BEFORE THE

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

REGULAR MEETING

LOCATION: 1999 HARRISON STREET
SUITE 1650
OAKLAND, CALIFORNIA

DATE: MAY 23. 2019
9 A.M.

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

FILE NO.: 2019-12

I N D E X

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

I N D E X (CONT'D.)

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OAKLAND, CALIFORNIA; THURSDAY, MAY 23, 2019

9:00 A.M.

CHAIRMAN THOMAS: GOOD MORNING, EVERYBODY. I'D LIKE TO WELCOME YOU TO THE MAY 2019 REGULAR MEETING OF THE ICOC AND APPLICATION REVIEW SUBCOMMITTEE.

MARIA, WILL YOU PLEASE CALL THE ROLL.

MS. BONNEVILLE: GEORGE BLUMENTHAL.

DR. BLUMENTHAL: HERE.

MS. BONNEVILLE: LINDA BOXER.

DR. BOXER: PRESENT.

MS. BONNEVILLE: KEN BURTIS.

DR. BURTIS: HERE.

MS. BONNEVILLE: DEBORAH DEAS. ANNE-MARIE DULIEGE. JUDY GASSON. DAVID HIGGINS.

DR. HIGGINS: HERE.

MS. BONNEVILLE: STEPHEN JUELSGAARD.

MR. JUELSGAARD: PRESENT.

MS. BONNEVILLE: SHERRY LANSING.

MS. LANSING: HERE.

MS. BONNEVILLE: LINDA MALKAS. DAVE MARTIN.

DR. MARTIN: PRESENT.

MS. BONNEVILLE: SHLOMO MELMED.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

DR. MELMED: HERE.

MS. BONNEVILLE: LAUREN MILLER. ADRIANA PADILLA.

DR. PADILLA: HERE.

MS. BONNEVILLE: JOE PANETTA.

MR. PANETTA: HERE.

MS. BONNEVILLE: FRANCISCO PRIETO.

DR. PRIETO: HERE.

MS. BONNEVILLE: ROBERT QUINT. AL ROWLETT.

MR. ROWLETT: HERE.

MS. BONNEVILLE: SUZANNE SANDMEYER. JEFF SHEEHY.

MR. SHEEHY: HERE.

MS. BONNEVILLE: OSWALD STEWARD. JONATHAN THOMAS.

CHAIRMAN THOMAS: HERE.

MS. BONNEVILLE: ART TORRES.

MR. TORRES: HERE.

MS. BONNEVILLE: KRISTINA VUORI.

DR. VUORI: HERE.

MS. BONNEVILLE: DIANE WINOKUR.

MS. WINOKUR: HERE.

MS. BONNEVILLE: KEITH YAMAMOTO. DOUG ZIEDONIS.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

DR. ZIEDONIS: HERE.

MS. BONNEVILLE: DEBORAH DEAS, I THINK YOU ARE ON THE LINE. ARE YOU ON MUTE? WE WILL FIGURE THAT ONE OUT.

DR. DEAS: HERE.

CHAIRMAN THOMAS: THANK YOU, VERY MUCH, MARIA.

WE WILL GO NOW TO ITEM NO. 3, THE CHAIR'S REPORT. JUST A BRIEF COMMENT ON BRIDGE FUNDING. WHILE EFFORTS ARE CONTINUING APACE AT THIS MOMENT, I HAVE NO NEWS TO REPORT TO THE BOARD WITH RESPECT TO ADDITIONAL FUNDS IN HAND. HOWEVER, AT SUCH TIME AS THAT MAY CHANGE, I WILL BE BACK TO THE BOARD WITH BOTH INFORMATION AND IF ANYTHING REQUIRES --

MS. LANSING: COULD YOU TALK LOUDER PLEASE? WE CANNOT HEAR YOU ON THE PHONE.

CHAIRMAN THOMAS: OKAY. IS THAT BETTER, SHERRY?

MS. LANSING: NOW IT'S BETTER.

CHAIRMAN THOMAS: OKAY. START OVER AGAIN.

SO AS I WAS SAYING, WITH RESPECT TO THE BRIDGE FUNDING, THOUGH FUND-RAISING EFFORTS CONTINUE APACE AT THE MOMENT, THAT I HAVE NO NEWS TO REPORT TO THE BOARD WITH RESPECT TO ADDITIONAL MONIES IN HAND. HOWEVER, AT SUCH TIME AS DEVELOPMENTS CHANGE,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

I'LL BE BACK TO THE BOARD TO LET YOU KNOW ABOUT SUCH DEVELOPMENTS AND TO HAVE DISCUSSION AND ANY APPROVALS FROM THE BOARD THAT MIGHT BE NECESSARY TO PROCEED WITH THAT DEVELOPMENT.

SO THAT IS ALL I'M GOING TO SAY ON THIS AT THIS PARTICULAR MOMENT. GO ON TO --

MR. SHEEHY: I JUST -- COULD YOU GIVE A LITTLE MORE TEXTURE BECAUSE -- AT LEAST TO INFORM OUR POTENTIAL APPLICANTS? SO WE ARE NOT ACTIVELY ANTICIPATING ANY MONEY COMING IN?

CHAIRMAN THOMAS: AT THIS POINT WE DO NOT HAVE ANY MONEY IDENTIFIED, THAT'S CORRECT.

MR. SHEEHY: WE'RE, WHAT, THIS IS MARCH OF THE 2019 -- SO MAY OF 2019. SO WE HAVE ONLY GOT PERHAPS A YEAR UNTIL THE BALLOT MEASURE IS UP. AND SO I'M JUST TRYING TO THINK -- ARE WE REALLY WORKING THROUGH THE VERY LAST OF OUR MONEY RIGHT NOW? IS THAT THE ASSUMPTION THAT WE SHOULD START -- THAT WE SHOULD BE MAKING AS WE MOVE FORWARD?

CHAIRMAN THOMAS: I THINK, AS I SAID, AS WE SIT HERE TODAY, AS WE HAVE NO ADDITIONAL MONEY IDENTIFIED YET, THAT WE HAVE TO PROCEED WITH THAT ASSUMPTION. SO THE NEW INITIATIVE WOULD BE A YEAR AND A HALF FROM NOW. AND WE PROJECT PROBABLY RUNNING OUT OF FUNDS, I THINK, AT THIS POINT,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SOMETIME, DR. MILLAN, THIRD QUARTER?

DR. MILLAN: LATE THIS, YEAR EARLY NEXT YEAR.

CHAIRMAN THOMAS: LATE THIS YEAR, EARLY NEXT YEAR.

MR. SHEEHY: HOW LONG HAVE WE BEEN FUND-RAISING?

CHAIRMAN THOMAS: SEVERAL YEARS.

MR. SHEEHY: IS THERE ANY REASON TO BE OPTIMISTIC THAT THE SITUATION WILL CHANGE?

CHAIRMAN THOMAS: UNTIL I'M ABLE TO COME TO SAY THAT THAT WILL CHANGE, THAT WE ARE WHERE WE ARE AT THE MOMENT.

MR. SHEEHY: JUST IN TERMS OF TRANSPARENCY, I JUST WANTED THERE TO BE SOME CLARITY. THAT WE'RE PROBABLY DEFINITELY OPERATING IN THE SPACE WITH THE MONEY WE HAVE RIGHT NOW IS ALL THE MONEY WE'RE GOING TO HAVE IN TERMS OF THIS PRESENT ITERATION OF CIRM.

CHAIRMAN THOMAS: I BELIEVE THAT IS THE ASSUMPTION WE HAVE TO OPERATE ON AT THIS POINT.

MR. SHEEHY: THANK YOU.

CHAIRMAN THOMAS: BUT I WILL BE BACK.

MS. LANSING: CAN I JUST ADD I AGREE WITH JEFF. I THINK TRANSPARENCY IS REALLY IMPORTANT.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OPTIMISM IS GREAT, BUT I THINK WE HAVE TO BE TRANSPARENT AND OPTIMISTIC AT THE SAME TIME.

MR. SHEEHY: THANK YOU, SHERRY. BECAUSE ONE POINT IS, AT LEAST FOR ME, WHEN I TALK TO PEOPLE, I WANT TO BE VERY CLEAR THAT PEOPLE ARE REALLY EAGER TO SEE SOMETHING GET FUNDED. IF THEY WANT TO SEE MORE SITES CONTINUE, THE ANSWER TO THAT IS WE HAVE A CAMPAIGN COMING UP. I KNOW THAT WE AS A BOARD CAN'T ENGAGE IN THAT FORMALLY, BUT CERTAINLY WE CAN LET PEOPLE KNOW THAT THAT'S THE PLACE WHERE OUR ENERGY AND FOCUS SHOULD BE, TELLING PEOPLE OUR GREAT STORY OF ALL THE PHENOMENAL WORK THAT WE'VE DONE, LETTING PEOPLE KNOW THAT THE NEED IS THERE, AND, IF ANYTHING, IS MORE URGENT THAN EVER BECAUSE WE'RE NOT AT THE POINT WHERE WE'RE PRODUCING CURES.

MS. LANSING: I ALSO WANT TO ADD TO THAT, JEFF, THAT AT SOME POINT WE SHOULD STOP TAKING APPLICATIONS SO PEOPLE AREN'T JUST APPLYING UNDER FALSE PRETENSES WHEN WE DON'T HAVE THE MONEY.

MR. SHEEHY: THAT MAKES A LOT OF SENSE, I THINK.

MS. LANSING: BECAUSE IT TAKES SO MUCH TO DO AN APPLICATION, AND I HATE THE FACT THAT SOMEBODY WOULD BE DOING AN APPLICATION WHEN WE KNOW THAT WE HAVE A LIMITED AMOUNT OF MONEY LEFT. AND I THINK WE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

HAVE TO MAKE THAT CLEAR TO PEOPLE SO THAT NO ONE SAYS ALOUD, UNDER FALSE PRETENSES, I SPENT 20 HOURS DOING AN APPLICATION AND YOU KNEW YOU COULDN'T FUND IT.

MR. SHEEHY: I THINK THAT'S A GREAT POINT.

CHAIRMAN THOMAS: THANK YOU, SHERRY.

ANY OTHER COMMENTS ON THIS TOPIC? OKAY. THANK YOU.

MOVING ON, SINCE WE DID NOT HAVE AN IN-PERSON MEETING IN MARCH AS WE USUALLY DO, ONE OF THE THINGS I LIKE TO HIGHLIGHT EVERY YEAR THAT WE DIDN'T HAVE A CHANCE TO WAS AT THE JP MORGAN MEETING IN JANUARY, THE ALLIANCE FOR REGENERATIVE MEDICINE, ARM, ALWAYS DOES A STATE-OF-THE-INDUSTRY REPORT AND TYPICALLY TO A PACKED HOUSE IN SAN FRANCISCO.

AND AT THAT MEETING THEY ALWAYS HAVE A NUMBER OF INTERESTING AND REVEALING SLIDES WITH STATISTICS ON NUMBERS OF COMPANIES AND FINANCINGS AND SORT OF STATE OF THE UNION. THE GENERAL OVERTONE OF THE PRESENTATION WAS THINGS ARE GREATLY ACCELERATING, AND THAT THE NUMBER OF COMPANIES IS GROWING EXPONENTIALLY, THE NUMBER OF FINANCINGS IS GROWING, THE SIZE OF THE FINANCINGS ARE GETTING BIGGER. AND I HAVE A COUPLE OF SLIDES HERE, DOUG, IF YOU HELP ME OUT HERE.

FOR THOSE OF YOU ON THE PHONE, YOU'LL HAVE TO SORT OF -- I WILL STATE THE POINTS THAT I'M TRYING TO MAKE BASED ON THESE SLIDES WHICH WE'RE GETTING UP ON THE SCREEN IN A SECOND.

SO THIS IS ARM'S 2018 REPORT. NEXT SLIDE PLEASE.

GOING TO SLIDE 6. SO THIS SHOWS THAT, THE BEST ARM CAN TELL, THERE ARE 906 COMPANIES NOW IN THE REGENERATIVE MEDICINE SPACE WORLDWIDE. AS YOU CAN SEE, THE BULK OF THOSE ARE IN THE UNITED STATES WITH A SIGNIFICANT NUMBER IN EUROPE.

MS. LANSING: HOW MANY DID YOU SAY THERE WERE? I COULDN'T HEAR THAT.

CHAIRMAN THOMAS: 906 PLUS --

MS. LANSING: THANK YOU. THANK YOU.

CHAIRMAN THOMAS: -- IS THE NUMBER THAT THEY GIVE. OF THAT, A BIT MORE THAN HALF ARE IN THE UNITED STATES. NEXT SLIDE PLEASE. NEXT ONE.

SO THIS IS A BIT OF A BUSY SLIDE, BUT IT TALKS ABOUT GLOBAL FINANCINGS, WHICH ARE UP, AND IT TALKS ABOUT BOTH CORPORATE PARTNERSHIPS, TALKS ABOUT IPO'S, TALKS ABOUT FOLLOW-ON FINANCINGS, WHICH ARE THINGS LIKE ADDITIONAL PRIVATE EQUITY RAISES AND VENTURE FINANCINGS AND M&A. IF YOU CAN SEE ON THIS SLIDE, ALL OF THESE CATEGORIES ARE WAY UP.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THERE WERE A NUMBER OF IPO'S IN THE FIELD INCLUDING ONE OF OUR GRANTEES, ORCHARD THERAPEUTICS, WHICH HAD AN IPO OF 225 PLUS MILLION DOLLARS. THERE WAS ADDITIONAL IPO ACTIVITY FOR SANGAMO IN THE AMOUNT OF $230 MILLION. OF THE M&A ACTIVITY, AS YOU CAN SEE UP THERE, THEY HAD ABOUT $19 BILLION WORTH OF ACQUISITIONS LED BY THE CELGENE ACQUISITION OF JUNO, WHICH WAS ABOUT $9 BILLION. THEY HAD A NUMBER OF PARTNERSHIPS THAT WERE FORMED THAT CONSTITUTED A 55-PERCENT INCREASE IN UPFRONT DOLLARS COMMITTED THROUGH THOSE PARTNERSHIPS. GILEAD AND KITE BEING THE LARGEST OF THOSE WORTH ABOUT 3.16 BILLION. IN ANY EVENT, YOU CAN SORT OF GO DOWN THIS LIST, YOU GET THE IDEA THAT THE SECTOR, IN TERMS OF CELL AND GENE THERAPY AS WELL AS TISSUE ENGINEERING, WHICH IS INCLUDED IN THIS, WERE REALLY GOING GREAT GUNS.

ONE OF THE THINGS THAT RESULTED FROM THAT WAS THE THEN FDA COMMISSIONER SCOTT GOTTLIEB ANTICIPATING THE NEED FOR INCREASED REGULATORY SUPPORT FOR THE SECTOR TO KEEP PACE WITH ALL OF THE ACCELERATED DEVELOPMENT IN TREATMENTS. AND I THINK THAT YOU'RE DEFINITELY STARTING TO SEE THAT HAPPEN.

ONE OF THE THINGS THAT DEMONSTRATES THAT IS THE SO-CALLED RMAT DESIGNATION WHICH ACCELERATES THE PACE OF REGULATORY APPROVAL, OF WHICH LAST YEAR

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WE HAD CAPRICOR AND POSEIDA WERE TWO OF THE DESIGNATIONS. AND THOSE, AS YOU RECOGNIZE, ARE GRANTEES OF CIRM.

THIS IS JUST ANOTHER WAY OF SHOWING THE TOTAL FINANCINGS BY YEAR, WHICH IS SORT OF RECAPPING WHAT I JUST SAID. YOU CAN TELL JUST A LOT OF THINGS HAPPENING.

I THOUGHT THIS WAS SORT OF INTERESTING. BREAKS DOWN THE 241 COMPANIES IN EUROPE. YOU CAN SORT OF LOOK AT THE SLIDE TO GET THE DETAILS ON THAT. IT TALKS ABOUT THE NUMBER OF CLINICAL TRIALS THAT ARE GOING ON WITH PHASES 1, 2, AND 3 ON THE NEXT SLIDE. THIS IS THE WORLDWIDE NUMBER OF CLINICAL TRIALS GOING ON IN THE SPACE, A GREAT MANY OF WHICH ARE TYPES OF PROJECTS THAT CIRM IS NOT INVOLVED IN, LOTS OF MSC WORK, FOR EXAMPLE; BUT YOU CAN SEE HERE THAT OF THE VARIOUS TYPES OF MODALITIES HERE, THAT THERE ARE A GREAT MANY TRIALS. IF YOU GO FROM YEAR TO YEAR AT THE ARM MEETING, THIS KEEPS GOING UP IN MAJOR CHUNKS.

SO JUST GENERALLY YOU KIND OF GET THE IDEA THERE WAS GREAT FRENETIC ENERGY AT THIS MEETING. THE ROOM, WHICH IS A HUGE ROOM AT PARK 55, WAS OVERFLOWING. THERE WERE COUNTLESS PARTNERING MEETINGS THAT WERE HELD. WE WERE INVOLVED IN A

NUMBER OF THOSE IN CONNECTION WITH A NUMBER OF OUR GRANTEES. AND SO IT, AS IT TENDS TO DO, SETS THE TONE FOR THE YEAR IN THE BUSINESS. AND I THINK EVERYBODY SHOULD BE, AS A TAKEAWAY, HIGHLY ENTHUSIASTIC ABOUT WHERE THINGS ARE HEADED FROM A BUSINESS STANDPOINT IN THE SPACE.

ANY QUESTIONS ON THAT TOPIC? COMMENTS? MR. JUELSGAARD, YOU HAVE ANY COMMENTS YOU'D LIKE TO MAKE ON THE STATE OF THE BUSINESS?

DR. JUELSGAARD: I WASN'T REALLY ANTICIPATING BEING ASKED TO COMMENT, BUT THESE ARE MY THOUGHTS ANYWAY. WE ARE A FAR CRY FROM WHERE WERE WHEN THIS ORGANIZATION GOT STARTED. AND IN SOME WAYS JUST THE BREADTH OF ACTIVITY THAT'S GOING ON SUGGESTS THAT THERE'S A LOT OF ENTHUSIASM OUT THERE AND A LOT OF SOURCES OF MONEY FOR DOING ALL THIS KIND OF WORK, WHICH WASN'T AROUND WHEN WE FIRST CAME INTO EXISTENCE.

AND SO I WOULD SAY TO MR. SHEEHY THAT IN SOME WAYS THIS IS ALMOST AN ARGUMENT AGAINST NEEDING MORE STATE MONEY TO FINANCE ONGOING WORK OF THIS SORT BECAUSE OF THE FACT THERE IS SUCH A GROUNDSWELL OF EFFORT GOING ON THESE DAYS.

CHAIRMAN THOMAS: I WOULD COMMENT ON THAT POINT, THAT, AGAIN, THE PART OF THE RESEARCH

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SPECTRUM THAT CIRM FUNDS IS TYPICALLY NOT THE PART OF THE SPECTRUM THAT THE MONEY IS GETTING INTO AT THIS POINT. IT'S A MUCH MORE LATER STAGE. SO I DO THINK THERE WILL VERY MUCH CONTINUE TO BE A NEED TO FUND IN THE VALLEY OF DEATH, ET CETERA.

DR. JUELSGAARD: I AGREE WITH THAT. I APPRECIATE THAT THERE IS THAT DISTINCTION. I DO AGREE WITH THAT COMMENT.

CHAIRMAN THOMAS: THANK YOU. ANY OTHER COMMENTS?

DR. MARTIN: I WOULD JUST LIKE TO COMMENT THAT I BELIEVE THAT, NOT ONLY ARE MANY ACTIVITIES GOING INTO THE CLINIC OR IN THE CLINIC, BUT OPPORTUNITIES FOR THIS TECHNOLOGY, THIS NEW KNOWLEDGE ARE ALSO GREATLY EXPANDED FROM WHERE WE WERE EVEN FIVE YEARS AGO, MUCH LESS TEN. AND I THINK THAT THAT OPPORTUNITY, SORT OF COLLECTION OF OPPORTUNITIES, IS GOING TO BE GREATLY INFLUENCED BY A FUNCTION SUCH AS CIRM MORE SO THAN THE RECIPIENT OF THE OTHER END THAT WILL TAKE THE BALL AND CARRY IT OVER THE GOAL LINE FOR COMMERCIALIZATION. I THINK RESEARCH OPPORTUNITIES ARE NOW FAR EXCEEDING WHAT CERTAINLY I IMAGINED 20 YEARS AGO WHEN I STARTED THINKING ABOUT EMBRYONIC STEM CELLS.

CHAIRMAN THOMAS: THANK YOU BOTH FOR YOUR

COMMENTS.

SO NEXT I THOUGHT IT WOULD BE INTERESTING. ONE OF THE THINGS THAT'S HAPPENED IN THE STATE IS DIFFERENT GEOGRAPHICAL AREAS ARE SORT OF COALESCING TO TRY TO FUEL FURTHER DEVELOPMENT OF THE BIOTECH INDUSTRY IN THEIR PARTICULAR AREAS. ONE SUCH EXAMPLE OF THIS WAS RECENTLY L.A. COUNTY INITIATED SOMETHING CALLED BIOSCIENCE L.A. OR BIO L.A. WHICH IS AN EFFORT TO CONNECT THOSE ENTREPRENEURS, FINANCIAL PLAYERS, ET CETERA, ACADEMICS IN THE GREATER L.A. COUNTY AREA TOGETHER TO HELP BUILD A MORE VIBRANT AREA AND CREATE JOBS, ET CETERA. AND THIS WAS SOMETHING SPEARHEADED BY SUPERVISOR RIDLEY-THOMAS DOWN THERE, AND MEANT TO BE AN INNOVATION CATALYST THAT WOULD BRING THE MANY DISPARATE PLAYERS THAT ARE SPREAD ALL OVER A LARGE AREA IN L.A. COUNTY TOGETHER TO COLLABORATE AND FURTHER ADVANCE THE INDUSTRY.

I THOUGHT IT WOULD BE HELPFUL HERE IF ONE OF THE KEY PLAYERS IN THIS, WHO IS OUR OWN BOARD MEMBER, JOE PANETTA AND HIS COLLEAGUES IN THE L.A. COUNTY BRANCH OF HIS ORGANIZATION, IF HE CAN SAY A COUPLE OF WORDS HERE ABOUT BIO L.A., SPECIFICALLY AND MORE GENERALLY, THE EFFORTS THAT HE AND HIS COLLEAGUES ARE MAKING TO ADVANCE THE INDUSTRY GOING

FORWARD. SO JOE.

MR. PANETTA: THANK YOU, J.T. AND I WANT TO BEGIN BY APOLOGIZING FOR NOT BEING ABLE TO BE THERE IN PERSON. COINCIDENTALLY, WE HAVE OUR QUARTERLY BIOCOM BOARD MEETING THIS AFTERNOON, WHICH I, OVER THE LAST 20 YEARS, HAVE HAD A PERFECT ATTENDANCE RECORD FOR, SO I'M HOPING THEY'LL GIVE ME A CERTIFICATE OR SOMETHING IF I KEEP ON SHOWING UP FOR THE BOARD MEETINGS.

ALSO WANT TO THANK YOU, J.T., FOR SERVING ON BIOCOM L.A. ADVISORY BOARD AS A FOND MEMBER OF THAT ADVISORY BOARD.

FIVE YEARS AGO WE BEGAN TO WORK WITH SUPERVISOR RIDLEY-THOMAS, AND HE COMMISSIONED A REPORT THAT THE BATTELLE INSTITUTE IN COLUMBUS, OHIO, COMPLETED, GIVING THE L.A. COUNTY BOARD OF SUPERVISORS A BIT OF CRITIQUE OF STATE OF AFFAIRS OF THE L.A. BIOTECH COMMUNITY. AND THAT REPORT RECOMMENDED A NUMBER OF THINGS, INCLUDING THE NEED FOR MORE MATURE EXECUTIVE MANAGEMENT, A NEED TO TRY TO KEEP EARLY STAGE COMPANIES THERE, THE NEED FOR GREATER ANGEL CAPITAL AND VENTURE CAPITAL TO GROW THE INDUSTRY, A NEED FOR MORE INFRASTRUCTURE, REAL ESTATE, TO BE SPECIFIC, AND THE NEED FOR ORGANIZATIONS TO BRING THE VERY GEOGRAPHICALLY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

DISPARATE CLUSTER TOGETHER A LITTLE BIT MORE.

SO WE OPENED OUR OFFICE THERE ABOUT THREE YEARS AGO NOW, WORKING WITH SUPERVISOR RIDLEY-THOMAS AS ADVISORS, AND WE WERE VERY, VERY PLEASANTLY SURPRISED WHEN THE COUNTY ANNOUNCED THAT IT WOULD CREATE AN INITIATIVE TO PROMOTE BIOTECH THROUGHOUT L.A. COUNTY. AND SO THAT IS WHAT THE BIO L.A. EFFORT IS ALL ABOUT. IT'S PRIMARILY FOCUSED ON WORKING TO DEVELOP REAL ESTATE, TO CREATE JOBS, AND TO GLOBALLY PROMOTE THE POWER OF THE L.A. BIOTECH COMMUNITY.

