BEFORE THE
CITIZENS FINANCIAL ACCOUNTABILITY
OVERSIGHT COMMITTEE

ORGANIZED PURSUANT TO THE

CALIFORNIA STEM CELL RESEARCH AND CURES ACT

REGULAR MEETING

DATE: THURSDAY, OCTOBER 27, 2016

TIME: 9 A.M.

LOCATION: SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS BOARD ROOM
818 WEST 7TH STREET
12TH FLOOR
LOS ANGELES, CA 90017

BRS FILE NO.: 99051

I N D E X

LOS ANGELES, CALIFORNIA; THURSDAY, OCTOBER 27, 2016

9 A.M.

CHAIRPERSON YEE: I THINK WE'LL GO AHEAD AND GET STARTED. WE ARE AWAITING DR. LIPSON'S ARRIVAL, BUT WE CAN BEGIN. LET ME BEGIN BY FIRST SAYING GOOD MORNING. MY NAME IS STATE CONTROLLER BETTY YEE, AND HAPPY TO SERVE AS CHAIR OF THE OVERSIGHT COMMITTEE.

LET ME HAVE DEPUTY CONTROLLER ALLAN LAFASO PLEASE CALL THE ROLL.

MR. LAFASO: THANK YOU, MADAM CONTROLLER. DR. GURBINDER SEDANA.

DR. SADANA: PRESENT.

MR. LAFASO: DR. MICHAEL QUICK.

DR. QUICK: PRESENT.

MR. LAFASO: DR. LOREN LIPSON. NOT HERE YET. DR. TED LOVE. NOT HERE. MR. JIM LOTT. NOT HERE. AND CONTROLLER BETTY YEE.

CHAIRPERSON YEE: HERE.

OKAY. WE WILL CONVENE AS A SUBCOMMITTEE. ABSENT A QUORUM, WE WILL NOT BE TAKING ANY ACTION, BUT WHY DON'T WE BEGIN.

THANK YOU FOR CONVENING THIS MORNING. WANT TO WELCOME DR. QUICK AND DR. SEDANA. AND JUST

BY WAY OF BACKGROUND, PROP 71 TASKED THE STATE CONTROLLER TO CONVENE THIS OVERSIGHT COMMITTEE, CONSISTING OF APPOINTEES FROM THE LEGISLATIVE LEADERSHIP AND OTHER STATE ENTITIES, TO MEET AT LEAST ONCE A YEAR TO EXAMINE FINANCES OF OUR STATE'S INNOVATIVE TAXPAYER-FUNDED STEM CELL AGENCY, THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE, OTHERWISE KNOWN AS CIRM.

OVER THE LAST TEN YEARS THE COMMITTEE HAS WITNESSED SOME OF THE MAJOR ISSUES TO COME BEFORE CIRM, INCLUDING ESTABLISHING THE AGENCY, ITS IMPACT ON DEVELOPING STEM CELL RESEARCH AROUND THE WORLD, AND EVOLUTION OF THE ORGANIZATION ITSELF.

LAST YEAR CIRM WAS EMBARKING ON ITS REBOOT KNOWN AS CIRM 2.0. THIS COMMITTEE HEARD OF MANY OF THE MAJOR CHANGES TAKING HOLD AT THE AGENCY. SINCE THEN CIRM'S NEW STRATEGIC PLAN HAS BEEN ADOPTED AND IS TRANSLATING CIRM'S CONTINUED IMPACT ON STEM RESEARCH IN CALIFORNIA, AN INCREASINGLY PROMISING AREA OF MEDICAL RESEARCH.

CIRM IS NOW FUNDING 22 NEW THERAPIES AND CLINICAL TRIALS WITH AN ADDITIONAL 45 OR SO THERAPIES IN THE RESEARCH PIPELINE. TWELVE YEARS INTO THE LIFE OF PROP 71, WE ARE SEEING A RETURN ON THE TAXPAYER'S INVESTMENT. IT IS IMPORTANT THAT THE

PUBLIC KNOWS WHAT IT IS RECEIVING FROM ITS INVESTMENT, AND EQUALLY IMPORTANT THE PUBLIC NEEDS TO KNOW WHAT STRATEGIES HAVE WORKED, THE EXTENT OF WHAT IT HAS GAINED OVER THE LIFE OF PROP 71, FOR EXAMPLE, THE MEASURE OF WORKFORCE DEVELOPMENT OR OTHER INFRASTRUCTURE, AND ITS OPTIONS FOR STEM CELL INNOVATION INTO THE FUTURE.

TODAY I EXPECT THAT THE COMMITTEE WILL LEARN MORE ABOUT THE CURRENT STATE OF CIRM'S ACTIVITIES, IMPLEMENTING ITS NEW STRATEGIC PLAN, FOCUSING ON FUNDING PROGRAMS, AND INITIATIVES.

I HOPE WE WILL LEARN MORE ABOUT HOW CIRM IS IMPACTING THE STEM CELL RESEARCH ENVIRONMENT MORE BROADLY, ITS PARTNERSHIPS, THE EVOLVING ROLE OF PATIENTS AND THE REGULATORY PROCESS. AS MORE TREATMENTS GET CLOSER TO MARKET AND AVAILABILITY TO GREATER NUMBERS OF PATIENTS, THESE ISSUES ARE INCREASINGLY IMPORTANT FACTORS FOR EVALUATING CIRM'S IMPACT ON THE CURRENT STATE OF STEM CELL RESEARCH. AND LET ME JUST ADD THAT THIS HAS JUST BEEN REALLY AN EXCITING PART OF MY ROLE AS STATE CONTROLLER TO SEE THIS TREMENDOUS AREA OF INNOVATION THAT WILL HAVE JUST VERY PROFOUND IMPACTS.

AND I, AGAIN, WANT TO WELCOME DR. QUICK AND DR. SEDANA.

BEFORE WE GET STARTED INTO THE AGENDA WOULD WELCOME ANY OPENING COMMENTS BY EITHER MEMBER.

DR. SADANA: JUST THANKING YOU FOR CHAIRING THIS FOR OUR STATE AND SHOWING US LEADERSHIP IN MAKING THIS HAPPEN.

CHAIRPERSON YEE: THANK YOU.

DR. QUICK: YES. THANK YOU SO MUCH FOR YOUR LEADERSHIP ON THIS. PROP 71 HAS BEEN TRANSFORMATIVE FOR THE STATE OF CALIFORNIA, AND IT'S AN HONOR TO BE A MEMBER OF THIS COMMITTEE. THANK YOU.

CHAIRPERSON YEE: THANK YOU. THANK YOU, DR. QUICK.

ALL RIGHT. WHY DON'T WE MOVE, THEN, TO ITEM NO. 5. WE WILL PASS ON ITEM NO. 4, THE MINUTES OF THE OCTOBER 1ST, 2015, MEETING. IF WE COULD HAVE THE PRESENTATION OF THE 2014-15 INDEPENDENT FINANCIAL AUDIT BY MACIAS, GINI & O'CONNELL. AND I BELIEVE CRAIG CONNER IS HERE. GOOD MORNING.

MR. CONNER: GOOD MORNING, MEMBERS OF THE COMMITTEE. MY NAME IS CRAIG CONNER. I'M A SENIOR MANAGER AT MGO, AND I WAS ACTUALLY THE MANAGER ON THE CIRM ENGAGEMENT FOR THE FINANCIAL STATEMENTS THAT WE'RE GOING TO DISCUSS THIS MORNING.

BEFORE I GET INTO MY PRESENTATION, I JUST

WANT TO TAKE A MOMENT TO THANK THE COMMITTEE FOR THE OPPORTUNITY TO LET US PRESENT THE RESULTS OF OUR WORK, AND I ALSO WANT TO THANK THE STAFF AND MANAGEMENT AT CIRM FOR ALL THE ASSISTANCE IN HELPING US WITH OUR AUDIT.

SO WE WERE ENGAGED TO PERFORM AN AUDIT OF CIRM'S FINANCIAL STATEMENTS OF THEIR GOVERNMENTAL ACTIVITIES AND THE MAJOR FUND ALSO KNOWN AS THE STEM CELL FUND FOR THE FISCAL YEAR ENDED JUNE 30, 2015. THE PURPOSE OF OUR AUDIT IS TO EXPRESS AN OPINION ON THOSE FINANCIAL STATEMENTS FOR THE YEAR THEN ENDED.

AND AS A PART OF OUR AUDIT, WE ISSUED ACTUALLY THREE REPORTS, TWO OF WHICH ARE CONTAINED IN THE FINANCIAL STATEMENTS, AND THEN THE SECOND ONE IS AN INDEPENDENT REPORT WE ISSUE TO THE INDEPENDENT CITIZENS OVERSIGHT COMMITTEE OR ICOC, AND THAT CONTAINS WHAT'S CALLED OUR REQUIRED COMMUNICATIONS. JUST AT THE END OF OUR AUDIT, WE'RE REQUIRED TO COMMUNICATE CERTAIN MATTERS TO THOSE CHARGED WITH GOVERNANCE. I WON'T TOUCH TOO MUCH ON THAT REPORT THIS MORNING AS THERE WAS NOTHING REALLY THAT WAS UNORDINARY OR REALLY NOT OF CONCERN. EVERYTHING WAS PRETTY STANDARD.

OKAY. SO GET TO THE RESULTS OF OUR FINANCIAL STATEMENT AUDIT IDENTIFIED ON PAGE 3 OF

OUR INDEPENDENT AUDITOR'S REPORT. WE ISSUED OUR OPINION ON CIRM'S FINANCIAL STATEMENTS ON OCTOBER 15, 2015. AND WE ARE PLEASED TO REPORT THAT WE OBTAINED SUFFICIENT AND APPROPRIATE AUDIT EVIDENCE WHICH ALLOWS US TO RENDER WHAT'S CALLED AN UNMODIFIED OPINION. AN UNMODIFIED OPINION IS THE HIGHEST LEVEL OF ASSURANCE THAT AN INDEPENDENT AUDITOR CAN GIVE AN ORGANIZATION REGARDING THEIR FINANCIAL STATEMENTS.

AND THEN THE LAST REPORT IS ON PAGES 24 AND 25 OF THE FINANCIAL STATEMENTS. AND THIS IS WHAT WE CALL THE YELLOW BOOK REPORT. THIS REPORT IS FOR WHEN WE PERFORM AN AUDIT IN ACCORDANCE WITH THE GOVERNMENT AUDITING STANDARDS. WE ARE REQUIRED TO REVIEW THE INTERNAL CONTROLS. WE EXPRESS AN OPINION ON INTERNAL CONTROLS. HOWEVER, IF DURING OUR AUDIT WE BECOME AWARE OF A DEFICIENCY IN INTERNAL CONTROLS THAT RISES TO THE LEVEL THAT WE CALL A SIGNIFICANT DEFICIENCY OR MATERIAL, WE'D BE REQUIRED TO REPORT THOSE TO THOSE CHARGED WITH GOVERNANCE. AND WE'RE HAPPY TO REPORT THAT NO SUCH DEFICIENCIES WERE REPORTED FOR THE YEAR ENDED JUNE 30, 2015.

AND AS ALSO A PART OF THAT REPORT WE NOTED NO NONCOMPLIANCE OF LAWS OR REGULATIONS, CONTRACTS, OR GRANTS THAT WOULD CAUSE A MATERIAL MISSTATEMENT

OF THE FINANCIAL STATEMENTS.

AND WITH THAT SAID, I'LL OPEN IT UP TO ANY QUESTIONS FOR US.

CHAIRPERSON YEE: QUESTIONS, MEMBERS? OKAY. HEARING NONE, I BELIEVE WE WILL TAKE THAT INTO CONSIDERATION. THANK YOU SO MUCH.

MR. CONNER: ALL RIGHT. THANK YOU.

CHAIRPERSON YEE: GOOD. NEXT WE WILL HAVE A PRESENTATION BY OUR STATE CONTROLLER AUDIT. JAMES SPANO. KIND OF THE ROLE OF THE CONTROLLER'S OFFICE IS TO CONDUCT A QUALITY REVIEW OF THE MGO AUDIT THAT WE JUST HEARD.

MR. SPANO: GOOD MORNING, COMMITTEE MEMBERS. THANK YOU FOR ALLOWING THE STATE CONTROLLER TO PRESENT OUR REVIEW RESULTS. MY NAME IS JIM SPANO. I'M AN AUDIT BUREAU CHIEF FOR THE STATE CONTROLLER'S OFFICE, DIVISION OF AUDITS. UNDER THE AUTHORITY OF HEALTH AND SAFETY CODE SECTION 125290.3, THE STATE CONTROLLER'S OFFICE CONDUCTED A QUALITY CONTROL REVIEW OF MACIAS, GINI & O'CONNELL'S WORKPAPERS RELATED TO ITS AUDIT OF CIRM FOR THE FISCAL YEAR ENDED JUNE 30, 2015.

WE DETERMINED THAT THE AUDIT WAS PERFORMED IN ACCORDANCE WITH APPLICABLE AUDITING STANDARDS AND CALIFORNIA BUSINESS AND PROFESSIONS CODE. AS SUCH,

WE ISSUED A REPORT ON JANUARY 26, 2016.

I'M AVAILABLE FOR ANY QUESTIONS.

CHAIRPERSON YEE: MEMBERS, QUESTIONS? THANK YOU, JIM.

MR. SPANO: THANK YOU.

CHAIRPERSON YEE: WHY DON'T WE MOVE ON, THEN, TO ITEM NO. 6. THIS IS RELATED TO CIRM'S STRATEGIC AND OPERATIONAL REVIEW. AND LET ME WELCOME RANDY MILLS. GOOD MORNING, DR. MILLS.

DR. MILLS: THANK YOU VERY MUCH FOR HAVING ME TODAY. IT'S MY PLEASURE TO COME OUT AND SPEAK WITH THE COMMITTEE. I BROUGHT BACKUP. THAT IS MY SON, CHASE MILLS. ANY HARD QUESTIONS, I WILL REFER TO HIM.

CHAIRPERSON YEE: WELCOME, CHASE.

DR. MILLS: I'M VERY EXCITED TO BE HERE TODAY AND TALK TO YOU ABOUT WHAT I THINK IS THE TREMENDOUS WORK THAT'S BEING DONE BY THE TEAM AT CIRM. IN FACT, IN PREPARING FOR TODAY, I THINK IT SIGNIFICANTLY INCREASED MY EXCITEMENT AND ENTHUSIASM ABOUT THE AGENCY AS WELL AS THE REST OF THE LEADERSHIP TEAM. AND I'M VERY PLEASED TO BE ABLE TO REPORT TO YOU TODAY, NOT JUST ASPIRATIONALLY WHAT WE MIGHT BE DOING, BUT ACTUALLY TANGIBLE, REAL RESULTS AND PROGRESS THAT THE AGENCY IS MAKING. SO LET'S

GET INTO IT.

SO WE'LL TRY IT THIS WAY. SO THE FIRST THING I DO ANY TIME I GIVE A PRESENTATION LITERALLY ANYWHERE, INCLUDING TO OUR BOARD OR ANYWHERE ELSE, IS START BY REVIEWING OUR MISSION. WE HAVE A SIMPLE MISSION, TEN WORDS: ACCELERATE STEM CELL TREATMENTS TO PATIENTS WITH UNMET MEDICAL NEEDS. THIS IS OUR MOVABLE ORIENTING POINT. THIS IS OUR TRUE NORTH. WE NEVER DEVIATE FROM THIS AT CIRM. AND THAT ENDS UP BEING VERY HELPFUL IN CREATING ALIGNMENT FROM OUR BOARD THROUGH OUR LEADERSHIP TEAM THROUGH THE REMAINDER OF THE TEAM AT CIRM AND OUR STAKEHOLDERS THAT WE WORK WITH.

TO GIVE YOU A LITTLE BIT OF AN IDEA OF WHAT CIRM DOES, WE ACTUALLY HAVE A PRETTY BROAD PORTFOLIO. WE HAVE FIVE MAJOR ACTIVITIES THAT WE GET INVOLVED IN. THE LAST IS INFRASTRUCTURE. WE LITERALLY BUILD THINGS. WE HAVE 12 MAJOR RESEARCH FACILITIES, WE HAVE THREE WHAT WE CALL ALPHA CLINICS WHERE WE ACTUALLY TREAT PEOPLE WITH STEM CELL THERAPIES THAT ARE UNDERGOING CLINICAL TRIALS, WE HAVE AN IPS OR STEM CELL BANK THAT WE HAVE, WE HAVE A GENOMICS CENTER. WE JUST OPENED UP TWO VERY INTERESTING PIECES CALLED THE ACCELERATING AND THE TRANSLATING CENTER. SO THAT'S OUR INFRASTRUCTURE

PROGRAMS.

ON THE OTHER SIDE IS EDUCATION. AND THE EDUCATIONAL SIDE, WE ACTUALLY TRAIN EVERYTHING FROM HIGH SCHOOL STUDENTS THROUGH POSTDOCTORATE STUDENTS IN TECHNIQUES, HOW TO WORK WITH STEM CELLS, HOW TO USE THEM SO THEY CAN GO OUT AND ENTER THE WORKFORCE IN A PRODUCTIVE MANNER. AND THEN IN BETWEEN WE HAVE REALLY WHAT'S THE CORE OF CIRM, WHICH IS OUR DISCOVERY, TRANSLATIONAL, AND CLINICAL PROGRAMS. SO THIS IS WHERE WE TAKE GREAT IDEAS FOR STEM CELL TREATMENTS AND WE MOVE THEM ALONG FROM THE EARLIEST STAGES OF THE DEVELOPMENT ALL THE WAY THROUGH WHAT WE CALL REGISTRATION OF CLINICAL TRIALS.

SO WHAT WE REALLY WANT TO DO IS FIND A WAY TO MAKE THIS WORK IN THE MOST EFFECTIVE MANNER POSSIBLE. AND SO LAST YEAR WE EMBARKED ON CREATING A NEW STRATEGIC PLAN. I'M AT THAT TIME RELATIVELY NEW TO THE AGENCY. I'VE BEEN HERE JUST A LITTLE OVER TWO YEARS NOW. AFTER ABOUT A YEAR OF BEING WITH THE AGENCY, I THOUGHT IT WOULD BE A GOOD THING TO DO. NOW, STRATEGIC PLANS CAN BE BORING. THEY CAN BE TEDIOUS. THEY CAN INVOLVE LOTS OF OUTSIDE CONSULTANTS AND GANTT CHARTS AND ALL KIND OF THINGS LIKE THAT. I'VE DONE IT A NUMBER OF TIMES, AND I FIND IT'S BEST IF YOU JUST KEEP IT SIMPLE.

THERE'S REALLY THREE QUESTIONS THAT WE'RE TRYING TO ASK. ONE IS WHERE ARE WE NOW. AND THIS IS USUALLY THE HARDEST ONE TO ANSWER BECAUSE IT REQUIRES YOU TO BE BRUTALLY HONEST. WHERE REALLY ARE WE NOW?

