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
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I N D E X

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I N D E X (CONT'D.)

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.

MR. TOCHER: LEONDRA CLARK-HARVEY.
DR. CLARK-HARVEY: PRESENT.
MR. TOCHER: HAL COLLARD FOR KEITH YAMAMOTO.
DR. COLLARD: PRESENT.
MR. TOCHER: ANNE-MARIE DULIEGE.
DR. DULIEGE: PRESENT.
MR. TOCHER: YSABEL DURON.
MS. DURON: HERE.
MR. TOCHER: MARK FISCHER-COLBRIE.
DR. FISCHER-COLBRIE: HERE.
MR. TOCHER: ELENA FLOWERS.
DR. FLOWERS: PRESENT.
MR. TOCHER: JUDY GASSON.
DR. GASSON: HERE.
MR. TOCHER: DAVID HIGGINS.
DR. HIGGINS: HERE.
MR. TOCHER: VITO IMBASCIANI.
CHAIRMAN IMBASCIANI: HERE.
MR. TOCHER: RICH LAJARA.
MR. LAJARA: PRESENT.
MR. TOCHER: PAT LEVITT.
DR. LEVITT: HERE.
MR. TOCHER: HALA MADANAT.
DR. MADANAT: HERE.

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MR. TOCHER: LINDA MALKAS. SHLOMO MELMED.
DR. MELMED: HERE.
MR. TOCHER: CAROLYN MELTZER.
DR. MELTZER: PRESENT.
MR. TOCHER: CHRISTINE MIASKOWSKI.
DR. MIASKOWSKI: PRESENT.
MR. TOCHER: LAUREN MILLER-ROGEN. ADRIANA PADILLA.
DR. PADILLA: HERE.
MR. TOCHER: JOE PANETTA.
MR. PANETTA: HERE.
MR. TOCHER: JOYCE SACKEY. MARVIN SOUTHARD.
DR. SOUTHARD: HERE.
MR. TOCHER: MICHAEL STAMOS.
DR. STAMOS: HERE.
MR. TOCHER: DON TAYLOR.
DR. TAYLOR: HERE.
MR. TOCHER: KAROL WATSON. KEVIN XU.
GREAT. WE HAVE A QUORUM.
CHAIRMAN IMBASCIANI: THANK YOU, SCOTT. THANK YOU. ONCE AGAIN, WELCOME TO SAN DIEGO, EVERYONE. I'M GLAD YOU COULD MAKE IT HERE FROM ALL YOUR VARIOUS POINTS THROUGHOUT THE STATE. BEFORE I START, I WANT TO TELL YOU THAT I INTEND AT THE END

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

HIS LOSS WAS FELT KEENLY BY EVERY ONE OF

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

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

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

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

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

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

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

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

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

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

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

JOB OF CAPTURING FRED'S ESSENCE.

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

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

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

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

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

THIS MOMENT OF SILENCE -- I'M SORRY.

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-920-3543 DRAIBE@HOTMAIL.COM

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

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

CHAIRMAN IMBASCIANI: THANK YOU, MARK.

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

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

CHAIRMAN IMBASCIANI: THANK YOU, MARIA.

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

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

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

(MOMENT OF SILENCE.)

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-920-3543 DRAIBE@HOTMAIL.COM

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

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

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

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

MEDICINES. SO THANK YOU.

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

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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IN CONSULTATION WITH THE AAWG AND ICOC MEMBERS, THERE WERE TWO NATIONAL POLICY DOCUMENTS THAT WERE DRAFTED -- THANK YOU, GEOFF, FOR LEADING THAT EFFORT -- IN JANUARY OF 2024, THE U.S. SENATE COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS REQUEST FOR INFORMATION, "HOW TO MAKE CELL AND GENE THERAPIES ACCESSIBLE." AND THEN ALSO JULY 2024 NIH OFFICE OF SCIENCE POLICY REQUEST FOR INFORMATION ON DRAFT NIH INTRAMURAL RESEARCH PROGRAM POLICY, PROMOTING EQUITY THROUGH ACCESS PLANNING.

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

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

SO WE'RE PART OF THAT STEERING COMMITTEE.

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

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

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

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

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

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

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

AND THEN IN ADDITION, WHAT'S REALLY

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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ARE ALSO THE QUALIFIED TREATMENT CENTERS WHERE PATIENTS WOULD GO TO RECEIVE THESE TREATMENTS.

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: THANK YOU, MARIA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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SPECIFICALLY TO COLLEGES, CALIFORNIA STATE UNIVERSITIES, AND COMMUNITY COLLEGES THAT DON'T HAVE MAJOR FEDERAL RESEARCH INFRASTRUCTURE FOR REGENERATIVE MEDICINE OR FACULTY. SO THIS PROGRAM PROVIDES SPECIALIZED COURSEWORK TO THESE STUDENTS AT THEIR HOME INSTITUTIONS. AND THEN THEY ARE ABLE TO GO AND WORK FOR UP 12 MONTHS, A FULL YEAR, OF PAID, HANDS-ON INTERNSHIPS AT HOST INSTITUTIONS, WHICH ARE THESE MAJOR RESEARCH UNIVERSITIES WITH REGENERATIVE MEDICINE PROGRAMS AS WELL AS BIOTECHNOLOGY COMPANIES.