AND I THINK MOST PEOPLE ARE SURPRISED, JUST AS THEY'RE SURPRISED WHEN THEY LEARN WHAT WE'RE DOING AT CIRM AND THE SUCCESS WE'VE HAD, MOST PEOPLE ARE SURPRISED AT THE POWER OF THE L.A. BIOTECH COMMUNITY AND ACTUALLY RECEIVES MORE DOLLARS IN NIH FUNDING THAN THE SAN DIEGO BIOTECH HUB DOES. AND IT RECEIVES ABOUT ONE-THIRD OF THE NIH FUNDING ACROSS THE STATE EACH YEAR FOR RESEARCH.

THE PROBLEM HAS BEEN THAT THEY HAVEN'T BEEN ABLE TO DEVELOP NON-EARLY STAGE. SO THE IDEA BEHIND BIO L.A. IS TO BRING TOGETHER A NUMBER OF PLAYERS. FOR EXAMPLE, AMGEN HAS INVESTED A SIGNIFICANT AMOUNT OF CAPITAL INTO THIS EFFORT. THE PHARMACEUTICAL RESEARCH AND MANUFACTURER'S

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

ASSOCIATION HAS INVESTED IN IT AS WELL. AND WE WORK CLOSELY AT BIOCOM WITH BIO L.A. IN FACT, OUR EXECUTIVE DIRECTOR, DINA LOZOFSKY IN LOS ANGELES, IS THE CHAIR OF THE BOARD OF BIO L.A.

SUPERVISOR RIDLEY-THOMAS HAS TREMENDOUS CONFIDENCE IN L.A. BECOMING A WORLD-CLASS BIOTECH HUB. HE KNOWS THAT IT HAS SOME OF THE KEY ELEMENTS ALREADY, INCLUDING INCREDIBLE RESEARCH, INCREDIBLE OPPORTUNITY TO CONDUCT CLINICAL TRIALS, AND A VERY STRONG OPPORTUNITY FOR INVESTMENT PROVIDED THAT THOSE WHO PROVIDE THAT INVESTMENT UNDERSTAND THE OPPORTUNITY TO INVEST IN THE INDUSTRY.

AND SO BIO L.A. IS JUST GETTING LAUNCHED. WE ARE EXCITED ABOUT IT. THERE'S NO REASON THAT CALIFORNIA CANNOT HAVE THREE WORLD-CLASS BIOTECH HUBS. AND I THINK ONE OF THE SIGNS OF THE FUTURE PROMISE OF L.A. TRULY IS THAT ONE OF THE LIFE SCIENCE PARTNERS BETH SEIDENBERG AND KLEINER PERKINS HAS TEAMED UP WITH THE EVP OF RESEARCH AND DEVELOPMENT, SEAN HARPER AT AMGEN, TO CREATE A $300 MILLION PLUS BIOTECH INVESTMENT CALLED WESTLAKE PARTNERS IN L.A. THAT SHOULD YIELD A TREMENDOUS AMOUNT TO BE ABLE HELP BIO L.A. AND BIOCOM TO GROW THE INDUSTRY IN LOS ANGELES.

SO IT'S AN EXCITING TIME UP THERE. I

DON'T THINK FIVE YEARS AGO, WHEN WE PUT OUR TOE INTO THE WATER IN L.A, THAT WE EXPECTED THAT WE'D COME SO FAR SO QUICKLY, BUT I THINK IT'S A TRIBUTE TO SUPERVISOR RIDLEY-THOMAS AND MANY MORE FOLKS WHO ARE INVESTED IN THIS. AND, J.T., THANK YOU. WE REALLY WANT TO MAKE L.A. AS STRONG A BIOTECH HUB AS WE CAN POSSIBLY BECOME. AS A GLOBAL WORLD-CLASS CITY, L.A. HAS THE OPPORTUNITY TO REALLY PLAY ON THE SAME STAGE AS SAN FRANCISCO AND BOSTON AND SAN DIEGO.

CHAIRMAN THOMAS: THANK YOU VERY MUCH, JOE. ANY QUESTIONS FOR JOE ON THIS PARTICULAR EFFORT?

NEXT THING I THOUGHT MIGHT BE INTERESTING FOR THE BOARD, EVERY YEAR WE ROLL ALONG WITH OUR STATE FUNDING, AND THE BONDS BEING THE SOURCE OF THE MONEY THAT WE USE TO MAKE OUR GRANTS. NOT ENTIRELY SURE IF ALL MEMBERS OF THE BOARD ARE FAMILIAR WITH THE PROCESS, HOW WE ACTUALLY GET THE FUNDS. I THOUGHT I'D SPEND TWO MINUTES ON THAT.

SO EVERY SIX MONTHS WE TELL THE DEPARTMENT OF FINANCE AND THE GOVERNOR'S OFFICE THE AMOUNT OF MONEY WE ANTICIPATE NEEDING FOR THE FOLLOWING SIX MONTHS. AND AFTER THAT IS REFINED AND THE DEPARTMENT OF FINANCE SIGNS OFF ON THAT, THEY THEN DIRECT THE STATE TREASURER TO ISSUE COMMERCIAL

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

PAPER, WHICH IS THE PARTICULAR FORM OF SECURITY THAT THEY USE ON AN ONGOING BASIS TO PROVIDE SIX MONTHS WORTH OF FUNDING FOR CIRM. IN ADVANCE OF THAT, THERE IS A MEETING WHERE THE STATE HAS TO ACTUALLY AUTHORIZE THE ISSUANCE OF THAT SIX MONTHS WORTH OF COMMERCIAL PAPER.

AND SO IN FEBRUARY, IN ADVANCE OF THE SEMIANNUAL ISSUANCE OF COMMERCIAL PAPER FOR CIRM, AS WELL AS ALL THE OTHER STATE AGENCIES THAT GET FUNDED THROUGH BONDS, AND COURTESY OF THE STATE TREASURER'S OFFICE, THERE'S A MEETING HELD UP IN SACRAMENTO, VERY QUICK MEETING, OF THE STEM CELL RESEARCH AND CURES FINANCE COMMITTEE, WHICH IS HELD IN THE STATE TREASURER'S BUILDING, WHICH THAT COMMITTEE CONSISTS OF A REPRESENTATIVE FROM THE STATE TREASURER'S OFFICE, THE STATE CONTROLLER'S OFFICE, AND THE DIRECTOR OF FINANCE, AND THE GOVERNOR'S OFFICE, AS WELL AS MYSELF AND TWO OTHER MEMBERS OF THE ICOC. FREQUENTLY THOSE ARE SENATOR TORRES AND DR. PRIETO.

DR. MELMED: THANK YOU. LOOKS GOOD. I JUST HAVE ONE QUESTION FAR YOU. (INAUDIBLE.) ON THE LEFT WAS MODELED --

MS. BONNEVILLE: DR. MELMED, WE CAN HEAR YOUR OTHER CONVERSATION.

CHAIRMAN THOMAS: SHOULD MAKE FOR AN

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

INTERESTING TRANSCRIPT FOR BETH.

THE REPORTER: NO TRANSCRIPT.

CHAIRMAN THOMAS: THE STATE TREASURER'S PITUITARY GLAND.

IN ANY EVENT, I WAS SAYING REPRESENTATIVES FROM CIRM TYPICALLY ARE MYSELF, SENATOR TORRES, DR. PRIETO, AND ON OCCASION WE HAVE DELEGATES WHO STAND IN FOR ONE OR MORE OF THOSE. IN ANY EVENT, SO AT THIS MEETING, WHICH IS VERY, VERY QUICK, THE MOTION IS PASSED TO AUTHORIZE THE ISSUANCE OF THE COMMERCIAL PAPER. AND THEN SEVERAL WEEKS LATER THAT COMMERCIAL PAPER IS ISSUED. THAT IS HOW WE GET OUR FUNDING.

I JUST THOUGHT, VERY BRIEFLY, THAT WAS INTERESTING TO TELL THE BOARD ABOUT BECAUSE WE'VE KIND OF TAKEN THAT FOR GRANTED FOR MANY YEARS. AND PROBABLY MOST OF YOU WEREN'T ENTIRELY FAMILIAR WITH THAT PROCESS.

THE LAST THING I WANTED TO TALK ABOUT IS A NUMBER OF US HAVE BEEN INTERVIEWED RECENTLY BY THE GREAT CHRONICLER OF CIRM AND PROLIFIC AUTHOR DON REED. AND I THOUGHT IT MIGHT BE NICE FOR DON TO SPEND TWO OR THREE MINUTES TO TALK TO THE BOARD ABOUT HIS PROJECT THAT HE'S WORKING ON AND THE UPCOMING BOOK THAT WILL RESULT. SO, MR. REED,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

PROCEED TO THE PODIUM.

MR. TORRES: WHEN WILL JENSEN'S BOOK BE IN?

MR. REED: I'VE BEEN TRYING TO GET HIM TO DO ONE.

THERE'S A LOT OF TALK ABOUT WILL THERE BE A PART 2, AND I'M NOT THE PERSON WHO CAN ANSWER THAT. I REMEMBER WHAT BOB SAID THOUGH. HE SAID THAT THERE WILL BE A POLL, AND THE RESULT OF THAT POLL HE WILL MAKE HIS DECISION. FROM MY MIND, THERE'S NEVER BEEN THE SLIGHTEST DOUBT. THE WORK THAT YOU DO IS IRREPLACEABLE. IT'S MAGNIFICENT AND CHANGES THE LIVES OF SO MANY.

THIS NEXT BOOK WILL BE TITLED *REVOLUTIONARY THERAPIES: HOW THE CALIFORNIA STEM CELL PROGRAM SAVED LIVES, EASED SUFFERING, AND CHANGED THE FACE OF MEDICINE FOREVER.* THAT'S WHAT HAS BEEN DONE. THIS IS SOMETHING INCREDIBLE. IT WILL BE THE GREATEST THING WE'VE EVER DONE IN ALL OUR LIVES.

AND THE BOOK, I'VE BEEN TOLD BY THE PUBLISHER THEY WANT IT OUT BY CHRISTMAS, AND IT HAS TO BE DONE BY JULY 29TH. SO I'M SCRIBBLING FRANTICALLY AS WE SPEAK.

IT WAS A DELIGHT TO INTERVIEW PEOPLE THAT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

I DID, PRESIDENT OR THE CHAIR, AND JUST EVERYTHING, EVERY CONNECTION THAT I HAVE WITH THIS ORGANIZATION HAS BEEN POSITIVE AND TO BE REMEMBERED. SO THAT'S PRETTY MUCH IT. I JUST SCRIBBLE, SCRIBBLE, SCRIBBLE.

I WOULD LIKE TO TELL YOU ONE LITTLE STORY THOUGH. AL JOLSON WOULD ALWAYS DO FREE SINGING FOR CHARITY, AND HE ALWAYS HAD ONE CONDITION. THE CONDITION WAS THAT HE WOULD ONLY DO IT IF HE COULD BE THE LAST ONE THAT SANG, WHICH WAS THE STAR POSITION. AND SO ONE DAY THEY CAME UP, "WE WANT YOU FOR THIS REALLY IMPORTANT ONE AT CARNEGIE HALL, BUT YOU DON'T WANT TO BE THE LAST PERSON TO SING THIS TIME." HE SAYS, "I HAVE TO BE. THAT'S MY CONDITION. THAT'S WHAT HAS TO BE." THEY SAID, "DO YOU KNOW WHO IS GOING TO BE SINGING, THE LAST PERSON?" HE SAID, "NO. WHO?" HE SAYS, "ENRICO CARUSO." HE SAID, "MY CONDITION STANDS."

SO CAME THE NIGHT AND CARUSO COMES OUT AND HE SANG EVERYTHING, VESTI LAGIUBBA, AVE MARIA, EVERYTHING, SANG AND SANG AND SANG. THE PEOPLE WOULD NOT LET HIM GO. THEY KEPT HIM THERE TILL HE WAS EXHAUSTED. THEIR HANDS WERE SORE FROM CLAPPING SO HARD. AND THEN AL JOLSON CAME OUT. HE SAID, "HANG ON TO YOUR HATS, FOLKS. YOU AIN'T HEARD

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

NOTHING YET."

WELL, FOLKS, THAT'S HOW I FEEL ABOUT THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE. WE AIN'T HEARD NOTHING YET. THE BEST IS YET TO BE. THANK YOU.

(APPLAUSE.)

CHAIRMAN THOMAS: THANKS VERY MUCH, DON. THAT CONCLUDES THE CHAIR'S REPORT. ON TO THE PRESIDENT'S REPORT, DR. MILLAN.

DR. MILLAN: THANK YOU VERY MUCH. FOLLOWING YOU, DON, IS LIKE FOLLOWING CARUSO.

SO AS THE BOARD HAD DISCUSSED EARLIER IN THIS MEETING, WE HAVE COME A LONG WAY. SO FOR SOME NEW MEMBERS AND SOME NEW ATTENDEES, CIRM WAS FORMED IN 2004, AS WE ALL KNOW, WITH A $3 BILLION BOND INITIATIVE. WE'RE IN THE FINAL PHASE OF THAT INITIATIVE. BUT SO FAR WE'VE FUNDED A THOUSAND PROJECTS, 53 CLINICAL TRIALS TO DATE, AND OVER 1200 PATIENTS ENROLLED IN THESE TRIALS. SO THAT'S KIND OF THE BIG PICTURE.

AS YOU ALL KNOW, ALONG WITH OUR BOARD, WE LAUNCHED A FIVE-YEAR STRATEGIC PLAN IN 2016. AND I WANTED TO JUST GIVE AN OVERVIEW OF WHERE WE ARE IN THIS STRATEGIC PLAN MID-YEAR, YEAR FOUR OF THE FIVE-YEAR STRATEGIC PLAN.

AS YOU KNOW, WE PUT SOME BOLD GOALS ON OURSELVES. SOME WE FELT THAT WERE PROBABLY GOING TO BE REALLY TOUGH TO HIT, BUT THEY WERE WORTHWHILE GOALS IN SERVICE OF OUR MISSION TO ACCELERATE STEM CELL GENE THERAPY APPROACHES THAT CAN ALLEVIATE UNMET MEDICAL NEEDS.

SO OF THE 50 TARGET GOALS FOR DISCOVERING NEW CANDIDATES, WE SO FAR HAVE 36. WE ARE LIMITED ONLY BY CONTINUED FUNDING. WE HAVE ONE MORE TRANSLATIONAL AWARD ROUND COMING UP OR ONE OR TWO. AND WE DO HAVE SOME RECENT PRECLINICAL PROGRAMS THAT HAVE COME IN THAT HAVE ADDED TO THIS NUMBER.

IN TERMS OF ADVANCING PROGRAMS THROUGH DEVELOPMENT, WE MEASURE WHAT'S CALLED METRIC PROGRESSION, LIKELIHOOD OF SUCCESS OF PROJECTS GOING FROM ONE STAGE TO THE NEXT, GOING FROM DISCOVERY TO TRANSLATIONAL, GOING FROM TRANSLATIONAL TO CLINICAL, AND MOVING FROM THE CLINICAL PHASE, AND WE HAVE INCREASED OUR PROGRESSION EVENTS 110 PERCENT SINCE WE LAUNCHED THIS STRATEGIC PLAN BY PUTTING IN PLACE ALL THE SYSTEMS AND PROCESSES THAT ARE GRANT MAKING AND MANAGEMENT AND ADVISORY PROGRESSION EVENTS, THE LIKELIHOOD OR SUCCESS OF PROJECTS GOING FROM ONE STAGE TO THE NEXT, GOING FROM DISCOVERY TO TRANSLATION, GOING FROM TRANSLATIONAL TO CLINICAL

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

AND THEN MOVING THROUGH THE CLINICAL PHASES.

AND WE HAVE INCREASED OUR PROGRESSION EVENTS BY A 110 PERCENT SINCE WE'VE LAUNCHED THIS STRATEGIC PLAN BY PUTTING IN PLACE ALL THE SYSTEMS AND PROCESSES IN OUR GRANT MAKING, IN OUR MANAGEMENT, AND OUR ADVISORY PANELS, BRINGING OUR TOTAL UP TO 61 PROGRESSION EVENTS SINCE WE LAUNCHED THE STRATEGIC PLAN. THAT'S PRETTY INCREDIBLE.

AS WAS ALLUDED TO OR MENTIONED IN THE CHAIR'S REPORT, WE, ALONG WITH OTHER STAKEHOLDERS, WERE SUPPORTIVE OF THE 21ST CENTURY CURES ACT, IN THAT, WHILE THAT WAS PASSED WITH BIPARTISAN SUPPORT IN DECEMBER 2016, THERE WERE REGULATORY REFORMS THAT PROVIDED FOR AN EXPEDITED PATHWAY, SPECIFICALLY FOR CELL AND GENE THERAPY PRODUCTS. WE WERE AMONG -- OUR PROGRAMS WERE AMONG THE FIRST TO OBTAIN THIS FDA DESIGNATION, AND WE CURRENTLY HAVE FIVE PROGRAMS WITH THIS RMAT DESIGNATION OF A TOTAL OF ABOUT 35 OR 37 SO FAR. SO THAT'S PRETTY SPECTACULAR.

AGAIN, POINTING TO THE FACT THAT OUR PROGRAMS ARE REALLY IN THE FOREFRONT OF TECHNOLOGY.

WE HAD A BOLD GOAL OF CUTTING DEVELOPMENT TIME IN HALF. IN ORDER TO DO THAT, WE WANTED TO SPEED UP EVERY PHASE OF THE DEVELOPMENT PATHWAY. SO PUT A CHALLENGE TO OUR GRANTEES, WHO CAME IN FOR A

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CLIN1, WHICH IS THE WORK NECESSARY TO OBTAIN AN IND, THAT THEY WOULD BE ABLE TO DO THAT WITHIN 18 MONTHS. WE HAVE FOUR PROGRAMS THAT HAVE NOW ACHIEVED GETTING AN IND WITHIN 18 MONTHS. AND THE AVERAGE TIME TO IND FOR OUR PRECLINICAL PROGRAMS IS NOW 20 AND A HALF MONTHS, WHICH IS SPECTACULAR. IN STANDARD TERMS, IT'S USUALLY ABOUT THREE YEARS OR MORE FOR OTHER PRODUCTS.

OF COURSE, YOU ALL KNOW THAT WE'VE BEEN TRACKING THE NUMBER OF CLINICAL TRIALS BECAUSE THAT'S ULTIMATELY WHERE WE WANT TO BE IN ORDER TO TEST THAT THESE TECHNOLOGIES CAN BE SAFELY, MORE WIDELY ACCESSIBLE TO PATIENTS. WE HAD A BOLD GOAL OF 50 NEW CLINICAL TRIALS, AND WE HAVE NOW FUNDED 36 CLINICAL TRIALS IN THE CELL AND GENE MEDICINE SPACE, BRINGING OUR TOTAL UP TO 53 SO FAR. AND WE HAVE HAD A MARKET UP TICK IN TERMS OF INDUSTRY ENGAGEMENT AND INVESTMENT.

J.T. MENTIONED WHAT THE GLOBAL LANDSCAPE WAS, AND CIRM'S PROGRAMS HAVE CONTRIBUTED GREATLY TO THAT, ATTRACTING IN OVER $1.6 BILLION INDUSTRY PARTNERSHIP AS OF LATE LAST YEAR AND IT'S CONTINUING TO GO ON.

AND JUST TO LET YOU KNOW, TWO OF OUR PORTFOLIO PROGRAMS ACTUALLY WERE ABLE TO

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SUCCESSFULLY FILE AN IPO. ONE OF THEM WAS ORCHARD THERAPEUTICS. THE OTHER ONE WAS 47 INC. AND YOU'LL BE HEARING FROM 47 INC.'S LEADERSHIP LATER TODAY TO DESCRIBE THEIR JOURNEY WITH CIRM, WHICH STARTED -- THE TECHNOLOGY PLATFORM STARTED AS AN ACADEMIC PROGRAM, WENT INTO INDUSTRY, AND SUCCESSFULLY NOW OUT FOR PUBLIC PARTNERSHIP AS WELL.

IN TOTAL SO FAR, AS YOU KNOW, CIRM FUNDS FIVE MAJOR PILLARS: INFRASTRUCTURE, EDUCATION, DISCOVERY, TRANSLATION, AND CLINICAL. AS MENTIONED BY JEFF SHEEHY EARLIER TODAY, WE ARE IN THE FINAL PHASES OF THE PROP 71 FUNDING ALLOCATION, ABOUT $120 MILLION LEFT IN FUNDING AVAILABLE FOR RESEARCH PROGRAMS. THIS BOARD APPROVED OUR RESEARCH BUDGET WHICH ALLOCATES FUNDS TO KEEP OPEN THE TRANSLATION PROGRAM AND CLINICAL PROGRAM. ALTHOUGH WE KNOW THAT THERE ARE GREAT PROJECTS AND VERY WORTHWHILE PROJECTS OUT THERE THAT WOULD BE NECESSARY TO CONTINUE TO FEED THIS PIPELINE, WE CURRENTLY ARE AT THE TAIL END, SO WE HAVE PRIORITIZED THE LATER STAGE PROGRAMS UNTIL MORE FUNDING IS AVAILABLE. CURRENTLY WE ARE WORKING WITH 120 MILLION.

SO I WANT TO JUST GIVE AN OVERVIEW OF WHERE WE ARE WITH OUR CLINICAL PROGRAMS. WE'VE FUNDED 53 CLINICAL TRIALS, 36 NEW TRIALS SINCE THE

LAUNCHING OF THE STRATEGIC PLAN, 42 OF THESE TRIALS ARE STILL OPEN, EIGHT HAVE COMPLETED, THEY ARE MOVING ON TO THE NEXT STAGE OR THEY'RE BEING EVALUATED FOR THE NEXT DEVELOPMENT STAGE, THREE WERE TERMINATED DUE TO FEASIBILITY ISSUES, AND THOSE WERE ALL TREATED AT PREVIOUS BOARD MEETINGS. I CAN TAKE QUESTIONS ON THAT IF NEEDED.

BUT I WANTED TO GIVE AN UPDATE ON THE CELL AND GENE THERAPY PLATFORM. THE BOARD LATE LAST YEAR EXPANDED OUR SCOPE FOR OUR FUNDING OPPORTUNITIES TO INCLUDE GENE THERAPY, BUT I WANTED TO REVIEW THAT CIRM RIGHT NOW HAS A PRETTY SUBSTANTIAL INVESTMENT IN CELL AND GENE THERAPY WITH APPROXIMATELY 28 PERCENT OF OUR PROGRAMS INVOLVING GENE MODIFICATION OF A STEM CELL OR PROGENITOR CELL. AND I WANTED TO JUST FOCUS ON A SAMPLING OF THESE PROGRAMS TO DEMONSTRATE SOME OF THE MILESTONES THEY HIT IN TERMS OF REGULATORY MILESTONES, PARTNERSHIP MILESTONES, AND ALSO TO GIVE AN UPDATE ON SOME OF THE CLINICAL OUTPUTS THAT HAVE COME OUT FROM THESE TRIALS.

THE FIRST TRIAL, THE FIRST PROJECT I WANTED TO GIVE AN UPDATE ON IS PARTNERED WITH POSEIDA THERAPEUTICS. THIS IS A PHASE 1 OPEN-LABEL TRIAL, MULTICENTER TRIAL TO TEST A T-CELL THAT IS MODIFIED TO EXPRESS A SPECIFIC RECEPTOR TO A UNIQUE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

PROTEIN THAT IS EXPRESSED ON MULTIPLE MYELOMA. THIS TRIAL IS TARGETING PATIENTS WHO HAVE FAILED OTHER THERAPIES IN MULTIPLE MYELOMA.

WHILE THE FIRST GENE THERAPY PRODUCTS INVOLVING CAR-T'S, THE FIRST TWO WERE APPROVED BY THE FDA JUST A LITTLE BIT OVER A YEAR AND A HALF AGO, KYMRIAH AND YESCARTA. THERE'S BEEN ALREADY NEXT GENERATION CAR-T TECHNOLOGIES BEING DEVELOPED AT CIRM. WE'VE BEEN IN THIS GAME FOR A WHILE. THIS IS JUST ONE OF THE PROGRAMS NOW THAT'S ACTIVE, BUT THERE ARE OTHER PROGRAMS IN CITY OF HOPE, UCLA, AS WELL ACADEMIC SETTING.

I WANTED TO POINT OUT SOME UNIQUE FEATURES OF THIS CAR-T THAT MAKES IT A NEXT GENERATION. ONE IS THAT IT'S A DIFFICULT ANTIGEN THAT'S TARGETED FROM THE ONES THAT ARE TARGETED WITH THE APPROVED PRODUCTS, BCMA. THE SECOND IS THESE ARE ENRICHED AND PURIFIED FOR THE STEM CELL MEMORY T-CELLS. WHAT DOES THAT MEAN? THAT MEANS THAT WHEN THE PRODUCT IS INFUSED, THEY RECOGNIZE THE CELLS, THE CANCER CELLS, DESTROY THEM, BUT THEN THERE'S AN ARMY OF THESE CELLS HANGING OUT IN CASE THERE'S RESIDUAL TUMOR OR RECURRENCE. AND THEN THEY CAN EXPAND BECAUSE THEY'RE STEM CELLS, BUT THE MEMORY RECOGNIZES THE ANTIGEN, THEY'LL COME BACK UP AGAIN.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THERE'S ALSO WHAT'S CALLED THE SAFETY SWITCH THAT'S ENGINEERED INTO THIS PRODUCT. SO IF FOR SOME REASON THINGS GO WRONG AND IT SEEMS LIKE THE PRODUCT ITSELF MAY BE CAUSING AN ISSUE, THEN THOSE CELLS CAN BE DESTROYED. AND SO THEY KIND OF GET CLEARED AS SIMILAR TO WHAT A DRUG WOULD DO, WHICH IS GET METABOLIZED AND CLEARED.