THE SECOND THING IS WHERE DO YOU WANT TO GO. AND THEN, LASTLY, HOW YOU GOING TO GET THERE? HOW ARE YOU GOING TO CONNECT THOSE TWO DOTS? AND IF YOU'RE SUCCESSFUL WITH THIS, YOU'LL CREATE SOMETHING THAT WILL HAVE A LOT OF VALUE. AND THAT VALUE IS, ONE, SITUATIONAL AWARENESS. SO EVERYONE WILL IN A TRANSPARENT MANNER BE ABLE TO SEE WHAT THE AGENCY AND THE ORGANIZATION IS DOING. WE'LL HAVE VERY MEASURABLE GOALS. SO WE'RE GOING TO KNOW WHERE WE'RE GOING TO GO, AND WE'RE GOING TO KNOW IF WE'RE GOING TO GET THERE OR NOT, AND WE'RE GOING TO HAVE ORGANIZATIONAL CLARITY. EVERYONE IS GOING TO KNOW THEIR ROLES IN HOW WE GOT THERE.

AND SO THAT WAS THE PURPOSE OF THE STRATEGIC PLANNING PROCESS; AND I THINK, I HOPE AS YOU WILL SEE, IT'S BEEN QUITE SUCCESSFUL FORM.

SO STARTING WITH UNDERSTANDING WHERE WE ARE, WE WENT OUT, WE CALL IT THE CIRM ROADSHOW, WE WENT OUT AND WE TALKED TO JUST ABOUT EVERYONE WE COULD GET AHOLD OF, ALL OF OUR MAJOR RESEARCH

FACILITIES, WE LITERALLY WENT AND DID PRESENTATIONS. WE WOULD TALK TO THEM, AND THEN WE COULD SIT AND LISTEN, AND LISTENED A LOT. WE MET WITH INDUSTRY, WE MET WITH PATIENTS, WE MET WITH PATIENT ADVOCACY GROUPS. AND THIS IS SOMETHING, BY THE WAY, THAT WE'VE ACTUALLY JUST CONTINUED. SO THE CIRM ROADSHOW CONCEPT, EVEN THOUGH WE LAUNCHED THE STRATEGIC PLAN, WE'VE ACTUALLY NOW GONE AND LAUNCHED ANOTHER CIRM ROADSHOW BECAUSE YOU JUST CAN'T LISTEN TO THE PEOPLE YOU'RE WORKING WITH ENOUGH.

AND SO OUT OF THIS LISTENING PROCESS, WE LEARNED SOME STUFF. ONE IS THAT CIRM EXISTED, THIS IS IN SORT OF THE 2014 WORLD, AS AN INITIATIVE-BASED AGENCY VERSUS THE SYSTEMS-BASED AGENCY. THIS IS THE PROBABLY THE SINGLE BIGGEST CHANGE THAT WE'VE MADE. BUT WHAT I MEAN BY AN INITIATIVE-BASED AGENCY, I MEAN EVERYTHING WE DID WAS KIND OF A ONE-OFF. THERE WASN'T A PROCESS, THERE WASN'T A PREDICTABLE, REPEATABLE PROCESS TO WHAT WE DID. AND THAT IS NOT A CRITICISM. THAT'S ACTUALLY FOR WHEN CIRM WAS STARTED, THAT WAS HOW IT NEEDED TO BE BECAUSE THERE WASN'T ENOUGH SUSTAINABLE DEMAND FOR OUR PROGRAMS. AND SO INSTEAD, WHAT THEY DO IS THEY WAIT. IF THEY WANTED TO DO A BASIC BIOLOGY AWARD, THEY WAIT UNTIL THERE WAS SUFFICIENT NUMBERS OF PEOPLE THAT COULD

APPLY FOR THAT; AND THEN WHEN THEY FINALLY HAD ENOUGH DEMAND, THEY WOULD MAKE THAT AWARD. THE WORLD'S CHANGED THOUGH, AND THE WORLD'S CHANGED SO THERE'S SUFFICIENT DEMAND FOR ALL THESE THINGS TO BE RUNNING CONTINUOUSLY, SO WE'RE ABLE TO MAKE THAT CHANGE.

FORTUNATELY, MOST OF THE PRIORITIES AMONG STAKEHOLDERS WERE ALIGNED, AND THAT ALIGNMENT WAS COMPLETE WITH THE BOARD. A HUNDRED PERCENT UNANIMOUS CENTERING AROUND OUR MISSION AND WHAT IT IS WE SHOULD AND SHOULDN'T BE DOING.

THE ONE THING THAT JUMPED OFF THE PAGE WAS THE OPPORTUNITY THAT EXISTS FOR TRANSLATIONAL RESEARCH. AND TRANSLATIONAL RESEARCH IS AFTER YOU'VE COME UP WITH AN IDEA AND YOU'VE DONE ENOUGH WORK TILL YOU'VE IDENTIFIED A SINGLE STEM CELL, LET'S SAY, THAT YOU WANT TO TAKE. FROM THAT TIME TO THE TIME IT TAKES TO GET INTO CLINICAL TRIALS, FOR STEM CELLS THAT'S EIGHT YEARS. FOR ANYTHING THAT'S NOT A STEM CELL, THAT SAME JOURNEY TAKES 3.2 YEARS. SO THERE WAS A REAL OPPORTUNITY FOR US TO ACCELERATE THAT.

INDUSTRY, STILL NOT SO FAVORABLE ON THE STEM CELLS, AND I'LL SHOW MORE ABOUT THAT IN A SECOND. AND THEN THE REGULATORY ENVIRONMENT IS JUST

NOT DRIVING THE RESULTS THAT WE WANT TO SEE.

SECOND THING ABOUT WHERE WE ARE WAS REALLY GETTING CLARITY AROUND OUR FINANCIAL SITUATION. I KNOW WE HAVE FINANCIAL AUDITS, AND CHILA IS GOING TO TALK ABOUT THE BUDGET; BUT ON A BIG PICTURE, LET'S STAND BACK AND LET'S LOOK AT THIS IN AS SIMPLE AND CLEAR A TERMS AS WE POSSIBLY CAN. AND THIS IS HOW I DO IT, SO I'LL SHOW IT TO YOU BECAUSE IT HELPS ME IN MY MIND.

BUT BASICALLY WE HAVE, I CALL THIS MEET THE BUCKETS. WE HAVE TWO BUCKETS. WE HAVE AWARD BUCKETS, WHICH IS THE MONEY THAT WE USE TO DISBURSE TO MAKE AWARDS. AND WE HAVE OUR ADMINISTRATIVE BUCKET, JUST A LITTLE BUCKET. THAT'S THE MONEY WE USE TO RUN AND OPERATE CIRM. WHEN EITHER ONE OF THOSE BUCKETS GOES TO ZERO, CIRM IS OVER. THE ADMINISTRATIVE BUCKET IS ABOUT 180 MILLION. THAT'S REALLY A ONE-WAY STREET. THAT MONEY LEAVES AND IT JUST, UNLESS SOMETHING MIRACULOUS HAPPENS, IT DOESN'T COME BACK. BUT THE AWARD BUCKET ISN'T THAT WAY. AND THIS HAS BEEN A SOURCE OF A LOT OF CONFUSION AT CIRM. SO WHEN I GOT TO CIRM, IT WAS ALMOST LIKE IT WAS A TAGLINE FOR THE AGENCY. CIRM, THE AGENCY THAT'S GOING TO RUN OUT OF MONEY IN 2016 OR 17. AND IT'S BECAUSE WE DIDN'T FULLY UNDERSTAND

THAT THIS BUCKET IS ACTUALLY A TWO-WAY STREET.

WHEN WE MAKE AWARDS, THIS IS LAST YEAR, FOR EXAMPLE, WE MADE $155 MILLION IN NEW AWARDS LAST YEAR. AND THAT'S GOOD. BUT WE REALLY ARE A MILESTONE-BASED AGENCY. I'LL BE TALKING A LOT MORE ABOUT THAT. AND WHAT THAT MEANS IS IF A PROJECT FAILS OR SOMETHING HAPPENS, IT GOES AWRY, IT JUST DOESN'T WORK, WHATEVER MONEY HASN'T BEEN SPENT COMES BACK INTO THE UNCOMMITTED BUCKET. SO WE MOVE COMMITTED BETWEEN UNCOMMITTED. SO RIGHT NOW WE HAVE ABOUT -- JUST ABOUT $650 MILLION THAT'S UNCOMMITTED. BUT BECAUSE OF THAT RETURN RATE, WE'LL ACTUALLY BE ABLE TO MAKE ABOUT 800 MILLION IN NEW AWARDS BECAUSE THERE WILL BE RECYCLING.

SO WHEN WE LOOK AT THAT, $800 MILLION MAKES CIRM VERY, VERY RELEVANT AND HAS AN ENORMOUS POTENTIAL FOR IMPACT. WE MIGHT BE IN THE SECOND HALF OF OUR LIFE, BUT WE'RE NOT IN A TWO-MINUTE DRILL. WE HAVE THE ABILITY TO STILL HAVE A TREMENDOUS IMPACT AND WILL HAVE A TREMENDOUS IMPACT IN THE FIELD OF STEM CELL THERAPY AND REGENERATIVE MEDICINE.

AND SO WE TOOK ALL THAT, AND I'M A PILOT SO I LIKE TO USE AIRPLANE ANALOGIES, WE CREATED THIS ANALOGY. WHAT WE'RE REALLY TRYING TO DO IS CREATE A

SYSTEM NOW, A SYSTEM THAT ACCELERATES GREAT IDEAS IN STEM CELL THERAPIES TO CURES. AND THE POINT OF CIRM IS THAT CIRM SHOULD BE ABLE TO DO THIS PREDICTABLY AT A HIGHER VOLUME, A HIGHER SPEED, AND WITH GREATER QUALITY THAN IF CIRM DIDN'T EXIST. NOW, BENCHMARKING THIS IS DIFFICULT. IT'S DIFFICULT FOR US TO ACTUALLY BE ABLE TO PROVE THAT DIRECTLY. THIS ISN'T A CONTROLLED TEST. WE DON'T HAVE SOME PROGRAMS THAT WE USE IN CIRM AND SOME PROGRAMS THAT WE DO AND DON'T. BUT THERE ARE WAYS THAT WE CAN MEASURE, AND WE HAVE BECOME A METRICS-FOCUSED ORGANIZATION FOR SURE. AND I THINK I'LL BE ABLE TO MAKE A PRETTY GOOD CASE THAT THIS IS ACTUALLY STARTING TO WORK.

THE OTHER POINT I WANT TO MAKE ABOUT THIS SLIDE IS WE'RE NOT TRYING TO BE LUCKY. WE'RE NOT TRYING TO HAVE THE ONE-OFF SUCCESS. I DON'T WANT TO BE GREAT AT WINNING THE LOTTERY. I WANT SOMETHING THAT'S REPRODUCIBLE, NOT JUST THAT ONE CURE GETS THROUGH, BUT THAT A PIPELINE OF CURES CONSISTENTLY GETS THROUGH. AND WHEREVER YOU ARE IN THAT PIPELINE, THINGS ARE MOVING FASTER AND BETTER THAN IF CIRM DIDN'T EXIST. THAT WAS WHAT WE SET OUT TO DO. AND WE HAD A STRATEGIC PLAN THAT WE BUILT AROUND THAT. AND THERE'S THREE THEMES TO OUR

STRATEGIC PLAN: PUSH, PULL, AND LEVEL.

SO HISTORICALLY CIRM EXISTS AS A PUSHING AGENCY. IN THIS METAPHOR YOU CAN IMAGINE IF WHAT CIRM'S MISSION IS TRYING TO PUSH IS THIS GIANT BOULDER OF STEM CELLS OVER THIS HILL TO THE VALLEY OF CURES BELOW, WE'VE BEEN IN THE PUSHING BUSINESS ON THAT. AND AS I SAID PREVIOUSLY, THAT PUSHING BUSINESS WAS LARGELY ON A ONE-OFF SORT OF INITIATIVE. WE DIDN'T HAVE A MACHINE THAT WAS PUSHING. WE JUST HAD INDIVIDUAL INITIATIVES THAT PUSHED ON THIS BOULDER. AND SO WE MADE FOUR KEY CHANGES ON THE PUSHING SIDE OF WHAT WE DID. AND I'LL SHOW THOSE RESULTS.

THE FIRST IS WE STANDARDIZED RECURRING PROGRAM OFFERINGS. SO JUST TO GIVE YOU AN EXAMPLE IN THE PAST, EVERY ONCE IN A WHILE, MAYBE EVERY 18 MONTHS, WE'D SAY, HEY, IT WOULD BE GREAT IF WE HAD SOME CLINICAL TRIALS. LET'S ISSUE AN RFA TO SEE IF ANYBODY HAS ANY CLINICAL TRIALS THEY WANT TO RUN. WE CHANGED THAT NOW TO IT'S ALWAYS OPEN. WE ALWAYS WANT CLINICAL TRIALS. YOU CAN ALWAYS APPLY. AND SO IT RECURS OVER AND OVER AGAIN.

THE SECOND THING IS -- SO NOW THERE'S A SCHEDULE AND WE KNOW WHEN THESE PROGRAMS ARE THERE AND YOU CAN APPLY. THE SECOND THING WE DID, WE

INCREASED THE SPEED OF THIS. SO ON ONE HAND IT'S GREAT TO HAVE A PROCESS THAT'S FREQUENT, BUT IT TAKES FOREVER. AND THAT'S NOT GOOD HERE. SO WE NEED TO GET FASTER.

THE THIRD THING IS WE IMPLEMENTED SIGNIFICANT MILESTONE-BASED DISBURSEMENTS. I'M GOING TO TALK MORE ABOUT MILESTONE-BASED DISBURSEMENTS. I DON'T KNOW THAT THERE'S A SINGLE THING WE'VE DONE THAT'S HAD A BIGGER IMPACT THAN THIS STUFF.

AND THEN, LASTLY, WE ESTABLISHED VERY CLEAR AND MEASURABLE GOALS FOR THE TEAM.

SO FREQUENT AND STANDARDIZED OFFERINGS. SO, AS I SAID, THE DISCOVERY, TRANSLATIONAL, AND CLINICAL PORTFOLIO, THAT'S THE CORE OF CIRM'S ENGINE. THESE THINGS USED TO BE CALLED GRANT WHACK-A-MOLE. AN RFA WOULD POP UP, IT WOULD BE OPEN FOR A LITTLE WHILE AND WOULD GO AWAY. IF YOU WERE A RESEARCHER, YOU HAD NO IDEA WHEN OR IF EVER THAT RFA WOULD OPEN BACK UP AGAIN. AND THAT CREATED A LOT OF BEHAVIOR THAT WE DIDN'T LIKE. WE WOULD HAVE PEOPLE APPLYING FOR GRANTS EARLY. WE WOULD HAVE THEM APPLYING FOR THE WRONG GRANTS. AND SO WE SAID, LOOK, NOW THAT WE UNDERSTAND OUR FINANCIAL SITUATION, WE KNOW THAT WE'RE GOING TO BE IN

BUSINESS THROUGH 2020. SO LET'S JUST HAVE A STANDARDIZED PROGRAM OFFER. DISCOVERY, WE'RE GOING TO OFFER THAT PROGRAM TWICE A YEAR. TRANSLATIONAL, WE'RE GOING TO OFFER THAT PROGRAM THREE TIMES A YEAR. AND CLINICAL, WE'RE GOING TO OFFER THAT PROGRAM 12 TIMES A YEAR. ESSENTIALLY IT'S ALWAYS OPEN.

AND THAT HAS HAD SIGNIFICANT EFFECTS ON -- AGAIN, WHAT WE'RE TRYING TO DO IS INCREASE VOLUME, SPEED, AND QUALITY. THESE METRICS, I THINK, ARE FANTASTIC. SO THE NUMBER OF REVIEW CYCLES WE OFFER A YEAR HAS INCREASED FOURFOLD, BUT AT THE SAME TIME THE COST PER APPLICATION HAS DECREASED 57 PERCENT. SO WE'RE GETTING THINGS STANDARDIZED, WE'RE LEARNING HOW TO DEAL WITH THEM QUICKER, WE'RE GETTING SMARTER, WE'RE USING THINGS LIKE TELECONFERENCES AND THINGS LIKE THAT. THE NUMBER OF AWARDS WE'RE MAKING HAS GONE UP 33 PERCENT, YET THE TIME TO APPROVE THOSE AWARDS HAS FALLEN BY 82 PERCENT. IT'S ONE OF THE MOST DRAMATIC FIGURES. FOR A CLINICAL TRIAL HISTORICALLY IT USED TO TAKE US ABOUT 22 MONTHS. IF YOU HAD A CLINICAL TRIAL AND YOU WERE READY TO GO, IT WOULD TAKE US ABOUT 22 MONTHS TO AWARD YOU THAT GRANT FOR A CLINICAL TRIAL. WE CAN NOW MAKE THE ADJUDICATION ON THAT, HAVE IT

REVIEWED IN UNDER 60 DAYS, AND IT'S ABOUT 85 DAYS FROM THE TIME YOU APPLY FOR THE BOARD TO APPROVE IT. INCREDIBLE REDUCTION THERE.

AND THEN FROM A QUALITY STANDPOINT, THE NUMBER OF APPLICATIONS THAT ARE ACTUALLY IMPROVED BEFORE THEY'RE APPROVED HAS GONE UP 70, 75 PERCENT. AND I THINK PROBABLY ONE OF THE -- THERE ARE SO MANY OTHER STRIKING EXAMPLES, AND IT'S DRIVING CHILA ABSOLUTELY CRAZY AS SHE'S TRYING TO BUDGET FOR THIS BECAUSE OUR PRODUCTIVITY AND OUR EFFICIENCY ARE GOING THROUGH THE ROOF. AND SO WE'RE MAKING HER JOB A BIT OF A MOVING TARGET. SO OUR APPLICATIONS ARE UP 33 -- OR OUR NUMBER OF AWARDS ARE UP 33 PERCENT, OUR NUMBER OF REVIEW CYCLES ARE UP FOURFOLD. OUR LEGAL COSTS ARE DOWN 32 PERCENT. AND THE REASON OUR LEGAL COSTS ARE DOWN 32 PERCENT IS BECAUSE WE'VE STANDARDIZED THINGS. WE HAVE TEMPLATE CONTRACTS. YOU APPLY FOR AN AWARD, THIS IS WHAT YOU ARE GOING TO SEE. LIKE IT OR DON'T LIKE IT, BUT WE'RE NOT GOING TO DO ALL THESE ONE-OFF NEGOTIATIONS EVERY TIME. SO WE'RE SEEING TREMENDOUS AMOUNT OF EFFICIENCY AND PRODUCTIVITY COMING FROM THIS SYSTEM.