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

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

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

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

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

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

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

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

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

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

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

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

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

IMPORTANTLY, SOME TRAINEES WERE SELECTED

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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LIFE. AND THERE WERE NETWORKING DINNERS FOR THE PROGRAM DIRECTORS. AND THE SECOND DAY OF THE CONFERENCE WAS A PUBLIC SESSION. IT WAS RECORDED. AND IF ANYBODY IS INTERESTED, THAT IS POSTED ON CIRM'S YOUTUBE SITE AS WELL AS ON THE USC CONFERENCE SITE.

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

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

SO THAT CONCLUDES MY PRESENTATION. I'VE

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

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-920-3543 DRAIBE@HOTMAIL.COM

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

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

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

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

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

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

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

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

I WANT TO JUST CONGRATULATE KELLY WHO

133 HENNA COURT, SANDPOINT, IDAHO 83864
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CONTINUES TO DO INCREDIBLE WORK IN KEEPING TRACK AND RUNNING ALL OF OUR EDUCATIONAL EVENTS. I WANT TO GIVE A SPECIAL ACKNOWLEDGEMENT ALSO TO DR. DAISY XIN, WHO WORKED WITH KELLY AND HAS WORKED ON THE EDUCATIONAL PROGRAMS THROUGHOUT AND DOES A LIKEWISE FANTASTIC JOB.

(APPLAUSE.)

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

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

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

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

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

WORKSHOP.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DR. BLUMENTHAL: MOVE TO APPROVE.

DR. STAMOS: SECOND.

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

ANY DISCUSSION? MOTION TO APPROVE AND SECONDED.

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

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

AND ON THE PHONE. DAN BERNAL.

MR. BERNAL: AYE.

MR. TOCHER: ANNE-MARIE DULIEGE.

DR. DULIEGE: AYE.

MR. TOCHER: YSABEL DURON.

MS. DURON: YES.

MR. TOCHER: RICH LAJARA.

MR. LAJARA: YES.

MR. TOCHER: PAT LEVITT.

DR. LEVITT: YES.

MR. TOCHER: SHLOMO MELMED.

DR. MELMED: YES.

MR. TOCHER: CHRISTINE MIASKOWSKI.

DR. MIASKOWSKI: YES.

MR. TOCHER: LAUREN MILLER-ROGEN.

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MS. MILLER-ROGEN: YES.

MR. TOCHER: ADRIANA PADILLA.

DR. PADILLA: YES.

MR. TOCHER: GREAT. THANK YOU VERY MUCH. DID I MISS ANYONE ON THE PHONE? GREAT.

CHAIRMAN IMBASCIANI: THANK YOU, SCOTT. SO WE'RE GOING TO PROCEED NOW TO AGENDA ITEM NO. 11. THIS IS WHERE WE CONSIDER APPLICATIONS THAT WERE SUBMITTED IN RESPONSE TO THE DISCOVERY PROGRAM ANNOUNCEMENT, DISC2. I'M GOING TO INVITE DR. GIL SAMBRANO TO THE PODIUM TO MAKE THE INTRODUCTORY PRESENTATION AND REVIEW THE GRANTS. THANK YOU, GIL.

DR. SAMBRANO: OKAY. THANK YOU. GOOD MORNING, EVERYONE. SO TODAY I'M GOING TO PRESENT THE RECOMMENDATIONS OF THE GRANTS WORKING GROUP RELATED TO THE DISC2 OR QUEST PROGRAM.

AS ALWAYS, WE START WITH OUR MISSION. AND THIS IS KEY BECAUSE AS WE MOVE FORWARD WITH ALL OF THESE FUNDING OPPORTUNITIES, WE REMAIN FOCUSED ON THIS GOAL OF ACCELERATING WORLD-CLASS SCIENCE TO DELIVER TRANSFORMATIVE REGENERATIVE MEDICINE TREATMENTS IN AN EQUITABLE MANNER TO A DIVERSE CALIFORNIA AND WORLD.

SO TO BEGIN, I'M GOING TO GO OVER WHAT THE QUEST2 PROGRAM IS ABOUT. THE OBJECTIVE OF THIS

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

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

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

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

THIS CYCLE.

SO JUST A LITTLE BIT MORE DETAIL ON THE TWO TRACKS. FOR THE THERAPEUTIC TRACK, APPLICANTS ARE ALLOWED TO UNDERGO THESE STUDIES FOR UP TO THREE YEARS. THE EXPECTED OUTCOMES INCLUDE IDENTIFYING A SINGLE CANDIDATE THAT IS READY FOR TRANSLATION AND ESSENTIALLY READY TO QUALIFY FOR OUR TRAN1 OPPORTUNITY TO DEVELOP A TARGET PRODUCT PROFILE AND TO SHOW DEMONSTRABLE DISEASE-MODIFYING ACTIVITY WITH THEIR THERAPEUTIC CANDIDATE. AND SO THAT IS WHAT WE HAVE TYPICALLY EXPECTED OF THESE TYPES OF PROJECTS BEFORE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. TOCHER: MR. CHAIR.