THIS PRODUCT HAS RECEIVED AN RMAT DESIGNATION THAT WAS MENTIONED EARLIER. FOR THE ALMOST $20 MILLION OF CIRM FUNDING, THE COMPANY BRINGING THIS FORWARD HAS RECENTLY ACHIEVED SERIES C FINANCING OF $142 MILLION AND PARTNERSHIP WITH NOVARTIS, WHO'S TAKEN AN EQUITY STAKE IN THIS PROJECT.

NEXT SLIDE, AS YOU WILL RECOGNIZE EVIE BECAUSE SHE'S ON OUR WALL. SHE WAS OUR ANNUAL REPORT FRONT COVER THREE YEARS AGO. EVIE IS NOW OUT ALMOST SIX YEARS IN THIS TRIAL. UCLA, DR. DON KOHN, PARTNERED WITH ORCHARD THERAPEUTICS. AS I MENTIONED EARLIER, ORCHARD THERAPEUTICS HAS SUCCESSFULLY ACHIEVED FOLLOW-ON FINANCING AS WELL AS AN IPO.

THIS TRIAL IS A PHASE 2 TRIAL. SOMETHING UNIQUE ABOUT THIS AND GENE THERAPY TRIAL TO CORRECT THIS PRIMARY IMMUNODEFICIENCY IS A PHASE 2 TRIAL WILL SERVE AS A REGISTRATION TRIAL, MEANING THE DATA

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FROM THIS WILL BE SUFFICIENT TO GET IT TO MARKETING APPROVAL. THE BLA IS PLANNED FOR 2020, MEANING THE MARKETING APPROVAL BY THE FDA ONCE THEY HAVE REVIEWED ALL THE DATA.

WHAT THIS COMPANY HAS REPORTED IS IN THE PATIENTS, THE FIRST 20 PATIENTS WITH A TWO-YEAR FOLLOW-UP WITH A FRESH PRODUCT, THEY'VE ACHIEVED A HUNDRED PERCENT OF EVENT-FREE SURVIVAL AT 24 MONTHS, AND MANY OF THOSE PATIENTS HAVE BEEN OFF OF THE IMMUNE THERAPY THAT THEY'VE NEEDED PRIOR TO THAT, HAVE FAVORABLE OUTCOMES COMPARED TO HISTORICAL REGISTRY GROUPS. SO THIS IS ALMOST 40 PATIENTS WHO ACTUALLY HAVE BEEN CURED OF PRIMARY IMMUNODEFICIENCY. SO THE NEXT STEP IS MAKING THIS MORE ACCESSIBLE.

ANOTHER THING THAT'S SIGNIFICANT ABOUT THIS IS THIS IS ONE DISEASE; BUT, AS DR. MARTIN MENTIONED EARLIER, THIS OPENS UP THE FIELD BECAUSE PROOF OF CONCEPT AND SUCCESS AND CORRECTION OF A GENETIC DISEASE OPENS UP THE POSSIBILITY OF 7,000 OTHER GENETIC DISEASES, MONOGENIC DISEASES, THAT CAN BE APPROACHED BY THIS PLATFORM ARE NOW OPEN FOR POSSIBLE INTERVENTION.

ANOTHER, AND THIS IS A PICTURE THAT KEVIN MCCORMACK HAD SENT JUST THIS MORNING, AND PUT IT IN.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THIS IS RONNIE, WHO WAS OUR FRONT COVER LAST YEAR. HE'S A BABY WHO WAS BORN WITH X-LINKED SCID, ANOTHER FORM OF IMMUNODEFICIENCY. SOME UNIQUE ASPECTS OF THIS PROGRAM IS THIS PROGRAM WAS INITIATED AT ST. JUDE CHILDREN'S HOSPITAL, DR. BRIAN SORRENTINO, WHO UNFORTUNATELY PASSED AWAY LAST YEAR, BUT HIS LEGACY CONTINUES.

THIS PROGRAM WAS MARKEDLY ACCELERATED AND ALLOWED TO CONTINUE BECAUSE OF PARTNERSHIP WITH UCSF MADE POSSIBLE BY CIRM FUNDING. UCSF CONTRIBUTED THE KNOWLEDGE AND THEIR EXPERTISE IN TERMS OF REFINING THE PREPARATORY REGIME. AND WHAT'S REALLY SPECTACULAR IS JUST LAST MONTH IN THE *NEW ENGLAND JOURNAL OF MEDICINE* THEY ALREADY WERE ABLE TO PUBLISH ON EIGHT INFANTS WITH A 16-MONTH MEDIAN FOLLOW-UP WHO DEMONSTRATED THAT THERE WAS SUCCESSFUL ENGRAFTMENT OF THE THERAPEUTIC PRODUCT AND FUNCTIONAL T AND B CELLS. THESE BABIES ARE BORN WITHOUT T AND B CELLS, AND NOW THEY HAVE T AND B CELLS, WHICH ARE THEIR IMMUNE CELLS. SO ESSENTIALLY DOING WHAT THEY WERE SUPPOSED TO DO.

ANOTHER FORM OF IMMUNODEFICIENCY, X-CHRONIC GRANULOMATOUS DISEASE IS ANOTHER PROGRAM OUT OF UCLA. THIS IS BRANDON WHO YOU MET THREE YEARS AGO. HE'S NOW FOUR YEARS OUT FROM THIS TRIAL,

ESSENTIALLY CURED OF HIS XCGD. JUST TO GIVE YOU A BACKGROUND OF WHAT THAT IS, THAT'S A DEFECT IN THE WHITE BLOOD CELLS TO DESTROY BACTERIA AND PATHOGENS. THESE NEUTROPHILS USUALLY DESTROY THEM IS WHAT'S CALLED AN OXIDATIVE BURST. THEY ESSENTIALLY JUST EXPLODE THEM WITH OXYGEN RADICALS. IN THIS DISEASE, THE NEUTROPHILS CAN'T FORM THE OXYGEN RADICALS BECAUSE THEY'RE MISSING AN ENZYME, NMBH OXIDASE. THIS THERAPY REPLACES THE ENZYME. SO IT'S BEAUTIFUL THAT YOU CAN MEASURE THE PRESENCE OF AN ENZYME, MEASURE THE FUNCTION, AND THEN SEE WHAT HAPPENS CLINICALLY.

SO THIS IS A TARGET THAT WAS VIEWED FAVORABLY, ALSO PARTNERED WITH ORCHARD, AND THEY'VE PUBLISHED ON CLINICAL PROOF OF CONCEPT. THE SIX PATIENTS HAVE HAD SUSTAINED LEVELS OF FUNCTIONING NEUTROPHILS A YEAR AFTER TRANSPLANT. SO, AGAIN, REMARKABLE.

THIS IS A PROJECT THAT WAS BROUGHT TO THIS BOARD FOR CONSIDERATION AND WAS PENDING CO-FUNDING. IT'S DR. JUDY SHIZURU'S PROJECT OUT OF STANFORD. THIS IS A LITTLE BIT OF A DIFFERENT PROJECT BECAUSE IT'S AN ENABLING, BUT WIDE PLATFORM TECHNOLOGY. SO ALL THE PROGRAMS I JUST MENTIONED REQUIRE A TRANSPLANT. AND TYPICALLY IN ORDER FOR A TRANSPLANT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

TO BE SUCCESSFUL, YOU NEED TO PREPARE THE RECIPIENT SO THAT THEIR BONE MARROW WILL ACCEPT THOSE CELLS, THOSE ENGINEERED CELLS. AND USUALLY THAT'S SOME FORM OF CHEMOTHERAPY, BUT THE CHEMOTHERAPY HAS TOXICITIES ASSOCIATED WITH IT.

SO DR. SHIZURU AND TEAM ARE USING AN ANTIBODY THAT THEY LICENSED FROM AMGEN WHICH DEPLETES THE NATIVE BLOOD STEM CELLS AND THEN ALLOWS NEW, CORRECTED CELLS TO COME IN AND ENGRAFT. AND SO DR. SHIZURU WAS PREVIOUSLY AWARDED THE DISEASE TEAM FUNDING THAT ALLOWED THAT TEAM TO GO FROM IND-ENABLING PHASE TO INITIATING THE PHASE 1 TRIAL. THIS BOARD APPROVED $3.7 MILLION IN ADDITIONAL FUNDING TO COMPLETE THAT TRIAL, AND THEY HAVE BEEN ABLE TO FURNISH $2.3 MILLION IN CO-FUNDING THAT WAS REQUISITE FOR THIS TO BE INITIATED.

SO FAR ACTUALLY HAVE INTERIM DATA WHICH SHOWS THAT THREE OF THE FIVE PATIENTS THAT THEY REPORTED ON, AND THEY REPORTED ON THIS AT A RECENT PEDIATRIC IMMUNE CONFERENCE, THREE OUT OF FIVE PATIENTS HAVE CLEAR EVIDENCE OF ENGRAFTMENT. AND WITH THESE PATIENTS THAT DIDN'T HAVE B CELLS BEFORE, AFTER THIS CONDITIONING REGIMEN AND BONE MARROW TRANSPLANT, THEY HAVE B CELLS.

AGAIN, ONE OTHER THING THAT'S REALLY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SPECTACULAR ABOUT CELL AND GENE MEDICINE IS YOU HAVE A BIOLOGICAL MECHANISM OF ACTION, YOU HAVE SOMETHING THAT TELLS YOU IF IT WORKS OR DOESN'T WORK. SO THE PARADIGM IS CHANGING IN TERMS OF READOUTS, AND THAT'S WHY WE'RE ABLE TO HAVE TRIALS SUCH AS DR. KOHN AND ORCHARD'S TRIAL THAT CAN GET APPROVED ON SMALLER NUMBERS OF PATIENTS AND CAN GET THROUGH FASTER BECAUSE YOU KNOW IF IT WORKS OR DOESN'T WORK. SO THIS IS CONTINUING, AND WITH CIRM FUNDING, THEY'LL BE ABLE TO COMPLETE THAT PHASE 1 TRIAL.

BETA THALASSEMIA IS A HEMOGLOBINOPATHY WHERE, THIS IS SHIFTING GEARS, WHERE THIS IS A DEFECT IN THE RED BLOOD CELLS BECAUSE A BETA CHAIN OF THE HEMOGLOBIN ARE DEFECTIVE. AND THAT LEADS TO ANEMIA AND SIGNIFICANT MORBIDITY AND HIGH MORTALITY.

CIRM PARTNERED WITH SANGAMO, WHICH ALSO HAS A PARTNERSHIP WITH BIVARIATE, A SUBSIDIARY OF SANOFI WITH $8 MILLION IN CIRM FUNDING. THEY'VE BEEN ABLE TO ACHIEVE INTERIM DATA WITH THEIR FIRST PATIENT ENROLLED, AND THEY WON'T BE REPORTING UNTIL THEY COMPLETE THE COHORT, ACCORDING TO THEIR PRESS RELEASE; BUT IN THE FIRST PATIENT ENROLLED, THEY DEMONSTRATED PROOF OF CONCEPT THAT THE GENE-EDITED CELLS WERE ENGRAFTING IN CIRCULATION, AND THEY HAD RECOVERY OF THIS PATIENT FROM THE CONDITIONING

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

REGIMEN AND A STABLE HEMOGLOBIN FOR SEVEN WEEKS.

THE STRATEGY HERE IS A GENE MODIFICATION BRINGING UP THE EXPRESSION OF FETAL HEMOGLOBIN, WHICH WE ALL HAVE BEFORE WE ARE BORN. AND BY DOING THAT AND SWITCHING IT FROM THE -- DEPENDING ON THE DEFECTIVE BETA CELLS, TO THAT OF FETAL HEMOGLOBIN, IT REVERSES THE PHENOTYPE OF THIS DISEASE. SO THEY WERE ABLE TO SHOW THAT THIS CORRECTION HAD OCCURRED. AND CLINICALLY THIS PATIENT HAD REQUIRED EVERY OTHER WEEK TRANSFUSION PRIOR TO THE TRANSPLANT AND WAS TRANSFUSION FREE FOR SEVEN WEEKS AFTER THE TREATMENT. SO THAT WILL CONTINUE.

TAKE A PAUSE HERE AND JUST WANTED TO GIVE YOU AN UPDATE ON OUR MOU WITH THE NATIONAL HEART, LUNG, BLOOD INSTITUTE ON THE CURE SICKLE CELL DISEASE. WE FORMALIZED THIS MOU JUST A COUPLE MONTHS AGO. THIS BOARD APPROVED THE FUNDING OF THE FIRST PROJECT THAT WAS ELIGIBLE FOR FUNDING UNDER THE SICKLE CELL CURE INITIATIVE. AND THANKS TO THE INTERNAL TEAM LED BY GABE THOMPSON AND THE NHLBI TEAM, MY COUNTERPART THERE, GARY GIBBONS, AND THE HEAD OF THE BLOOD INSTITUTE, KEITH HOOTS, AND THEIR TEAM, WE SECURED THAT, PUT SYSTEMS IN PLACE, AND ARE NOW GOING TO CO-FUND THE FIRST PROGRAM, WHICH IS THE FIRST ONE ON THIS LIST, DR. MARK WALTERS, UCSF

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CHILDREN'S HOSPITAL OAKLAND BENIHOF.

AND IN THIS APPROACH, SO JUST TO GO BACK, SICKLE CELL DISEASE IS A HORRIBLE CONDITION. WE'VE KNOWN ABOUT THE MOLECULAR BASIS SINCE THE 1940S WHEN LINUS PAULING IDENTIFIED THIS, BUT THERE'S JUST NOTHING FOR IT. AND THE NIH AND OTHERS FEEL THAT, AND WE DO, FEEL THAT THE TIME IS NOW. 100,000 PATIENTS ARE AFFECTED IN THE U.S., BUT WORLDWIDE WILD MILLIONS OF PATIENTS. THIS IS EXPECTED TO BE A GLOBAL HEALTH PROBLEM AT 30 PERCENT GROWTH, AND THOSE AFFECTED GLOBALLY BY 2050. WHAT'S MORE HORRIBLE ABOUT IT FOR EACH PATIENT THAT'S AFFECTED, WHAT THEY HAVE TO GO THROUGH THROUGH THEIR LIVES, MULTIPLE PAIN CRISES, HOSPITALIZATIONS, INFARCTION OF MULTIPLE ORGANS, STROKES. AND IT'S ONE OF OUR -- YOU HEARD FROM ONE OF OUR PATIENT ADVOCATES AT THE LAST BOARD MEETING DESCRIBING WHAT HER LIFE IS LIKE. YOU CAN'T PREDICT THIS. SO A CURATIVE APPROACH IS DEFINITELY SOMETHING THIS COMMUNITY HAS BEEN WAITING FOR WAY TOO LONG.

SO THIS PROGRAM BY DR. WALTERS USES GENE EDITING. SICKLE CELL DISEASE, SICKLE CELL ANEMIA, IS CAUSED BY A SINGLE MUTATION THAT LEADS TO ONE IMMUNO-ACID DEFECT. THROUGH GENE EDITING, DR. WALTERS' TEAM IS GOING TO USE A CRISPR/CAS 9 GENE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

EDITING TO CUT OUT ONE MUTATION, ALLOW IT TO BE COLLECTED, AND REVERSE THE GENE SO THAT NOW PRODUCES NORMAL HEMOGLOBIN. SO THAT PROGRAM IS GOING TO BE LAUNCHING AND PREPARING IND-ENABLING ACTIVITY.

DR. DON KOHN'S PROGRAM IS A DIFFERENT APPROACH WHERE THERE'S ANTISICKLING THERE. MR. SHEEHY HAS A QUESTION.

MR. SHEEHY: WALTERS' APPLICATION. SO IT SAYS A PORTION BY NHLBI. HAVE THEY DECIDED THAT THEY'RE ACTUALLY GOING TO CO-FUND AND WHAT THAT AMOUNT IS? I DON'T THINK WE HAD THAT READOUT YET.

DR. MILLAN: THEY JUST GOT THE FILE APPROVAL FROM DR. GIBBONS THIS PAST WEEK TO CO-FUND. THE MOU IN ROUGH TERMS SKETCHES OUT APPROXIMATELY HALF, BUT THE FINAL NEGOTIATION IS ABOUT TO OCCUR BECAUSE IT'S JUST A CONTRACTING ISSUE. BUT I'LL GIVE YOU AN UPDATE ON WHAT THE EXACT AMOUNT IS AT THE NEXT MEETING.

MR. SHEEHY: THANK YOU.

DR. MILLAN: DR. KOHN HAS A DIFFERENT APPROACH WHERE THERE IS AN INSERTION OF AN ANTISICKLING GENE RATHER THAN THE CORRECTION OF THE MUTATION. THAT'S A GENE ADDITION.

I JUST WANTED TO TAKE THIS MOMENT TO DISTINGUISH FROM GERMLINE EDITING, WHICH IS

SOMETHING THAT HAS HIT THE NEWS WAVES IN TERMS OF THE EXPERIENCE IN CHINA. THIS IS -- THE TYPE OF CELL IN GENE THERAPY PROGRAMS WE'RE TALKING ABOUT HERE ARE NOT EDITING A GENOME SO THAT IT'S PASSED ON FROM GENERATION TO GENERATION. I JUST WANTED TO DISTINGUISH THAT. THE GERMLINE EDITING DEBATE, ETHICAL DEBATE AND APPROPRIATE EVALUATION IS ONGOING INTERNATIONALLY AT WORLD HEALTH ORGANIZATION AND ALL THE NATIONAL ACADEMIES, AND CIRM IS KEEPING A VERY CLOSE EYE ON THAT AND THAT CONVERSATION. SO I JUST WANTED TO DISTINGUISH FOR THOSE WHO AREN'T AS FAMILIAR WITH THE DIFFERENCES.

SO THAT'S JUST KIND OF A SAMPLING. THAT'S A SAMPLING OF OUR PROGRAMS. WE WILL CONTINUE TO TAKE JUST -- TRY TO GROUP THESE TOGETHER AND GIVE YOU UPDATES AS THINGS GO ALONG, BUT I THOUGHT IT WAS WORTHWHILE GIVEN THE PROGRESS OF THE GENE PROGRAMS, CELLULAR GENE PROGRAMS WE HAVE.

AND THIS IS SOMETHING WE MENTIONED EARLY ON, WHICH IS CIRM'S ROLE. I THINK IT WAS BOTH MR. JUELSGAARD AND DR. MARTIN BROUGHT UP THIS PUSH-PULL OF INDUSTRY AND WHAT THE ROLE IS OF CIRM. I THINK THOSE ARE REALLY, REALLY IMPORTANT POINTS. CIRM HAS PLAYED A DERISKING ROLE IN FUNDING PROGRAMS EARLY ON WHEN OTHERS SAID IT WAS TOO RISKY, THE SCIENCE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WASN'T WELL-KNOWN, OR THERE WASN'T ENOUGH INFORMATION OR DATA FOR INVESTORS TO PUT A BET ON IT. AND THAT HAS LED TO ONE PROOF OF CONCEPT CLINICAL DATA INDUSTRY INVESTMENT INTO THAT. SO FAR EVERY YEAR, AS YOU CAN SEE, 2015 WE HAD $40 MILLION IN INDUSTRY INVESTMENT. EVERY YEAR IT WAS INCREASING 150 IN 2016, 390 IN 2017, OVER A BILLION DOLLARS LAST YEAR. SO IN AGGREGATE, $1.64 BILLION IN INDUSTRY INVESTMENT, VALIDATING THE QUALITY OF OUR PROGRAMS AND THE PROMISE OF THESE THERAPIES.

AND I JUST WANTED TO END WITH KIND OF A WHO ARE WE? WE TALK ABOUT CIRM'S VALUE PROPOSITION. AS A FUNDING AGENCY, WE TALK ABOUT CIRM'S VALUE PROPOSITION AS AN ACCELERATOR. WHAT WE ALSO SERVE IS AS A HUB THAT PROMOTES PARTNERSHIP AND KNOWLEDGE EXCHANGE. I ONLY PUT SOME THINGS IN THERE BECAUSE OTHERWISE THE SLIDE WOULD BE TOO BUSY, BUT I'LL JUST GIVE YOU EXAMPLES.

SO WE WERE A GO-TO PARTNER FOR THE NHLBI WHEN THEY SAID THEY WANTED TO CURE SICKLE CELL IN FIVE YEARS. SO SHYAM PATEL AND SOHEL TALIB HAVE TAKEN ON OUR INDUSTRY ALLIANCE PROGRAM. SOME OF THE PARTNERS LISTED THERE ARE VENTURE CAPITALISTS, COMPANIES, STRATEGIC PLATFORM-BASED COMPANIES, WHO HAVE COME INTO OUR INDUSTRY ALLIANCE PROGRAM BECAUSE

THEY WANT TO HAVE CONTINUED CONVERSATIONS AND VISIBILITY TO OUR PORTFOLIO FOR PARTNERSHIP TO BRING THEM TO COMMERCIALIZATION. BUT THAT'S JUST A SPRINKLING OF THE INTERACTIONS WE HAVE. THERE ARE OTHERS WHO AREN'T FORMALLY IN THE INDUSTRY ALLIANCE PROGRAM THAT CIRM INTERACTS WITH.

AND IN TERMS OF CIRM RESEARCHERS, IT SAYS RESEARCHERS THERE, INCLUDED THERE ARE OUR ALPHA CLINICS NETWORK. SO THERE'S A MULTIPLIER EFFECT, THAT EACH OF THOSE CLINICS HAVE THEIR NETWORKS AND SO ON AND SO ON.

SO TO DEMONSTRATE WHAT THIS MANIFESTS IN REALITY AND IN REAL TIME, JUST THIS PAST TWO OR THREE MONTHS, THIS IS WHAT'S HAPPENED. SO WE HAD OUR FOURTH ANNUAL ALPHA CLINICS SYMPOSIUM. JEFF SHEEHY WAS THERE, AND OTHER BOARD MEMBERS, JON THOMAS, OUR CHAIR, WAS THERE, AND DR. PADILLA WAS THERE. IT WAS A PLACE WHERE THE SCIENTISTS AND THE RESEARCHERS CAN UPDATE THE COMMUNITY ABOUT THE PROGRESS. IN THIS CASE IT WAS GENE THERAPY AND SICKLE CELL DISEASE AS WELL AS SOME EARLY STAGE ONCOLOGY PROGRAMS. BUT WE DIDN'T JUST LOOK AT IT IN TERMS OF THE ADVANCEMENTS IN THE TECHNOLOGY AND THE CLINICAL TRIALS. THERE WERE PATIENTS WHO GAVE THEIR STORIES THAT WERE SO POWERFUL IN TERMS OF HOW THIS

HAS IMPACTED THEM AND SOME UNINTENDED CONSEQUENCES ACTUALLY OR CORRECTION TO THE ASPECTS OF WHAT IS INVOLVED IN BEING A PATIENT AND BEING A CLINICAL TRIAL RECIPIENT TO THE HEALTHCARE GIVERS AND THE SPECIALIZATION THAT'S OCCURRING WITH COUNSELING AND NURSING.

IT REALLY WAS MULTIFACETED AND THIS IS WHAT IT'S LIKE EVERY YEAR, A VIEW OF WHAT OUR IMPACT IS AND WHAT THE GAPS ARE THAT ARE STILL PRESENT. AND ON THIS PICTURE YOU WILL SEE THE ALPHA CLINICS DIRECTORS, CIRM TEAM. I WANT TO GIVE A SHOUT-OUT TO GEOFF LOMAX, WHO IS OUR INTERNAL PROGRAM OFFICER WHO WORKS WITH THE PROGRAM DIRECTOR TO PUT ON A SPECTACULAR AND SUCCESSFUL CONFERENCE EVERY YEAR INCLUDING THIS.

WE ASSEMBLE WORKSHOPS. WE CONVENE KEY OPINION LEADERS ON ALL THE VARIOUS SECTORS. THIS WORKSHOP WAS IN COLLABORATION AND CO-ORGANIZED WITH DR. CLIVE SVENDSEN OF CEDARS-SINAI, DANIELA BOTA, WHO IS OUR ALPHA CLINICS DIRECTOR AT UC IRVINE, EKEMINI RILEY, WHO IS A DIRECTOR OF THE MILKIN STRATEGIC PHILANTHROPIC SECTOR AND THROUGH THAT. AND THEN INTERNALLY, KENT FITZGERALD, AND WE WERE ABLE TO ASSEMBLE LEADERS IN -- THERE WERE ONLY 50 INVITED PARTICIPANTS, AND WE WANTED TO MAKE SURE IT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WAS VARIED, BUT LEADERS IN GENOMICS AND STEM CELL MODELING, CLINICAL TRIALS, AND WE HAD DR. WILSON * FROM THE FDA THERE. REALLY FULSOME CONVERSATION ABOUT WHAT THE COMMONALITIES ARE AND THE LEARNINGS BETWEEN ALL THE DIFFERENT NEURODEGENERATIVE DISEASES, AND CAN WE LEVERAGE THAT TO SOLVE PROBLEMS THAT ARE STILL UNSOLVED BECAUSE IT'S STILL A HUGELY UNMET MEDICAL NEED, AND THERE'S GOING TO BE CONTINUED FURTHER CONVERSATIONS AFTER THAT.