THE SECOND THING THAT I TALKED ABOUT WAS THIS GOING TO A MILESTONE-BASED DISBURSEMENT SYSTEM. AND THE CHANGE HERE IS IT'S THE DISBURSEMENTS ARE

MILESTONE BASED. SO WE USED TO HAVE MILESTONES, BUT OUR DISBURSEMENTS WERE TIME BASED. AND SO THE WAY IT WOULD WORK IS YOU WOULD HAVE A GRANT AND WE WOULD PAY YOU EVERY SIX MONTHS OR EVERY QUARTER, AND YOU HAD MILESTONES, GO/NO-GO MILESTONES. AND IF YOU DIDN'T HIT ONE OF THOSE MILESTONES, EVENTUALLY IT WOULD GET BACK TO CIRM AND EVENTUALLY WE WOULD THINK ABOUT WHAT TO DO.

BUT THE WAY THIS SYSTEM -- THE DEFAULT MODE FOR THE SYSTEM WAS TO KEEP DISBURSING MONEY. AND WE CHANGED THAT. WE FLIPPED THAT COMPLETELY AROUND. AND NOW WHEN WE HAVE AN AWARD, WE TAKE THAT AWARD AND WE DIVIDE IT UP INTO MILESTONES. IF THIS WAS A $3 MILLION CLINICAL TRIAL, IT MIGHT BE FIRST PATIENT, 30TH PATIENT, 66, AND A HUNDRED PERCENT. WE'LL DIVIDE IT UP INTO MILESTONES. AND WE GIVE YOU ENOUGH MONEY RIGHT OUT OF THE GATE TO COMPLETE YOUR FIRST OPERATIONAL MILESTONE. BUT WE DON'T GIVE YOU ANY MORE MONEY UNTIL YOU COMPLETE THAT OPERATIONAL MILESTONE. IT IS INCUMBENT UPON YOU TO SEND THE OBJECTIVE DATA TO US THAT YOU'VE HIT IT. AND SO IN THAT WAY WE DON'T PAY UNLESS THE OPERATIONAL MILESTONE IS HIT INSTEAD OF THE WAY IT USED TO BE, WHEREAS, WE WOULD HAVE TO STOP PAYMENT. WE WOULD HAVE TO TAKE ACTION. TO STOP HERE, THEY HAVE TO

TAKE ACTION TO GET PAID. IF THEY GO LONG, IF IT TAKES THEM TOO LONG, THEY HAVE TO MAKE UP THAT GAP. WE ACTUALLY PUT IT AS PART OF THE APPLICATION PROCESS TO WHERE CONTINGENCY FUNDING IS A REQUIRED COMPONENT. THEY HAVE TO TELL US, IF THERE'S A PROBLEM, HOW THEY'RE GOING TO MAKE UP THAT MONEY AND WE'RE NOT THAT ANSWER.

INTERESTINGLY, IF THEY CAN DO IT QUICKER AND THEY CAN REALIZE SAVINGS, WE LET THEM BANK THAT MONEY AND CARRY IT FORWARD ALL THE WAY THROUGH THE END OF THE AWARD. AND IF AT THE END OF THE AWARD, THEN WE'LL APPROVE CERTAIN ACTIVITIES THAT THEY CAN DO. IT USED TO BE WHERE THEY WERE ACTUALLY FINANCIALLY DISINCENTIVIZED TO MOVE FASTER BECAUSE IF THEY MOVE FASTER, THEIR AWARD WOULD SHRINK BECAUSE THEY WOULDN'T BE GETTING THEIR OWN GRANTS. WE WANTED TO LINE UP WHAT WE WANTED, WHICH WAS PERFORMANCE AND SPEED.

HOW DOES THIS WORK? IT'S DRAMATIC. THE NUMBER OF -- I DON'T KNOW THAT WE HAVE A BETTER METRIC, A SURROGATE METRIC, THAN THE NUMBER OF MILESTONES HIT ON TIME. THE NUMBER OF MILESTONES HIT ON TIME HAS JUMPED FROM 19 PERCENT UNDER THE 1.0 SYSTEM TO 77 PERCENT UNDER THIS SYSTEM. IT IS AN INCREDIBLE MOTIVATING FACTOR.

ANOTHER WAY TO LOOK AT THAT IS ON PATIENT ENROLLMENT. EVERYONE UNDERSTANDS PATIENTS AND PATIENT ENROLLMENTS. WE DON'T GET ANYWHERE UNLESS WE PUT PATIENTS INTO CLINICAL TRIALS, GET THEM TREATED, AND GET THEM GOING. THESE ARE OUR ENROLLMENT FIGURES PER QUARTER. IT'S A BEAUTIFUL GRAPH. I LOVE THAT GRAPH. BECAUSE THIS IS VERY CLEAR, REAL OBJECTIVE AND TANGIBLE PROGRESS.

IF YOU ACTUALLY LOOK AT THIS, THERE'S ACTUALLY TWO SLOPES HERE. SO THE GRAPH ITSELF IS A CUMULATIVE NUMBER OF PATIENTS. IF YOU LOOK AT THE SLOPE OF THAT CURVE, THAT GIVES YOU, THEN, THE RATE, HOW FAST WE'RE PUTTING PATIENTS INTO THESE CLINICAL TRIALS. AND THERE'S ACTUALLY TWO DISTINCT CURVES. THIS IS THE CURVE THAT'S CREATED PRIMARILY BY CLINICAL TRIALS THAT WE HAVE UP AND RUNNING UNDER THE 1.0 SYSTEM, WHICH DIDN'T HAVE THAT MILESTONE BASE. THIS IS THE SLOPE OF THE CURVE WHEN WE TRANSFERRED FROM 1.0 TO 2.0. AND, YES, WE ACTUALLY TRANSFERRED. SO IF WE HAD AWARDS THAT WERE UNDER THE 1.0 SYSTEM AND WE COULD, JAMES AND HIS GROUP WOULD GO OUT AND DO EVERYTHING THEY COULD TO PUT THEM ON A 2.0 SYSTEM. HOW BIG OF A DIFFERENCE IS THESE SLOPES? IN THAT GRAPH YOU MAYBE CAN'T TELL. IT'S THIS BIG.

WE ENROLLED ON AVERAGE 1.66 PATIENTS PER TRIAL ON THE 1.0 SYSTEM. WE CAN DO THAT AT 4.49, ALMOST FOUR AND A HALF PATIENTS PER TRIAL. THE DIFFERENCE IS THAT WOULD BE A TRIAL THAT UNDER THE 1.0 SYSTEM WOULD TAKE TWO AND A HALF YEARS NOW TAKES LESS THAN A YEAR, 11 MONTHS TO DO. IT'S CLEARLY WORKED.

SO WE'VE TAKEN THAT INITIATIVE BASE, PUSHING THAT BOULDER OVER THE HILL, AND WE'VE REPLACED WITH A MACHINE THAT IS OPERATIONALLY EXCELLENT AT PUSHING.

WHAT WE NOTICED HERE, THAT WE'RE DOING A LOT OF PUSHING, BUT THERE'S NOT ANYONE ON THE OTHER SIDE OF THIS HILL DOING ANY PULLING. AND THAT'S A PROBLEM. AND WE LOOKED AT OUR NUMBERS. OUR NUMBERS CONFIRMED THAT WAS A PROBLEM. SO IN OUR HISTORY, 91 PERCENT OF OUR AWARDS HAVE GONE TO ACADEMIC INSTITUTIONS AND ONLY 9 PERCENT TO INDUSTRY. THE REASON THAT'S A PROBLEM IS THAT, IN ORDER FOR US TO COMPLETE OUR MISSION, GET IT ALL THE WAY DONE, HELP THESE ACTUAL PATIENTS WITH UNMET MEDICAL NEEDS, WE KNOW WE NEED INDUSTRY ON THE BACK SIDE OF THAT TO COMPLETE THAT. ACADEMIC CENTERS ARE GREAT AT COMING UP WITH THE NEW IDEAS AND TO IMPROVE THE CONCEPT TESTING, AND WORKING OUT MECHANISMS AND THE LIKE,

BUT WE NEED INDUSTRY TO TAKE BASICALLY THE BALL TO THE GOAL LINE AND MAKE IT SO WE CAN ACTUALLY TREAT POPULATIONS OF PEOPLE. AND SO WE WANTED TO FIX THAT.

THERE'S TWO THINGS WE DID OR I SHOULD SAY ARE DOING THE FIXES. THE FIRST WAS JUST BE EASIER TO DO BUSINESS WITH. THAT SOUNDS KIND OF COMMON SENSE, BUT I'LL GIVE YOU JUST A VERY REAL EXAMPLE. LET'S GO BACK TO THE CLINICAL TRIAL. SO I USED TO BE A CEO OF A DRUG COMPANY. IF WE HAD A CLINICAL TRIAL AND WE WERE READY TO GET IT STARTED, GET IT INITIATED, WE COULDN'T WAIT 22 MONTHS TO DO THAT. IT WOULD COST US MORE MONEY TO WAIT 22 MONTHS THAN WE WOULD EVER GET FROM CIRM. SO THE FIRST THING IS WE NEEDED TO HAVE THESE PROGRAMS AVAILABLE WHEN THEY'RE NEEDED. THE SECOND THING IS THEY NEEDED TO BE FASTER. SO WE CHECKED THOSE BOXES OFF.

WE NEEDED TO BE NOT OVERLY ONEROUS. THERE WERE THINGS UNDER OUR PROGRAM, FOR EXAMPLE, OUR LOAN PROGRAM. WE HAVE A LOAN PROGRAM, AND THE LOAN PROGRAM HAD FORGIVABLE -- IT WAS A FORGIVABLE LOAN. SO IF THE PROGRAM DIDN'T WORK, WE WOULD FORGIVE YOU OF YOUR OBLIGATIONS UNDER THE LOAN. EXCEPT THE ONLY PROBLEM WAS FOR AUDITING FIRMS, THEY DIDN'T SEE US AS FORGIVING. SO HERE WOULD BE THIS COMPANY

STRUGGLING, TRYING TO RAISE MONEY, LET'S SAY IT'S A SMALL PUBLICLY TRADED COMPANY, WE GIVE A $20 MILLION LOAN, THE PROGRAM DIDN'T WORK, WE FORGAVE IT, THEY STILL HAD TO CARRY $20 MILLION OF DEBT THAT WE NEVER EXPECT TO BE REPAID FOR ON THEIR BALANCE SHEET. SO WE NEEDED TO CLEAR UP THINGS LIKE THAT.

AND THEN THE LAST THING IS WE NEED TO BE CLEAR AND UNDERSTANDABLE. IF PEOPLE DON'T UNDERSTAND OUR PROGRAM, THAT'S OUR FAULT. AND IF THEY DON'T UNDERSTAND OUR PROGRAMS, THEN WE'RE NOT GETTING THE MOST OUT OF IT.

THE SECOND THING THAT WE'RE DOING, AND WE'RE DOING THIS RIGHT NOW, THIS IS A REAL -- THIS ONE IS OUT THERE. WHAT WE KNOW IS WE HAVE A TREMENDOUS AMOUNT OF TECHNOLOGY AT CIRM THAT CIRM HAS FUNDED TO CREATE THAT'S UNPARTNERED. AND SO WHAT WE'RE DOING HERE IS WE'RE TRYING TO INCENTIVIZE THE FORMATION OF A COMPANY IN CALIFORNIA THAT WILL SPECIALIZE IN STEM CELLS AND AGGREGATE THESE TECHNOLOGIES AND SEND THEM OUT OF THE UNIVERSITY AND ACTUALLY CREATE A COMPANY THAT CAN TAKE THEM PUBLIC. SO APPLICATIONS FOR THIS ARE CURRENTLY BEING ACCEPTED. WE'LL DO THE REVIEW FOR THIS PROGRAM IN JANUARY. IF IT WORKS, IT WILL BE THE FIRST OF ITS KIND EVER. SO STAY TUNED.

THAT'S WHAT WE'RE DOING IN A NUTSHELL TO TRY TO CREATE SOME DEMAND PULL ON OUR PROGRAM.

THE THIRD THING CENTERS AROUND THE HILL THAT WE'RE TRYING TO PUSH. AND THAT'S THE REGULATORY LANDSCAPE THAT WE HAVE. SO THE REALITY OF THE CURRENT REGULATORY SYSTEM IS THIS. MOST INVESTIGATORS, AND PARTICULARLY MOST INVESTIGATORS THAT WE DEAL WITH ON THE ACADEMIC SIDE, SIMPLY DO NOT HAVE THE EXPERIENCE NECESSARY TO NAVIGATE THE REGULATORY SYSTEM FOR CELL THERAPY. CELL THERAPIES ARE RELATIVELY NEW. THE REGULATIONS THEMSELVES ARE VAGUE. NOT A LOT OF PEOPLE HAVE DONE IT. AND SO THERE'S JUST A TREMENDOUS LACK OF EXPERIENCE, AND THAT'S LEADING TO POINT TWO, WHICH IS THE TRANSLATIONAL TIME AT EIGHT YEARS IS JUST UNACCEPTABLY LONG WHEN A NON-CELL THERAPY MAKES THE EXACT SAME JOURNEY IN ONLY 3.2 YEARS. SO WE NEED TO FIX THAT.

THE CURRENT SYSTEM WE HAVE RIGHT NOW HAS BEEN IN PLACE NOW FOR 15 YEARS, AND IT'S COMPLETELY BINARY. IT EITHER SAYS YOU CAN COME TO MARKET LEGALLY WITH A STEM CELL TWO WAYS. ONE WAY REQUIRES ABSOLUTELY NO DATA ON THE SAFETY OR THE EFFECTIVENESS OF YOUR TREATMENT. AND THEN THE OTHER ONE TAKES LIKE TWO DECADES AND COSTS $3 BILLION.

AND THAT'S DRIVING POINT 4. AND POINT 4 IS WE'RE SEEING A LOT OF WHAT WE DON'T WANT, WHICH IS THESE UNREGULATED STEM CELL THERAPIES ENTERING THE MARKET WITHOUT ANY DATA TO SUPPORT THEM, AND WE'RE SEEING VERY LITTLE CELL THERAPIES MOVE THROUGH THE PATHWAY.

SO WE'RE DOING TWO THINGS ABOUT THIS. THE FIRST IS, AND I'M PLEASED TO SAY THE BOARD, THANKS TO J.T. AND HIS LEADERSHIP, JUST APPROVED WHAT WE CALL THE PITCHING MACHINE. AND THE PITCHING MACHINE IS DESIGNED TO FIT THIS LACK OF EXPERIENCE THAT INVESTIGATORS HAVE IN THE TRANSLATIONAL PHASE OF MEDICINE. WE CALL IT A PITCHING MACHINE BECAUSE THERE ARE TWO ACTUAL CENTERS, PHYSICAL CENTERS, THAT ARE DESIGNED TO WORK IN CONJUNCTION TO SPEED UP TRANSLATIONAL RESEARCH AND HIT OUR GOAL OF MAKING THAT TRANSLATIONAL TIME BE LESS THAN FOUR YEARS.

ONE IS THE TRANSLATING CENTER. THIS IS A GROUP THAT DOES THE BORING, FDA-REQUIRED LABORATORY WORK THAT FDA NEEDS IN ORDER TO CLEAR AN IND, THE STUFF INVESTIGATORS DON'T LIKE TO DO AND DON'T WANT TO DO AND DON'T HAVE EXPERIENCE DOING, THINGS LIKE STABILITY STUDIES, CERTAIN KINDS OF TOXICOLOGY STUDIES DONE EXACTLY THE WAY THE FDA WANTS THEM.

THE OTHER SIDE OF THIS IS WHAT WE CALL THE ACCELERATING CENTER. THE ACCELERATING CENTER IS A

FANCY WAY OF SAYING A STEM CELL-SPECIFIC CLINICAL RESEARCH ORGANIZATION THAT WILL TAKE THE INFORMATION FROM BOTH THE INVESTIGATOR AND FROM THE TRANSLATING CENTER AND ACTUALLY WRITE AND COMPILE THE BLA FOR THE INVESTIGATOR BECAUSE THEY'RE GOOD AT IT, THEY LIKE DOING IT, THEY DO IT ALL THE TIME. QUINTILES WON BOTH OF THESE AWARDS. THEY'RE THE LARGEST CRO IN THE WORLD, AND THEY HAVE NOW COME TO CALIFORNIA. AND IN THE STATE OF CALIFORNIA WE HAVE THE FIRST AND ONLY PITCHING MACHINE WHICH I THINK IS GOING TO BE -- I ACTUALLY THINK THIS MIGHT BE THE MOST SIGNIFICANT PIECE OF INFRASTRUCTURE CIRM ENDS UP ADDING. AND IT GOES ON AND IT'S NOT CIRM DEPENDENT. SO THIS ENDS UP LIVING WITHOUT US. SO IF CIRM GOES AWAY, THE PITCHING MACHINE STILL EXISTS IN CALIFORNIA.

THE SECOND THING GOES TO THE BINARY REGULATORY PARADIGM THAT WE HAVE, AND I MENTIONED THIS. BUT BACK IN THE LATE '90S WHEN FDA WAS INTRODUCING THE CURRENT REGULATORY SYSTEM THAT WE HAVE, WHAT THEY PROPOSED WAS THIS TIERED APPROACH. AND SO BASICALLY IT WAS THE MORE RISKY OR COMPLEX YOUR CELL THERAPY WAS, THE MORE REGULATION WOULD BE PLACED UPON IT. SEEMS TO MAKE PERFECT SENSE TO ME. WHAT THEY ACTUALLY DELIVERED, THOUGH, WAS A BINARY

APPROACH. SO THERE'S ESSENTIALLY NO REGULATION REQUIRED UP UNTIL SOME CERTAIN TIPPING POINT. ONCE YOU TRIP THAT THRESHOLD, YOU GO INTO A BLA, WHICH IS THE MOST CUMBERSOME, ONEROUS REGULATORY PATHWAY THAT EXISTS FOR ANYTHING ANYWHERE IN THE WORLD. THAT'S THE DIFFERENCE.

THE PROBLEM WITH THIS BINARY SYSTEM IS IT LEADS TO PREDICTABLY AREA THAT THEN ARE UNDER OR OVERREGULATED, AND NEITHER ONE OF THESE ARE GOOD. AND MORE IMPORTANTLY, WHAT IT REALLY DOES IS IT'S DRIVING -- THE ONLY PLACE ON THIS GRAPH YOU REALLY WANT TO BE IS WHERE THAT STAR IS. SO AS RISKY OR AS COMPLEX A THERAPIES YOU CAN HAVE BEFORE YOU TRIP REGULATION. SO YOU SHOW THIS TO SOME ECONOMIST, THIS REGULATION, AND THEY WOULD PREDICT THAT THIS IS WHAT WOULD HAPPEN. WELL, EARLIER THIS YEAR A STUDY CAME OUT THAT SAID THAT'S EXACTLY WHAT'S HAPPENING. SO WE'VE HAD ZERO, ZERO THINGS GO THROUGH THE UP-REGULATED PATHWAY, NOT ONE IN 15 YEARS.