CHAIRMAN IMBASCIANI: YES.

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

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

THANK YOU, MR. CHAIR.

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

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

CHAIRPERSON IMBASCIANI: THANK YOU.

DR. SOUTHARD: MARV SOUTHARD SECONDS.

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

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

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

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

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

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

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

MR. PANETTA: NO. THANK YOU.

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

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

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

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

DR. SOUTHARD: I ALSO AGREE WITH THAT.

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: THANK YOU VERY MUCH FOR YOUR COMMENT.

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

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

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

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

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

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

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

VERY MUCH FOR YOUR ATTENTION.

CHAIRMAN IMBASCIANI: THANK YOU. GO RIGHT AHEAD.

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

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

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

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

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

MS. MANDAC: THERE ARE NO HANDS RAISED.

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

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

DAN BERNAL.

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

MR. TOCHER: MARIA BONNEVILLE.

VICE CHAIR BONNEVILLE: YES.

MR. TOCHER: JUDY CHOU.

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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DR. PADILLA: YES.
MR. TOCHER: JOE PANETTA.
MR. PANETTA: YES.
MR. TOCHER: MARV SOUTHARD.
DR. SOUTHARD: YES.
MR. TOCHER: KAROL WATSON AND KEVIN XU. GREAT. THANKS VERY MUCH. THE MOTION CARRIES.
CHAIRMAN IMBASCIANI: THANK YOU, SCOTT. THANK YOU, BOARD MEMBERS. I'M GOING TO PROCEED BOARD MEMBER NO. 2. I WANT TO INVITE DR. HAYLEY LAM UP TO THE PODIUM TO BEGIN THE DISCUSSION, PRESENTATION ON ITEM NO. 10 OF THE AGENDA. THIS IS THE APPLICATION, SINGULAR, SUBMITTED IN RESPONSE TO THE CLINICAL TRIAL STAGE CLIN1 PROGRAM.
DR. LAM: GOOD MORNING TO THE BOARD. I'M HERE TO PRESENT THE APPLICATION, AS DR. IMBASCIANI POINTED OUT, UNDER CONSIDERATION TODAY FOR THE CLIN1 PROGRAM.
AS ALWAYS, WE BEGIN WITH OUR MISSION, ACCELERATING WORLD-CLASS SCIENCE TO DELIVER TRANSFORMATIVE REGENERATIVE MEDICINE TREATMENTS IN AN EQUITABLE MANNER TO A DIVERSE CALIFORNIA AND WORLD.
THE CLINICAL PROGRAM BOOKENDS THE PROGRAM THAT YOU JUST DISCUSSED WITH THE DISCOVERY IN OUR

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

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

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

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

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

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

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

PANEL.

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

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

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

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

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

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

THE CURRENT STATE OF AFFAIRS IS THAT THERE

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

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

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

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

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

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

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

DR. SOUTHARD: MARV SOUTHARD MOVES APPROVAL.

CHAIRMAN IMBASCIANI: THANK YOU, MARV.

DR. DULIEGE: SECOND.

CHAIRMAN IMBASCIANI: I'M SORRY. WHO SECONDED?

VICE CHAIR BONNEVILLE: ANNE-MARIE.

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

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

DAN BERNAL.

MR. BERNAL: AYE.

MR. TOCHER: MARIA BONNEVILLE.

VICE CHAIR BONNEVILLE: YES.

MR. TOCHER: JUDY CHOU.

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.

MR. TOCHER: MARK FISCHER-COLBRIE.

DR. FISCHER-COLBRIE: YES.
MR. TOCHER: ELENA FLOWERS.
DR. FLOWERS: YES.
MR. TOCHER: DAVID HIGGINS.
DR. HIGGINS: YES.
MR. TOCHER: VITO IMBASCIANI.
CHAIRMAN IMBASCIANI: YES.
MR. TOCHER: RICH LAJARA.
MR. LAJARA: YES.
MR. TOCHER: CHRISTINE MIASKOWSKI.
DR. MIASKOWSKI: YES.
MR. TOCHER: LAUREN MILLER-ROGEN.
MS. MILLER-ROGEN: YES.
MR. TOCHER: ADRIANA PADILLA.
DR. PADILLA: YES.
MR. TOCHER: JOE PANETTA.
MR. PANETTA: YES.
MR. TOCHER: MARVIN SOUTHARD.
DR. SOUTHARD: YES.
MR. TOCHER: KAROL WATSON. KEVIN XU.
AND THE MOTION CARRIES. THANK YOU.
CHAIRMAN IMBASCIANI: THANK YOU VERY MUCH, SCOTT. AND I THINK AT THIS TIME WE'RE GOING TO TAKE A VERY SHORT BIO BREAK, BUT YOU ARE GOING TO TELL ME WHEN WE RECONVENE.