ONE OF THE THINGS WE ALSO DO IS NOT JUST WHAT WE CAN BE, BUT WHAT COMES OUT FROM WHAT WE PUT TOGETHER. AND GFORCE IS A CELL THERAPY FOCUS PARKINSON'S DISEASE CONSORTIUM THAT CAME OUT OF A PARKINSON'S WORKSHOP CONVENED BY CIRM, I THINK, ABOUT FIVE YEARS AGO. AND EVERY YEAR WE SEND A CIRM REPRESENTATIVE. THESE ARE INTERNATIONAL LEADERS IN THIS FIELD. TAKAHASHI, THEY'VE ALREADY INITIATED A CLINICAL TRIAL WITH AN IPSC-BASED APPROACH TO PARKINSON'S. LAWRENCE DAUER FROM MEMORIAL SLOAN KETTERING, THEY'RE IN THE MIDST OF GETTING READY FOR THEIR TRIAL. KENNETH PALMER FROM THE KAROLINSKA INSTITUTE AS WELL AS OTHERS. AND DR. ABLA CREASEY, OUR HEAD OF THERAPEUTICS, HAD BEEN OUR REPRESENTATIVE TO THAT MEETING.

AND THEN LAST YEAR WE CONVENED A

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

MANUFACTURING STANDARDIZATION WORKSHOP. DR. ABLA CREASEY AND STEVEN LYNN INTERNALLY, AS WELL AS GEOFF LOMAX HAVE LED THAT EFFORT ALONG WITH IABS. AND HERE'S ONE OF THE OUTPUTS OF PUBLICATION WHERE DR. CREASEY WAS A CO-AUTHOR, LAYING OUT A STRATEGIC ROAD MAP TO A BLA FOR PLURIPOTENT PRODUCTS. SO JUST WANTED TO HIGHLIGHT OTHER ACTIVITIES.

AND HERE ARE THE PEOPLE WHO DO IT. MARIA BONNEVILLE TOOK A BREAK, SO SHE'S NOT IN THE PICTURE, BUT SHE'S RIGHT HERE. AND SCOTT TOCHER.

DR. ZIEDONIS: I THOUGHT THE TRAINING PART WAS TERRIFIC, AND IT'S REALLY GREAT AND IMPORTANT TO GET THE WORD OUT TO THE COMMUNITY. IT MIGHT BE HELPFUL TO HAVE A SENSE OF THE IMPACT OTHER THAN THERE WAS AN EVENT. LIKE IF YOU HAD A SENSE OF THE NUMBERS OF PEOPLE THAT ATTENDED, AND THEN ALSO PERHAPS I DON'T KNOW IF YOU THOUGHT OF SOME TYPE OF NEWSLETTER OR SOMETHING THAT COULD GO OUT MORE BROADLY, AND I DON'T KNOW WHAT KIND OF MEDIA ATTENTION YOU GOT TO IT. SEEMS LIKE SUCH AN IMPORTANT THING AND WE PUT SO MUCH DETAIL ON THE OTHER STUFF, BUT A LITTLE BIT MORE ON THE NUMBERS AND THE WAY YOU EVALUATED YOUR SENSE THAT YOU HAD AN IMPACT.

DR. MILLAN: THANK YOU VERY MUCH. I THINK

THAT'S A GREAT SUGGESTION. SO WE WILL DO THAT. AND IT'S TRUE THAT IMPACT GOES SO FAR BEYOND THE MEETING ITSELF, WHAT'S IT LED TO IN TERMS OF WHAT COLLABORATIONS CAME OUT OF THAT. AND OUR COMMUNICATIONS TEAM REALLY DOES A GOOD JOB WITH BLOGS AND OTHER WAYS TO TELL THE STORY. AND THE SCIENCE TEAM WORKED WITH THAT AND WILL CONTINUE TO DO THAT, BUT LOOK AT WAYS TO QUANTIFY A LITTLE BIT BETTER. THANK YOU.

HERE ARE THE PEOPLE. THERE ARE ABOUT 40 NOW CIRM STAFF -- TEAM MEMBERS WHO ARE BEHIND ALL THIS THAT WE CALL THE INTEL INSIDE, THE ACCELERATION, THE AGGREGATION, THE CONVENING, THE MANAGEMENT TO MAKE ALL THIS HAPPEN. AND SO IT'S BEEN A PRIORITY FOR US TO RETAIN TALENT AND EXPERTISE. AND THIS IS JUST I WANTED TO CALL YOUR ATTENTION IN THE MIDDLE, THE TALL PERSON THERE NEXT TO ME, PAT OLSON, DR. PAT OLSON. YOU'LL BE HEARING A LITTLE BIT MORE ABOUT HER LATER. DR. OLSON WILL BE RETIRING AT THE END OF THIS MONTH. SHE'S REALLY PUT HER ALL INTO CIRM. SHE'S BEEN HERE ALMOST 13 YEARS, MAYBE A LITTLE BIT MORE, STARTED AS A CONSULTANT. YOU'LL HEAR A LITTLE BIT MORE ABOUT THAT LATER.

AND THEN CHILA SILVA-MARTIN PEEKING BEHIND

SHEILA IN THE COOL GLASSES OR REGULAR GLASSES BEHIND HER. CHILA, YOU'LL HEAR FROM HER LATER. SHE'LL BE PRESENTING THE BUDGET. CHILA HAS BEEN HERE FOR OVER TEN YEARS KEEPING OUR BOOKS AND OUR FINANCIAL AND OUR BUDGETING ACTIVITIES JUST AT AN A LEVEL, ALWAYS JUST IMPECCABLE.

MR. TORRES: OVER 40 YEARS OF STATE SERVICE.

MS. SILVA-MARTIN: 44.

DR. MILLAN: 42 YEARS OF STATE SERVICE, RIGHT? 44. I EXAGGERATED TO THE TEAM. BUT WHAT I WANTED TO TALK ABOUT IS WE ARE REQUESTING TO RETAIN THEIR EXPERTISE EVEN AS THEY RETIRE. YOU'LL HEAR ABOUT THAT FROM SCOTT TOCHER, WHO WILL BE BRINGING TO YOU THE CONCEPT OF RETIRED ANNUITANT. THIS TEAM IS AMAZING. NOT ONLY DO THEY PROVIDE THEIR EXPERTISE IN THEIR PRIMARY AREAS; BUT WHEN WE NEED IT, THEY BRANCH OUT AND THEY'VE BUILT EXPERTISE IN OTHER AREAS. SO WE WANT TO RETAIN THAT TALENT AND THAT INSTITUTIONAL KNOWLEDGE ESPECIALLY IN THIS PHASE OF CIRM AS WE ARE AWAITING THE OUTCOME OF A POTENTIAL NEXT STAGE.

THEN LATER YOU WILL ALSO BE HEARING THE BUDGET PROPOSAL FROM CHILA THAT SUPPORTS THE TRANSITION WIND-DOWN PLAN OF PROP 71.

AND AFTER THAT WILL BE OUR CLIN PROGRAM FOR CONSIDERATION. SHYAM PATEL, WHO'S NOT ONLY THE ASSOCIATE DIRECTOR FOR REVIEW, BUT HAS BEEN SPECTACULAR IN TERMS OF TAKING ON THE BUSINESS DEVELOPMENT ROLE SINCE NEIL LITTMAN TOOK ANOTHER POSITION. PLEASE STAY TUNED AT THE END OF THE MEETING, THAT QUESTION OF WHAT IS CIRM'S ROLE REALLY WHEN PROGRAMS START TO GET PARTNERED AND THEY START TO RAISE MONEY AND THEY GO PUBLIC.

SO HERE'S MARK CHAO FROM 47 INC., ONE OF THE CO-FOUNDERS FOR 47 INC. IS GOING TO BE COMING LATER. YOU CAN ASK HIM THOSE QUESTIONS BECAUSE THAT'S THE PROGRAM THAT HUMANA STANFORD WITH IRV WEISSMAN WAS BROUGHT THROUGH AND TO THIS STAGE WITH A COMMERCIALIZATION PARTNER.

SO THAT'S ALL I HAVE FOR THE PRESIDENT'S REPORT. AND I'M GOING TO TAKE QUESTIONS AND THEN TURN IT OVER.

DR. MARTIN: I JUST WANT TO MAKE CERTAIN THAT THOSE OF YOU WHO HAVE NOT BEEN AROUND THIS ARENA FOR LONG ENOUGH TO UNDERSTAND HOW PROFOUND THESE RESULTS ARE. AND IT'S QUITE PERSONAL FOR ME. I SAID 20 YEARS AGO I STARTED WORKING ON STEM CELLS WITH GAIL MARTIN. IT WAS ACTUALLY MORE THAN 40 YEARS AGO. THAT WAS DENIAL ON MY PART. BUT ALMOST

40 YEARS AGO, PROBABLY MAYBE 39 YEARS AGO, I WAS ON -- WHEN I WAS AT UCSF, I WAS ON THE NIH RAC, WHICH IS RECOMBINANT ADVISORY COMMITTEE. AND I INTRODUCED FOR THE FIRST TIME TO RAC THE CONCEPT OF GENE THERAPY, AND IT WAS FOR ADENOSINE DEAMINASE DEFICIENCY, WHICH WE WERE WORKING ON IN THE LAB FROM PEOPLE WHO ARE HERE, WHO WERE AROUND IN THAT TIME AND UNDERSTAND THAT.

AND I ALMOST HAD TO PINCH MYSELF TO BELIEVE THAT I WASN'T DREAMING, THAT THERE ARE ACTUALLY RESULTS UNDER PATIENTS THAT ARE NOW CURED OF THAT DISEASE. AND THERE ARE OTHERS AS WELL. THE WHOLE SICKLE CELL WASN'T EVEN THOUGHT OF AT THAT POINT, BUT THESE INHERITED MONOGENIC DISEASES WHERE THERE'S A SINGLE GENE DEFECT THAT CAN BE CORRECTED, THAT WAS THE OPPORTUNITY, BUT IT WAS 40 YEARS AGO. AND I DON'T BELIEVE, HONESTLY DON'T BELIEVE WE WOULD HAVE HEARD OF THESE RESULTS WITHOUT CIRM. BECAUSE COMMERCIALLY THE SIZE OF THE MARKET FOR CHRONIC GRANULOMATOUS DISEASE OR PURINE NUCLEOSIDE PHOSPHORYLASE DEFICIENCY, THEY DON'T EXIST, DIDN'T EXIST AT THAT TIME. NOW YOU START TO TALK ABOUT SICKLE CELL DISEASE, THERE IS A HUGE NEED THERE, BUT THESE OTHER ACTIVITIES AND SUCCESSES HAD TO BE THE FORERUNNERS OF THAT ACTIVITY AND THAT OPPORTUNITY.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SO IT'S QUITE STARTLING WHAT HAS HAPPENED IN THE LAST 40 YEARS, AND YOU SHOWED THE RESULTS.

DR. MILLAN: THANK YOU. I THINK ONE OF THE THINGS I TRY NOT TO DO IS TO OVERBURDEN DURING THESE PRESENTATIONS, AND IT'S A GOOD PROBLEM TO HAVE WHEN YOU FEEL LIKE YOU NEED TO CUT THINGS DOWN BECAUSE THERE'S SO MANY THINGS TO TALK ABOUT, AND I THINK TO BE IN THAT POSITION IS QUITE AN HONOR. THANK YOU.

CHAIRMAN THOMAS: OKAY. THANK YOU, DR. MILLAN. FIVE-MINUTE BREAK FOR BETH.

(A RECESS WAS TAKEN.)

CHAIRMAN THOMAS: EVERYBODY ON THE PHONE HEAR ME. SHERRY, CAN YOU HEAR ME OKAY? CAN ANYBODY HEAR ME ON THE PHONE? SHERRY, YOU CAN HEAR OKAY?

WE'RE GOING TO PROCEED NOW. BETH IS ALL RESTED AND READY TO GO. SO WE HAVE ONE CONSENT ITEM.

MS. BONNEVILLE: WE NEED EVERYONE IN THE ROOM SO WE CAN TAKE A VOTE.

CHAIRMAN THOMAS: OKAY. SO FIRST ITEM IS CONSENT ITEM ITEM 5, REAPPOINTMENT AND APPOINTMENT OF SCIENTIFIC MEMBERS TO THE GWG. THIS IS A RECURRING ITEM WHICH WE'LL PASS UNLESS WE HAVE ANY MEMBERS WANT TO TAKE THAT OFF FOR FURTHER

CONSIDERATION. HEARING NONE, ON TO THE NEXT ITEM, WHICH IS --

DR. MARTIN: SO MOVED.

MR. TORRES: SECOND.

CHAIRMAN THOMAS: SO MOVED AND SECONDED, DR. MARTIN, SENATOR TORRES. VOICE VOTE, ALL THOSE IN FAVOR. AYE. MARIA, WILL YOU PLEASE CALL THE ROLL ON THE PHONE.

MS. BONNEVILLE: LINDA BOXER.

DR. BOXER: YES.

MS. BONNEVILLE: DEBORAH DEAS. DAVID HIGGINS.

DR. HIGGINS: YES.

MS. BONNEVILLE: SHERRY LANSING. SHLOMO MELMED.

DR. MELMED: YES.

MS. BONNEVILLE: ADRIANA PADILLA.

DR. PADILLA: YES.

MS. BONNEVILLE: JOE PANETTA.

MR. PANETTA: YES.

MS. BONNEVILLE: AL ROWLETT.

MR. ROWLETT: YES.

MS. BONNEVILLE: KRISTINA VUORI. DIANE WINOKUR.

MS. WINOKUR: YES.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

MS. BONNEVILLE: THANK YOU. I'M GOING TO TRY DEBORAH AGAIN. DEBORAH DEAS.

MOTION CARRIES.

CHAIRMAN THOMAS: THANK YOU. ON TO THE NEXT ITEM WHICH WAS PREVIEWED BY DR. MILLAN, WHICH IS A REQUEST TO WAIVE 180-DAY WAITING PERIOD TO HIRE RETIRED ANNUITANTS TO PERFORM DUTIES. LIKE TO HAVE MR. TOCHER ADDRESS THIS ITEM, AFTER WHICH I WILL HAVE A COUPLE OF COMMENTS. MR. TOCHER.

MR. TOCHER: GOOD MORNING. THANK YOU, CHAIRMAN THOMAS. WITH THIS ITEM, WE ARE SEEKING APPROVAL. SO, YES, WITH THIS ITEM WE ARE SEEKING APPROVAL FROM THE BOARD TO APPOINT AS RETIRED ANNUITANTS CHILA SILVA-MARTIN AND PAT OLSON TO RESPECTIVE ROLES AFTER THEIR RETIREMENT.

THE CONCEPT OF RETIRED ANNUITANTS IS FAIRLY STRAIGHTFORWARD, REALLY JUST WHEN A STATE SERVICE PERSON RETIRES FROM STATE SERVICE, BUT COMES BACK ON A TEMPORARY, PART-TIME BASIS TO FULFILL CERTAIN NEEDS AND FUNCTIONS FOR AN AGENCY.

TYPICALLY THIS IS DONE WITHOUT MUCH KERFFULE. ON SORT OF AN AD HOC BASIS AS AN AGENCY'S PREP SEASONAL NEEDS MAY CHANGE, IT'S HELPFUL TO BRING IN SOMEONE WITH EXPERTISE AND FAMILIARITY WITH THE MISSION OF THE AGENCY TO FULFILL CERTAIN TASKS.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

HOWEVER, SOMETIMES A DEPARTURE, SUCH AS THESE TWO, THE DEPARTURE CREATES A VOID THAT CANNOT BE FILLED IN THE SHORT TERM. AND SO THE LAW ALLOWS A STATE AGENCY TO APPOINT THAT RETIRED ANNUITANT TO THE TEMPORARY ROLE TO FULFILL THOSE CRITICAL NEEDS. AND THAT IS WHY WE HAVE THIS ITEM FOR YOU TODAY BECAUSE CHILA AND PAT WILL BE LEAVING US SHORTLY.

THE MEMO FOR THIS ITEM EXPLAINS THE CRITICAL FUNCTIONS THAT EACH PERFORMS AND THAT THEY WILL BE EXPECTED TO PERFORM IN THIS RETIRED ANNUITANT ROLE. MUCH OF IT IS, AS YOU MIGHT EXPECT, HANDLING SHORT-TERM ITEMS AND CONTINUING TO ENSURE THAT THERE'S A SMOOTH TRANSITION TO FOLKS WHO WILL BE TAKING UP THE REINS IN THEIR ABSENCE.

SO IF THERE ARE ANY QUESTIONS, I'M HAPPY TO HANDLE THEM. SO FAIRLY STRAIGHTFORWARD.

CHAIRMAN THOMAS: IS THERE A MOTION TO APPROVE?

MR. TORRES: SO MOVED.

DR. PRIETO: SECOND.

MS. LANSING: I'LL MOVE IT. THIS IS SHERRY.

MR. SHEEHY: I HOPE WE DON'T LET THIS MOMENT PASS WITHOUT REMARKING ON THE EXTRAORDINARY CONTRIBUTIONS OF THESE TWO INDIVIDUALS. CHILA

MARTIN HAS -- I DON'T THINK WE REALLY APPRECIATE THE EXTRAORDINARY LEVEL OF WORK, OF COMPETENCE, OF INTEGRITY THAT WE HAVE GOTTEN FROM OUR FINANCE OFFICER GOING BACK TO WALTER BARNS ON LOAN FROM A STATE AGENCY, THROUGH MARGARET FERGUSON, WHO WAS AN ABSOLUTE CHARM TO WORK WITH, AND WITH CHILA. AT THE END OF THE DAY, NO ONE HAS EVER, AND WE'RE GOING TO GET OUR ACCOUNTING REPORT HERE AT THE END, WHICH IS GLOWING AS USUAL, NO ONE HAS EVER QUESTIONED OUR FINANCIAL CONTROLS. AND IT'S REALLY BEEN AN EXTRAORDINARY AMOUNT OF WORK THAT'S BEEN DONE.

SOMETIMES QUIET AND THE LACK OF DRAMA REALLY NEEDS TO BE RESPECTED FOR WHAT IT ACTUALLY MEANS, AND IT'S BEEN INCREDIBLE HARD WORK. WE ARE AN UNUSUAL AGENCY IN HOW WE FIT IN WITH STATE GOVERNMENT. WE ARE RELIANT ON SEVERAL STATE AGENCIES IN ORDER TO DO OUR FINANCIAL WORK, AND I HAVE NOT HEARD A PEEP. THERE HAS NOT BEEN A SCINTILLA OF DISCORD, A SCINTILLA OF IMPROPRIETY, AND I REALLY THINK WE NEED TO ACKNOWLEDGE, NOT JUST CHILA, BUT THE TEAM THAT WE'VE HAD SINCE THE BEGINNING OF THIS AGENCY FOR THEIR EXTRAORDINARY WORK. SO THANK YOU.

(APPLAUSE.)

MR. SHEEHY: AND THEN FOR DR. OLSON. WHAT

CAN WE SAY? MY LORD. WE'VE BEEN WARRIORS IN THE TRENCHES FROM VIRTUALLY DAY ONE. SHE'S BEEN OUR LEADER AT THE VERY BASIC LEVEL OF SCIENCE AND DISCOVERY FOR YEARS. AND AS DR. MARTIN WAS MENTIONING, WE'VE SEEN A HUGE TRANSFORMATION IN WHAT WE'VE SEEN IN SCIENCE SINCE THE BEGINNING OF THIS AGENCY AND PROGRESS THAT'S BEEN MADE. AND DR. OLSON HAS NEVER BEEN A STEP BEHIND. IF ANYTHING, SHE'S BEEN A COUPLE OF STEPS AHEAD, AND SHE'S BEEN A SCIENTIFIC LEADER, SHE'S BEEN A LEADER AMONG THE PEOPLE WHO WORK FOR THIS AGENCY, SHE'S BEEN AN INSPIRATION, AND A TOTAL JOY TO WORK WITH. THANK YOU, PAT.

(APPLAUSE.)

CHAIRMAN THOMAS: THANKS VERY MUCH, MR. SHEEHY. I THINK THAT NEATLY ENCAPSULATES UNANIMOUS OPINION FOR BOTH CHILA AND PAT. APPRECIATE YOUR COMMENTS.

MR. TORRES: I JUST WANT TO ADD VERY SIMILAR COMMENTS, ESPECIALLY ABOUT CHILA AND PAT. WE'RE NOT SAYING GOODBYE BECAUSE THEY'LL BE BACK PRETTY SOON AFTER WE PASS THIS RESOLUTION. BUT THE FACT OF THE YEARS OF COMMITMENT THAT BOTH HAVE GIVEN, CHILA ESPECIALLY FOR 44 YEARS IN STATE SERVICE. I KNEW HER WHEN I WAS IN THE LEGISLATURE

AND KNOW HER HUSBAND VERY, VERY WELL. SHE WAS ALWAYS FORTHRIGHT THEN.

AND WITH PAT, WHO WELCOMED ME FOR THE FIRST TIME WHEN I ARRIVED IN 2009, WE HAD OUR CONFLICTS, BUT WE RESOLVED THEM BECAUSE I KNEW WHO WAS THE BOSS. DURING THOSE YEARS SINCE '09, I ALWAYS TURN TO PAT FOR ADVICE AND COUNSEL, AND I ALWAYS APPRECIATE IT AND THANK GOD YOU'LL STILL BE AROUND EVERY ONCE IN A WHILE TO TALK TO AND TO RECEIVE THAT ADVICE AND COUNSEL AS WELL AS FROM CHILA. THANK YOU BOTH.

CHAIRMAN THOMAS: THANK YOU, SENATOR TORRES. OTHER COMMENTS, MEMBERS OF THE BOARD?

DR. HIGGINS: MAY I MAKE A COMMENT FROM SAN DIEGO? IT'S POSSIBLE THAT I'VE KNOWN PAT LONGER THAN ANYBODY ELSE ON THIS BOARD. I'M NOT SURE THAT'S TRUE, BUT PAT USED TO BE MY BOSS. I REPORTED DIRECTLY TO HER. AND SOME OF YOU HAVE HEARD THE STORY, SO I WON'T TELL IT AGAIN. SUFFICE IT TO SAY THE FIRST DAY AS A BOARD MEMBER AND WALKED IN THE ROOM AND SAW PAT, I ALMOST PASSED OUT. I WENT OVER AND GRABBED HER AND HUGGED HER.

MR. TORRES: SHIVERING IN FEAR, I'M SURE.

DR. HIGGINS: I HAVE KNOWN HER AND WORKED WITH HER SINCE 1996. SHE HIRED ME IN 1996 TO WORK

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

AT CHIRON. AND SHE TO THIS DAY STANDS OUT AS THE MOST -- THE SMARTEST, MOST FOCUSED, THE MOST INSIGHTFUL, AND MOST FUN BOSS I'VE EVER HAD. SO I JUST WANTED TO SAY THAT.

CHAIRMAN THOMAS: THANK YOU, DR. HIGGINS. PAT AND FUN ARE SYNONYMOUS.

OTHER COMMENTS? WHY DON'T WE VOTE ON THIS, AND THEN I HAVE A COUPLE OF COMMENTS TO ADD. ARE THERE ANY OTHER COMMENTS THAT PERTAIN TO THE MOTION? HEARING NONE, DO WE NEED VOICE VOTE HERE? ALL THOSE IN FAVOR IN THE ROOM PLEASE SAY AYE. OPPOSED? ABSTENTIONS? DO WE HAVE ANY COMMENTS BY ANYBODY ON THE PHONE? MARIA, PLEASE TAKE THE ROLL.

MS. BONNEVILLE: LINDA BOXER.

DR. BOXER: YES.

MS. BONNEVILLE: DEBORAH DEAS.

DR. DEAS: YES.

MS. BONNEVILLE: DAVID HIGGINS.

DR. HIGGINS: YES.

MS. BONNEVILLE: SHERRY LANSING.

MS. LANSING: YES. YES WITH ENTHUSIASM AND YES FOR THE ONE BEFORE.

MS. BONNEVILLE: SHLOMO MELMED.

DR. MELMED: YES.

MS. BONNEVILLE: ADRIANA PADILLA.

DR. PADILLA: YES.
MS. BONNEVILLE: JOE PANETTA.
MR. PANETTA: DEFINITELY YES.
MS. BONNEVILLE: AL ROWLETT.
MR. ROWLETT: AN ENTHUSIASTIC YES.
MS. BONNEVILLE: KRISTINA VUORI.
DR. VUORI: YES.
MS. BONNEVILLE: DIANE WINOKUR.
MS. WINOKUR: YES.
MS. BONNEVILLE: MOTION CARRIES.
MR. TORRES: HERE. HERE.
(APPLAUSE.)
CHAIRMAN THOMAS: SO PAT, AS WAS NOTED, WILL BE LEAVING EFFECTIVE, I BELIEVE IT'S, JUNE 30TH, AND ACCORDINGLY AT THE QUARTERLY ALL-HANDS MEETING THAT DR. MILLAN CONVENES FOUR TIMES A YEAR, THIS LAST ONE FEATURED A NUMBER OF COMMENTS ABOUT PAT BY MEMBERS OF THE TEAM, MANY OF WHICH WERE QUITE AMUSING. AND A COUPLE OF THEM WERE, FOR EXAMPLE, MARIA BONNEVILLE COMMENTED THAT HER SECOND DAY AT WORK, SHE WALKED IN AND PAT YELLED AT HER. AND SHE SAID, WHAT DID I DO AND WHAT'S THIS ALL ABOUT? AND SHE JUST CAME TO REALIZE THAT'S PAT.
MS. BONNEVILLE: NOT YELLED AT ME, YELLED IN MY PRESENCE.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CHAIRMAN THOMAS: I THINK YOU SAID AT YOU.