BUT WE HAVE SOMETHING LIKE 560 THERAPIES BEING OFFERED, INCLUDING IN THE STATE OF CALIFORNIA, FOR TREATMENTS WHERE THEY HAVE ESSENTIALLY NO DATA, NO EFFICACY, NO SAFETY DATA TO SHOW THAT THEY'RE USEFUL. AND THAT'S BECAUSE THAT'S THE SYSTEM THAT WAS CREATED.

AND SO WHAT WE'RE TRYING TO DO IS WORK WITH THE FDA TO SAY, HEY, LOOK, IF YOU GO BACK AND ACTUALLY FINISH WHAT YOU STARTED AND DO WHAT YOU SAID YOU'D DO, IT WILL HELP US MOVE THIS FIELD ALONG. LET'S CREATE A PATHWAY THAT'S PRACTICAL, THAT PHYSICIANS AND OTHERS CAN COMPLY WITH THAT CREATES SOME LEVEL OF SAFETY AND EFFICACY STANDARDS THAT CURRENTLY DON'T EXIST. AND THE FDA HAS BEEN GREAT WITH THIS. I'VE ACTUALLY MET WITH COMMISSIONER CALIFF. I'VE PRESENTED IN FRONT OF FDA. I'VE MET WITH THEIR PEOPLE AT CBER A NUMBER OF TIMES TALKING ABOUT HOW WE CAN WORK TOGETHER ON THIS. CERTAINLY WE'VE SPENT A LOT OF MONEY AND MADE A LOT OF INVESTMENT WITH THE PITCHING MACHINE, WHICH SHOULD ACTUALLY MAKE FDA'S LIFE EASIER. AND SO WE WANT TO DO WHAT WE CAN TO HELP THEM WITH THIS ISSUE TOO.

SO THAT'S OUR STRATEGY: PUSH, PULL, AND LEVEL. FAIRLY EASY TO REMEMBER.

ONE OF THE THINGS I SAID IS THIS PLAN IS NOTHING IF IT DOESN'T HAVE OBJECTIVE MEASURES OF SUCCESS. AND IT DOES, AND THEY ARE AUDACIOUS, THEY ARE STRETCH GOALS. WHEN WE LAID THEM OUT, I THINK THERE WAS AN AUDIBLE GULP AMONG THE TEAM, THAT YOU HAD TO COME UP WITH THESE, BUT NOW THEY'RE GETTING

THE HANG OF IT. I WOULDN'T WANT TO SAY THEIR ARROGANT, BUT THEY'VE GOT A LITTLE SWAGGER ABOUT THEM. I THINK THEY FEEL LIKE THEY'RE GOING TO ACHIEVE THESE. LET'S GO THROUGH THEM QUICKLY.

FIFTY NEW CANDIDATES OF DISCOVERY. SO 50 NEW THINGS OVER THE NEXT FIVE YEARS WE'RE GOING TO COME UP WITH. WE HAVE THESE THINGS CALLED PROGRESSION EVENTS. SO IF WE HAVE AN EARLY STAGE AWARD, LET'S SAY A DISCOVERY STAGE AWARD, IF THAT GOES SUCCESSFULLY TO A TRANSLATIONAL AWARD, IF A TRANSLATIONAL AWARD LEADS SUCCESSFULLY TO A CLINICAL TRIAL, WE CALL THAT A PROGRESSION EVENT. THAT'S A GREAT THING FOR US. WE'RE GOING TO INCREASE PROGRESSION EVENTS BY 50 PERCENT. AND I'LL TELL YOU THE PUNCHLINE IS WE JUST FOUND OUT YESTERDAY WE'RE ALREADY AT 34 -- WE'RE ALREADY UP 34 PERCENT. WE WANT TO GET TO 50. SO WE'RE ALREADY UP 34 PERCENT. WE'RE EXCITED ABOUT THAT.

WE WANT TO WORK WITH FDA TO ENACT A NEW, MORE EFFICIENT REGULATORY PARADIGM THAT ACHIEVES THE GOALS.

WE WANT TO REDUCE THAT TRANSLATIONAL TIME BY 50 PERCENT. SO THAT'S THE EIGHT YEARS DOWN TO FOUR.

HERE'S THE BIG ONE. FIFTY NEW CLINICAL

TRIALS. WE THOUGHT, OH, MY GOODNESS, 50 NEW CLINICAL TRIALS. IN THE FIRST 12 YEARS WE HAD TEN. WE'RE GOING TO ADD 50. WE'RE GOING TO ADD MORE THAN TEN JUST THIS YEAR. SO WE FEEL VERY GOOD ABOUT THIS.

AND THEN THE LAST THING IS WE WANT TO HAVE THOSE PROGRAMS, THOSE CLINICAL PROGRAMS, THAT ARE SUCCESSFUL, WE WANT TO HAVE THEM GET PARTNERED UP WITH INDUSTRY SO THEY CAN GO ON AND BE SELF-FUNDING AND NOT REQUIRE CIRM ANYMORE. SO 50 PERCENT OF OUR CLINICAL PROGRAMS BE PARTNERED BEFORE THEY LEAVE.

SO THESE ARE VERY REAL. WE'RE GOING TO KNOW AT 2020 WHETHER OR NOT WE HIT THESE OR NOT, BUT I'M GOING TO TELL YOU, WITH THE TEAM I HAVE, I WOULDN'T BET AGAINST US. OKAY.

WITH THAT SAID, THERE ARE THINGS THAT ARE RISKS TO THIS PLAN, FOR SURE. FIRST IS THERE MIGHT JUST -- WE WANT 50 CLINICAL TRIALS. THERE MIGHT JUST NOT BE 50 GOOD THINGS TO FUND OUT THERE. AND WE WON'T LOWER OUR QUALITY STANDARDS, FOR SURE. THERE MIGHT BE -- FROM AN INDUSTRY STANDPOINT, THEY MIGHT JUST CONTINUE TO NOT HAVE ENOUGH INTEREST IN US. THAT'S CERTAINLY A POSSIBILITY. THE FACT THAT WE HAVE A LIMITED LIFE AS AN AGENCY, EVEN THOUGH IT'S A LOT LONGER THAN WE ORIGINALLY THOUGHT, BUT

THE FACT THAT WE HAVE A LIMITED LIFE COULD LIMIT OUR ABILITY TO ATTRACT AND RETAIN TOP QUALITY PEOPLE. I'LL TELL YOU WE'RE NOT SEEING THAT NOW.

INVESTORS MIGHT BE UNINTERESTED. AND THEN, LAST, FDA JUST MIGHT BE UNWILLING TO CHANGE. CERTAINLY A POSSIBILITY.

ONE OTHER COMMENT I WANT TO MAKE HERE. WE KNOW WE CALL IT 2.0, BUT THIS IS BOTH TO SHOW YOU AND A PROMISE TO YOU. 2.0 IS REALLY MORE LIKE 2.8 ALREADY. SO WE LAUNCHED IT. IT WASN'T PERFECT. WE KNOW IT WASN'T PERFECT. AND SO OUR COMMITMENT TO YOU AND TO THE BOARD IS TO ALWAYS BE VERY SELF-EFFACED AND LOOK AT WHAT WE'RE DOING AND OBJECTIVELY, WHEN WE SEE SOMETHING THAT'S NOT WORKING OR SEE SOMETHING WE DIDN'T GET RIGHT, JUST MAKE IT BETTER. OUR ULTIMATE SUCCESS IS JUDGED BY WHETHER OR NOT WE HIT THE MISSION, NOT WHETHER OR NOT WE GET EVERYTHING RIGHT ON THE FIRST LAUNCH. SO THERE'S JUST A NUMBER OF MODIFICATIONS WE'VE ALREADY MADE TO THE SYSTEM.

WE CHANGED THE SCORING SYSTEM. WE'VE ACTUALLY ADDED PROCESSES TO MAKE SURE THAT THE REVIEW IS FAIR. SOMETIMES WE GET CRITICIZED BECAUSE WE HAVE TO HAVE OUR REVIEWS DONE BEHIND CLOSED DOORS, THAT THERE MIGHT BE A LACK OF FAIRNESS

ASSOCIATED WITH THAT. SO WE TRY TO ADDRESS SOME OF THOSE ISSUES. WE REMOVED INDIRECTS FOR FOR-PROFITS BECAUSE WE JUST DIDN'T THINK THEY NEEDED IT. AND SURE ENOUGH, WE HAVEN'T SEEN A REDUCTION IN OUR AWARDS EVEN THOUGH WE'VE TAKEN THAT COST OUT. AND WE ESTABLISHED MILESTONES FOR DISC AND TRANS PROGRAMS. BUT THE POINT OF THIS SLIDE IS TO SAY THAT WE KNOW WE'RE NOT PERFECT, AND OUR COMMITMENT IS THAT WE WILL CONTINUALLY GET THERE.

AND THEN THE LAST THING I WANT TO END ON IS THE WHY BEHIND WHAT'S GOING ON HERE. THERE HAS BEEN -- TO SAY THERE HAS BEEN A SIGNIFICANT CHANGE IN CIRM WOULD BE TO SAY, LIKE, DURING THE LOMA PRIETO EARTHQUAKE, THE GROUND SHOOK A LITTLE. THE CHANGE HAS BEEN ABSOLUTELY MASSIVE, AND THIS TEAM HAS GOTTEN HOLD OF IT. THEY'RE EMBRACING THAT CHANGE. THE ENTIRE GROUP, THE BOARD, THE PATIENT ADVOCATES, THE MANAGEMENT, THE TEAM ITSELF ARE ALL ALIGNING AROUND THE MISSION. THERE'S TREMENDOUS OWNERSHIP AROUND THESE GOALS. I'LL SAY THIS.

MY FAVORITE STORY IS WHEN WE LAUNCHED CIRM 2.0, WE WANTED TO LAUNCH IT BY JANUARY 1ST, AND IT DIDN'T MATTER WHEN ON JANUARY 1ST. IT COULD HAVE BEEN ANY TIME ON JANUARY 1ST. AND THERE WAS A GROUP OF PEOPLE THERE DECEMBER 31ST, NEW YEAR'S EVE, THAT

THEY WERE NOT GOING TO LAUNCH THAT JANUARY 1ST. THEY STAYED THERE ON NEW YEAR'S EVE TO GET THAT THING OUT SO THEY COULD SAY THEY GOT IT OUT. AND THAT'S THIS GROUP OF PEOPLE WE HAVE. THEY OWN THEIR GOALS. AND A LOT OF TIMES PEOPLE JUST SAY I HAD A GREAT TEAM, I HAD A GREAT TEAM. I HAVE A GREAT TEAM, BUT MORE IMPORTANTLY, I CAN PROVE IT. I CAN PROVE I HAVE A GREAT TEAM BECAUSE I CAN SHOW YOU THOSE PERFORMANCE NUMBERS, I CAN SHOW YOU PRODUCTIVITY, I CAN SHOW YOU EFFICIENCY, I CAN SHOW YOU QUALITY. AND I'M JUST VERY -- I'M VERY, VERY HONORED, I'M VERY BLESSED TO GET TO WORK WITH THEM AND VERY THANKFUL FOR EVERYTHING THEY DO. FORTUNATELY, WE WON'T TELL THEM THAT, RIGHT. NO. THEY'RE GREAT.

THAT'S WHAT I GOT, PUSH, PULL, LEVEL. I'LL BE HAPPY TO TAKE ANY AND ALL QUESTIONS.

CHAIRPERSON YEE: THANK YOU VERY MUCH, DR. MILLS. QUESTIONS BY MEMBERS? COMMENTS?

DR. SADANA: MY QUESTION, YOU MENTIONED ABOUT IMPEDIMENT, AND WERE YOU ALLUDING TO A VARIETY OF STEM CELLS?

DR. MILLS: I'M SORRY. ONE MORE TIME.

DR. SADANA: YOU MENTIONED ABOUT IMPEDIMENT IN PROGRESSING DEVELOPMENT AT ONE POINT.

WHAT WAS IT REALLY THE IMPEDIMENT?

DR. MILLS: WITH THE REGULATORY SYSTEM?

DR. SADANA: YES.

DR. MILLS: YEAH. SO THAT WAS REALLY JUST GOING TO THAT OUR REGULATORY SYSTEM ISN'T INCENTIVIZING THE OUTCOME THAT WE WANT. WE'RE GETTING -- IT'S ACTUALLY -- AND EVEN THE FDA DOESN'T WANT IT. AND SO WE DID A SURVEY ACTUALLY, AND THIS WAS ONE OF THE FIRST ALARM BELLS THAT STARTED GOING OFF. WHEN WE WERE DOING OUR ROADSHOWS, WE ALSO DID SURVEYS, WE TALKED WITH EVERYONE WE COULD. WHEN WE DID OUR SURVEY, BY FAR, WE ASKED THE QUESTION OF THE SINGLE BASE IMPEDIMENT TO DEVELOPING A STEM CELL THERAPY TODAY. THIS IS THE STATE OF CALIFORNIA. PROPOSITION 71 CAME. YOU WOULD HAVE THOUGHT IT WOULD HAVE BEEN REGULATION OR INABILITY TO HAVE ACCESS TO CELLS OR SOMETHING LIKE THAT. NO. FDA. 70 PERCENT OF RESPONDENTS LISTED FDA AS THEIR SINGLE BASE. AND IT DIDN'T MATTER WHETHER IT WAS THE PATIENTS OR THE COMPANIES OR THE ACADEMIC INVESTIGATORS. IT WAS ACROSS THE BOARD.

NOW, AGAIN, I DON'T THINK THAT'S ALL ON FDA. FDA HAS GOT A SYSTEM, AND THAT SYSTEM HAS GOT SOME PROBLEMS WITH IT. BUT I KNOW FROM FDA'S STANDPOINT, THERE'S A TREMENDOUS AMOUNT OF

FRUSTRATION TOO BECAUSE WE HAVE INVESTIGATORS THAT HAVE ABSOLUTELY NO EXPERIENCE NAVIGATING THIS AREA TRYING TO NAVIGATE THIS AREA, AND THAT'S WHY WE PUT IN THAT ACCELERATING AND TRANSLATING CENTER. SO WE COULD GIVE THEM THE HELP.

CHAIRPERSON YEE: ANOTHER QUESTION?

DR. QUICK: DR. MILLS, THANK YOU SO MUCH. CONGRATULATIONS TO YOU AND YOUR TEAM FOR ALL YOUR SUCCESSES.

QUESTIONS. SO IF CIRM WAS TO GO OUT OF BUSINESS TODAY, I KNOW YOU ARE DOING A GREAT JOB MANAGING IT TO MAKE IT LAST AS LONG AS POSSIBLE, WHAT'S THE BEST STORY RELATED TO YOUR MISSION THAT YOU FEEL YOU HAVE TO TELL RIGHT NOW?

DR. MILLS: IT'S A GREAT QUESTION. I WOULD HATE FOR IT TO END RIGHT NOW BECAUSE THE ENGINE IS JUST STARTING UP. AND, YOU KNOW, THE REAL STORY ISN'T GOING TO BE ONE-OFF. THE REAL STORY IS GOING TO BE A CONTINUUM OF SUCCESS. AND THAT IS GOING TO BECOME MORE AND MORE APPARENT TO PEOPLE. I CAN SEE IT NOW BECAUSE I'M INSIDE IT. I LIVE IT EVERY DAY. BUT IT'S NOT COMPLETELY APPARENT ON THE OUTSIDE. BUT IF YOU'LL HOLD THAT UNTIL THE CLINICAL PRESENTATION, I'LL SHOW YOU.

DR. QUICK: OKAY. GREAT. THANK YOU.

IN TERMS OF -- SO THAT'S ON SORT OF A SCIENCE AND THE OUTCOMES MISSION. WOULD YOU SAY THAT THE PITCHING MACHINE IS THE BEST SORT OF OPERATIONAL SUCCESS FOR CIRM TO DATE?

DR. MILLS: WELL, I THINK IT'S THE ONE THAT HAS THE MOST PROMISE FROM THE INFRASTRUCTURE STANDPOINT. JAMES AND I WERE TALKING THE OTHER DAY ABOUT HOW WE WISHED WE HAD THAT FIVE YEARS AGO. INTERESTINGLY, I USED TO BE -- BEFORE I WAS PRESIDENT OF CIRM, I USED TO BE A REVIEWER. REVIEWERS ARE REQUIRED TO BE EXTERNAL TO THE STATE OF CALIFORNIA, AND I LIVED IN MARYLAND. AND SO I WOULD REVIEW ALL OF THESE PROGRAMS FOR CIRM. AND IT WAS SUCH A CONSISTENT THEME, THAT IT WAS ALMOST LIKE A STANDARD NOTE WE WOULD MAKE, LIKE THE INVESTIGATOR DOESN'T UNDERSTAND THE REGULATORY SYSTEM. AND THE ANALOGY I USE IS LIKE WE KNEW WE FISH, BUT WE WERE DEMANDING THEY TAKE FLYING LESSONS WHEN THERE ARE PEOPLE THAT JUST DO THAT STUFF FOR A LIVING. AND SO I THINK IT HAS THE ABILITY TO HAVE THE GREATEST LONG-TERM POTENTIAL IMPACT AND CONTINUOUSLY ACCELERATE IT, BUT IT'S JUST LAUNCHED. SO I DON'T WANT TO -- I LIKE ITS PROMISE. LET'S SEE IT DELIVER.

DR. QUICK: SO OBVIOUSLY WE ALL -- I'M A

SCIENTIST. YOU KNOW, THE LONG-TERM CLINICAL OUTCOMES BECAUSE OF CIRM ARE FOREMOST THE MOST IMPORTANT THING, BUT HAVE YOU DONE AN ANALYSIS OF WORKFORCE IMPACT, SORT OF ECONOMIC DEVELOPMENT IMPACT THAT CIRM HAS DONE? AND THEN, FINALLY, ON A SLIGHTLY DIFFERENT LEVEL, HAVE YOU LOOKED AT HOW CIRM DOLLARS HAVE LEVERAGED OTHER DOLLARS THROUGHOUT, WHETHER IT'S NIH DOLLARS OR NSF DOLLARS, TO CONTINUE TO MAKE THE CASE THAT THESE INITIAL INVESTMENTS HAVE HAD IMPACT FAR AND WIDE?