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

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

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

(A BREAK WAS TAKEN.)

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

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

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

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

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

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

THAT NEED FOR CHANGE CREATED AN

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

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

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

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

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

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

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

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

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

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

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

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

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

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

I WOULD ALSO LIKE TO THANK YOU VERY MUCH,

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

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

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

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

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

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

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

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

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

SINCE THEN.

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

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

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

CATEGORIES THAT WE WILL SEE IN A LITTLE BIT.

WITHIN THOSE CATEGORIES WE DEFINED GOALS. SO MOST OF THE CATEGORIES HAVE TWO GOALS EACH. SO IT'S TWO GOALS, TWO GOALS, ONE GOAL, AND ONE GOAL.

THEN WE SAID WHAT ARE THE GUIDING QUESTIONS FOR THE SPECIFIC CATEGORIES AND WHAT DATA WOULD WE NEED TO COLLECT IN ORDER TO ANALYZE AND GET TO AN ANSWER FOR THE RECOMMENDATIONS? SO THAT WAS THE ITERATIVE PROCESS THAT WE'VE BEEN ONGOING WITH THE VERY HEAVY LIFT FROM OUR SCIENCE SUBCOMMITTEE LEADERS AND MEMBERS AS WELL AS THE NEURO TASK FORCE AND THE ACCESSIBILITY AND AFFORDABILITY WORKING GROUP FOR GOAL 5.

SO A VERY IMPORTANT SLIDE. J.T. WENT THROUGH. THERE'S A LOT OF PEOPLE AT CIRM THAT HAS BEEN INVOLVED, BUT I REALLY WANT TO HIGHLIGHT THAT THERE'S BEEN A LOT OF PEOPLE. AND THESE ARE THE NAMES. SO THERE'S AN EXCEPTIONAL GROUP OF PEOPLE THAT DID A LOT OF GATHERING, ANALYZING OF A LOT OF THE DATA THAT'S IN THE MEMO AND THAT WILL BE IN SOME OF THE SLIDES THAT WE'LL KIND OF GO QUICKLY THROUGH. THESE PEOPLE ARE LISTED HERE. THERE'S A DEDICATED TEAM OF PROJECT LEADS AND SCIENCE OFFICERS THAT UNDERTOOK A DEEP DIVE INTO THE DIFFERENT ASPECTS OF OUR PORTFOLIO AND LANDSCAPE ANALYSIS CAPTURED

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

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

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

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

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

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

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

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

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

ACTIONS AND FUNDING OPPORTUNITIES.

THESE GOALS ARE DESIGNED TO ACCELERATE THE DISCOVERY AND TRANSLATION OF THERAPIES, ADVANCE CRITICAL APPROVALS FOR CELL AND GENE THERAPIES, IMPROVE ACCESSIBILITY AND AFFORDABILITY, AND ENSURE A DIVERSE AND SKILLED WORKFORCE CAPABLE OF SUSTAINING ADVANCEMENTS IN REGENERATIVE MEDICINE. AND WE GO OVER THEM TODAY. SO I'M NOT GOING TO GO INTO EACH ONE OF THEM RIGHT NOW BECAUSE WE WILL DEEP DIVE INTO EACH ONE.

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

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

AND THE SECOND GOAL IS TO ACCELERATE

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

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

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

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

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

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

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FOR THE STATE'S POPULATION.

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

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

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

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

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

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DID I DO IT RIGHT? YES. I THINK SO. OH, YES, YES. I WAS LOOKING AT THE OTHER. YEAH. YEAH.

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

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

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

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

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

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

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

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

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TREATMENTS TO AIM TO MODULATE THIS RESPONSE.

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

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

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

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

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

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

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EFFORTS AND THE DEDICATED DATA SCIENCE GRANTS.

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

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

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

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

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

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

WITH COLLABORATION.

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

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

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

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

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

DISEASE HETEROGENEITY.

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

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

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

GRANULARITY ON WHAT WE ARE LOOKING AT.

DR. HIGGINS: THANK YOU.

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

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

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

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

DR. CHOU: UNDERSTOOD. SO THIS PROBABLY

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

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

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

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

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

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

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

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

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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HAS NOT REALLY BEEN FOCUSING TOO MUCH BECAUSE THEY ARE NOT THE TYPICAL PARADIGM SHIFTING, HIGH IMPACT, LOW SCOPE OF CELL AND GENE THERAPIES LIKE RARE DISEASES, BUT WE CAN ACTUALLY AT THE LEVEL OF DISCOVERY MOVE THE NEEDLE.

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

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

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

GOALS 1 AND 2 SUMMARY TABLE.

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

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

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

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THAT'S ONE QUESTION.

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

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

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

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

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

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

DR. BLUMENTHAL: THANK YOU. FIRST OF ALL,

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

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

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

DR. CANET-AVILES: WE DID THE

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

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

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

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

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

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

CLINICIANS NEED TO HELP CALIFORNIA PATIENTS WITH THIS.