MS. BONNEVILLE: I WAS THERE.

CHAIRMAN THOMAS: ANOTHER THAT I THOUGHT WAS QUITE AMUSING. DR. SHEPARD TELLS THE STORY ABOUT COMMUTING IN FROM MARIN AND WAS INVOLVED -- APPARENTLY BECAUSE THEY LIVE CLOSE KNOWS PAT'S LICENSE PLATE WELL, AND WAS SORT OF DRIVING BEHIND PAT ON THIS ONE PARTICULAR DAY. AND PAT, IN HER HASTE TO GET WHEREVER SHE WAS GOING, CUT OFF SOME DRIVER, WHO REACTED QUITE VIGOROUSLY WITH SPICY COMMENTARY, UNCLEAR IF THERE WERE ANY GESTURES OR WHATEVER, AND KELLY LOOKED OVER AT THAT DRIVER, AND IT TURNED OUT TO BE RANDY. AND KELLY LATER NOTED THAT TO PAT, AND PAT SAID, "OH, IT WAS JUST RANDY," AND SORT OF BLEW IT OFF.

ANYWAY, THERE WERE LOTS OF VERY FUNNY STORIES, LOTS OF POIGNANT STORIES, A FEW BREAKS IN THE COMMENTS EVIDENCING GREAT LOVE FOR PAT, AND IT WAS A GREAT SESSION.

NOW, SINCE CHILA DOESN'T LEAVE UNTIL LATER AFTER THE THIRD QUARTER, THERE'S GOING TO BE AN ALL HANDS MEETING TO CELEBRATE HER BY THE TEAM. I'M SURE THERE WILL BE SOME AMUSING STORIES TOLD THERE AS WELL. THIS IS ONE OF THOSE SORT OF WATERSHED MOMENTS WHERE WE ARE LOSING, BUT NOT REALLY, BUT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

LOSING TWO VERY CENTRAL PLAYERS. I THINK MR. SHEEHY AND SENATOR TORRES AND DR. HIGGINS CAPTURED THAT. YOU NEEDN'T LOOK FURTHER THAN ALL THE THINGS THEY'RE GOING TO BE ASKED TO BE INVOLVED WITH AS RETIRED ANNUITANTS ON THE ITEM ON THE AGENDA TO SEE HOW CENTRAL AND KEY TO EVERYTHING THAT IS CIRM THE TWO OF THEM WERE.

SO I THOUGHT IT WOULD BE NICE TO, SINCE BOTH OF THEM ARE HERE, IF THEY WOULD SAY A COMMENT OR TWO TO THE BOARD. PAT, WHO, OF COURSE, LOVES TO TALK, AND CHILA, WHO SHE INFORMED ME DOESN'T, NONETHELESS --

MR. TORRES: LUCKY SHE'S LEAVING.

CHAIRMAN THOMAS: BOTH HAVE AGREED TO SAY A FEW WORDS TO THE BOARD. SO WE'LL START, PAT, WITH YOU IF YOU WOULD, PLEASE.

DR. OLSON: FIRST, THANK YOU FOR YOUR COMMENTS, JEFF, ART, AND DAVID. I REALLY APPRECIATE THEM. I DO NOT KNOW HOW I'VE GOTTEN THIS REPUTATION AS BEING, ONE, A FUN PERSON AND, TWO, A TALKATIVE PERSON. IT JUST ESCAPES ME. AND YELLING, I MUST ADMIT I GET EXCITED, AND EVEN MY HUSBAND TELLS ME, "LOWER YOUR VOICE. I'M RIGHT NEXT TO YOU."

MS. BONNEVILLE: IT'S NOT MEAN YELLING.

DR. OLSON: I GET EXCITED, I TALK LOUD.

YOU ALL PROBABLY WILL HAVE NO PROBLEM HEARING ME TODAY.

I DO JUST WANT TO SAY A FEW WORDS. I CAME HERE INITIALLY AS A CONSULTANT TO ARLENE FOR THE TRAINING PROGRAM BACK IN 2005 AND THEN GOT HIRED IN 2006. WHY WAS I INTERESTED IN CIRM? YOU KNOW, GUYS, IT WAS A NASCENT, NEW SCIENCE. IT OFFERED NEW OPPORTUNITIES, NEW APPROACHES FOR NEW THERAPIES TO MAKE A DIFFERENCE IN PEOPLE'S LIVES.

I CAME FROM CHIRON. MY ENTIRE PROFESSIONAL CAREER AFTER GRADUATE SCHOOL AND POST-DOC WAS AT CHIRON IN A NUMBER OF DIFFERENT JOBS. ACTUALLY WHEN ARLENE HIRED ME, I WAS THE VERY FIRST PERSON WHO HAD INDUSTRY EXPERIENCE, AND I LOOKED AT THIS AS A GREAT OPPORTUNITY BECAUSE MOST OF THE PEOPLE THERE WERE USED TO DEALING WITH SCIENTISTS, WHICH, BY THE WAY, I CONSIDER BASIC SCIENCE AS BEING EXTREMELY IMPORTANT, BUT I ALSO REALLY ESPOUSE THE IDEA OF WHEN IT'S READY, LET'S MOVE IT ALONG. SO I WAS VERY EXCITED. AND, BOY, I'VE LISTENED TO ALL OF YOU TODAY, TO MARIA, TO DR. MARTIN, TO MANY OF YOU HIGHLIGHT ALL THE CHANGES THAT HAVE HAPPENED IN THE 13 AND A HALF YEARS SINCE I STARTED WORKING. WHO COULD HAVE GUESSED IT, REALLY?

I THINK WE ALWAYS UNDERESTIMATE THE PROGRESS, BUT THIS HAS JUST BEEN PHENOMENAL. AND I WANT TO ACKNOWLEDGE AND LOOK AT WHAT WE HAVE ACCOMPLISHED TOGETHER. YOU'VE HEARD IT ALL, THE TRIALS, THE FUNDING OF THE VALLEY OF DEATH. AND I WOULD NOTE THAT CIRM HAS ACTUALLY FUNDED OVER 50 PROGRAMS IN THE SO-CALLED DEVELOPMENT, PRECLINICAL DEVELOPMENT STAGE, WHETHER IT WAS THE TRANSLATIONAL PROGRAM OR THE CLIN1. THOSE PROGRAMS TAKE A CANDIDATE FROM RESEARCH AND GET IT READY TO GO INTO PEOPLE. AND THAT IS JUST A SPACE THAT IS NOT COMMONLY FUNDED BY ANY AGENCY EVEN NOW.

SO I'D JUST LIKE TO REMIND YOU OF SOME OF THE THINGS THAT I THINK MAKES US AS AN ORGANIZATION UNIQUE AND THAT THE BOARD HAS SUPPORTED US EVERY STEP OF THE WAY.

I THINK WE HAVE REALLY BEEN A DRIVER IN THE GROWTH OF THIS FIELD. I THINK WE WERE THE FIRST AGENCY EXCLUSIVELY DEDICATED TO FUNDING STEM CELL RESEARCH AND REGENERATIVE MEDICINE, AND I LOOK AT EVERYBODY AS SORT OF PILING ON TO JUST KEEP UP WITH IT. SO WE MAKE A REALLY -- I THINK THAT WAS AN IMPORTANT CONTRIBUTION. AND WE'VE DONE SO BY INTRODUCING, I'D SAY, CONCEPTS THAT WERE RELATIVELY NEW IN FUNDING ORGANIZATIONS. PIPELINE FUNDING, WE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

DID A LOT OF BASIC RESEARCH FUNDING AT THE START, BUT WE ALSO PUT IN PLACE THE INFRASTRUCTURE AND THE PIPELINE FUNDING. AND THAT IS, IF YOU HAD SOMETHING THAT YOU FELT YOU COULD MOVE TO THE NEXT STAGE, THERE WAS A NEXT STAGE TO GO TO.

WE'VE FORMALIZED THAT, WE'VE STREAMLINED THAT OVER THE YEARS, BUT WE HAVE DONE THAT ALL ALONG.

ANOTHER THING THAT WE'VE DONE THAT I THINK IS VERY DIFFERENT FROM MANY ORGANIZATIONS IS, PARTICULARLY IN THE DEVELOPMENT, THE PRECLINICAL DEVELOPMENT, AND CLINICAL STAGE FUNDING, WE HAVE FUNDED ALL THE ACTIVITIES THAT ARE NECESSARY TO SUCCESSFULLY COMPLETE THAT STAGE. THIS IS EXTREMELY UNUSUAL. THIS PREVENTS INVESTIGATORS LIKE DON KOHN, LIKE MANY OTHERS, FROM HAVING TO GET FOUR OR FIVE DIFFERENT GRANTS TO BE ABLE TO COMPLETE TO GET TO ONE IND FILING. AND THAT'S A VERY IMPORTANT FEATURE OF WHAT WE'VE DONE, AND I THANK YOU ALL FOR RECOGNIZING THAT AND AGREEING TO IT.

WE HAVE BEEN WHAT I CALL ACTIVE MANAGEMENT. WE PUT ADVISORY PANELS IN PLACE. WE PARTNER WITH OUR GRANTEES. WE TRY AND ENSURE THEIR SUCCESS. I WAS SURPRISED TO DISCOVER, MAYBE THIS IS NOT SO TRUE, BUT THAT A LOT OF PEOPLE AT NIH,

PROGRAM OFFICERS, HAVE SO MANY AWARDS THAT THEY DON'T NECESSARILY KEEP TRACK OF THEM; BUT PARTICULARLY WHEN YOU GET INTO DEVELOPMENT STAGE AWARDS, YOU REALLY HAVE TO DO THAT, AND I THINK WE DO THAT VERY WELL.

SO I JUST WANT TO CONCLUDE BY THANKING YOU ALL FOR THE PRIVILEGE OF WORKING WITH YOU, FOR THE PRIVILEGE OF REALIZING THIS OPPORTUNITY IN REGENERATIVE MEDICINE WHICH IS EVEN NOW BRINGING TREATMENTS TO PATIENTS WITH CHRONIC DISEASE AND INJURY. SO THANK YOU. I REALLY APPRECIATE IT.

(APPLAUSE.)

CHAIRMAN THOMAS: THANK YOU, PAT. AND YOUR CONTRIBUTION TO ALL OF THE ABOVE CAN'T BE OVERSTATED, AND YOUR INSTITUTIONAL MEMORY AND ABILITY TO LAY THAT OUT AND MAKE SURE THAT EVERYBODY UNDERSTANDS IS GREATLY APPRECIATED. SO THANK YOU FOR EVERYTHING YOU'VE DONE.

MS. SILVA-MARTIN: FIRST OF ALL, I WANT TO THANK YOU ALL FOR VERY KIND WORDS. THEY'RE VERY HEARTFELT. IT'S REALLY BEEN AN HONOR WORKING AT CIRM.

WHEN I ACCEPTED THIS JOB AT CIRM, THERE WAS A PLAN. I WAS GOING TO WORK FOR THREE YEARS AND THEN I WAS GOING TO RETIRE. BUT THE MISSION, THE

DEDICATION THAT I SAW FROM THIS BOARD, FROM OUR TEAM, FROM OUR GRANTEES, AND ESPECIALLY THE DEDICATION THAT I SAW FROM THE PATIENT ADVOCATES, IT INSPIRED ME. IT INSPIRED ME TO KEEP WORKING, AND SO HERE I AM ALMOST TEN YEARS LATER.

I HAVE HAD A GREAT CIVIL SERVICE CAREER. I'VE WORKED FOR THE STATE FOR 44 YEARS, TEN DIFFERENT DEPARTMENTS. SOME OF THE DEPARTMENTS THAT I WORKED FOR WERE VERY NECESSARY DEPARTMENTS BECAUSE THEY PROVIDE SERVICES THAT ARE MUCH NEEDED BY THE CITIZENS OF CALIFORNIA.

ONE OF THE PROGRAMS THAT I ADMINISTERED WAS A CHILD NUTRITION PROGRAM AT THE DEPARTMENT OF EDUCATION WHERE WE PROVIDED $1.6 BILLION EACH YEAR IN GRANTS TO SCHOOLS AND AFTER-SCHOOL PROGRAMS, DAY CARE PROGRAMS WHERE THEY PROVIDED MEALS TO CHILDREN. AND SOMETIMES THE MEALS THAT THEY PROVIDED WERE THE ONLY NUTRITIONAL MEALS THESE CHILDREN RECEIVED. SO THAT PROGRAM IS VERY IMPORTANT OBVIOUSLY.

WHILE AT THE DEPARTMENT OF EDUCATION, I ALSO WORKED IN THEIR MIGRANT EDUCATION PROGRAM. SO WE MANAGED GRANTS THERE, AND WE DID FINANCIAL AUDITS OF MIGRANT FUNDS THAT WERE USED TO SUPPORT AND PROVIDE MIGRANT CHILDREN WITH EDUCATION AND RESOURCES, ANOTHER GREAT PLACE TO WORK AT. TO ME

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THESE PROGRAMS WERE LIKE A SAFETY NET BEFORE THESE INDIVIDUALS FELL INTO A DARK HOLE, INTO THE ABYSS.

WHEN I HEARD ABOUT CIRM, FOR ME CIRM WAS DIFFERENT. CIRM IS REALLY ABOUT HOPE, HOPE THAT SOMEDAY SOON WE WILL HAVE CURES AND TREATMENTS FOR THESE DEVASTATING ILLNESSES THAT PEOPLE ARE LIVING WITH. UNFORTUNATELY FOR ME I KNOW TOO WELL WHAT IT'S LIKE TO STAND BY AND WATCH A LOVED ONE DEAL WITH ONE OF THESE ILLNESSES, FEELING HELPLESS THAT I COULDN'T HELP.

I LOST MY HUSBAND WHEN HE WAS ONLY 32 YEARS OLD TO COMPLICATIONS FROM GRAFT VERSUS HOST BECAUSE HE HAD A BONE MARROW TRANSPLANT. I WATCHED MY MOTHER SUFFER THROUGH BREAST CANCER, AND THEN SHE SUBSEQUENTLY DIED FROM PANCREATIC CANCER. AND THAT'S JUST A FEW OF THE ILLNESSES THAT I'VE SEEN SOME OF MY FAMILY MEMBERS SUFFER THROUGH. SO FOR ME CIRM IS REALLY ALL ABOUT HOPE, AND SOON WE'LL HAVE CURES AND TREATMENTS TO DEAL WITH THESE DEVASTATING ILLNESSES.

SO WHEN THE OPPORTUNITY TO WORK AT CIRM BECAME AVAILABLE, I KNEW THIS WAS WHERE I WANTED TO END MY STATE CAREER. I WANTED TO BE PART OF AN ORGANIZATION THAT HELPED TO MAKE CURES AND TREATMENTS POSSIBLE. I DIDN'T HAVE ANY SCIENTIFIC

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

EXPERTISE AND I WASN'T PLANNING TO GO BACK TO SCHOOL TO GET A SCIENCE DEGREE, BUT I HAD A LOT OF STATE EXPERIENCE, PARTICULARLY IN THIS FINANCIAL ARENA. I HAD WORKED IN BUDGETING, ACCOUNTING, PROCUREMENT AND CONTRACTING, TO NAME A FEW. SO I FELT THAT I COULD MAKE THAT MY CONTRIBUTION TO THIS ORGANIZATION.

SO I REALLY WANT TO THANK ALL OF YOU FOR THIS WONDERFUL OPPORTUNITY. IT'S REALLY BEEN A PLEASURE SERVING THIS BOARD. I WANT TO THANK J.T., ART, STEVE FOR ALL THE SUPPORT AND ALL THE OTHER FINANCE COMMITTEE MEMBERS THAT HAVE SUPPORTED ME THROUGHOUT THE YEAR. I WANT TO THANK MARIA MILLAN FOR SUPPORTING ME AND GIVING ME THE OPPORTUNITY, RANDY AND ELLEN AS WELL. IT'S REALLY BEEN A WONDERFUL PLEASURE WORKING WITH ALL THE LEADERSHIP TEAM, WITH THE CIRM TEAM. THEY'RE JUST SO DEDICATED, AND THEY WORK VERY HARD.

BUT I ESPECIALLY WANT TO THANK MY TEAM. SO WE HAVE SHEILA AND SUMI AND ALL THE OTHERS BEFORE THEM. WE HAD LELIA, WE HAD CELESTE, MARIA, CYNTHIA, PAUL, DOUG, ALL WORKED IN THE FINANCE TEAM AND, OF COURSE, MARGARET. NOT ONLY DID SHE HIRE ME, BUT SHE CONTINUED TO SUPPORT ME AS A RETIRED ANNUITANT THROUGHOUT THE YEARS, AND SHE ALWAYS SUPPORTED ME WHEN I NEEDED HER THE MOST. SO THANK YOU TO MY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FINANCE TEAM FOR THEIR DEDICATION, THEIR HARD WORK, FOR ALWAYS HAVING A CAN-DO ATTITUDE, AND NOTHING WAS EVER TOO SMALL OR TOO BIG FOR THEM TO TAKE ON. IT'S BEEN A GREAT TEN YEARS FOR ME, AND I JUST WANT TO THANK YOU ALL FOR THE OPPORTUNITY. THANK YOU.

(APPLAUSE.)

CHAIRMAN THOMAS: THANK YOU, CHILA. I THINK YOUR SENTIMENTS AS TO WHY YOU WANTED TO WORK HERE ARE SHARED BY ALL AND COULDN'T CAPTURE BETTER THE FEELING THAT EVERYBODY HAS ABOUT ADVANCING CIRM'S MISSION. SO THANK YOU FOR ALL THAT YOU'VE DONE. I WANT TO UNDERSCORE SOMETHING MR. SHEEHY SAID, WHICH IS WHEN IT COMES TO FINANCIAL STUFF AND REPORTING AND AUDITS, NO NEWS IS GOOD NEWS. AND WE'VE HAD NOTHING BUT NO NEWS ALL THE WAY THROUGH. AND THAT IS A TRUE TESTAMENT TO YOUR HARD WORK, UNDERSTANDING WHAT IT TOOK TO GET THE JOB DONE. AND WE ARE VERY, VERY GRATEFUL FOR EVERYTHING. SO THANK YOU SO MUCH.

OKAY. WELL, YOU'RE UP AGAIN. ITEM NO. 8, CONSIDERATION OF THE CIRM BUDGET FOR FISCAL 2019/2020.

MS. SILVA-MARTIN: OKAY. WELL, GOOD MORNING AGAIN. THANK YOU FOR THE OPPORTUNITY TO PRESENT THE BUDGET.

SO, FIRST, FOR PRESENTATION TODAY, I JUST WANT TO BRIEFLY COVER THE AGENDA AND WHAT I'LL BE COVERING. SO WE'LL FIRST LOOK AT THE CURRENT YEAR, THE '18/'19 FISCAL YEAR. WE'LL LOOK AT WHERE WE EXPECT TO END THE FISCAL YEAR AND COMPARE IT AGAINST WHAT WAS AUTHORIZED FOR THE YEAR. AND THEN I'LL JUST TALK BRIEFLY ABOUT SOME OF THE MAJOR ITEMS THAT DROVE THOSE FINAL NUMBERS. THEN I'LL REVIEW THE '19/'20 BUDGET. I WILL LOOK AT THAT REQUEST AGAINST WHERE WE EXPECT TO END THE '18/'19 FISCAL YEAR THIS JUNE. I WILL REVIEW SOME OF THE DRIVERS THAT ARE IMPACTING THE REQUEST. AND, FINALLY, TALK ABOUT SOME POTENTIAL RISKS THAT COULD IMPACT THAT BUDGET NEXT YEAR.

AND THEN THE LAST THING I WANT TO COVER IS, AS YOU MAY RECALL, IN NOVEMBER OF 2017, WE HAD A TRANSITION PLANNING MEETING. AND AT THAT MEETING WE PRESENTED THE LITTLE BUCKET NUMBERS. AND SO I WANT TO COMPARE THE '19/'20 BUDGET REQUEST AGAINST WHERE WE THOUGHT WE WOULD BE BACK IN NOVEMBER OF 2017 FOR THE 19/'20 FISCAL YEAR, AND THEN FINALLY JUST REVIEW THE OVERALL LITTLE BUCKET AND WHERE WE STAND WITH THAT AND HOW WE PLAN TO USE IT FOR THE REMAINDER OF THE YEAR.

FIRST, LOOKING AT THE CURRENT FISCAL YEAR.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SO THIS CHART REFLECTS OUR BUDGET AT THE CATEGORICAL LEVEL. SO THE FIRST COLUMN REFLECTS THE CATEGORY OF EXPENDITURES, AND THE NEXT COLUMN REFLECTS THE BUDGET THIS BOARD AUTHORIZED FOR US IN THE '18/'19 FISCAL YEAR. AND IF YOU LOOK AT THE TOTAL ROW, THE LAST ROW, THAT WAS JUST $16.8 MILLION. THE THIRD ROW REFLECTS WHERE WE THINK WE'RE GOING TO END THE FISCAL YEAR THIS JUNE 30TH, AND WE'RE JUST AT ABOUT $14.9 MILLION THAT WE THINK WE WILL SPEND.

THE LAST ROW REPRESENTS THE VARIANCE OR THE SAVINGS OR OVERRUNS THAT WE THINK WE'LL HAVE IN THE BUDGET. AS YOU CAN SEE, WE DO NOT ANTICIPATE ANY OVERRUNS IN ANY OF THE CATEGORIES. AS A MATTER OF FACT, WE ANTICIPATE WE WILL BE SAVING SOMEWHERE IN THE VICINITY OF ABOUT $2 MILLION.

SO THE MAJORITY OF THAT SAVINGS IS IN THREE AREAS REPRESENTED BY THIS PIE CHART. THE AREAS WHERE WE'RE SEEING THE BIGGEST SAVINGS ARE IN EMPLOYEE EXPENSES, REVIEWS, MEETINGS AND WORKSHOPS, AND EXTERNAL SERVICES. SO I'D LIKE TO JUST BRIEFLY TALK ABOUT THESE AREAS AND WHY THOSE SAVINGS OCCURRED.

SO FOR EMPLOYEE EXPENSES, WE ANTICIPATE THAT WE'LL HAVE $739,000 SAVINGS. WHY IS THIS HAPPENING? WELL, WHEN WE SUBMITTED THE '18/'19

BUDGET, WE REQUESTED SUPPORT FOR 45 POSITIONS. THOSE WERE THE NUMBER OF POSITIONS WE FELT WE NEEDED TO MEET OUR STRATEGIC GOALS AND GET THE WORK DONE. DURING THE FIRST QUARTER OF THIS FISCAL YEAR, WE EXPERIENCED SEVERAL VACANCIES. WHENEVER WE HAVE A VACANCY, WE TAKE A LOOK AT THE WORKLOAD OF THE POSITION, AND THEN WE LOOK AT THE OTHER WORKLOAD OF ALL OF THE REST OF OUR TEAM MEMBERS SO THAT WE CAN DECIDE WHETHER WE SHOULD FILL THE POSITIONS OR WHETHER WE SHOULD REDISTRIBUTE THE WORK.

FOR SEVERAL, THE MAJORITY OF THE POSITIONS, WE DETERMINED THAT WE WERE GOING TO REDISTRIBUTE THE WORK TO OUR EXISTING STAFF. AND FOR US AND FOR THE TEAM, THAT'S A WIN-WIN SITUATION BECAUSE OUR EMPLOYEES ARE THEN ABLE TO ACQUIRE NEW SKILLS, WE'RE ABLE TO GET THE WORK DONE, AND MEET OUR STRATEGIC GOALS.

THERE WERE A COUPLE OF POSITIONS, HOWEVER, THAT WHEN WE EVALUATED THEM, WE DETERMINED THAT WE DID NEED TO FILL THEM AND SO WE MOVED FORWARD TO FILL THEM. SO AT THE BEGINNING OF THE YEAR, WE STARTED WITH 45 POSITIONS, AND WE ARE NOW AT 40 POSITIONS FILLED.

WE EXPERIENCED A FAIRLY SIGNIFICANT DOLLAR SAVINGS IN OUR EXTERNAL SERVICES, JUST UNDER

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

$400,000. SO REALLY THERE ARE TWO FACTORS IMPACTING THAT. ONE, WE ACTUALLY DID BUDGET, WE DID EXPENSE SOME OF THESE ITEMS, BUT THE COSTS CAME IN LOWER THAN WHAT WAS BUDGETED. AND THEN IN SOME INSTANCES, WE ACTUALLY DIDN'T CONTRACT FOR SERVICES THAT WE THOUGHT WE MIGHT NEED. SO, FOR EXAMPLE, AS YOU KNOW, THROUGHOUT MOST OF CIRM'S LIFE, WE HAVE HAD INTERNAL LEGAL STAFF, BUT WE'VE ALSO SECURED LEGAL SERVICES FROM OUTSIDE COUNSEL, MAINLY THE REMCHO COMPANY. THIS YEAR WE CONTINUED TO USE EXTERNAL SERVICES, BUT VERY SMALL. WE'RE NOW DOWN TO TWO LEGAL STAFF, BUT THEY'RE VERY EFFICIENT. THEY WERE ABLE TO ACCOMPLISH THE MAJORITY OF THE WORK WITH THE TWO POSITIONS, AND SO OUR COST AND LEGAL CAME IN LOWER. THERE ARE OTHER AREAS WHERE WE ALSO SAW SOME SAVINGS. FOR EXAMPLE, IN OUR TRANSCRIBING SERVICES FOR THIS BOARD AND OUR MEETINGS, WE ARE SEEING OVERALL REDUCTION IN THOSE SERVICES. SO WHILE WE'RE SEEING LITTLE POCKETS OF SAVINGS IN OTHER AREAS, THE MAJORITY OF IT'S COMING FROM OUR LEGAL UNIT.