DR. MILLS: SINCE I'VE BEEN HERE, WE HAVEN'T REDONE THE ECONOMIC IMPACT. I KNOW PREVIOUSLY IT HAD BEEN DONE. I'M A BIG BELIEVER IN FOCUS ON THE THING YOU WANT, AND THE REST OF IT WILL COME ALONG. I DO KNOW, THOUGH, OUR FOLLOW-ON FUNDING NUMBER. SO THE LEVERAGING NUMBER. SO IT'S SOMETHING LIKE 2.1 BILLION DISBURSED. SO ON THAT 2.1 BILLION, I'M JUST PRAYING I GET IT RIGHT, ON THE 2.1 BILLION DISBURSED, WE'VE LEVERAGED AN ADDITIONAL 1.35 BILLION ON OUR RECURRING PROGRAMS AND THEN ANOTHER 110 MILLION ON OUR ALPHA CLINICS. SO ABOUT 1.5 BILLION.

DR. QUICK: GREAT. THANK YOU SO MUCH.

CHAIRMAN THOMAS: HI. THIS IS JON THOMAS. NICE TO SEE EVERYBODY. THANK YOU VERY MUCH FOR

HEARING OUR STORY. WE APPRECIATE IT.

ONE POINT IN TERMS OF WORKFORCE, I THINK, THAT'S AN INTERESTING METRIC. AND MAYBE, RANDY, YOU KNOW THE UPDATED NUMBER ON THIS. BECAUSE CIRM HAS OFFERED THE POSSIBILITY OF FUNDING FOR STEM CELL-RELATED THERAPIES, WE'VE OVER THE YEARS HAD A GREAT MANY SENIOR SCIENTISTS ACTUALLY MOVE TO CALIFORNIA BRINGING WITH THEM THEIR POST DOCS AND TEAMS AND MULTIPLIER EFFECTS AND ALL THAT SORT OF THING. AND I THINK -- DO YOU KNOW WHAT THAT NUMBER IS, RANDY?

DR. MILLS: ABSOLUTELY NO IDEA.

CHAIRMAN THOMAS: SO THE NUMBER -- I DON'T THINK WE HAVE AN UPDATED ONE, BUT THE NUMBER THAT WE OPERATED ON A COUPLE YEARS AGO WAS, I THINK, 200, GIVE OR TAKE. I KNOW THAT THAT HAS INCREASED. SO THERE'S BEEN A MATERIAL MOVEMENT OF VERY HIGHLY PLACED PERSONNEL IN THE FIELD WHO HAVE COME TO HAVE THE POSSIBILITY OF APPLYING TO CIRM FOR FUNDING. WE'LL GET THE UPDATED NUMBER BACK TO YOU ON THAT.

DR. MILLS: ON THE OBJECTIVE MEASURES OF SUCCESS, SO YOU CAN TELL WE MEASURE EVERYTHING WE CAN MEASURE. AND OUR CHALLENGE BECOMES WHAT WE CAN REFERENCE OFF OF TO KNOW. SO WHAT I CAN POINT TO ARE OUR CLINICAL TRIAL PROGRAMS HITTING ON-TIME

MILESTONE AT 77 PERCENT IS LIKE VASTLY MORE SUCCESSFUL THAN FEDERAL FUNDING. IT'S PUBLISHED ON FEDERAL FUNDING. SO FOR TRIALS NIH FUNDS, ONLY A THIRD OF THEM HIT THEIR MILESTONES ON TIME. THE AVERAGE IS TWICE AS LONG AS THEY ORIGINALLY SAID, AND 10 PERCENT OF THEM NEVER ENROLL A SINGLE PATIENT. SO WE HAVE NONE IN THE LAST CATEGORY, AND OUR TRIALS ARE 60 -- OR 77 PERCENT ARE ON TIME. SO WE'RE AT LEAST TWICE AS FAST AS THE FEDERAL GOVERNMENT.

CHAIRPERSON YEE: THANK YOU. I'VE GOT A COUPLE QUESTIONS. ONE, THANK YOU FOR THE PRESENTATION. JUST THE ACCELERATION OF ACTIVITY SINCE OUR LAST COMMITTEE'S CONVENING IS REMARKABLE.

JUST ON THE QUESTION OF METRICS. I THINK, AS YOU'VE PRESENTED, ALL OF THE STRATEGIC PLAN PARTNERSHIP INITIATIVES, I'M JUST CURIOUS FROM A POLICYMAKER STANDPOINT, WHEN WE'RE MAKING THE CASE OR TRYING TO DEMONSTRATE THE IMPACT ON THE PUBLIC INVESTMENT, THE TYPES OF METRICS THAT WE OUGHT TO BE THINKING ABOUT RELATIVE TO THE PARTNERSHIP MISSION AND ESPECIALLY THINGS LIKE THE ACCELERATING CENTER, WHICH IS HEAVILY FUNDED, BUT HOW OUGHT WE LOOK AT, I GUESS, HOW WE MEASURE THE IMPACT OF THAT?

DR. MILLS: SO I THINK FIRST IN OUR

HISTORY WE GOT A LITTLE CONFUSED, THAT SOMEHOW THAT THIS COULD BE A MONEY-MAKING DIRECTLY VENTURE FOR CIRM. IF IT WERE, CIRM WOULDN'T NEED TO EXIST. IF YOU COULD GO INTO THE PRIVATE MARKETS AND GET THIS KIND OF CAPITAL AND GET A RETURN ON IT, WE WOULD BE FINE. SO WE UNDERSTAND THERE'S A RISK PROFILE ASSOCIATED WITH WHAT WE DO THAT'S JUST HIGHER THAN WHAT YOU COULD NORMALLY MAKE MONEY OFF OF.

WITH THAT SAID, I THINK WE'VE GOTTEN SMARTER ABOUT HOW WE SET SOME OF THIS STUFF UP. SO THE ACCELERATING AND THE TRANSLATING CENTER, FOR EXAMPLE, THOSE ARE PROGRAMS THAT WE HAVE WHERE WE'RE MAKING AN UPFRONT INVESTMENT IN. BUT THE WAY WE MAKE THOSE INVESTMENTS AND WE PAY THOSE AWARDS OUT ACTUALLY DICTATE THAT THEY WILL MAKE MONEY FOR US. SO ON THOSE PROGRAMS, BECAUSE WHAT WE'RE DOING IS WE INCENTIVIZED QUINTILES TO OPEN UP A COMPANY SPECIFICALLY IN CALIFORNIA TO DO EXACTLY WHAT WE WANTED TO DO, BUT THEY'RE GOING TO MAKE MONEY OFF OF THAT. SO THE WAY WE STRUCTURED THE AWARD WAS THAT WE ACTUALLY GET OUR RETURN TO US BEFORE THAT AWARD EVEN GETS PAID OUT.

SO JUST TO GIVE YOU AN EXAMPLE ON THE ACCELERATING CENTER, WE WILL MAKE A TOTAL OF A $15 MILLION INVESTMENT IF THAT THING IS FULLY

SUCCESSFUL; BUT IF IT'S FULLY SUCCESSFUL, WE WILL HAVE RETURNED TO US $22.5 MILLION. SO THERE'S VERY FEW THINGS WE HAVE GOING ON THAT -- AND THAT'S IN FIVE YEARS. THAT'S NOT LIKE FOREVER MONEY. IN OUR LIFETIME AT CIRM, WE WILL GET A $22.5 MILLION RETURN ON A $15 MILLION INVESTMENT. SO WE STILL GOT EXACTLY WHAT WE WANT. SO WE'RE DOING THOSE KINDS OF THINGS.

WITH REGARDS TO THE PARTNERING, OUR ATP3 PROGRAM, WE'VE ACTUALLY STRUCTURED THAT IN THE FORM OF FORGIVABLE DEBT. WE CAN'T OWN EQUITY IN SOMETHING. WE WOULD LIKE TO. THAT WAS MY FIRST CHOICE IS LET'S JUST OWN THE INVESTMENTS. HAVE THIS COMPANY TAKE IT PUBLIC AND CIRM BE FUNDED FOR A LONG TIME. THEN JAMES SAID NO. AND SO WE STRUCTURED IT AS CONVERTIBLE DEBT TO TRY TO BASICALLY GET TO THE SAME APPROACH WHERE WE CAN MAKE INVESTMENTS IN THIS THING AND HAVE, INSTEAD OF A PRODUCT, WE ACTUALLY HAVE A COMPANY. WE ACTUALLY OWN -- WE DON'T OWN, BUT WE HAVE THE RIGHT TO CALL A REPAYMENT A LOT MORE ASSURED THAN ANOTHER MIGHT BE. SO WE'RE TRYING TO STRUCTURE THINGS.

CHAIRPERSON YEE: OKAY. THAT'S HELPFUL.

AND THEN WITH RESPECT TO ANY STEPS THAT YOU'RE TAKING IN TERMS OF INCREASING THE INDUSTRY

PARTICIPATION. OBVIOUSLY IT'S CRITICAL TO LATER STAGES. IS THERE ANY SPECIFIC STEPS?

DR. MILLS: WELL, SO THOSE THINGS THAT I -- I THINK THE BIGGEST THING FOR US TO DO WAS TO BE EASIER TO WORK WITH. SO THOSE FOUR, FREQUENT, FASTER, ACCELERATING, AND CLEAR HAVE HELPED A LOT. BUT WHEN I COME BACK TO YOU NEXT YEAR, I'LL ACTUALLY BE ABLE TO HAVE REAL HARD STATISTICS. INDUSTRY ENGAGEMENT IS GOING UP. WE KNOW THAT, PARTICULARLY IN THE CLINICAL STAGE PROGRAMS. IT'S KIND OF EARLY YET TO TELL.

THE OTHER THING WE DID WAS WE ACTUALLY COMPLETELY RESTRUCTURED OUR LOAN PROGRAM. WHEN YOU HAD A LOAN IN THE GRANT PROGRAM, TOGETHER THOSE WERE KIND OF LIKE THE WORST OF BOTH WORLDS. A COMPANY COULD EITHER HAVE A GRANT AND HAVE ROYALTY ENTANGLEMENTS, AND LARGE COMPANIES DON'T LIKE, THAT ARE LOOKING TO ACQUIRE SMALL COMPANIES, DON'T LIKE ROYALTY ENTANGLEMENTS. ON THE OTHER HAND, THEY WOULD HAVE IT AS DEBT AND THE BALANCE SHEET ISSUE. THEY DIDN'T LIKE THAT. SO ACTUALLY JAMES GAVE US A BRILLIANT CONCEPT OF, WELL, WE CAN JUST LET THEM ELECT THAT DOWN THE ROAD. THEY DON'T HAVE TO DECIDE NOW. SO IT EXISTS IN TWO STATES. IF YOU DON'T LIKE ROYALTY ENTANGLEMENTS, IT'S A LOAN. IF YOU DON'T

LIKE DEBT, IT'S A GRANT. SO EXAMPLES. IT SEEMS TO BE WORKING.

CHAIRPERSON YEE: GOOD. GOOD.

AND THEN, FINALLY, ON YOUR PRESENTATION, SO THE ROLE OF PATIENTS. I'M OBVIOUSLY LOOKING AT THE ULTIMATE BENEFICIARIES OF ALL THIS WORK. IS THERE A ROLE FOR PATIENT ADVOCATES WITH RESPECT TO THE CIRM 2.0 ENVIRONMENT? I'M THINKING PARTICULARLY WITH RESPECT TO THE REGULATORY HURDLES.

DR. MILLS: WE HAVE MADE THE PATIENT ADVOCATES WORK. THE PATIENT ADVOCATES, WHEN WE WENT AROUND AND DID THE ROADSHOW, THEY WANTED A MORE ACTIVE ROLE. THEY HAVE A MORE ACTIVE ROLE AT CIRM NOW. SO OUR GWG, AN EXAMPLE, SEVEN PATIENT ADVOCATES ON THEM, THEY'RE MEETING, WE WILL HOLD 20 GWG REVIEWS THIS YEAR ALONE. SO THAT'S A LOT MORE WORK. BUT WE'VE ALSO -- THEY USED TO, IN ESSENCE, IN THOSE ROLES BE SPECTATORS. THEY WOULD SIT AT THE TABLE AND OBSERVE. WELL, SOME OF THEM ARE JUST BRILLIANT AND INTERESTED AND AFFECTED PARTIES. AND SO WE ACTUALLY GAVE THEM -- EVERY TIME WE DO A REVIEW OF A CLINICAL PROGRAM, A PATIENT ADVOCATE IS ONE OF OUR REVIEWERS, ACTUALLY HAS TO DO THE REVIEW, COMMENT ON IT AND ALL THAT OTHER STUFF. AND SO THAT'S HELPED A LOT. SO THEY'RE A LOT MORE ACTIVE

ON THE FRONT END OF THE WORK.

SECOND THING WE DID WAS WE CREATED FOR OUR PROGRAMS WHAT WE CALL CLINICAL ADVISORY PANEL, CAPS. WE USED TO HAVE A VERSION OF THIS, WE'D HOLD IT ABOUT EVERY 18 MONTHS. WE'D INVITE OUR CLINICAL PROGRAM IN, AND WE'D SORT OF READ THEM THE RIOT ACT FOR WHY THEY'RE NOT HITTING THE MILESTONES. IT WASN'T PARTICULARLY HELPFUL. HERE WHAT WE'VE DONE, AND PATIENT ADVOCATES HAD NO ROLE IN THAT, SO HERE WHAT WE'VE DONE IS WE'VE SAID, OKAY, WE'RE GOING TO CREATE, EVERY TIME WE START A CLINICAL AWARD FROM CIRM, WE'RE GOING TO PUT TOGETHER BASICALLY AN ADVISORY PANEL. AND THEN ADVISORY PANELS WOULD HAVE A COUPLE OF PEOPLE FROM CIRM, IT'S GOING TO HAVE A COUPLE OF EXTERNAL EXPERTS ON WHATEVER THE PARTICULAR CHALLENGE IS THAT MIGHT BE ASSOCIATED WITH THAT PROGRAM, IT'S GOING TO HAVE AT LEAST ONE PERSON DIRECTLY AFFECTED BY THAT DISEASE ON THAT.

AND WE SET IT UP. SO EVERY ONE OF THESE TRIALS WE HAVE THIS CAP. THESE CAPS MEET, NOT EVERY 18 MONTHS, THEY MEET QUARTERLY. SO THEY CAN PROVIDE VERY REAL-TIME HELP TO THE INVESTIGATOR ON HOW THEY CAN -- USUALLY IT'S SET AROUND ENROLLMENT ISSUES. BUT WHEN YOU GET PATIENTS INVOLVED IN SOLVING ENROLLMENT ISSUES IN CLINICAL TRIALS, YOUR CLINICAL

TRIALS ENROLL FASTER. THERE'S THIS THING CALLED PATIENT-CENTRIC ENROLLMENT. IF YOU HAVE A PATIENT-CENTRIC ENROLLMENT, YOUR CLINICAL TRIALS JUST ENROLL FASTER. AND SO ACTUALLY I'M SAD I DIDN'T TALK ABOUT IT IN THE ENROLLMENT NUMBERS BECAUSE I THINK IT PLAYED A SIGNIFICANT PART IN THAT.

CHAIRPERSON YEE: GREAT. THANK YOU. OTHER COMMENTS, MEMBERS?

DR. SADANA: THAT WAS AN EXCELLENT PRESENTATION. THANK YOU. AND I WILL SAY THIS IS THE FIRST TIME WE GOT A REAL PICTURE OF WHAT'S GOING ON OVER THESE YEARS, THE LAST DECADE. IT WAS KIND OF MORE OF AN EMOTIONAL THING WHICH IS GOING ON.

ONE QUESTION. I DON'T MEAN TO SOUND NEGATIVE, BUT LET'S SAY THIS WAS A PRIVATE INDUSTRY. WOULD STILL CIRM BE AROUND WITH THIS MUCH MONEY?

DR. MILLS: NO. I THINK THAT'S KIND OF THE POINT OF CIRM WAS TO DO SOMETHING THAT YOU COULDN'T JUSTIFY THROUGH THE FREE MARKET BECAUSE THE TIME AND THE RISK PROFILE. IF YOU JUST DO THE NPD ON THAT EARLY MONEY WE INVESTED, IT'S JUST NOT THERE. I DIDN'T COME UP WITH THIS. JIM COLLINS ACTUALLY CAME UP WITH THIS. GIANT FLYWHEEL ANALOGY WHERE IT'S A REALLY HEAVY DISK AND IT TAKES A LONG

TIME TO GET STARTED AND YOU MOVE IT IMPERCEPTIBLY. ONCE THAT THING GETS TURNING, IT'S ALMOST IMPOSSIBLE TO STOP. GIANT HEAVY FLYWHEEL HAS A LOT OF MOMENTUM ASSOCIATED WITH IT. THIS FLYWHEEL IS STARTING TO CRANK UP NOW.

LAST YEAR WE HAD TEN TRIALS. NOW WE HAVE 22. THAT NUMBER IS GROWING SO FAST, IT'S HARD TO KEEP -- WE PUT FIVE TRIALS IN IN LIKE THE LAST QUARTER. THAT MANY TRIALS -- BASICALLY THE WAY WE DESIGNED IT WAS WE KNOW, WE KNOW WE'RE GOING TO HAVE THERAPEUTIC SUCCESS, ACTUALLY GET TO THE MARKET, BECAUSE WE DESIGNED THE SYSTEM TO HAVE THOSE KINDS OF NUMBERS IN THERE, KNOWING WE'RE GOING TO HAVE FALLOUT, BUT WE'RE GOING TO PUT 65 THINGS IN WITH OUR TRIAL SPREAD. WE KNOW WE'RE GOING TO GET SOMETHING LIKE FOUR TO SEVEN PRODUCTS ACTUALLY ON THE MARKET. IT'S DIFFICULT TO SEE YET.

I'M NOT A -- I DON'T LIKE THE EMOTIONAL COMPONENTS OF IT. I'M AN EMOTIONAL PERSON. I DON'T LIKE THE -- I'M MORE LIKE LET'S LET THE SCOREBOARD DO THE TALKING. AND SO ALL I CAN REALLY SAY IS, WITHOUT OVERHYPING THIS, IS JUST TO STAND BY. WHAT'S COMING IS GOOD.

DR. SADANA: THANK YOU.

CHAIRPERSON YEE: THANK YOU.

CHAIRMAN THOMAS: THANK YOU, MADAM CONTROLLER. SO I JUST WOULD LIKE TO ADD TO THAT. THE WHOLE IDEA OF PROP 71 WAS THAT THE INDUSTRY AND THE THEN FLEDGLING CELLULAR THERAPY BUSINESS WAS NOT REALLY GOING TO GET INTO R & D AND WHAT IT TOOK TO GET TO PROOF OF CONCEPT AT THE END OF PHASE II CLINICAL TRIALS. AND SO CIRM WAS CREATED. WE CALL THAT THE VALLEY OF DEATH, WHICH SOUNDS LIKE A DISEASE TERM. IT'S REALLY AN ECONOMIC TERM. THEY JUST WOULD NOT STEP IN. AND CIRM WAS CREATED TO FUND ALL THE BASIC RESEARCH THROUGH THE END OF THE PHASE II CLINICAL TRIALS SO THAT YOU WOULD GET TO PROOF OF CONCEPT AND WOULD ULTIMATELY GET INDUSTRY INTERESTED TO PICK IT UP.