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

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

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

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

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

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

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

DR. SACKEY: THANK YOU. THAT'S GREAT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

133 HENNA COURT, SANDPOINT, IDAHO 83864
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BY CONCENTRATING ON THOSE CONDITIONS, CIRM HAS CATALYZED ADVANCEMENTS IN THE TRANSLATION OF THESE FINDINGS INTO CLINICAL APPLICATIONS TO THE POINT THAT THE LARGEST PROPORTION OF PROJECTS THAT WILL BE READY TO BLA IN THE NEXT TWO TO FOUR YEARS FROM OUR PORTFOLIO CORRESPONDS TO THERAPIES TARGETING RARE AND ULTRA-RARE DISEASE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DISEASES.

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

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

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

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

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

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

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

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

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

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ACCELERATING THE PATH FROM DISCOVERY TO PATIENT ACCESS.

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

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

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

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

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

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

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

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

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

SO THE SOLUTION THAT WE PROPOSE WITH THE

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

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

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

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

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

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MARKET ENTRY AND PATIENT ACCESS.

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

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

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

MR. TOCHER: YES. YES, YOU MAY.

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

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

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

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

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

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

MR. TOCHER: IT'S REALLY THE --

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

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

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

MR. TOCHER: WHAT A LOVELY THOUGHT BEFORE LUNCH.

DR. CANET-AVILES: SO QUESTIONS.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: OKAY. WE NEED A PAUSE?

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

(A RECESS WAS TAKEN.)

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

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

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

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

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

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

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

SO THE DATA SOURCES ARE SHOWN HERE, AGAIN

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

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

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

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

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

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

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

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

ARE TRYING TO DO THAT.

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

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

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

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

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

TRADITIONAL THERAPIES.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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NATIONAL POLICIES IMPACT ACCESS TO CLINICAL TRIALS AND APPROVED PRODUCTS.

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

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

WORKING GROUP. HOPEFULLY I'M KEEPING EVERYBODY AWAKE. THAT'S THE MOST IMPORTANT THING. RIGHT?

SO THIS SLIDE FOCUSES ON THE CHALLENGES. SO THIS IS THE SECOND PART OF THE SLIDE. WE'VE SEEN THE APPROVED CELL AND GENE THERAPY ACCESS CHALLENGES. AND NOW WE ARE MAPPING THESE TO THE CIRM PROGRAMS AND INITIATIVES, MAPPING IT TO RECOMMENDATIONS WE JUST MADE, BUT ALSO OTHER ASPECTS FROM OTHER PROGRAMS.

SO IN THE LAST SLIDE WE ALIGN THE SIGNIFICANT APPROVED CELL AND GENE THERAPY CHALLENGES. AND THEN ON THE RIGHT SIDE WE DETAIL THE CIRM PROGRAMS AND INITIATIVES IN OVERCOMING THESE HURDLES. SO FOR THE LONG-TERM EFFICACY AND DURABILITY, WE COULD BE UPDATING THE CLIN2 PROGRAM TO ADAPT OUR CLIN2 PROGRAMS TO INCENTIVIZE THE DEVELOPMENT OF ACCESS STRATEGIES AND TO PROVIDE ROBUST ACCESS AND AFFORDABILITY WORKING GROUP SUPPORT. SO CONNECTING THOSE PARTS.

THE SECOND ONE HAS TO DO WITH THE HIGH COST, AND OUR PATIENT ASSISTANCE FUNDS WILL ENSURE BROADER ACCESS TO CIRM-FUNDED TREATMENTS, HELPING PATIENTS OVERCOME FINANCIAL BARRIERS.

IN TERMS OF THE SPECIALIZED CENTERS, WHICH IS REQUIRED FOR DELIVERING OF THESE SPECIALIZED

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

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

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

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

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WORKING GROUP.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SO THIS IS AN OVERVIEW OF ACADEMIC

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

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

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

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

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

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

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

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

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

THE SECOND RECOMMENDATION IS TO CREATE A

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

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

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

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MOVE IT FORWARD WITH A LOT MORE IMPETUS.

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: DEBORAH.

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

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

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

ALREADY TAKEN INTO ACCOUNT.

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

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: DON.

DR. TAYLOR: THANK YOU SO MUCH.

MS. DURON: CAN I BE HEARD?

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

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

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

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

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

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

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

BOTTLENECKS THAT ARE REALLY HOLDING THE FIELD BACK.

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

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

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

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

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

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

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

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

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

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AGAIN.

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

CHAIRMAN IMBASCIANI: ELENA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: I STAND CORRECTED.

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

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

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

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

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

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

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

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

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

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

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

DR. CREASEY: TO BE DETERMINED.

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

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

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

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

VICE CHAIR BONNEVILLE: SO MOVED.

DR. BLUMENTHAL: SECOND.

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

MS. DURON: LET'S VOTE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAIRMAN IMBASCIANI: OKAY. THANK YOU, ROSA.

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

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

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

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

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

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

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FROM, WE CAN PROCEED TO A VOTE.

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

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

DR. DULIEGE: AYE.

MR. TOCHER: YSABEL DURON.

MS. DURON: YES.

MR. TOCHER: RICH LAJARA.