ANOTHER AREA WHERE WE SAW SAVINGS WAS IN REVIEWS, MEETINGS, AND WORKSHOPS, ALMOST $500,000 THERE. WHY DID THAT HAPPEN? FOR BASICALLY THE SAME REASONS AS FOR EXTERNAL SERVICES. COSTS CAME IN LOWER THAN WAS BUDGETED OR WE DIDN'T END UP SPENDING

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THE MONEY AT ALL.

SO, FOR EXAMPLE, OUR GRANTS REVIEW, WE HAD PLANNED TO HOLD 15 REVIEWS, BUT WE ANTICIPATE THAT WE WILL ONLY HOLD 14 REVIEWS THIS YEAR, AND IT'S REALLY DUE TO OUR BIG BUCKET BALANCES. AND THEN FOR ALL OF OUR OTHER MEETINGS, INCLUDING GWG, ICOC, CAP, TAP, WE PUT TOGETHER A BUDGET, BUT ALL OF THE COSTS HAVE COME IN LOWER THAN WAS BUDGETED. AND THAT'S REALLY A TESTAMENT TO THE TEAM THAT'S RESPONSIBLE FOR PUTTING THESE MEETINGS ON. THEY RECOGNIZE THAT WE HAVE LIMITED FUNDS, AND SO THEY'RE VERY MINDFUL OF THAT. AND SO WHENEVER THEY GO OUT TO PROCURE SERVICES, THEY TRY TO GET US THE BEST DEAL THEY CAN, AND THEY'VE BEEN VERY SUCCESSFUL AND WE'RE SEEING LOWER COSTS OVERALL.

SO THAT'S THE CURRENT YEAR. I'D LIKE TO NOW MOVE ON TO THE '19/'20 BUDGET REQUEST. SO, AGAIN, IN THIS CHART WE ARE REPRESENTING THE BUDGET BY THE CATEGORIES OF EXPENDITURE AS REFLECTED IN THE FIRST COLUMN. THE SECOND COLUMN REFLECTS THE '18/'19 BUDGET AUTHORIZATION LIKE IN THE OTHER CHART, $16.8 MILLION. THE THIRD CHART REFLECTS WHERE WE EXPECT TO BE AT JUNE 30, $14.9 MILLION, AND OUR ASK FOR '19/'20 IS REFLECTED IN THE LAST COLUMN OF $15.6 MILLION.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SO COMPARING THIS YEAR TO YEAR. AS I JUST SAID, AUTHORIZED FOR '18/'19 WAS 16.8 MILLION. WE EXPECT TO BRING THE BUDGET IN AT 14.9. HOW DOES THE '19/'20 BUDGET COMPARE TO THAT? WELL, IT'S $1.2 MILLION LESS THAN THE '18/'19 BUDGET AND $700,000 MORE THAN WHERE WE EXPECT TO END THE FISCAL YEAR. SO THAT REQUEST IS $15.6 MILLION.

SO WHAT I'D LIKE TO FOCUS ON IS WHAT'S DRIVING THAT $700,000 INCREASE. SO AS I MENTIONED IN MANY OTHER MEETINGS, WE ARE A STATE AGENCY, AND WE ARE MANDATED TO PAY CERTAIN EMPLOYEE BENEFITS. THESE ARE BENEFITS THAT ARE NEGOTIATED BY SUCH AGENCIES AS CALHR AND CALPERS. THEY INCLUDE RETIREMENT BENEFITS, HEALTH BENEFITS, AND IN THIS LAST YEAR THEY'VE ADDED ANOTHER BENEFIT. IT'S CALLED POSTRETIREMENT HEALTH BENEFITS. SO WE'VE BEEN NOTIFIED BY THESE AGENCIES THAT THOSE COSTS ARE GOING TO INCREASE, AND SO WE ADJUSTED THE BUDGET FOR THOSE AMOUNTS.

WE ALSO CONTRACT WITH THE DEPARTMENT OF GENERAL SERVICES FOR ACCOUNTING SERVICES. AND YEAR OVER YEAR THEIR SERVICES CONTINUE TO RISE. THE MAJORITY OF THE INCREASE IN THE '19/'20 FISCAL YEAR IS BECAUSE OF THE IMPLEMENTATION OF FI$CAL, WHICH IS THE STATE'S NEW BUDGETING, PROCUREMENT, CONTRACTING,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

ACCOUNTING SYSTEM. AS THEY ADD MORE FUNCTIONALITY, THE COSTS ARE INCREASING, THEY'RE PASSING ON THOSE INCREASES TO ACCOUNTING DEPARTMENTS, AND, OF COURSE, THEN WE GET THAT INCREASE PASSED ON TO US AS ONE OF THEIR CLIENTS. THIS NEXT YEAR WE ARE ANTICIPATING ABOUT A 6-PERCENT INCREASE IN THAT AREA.

WE HAVE INCLUDED SOME FUNDS FOR LEGAL THAT MAY OR MAY NOT MATERIALIZE, BUT IT DEPENDS ON WHAT KIND OF EXPERTISE WE MAY REQUIRE DURING THE '19 FISCAL YEAR, AND WE JUST WANT TO BE PREPARED IN CASE WE NEED THOSE SERVICES.

OUR GRANTS MANAGEMENT SYSTEM IS A VERY IMPORTANT SYSTEM, AND SO OUR I.T. UNIT HAS ASKED FOR FUNDS TO MAKE SURE WE HAVE SECURITY SERVICES ON OUR I.T. INFRASTRUCTURE.

FINALLY, WE ANTICIPATE THAT OUR CLINICAL PORTFOLIO IS GOING TO CONTINUE TO INCREASE FOR OUR CLINICAL AND TRANSLATIONAL PROGRAMS. AS A RESULT, WE ANTICIPATE THAT WE'LL HAVE MORE CAP, CLINICAL AND TRANSLATIONAL ADVISORY PANEL, ACTIVITY THIS NEXT YEAR.

WHILE WE TRY REALLY HARD TO MANAGE OUR COSTS AND BRING OUR COSTS UNDER BUDGET, THERE ARE SOME THINGS THAT WE CAN'T CONTROL OR WE CAN'T ACCURATELY PREDICT. SO ONE OF THEM IS TURNOVER.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

HOPEFULLY THE ONLY TURNOVER YOU WILL SEE NEXT YEAR IS PAT AND I, BUT WHO KNOWS. THAT MAY NOT HAPPEN, AND WE MIGHT HAVE MORE TURNOVER WITH THE STAFF. SHOULD THAT HAPPEN, OUR COSTS WILL PROBABLY COME IN LOWER AGAIN NEXT YEAR.

ANOTHER AREA IS OUR PORTFOLIO ACTIVITY. BECAUSE WE DO HAVE LIMITED FUNDING, IT'S POSSIBLE PORTFOLIO LEVELS THAT WE'VE ANTICIPATED MAY NOT COME IN AT THAT LEVEL, AND SO WE WON'T HAVE AS MANY CAPS AND TAPS AND WE'LL SEE SOME SAVINGS THERE.

SO THE NEXT THING I WANT TO DO IS LOOK AT THAT BUDGET REQUEST AGAINST WHERE WE THOUGHT WE WOULD BE LAST YEAR WHEN WE PRESENTED IN NOVEMBER OF 2017 THE TRANSITION FORECAST. SO FOR THE '19/'20 FISCAL YEAR IN THE TRANSITION PLAN FORECAST, WE ANTICIPATED WE WERE GOING TO SPEND ABOUT $15.7 MILLION IN THE '19/'20 FISCAL YEAR. OUR REQUEST IS FOR 15.6, SO 100,000 LESS.

I DO WANT TO POINT OUT THAT THAT $15.7 MILLION INCLUDES SEVERAL FUNDING SOURCES. IN NOVEMBER WE REALLY FOCUSED ON THE LITTLE BUCKET, BUT OUR BUDGET IS REALLY COMPRISED OF A LARGE PORTION OF THE LITTLE BUCKET, BUT WE DO ALSO HAVE BIG BUCKET THAT SUPPORTS OUR LEGAL EXPENSES, AND THEN WE HAVE A SMALL INTEREST BUCKET THAT SUPPORTS OUR FACILITIES

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

COST.

SO JUST LOOKING OVERALL AT THE LITTLE BUCKET. SO ON JULY 1ST OF 2018, WE STARTED WITH $45 MILLION. SO WE ANTICIPATE THAT WE'RE GOING TO SPEND $14.9 MILLION FOR '18/'19 OF WHICH $12.2 MILLION OF THAT IS LITTLE BUCKET MONEY. THE '18/'19 BUDGET REQUEST AT $15.6 MILLION, THAT IS SUPPORTED BY $12.6 MILLION OF LITTLE BUCKET MONEY. AFTER THOSE TWO FISCAL YEARS, WE ANTICIPATE THAT WE WILL HAVE JUST OVER $20 MILLION. THAT $20 MILLION, WE BELIEVE, IS SUFFICIENT TO SUPPORT US FROM THE '20-'21 FISCAL YEAR THROUGH THE '23/'24 FISCAL YEAR SO THAT WE'LL BE ABLE TO ACTIVELY MANAGE OUR PORTFOLIO.

SO THIS REALLY CONCLUDES THE PRESENTATION. I DO WANT TO POINT OUT THAT IN YOUR PACKAGE YOU SHOULD HAVE RECEIVED AN APPENDIX WITH BUDGET DETAILS FOR EACH OF OUR COST CENTERS. WE REQUEST YOUR APPROVAL OF OUR BUDGET, AND I'M HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE.

CHAIRMAN THOMAS: THANK YOU, CHILA. DO WE HEAR A MOTION TO APPROVE?

DR. JUELSGAARD: SO MOVED.

DR. PRIETO: SECOND.

CHAIRMAN THOMAS: MOVED BY MR. JUELSGAARD, SECONDED BY DR. PRIETO. COMMENTS FROM MEMBERS OF

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THE BOARD? MR. JUELSGAARD.

DR. JUELSGAARD: SO THE FINANCE SUBCOMMITTEE MET, I THINK, A COUPLE WEEKS AGO AND REVIEWED THE BUDGET WITH CHILA AND ARE RECOMMENDING IT FOR APPROVAL HERE TODAY.

I JUST WANT TO ADD A FEW COMMENTS OF MY OWN REGARDING MY RELATIONSHIP WITH CHILA OVER THE YEARS BEING ON THE FINANCE SUBCOMMITTEE. CHILA HAS BEEN AN ABSOLUTE PLEASURE TO WORK WITH. I REALLY WANT TO THANK HER FOR MAKING THE JOB OF REVIEWING BUDGETS AS EASY AND STRAIGHTFORWARD AND THOUGHTFUL AS THEY HAVE GOTTEN TO BE. SO I COULDN'T BE MORE APPRECIATIVE OF ALL THE HARD WORK THAT SHE AND HER STAFF HAVE DONE. AND TO ME THESE BUDGETS HAVE BECOME REALLY STRAIGHTFORWARD EXERCISES. SO THANK YOU, CHILA.

MS. SILVA-MARTIN: THANK YOU.

CHAIRMAN THOMAS: COMMENTS BY MEMBERS OF THE BOARD? DO WE HAVE ANY COMMENTS FROM MEMBERS OF THE PUBLIC? HEARING NONE, MARIA, PLEASE TAKE THE ROLL.

MS. BONNEVILLE: VOICE VOTE FOR THOSE IN THE ROOM.

CHAIRMAN THOMAS: DO A VOICE VOTE IN THE ROOM. SO ALL THOSE IN FAVOR PLEASE SAY AYE.

OPPOSED? ABSTENTIONS? THANK YOU, MARIA. PLEASE CALL THE ROLL FOR THOSE ON THE PHONE.

MS. BONNEVILLE: LINDA BOXER.

DR. BOXER: YES.

MS. BONNEVILLE: DEBORAH DEAS.

DR. DEAS: YES.

MS. BONNEVILLE: DAVID HIGGINS.

DR. HIGGINS: YES.

MS. BONNEVILLE: SHERRY LANSING. DAVE MARTIN.

DR. MARTIN: YES.

MS. BONNEVILLE: ADRIANA PADILLA.

DR. PADILLA: YES.

MS. BONNEVILLE: JOE PANETTA.

MR. PANETTA: YES.

MS. BONNEVILLE: AL ROWLETT.

MR. ROWLETT: AYE.

MS. BONNEVILLE: SHLOMO MELMED.

DR. MELMED: YES.

MS. BONNEVILLE: KRISTINA VUORI.

DR. VUORI: YES.

MS. BONNEVILLE: DIANE WINOKUR.

MS. WINOKUR: YES.

MS. BONNEVILLE: MOTION CARRIES.

CHAIRMAN THOMAS: THANK YOU. AND THANK

YOU AGAIN, CHILA, FOR EVERYTHING.

I DO HAVE ONE MORE COMMENT, PAT, ON YOU. YOU THOUGHT YOU WERE FINISHED. I GOT AN E-MAIL IN THE MIDDLE OF THE MEETING HERE WHICH SAYS, "I'M SORRY TO MISS THIS MEETING TODAY. PAT IS A VERY FINE SCIENTIST WHO HAS BEEN A LEADER IN EVERY ORGANIZATION SHE HAS EVER BEEN IN. HER CONTRIBUTIONS ARE WIDERANGING AND HER JUDGMENT HAS ALWAYS BEEN SOLID AND THOUGHTFUL. WE AT CIRM HAVE BEEN FORTUNATE TO HAVE HER AS A COLLEAGUE." SIGNED, ED PENHOET.

(APPLAUSE.)

CHAIRMAN THOMAS: NEXT, NO. 9, CONSIDERATION OF APPLICATIONS SUBMITTED IN RESPONSE TO CLINICAL TRIAL STAGE PROJECTS, CLIN1, 2, OR 3. DR. PATEL.

DR. PATEL: I'M WEARING MY REVIEW HAT, BUT I'M DRESSED LIKE MY BUSINESS DEVELOPMENT SIDE.

IT'S MY PLEASURE TO INTRODUCE TODAY'S APPLICATION TO YOU. SO, AS YOU KNOW, OUR CLINICAL PROGRAM IS COMPOSED OF THREE DIFFERENT FUNDING OPPORTUNITIES. THE CLIN1 IS FOR IND ENABLING, CLIN2 IS FOR CLINICAL TRIAL STAGE, AND CLIN3 IS FOR CONTINUING ACTIVITIES TO REGISTRATION. TODAY'S APPLICATION WILL BE FOR THE CLIN2 FUNDING

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OPPORTUNITY.

WHEN THE GRANTS WORKING GROUPING REVIEWS THESE APPLICATIONS, THEY USE A THREE-TIER SCORING SYSTEM. SO A SCORE OF 1 WOULD INDICATE THAT THE APPLICATION HAS EXCEPTIONAL MERIT AND WARRANTS FUNDING AT THIS TIME. A SCORE OF 2 WOULD INDICATE THAT IT NEEDS IMPROVEMENT AND DOES NOT WARRANT FUNDING, BUT CAN BE RESUBMITTED IN A RELATIVELY QUICK MANNER TO ADDRESS THOSE AREAS OF IMPROVEMENT. AND, LASTLY, IF THE APPLICATION IS SUFFICIENTLY FLAWED AND IT DOES NOT WARRANT FUNDING, IT'S GIVEN A SCORE OF 3 WHICH CARRIES THE ADDITIONAL STIPULATION THAT IT CAN'T BE RESUBMITTED FOR SIX MONTHS.

THE BUDGET, AS YOU KNOW, THIS YEAR STARTED OFF WITH $93 MILLION IN THE GENERAL CLIN BUCKET. OF THAT YOU HAVE APPROVED $36.9 MILLION TO DATE. THE APPLICATION UP FOR REVIEW TODAY IS REQUESTING $11.1 MILLION. IF THAT IS APPROVED BY THE BOARD, WE'LL BE LEFT WITH $45 MILLION FOR THE REMAINDER OF THE YEAR. SO HALFWAY THROUGH THE BUDGET, THAT'S PRETTY GOOD.

THIS DOES NOT INCLUDE THE SICKLE CELL SIDE BECAUSE WE DON'T HAVE AN APPLICATION UP FOR REVIEW ON THAT ONE.

SO WHEN WE WERE GIVEN AN ALLOCATION OF $93 MILLION, THE CIRM TEAM INTERNALLY SETS TARGETS FOR

CLIN2 AND CLIN1 AWARDS. FOR 2019 WE SET AN INTERNAL TARGET OF EIGHT CLIN2 AWARDS, TWO CLIN1 AWARDS. THIS IS GOING TO BE INFORMATIVE AND NOT INSTRUCTIVE. SO FOR THE CLIN2 TO DATE YOU HAVE FUNDED FOUR CLINICAL TRIALS. TODAY, IF YOU FUND TODAY'S, IT WILL PUT US AT FIVE, AND YOU'VE ALREADY FUNDED TWO CLIN1 STAGE AWARDS TO DATE.

TODAY'S APPLICATION IS CLIN2-11437. THIS A CLINICAL TRIAL STAGE APPLICATION. AND THE THERAPY IS ALLOGENEIC PANCREATIC ISLETS AND PARATHYROID GLAND, PTG, COMBINATION GRAFT. I'LL GET INTO WHAT THAT MEANS IN A LITTLE BIT.

THE INDICATION IS FOR TYPE 1 DIABETES. THIS PARTICULAR TRIAL IS TREATING TYPE 1 DIABETIC PATIENTS WHO HAVE HAD LIVER OR KIDNEY TRANSPLANTS. THE GOAL OF THIS PROJECT IS TO COMPLETE A PHASE 1/2A TRIAL, AND THEY'RE REQUESTING $11 MILLION, ROUGHLY $11 MILLION, FOR THIS PROJECT. THE MAX ALLOWED FOR THIS CATEGORY IS 12 MILLION.

I WANT TO PROVIDE SOME HELPFUL BACKGROUND AS YOU ASSESS THIS PARTICULAR APPLICATION. MANY OF YOU KNOW OF TYPE 1 DIABETES. IT'S A CHRONIC DISEASE. IT AFFECTS ABOUT 1.25 MILLION AMERICANS AND 40,000 ARE NEWLY DIAGNOSED EACH YEAR. THE DISEASE IS CHARACTERIZED BY AUTOIMMUNE DESTRUCTION

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OF PANCREATIC BETA ISLET CELLS, AND IT RESULTS IN LACK OF INSULIN HORMONE PRODUCTION AND LACK OF BLOOD SUGAR CONTROL IN THESE PATIENTS. JUST AS IMPORTANTLY, IT RESULTS IN COMPLICATIONS IN VARIOUS ORGAN SYSTEMS INCLUDING RETINOPATHY, NEUROPATHY, NEPHROPATHY, AND CARDIOVASCULAR DISEASE. MANY OF THESE CAN BE LIFE THREATENING.

SO IN TERMS OF THE VALUE PROPOSITION, THE CURRENT PROPOSED THERAPY, THERE IS, AS YOU KNOW, NO CURE FOR TYPE 1 DIABETES. IT'S MANAGED CHRONICALLY WITH BLOOD SUGAR MONITORING AND INSULIN THERAPY. PANCREATIC ORGAN TRANSPLANTATION IS AN OPTION, BUT IT'S LIMITED BY THE COMPLICATIONS OF SURGERY AND THE AVAILABILITY OF THE ORGANS. AN ALTERNATIVE TO THAT IS ALLOGENEIC ISLET TRANSPLANTATION INTO THE LIVER PORTAL VEIN. THIS CAN ACHIEVE INSULIN INDEPENDENCE, BUT IT IS MARKED BY HIGH GRAFT FAILURE RATE AND IS CURRENTLY AN EXPERIMENTAL THERAPY IN THE U.S. THE NIH HAS SUPPORTED A PHASE 3 TRIAL MEANT TO ACHIEVE LICENSURE, BUT THAT HAS NOT HAPPENED AS OF YET.

THE PROPOSED THERAPY AIMS TO ADDRESS ONE OF THE LIMITATIONS OF ISLET TRANSPLANTATION WHICH IS THIS CONCEPT OF GRAFT FAILURE. AND IT DOES SO THROUGH TWO INNOVATIVE STEPS. FIRSTLY, IT IS PROPOSING TO IMPLANT THE ISLETS INTRAMUSCULARLY. I

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WANT TO MAKE A COMMENT ON THAT.

FIRST OF ALL, INTRAMUSCULAR IMPLANTATION ITSELF IS AN EXPERIMENTAL THERAPY. IT HAS EXTENSIVELY BEEN STUDIED IN ANIMAL MODELS, AND THERE HAVE BEEN A HANDFUL OF CLINICAL CASES WHERE IT HAS BEEN SHOWN TO BE SAFE, BUT THERE ARE SOME ISSUES OF EFFICACY AND SURVIVAL OF THOSE GRAFTS. SO THE GROUP THAT'S PROPOSING THIS APPLICATION IS LOOKING TO IMPROVE ON THAT BY CO-TRANSPLANTING PARATHYROID GLAND TISSUE. PTG TISSUE IS COMMONLY IMPLANTED IN INTRAMUSCULAR SITES AND HAS BEEN SHOWN TO HAVE HIGH ENGRAFTMENT RATES. SO THE IDEA HERE IS TO COMBINE THAT WITH THE ISLET TRANSPLANTATION TO IMPROVE ENGRAFTMENT AND SURVIVAL OF THE ISLET CELLS INTRAMUSCULAR SITE, WHICH SHOULD POTENTIALLY BE SAFER AS WELL AS EASIER TO DO THAN LIVER PORTAL VEIN TRANSPLANTATION.

THIS IS COMING TO US FOR CIRM REVIEW BECAUSE IT DOES INCLUDE CD 34 PROGENITOR CELLS AND IT ALSO INDUCES ANGIOGENESIS IN VIVO.

WE DO FUND TWO OTHER CLIN2 AWARDS THAT ARE GEARED TOWARD TYPE 1 DIABETES. THE NOTES I'M GOING TO MAKE HERE ARE THAT THE SECOND ONE YOU SEE THERE IN THE COLUMN AND THE ROW IS A CLIN2 PHASE 2 TRIAL THAT IS USING A THERAPY CALLED EXPANDED AUTOLOGOUS

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

REGULATORY T-CELLS, WHICH IS MEANT TO DAMPEN THE AUTOIMMUNE RESPONSE ATTACK ON A PATIENT'S BETA CELLS. SO THIS PARTICULAR TRIAL IS ON A POPULATION OF PATIENTS WHO ARE NEWLY DIAGNOSED WITH TYPE 1 DIABETES.

THE LAST TRIAL THERE IS A COMBINATION THERAPY OF CELLS AND A DEVICE. THE CELLS ARE ALLOGENEIC ESC-DERIVED PANCREATIC PROGENITORS IN AN ENCAPSULATION DEVICE. THIS PARTICULAR TRIAL IS TARGETING A POPULATION THAT IS AT HIGH RISK FOR DIABETES.

AND THE CURRENT APPLICATION, AGAIN, AS I MENTIONED EARLIER, OF THE MOA HERE IS THAT THE CO-TRANSPLANTATION OF THE PARATHYROID GLAND TISSUE AND THE ISLETS WILL INCREASE SURVIVAL AND THEN THOSE CELLS WILL RELEASE INSULIN. IN THIS PARTICULAR TRIAL, THE INITIAL POPULATION IS DIABETIC PATIENTS WHO HAVE HAD LIVER OR KIDNEY TRANSPLANT.

THIS PARTICULAR APPLICATION HAS NOT RECEIVED PRIOR FUNDING FROM CIRM FOR DEVELOPMENT OF THIS PROPOSED THERAPY.

AND WHEN THE GRANTS WORKING GROUP REVIEWED THIS APPLICATION, THEY SCORED IT A 1. THERE WERE 13 VOTES IN TIER I, TWO VOTES IN TIER II, AND ZERO VOTES IN TIER III. THE CIRM TEAM CONCURS WITH

THE FUNDING RECOMMENDATION FROM THE GRANTS WORKING GROUP FOR THE AWARD AMOUNT OF $11,083,012.

I'M HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE ABOUT THE APPLICATION.

DR. SANDMEYER: SO THIS IS JUST KIND OF A TECHNICAL QUESTION, BUT CAN YOU COMMENT ON WHY THE PTG CO-IMPLANTATION IS SUPPOSED TO INCREASE THE EFFICACY OF ENGRAFTMENT?