SO IT WAS NOT CONTEMPLATED THAT THE FUNDING THAT CIRM WAS PUTTING IN WAS GOING TO IMMEDIATELY HAVE ANY ECONOMIC RETURN. THE WHOLE POINT WAS TO DRIVE INNOVATION AND DRIVE CELLULAR THERAPY FROM ITS FLEDGLING FORM INTO SOMETHING THAT WOULD TRULY BECOME OF INTEREST TO INDUSTRY. AND THAT'S WHAT RANDY IS TALKING ABOUT IS WE'RE READILY HEADING TOWARDS THAT POINT AND FIRMLY BELIEVE THAT WHEN HISTORY LOOKS BACK, THAT CIRM WILL HAVE DONE EXACTLY WHAT IT WAS SET UP TO DO TO MAKE THAT HAPPEN.

CHAIRPERSON YEE: OKAY. THANK YOU VERY MUCH, DR. MILLS.

DR. MILLS: THANK YOU.

CHAIRPERSON YEE: WONDERFUL PRESENTATION. THANK YOU.

WHY DON'T WE MOVE ON TO THE NEXT ITEM THEN, WHICH IS THE CIRM FINANCIAL UPDATE. AND WE'LL HEAR FROM CHILA SILVA-MARTIN, WHO IS THE FINANCE DIRECTOR.

MS. SILVA-MARTIN: GOOD MORNING, CONTROLLER YEE AND MEMBERS OF THE COMMITTEE. IT'S ALWAYS VERY DIFFICULT TO FOLLOW BEHIND DR. MILLS BECAUSE HE DOES DO SUCH A FABULOUS PRESENTATION.

THIS MORNING I WILL BE PROVIDING YOU A FINANCIAL REPORT. THE REPORT WILL COVER THE '15-'16 BUDGET. WE'LL LOOK AT WHAT WAS APPROVED FOR THAT FISCAL YEAR, WHERE WE EXPECT OUR FINAL NUMBERS TO END, AND SOME MAJOR DRIVERS THAT IMPACTED THOSE FINAL NUMBERS, AND THEN WE'LL MOVE ON AND LOOK AT THE '16-'17 BUDGET. WE'LL LOOK AT SOME MAJOR DRIVERS BEHIND THAT BUDGET AS WELL AS SOME POTENTIAL RISKS THAT WE MAY FACE IN MEETING THE FULL BUDGET.

BEFORE I ACTUALLY GO INTO THE '15-'16 NUMBERS, I'D LIKE TO EXPLAIN WHY THE INFORMATION I'M GOING TO PROVIDE YOU FOR '15-'16 IS PROJECTED

INSTEAD OF ACTUALS. AS YOU KNOW, THE STATE FISCAL YEAR IS FROM JULY 1 THROUGH JUNE 30TH. SO BY NOW NORMALLY WE WOULD HAVE HAD OUR AUDIT COMPLETED. BUT, AS YOU KNOW, THE STATE OF CALIFORNIA IMPLEMENTED A NEW FINANCIAL MANAGEMENT SYSTEM CALLED FI$CAL. IT IMPLEMENTED -- THE SYSTEM IS BEING INTRODUCED IN WAVES THROUGHOUT THE STATE OF CALIFORNIA. SO EVERY YEAR THEY'RE ADDING NEW DEPARTMENTS AND THEY'RE ADDING NEW FUNCTIONALITY.

WE CONTRACT WITH THE DEPARTMENT OF GENERAL SERVICES FOR OUR ACCOUNTING OFFICE. AND SO AS A RESULT OF THAT, WE WERE REQUIRED TO COME ONTO FI$CAL AS A WAVE 2 DEPARTMENT DURING THE '15-'16 FISCAL YEAR.

UNFORTUNATELY, BECAUSE WE ARE A BOND AGENCY, NOT ALL OF THE FUNCTIONALITY THAT WE REQUIRE FOR OUR FINANCIAL STATEMENTS IS YET AVAILABLE IN THE SYSTEM. IT ACTUALLY ISN'T GOING TO GO LIVE UNTIL THE CONTROLLER'S GOES LIVE IN 2017. SO FOR THE '15-'16 FISCAL YEAR, WHAT REALLY HAPPENED, THEN, IS THAT ALL OF OUR TRANSACTIONS HAD TO BE PERFORMED MANUALLY. CLAIM SCHEDULES HAD TO BE -- PAPER CLAIMS SCHEDULES HAD TO BE SUBMITTED TO THE CONTROLLER'S, THEY PAID THEM OUTSIDE OF THE FI$CAL SYSTEM, AND THEN THAT REQUIRED GENERAL SERVICES TO THEN GO BACK

IN AND INPUT THEM MANUALLY INTO FI$CAL. SO AS YOU CAN SEE, A LOT OF DUPLICATION OF EFFORT. AND, OF COURSE, THERE WAS ALWAYS THE CHALLENGE OF BRINGING OUR BEGINNING NUMBERS FORWARD.

SO FOR ALL OF THOSE REASONS, IT HAS TAKEN SOME TIME TO GET OUR BOOKS CLOSED. WE DO KNOW THAT DEPARTMENT OF GENERAL SERVICES HAS NOW POSTED EXPENDITURES THROUGH DECEMBER. SO THEY ARE WORKING ON ACCRUALS, AND WE EXPECT THAT THEY WILL HAVE THEIR FINANCIAL STATEMENTS HOPEFULLY COMPLETED WITHIN THE NEXT TWO TO THREE WEEKS. SO THAT IS WHY YOU HAVE PROJECTED NUMBERS, BUT THE NUMBERS ARE COMING OUT OF THE FI$CAL SYSTEM AS WELL AS SOME INTERNAL RECORDS THAT WE HAVE.

SO NOW LOOKING AT THOSE NUMBERS. SO THIS CHART HERE PROVIDES YOU WITH A SNAPSHOT OF OUR '15-'16 BUDGET AT THE CATEGORICAL LEVEL. SO THE FIRST COLUMN REPRESENTS THE BUDGET THAT THE BOARD APPROVED FOR CIRM DURING THE '15-'16 FISCAL YEAR, AND THAT WAS AT 18.7 MILLION. THE SECOND COLUMN REPRESENTS WHERE WE EXPECT TO END THE FISCAL YEAR, AND THAT'S AT 17.2 MILLION. AND SO THE DIFFERENCE, THE VARIANCE, THE UNDERRUNS AND OVERRUNS, IS REPRESENTED IN THE THIRD COLUMN. SO WE EXPECT OUR BUDGET TO COME IN AT ABOUT $1.5 MILLION LESS THAN

WHAT WE WERE BUDGETED, OR ABOUT 8 PERCENT.

SO IF YOU LOOK AT THE THIRD COLUMN, YOU CAN SEE THAT THERE'S A FEW AREAS WHERE WE HAVE SOME FAIRLY SIGNIFICANT EITHER UNDERRUNS OR OVERRUNS. THERE ARE TWO AREAS WHERE WE HAVE UNDERRUNS, A LARGE AMOUNT OF UNDERRUNS, AND THAT'S IN OUR EMPLOYEE EXPENSES AND REVIEWS, MEETINGS CATEGORIES. AND THEN WE DO HAVE ONE AREA WHERE WE HAD AN OVERRUN. SO I'D JUST LIKE TO TALK BRIEFLY ABOUT THOSE.

SO FIRST LOOKING AT THE UNDERRUNS. SO OUR EMPLOYEE EXPENSES ARE EXPECTED TO COME IN ABOUT 1.2 MILLION UNDER WHAT WAS BUDGETED. SO WHY DID THIS HAPPEN? SO AS YOU KNOW, DR. MILLS HAS TALKED A LOT ABOUT THE REORGANIZATION AND STRATEGIC PLANNING, AND SO THAT OCCURRED DURING THE '14-'15 FISCAL YEAR AS WELL AS THE '15-'16. SO AT THE BEGINNING OF THE '15-'16 FISCAL YEAR, WE HAD SEVERAL POSITIONS THAT WERE VACANT; BUT WE WERE GOING THROUGH THE FINAL REORGANIZATION PROCESS, AND THEN WE IMPLEMENTED THE STRATEGIC PLANNING PROCESS. AND SO WE MADE A DECISION THAT WE WOULD KEEP THOSE POSITIONS VACANT UNTIL WE HAD A BETTER UNDERSTANDING OF WHERE WE WERE GOING. AND THEN ONCE THAT WAS ALL DONE, WE WOULD MOVE FORWARD AND FILL THOSE POSITIONS. SO FOR A MAJORITY OF THAT FISCAL YEAR POSITIONS WERE LEFT

VACANT. WE DID START FILLING THEM AT THE END OF THE FISCAL YEAR AFTER WE GOT OUR STRATEGIC PLANNING PROCESS APPROVED.

THE OTHER AREA WHERE WE SAW A SIGNIFICANT UNDERRUN WAS IN REVIEWS, MEETINGS, AND WORKSHOPS. AND THAT REALLY OCCURRED FOR TWO REASONS. SO WE IMPLEMENTED CIRM 2.0 IN OUR DISCOVERY AND TRANSLATIONAL PROGRAMS TOWARD THE END OF THE '14-'15, '15-'16 FISCAL YEAR. AND SO WE HAD PLANNED IN THE BUDGET, THE '15 BUDGET INCLUDED FOUR REVIEWS FOR DISCOVERY AND TRANSLATIONAL. WE ACTUALLY ONLY HELD THREE. SO WE HAD SAVINGS FROM THAT.

WE ALSO DID A LOT OF RESTRUCTURING, AS DR. MILLS HAS TALKED TO YOU ABOUT, AND MADE A LOT OF EFFICIENCIES. SO ONE AREA WHERE WE HAD SOME CHANGES IN OUR MEETINGS WAS, FOR EXAMPLE, IN OUR ICOC MEETINGS. PREVIOUSLY UNDER CIRM 1.0, WE HELD ANYWHERE FROM SIX TO SEVEN IN-PERSON ICOC MEETINGS. WE NOW ARE HOLDING MONTHLY MEETINGS FOR THE ICOC. THERE ARE NOW FOUR IN-PERSON AND THEN THREE TELEPHONIC, SO THAT'S ACTUALLY INCREASED THE NUMBER OF MEETINGS WE HAD, BUT WE'RE HAVING LOWER COST BECAUSE WE'RE NO LONGER HAVING THEM IN PERSON.

SIMILARLY, FOR SOME OF OUR OTHER PROGRAMS, THE LIKE AND THE CAPS AND OUR ALPHA CLINICS,

PREVIOUSLY WE HELD THOSE MEETINGS AT PRIVATE VENUES, AND SO WE WERE REQUIRED TO PAY FOR THOSE VENUES. WITH THE RESTRUCTURING, WE BROUGHT THOSE MEETINGS TO OUR GRANTEE LOCATIONS, AND WE ARE HAVING THEM MORE OFTEN, BUT WE'RE SEEING LOWER COST.

SO THERE IS ONE AREA WHERE WE DID SEE AN OVERRUN, AND THAT'S IN OUR FACILITIES. SO AS YOU MAY RECALL, FOR THE FIRST 15 -- EXCUSE ME. FOR THE FIRST 11 YEARS OF CIRM'S EXISTENCE, WE HAD A REALLY UNIQUE BENEFIT. WE DIDN'T PAY FOR RENT. WE WERE IN A BUILDING WHERE WE WERE PROVIDED RENT, ALL THE OPERATIONAL EXPENSES, INCLUDING PARKING FOR OUR EMPLOYEES FOR FREE. THAT EXPIRED IN OCTOBER OF 2015. SO WE WERE REQUIRED TO GO OUT AND LOOK FOR NEW SPACE. SO WE CONDUCTED A VERY EXTENSIVE SITE SEARCH. WE LOOKED IN SAN FRANCISCO, IN THE PENINSULA, AND THE EAST BAY. AND WE ENDED UP SELECTING OAKLAND AS OUR HEADQUARTERS.

THE LOCATION THAT WE SELECTED WAS IN A SHELL CONDITION, AND WE WERE REQUIRED TO BUILD IT OUT. SO WE REALLY HAD TWO OPTIONS FOR THAT BUILDOUT. WE COULD FINANCE IT THROUGHOUT THE TERM OF THE LEASE, INCLUDED IN THE RENT, BUT THAT WOULD HAVE REQUIRED FINANCING THAT THE OWNERSHIP WOULD HAVE HAD TO PASS ON TO US. OUR OTHER OPTION WAS TO

JUST PAY THE MONEY UP FRONT, AND THAT'S WHAT WE ELECTED TO DO BECAUSE IT WAS A SAVINGS TO THE STATE OF CALIFORNIA.

SO ALTHOUGH WE HAD TO PAY FOR THE COST OF RELOCATING THE OFFICE AND THESE BUILDOUT COSTS, THESE ONE-TIME COSTS, IT WAS STILL BETTER TO MOVE TO OAKLAND BECAUSE, HAD WE STAYED AT OUR LOCATION IN SAN FRANCISCO OVER THE FIRM TERM OF THE OAKLAND LEASE, IT WOULD HAVE COST US ABOUT $3 MILLION MORE TO STAY IN SAN FRANCISCO.

SO THAT'S JUST A VERY QUICK LOOK AT THE '15-'16 BUDGET, AND I'D LIKE TO MOVE OVER TO THE '16-'17 BUDGET.

SO NOW THIS CHART PROVIDES YOU A SNAPSHOT OF OUR '16-'17 BUDGET. SO AS YOU CAN SEE BY THE THIRD COLUMN, WE ARE ALLOCATED FOR THIS YEAR $18.9 MILLION. IF YOU COMPARE THAT TO WHAT WE WERE ALLOCATED FOR '15-'16, WHICH IS THE FIRST COLUMN, IT'S $18.7 MILLION. SO WE'RE JUST LOOKING AT AN INCREASE OF $200,000 FOR THIS NEW FISCAL YEAR.

NOW, COMPARING IT TO WHERE WE EXPECT THE '15-'16 YEAR TO END, WHICH IS $17.2 MILLION AS REFLECTED IN THE SECOND COLUMN, WE'RE LOOKING AT ABOUT A $1.7 MILLION DIFFERENCE. SO WHY ARE WE SEEING THIS VARIANCE OF $1.7 MILLION BETWEEN WHERE

WE LANDED IN '15-'16 AND WHERE WE EXPECT TO BE THIS YEAR? I'D LIKE TO JUST TALK ABOUT THAT BRIEFLY.

SO LOOKING AT THIS CHART, YOU CAN SEE THAT THERE ARE A COUPLE OF AREAS WHERE WE'RE ANTICIPATING INCREASES OVERALL IN OUR EMPLOYEE EXPENSES AND OUR REVIEWS, MEETINGS, AND WORKSHOPS. AND THEN WE DO ANTICIPATE THAT THE COST WILL GO DOWN FOR OUR FACILITIES. SO I'D LIKE TO JUST TALK BRIEFLY ABOUT EACH OF THOSE.

SO WE ARE ANTICIPATING INCREASED COSTS, AND THERE'S REALLY TWO REASONS BEHIND THAT. I TALKED ABOUT ONE OF THEM EARLIER. SO WE HAVE HAD -- WE HAD SEVERAL VACANCIES DURING THE '15-'16 FISCAL YEAR. ONCE WE FINISHED THE STRATEGIC PLANNING PROCESS, WE STARTED FILLING SOME OF THOSE POSITIONS. WE WERE SUCCESSFUL IN FILLING SOME, AND WE'RE CURRENTLY ACTIVELY RECRUITING FOR OTHERS. SO WE ANTICIPATE THAT OVERALL THOSE COSTS ARE GOING TO GO UP BECAUSE POSITIONS HAVE BEEN FILLED.

ANOTHER FACTOR THAT'S IMPACTING THE AMOUNT OF MONEY THAT WE ANTICIPATE WE'LL SPEND ARE WHAT WE CALL STATE-IMPOSED CONTRIBUTIONS THAT AS EMPLOYERS WE'RE REQUIRED TO PAY ON BEHALF OF OUT OF EMPLOYEES. AS A STATE AGENCY, WE DO FUND RETIREMENT AND HEALTH BENEFITS FOR OUR EMPLOYEES. BASED ON INFORMATION

THAT WE RECEIVED WHEN WE WERE BUILDING THE BUDGET FROM THE VARIOUS CONTROL AGENCIES LIKE CALPERS AND CALHR, WE WERE ADVISED THAT THOSE COSTS WERE GOING TO BE GOING UP. AND SO WE BUILT A 7-PERCENT INCREASE IN THE BUDGET TO COVER THOSE COSTS.

WE ALSO EXPECT THAT OUR REVIEW ACTIVITY COSTS WILL GO UP. SO FOR THE '16-'17 FISCAL YEAR, AS DR. MILLS INDICATED, WE ARE SCHEDULED TO HOLD 20 REVIEWS. THAT'S IN COMPARISON TO FOUR TO SEVEN REVIEWS THAT WE HELD UNDER CIRM 1.0. SO THAT'S LIKE 3 TO 400-PERCENT INCREASE. WE ARE EXPECTING TO SEE AN INCREASE OF JUST ONLY $400,000 FOR HOLDING 400 PERCENT MORE MEETINGS, SO THAT REALLY SPEAKS TO ALL THE EFFICIENCIES THAT HAVE BEEN IMPLEMENTED THROUGH CIRM 2.0.

THERE IS ONE AREA WHERE WE DO ANTICIPATE THAT THE COSTS WILL GO DOWN, AND THAT'S IN THE FACILITIES. SO FOR THE FIRST TIME IN OUR HISTORY WE HAVE AN ANNUALIZED COST IN THE '16-'17 FISCAL YEAR OF $710,000. THAT'S DOWN ABOUT 787, $789,000 FROM WHAT WE SPENT LAST YEAR, BUT THAT AMOUNT REALLY REPRESENTED THOSE ONE-TIME COSTS FOR THE BUILDOUT AND THE RELOCATION THAT WE WILL NOT INCUR THIS YEAR.

SO DR. MILLS TALKED ABOUT RISKS WITH OUR STRATEGIC PLAN, AND I'M GOING TO TALK ABOUT RISKS

AND REALLY MEETING THE FULL BUDGET FOR THE '16-'17 FISCAL YEAR BECAUSE WE DO FACE SOME OF THOSE. SO ONE RISK IS IN OUR APPLICATION VOLUME. WE ARE INCREASING THE NUMBER OF REVIEWS THAT WE WILL HOLD THIS FISCAL YEAR, BUT WE DON'T CONTROL THE NUMBER OF APPLICATIONS THAT COME IN. SO WE HAVE BUDGET BASED ON OUR HISTORICAL INFORMATION, BUT IT'S POSSIBLE THAT WE WILL RECEIVE MORE APPLICATIONS THAN WE BUDGETED FOR, AND WE MAY SEE AN OVERRUN IN THIS AREA.