MR. LAJARA: YES.

MR. TOCHER: CHRIS MIASKOWSKI.

DR. MIASKOWSKI: YES.

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

DR. PADILLA: YES.

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

DR. MELMED: YES.

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

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

(APPLAUSE.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

THE LAST KEY ORGANIZATIONAL CHANGE IS THE

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

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

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

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

PRESIDENT AS WELL.

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

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

DR. MELTZER: SO MOVED.

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

DR. CLARK-HARVEY: SECOND.

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

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

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

MR. TOCHER: ALL THOSE IN THE ROOM IN

FAVOR SAY AYE. ANY OPPOSED? ABSTENTIONS?

ON THE PHONE: DAN BERNAL. ANNE-MARIE DULIEGE.

DR. DULIEGE: AYE.

MR. TOCHER: YSABEL DURON.

MS. DURON: YES. IT MUST BE SIESTA TIME, J.T.

MR. TOCHER: RICH LAJARA.

MR. LAJARA: YES.

MR. TOCHER: PAT LEVITT.

DR. LEVITT: YES.

MR. TOCHER: SHLOMO MELMED.

DR. MELMED: YES.

MR. TOCHER: CHRIS MIASKOWSKI.

DR. MIASKOWSKI: YES.

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

GREAT. THANK YOU VERY MUCH. THE MOTION CARRIES.

DR. THOMAS: THANK YOU, MEMBERS OF THE BOARD.

CHAIRMAN IMBASCIANI: THANK YOU, MR. PRESIDENT. AND WE CAN MOVE TO AGENDA ITEM NO. 8. I WOULD LIKE TO INVITE CHIEF COUNSEL RAFAEL AGUIRRE-SACASA TO THE PODIUM TO UPDATE US ON OUR

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MANAGEMENT'S RESPONSE TO OUR RECENT PERFORMANCE AUDITS.

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

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

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

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

WITH RESPECT TO THIS ONE, THE TOPIC WAS

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

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

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

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

MONTHS.

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

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

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

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

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

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

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

COLLABORATION AMONGST OUR SHAREHOLDERS.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

AND EXPERIENCE OF OUR EXPERT REVIEW PANELS, OF COURSE.

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

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

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

CONTINUING ON WITH OUR SOFTWARE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(APPLAUSE.)

CHAIRMAN IMBASCIANI: MARK FISCHER-COLBRIE HAS A QUESTION.

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

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

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

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

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

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

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

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

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

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

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THAT CORRECT?

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

MR. FISCHER-COLBRIE: OKAY.

MR. CHAU: THANK YOU.

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

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

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

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

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

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

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

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

WE ALSO SHARED AN EXCITING UPDATE WHICH

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

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

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

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

HAVE IMPLEMENTED OUR BRANDING.

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

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

AS DR. SHEPARD HIGHLIGHTED AROUND THE SPARK CONFERENCE, WE PROVIDED A LOT OF COMMUNICATIONS SUPPORT THERE. SO IN TERMS OF THE PRE-EVENT, WE COLLABORATED WITH THE UC RIVERSIDE MEDIA TEAMS TO PUT OUT CONTENT ON THE UPCOMING EVENTS. WE COLLABORATED ON THE PROMOTION OF THE EVENT ACROSS SOCIAL AND VIA EMAIL.

FOR THE ACTUAL EVENT, WE CREATED AN INNOVATIVE SOCIAL MEDIA WALL WHICH FEATURED A SELFIE STATION, AND WE HAD THESE REALLY COOL SCIENTIST PROPS. THE KIDS LOVED THEM. YOU CAN SEE A PHOTO OF THAT DOWN BELOW. AND I'M NOT SURE WHO HAD MORE FUN, WHETHER IT WAS J.T. OR SCOTT, BUT WE HAVE PLENTY OF

PHOTOS WITH EVIDENCE OF PEOPLE HAPPILY PARTICIPATING IN THE SOCIAL MEDIA SELFIE WALL. AND SO WE ENCOURAGED EVERYONE TO TAKE PHOTOS AND TO TAG US ON SOCIAL MEDIA USING THE HASHTAG CIRMSPARKLAB. AND ALTOGETHER WE REACHED MORE THAN 4,000 ACCOUNTS ON TWITTER X AS WELL AS INSTAGRAM DURING THE EVENT.

AND PRIOR TO THE EVENT, WE ACTUALLY DEVELOPED A SOCIAL MEDIA CHALLENGE, WHICH IN THE PAST WE USED TO DO THESE. AND SO WE REALLY WANTED TO BRING SOME OF THESE INNOVATIVE WAYS TO PROMOTE PROGRAMS BACK. AND SO WE INVITED OUR SPARK INTERNS TO PARTICIPATE IN THIS CHALLENGE AND TO RECORD SORT OF A DAY IN THE LIFE TO BE REALLY CREATIVE TO GIVE PEOPLE AN IDEA OF WHAT IT'S LIKE TO BE AN INTERN IN THE LAB BECAUSE, BY HEARING THEIR STORIES AND THEIR WORDS AND PROMOTING ACROSS OUR OWN CHANNELS, IT REALLY WILL HELP TO DIVERSIFY, BE THE NEXT GENERATION OF SCIENTISTS.