DR. PATEL: SURE. YEAH. AS I MENTIONED, THE PTG GRAFT IS IMPLANTED INTRAMUSCULARLY IN PATIENTS THAT HAVE HYPOTHYROIDISM. IN THOSE PARTICULAR INSTANCES, THEY'VE NOTED THAT THE GRAFT ENGRAFTS QUITE WELL. AND WHEN THEY DID THEIR STUDIES PRECLINICALLY, THEY'VE NOTICED THAT THERE'S A POPULATION OF CD 34 PROGENITOR CELLS THAT INCREASES ANGIOGENESIS, AND IT'S MEANT TO INCREASE THE BLOOD FLOW IN THAT GRAFT, WHICH IS THE SAME ISSUE HERE, WHICH IS TO IMPROVE BLOOD FLOW TO THE ISLET TRANSPLANT CELLS.

CHAIRMAN THOMAS: LIKE TO TURN THIS OVER NOW FOR CONSIDERATION OF A MOTION TO MR. SHEEHY.

MR. SHEEHY: SO ARE WE GOING TO CONVENE THE APPLICATION REVIEW SUBCOMMITTEE NOW?

CHAIRMAN THOMAS: WE ARE CONVENED, AREN'T WE, MR. TOCHER?

MR. TOCHER: YES, WE ARE. AND MR. SHEEHY IS GOING TO CHAIR THIS ASPECT.

MR. SHEEHY: JUST TRYING TO FIGURE OUT WHERE WE ARE BECAUSE WE'RE TAKING QUESTIONS, BUT WE DON'T HAVE A MOTION YET. SHOULD WE PERHAPS HAVE A MOTION --

DR. PRIETO: I'LL MOVE TO APPROVE.

MR. SHEEHY: -- TO ACCEPT THE CIRM TEAM RECOMMENDATION AND APPROVE THE FUNDING? DO WE HAVE A SECOND?

MS. WINOKUR: I SECOND IT.

MR. SHEEHY: THANK YOU, MS. WINOKUR. SO WE HAD ONE QUESTION FROM DR. SANDMEYER. YOUR QUESTION WAS ANSWERED?

DR. SANDMEYER: YES.

MR. SHEEHY: I THOUGHT I SAW OTHER QUESTIONS.

DR. MARTIN: I NOTICED A COUPLE OF THINGS FROM THE COMMENTS FROM THE REVIEW COMMITTEE. ONE WAS THAT THERE ARE TWO VARIABLES HERE; THAT IS, MUSCLE INOCULATION OR TRANSPLANTATION, AND SECOND WAS THE PARATHYROID TISSUE. THAT WAS ONE CONCERN.

AND RELATED TO THAT IS THE COMMENT THAT THERE HAS BEEN A LOT OF PROGRESS IN IPSC-INDUCED ISLETS AND TRANSPLANTATION IN THAT ARENA RATHER THAN

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

TRYING TO DO ALLOGENEIC ACTIVITIES, AND THAT COMMERCIALLY THIS APPROACH PROBABLY WOULD NOT SCALE THE WAY THE OTHERS WOULD.

AND SO THIS COULD BE LOOKED UPON AS AN INTERIM STUDY TO TRY TO DETERMINE, I THINK, TWO THINGS. IS THE MUSCLE A GOOD SITE FOR TRANSPLANTATION FOR IPSC-BASED BETA CELLS, OR IS IT THE PARATHORMONE INVOLVEMENT, PARATHYROID GLAND INVOLVEMENT, THAT'S NECESSARY? I'M NOT SURE THE WAY THIS IS SET UP AS A STUDY, WHICH WAS MENTIONED BY THE REVIEW COMMITTEE, THAT THAT CAN BE RESOLVED SO THAT IT WOULD IMPACT THE FUTURE OF WHAT PROBABLY WOULD BE A MORE COMMERCIALLY VIABLE AND THEREFORE MORE BENEFICIAL TO, FOR INSTANCE, CALIFORNIA CITIZENS WITH TYPE 1 DIABETES.

I JUST QUESTION THAT SCIENCE, AND I'M SURE -- AND ITS RELATIONSHIP TO COMMERCIAL APPLICATIONS AND IMPACT AS AN INTERIM STUDY HAVING TWO VARIABLES AND YOU DON'T -- IF IT'S SUCCESSFUL, YOU DON'T KNOW. IF IT FAILS, THEN NEITHER ONE OF THEM IS ADEQUATE. BUT IF IT'S SUCCESSFUL, WHAT'S THE NEXT STEP? THEN YOU HAVE TO GO BACK AND MAYBE DO IT ONE AT A TIME WITH A CONTROL. OR SHOULD THE STUDY BE REDESIGNED SO YOU DO COMBINATION AND EACH COMPONENT INDIVIDUALLY IN ORDER TO BE ABLE TO

RESOLVE THAT ISSUE? SO IT'S REALLY A SCIENTIFIC ISSUE THAT HAS TO DO WITH COMMERCIALIZATION AND THE NEXT STEP.

THAT DISCUSSION MIGHT WELL HAVE GONE ON, BUT I COULDN'T DETERMINE -- I JUST KNOW THE QUESTIONS WERE RAISED IN THE COMMENTS, BUT I DIDN'T KNOW WHAT THE DISCUSSION WAS OR WHAT THE OUTCOME WAS.

MR. SHEEHY: DR. PRIETO, YOU WANTED TO RESPOND.

DR. PRIETO: I PARTICIPATED IN THIS DISCUSSION AND REVIEWED THIS GRANT A COUPLE OF TIMES BECAUSE THIS ACTUALLY WAS INITIALLY SCORED A 2, AND PART OF THE REASON WAS BECAUSE WE WANTED MORE INFORMATION FROM THE APPLICANT.

I THINK THAT THE PRIMARY -- I DON'T KNOW IF GOAL IS THE RIGHT WORD -- THAT WHAT THEY EXPECT TO LEARN FROM THIS IS PRIMARILY WHETHER THEY CAN IMPROVE ENGRAFTMENT BECAUSE THAT'S BEEN A MAJOR BARRIER TO PANCREATIC AND OTHER SUCCESSFUL CELL TRANSPLANTS RATHER THAN THE CELL SOURCE.

AND THE GRANTS WORKING GROUP CERTAINLY FELT THAT, AS REFLECTED IN THE SCORES, THAT THEY RESPONDED APPROPRIATELY AND ANSWERED THAT QUESTION.

MR. SHEEHY: DOES THAT GIVE YOU A SENSE OF

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

IT, DR. MARTIN? I DO THINK THE APPLICANT IS HERE TOO. I DON'T KNOW IF THAT MIGHT BE HELPFUL TO HEAR FROM THE APPLICANT. WOULD THAT BE USEFUL FOR YOU, DR. MARTIN? I'M PRETTY SURE THEY'RE GOING TO STAND UP IN PUBLIC COMMENT ANYWAY. IT MIGHT BE BETTER TO GO AHEAD AND CUT TO THE CHASE. DR. STOCK FROM UNIVERSITY OF CALIFORNIA SAN FRANCISCO.

DR. STOCK: I'M PETER STOCK. I'M A TRANSPLANT SURGEON AT THE UNIVERSITY OF CALIFORNIA SAN FRANCISCO.

SO TO ADDRESS YOUR QUESTION, WE HAVE BEEN AT THE GAME OF ISLET TRANSPLANTATION FOR WELL OVER 30 YEARS. WHEN I STARTED TO DO THIS, ISLET TRANSPLANTATION WAS RIGHT AROUND THE CORNER, AND IT'S NEVER GOT THERE. AND IT HASN'T -- WE'VE ROUNDED THE CORNER, BUT THE PROBLEM IS ENGRAPHMENT OF THE ISLETS IN THE LIVER JUST ISN'T FEASIBLE. ABOUT 10 PERCENT OF THE ISLETS ARE SURVIVING. WE NEED A NEW SITE, WE NEED A NEW SITE IF WE WANT TO EXTEND THIS THERAPY TO STEM CELL-DERIVED BETA CELLS. STEM CELL-DERIVED BETA CELLS, AS YOU KNOW, ARE HERE. IT'S JUST WE CAN'T PUT THEM INTO THE LIVER. BECAUSE IF THEY HAVE ANY PROBLEMS, THERE'S NO WAY TO GET THEM OUT.

SO WE'VE BEEN LOOKING FOR A BETTER SITE

FOR A LONG TIME. IT WAS THE OBSERVATION THAT PARATHYROID TISSUE IN THE SUBCUTANEOUS OR INTRAMUSCULAR SPACE IN PARTICULAR SURVIVES. AND IF YOU DO ISLET TRANSPLANTS IN THE SUBCUTANEOUS POSITION IN ANIMAL MODELS OR IN HUMANS, IT DOESN'T WORK. THEY JUST DON'T SURVIVE. IT'S BEEN TRIED IN HUMANS WITH SOME SURVIVAL, SOME DETECTABLE C-PEPTIDE AT ONE YEAR WHEN YOU PUT ISLETS IN THE MUSCLE. BUT BY AND LARGE, THEY DON'T SURVIVE.

WHEN YOU CO-TRANSPLANT THEM WITH THE PARATHYROID TISSUE, IT IS QUITE REMARKABLE. ABOUT A HUNDRED PERCENT OF THE TISSUE SURVIVES. AND THAT'S BOTH WITH STEM CELL-DERIVED BETA CELLS AS WELL AS ADULT ISLETS. THIS PROPOSAL WAS DONE WITH ADULT ISLETS BECAUSE OF THE OBVIOUS STRUGGLES WE WOULD HAVE WITH AN IND AND GETTING FDA APPROVAL TO PUT NAKED TISSUE INTO THE -- UNPROTECTED TISSUE INTO THE MUSCLE.

SO THE SURVIVAL OF THE TISSUE WHEN CO-TRANSPLANTED WITH THE PARATHYROID TISSUE IS QUITE REMARKABLE. AND OUR FIRST REVIEW, AS WAS JUST COMMENTED, THEY WANTED -- THE REVIEWERS APPROPRIATELY WANTED MORE INFORMATION ABOUT WHAT IT WAS IN THE PARATHYROID TISSUE THAT WAS DOING THE TRICK. AND THERE ARE A NUMBER OF COMPONENTS, WHICH

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

I WON'T GO INTO NOW, BUT NOT ONLY IMPROVE SURVIVAL, THE INITIAL SURVIVAL OF THE CELLS IN THE INTRAMUSCULAR POSITION WHILE THEY HAVE THE OPPORTUNITY TO ENGRAFT. SO THERE'S BOTH SURVIVAL FACTORS AND ANGIOGENESIS FACTORS WHICH WE'RE IN THE PROCESS OF DEFINING. MOST OF THEM ARE DERIVED FROM THE CD 34/CD 45 NEGATIVE PRECURSOR CELLS. THEY'RE NECESSARY, BUT PERHAPS NOT SUFFICIENT. SO RIGHT NOW WE'RE CO-TRANSPLANTING THEM WITH THE ISLETS TO SEE IF WE CAN GET THE SITE TO WORK. WE BELIEVE, BASED ON OUR ANIMAL DATA, THAT IT'S A SEA CHANGE IN TERMS OF SURVIVAL.

DR. MARTIN: THANK YOU.

MR. SHEEHY: DOES THAT ANSWER YOUR QUESTION, DR. MARTIN? DO WE HAVE OTHER QUESTIONS FROM BOARD MEMBERS ABOUT THIS APPLICATION OR DIRECTED TOWARD THE APPLICANT, EITHER GENERAL COMMENTS OR QUESTIONS FOR THE APPLICANT SPECIFICALLY? OKAY.

WE CAN AT THIS TIME TAKE PUBLIC COMMENT. I DON'T KNOW IF YOU WANT TO GO BEYOND WHAT YOU'VE ALREADY SAID.

DR. STOCK: I THINK FOR RIGHT NOW I THINK I'M OKAY. A LOT OF THE COMMENTARY WAS ABOUT THE COMMERCIAL APPLICABILITY OF THIS. AND THERE'S NOT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

ENOUGH PANCREASES TO -- IF EVERY PANCREAS THAT WE PROCURED WAS SUITABLE FOR SOLID ORGAN TRANSPLANTATION, WE ONLY DO 20 A YEAR AT UCSF. IF EVERY PANCREAS COULD BE USED FOR ISLETS OR SOLID ORGAN TRANSPLANTS, WE WOULD BENEFIT LESS THAN 1 PERCENT OF THE TYPE 1 DIABETICS, LET ALONE ALL THE TYPE 2 PEOPLE WITH DIABETES.

SO I THINK THE COMMERCIAL APPLICABILITY OF THIS TO US, IT'S GOING TO OPEN THE FIELD OF STEM CELL TRANSPLANTS AND I THINK IN A VERY REAL WAY. SO I DON'T HAVE ANYTHING ELSE TO ADD TO THAT.

DR. MARTIN: JUST QUICKLY. THE PARATHYROID TISSUE AND THE BETA CELL TISSUE ARE FROM THE SAME DONOR?

DR. STOCK: YES, THEY WOULD BE IN THIS TRIAL.

MR. SHEEHY: THANK YOU, DR. STOCK. ANY ADDITIONAL PUBLIC COMMENT? SEEING NO PUBLIC COMMENT AND BOARD COMMENTS HAVE CLOSED, COULD WE CALL THE ROLL ON THE MOTION? AND THE MOTION MADE BY DR. PRIETO AND SECONDED BY MS. WINOKUR IS TO ACCEPT THE TEAM RECOMMENDATION AND FUND THE APPLICATION.

MS. BONNEVILLE: ANNE-MARIE DULIEGE.

DAVID HIGGINS.

DR. HIGGINS: YES.

MS. BONNEVILLE: STEVE JUELSGAARD.
MR. JUELSGAARD: YES.
MS. BONNEVILLE: DAVE MARTIN.
DR. MARTIN: YES.
MS. BONNEVILLE: LAUREN MILLER.
MS. MILLER: YES.
MS. BONNEVILLE: ADRIANA PADILLA.
DR. PADILLA: YES.
MS. BONNEVILLE: JOE PANETTA.
MR. PANETTA: YES.
MS. BONNEVILLE: FRANCISCO PRIETO.
DR. PRIETO: AYE.
MS. BONNEVILLE: ROBERT QUINT. AL ROWLETT.
MR. ROWLETT: YES.
MS. BONNEVILLE: JEFF SHEEHY.
MR. SHEEHY: YES.
MS. BONNEVILLE: OS STEWARD.
DR. STEWARD: YES.
MS. BONNEVILLE: JONATHAN THOMAS.
CHAIRMAN THOMAS: YES.
MS. BONNEVILLE: ART TORRES.
MR. TORRES: AYE.
MS. BONNEVILLE: DIANA WINOKUR.
MS. WINOKUR: YES.

MS. BONNEVILLE: MOTION CARRIES.

MR. SHEEHY: CHAIRMAN THOMAS, THAT CONCLUDES THE BUSINESS OF THE APPLICATION REVIEW SUBCOMMITTEE.

CHAIRMAN THOMAS: THANK YOU, MR. SHEEHY. I APOLOGIZE FOR NOT TURNING IT OVER PROMPTLY ENOUGH. SO THANK YOU VERY MUCH FOR YOUR LEADERSHIP AS ALWAYS.

WE'RE GOING TO SKIP AN ITEM ON THE AGENDA, AND THEN WE'RE GOING TO BREAK FOR LUNCH FOLLOWING THAT. I WOULD LIKE TO GO TO ITEM 14, THE CLINICAL PROGRAM UPDATE. AND DR. CARAS IS GOING TO INTRODUCE MARK CHAO, 47 INC. DR. CARAS.

DR. CARAS: MEMBERS OF THE BOARD AND PUBLIC, IT'S MY GREAT PLEASURE TO INTRODUCE DR. MARK CHAO, WHO IS A CO-FOUNDER AND THE VICE PRESIDENT OF CLINICAL DEVELOPMENT AT 47 INC., WHICH IS A BAY AREA BIOTECH COMPANY THAT YOU'VE, I THINK, HEARD MENTIONED SEVERAL TIMES AND THAT HAS HAD AND STILL HAS A HIGHLY PRODUCTIVE AND COLLABORATIVE PARTNERSHIP WITH CIRM.

DR. CHAO IS A PHYSICIAN SCIENTIST WHO IS PART OF THE STANFORD TEAM THAT'S IDENTIFIED CD 47 AS A TARGET ON CANCER STEM CELLS FIRST IN AML AND LATER IN MANY OTHER CANCERS. HE WAS ALSO A KEY MEMBER OF

THE ORIGINAL STANFORD DISEASE TEAM THAT WAS LED BY DR. IRV WEISSMAN THAT RECEIVED ITS FIRST CIRM AWARD IN 2009 TO DEVELOP AN ANTIBODY TO CD 47. AND THAT WORK EVENTUALLY LED TO THE FOUNDING OF A COMPANY CALLED CD 47.

I WANT TO THANK DR. CHAO FOR COMING HERE TODAY TO TELL YOU ABOUT THAT JOURNEY AND TO GIVE YOU HIS PERSPECTIVE.

DR. CHAO: THANK YOU, DR. CARAS, FOR THAT WARM INTRODUCTION. AND IT'S REALLY A PLEASURE TO BE HERE WITH THE CIRM COMMITTEE TODAY. I, AGAIN, WANT TO THANK THE FOLKS FROM CIRM FOR ALLOWING US THE OPPORTUNITY TO DESCRIBE A LITTLE BIT ABOUT OUR STORY.

AS DR. CARAS MENTIONED, THIS IS REALLY, I THINK, A STORY, AND BEING HERE AT CIRM IS REALLY NEAR AND DEAR TO LOT OF OUR HEARTS IN TERMS OF HOW IMPORTANT CIRM HAS BEEN IN TERMS OF DRIVING SOME REALLY INNOVATIVE THERAPIES. I WANT TO JUST TAKE MAYBE THE NEXT TEN OR FIFTEEN MINUTES. I'M COGNIZANT. I DON'T WANT TO DELAY MUCH NEEDED LUNCH, SO I'LL TRY TO KEEP THINGS FAIRLY BRIEF, BUT REALLY TO OUTLINE A COUPLE OF THINGS.

BEFORE I DO THAT, I JUST WANT TO MENTION 47 IS A PUBLIC COMPANY, SO I'LL BE MAKING

FORWARD-LOOKING STATEMENTS, AND THOSE NEED TO BE BALANCED WITH THE RISK ELEMENTS IN OUR DOCUMENTS WITH THE SEC.

BUT TO REALLY FOCUS ON KIND OF THREE POINTS HERE THAT, AT LEAST, I WANT TO SPEAK. NO. 1 IS JUST TO PROVIDE AN INTRODUCTION TO THE HISTORY OF 47 AND INTRODUCE WHAT CD 47 IS AS IT RELATES TO A CANCER STEM CELL TARGET, BUT THEN USE THAT REALLY IN THE SECOND POINT TO HIGHLIGHT OUR JOURNEY ABOUT DEVELOPING A FIRST-IN-CLASS THERAPEUTIC ANTIBODY FROM REALLY BENCH DISCOVERY INTO CLINICAL DEVELOPMENT AND OVERLAY THEMES OF HOW IMPORTANT IT IS TO HAVE SEAMLESS RELATIONSHIPS BETWEEN ACADEMIA, NONPROFIT ORGANIZATIONS SUCH AS CIRM, AS WELL AS INDUSTRY COLLABORATIONS.

FOR ME I ACTUALLY STARTED IN THE ACADEMIC REALMS AND HAVE TRANSITIONED TO INDUSTRY, SO I THINK THIS STORY REALLY EMBODIES A LOT OF THAT. HOPEFULLY YOU'LL SEE AS THE THIRD BULLET HOW IMPORTANT CIRM HAS BEEN TO STORIES SUCH AS OURS AND MANY OTHERS IN TERMS OF ADVANCING NOVEL STEM CELL THERAPIES. AND I THINK I WOULD CAVEAT NOT JUST IN THE ACADEMIC SETTING, BUT IMPORTANTLY HOW THAT NEEDS TO CONTINUE IN THE INDUSTRY SETTING AND AGAIN PROVIDE SOME EXAMPLES.

SO I'M GOING TO START OUT WITH MAYBE AN INTRODUCTION OF FRAMING WHERE DID THIS ALL GET STARTED WITH OUR JOURNEY. I'M A HEMATOLOGIST BY TRAINING. AND SO A LOT OF EXPERIENCE ACTUALLY IN ACUTE LEUKEMIA, WHICH IS A VERY AGGRESSIVE TYPE OF BLOOD DISORDER. AS WE KNOW, FOR A LONG TIME CYTOTOXIC CHEMOTHERAPIES HAVE REALLY BEEN THE STANDARD OF CARE HERE, A LOT OF TOXICITY, EFFICACY THAT MAY BENEFIT PATIENTS AND MAYBE OVER HALF OF THE PATIENTS OVER THE LONG RUN.

SEEING THIS FIRSTHAND FOR A LOT OF US, EVEN INITIALLY AT STANFORD, WE REALLY WANTED TO DEVELOP AN APPROACH WHERE SIMPLY WE COULD ASK THE QUESTION: HOW DO YOU DEVELOP SAFER THERAPIES THAT KILL OFF LEUKEMIA CELLS THAT SPARE NORMAL CELLS? WE TOOK THIS APPROACH PROBABLY IN THE EARLY 2000S. AND I ASKED THIS QUESTION THROUGH THE LENS OF STEM CELL BIOLOGY. SO I WANT TO JUST HIGHLIGHT A COUPLE OF POINTS HERE.

WE KNOW IN THE BLOOD SYSTEM, AS YOU GUYS ALL KNOW WELL, THERE'S A BLOOD-FORMING STEM CELL CALLED A HEMATOPOIETIC STEM CELL. THIS SERVES KIND OF AS THE SEED OF POTENTIALLY A TREE, AS YOU WILL, THAT CAN IMPLANT ADDITIONAL CELLS, CAN RECAPITULATE OR POPULATE THE ENTIRE BLOOD-FORMING SYSTEM. YOU

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CAN SEE HERE, AGAIN, THIS SINGLE CELL CAN GIVE RISE TO ALL THE NORMAL BLOOD COMPONENTS OF YOUR BODY, RED CELLS, PLATELETS, NEUTROPHILS, ETC. NOW, WE KNOW AND THERE'S DATA, AGAIN, THAT'S SUPPORTED HERE, THAT CANCERS CAN CO-OPT THIS BY CREATING MUTATIONS IN THE BLOOD-FORMING STEM CELL TO CREATE LEUKEMIA STEM CELLS OR CANCER STEM CELLS. THESE STEM CELLS ARE IMPORTANT AND THOUGHT TO BE THE INITIATION OF LEUKEMIC DISEASE.

OUR APPROACH WAS REALLY TO FIND WHAT ARE PROPERTIES THAT ARE EXPRESSED ON LEUKEMIA STEM CELLS THAT ARE ABSENT OR LOWER EXPRESSED ON BLOOD-FORMING NORMAL STEM CELLS? THAT'S HOW WE TOOL THIS LENS TO IDENTIFY CD 47 AS, AGAIN, A CANCER STEM CELL TARGET.

THIS IS JUST SOME DATA SHOWING EARLY EXPERIENCE IN THE STANFORD LAB WITH DR. WEISSMAN. AGAIN, ON THE LEFT-HAND SIDE, THAT CD 47 WAS HIGHLY EXPRESSED ON THE LEUKEMIA STEM CELLS COMPARED TO THE RED CELLS WHICH WERE NORMAL COUNTERPARTS. THIS ACTUALLY CLINICALLY MATTERS. SO WHEN YOU LOOK AT PATIENTS, LARGE GROUPS OF PATIENTS WHO HAVE ACUTE LEUKEMIA, IF THEY HAVE HIGHER CD 47 IN BLUE ON THE RIGHT, THEY ACTUALLY DO A LOT WORSE. THEIR SURVIVAL OVERALL ON AVERAGE IS A LOT WORSE THAN THOSE THAT HAVE LOWER CD 47 EXPRESSION. SO THESE BECAME SOME

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OF THE INSIGHTS CLINICALLY FOR A RELEVANT MECHANISM ABOUT TARGETING THIS PROTEIN.

WHEN YOU ASK WHAT IS CD 47, AND I'LL JUST BACKTRACK AND SAY THAT AT 47 AND AT STANFORD WE'RE DEVELOPING IMMUNOTHERAPIES USING THE BODY'S OWN IMMUNE SYSTEM TO ELIMINATE CANCER. LOT OF SUCCESS, I THINK MANY FOLKS KNOW, IN THIS AREA IN THE LAST DECADE IN TERMS OF APPROVALS.

ONE OF THE THINGS WE KNOW WITH USING YOUR OWN BODY'S IMMUNE SYSTEM, THERE'S ONE CELL TYPE CALLED THE MACROPHAGE. THIS IS A CELL TYPE THAT YOU CAN THINK OF AS FIRST RESPONDERS, IF YOU WILL, LIKE A PARAMEDIC OR FIREFIGHTER. FIRST ONTO THE SCENE, THEIR JOB IS REALLY TO SURVEILL ABNORMAL CELLS AND ELIMINATE THEM BY INGESTING OR ENGULFING THEM OR EATING THEM, IF YOU WILL. IT TURNS OUT CANCERS CAN OUTSMART THIS MACROPHAGE BY INCREASING THEIR CD 47 EXPRESSION. CD 47 IN THIS WAY SERVES AS A DO-NOT-EAT-ME SIGNAL. SO CANCER CELLS PRESENT THIS DO-NOT-EAT-ME SIGNAL TO MACROPHAGES, AND THEN MACROPHAGES FAIL TO RECOGNIZE THIS. AND THIS IS A WAY FOR THE CANCER TO OUTSMART THE BODY'S IMMUNE SYSTEM.

