERFUL. IT  
5 FEATURED MANY CIRM MATERIALS, BROCHURES, OUTREACH  
6 EXAMPLES. THE MEDIA WALL, AGAIN, WAS VERY, VERY  
7 POPULAR. AND WE LIVE TWEETED DURING THE EVENT,  
8 REALLY COVERING ALL SPEECHES AND ASPECTS OF IT. IT  
9 WAS GREAT. WE REACHED MORE THAN 17,000 ACCOUNTS  
10 DURING THAT TIME.

11 AND FOR ME THE BEST PART, AS THE TRAINEES  
12 WERE PITCHING, NOT PITCHING THEIR RESEARCH, BUT  
13 BASICALLY EXPLAINING THEIR RESEARCH, I HAD AN  
14 OPPORTUNITY TO INTERVIEW A NUMBER OF THEM. AND IT  
15 WAS GREAT NOT ONLY HEARING THEIR STORIES, BUT  
16 HEARING ABOUT THEIR RESEARCH AND HOW THEIR FACES  
17 REALLY LIT UP ABOUT THAT.

18 AND SO I'M PLEASED TO SHARE A VIDEO  
19 COMPILATION OF THE EVENT THAT WE PRODUCED IN-HOUSE.

20 (VIDEO WAS THEN PLAYED, BUT NOT  
21 REPORTED NOR HEREIN TRANSCRIBED.)

22 MS. TEMPLE-PERRY: THANK YOU. IT WAS A  
23 GREAT VIDEO SHARED ACROSS A LOT OF OUR CHANNELS, AND  
24 USC SHARED IT. THERE ARE A LOT OF INSTITUTIONS THAT  
25 SHARED IT. AND SO THIS GOES TO HIGHLIGHT THE



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1 INCREDIBLE EVENT. THIS WAS NOT -- THESE WERE NOT  
2 ALL OF THE INTERVIEWS THAT WE CONDUCTED. WE HAVE A  
3 LOT OF VIDEO THAT WE ARE GOING TO UTILIZE AS B-ROLL  
4 AND WILL CONTINUE TO PUSH OUT ON OUR CHANNELS  
5 BECAUSE THE STORIES AND THE RESEARCH THAT A LOT OF  
6 THESE TRAINEES CONDUCTED IS REALLY IMPACTFUL. WE SO  
7 PLAN ON SHARING THAT.

8 SIMILAR TO SPARK, WE ALSO PROMOTED THE  
9 EVENT BY DEVELOPING A SOCIAL MEDIA CONTEST. AND SO  
10 WE REQUESTED THAT THE TRAINEES SUBMIT ELEVATOR  
11 PITCHES TO SHARE THEIR RESEARCH, AND THEY SUBMITTED  
12 VIDEOS OF THEIR ELEVATOR PITCH. THE CONTENT THAT  
13 THEY SUBMITTED WAS REALLY, REALLY EXCELLENT. AND  
14 THIS WAS REALLY IMPORTANT BECAUSE THE CHALLENGE  
15 REALLY WAS TO GET TRAINEES, TO ENCOURAGE THEM TO  
16 PRACTICE THEIR SCIENCE COMMUNICATION SKILLS, AS WELL  
17 AS THEIR PUBLIC SPEAKING SKILLS BECAUSE THE SCIENCE  
18 IS IMPORTANT, BUT COMMUNICATING IT TO DIVERSE  
19 COMMUNITIES IS EVEN MORE IMPORTANT.

20 AND THEN FOLLOWING THE EVENT, WE HAD AMPLE  
21 COVERAGE. THIS WAS ACROSS BLOG HIGHLIGHTS, SOCIAL  
22 MEDIA MENTIONS, AS WELL AS EARNED MEDIA.

23 AND THEN LASTLY, WE TOUCHED ON A NUMBER OF  
24 EVENTS THAT WE WENT TO OVER THE COURSE OF THE LAST  
25 COUPLE OF MONTHS. WE SHOWCASED NUMEROUS ONES. WE

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1 BRIEFLY TOUCHED ON THIS, BUT I THOUGHT THIS WOULD BE  
2 NICE TO KIND OF PROVIDE A NICE SUMMARY BECAUSE WE  
3 DID MENTION THAT WE WENT TO THE KITS CUBED FAIR.  
4 AND THIS IS AN EXCELLENT EVENT THAT DR. SHYAM PATEL  
5 INTRODUCED TO OUR TEAM. WE WERE SO HAPPY TO BE  
6 THERE.

7 IT WAS THE FOURTH ANNUAL EVENT THAT TOOK  
8 PLACE AT OAKLAND TECHNICAL HIGH SCHOOL. IT WAS PUT  
9 ON BY AN ALUM THERE WHO COMES BACK AND IS REALLY  
10 FOCUSED ON GIVING BACK TO HIS COMMUNITY. SO THERE  
11 WERE ABOUT 1600 ELEMENTARY SCHOOL AGE STUDENTS THERE  
12 ALONG WITH THEIR FAMILIES. MANY PEOPLE OF COLOR,  
13 FAMILIES OF COLOR, AND SO IT WAS REALLY GREAT FOR US  
14 TO BE THERE. WE HAD A BOOTH TO CONNECT WITH FOLKS  
15 ON THE GROUND. WE HAD COLORING PAGES AND CROSSWORD  
16 PUZZLES, REALLY TO MAKE SURE THAT THE SCIENCE WAS  
17 ACCESSIBLE.