AND SO THE VIDEOS WERE REALLY, REALLY WELL DONE. WE FEATURED IN OUR BLOG, AND I AM DEFINITELY HAPPY TO SHARE THAT LINK WITH YOU ALL SO THAT YOU ALL CAN WATCH IT BECAUSE THEY WERE REALLY, REALLY GREAT.

IN ADDITION, WE ALSO SUPPORTED THE CIRM TRAINEE NETWORK CONFERENCE. SO WE COLLABORATED WITH

THE USC MEDIA TEAMS ON PROMOTION AND COVERAGE. WE SUPPORTED THE EVENT BY CONNECTING THE ORGANIZERS TO PATIENT ADVOCATES WHO ACTUALLY SPOKE DURING THE EVENT. WE HAD A BOOTH WHICH WAS WONDERFUL. IT FEATURED MANY CIRM MATERIALS, BROCHURES, OUTREACH EXAMPLES. THE MEDIA WALL, AGAIN, WAS VERY, VERY POPULAR. AND WE LIVE TWEETED DURING THE EVENT, REALLY COVERING ALL SPEECHES AND ASPECTS OF IT. IT WAS GREAT. WE REACHED MORE THAN 17,000 ACCOUNTS DURING THAT TIME.

AND FOR ME THE BEST PART, AS THE TRAINEES WERE PITCHING, NOT PITCHING THEIR RESEARCH, BUT BASICALLY EXPLAINING THEIR RESEARCH, I HAD AN OPPORTUNITY TO INTERVIEW A NUMBER OF THEM. AND IT WAS GREAT NOT ONLY HEARING THEIR STORIES, BUT HEARING ABOUT THEIR RESEARCH AND HOW THEIR FACES REALLY LIT UP ABOUT THAT.

AND SO I'M PLEASED TO SHARE A VIDEO COMPILATION OF THE EVENT THAT WE PRODUCED IN-HOUSE.

(VIDEO WAS THEN PLAYED, BUT NOT REPORTED NOR HEREIN TRANSCRIBED.)

MS. TEMPLE-PERRY: THANK YOU. IT WAS A GREAT VIDEO SHARED ACROSS A LOT OF OUR CHANNELS, AND USC SHARED IT. THERE ARE A LOT OF INSTITUTIONS THAT SHARED IT. AND SO THIS GOES TO HIGHLIGHT THE

INCREDIBLE EVENT. THIS WAS NOT -- THESE WERE NOT ALL OF THE INTERVIEWS THAT WE CONDUCTED. WE HAVE A LOT OF VIDEO THAT WE ARE GOING TO UTILIZE AS B-ROLL AND WILL CONTINUE TO PUSH OUT ON OUR CHANNELS BECAUSE THE STORIES AND THE RESEARCH THAT A LOT OF THESE TRAINEES CONDUCTED IS REALLY IMPACTFUL. WE SO PLAN ON SHARING THAT.

SIMILAR TO SPARK, WE ALSO PROMOTED THE EVENT BY DEVELOPING A SOCIAL MEDIA CONTEST. AND SO WE REQUESTED THAT THE TRAINEES SUBMIT ELEVATOR PITCHES TO SHARE THEIR RESEARCH, AND THEY SUBMITTED VIDEOS OF THEIR ELEVATOR PITCH. THE CONTENT THAT THEY SUBMITTED WAS REALLY, REALLY EXCELLENT. AND THIS WAS REALLY IMPORTANT BECAUSE THE CHALLENGE REALLY WAS TO GET TRAINEES, TO ENCOURAGE THEM TO PRACTICE THEIR SCIENCE COMMUNICATION SKILLS, AS WELL AS THEIR PUBLIC SPEAKING SKILLS BECAUSE THE SCIENCE IS IMPORTANT, BUT COMMUNICATING IT TO DIVERSE COMMUNITIES IS EVEN MORE IMPORTANT.

AND THEN FOLLOWING THE EVENT, WE HAD AMPLE COVERAGE. THIS WAS ACROSS BLOG HIGHLIGHTS, SOCIAL MEDIA MENTIONS, AS WELL AS EARNED MEDIA.

AND THEN LASTLY, WE TOUCHED ON A NUMBER OF EVENTS THAT WE WENT TO OVER THE COURSE OF THE LAST COUPLE OF MONTHS. WE SHOWCASED NUMEROUS ONES. WE

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BRIEFLY TOUCHED ON THIS, BUT I THOUGHT THIS WOULD BE NICE TO KIND OF PROVIDE A NICE SUMMARY BECAUSE WE DID MENTION THAT WE WENT TO THE KITS CUBED FAIR. AND THIS IS AN EXCELLENT EVENT THAT DR. SHYAM PATEL INTRODUCED TO OUR TEAM. WE WERE SO HAPPY TO BE THERE.