WE TALKED A LOT ABOUT THE VACANT POSITIONS. WE STILL CONTINUE TO HAVE SOME VACANT POSITIONS. WHEN WE FIRST ESTABLISHED THIS BUDGET, WE DID IT LARGELY BASED ON THE CIRM 1.0 BECAUSE WE HAD A LOT OF EXPERIENCE THERE. WE DON'T HAVE A LOT OF EXPERIENCE WITH WHAT WE'LL NEED IN CIRM 2.0. WE TRIED TO BE CONSERVATIVE IN OUR ESTIMATE, BUT WE'VE IMPLEMENTED MANY, MANY EFFICIENCIES THROUGHOUT THE ORGANIZATION. SO AS WE GAIN MORE EXPERIENCE, WE MAY DECIDE THAT WE WILL NOT FILL THE REMAINDER OF OUR VACANCIES. AND IF THAT OCCURS, WE MAY CONTINUE TO HAVE AN UNDERRUN IN THIS AREA.

ANOTHER AREA THAT WE CAN'T REALLY PREDICT COMPLETELY OR CONTROL ARE THOSE STATE-IMPOSED CONTRIBUTIONS. SO WHEN WE BUILT THE BUDGET, WE

BUILT IT BASED ON WHAT INFORMATION WE HAD AT THE TIME. WE KNEW THAT RETIREMENT WAS GOING UP AND WE KNEW THAT HEALTH BENEFITS WERE BEING AFFECTED. BUT THE STATE OF CALIFORNIA IS CURRENTLY IN NEGOTIATIONS WITH A NUMBER OF UNIONS, AND WE ARE ALREADY STARTING TO SEE SOME OF THE RESULTS OF THOSE, AND WE ARE SEEING SOME INCREASED COSTS. AND SO WE ANTICIPATE THAT WHEN ALL OF THAT IS SAID AND DONE AND ALL THE NEGOTIATIONS ARE COMPLETE, THAT WE WILL PROBABLY SEE SOME INCREASES IN THAT AREA. SO GIVEN THAT, IT'S VERY POSSIBLE THAT WE WILL SEE INCREASES THERE THAT WE DID NOT ANTICIPATE.

AND THAT REALLY IS THE BUDGET IN A NUTSHELL. I'M HAPPY TO ANSWER ANY QUESTIONS ANY OF YOU HAVE. THIS HAS BEEN A CHALLENGING YEAR FOR US BECAUSE WE DON'T HAVE OUR BOOKS CLOSED YET, BUT WE'RE CONFIDENT THAT WE WILL OVERCOME ALL OF THIS, AND AT SOME POINT WE WILL BE ABLE TO USE FI$CAL AS IT WAS INTENDED. AND WE'RE LOOKING FORWARD TO THAT.

CHAIRPERSON YEE: GREAT. THANK YOU, CHILA. JUST WOW. FOR THE SAKE OF DR. QUICK AND DR. SEDANA, THE FI$CAL PROJECT, WHICH IS OUR STATEWIDE, ESSENTIALLY BUILDING A SYSTEM FOR OUR STATEWIDE ACCOUNTING, HAS BEEN CHALLENGING. AND I WILL SAY THAT WITH RESPECT TO CIRM, WE'RE FURTHER

THAN EVEN SOME OTHER STATE DEPARTMENTS. LOTS OF CHALLENGES. AND CERTAINLY AS ONE OF THE CONTROL AGENCIES INVOLVED, THE STATE CONTROLLER'S OFFICE, I JUST WANT TO SAY THANK YOU FOR CONTINUING TO HANG IN THERE WORKING WITH GENERAL SERVICES. I'M ACTUALLY HAPPY THAT THE TIME FRAME IS WITHIN REACH IN TERMS OF CLOSING OUT. SO THANK YOU FOR THAT.

A QUESTION WITH RESPECT TO THE UNFILLED POSITIONS. GIVE US A FLAVOR OF THE TYPES OF POSITIONS. IS THIS GOING TO AFFECT ANYTHING IN TERMS OF THE -- ANYTHING MISSION CRITICAL?

DR. MILLS: SO THIS IS, AS I ALLUDED TO IN MY PRESENTATION, THIS IS THE CURVE BALL THAT I CONTINUE TO THROW CHILA. THE UNFILLED POSITIONS AREN'T THAT WE CAN'T FILL THEM. IT'S THAT PRODUCTIVITY AND EFFICIENCY ARE GOING UP SO QUICKLY, WE'RE REALIZING THAT WE MAY JUST NOT NEED TO FILL THEM. SO ANYTHING MISSION CRITICAL WE HAD AND WE GET. WE MADE TWO HIRES WITHIN THE LAST FEW WEEKS. SO IF WE NEED PEOPLE, WE'RE STILL GETTING GREAT QUALITY PEOPLE. BUT WHAT WE WON'T DO IS WE WON'T OVERSTAFF BECAUSE I DON'T WANT TO HAVE TO LET SOMEBODY GO, I DON'T WANT THERE TO BE PEOPLE SITTING AROUND WITHOUT ANY WORK TO DO. SO WE'RE REALLY JUST TRYING TO GET OUR HAND. I KNOW IT LOOKS LIKE WE

CAN'T BUDGET, BUT IT'S JUST WE'RE IN A SYSTEM THAT'S CHANGING SO FAST, THE PRODUCTIVITY IS CHANGING SO FAST, IT'S VERY DIFFICULT FOR US TO FIGURE OUT. SO IF WE NEED THEM, WE PUT THE SLOTS THERE. BUT WE TALKED ABOUT EARLIER, THERE IS ALMOST NO CHANCE THAT WE'RE ACTUALLY GOING TO COME IN AT BUDGET ON EMPLOYEE COSTS. THEY WILL BE LOW AGAIN. AND THEN EVENTUALLY WE'LL PROBABLY HAVE A HANDLE ON THE SYSTEM AND CAN ACTUALLY THEN NEXT YEAR FORECAST CORRECTLY.

CHAIRPERSON YEE: OKAY. THANK YOU. QUESTIONS, MEMBERS? THANK YOU VERY MUCH.

MS. SILVA-MARTIN: THANK YOU.

CHAIRPERSON YEE: OKAY. OUR NEXT ITEM, CLINICAL PORTFOLIO REVIEW. DR. MILLS.

DR. MILLS: I'M BACK. OKAY. THOUGHT IT WOULD BE FUN JUST TO TAKE YOU THROUGH WHAT WE'VE DONE AT CIRM WITH REGARDS TO CLINICAL. WE HAVE ABOUT 300 PROJECTS ALL TOLD AT CIRM IN ALL OF THOSE DIFFERENT AREAS THAT WE DO. BUT THE ONES THAT PEOPLE GENERALLY LIKE TO TALK ABOUT AND FOCUS ON ARE THE ONES THAT DEAL WITH OUR CLINICAL PORTFOLIO BECAUSE IT'S CLOSEST TO ACTUALLY ACHIEVING OUR MISSION.

SO, AGAIN, OUR SEAMLESS PATHWAY,

DISCOVERY, TRANSLATION, AND TO CLINICAL. I WILL NOTE ABOUT THIS, ONE OF THE THINGS ABOUT THIS SYSTEM THAT WE REALLY LIKE IS THAT WITHIN EACH OF THESE GROUPS WE HAVE MULTIPLE PROGRAMS. BUT THOSE PROGRAMS ARE NOW SET UP SUCH THAT THE PRODUCT OF ANY ONE AWARD IS THE PREREQUISITE FOR THE NEXT. SO THERE ARE NO GAPS FROM THE EARLIEST STAGE IDEA ALL THE WAY THROUGH GETTING A TRIAL REGISTERED. BECAUSE OF THE WAY THE TIME IS SET UP, AS SOON AS YOU'RE READY TO GO AND TO MAKE THAT JUMP OR THAT PROGRESSION EVENT, AS I SAID, WE'RE THERE FOR YOU. SO WE LIKE THAT TIME, WE LIKE OUR GAP TIME TO BE ZERO.

NOW, DIGGING IN A LITTLE BIT MORE BETWEEN THOSE THREE DOWN TO THE CLINICAL PROGRAM, IT IS OFFERED 12 TIMES A YEAR OR ESSENTIALLY ALWAYS OPEN. WE JUST CLOSE CYCLES TO REVIEW THEM AT THE END OF EACH MONTH. WE HAVE THREE DIFFERENT PROGRAMS IN CLINICAL. ONE IS FOR WHAT WE CALL IND ENABLING. THE IND IS INVESTIGATIONAL NEW DRUG. IT'S THE CERTIFICATION YOU GET FROM THE FOOD AND DRUG ADMINISTRATION THAT ALLOWS YOU TO PUT INTO A HUMAN A DRUG THAT IS NOT APPROVED. AND SO IT'S WHAT'S REQUIRED IN ORDER TO CONDUCT A CLINICAL TRIAL. SO OUR FIRST AWARD IN CLINIC IS AN 18-MONTH AWARD THAT

LET'S THE APPLICANT GET THE IND.

ONCE THEY HAVE AN IND, WE HAVE A PROGRAM CALLED CLIN2. AND CLIN2 IS FOR ANY STAGE CLINICAL TRIAL. SO PHASE I, II, OR III CLINICAL TRIAL. AND THEN, LASTLY, WE HAVE WHAT WE CALL A CLIN3 AWARD. AND THIS IS REALLY FOR ACCELERATING ACTIVITIES. AND THIS IS AN INFREQUENTLY USED, BUT IT WOULD BE A GREAT THING TO USE, SO THIS WOULD BE IF WE HAD A PROGRAM THAT WAS GOING ALONG, LET'S SAY, IN CANCER AND IT WAS A 15-PATIENT TRIAL, BUT THE DATA IS JUST COMING BACK OVERWHELMINGLY GREAT. AND THE FDA SAYS IF YOU PUT 20 PATIENTS INTO THAT TRIAL, THEN WE'LL LET YOU REGISTER THAT DRUG, GET IT APPROVED. SO THE ACCELERATING OR THE CLIN3 AWARD ALLOWS FOR THOSE TYPES OF ACTIVITIES WHERE YOU CAN TAKE A PROGRAM AND TURN IT INTO A REGISTRATION PROGRAM.

OKAY. SO OUR EVER EXPANDING THERAPEUTICS PORTFOLIO, 32 INDIVIDUAL PRODUCTS OR PROJECTS THAT ARE IN THAT PORTFOLIO. YOU CAN SEE THE DIFFERENT DISEASES WE HAVE REPRESENTED. THAT IS NOW 22 CLINICAL TRIALS. WE'LL PROBABLY END THE YEAR AT SOMETHING CLOSER TO 27 CLINICAL TRIALS. SO WE'VE GOT A BUNCH MORE THAT ARE COMING IN. AND TEN THINGS GETTING READY TO GO INTO THE CLINIC, PRE-IND OR THAT CLIN1 PHASE.

THESE ARE THE DIFFERENT PROGRAMS. I'LL BREAK OUT JUST THE CLINICAL ONES FOR THE DIFFERENT CONDITIONS. SO THIS IS FOR OUR NEURO AND OPHTHALMOLOGIC CONDITIONS. SO WE HAVE SPINAL CORD INJURY, THAT'S IN A PHASE I-II; RETINITIS PIGMENTOSA, WHICH IS BEING DONE IN IRVINE UNDER DR. KLASSEN. I'LL TALK A LITTLE BIT MORE ABOUT THAT IN A SECOND. THAT'S IN A PHASE I-II TRIAL. WE ALSO HAVE ONE FOR AGE-RELATED MACULAR DEGENERATION, BACK OF THE EYE, JUST LIKE RETINITIS PIGMENTOSA ACTUALLY. THAT'S IN A PHASE I TRIAL. LOU GEHRIG'S DISEASE JUST GOT APPROVED. THIS IS A BIG ONE. ALS, AMYOTROPHIC LATERAL SCLEROSIS, PROGRAM AT CEDARS-SINAI JUST GOT APPROVED. WE'RE VERY EXCITED ABOUT THAT. WE HAVE AN OBSERVATIONAL TRIAL IN HUNTINGTON'S DISEASE. AND OUR PREVIOUS SPINAL CORD INJURY TRIAL IS NOW CLOSED.

WE HAVE ANOTHER GROUP WE CALL ORGAN SYSTEMS. SO THESE ARE THINGS THAT GENERALLY RELATE TO AN ORGAN OR A MUSCULOSKELETAL PROGRAM. SO WE ACTUALLY HAVE A PHASE III PIVOTAL TRIAL THAT'S GOING ON RIGHT NOW THAT ACTUALLY REGENERATES A BLOOD VESSEL THAT ALLOWS PEOPLE UNDERGOING HEMODIALYSIS TO BE ABLE TO CONTINUE TAKING THAT HEMODIALYSIS. THAT TRIAL IS ACTUALLY AHEAD OF SCHEDULE. I LOVE THAT

WHEN THAT HAPPENS. AND WHEN THEY'RE DONE, THAT PRODUCT WILL GO DIRECTLY TO FDA FOR REGISTRATION, HAS THE POSSIBILITY OF BEING OUR FIRST APPROVED THERAPY.

WE ALSO HAVE A PHASE II TRIAL IN MYOCARDIAL INFARCTION. SO WE'RE USING STEM CELLS FOR PATIENTS THAT HAVE HAD A RECENT HEART ATTACK TO PREVENT THEM FROM PROGRESSING INTO HEART FAILURE.

ONE OF OUR MOST COMPELLING PROGRAMS IS IN CHILDREN WITH DUCHENNE'S MUSCULAR DYSTROPHY WHERE ACTUALLY THEY HAVE A FORM OF THAT DISEASE WHERE THEY ALSO GO INTO HEART FAILURE, AND WE HAVE A PHASE II PROGRAM TRYING TO PREVENT THEM FROM PROGRESSING TO HEART FAILURE.

WE HAVE A PHASE I-II TRIAL IN TYPE 1 DIABETES. AND, LASTLY, JUST STARTED A PHASE I-II TRIAL IN OSTEONECROSIS. THIS IS A DISEASE THAT CAN HAPPEN, SOMETIMES SPONTANEOUSLY IT CAN HAPPEN, SOMETIMES AN INJURY, MOSTLY HAPPENS WHEN PEOPLE HAVE TAKEN HIGH DOSES OF STEROIDS. AND WHAT HAPPENS IS USUALLY THEIR HIP WILL BECOME NECROTIC BECAUSE THERE WON'T BE ANY BLOOD AND THE BONE DIES AND BECOMES NECROTIC, AND THESE PEOPLE LOSE THE ABILITY TO WALK BECAUSE OF IT. SO IT'S A VERY SIGNIFICANT DISEASE.

ONCOLOGY, FIVE CLINICAL PROGRAMS GOING ON

IN ONCOLOGY, INCLUDING A PHASE III TRIAL IN GLIOBLASTOMA. UCLA IS RUNNING A VERY PROMISING PROGRAM IN SOLID TUMORS, SO THEY'RE TRYING TO FIND -- EARLY PHASE I TRIAL IS TRYING TO FIND SOLID TUMORS THAT ARE WORKING. CHRONIC LYMPHOCYTIC LEUKEMIA IS BEING DONE AT UCSD. AND THEN WE HAVE AML, ACUTE MYELOGENOUS LEUKEMIA, WHICH IS BEING DONE AT STANFORD. AND HERE'S AN EXAMPLE OF A TRIAL THAT WE RAN AND IT DIDN'T WORK AND IT CLOSED. SO THIS WAS A $20 MILLION AWARD TO JUST SORT OF GIVE YOU REAL NUMBERS. THEY GOT $3 MILLION INTO IT, THEY GOT TO FUTILITY, THAT HAPPENS, IT'S THE WORLD WE LIVE IN, THE PROGRAM CLOSED, AND THE 17 MILLION THAT WAS REMAINING CAME BACK TO CIRM.

AND THEN THE LAST BUCKET IS OUR HEMATOLOGY. WE HAVE A LOT GOING ON IN HEMATOLOGY, AND SOME OF THE MOST IMPRESSIVE AND SUCCESSFUL WORK THAT I'VE EVER SEEN. SO THERE IS -- WE HAVE A PHASE I-II TRIAL IN SEVERE COMBINED IMMUNODEFICIENCY WHERE WE'RE ACTUALLY MAKING BONE MARROW TRANSPLANT A LITTLE BIT EASIER THERE. WE HAVE A PHASE I-II TRIAL IN HIV/AIDS. WE ALSO HAVE TWO PHASE I TRIALS IN HIV/AIDS. ONE OF THEM IS AIDS LYMPHOMA. WE HAVE A PRODUCT I'LL TALK MORE ABOUT IN JUST A SECOND IN A DISEASE CALLED CGD, CHRONIC GRANULOMATOUS DISEASE.

THIS IS A CONDITION WHERE PEOPLE DON'T HAVE THE ABILITY TO KILL BACTERIA THAT THEIR WHITE CELLS AREN'T ABLE TO CAPTURE. HAPPENS IN CHILDREN. HISTORICALLY THEY WOULD DIE BY AROUND THE AGE OF TEN. NOW THEY CAN MAKE IT INTO THEIR TWENTIES, BUT A BAD DISEASE. THAT SAME INVESTIGATOR THAT'S TAKING THAT SAME APPROACH IS ALSO WORKING ON IT IN SICKLE CELL, ALSO WORKING ON IT IN SEVERE COMBINED IMMUNODEFICIENCY. SO THAT SAME APPROACH IS POTENTIALLY TACKLING A NUMBER OF VERY SERIOUS AND SIGNIFICANT DISEASES.

SO THAT'S VERY METHODICALLY WHERE WE ARE AND THAT'S OUR CLINICAL PROGRAM. I'LL TALK A LITTLE BIT ABOUT THE PEOPLE BEHIND OUR CLINICAL PROGRAM AND TALK ABOUT SOME OF WHAT WE'RE SEEING.

SO THIS IS RETINITIS PIGMENTOSA. IF YOU'RE NOT FAMILIAR WITH THE DISEASE, IT'S A DISEASE OF YOUR RETINA WHERE YOU START LOSING THE CELLS IN THE BACK OF THE EYE THAT HELP YOU SEE LIGHT. YOU GET TUNNEL VISION, AND THAT TUNNEL VISION GETS SMALLER AND SMALLER AND SMALLER UNTIL EVENTUALLY YOU CAN'T SEE ANYMORE. SO WE'VE GIVEN THEM A $17 MILLION AWARD, DR. KLASSEN, A $17 MILLION AWARD TO CONDUCT A PHASE I-II TRIAL WHERE THEY'RE ACTUALLY INJECTING THESE NEURAL STEM CELLS INTO THE BACK OF

THE EYE TO REPLACE THE CELLS THAT OTHERWISE HAVE DIED.