18 THERE WERE FOUR OF US AND WE WERE BUSY  
19 MAKING DNA BRACELETS FOR HOURS. OUR BACKS WERE --  
20 IT WAS PAINFUL AFTER A NUMBER OF HOURS. I TOOK MY  
21 DAUGHTER WITH US, AND SHE HELPED TO GIVE OUT  
22 COLORING PAGES. AND SO WE REALLY DID HAVE AN  
23 AMAZING TIME. THERE WERE A NUMBER OF FOLKS FROM THE  
24 CIRM STAFF WHO CAME OUT AND BROUGHT THEIR FAMILIES.  
25 SO IT WAS GREAT TO SEE THEM THERE FOR THEIR SUPPORT.

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1 AND I'D ALSO LIKE TO GIVE A BIG THANK YOU TO DAISY  
2 FROM THE EDUCATION TEAM. SHE PROVIDED A LOT OF  
3 GREAT TALKING POINTS ON THE ACTIVITIES. SHE MADE  
4 THE CONCEPTS REALLY ACCESSIBLE. AND SO IT WAS JUST  
5 OVERALL A REALLY GREAT EVENT.

6 AS I MENTIONED, THAT WAS JUST A VERY QUICK  
7 HIGHLIGHT OF ONE OF THE EVENTS THAT WE RECENTLY  
8 ATTENDED ACTUALLY TWO WEEKS AGO. THERE WERE  
9 NUMEROUS OTHER EVENTS THAT WE HIGHLIGHTED, BUT I  
10 WANTED TO SHARE WITH YOU THAT WE HAVE SOME MORE  
11 EVENTS THAT WE ARE ATTENDING. AND THAT INCLUDES  
12 ALZHEIMER'S ASSOCIATION WALK IN FRESNO/MADERA COMING  
13 UP IN OCTOBER. WE WILL BE AT THE VISION WALK IN  
14 L.A. WE HAVE A NUMBER OF ROTARY CLUB PRESENTATIONS  
15 IN THE BAY AREA COMING UP, CAMPBELL, SAN FRANCISCO,  
16 AND FREMONT.

17 AND THAT WAS JUST A VERY BRIEF SUMMARY.  
18 THERE WERE MANY OTHER INITIATIVES AND PROGRAMS THAT  
19 WE HIGHLIGHTED DURING OUR SUBCOMMITTEE; BUT IN THE  
20 INTEREST OF TIME TODAY, I WANTED TO PROVIDE THIS  
21 UPDATE TO YOU ALL. THANK YOU. I LOOK FORWARD TO  
22 PROVIDING MORE INFORMATION ABOUT OUR INITIATIVES AND  
23 PROGRAMS IN A MUCH MORE ROBUST WAY. AND I'M HAPPY  
24 TO TAKE ANY QUESTIONS.

25 CHAIRMAN IMBASCIANI: ANY QUESTIONS AMONG

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1 THE BOARD MEMBERS FOR KOREN? IF NOT, KOREN, THANK  
2 YOU SO MUCH FOR YOUR PRESENTATION. DID I MISS  
3 ANYONE? NO. THANK YOU.

4 SO I'M GOING TO ASK IF THERE ARE ANY  
5 MEMBERS OF THE PUBLIC WHO HAVE ANY GENERAL COMMENTS  
6 ON THE APPLICATION REVIEW -- PUBLIC COMMENT ON ANY  
7 ITEM THAT HAS NOT BEEN DISCUSSED ON TODAY'S AGENDA.  
8 THERE'S NOTHING COMING IN. OKAY.

9 IN THAT CASE, I WANT, BEFORE WE ADJOURN, I  
10 WANT TO THANK THE BOARD MEMBERS FOR THEIR ATTENDANCE  
11 COMING DOWN HERE TO SAN DIEGO AND FOR PARTICIPATING  
12 TO MAKE THIS AN ABSOLUTELY VERY PRODUCTIVE,  
13 REWARDING MEETING, ONE THAT WE'RE GOING TO LOOK BACK  
14 TO AND REFERENCE MANY, MANY TIMES IN THE FUTURE.  
15 AND I WANT TO THANK ALL THE PEOPLE THAT MADE  
16 PRESENTATIONS TODAY. AND THANK OUR WONDERFUL BOARD  
17 SUPPORT FOR MAKING THIS HAPPEN, CLAUDETTE AND LANA  
18 AND, OF COURSE, SCOTT TOCHER. THANK YOU.

19 SO THIS MEETING IS NOW ADJOURNED. WE'RE  
20 GOING TO RECONVENE FOR OUR NEXT BOARD MEETING ON  
21 THURSDAY DECEMBER 12, 2024. THANK YOU ALL.

22 (THE MEETING WAS THEN ADJOURNED AT 2:45 P.M.)  
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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 PROCEEDINGS BEFORE THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE AND THE APPLICATION REVIEW SUBCOMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD ON SEPTEMBER 26, 2024, 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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