IT WAS THE FOURTH ANNUAL EVENT THAT TOOK PLACE AT OAKLAND TECHNICAL HIGH SCHOOL. IT WAS PUT ON BY AN ALUM THERE WHO COMES BACK AND IS REALLY FOCUSED ON GIVING BACK TO HIS COMMUNITY. SO THERE WERE ABOUT 1600 ELEMENTARY SCHOOL AGE STUDENTS THERE ALONG WITH THEIR FAMILIES. MANY PEOPLE OF COLOR, FAMILIES OF COLOR, AND SO IT WAS REALLY GREAT FOR US TO BE THERE. WE HAD A BOOTH TO CONNECT WITH FOLKS ON THE GROUND. WE HAD COLORING PAGES AND CROSSWORD PUZZLES, REALLY TO MAKE SURE THAT THE SCIENCE WAS ACCESSIBLE.

THERE WERE FOUR OF US AND WE WERE BUSY MAKING DNA BRACELETS FOR HOURS. OUR BACKS WERE -- IT WAS PAINFUL AFTER A NUMBER OF HOURS. I TOOK MY DAUGHTER WITH US, AND SHE HELPED TO GIVE OUT COLORING PAGES. AND SO WE REALLY DID HAVE AN AMAZING TIME. THERE WERE A NUMBER OF FOLKS FROM THE CIRM STAFF WHO CAME OUT AND BROUGHT THEIR FAMILIES. SO IT WAS GREAT TO SEE THEM THERE FOR THEIR SUPPORT.

AND I'D ALSO LIKE TO GIVE A BIG THANK YOU TO DAISY FROM THE EDUCATION TEAM. SHE PROVIDED A LOT OF GREAT TALKING POINTS ON THE ACTIVITIES. SHE MADE THE CONCEPTS REALLY ACCESSIBLE. AND SO IT WAS JUST OVERALL A REALLY GREAT EVENT.

AS I MENTIONED, THAT WAS JUST A VERY QUICK HIGHLIGHT OF ONE OF THE EVENTS THAT WE RECENTLY ATTENDED ACTUALLY TWO WEEKS AGO. THERE WERE NUMEROUS OTHER EVENTS THAT WE HIGHLIGHTED, BUT I WANTED TO SHARE WITH YOU THAT WE HAVE SOME MORE EVENTS THAT WE ARE ATTENDING. AND THAT INCLUDES ALZHEIMER'S ASSOCIATION WALK IN FRESNO/MADERA COMING UP IN OCTOBER. WE WILL BE AT THE VISION WALK IN L.A. WE HAVE A NUMBER OF ROTARY CLUB PRESENTATIONS IN THE BAY AREA COMING UP, CAMPBELL, SAN FRANCISCO, AND FREMONT.

AND THAT WAS JUST A VERY BRIEF SUMMARY. THERE WERE MANY OTHER INITIATIVES AND PROGRAMS THAT WE HIGHLIGHTED DURING OUR SUBCOMMITTEE; BUT IN THE INTEREST OF TIME TODAY, I WANTED TO PROVIDE THIS UPDATE TO YOU ALL. THANK YOU. I LOOK FORWARD TO PROVIDING MORE INFORMATION ABOUT OUR INITIATIVES AND PROGRAMS IN A MUCH MORE ROBUST WAY. AND I'M HAPPY TO TAKE ANY QUESTIONS.

CHAIRMAN IMBASCIANI: ANY QUESTIONS AMONG

THE BOARD MEMBERS FOR KOREN? IF NOT, KOREN, THANK YOU SO MUCH FOR YOUR PRESENTATION. DID I MISS ANYONE? NO. THANK YOU.

SO I'M GOING TO ASK IF THERE ARE ANY MEMBERS OF THE PUBLIC WHO HAVE ANY GENERAL COMMENTS ON THE APPLICATION REVIEW -- PUBLIC COMMENT ON ANY ITEM THAT HAS NOT BEEN DISCUSSED ON TODAY'S AGENDA. THERE'S NOTHING COMING IN. OKAY.

IN THAT CASE, I WANT, BEFORE WE ADJOURN, I WANT TO THANK THE BOARD MEMBERS FOR THEIR ATTENDANCE COMING DOWN HERE TO SAN DIEGO AND FOR PARTICIPATING TO MAKE THIS AN ABSOLUTELY VERY PRODUCTIVE, REWARDING MEETING, ONE THAT WE'RE GOING TO LOOK BACK TO AND REFERENCE MANY, MANY TIMES IN THE FUTURE. AND I WANT TO THANK ALL THE PEOPLE THAT MADE PRESENTATIONS TODAY. AND THANK OUR WONDERFUL BOARD SUPPORT FOR MAKING THIS HAPPEN, CLAUDETTE AND LANA AND, OF COURSE, SCOTT TOCHER. THANK YOU.

SO THIS MEETING IS NOW ADJOURNED. WE'RE GOING TO RECONVENE FOR OUR NEXT BOARD MEETING ON THURSDAY DECEMBER 12, 2024. THANK YOU ALL.

(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.

BETH C. DRAIN, CA CSR 7152
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