SO THIS IS ROSIE. AND ROSIE IS A REAL PERSON WHO PARTICIPATED IN THIS TRIAL. SHE ACTUALLY CAME AND SPOKE BEFORE OUR BOARD. SHE GOT DIAGNOSED WITH THIS DISEASE RIGHT AROUND THE TIME THAT SHE WAS HAVING HER CHILDREN, HER TWINS. AND BY THE TIME THE CHILDREN WERE BORN, SHE COULDN'T SEE ANYMORE. SHE IS NOW ABLE TO READ WITH THIS. SO IT'S SMALL NUMBERS, BUT FOR HER VERY SUCCESSFUL.

THIS IS CHRIS. CHRIS IS ACTUALLY HERE FROM L.A. THIS IS OUR SPINAL CORD INJURY TRIAL WHERE WE TAKE HUMAN EMBRYONIC STEM CELLS, WE INJECT THEM DIRECTLY INTO PATIENTS THAT HAVE SPINAL CORD INJURY IN AN ATTEMPT TO REGROW AND PRESERVE SPINAL PATHWAYS IN THE AFFECTED AREA. AND SO SPECIFICALLY THEY'RE LOOKING AT CERVICAL, SO IN THE NECK, SPINAL CORD INJURIES, C5 TO C7, SO THAT'S THE NUMBER OF THE VERTEBRAE YOU HAVE. YOU COUNT DOWN FROM THE ONE AT THE TOP OF YOUR NECK, YOU CAN COUNT DOWN, FIVE TO SEVEN IS ABOVE YOUR SHOULDERS. SO THESE PATIENTS ARE REQUIRED TO HAVE NEUROLOGICALLY COMPLETE CERVICAL INJURIES ABOVE THEIR SHOULDERS. SO THEY CAN'T MOVE THEIR ARMS, THEY CAN'T MOVE THEIR LEGS, THEY CAN'T FEED THEMSELVES, THEY CAN'T TEXT, THEY

CAN'T DO ANY OF THAT STUFF.

AND THAT WAS THE WAY CHRIS WAS WHEN HE ENTERED THE TRIAL, A MOTOR VEHICLE ACCIDENT, UNABLE TO MOVE HIS ARMS. THEY RECENTLY DID A FEATURE ON HIM. HE WAS SO ENTHUSIASTIC ABOUT THE IMPROVEMENT THAT HE'S SEEN, HE'S HOLDING WEIGHTS ABOVE HIS HEAD. IT'S PRETTY COOL. AGAIN, EARLY, SMALL TRIAL. WE WANT TO SEE MORE OF THIS HAPPEN. WE WANT TO SEE MORE OF IT HAPPEN WHEN WE'RE SURE, 100 PERCENT CERTAIN, THAT IT'S THE STEM CELL THERAPY. BUT WHEN YOU HAVE 20, 30, 40, 50 CLINICAL TRIALS, THIS KIND OF STUFF DOES HAPPEN. WE'RE GOING TO SEE MORE AND MORE PATIENTS THAT ARE GETTING BETTER THAT ARE OBJECTIVELY RESPONDING TO THESE KIND OF THERAPIES. SO A GOOD START AND A GREAT START FOR HIM.

IT WAS FUNNY. I MAY HAVE MENTIONED TEXTING, BUT IT WAS A BIG DEAL TO HIM. HE DESCRIBED HIS LIFE AFTER THE ACCIDENT AS JUST EXISTING. HE COULDN'T DO ANYTHING. HE COULDN'T MOVE HIS ARMS. HE WAS JUST EXISTING. AND, YOU KNOW, THE KIDS TODAY, THEY LIKE TO TEXT. THAT'S HOW THEY COMMUNICATE AND SOCIALIZE, AND SO THAT WAS FOR HIM, IT WAS THE THING THAT, YEAH, I CAN LIFT WEIGHT OVER MY HEAD, I CAN FEED MYSELF, BUT I CAN TALK TO SOMEBODY THE WAY WE DO. SO I THOUGHT THAT WAS

GREAT.

NOW, HERE'S A QUESTION ABOUT WHAT ONE THING CAN I POINT TO. THIS, I CAN POINT TO THIS ONE. THIS IS AMAZING. SO DON KOHN AT UCLA DEVELOPED A PROGRAM WHERE HE CAN TAKE BONE MARROW OUT OF PEOPLE AND HE CAN EDIT THE GENES OF THAT BONE MARROW AND CORRECT FOR THE DEFECTIVE GENE AND PUT IT BACK IN. THIS PARTICULAR CASE, CHRONIC GRANULOMATOUS DISEASE, THIS IS A DISEASE WHERE YOUR WHITE BLOOD CELLS CAN'T KILL BACTERIA. SO THEY CAN EAT THE BACTERIA, BUT THEY DON'T MAKE A CHEMICAL CALLED SUPEROXIDE. AND SUPEROXIDE IS WHAT ULTIMATELY KILLS THESE BACTERIA INSIDE. SO THEY HAVE ESSENTIALLY A VERY SERIOUS IMMUNE DEFICIENCY. THEY GET LOTS OF INFECTIONS ALL THE TIME. THEY'RE ALWAYS SICK. THEY'RE USUALLY, LIKE I SAID, BEFORE THEY WOULD DIE BEFORE THE AGE OF TEN. NOW WITH ANTIBIOTIC AND ANTI-FUNGAL PROPHYLAXIS, THEY CAN MAKE IT INTO THEIR TWENTIES, BUT IT'S A BAD DISEASE.

SO THIS IS BRANDON. BRANDON, BEFORE HE WAS TREATED HAD A PIECE OF HIS LIVER CUT OUT, HAD A PIECE OF HIS LUNG CUT OUT, HAD PIECES OF HIS FACE THAT HAD TO BE REMOVED, WAS CHRONICALLY SICK. COULDN'T DO ANYTHING, CHRONICALLY SICK, 22-YEAR-OLD. AND GOT TREATED IN DECEMBER OF 2015 WITH DON KOHN'S

PROGRAM.

NOW, HE DOESN'T HAVE THE ABILITY NATURALLY, GENETICALLY TO MAKE THIS PROTEIN THAT CREATES SUPEROXIDE. HE CAN'T MAKE IT, DOESN'T HAVE IT, DOESN'T EXIST IN HIM. THEY TOOK HIS BONE MARROW OUT, THEY GENE EDITED IT, THEY PUT IT BACK IN, AND HE IS MAKING THIS WORK. DIRECT, ABSOLUTELY CAN MEASURE IT, THERE'S NO OTHER POSSIBLE EXPLANATION FOR WHAT'S GOING ON, AND CLINICALLY HE'S DOING GREAT. HE'S GOING BACK TO COLLEGE. HE WASN'T ABLE TO GO TO COLLEGE. HE'S GOING BACK TO COLLEGE. HE'S GOT A PART-TIME JOB WORKING ON A GOLF COURSE. AND THERE'S NO OTHER EXPLANATION FOR HIS IMPROVEMENT. SO THAT I CAN POINT TO YOU AS -- WE'RE DOING MORE. WE'RE NOT ONE AND DONE. WE'LL CONTINUE TO OBVIOUSLY DO THIS AND TRY TO GET THIS DRUG APPROVED AS QUICKLY AS WE CAN. SMALL NUMBER DISEASE, VERY, VERY ORPHAN CONDITION, WOULD NOT HAPPEN WITHOUT CIRM BECAUSE THERE'S NO WAY A DRUG COMPANY WOULD SPEND THAT MUCH MONEY TO DEVELOP A THERAPY WHEN THERE'S ONLY 20 NEW PATIENTS A YEAR, BUT A CLEAR EXAMPLE OF CLINICAL SUCCESS IN A VERY REAL PERSON AND IN A TREATMENT MODALITY THAT CAN BE EXPANDED TO OTHER DISEASES. SO THINK ABOUT THAT. THINK ABOUT YOU CAN PUT IT ON TOP, NOW YOU GO AFTER, INSTEAD OF CGD, YOU GO AFTER

SICKLE CELL DISEASE, WHICH WE HAVE A PHASE I-II TRIAL IN SICKLE CELLS. HORRIBLE DISEASE THAT AFFECTS LOTS AND LOTS OF PEOPLE. THESE THINGS WILL SOON BE IN THE PAST AND WILL BE IN THE PAST BECAUSE OF CIRM.

GO BACK IN REVERSE AND END WITH OUR MISSION BECAUSE THAT'S WHAT THE PURPOSE OF THAT CLINICAL PROGRAM IS ABOUT. IT'S ABOUT BRINGING IT BACK TO PATIENTS AND ACCELERATING THOSE STEM CELL TREATMENTS TO THOSE PATIENTS WITH UNMET MEDICAL NEEDS. THAT'S WHAT I GOT.

CHAIRPERSON YEE: THANK YOU, DR. MILLS. COMMENTS, MEMBERS? DR. SEDANA.

DR. SADANA: CONGRATULATE YOU ON THE SUCCESS. THIS IS WONDERFUL. ONLY THING I DIDN'T SEE WAS CF WHERE YOU DON'T HAVE ANY RESEARCH GOING ON, CYSTIC FIBROSIS.

DR. MILLS: IN CF? I WISH I HAD THE REST. SO OF THE 300 PROGRAMS, I DON'T KNOW ALL OF THE ONES WE HAVE. WE DON'T HAVE ANYTHING IN THE CLINIC IN CF, BUT I DO THINK WE HAVE SOMETHING, I THINK, IN TRANSLATIONAL, BUT I WILL FIND OUT FOR YOU.

ONE OF THE THINGS THAT, AS AN AGENCY, WE'RE SORT OF AT THE MERCY OF WHAT COMES TO US AND WHAT APPLIES. AND I SAY SORT OF NOW BECAUSE WE'VE

CHANGED THAT. WE USED TO BE COMPLETELY. WE WOULD JUST LIKE, OH, HOPE STUFF COMES IN. WE NOW HAVE A DIFFERENT FULL-CONTACT CIRM. WE GO HUNTING. SO WHEN THERE ARE PROGRAMS THAT WE WANT, AND THEY'RE A GREAT PROGRAM, WE GO OUT AND TRY TO GET THEM AND BRING THEM IN AND HAVE LESS OF A PASSIVE ROLE. WE STILL CAN'T FORCE THEM TO.

DR. SADANA: THE REASON I ASK WHY CF BECAUSE 25 PERCENT OF THE POPULATION CARRIES THE CF GENE IN THE UNITED STATES. AND THOUGH THE REFLECTION IS NOT LUCKILY FOUND THAT COMMON, STILL IT'S PRETTY COMMON.

DR. MILLS: YEAH.

CHAIRPERSON YEE: THANK YOU. DR. QUICK.

DR. QUICK: YEAH. THANK YOU SO MUCH. JUST TREMENDOUS RESULTS. I'M TRYING TO DO THE MATH HERE. HOW MANY CLINICAL TRIALS HAS CIRM IN ITS LIFETIME NOW GOTTEN UNDER WAY?

DR. MILLS: TWENTY-TWO.

DR. QUICK: TWENTY-TWO. SO ON AVERAGE, THEN, IF I REMEMBER FROM YOUR PREVIOUS SLIDES, YOU HAVE, WHAT, 300 TOTAL ENROLLEES IN TRIALS, SOMETHING LIKE THAT, 350?

DR. MILLS: JUST UNDER 400.

DR. QUICK: SO SOMETHING LIKE, THEN, ON

AVERAGE 20 ENROLLEES PER TRIAL IF I DO THE MATH. THOUGHTS? I KNOW YOU SHOWED THE ACCELERATION CURVE. THAT'S GREAT. BUT IN GENERAL, I'M NOT AN EXPERT IN CLINICAL TRIALS, DO THOSE NUMBERS DISAPPOINT YOU? ARE THOSE GREAT NUMBERS? I'M NOT SURE.

AND THEN MY FOLLOW-UP QUESTION TO THAT IS I KNOW IN A NUMBER OF AREAS, ESPECIALLY AROUND CANCER WHERE I'VE TALKED TO A NUMBER OF PEOPLE IN THE FIELD, REALLY DIFFICULT FINDING THE APPROPRIATE DISTRIBUTION OF, FOR EXAMPLE, ETHNICITIES, ETC., TO GET PEOPLE TO ENROLL. ARE YOU SEEING THAT SAME KIND OF PROBLEM HERE? IT MUST BE TOUGH TO DO WHEN YOU'RE TALKING ABOUT ENDS THAT ARE THIS SMALL. BUT ANYWAY, IF YOU COULD COMMENT ON THAT.

DR. MILLS: SO THE FIRST QUESTION IS A GREAT ONE. AND THE METRIC THAT I'M SHOWING IS AN EASILY RELATABLE METRIC AND SORT OF UNDERSTAND PEOPLE AND PUT A PATIENT. YOU PEEL THE ONION BACK A LITTLE BIT JUST LIKE YOU DID. SAY, WELL, WAIT A MINUTE. A BETTER METRIC THAN WHETHER OR NOT PATIENTS ENROLLED WOULD BE PERCENTAGE OF TRIAL ENROLLED PER UNIT TIME BECAUSE OUR TRIALS VARY WIDELY. WE HAVE BIG PHASE II-PHASE III TRIALS AND HAVE LOTS AND LOTS AND LOTS OF PATIENTS GOING IN. WE HAVE -- SOME OF THESE DISEASES ARE TINY, SO IT'S

NOT UNCOMMON FOR US TO HAVE A SEVEN-PATIENT TRIAL, A TEN-PATIENT TRIAL. SO OUT OF THAT 22, THERE'S ALL KINDS OF -- THEY'RE JUST VERY, VERY DIFFERENT, THEY'RE VERY DIFFERENT BEASTS. AND SO IT'S AN EASILY TRANSLATABLE NUMBER, BUT IT'S PROBABLY NOT THE MOST USEFUL NUMBER.

SO WHAT I'M HAPPY WITH IS THAT WHEN WE LOOK AT WHAT WE EXPECTED THESE TRIALS TO ENROLL AT AND HOW THEY'RE ENROLLING, IT'S CLOSER THAN -- WE'RE PUTTING IN 4.49 PATIENTS A QUARTER. BETTER TO SAY WE EXPECTED AND WE WERE HAPPY WHEN THESE PROGRAMS SAID THEY WERE GOING TO ENROLL IN X PERIOD OF TIME AND 77 PERCENT OF THEM ARE ON OR AHEAD OF SCHEDULE. SO THAT'S MY THOUGHTS ARE ON THAT. BUT WE'RE CONSTANTLY THINKING ABOUT HOW TO MEASURE THINGS BETTER. SO IT'S ONE WE'LL THINK MORE ABOUT.

THE SECOND QUESTION --

DR. QUICK: HAD TO DO WITH SORT OF THE TYPES OF ENROLLEES AND WHETHER THAT'S BEEN A CHALLENGE LIKE WE'VE SEEN IN A LOT OF CLINICAL TRIALS.

DR. MILLS: SO WE HAVE TWO THINGS THAT WE MADE AVAILABLE TO ADDRESS THAT ISSUE. ONE OF THEM IS OUR ALPHA CLINICS WHICH WERE SET UP. WE HAVE THREE ALPHA CLINICS. THEY ALL HAD TO BE IN SOUTHERN

CALIFORNIA. AND THOSE THREE ALPHA CLINICS ACTUALLY HAVE 22 OF THEIR OWN CLINICAL TRIALS THAT ARE GOING ON THAT AREN'T OURS. ACTUALLY SEVEN OF THEM ARE OURS, BUT THE REST AREN'T. FIFTEEN ARE THEIRS. AND ONE OF THE PURPOSES OF THAT ALPHA CLINIC WAS ACTUALLY TO CREATE THIS NETWORK WHERE THEY WERE ABLE TO SHARE DATA AND PATIENTS, AND THEY ACTUALLY HAVE COMMON IRB'S. SO IF YOU'RE IN ONE OF THOSE CENTERS, YOU'RE IN ALL OF THOSE CENTERS AND MAKE PATIENT SHARING AVAILABLE EASIER.

THE SECOND THING WE DID -- SO I THINK THAT'S HELPING IN THAT. THE SECOND THING WE DID WAS WE MADE IT REALLY CLEAR THAT IF YOU WERE A CALIFORNIA COMPANY AND YOU NEEDED TO GO OUTSIDE OF THE STATE OF CALIFORNIA TO GET THE DEMOGRAPHIC REPRESENTATION YOU NEED, YOU CAN DO THAT. AS LONG AS THE TRIAL IS GOING ON IN CALIFORNIA, THAT'S FINE. AND SO THAT HELPS. THERE ARE SOME DISEASES WHERE YOU JUST CAN'T STAY IN CALIFORNIA AND EXPECT TO ENROLL A TRIAL.

DR. QUICK: THANK YOU.

CHAIRPERSON YEE: OKAY. THANK YOU, DR. QUICK. ANY OTHER COMMENTS, MEMBERS? VERY WELL. THANK YOU VERY MUCH FOR THE PRESENTATION.

DR. MILLS: THANK YOU.

CHAIRPERSON YEE: WE APPRECIATE IT.

LET ME JUST DO A RECAP HERE. I DON'T BELIEVE THERE ARE ANY MEMBERS OF THE PUBLIC WHO WISH TO COME FORWARD AND MAKE COMMENTS. OKAY. I THINK BEFORE WE ADJOURN, I'D LIKE TO HAVE JUST SOME INTRODUCTIONS OF THE REPRESENTATIVES WHO ARE HERE FROM CIRM. WITH YOU, DR. MILLS.

DR. MILLS: DR. RANDY MILLS.

MS. SILVA-MARTIN: CHILA SILVA-MARTIN.

MR. HARRISON: JAMES HARRISON.

CHAIRMAN THOMAS: JON THOMAS, CHAIR OF THE BOARD.

MS. BONNEVILLE: MARIA BONNEVILLE.

CHAIRPERSON YEE: VERY WELL. THANK YOU. THANK YOU FOR THE PRESENTATIONS TODAY. WE LACKED A QUORUM TODAY, BUT WE WILL RECEIVE ALL THE PRESENTATIONS. WE DO HAVE AN ACTION PENDING FOR A MEETING TO BE DETERMINED AT A LATER DATE TO ACCEPT AND HOPEFULLY APPROVE THE AUDIT. AND SO WE WILL BE BACK IN CONTACT WITH THE MEMBERS OF THE COMMITTEE TO SET THAT TIME UP, HOPEFULLY BEFORE THE END OF THIS CALENDAR YEAR. SO WITHOUT ANY FURTHER COMMENT, I BELIEVE THAT THIS COMMITTEE IS ADJOURNED. THANK YOU VERY MUCH.

(THE MEETING WAS THEN CONCLUDED AT 11:02 A.M.)

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 OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD AT THE LOCATION INDICATED BELOW

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
BOARD ROOM
818 WEST 7TH STREET, 12TH FLOOR
LOS ANGELES, CALIFORNIA
ON
OCTOBER 27, 2016

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, CSR 7152
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