ON THE RIGHT-HAND SIDE ON THE TOP, YOU CAN SEE A VIDEO OF RED MACROPHAGES AND GREEN CANCER

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CELLS UNDER THE MICROSCOPE IN CONTROL CONDITIONS. PLENTY OF INTERACTION WITH THE CANCER CELL MACROPHAGE, BUT THERE'S NO INGESTION, AGAIN SHOWING THIS MECHANISM IN PLACE.

NOW, IF YOU TAKE AN ANTIBODY THAT BLOCKS CD 47, YOU CAN BLOCK THIS DO-NOT-EAT-ME SIGNAL, AND GET CANCERS TO ACTUALLY BE EATEN UP BY THESE MACROPHAGES. I'LL SHOW YOU IN THIS VIDEO HERE. AGAIN, YOU CAN SEE THE RED MACROPHAGES WITH THE ANTIBODY THAT ARE NOW INGESTING THESE CANCER CELLS. HOPEFULLY YOU CAN SEE THIS HERE. AGAIN, MULTIPLE GREEN CELLS INSIDE THE RED CELL, AND THIS HAPPENS WITH VIRTUALLY EVERY CANCER TYPE WE'VE TESTED IN THE LAB. I THINK THERE'S A LOT OF INITIALLY AT THIS TIME ENTHUSIASM FOR HOW WIDESPREAD THIS CAN WORK.

I WANT TO HIGHLIGHT AT THIS TIME POINT, AS DR. CARAS MENTIONED, ABOUT 2008, 2009 WE WERE LEARNING THIS IN THE LAB, AND REALLY OUR GOAL WAS HOW CAN WE TRANSLATE THIS TO A THERAPY. I THINK THIS IS ACTUALLY WHERE CIRM CAME INTO A CRITICAL PIECE BECAUSE, AS YOU ALL KNOW, WITH DRUG DEVELOPMENT, ESPECIALLY AT AN ACADEMIC UNIVERSITY LIKE STANFORD, IT IS VERY EXPENSIVE. THERE ARE NO MECHANISMS OTHER THAN TRYING TO GET PRIVATE SECTOR MONEY AT THIS TIME POINT TO DEVELOP THIS.

CIRM REALLY PROVIDED CRITICAL FUNDING HERE TO ALLOW US AS THE SCIENTISTS TO BE ABLE TO INVESTIGATE THIS AGENT, DEVELOP A MONOCLONAL ANTIBODY IN-HOUSE, AND ACTUALLY START FIRST-IN-CLASS TO FIRST-IN-HUMAN STUDIES AT STANFORD WITH CIRM. SO THIS IS A PRETTY UNIQUE MECHANISM I THINK A LOT OF US HERE, AGAIN, ARE EXPERIENCING, BUT THIS ACTUALLY LED A LOT OF US TO DEVELOP INITIAL PROOF OF CONCEPT IN PATIENTS TO THEN ALLOW FOR ACCELERATION OF CLINICAL DEVELOPMENT.

ONCE WE HAD SOME CLINICAL DATA, AND OBVIOUSLY THEN EMBARKING ON ACCELERATING DEVELOPMENT, WE THEN SPUN OUT 47 TO REALLY DO SO WITH, AGAIN, ADDITIONAL TRADITIONAL FUNDING.

SO WITH THAT, I DO WANT TO HIGHLIGHT, AGAIN, NOW KIND OF WHERE WE ARE AND WHERE WE'RE GOING, BUT TO GIVE YOU ANOTHER JUST SNAPSHOT. IN THE LAB, AGAIN, WE'VE TESTED THE IMPORTANCE OF CD 47 ANTIBODY IN OVER 25 TUMOR TYPES, LIQUID TUMORS, SOLID TUMORS. THESE ARE TWO EXAMPLES ON THE LEFT-HAND SIDE IN AN ACUTE LEUKEMIA MODEL IN MICE WHERE YOU CAN SEE ON THE LEFT-HAND SIDE THOSE BLUE CELLS, THAT'S A BONE MARROW FULL OF LEUKEMIA. WHEN YOU TREAT WITH CD 47 ANTIBODY ON THE RIGHT, YOU CAN SEE THAT THAT MARROW COMPLETELY EMPTIES OF THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

LEUKEMIA.

WHEN YOU LOOK AT A SOLID TUMOR MODEL, SO THIS IS A SARCOMA ON THE RIGHT, YOU CAN SEE THESE ARE ACTUALLY LUNGS OF A MOUSE. ON THE LEFT-HAND SIDE, ALL OF THOSE BROWN SPOTS ARE HUMAN DISEASE OR HUMAN METASTASES. AGAIN, TREATMENT AFTER 47 ANTIBODY, COMPLETE CLEARANCE, AS YOU CAN SEE ON THE RIGHT-HAND SIDE. SO THESE WERE, AGAIN, EVIDENCE IN THE LAB AND OUR HOPE REALLY TO TRANSLATE THIS INTO PATIENTS.

SO, AGAIN, HIGHLIGHTING WHAT I MENTIONED, THIS PERIOD IN 2009 WAS REALLY CRITICAL FOR US. AGAIN, WE HAD OUR FIRST DISEASE TEAM GRANT TO REALLY DEVELOP 5F9, WHICH IS A FIRST-IN-CLASS CD 47 ANTIBODY. THIS ALLOWED US TO FUND TWO DIFFERENT PHASE 1 STUDIES, ONE IN ACUTE MYELOID LEUKEMIA AND ONE IN SOLID TUMORS. THOSE DATA, INITIAL SAFETY AND TOLERABILITY AND EFFICACY, ALLOWED US THEN TO SPIN OUT 47, AGAIN, ADDITIONAL FUNDING, AND THEN REALLY FURTHER DEVELOP. AGAIN, OUR MISSION, AT LEAST AT THE COMPANY, IS, AGAIN, TO HELP PATIENTS DEFEAT THEIR CANCER.

WITH THAT, I JUST WANT TO HIGHLIGHT KIND OF MAYBE SOME CONCEPTS WHERE HAVE WE EVOLVED. ONE OF THE THINGS I THINK THAT, EVEN AS ON THE INDUSTRY

SIDE, AS YOU CAN APPRECIATE, WE CAN'T DO EVERYTHING WITH A TARGET THAT IS THIS PROMISING THAT AT LEAST IN THE LAB CAN WORK IN MULTIPLE TUMOR TYPES. WE ONLY CAN DO SO MUCH. I THINK THIS IS WHERE, AGAIN, IN OUR RELATIONSHIP, OUR ONGOING RELATIONSHIP, WITH CIRM, THIS HAS BEEN REALLY CRITICAL.

YOU CAN SEE OUR PIPELINE HERE. 5F9 IS OUR CD 47 ANTIBODY ACROSS MULTIPLE TRIALS. I'VE HIGHLIGHTED TWO TRIALS IN BLUE THAT CONTINUE TO RECEIVE CIRM FUNDING WITH 47 SPONSORSHIP. ONE IN COLORECTAL CANCER AND ONE IN ACUTE MYELOID LEUKEMIA IN COMBINATION WITH TWO AGENTS. SO, AGAIN, THIS FUNDING HAS BEEN CRITICAL TO ALLOW US TO DO STUDIES WHERE PROBABLY, BASED ON OTHER ASPECTS, MAY NOT HAVE BEEN CONDUCTED. I THINK IT'S IMPORTANT TO HIGHLIGHT THAT, THE CONTINUED RELATIONSHIP WITHIN INDUSTRY AND ACADEMIA.

WITH THAT, I JUST WANT HAVE ONE MAYBE SLIDE TO SHOW YOU SOME ACCOMPLISHMENTS HERE. SO 5F9 HAS BEEN TREATED IN OVER 290 PATIENTS TO DATE, AT LEAST TO OUR LAST CUTOFF. THESE SPAN MULTIPLE CANCERS, AS I MENTIONED. OUR CIRM-FUNDED TRIALS IN COLORECTAL CANCER AND ACUTE MYELOID LEUKEMIA AND MYELODYSPLASIC SYNDROME, A PRELEUKEMIA STATE, HAS SHOWN CLINICAL ACTIVITY IN SEVERAL PATIENTS.

I WANT TO HIGHLIGHT RECENT DATA THAT WE CAME OUT WITH IN ABSTRACT THAT WE'LL BE PRESENTING IN THE NEXT FEW WEEKS. AGAIN, IN OUR CIRM-FUNDED STUDY IN ACUTE LEUKEMIA AND AGAIN IN A SMALLER DATA SET, WE'VE SEEN A LITTLE BIT OVER HALF OF THE PATIENTS ACTUALLY HAVE A RESPONSE TO THERAPY, EITHER ELIMINATING THEIR LEUKEMIA ALTOGETHER OR HAVING SIGNIFICANT RESPONSE.

SO WE WILL BE PRESENTING THIS DATA AT A MAJOR MEDICAL CONFERENCE, THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY, IN THE NEXT TWO WEEKS AND ARE QUITE EXCITED ABOUT THIS DATA REALLY TO SHOW IMPACT IN TERMS OF PATIENTS.

NOW, I WANT TO GIVE, AGAIN, ONE EXAMPLE WITH A PATIENT, AGAIN, ON ANOTHER STUDY THAT WE ARE CONDUCTING IN LYMPHOMA IN COMBINATION WITH AN AGENT CALLED RITUXIMAB JUST TO SHOW YOU AT LEAST SOME OF THE EXPERIENCES WE'VE SEEN.

SO THIS IS A PATIENT SCAN OF A VERY AGGRESSIVE LYMPHOMA PATIENT WHO ACTUALLY NEVER RESPONDED TO THEIR PRIOR THERAPIES. YOU CAN SEE THIS IS WHAT'S CALLED A PET SCAN ON THE LEFT-HAND SIDE BEFORE TREATMENT. ALL OF THOSE BLACK DOTS, THAT'S ALL DISEASE. YOU CAN SEE VERY EXTENSIVE, COVERS ABOUT 30 PERCENT OF THE BODY SURFACE AREA.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

YOU CAN SEE AFTER EIGHT WEEKS OF TREATMENT WITH THE COMBINATION, ALL OF THAT DISEASE IS ELIMINATED. SO THIS PATIENT ACHIEVED WHAT'S CALLED A COMPLETE REMISSION. THE REMAINING BLACK IS JUST NORMAL ORGANS, EITHER KIDNEY, BLADDER, OR ARTIFACT.

WE'VE SEEN SEVERAL OF THESE RESPONSES HERE. SO, AGAIN, I THINK JUST REMINDS US OF THE BENEFIT THAT WE'RE SEEING WITH THIS THERAPY, AGAIN, ACROSS MULTIPLE CANCERS.

WITH THAT, I THINK I HAVE TWO SLIDES LEFT, AND JUST WANT TO HIGHLIGHT THAT CD 47'S ROLE DOESN'T JUST STOP WITHIN ONCOLOGY. WE AND OTHERS CERTAINLY HAVE DEMONSTRATED THAT THIS IS APPLICABLE TO MULTIPLE DISEASES. THESE ARE SOME PUBLICATIONS IN HIGH PROFILE JOURNALS, BUT WE KNOW THAT CD 47 PLAYS A ROLE IN HEART DISEASE AND ATHEROSCLEROSIS, PLAYS A ROLE IN FIBROSIS AND INFECTIOUS DISEASE AND AUTOIMMUNITY. AND IMPORTANTLY, AT LEAST FOR CIRM AS WELL, THERE ARE ADDITIONAL STEM CELL THERAPY TRANSPLANT MODALITIES HERE WITH CD 47.

SO REALLY I THINK FOR US IT REALLY SCRATCHES THE SURFACE ABOUT WHAT WE CAN SEE AND BENEFIT IN THE PATIENTS, NOT JUST FOR ONCOLOGY, BUT ALSO FOR OTHER CONDITIONS. AND IT'S A MISSION THAT WE'RE QUITE EXCITED ABOUT AS WELL AS OTHERS THAT

HAVE STARTED TO WORK REALLY IN THIS FIELD.

SO THE LAST SLIDE I'LL LEAVE YOU WITH IS JUST A PICTURE OF KIND OF OUR JOURNEY. YOU CAN SEE, AGAIN, IN 2009 WAS WHEN WE FIRST PUBLISHED DATA ON CD 47. SHORTLY AFTER THAT PERIOD, FROM 2009 UP UNTIL 2014, WHICH WAS THE FIRST PHASE 1 STUDY, WAS REALLY A CRITICAL TIME IN WHICH CIRM HAD FUNDED KEY ASPECTS OF THAT WITHIN STANFORD.

WE SPUN OUT 47 IN 2015. WE'VE LAUNCHED SEVERAL NEW STUDIES, BEEN FORTUNATE TO LAUNCH AS A PUBLIC COMPANY, BUT WHAT I WOULD SAY IS, AGAIN, WE'RE NOWHERE NEAR FROM BEING DONE. I THINK OUR, AGAIN, MISSION TO GET THIS APPROVED INTO MULTIPLE MEDICATIONS, AND WE STILL HAVE A LONG WAY TO GO. I THINK WE'RE APPRECIATIVE CERTAINLY OF OUR CIRM PARTNERS IN THIS JOURNEY AND ARE EXCITED ABOUT WHERE THINGS ARE, KNOWING THAT THERE'S QUITE A JOURNEY AHEAD.

SO WITH THAT, I REALLY WANT TO THANK YOU GUYS FOR YOUR TIME. I REALLY WANT TO SEND A SPECIAL THANKS TO ALL THE MEMBERS FROM THE CIRM TEAM, FROM DR. MILLAN AND DR. CARAS AS WELL WHO'S ACTUALLY BEEN WITH THE PROGRAM FROM THE INCEPTION AS WELL OTHER CIRM FOLKS. SO THANK YOU FOR YOUR TIME. THANK YOU FOR THE OPPORTUNITY TO ALLOW ME TO SPEAK TO OUR

STORY, AND AGAIN HAPPY TO TAKE ANY QUESTIONS.

(APPLAUSE.)

CHAIRMAN THOMAS: DR. MARTIN.

DR. MARTIN: WHAT CAN YOU AND IRV DO TO HELP US RAISE THIS NEXT BOND FUNDING?

DR. CHAO: I THINK THERE'S PLENTY OF IDEAS, SO I'M SURE IRV HAS HIS OPINIONS.

MR. TORRES: LARGER ENDOWMENT.

DR. CHAO: WELL, WE HAVE $2 BILLION WAITING SOMEWHERE. AS ALWAYS, YOU'VE BEEN VERY SUPPORTIVE, AND, AGAIN, WE REALLY SEE HUGE VALUE IN WHAT CIRM IS DOING.

DR. MARTIN: YOU CAN SAY THINGS WE CAN'T.

DR. BLUMENTHAL: JUST A QUICK QUESTION. I NOTICE THAT YOU'VE USED THIS TECHNIQUE ON WIDELY DIFFERENT KINDS OF CANCERS. WHAT DETERMINES WHICH CANCERS TO WHICH IT IS LIKELY TO BE APPLICABLE AND WHICH ONES MIGHT NOT BE SO FAVORABLE?

DR. CHAO: IT'S AN EXCELLENT QUESTION. I THINK CERTAINLY IN THE PRECLINICAL SETTING, WE'VE SEEN THAT ACTIVITY IN MULTIPLE TUMOR TYPES. NOW, WE KNOW THAT PRECLINICAL MODELS ARE NOT GOING TO TRANSLATE ALWAYS TO PATIENTS, AND WE'VE STARTED TO SEE SOME OF THAT. I THINK WITHIN OUR PROGRAM, AS WE HAVE PATIENTS THAT ARE JOINING OUR TRIAL, THEY'VE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

BEEN VERY GRACIOUS TO PROVIDE MATERIAL FROM THAT, WHETHER IT'S BLOOD OR TISSUE, TO ALLOW US TO UNDERSTAND THE DETERMINANCE OF RESPONSE.

SO FOR US IT'S ACTUALLY A MAJOR AREA ACROSS ALL OF OUR STUDIES WHERE WE'RE COLLECTING SAMPLES, TISSUES TO REALLY UNDERSTAND THAT BECAUSE WE DO THINK THAT, AGAIN, EVEN IN SOME EXAMPLES WHERE WE MAY SEE UP TO HALF OF PATIENTS RESPOND, THE OTHER HALF DON'T. SO WHY DOES THAT HAPPEN? SO IT'S A KEY AREA FOR US AND THE COMPANY TO UNDERSTAND THAT.

CHAIRMAN THOMAS: ANY OTHER COMMENTS FROM MEMBERS OF THE BOARD? DR. CHAO, THANK YOU VERY MUCH. IT GOES WITHOUT SAYING WE AT CIRM AND THE PATIENTS POTENTIALLY AFFECTED BY WHAT YOU'RE DOING ARE ALL HEAVILY ROOTING FOR YOU AS IS THE CASE WITH ALL OF OUR CIRM GRANTEES. AND WE ARE DELIGHTED TO GET THE PROGRESS REPORT AND LOOK FORWARD TO HEARING GREAT THINGS DOWN THE ROAD. SO THANK YOU VERY MUCH.

DR. CHAO: THANK YOU ALL. APPRECIATE IT.

(APPLAUSE.)

CHAIRMAN THOMAS: OKAY. SO WITH THAT, WE'RE GOING TO BREAK FOR LUNCH. MEMBERS HERE, IT'S A WORKING LUNCH, SO LUNCH IS AVAILABLE IN THE KITCHEN. SO IF YOU COULD GO GET YOUR LUNCH AND BRING IT BACK, AND WE WILL PROMPTLY CONTINUE WITH

SENATOR TORRES AND SOME VERY INTERESTING DISCUSSION FROM LAST WEEK'S SUBCOMMITTEES. THANK YOU.

(A RECESS WAS TAKEN.)

CHAIRMAN THOMAS: CAN THE FOLKS ON THE PHONE HEAR ME? OKAY.

WE ARE WE NOW GOING TO RECONVENE. THE FIRST ACTION ITEM THAT WE HAVE, WE HAVE A PRESENTATION ON THE FINANCIAL AUDIT RESULTS FROM MG&O, WHOSE REPRESENTATIVE IS WALKING TO THE PODIUM. THANK YOU, SIR.

MR. HARNER: MY NAME IS CRAIG HARNER. I'M A SENIOR MANAGER WITH MGO RESPONSIBLE FOR -- CRAIG HARNER. I OVERSEE THE FINANCIAL AUDIT OF CIRM FROM MGO. SO WE'RE HERE TO PRESENT THE RESULTS TODAY OF THE JUNE 30, 2018, AUDIT OF THE FINANCIAL STATEMENTS THAT WE WRAPPED UP IN OCTOBER. AS PART OF OUR AUDIT, WE DELIVER TWO REPORTS. ONE IS IN THE FINANCIAL STATEMENT, AND IT'S THE INDEPENDENT AUDITOR'S REPORT, AND THEN THE SECOND ONE IS ADDRESSED TO THE ICOC, AND WE CALL THAT A REQUIRED COMMUNICATIONS REPORT. SO I'LL KIND OF JUST BRIEFLY GO OVER BOTH AND THEN OPEN UP FOR QUESTIONS IF THERE ARE ANY.

SO WE PERFORMED OUR AUDIT IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS WHICH REQUIRE A

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

LITTLE BIT MORE PROCEDURES THAT WE DO TO LOOK AT COMPLIANCE AND ALSO INTERNAL CONTROLS HERE AT CIRM. WE ISSUED OUR REPORT ON OCTOBER 15, 2018, AND WE'RE HAPPY TO REPORT THAT WE ISSUED AN UNMODIFIED OPINION ON THOSE FINANCIAL STATEMENTS. AN UNMODIFIED OPINION IS THE HIGHEST LEVEL OF ASSURANCE THAT AN INDEPENDENT AUDITOR CAN GIVE AN ORGANIZATION REGARDING THE FAIR PRESENTATION OF ALL THE NUMBERS THAT ARE IN THOSE FINANCIAL STATEMENTS AND THE NO DISCLOSURES.

I'LL JUST KIND OF REITERATE SOMETHING THAT WAS MENTIONED EARLIER, BUT THAT ALSO SPEAKS TO THE LEVEL OF THE WORK THAT IS DONE BY THE STAFF HERE AT CIRM AND SPECIFICALLY HEADED UP BY CHILA, WHO WE WORK WITH DIRECTLY AS PART OF THE AUDIT. I THINK IN ALL THE YEARS WE'VE BEEN DOING THE AUDIT, AS WAS MENTIONED, WE'VE NEVER HAD ANYTHING TO REALLY REPORT AND NEVER HAD ANYTHING OTHER THAN AN UNMODIFIED OPINION.

THE SECOND REPORT WE ISSUED IS REQUIRED COMMUNICATIONS. OUR PROFESSIONAL AUDITING STANDARDS REQUIRE THAT AT THE END OF OUR AUDIT, WE COMMUNICATE CERTAIN MATTERS TO THOSE CHARGED WITH GOVERNANCE. AND I WON'T REALLY GO OVER EVERYTHING IN THERE BECAUSE THERE ISN'T ANYTHING -- THERE WASN'T REALLY

ANYTHING THAT STOOD OUT AS BEING NEEDED TO BE BROUGHT UP AND LET THE BOARD KNOW IT WAS A PRETTY BORING YEAR FOR US, WHICH IS WHAT WE LIKE TO SEE.

WE HAD NO DIFFICULTIES ENCOUNTERED IN PERFORMING OUR AUDIT. WE HAD NO DISAGREEMENTS WITH MANAGEMENT, WE HAD NO -- MANAGEMENT ALSO DIDN'T CONSULT WITH ANY OTHER ACCOUNTANTS OR ANY OTHER INDEPENDENT AUDITORS OR INDEPENDENT ACCOUNTING FIRMS ON ANY OTHER MATTERS. WE DIDN'T HAVE ANY UNCORRECTED ERRORS OR UNCORRECTED MISSTATEMENTS. OVERALL IT WAS ANOTHER PRETTY CLEAN YEAR FOR US.

ALSO AT THE END OF OUR AUDIT, THE STATE CONTROLLER COMES IN AND ACTUALLY REVIEWS ALL OF OUR WORK AND ISSUES A REPORT, AND THEY FOUND NO -- THEY ISSUED THEIR REPORT, I BELIEVE, TOWARDS THE END OF MARCH OF THIS YEAR, AND THEY ALSO FOUND NO PROBLEMS. EVERYTHING WAS PRETTY STANDARD. WITH THAT, I'LL ANSWER ANY QUESTIONS.

CHAIRMAN THOMAS: SORRY IT WAS ANOTHER SORT OF TEDIOUS AND BORING AND UTTERLY UNEVENTFUL EXERCISE. CHILA, EXCELLENT WORK. ANY COMMENTS OR QUESTIONS?

MR. TORRES: SO HOW MANY AUDITS DOES THIS AGENCY UNDERGO EVERY PERIODIC TIME?

MR. HARNER: AS FAR AS I KNOW, THEY

UNDERGO TWO.

MR. TORRES: TWO AND, IN ADDITION, A PERFORMANCE AUDIT EVERY THIRD YEAR.

MR. HARNER: EVERY THIRD YEAR, I BELIEVE SO. I DON'T KNOW A WHOLE LOT ABOUT THE PERFORMANCE AUDIT.

MR. TORRES: I WROTE THE LAW WITH SENATOR ALQUIST. I JUST WANTED TO MAKE SURE THE BOARD KNEW AND THE PUBLIC KNOWS HOW MANY AUDITS WE AS A STATE AGENCY UNDERGO, WHICH IS UNPRECEDENTED WITH ANY OTHER STATE AGENCY. TWO AUDITS AND A PERFORMANCE AUDIT EVERY THIRD YEAR, UNPARALLELED. SO IT GIVES US MORE CREDENCE AS TO WHAT WE'VE BEEN ABLE TO ACHIEVE WITH OUR FINANCE TEAM AS WE SPEAK TODAY.

MR. HARNER: OH, ABSOLUTELY. I'LL ADD ON TO THAT BEFORE WE EVEN GET THE INFORMATION OR THE FINANCIAL INFORMATION, IT'S ALREADY BEEN LOOKED AT BY THE STATE CONTROLLER'S OFFICER, ABOUT A HUNDRED PERCENT OF THE TRANSACTIONS, SO BY THE TIME WE GET IT, IT'S ALREADY PRETTY CLEAN.

CHAIRMAN THOMAS: OKAY. ANY OTHER COMMENTS? OKAY. THANK YOU VERY MUCH. ALL RIGHT. NOW THE MOMENT WE'VE ALL BEEN WAITING FOR.

MR. TORRES: AT LEAST I HAVE.

CHAIRMAN THOMAS: SENATOR TORRES, NOT ONLY

HAS EATEN, BUT DIGESTED HIS LUNCH. WE GO ON TO CONSIDERATION OF REPORT AND RECOMMENDATIONS FROM THE LEGISLATIVE SUBCOMMITTEE.

MR. TORRES: FIRST OF ALL, I WANT TO REMIND MARIA THAT I WAS THERE ALSO FOR THE FOURTH ANNUAL ALPHA CLINICS SYMPOSIUM, AND THAT I BROUGHT THE CHAIRMAN OF THE ASSEMBLY INFECTIOUS DISEASE COMMITTEE.

DR. MILLAN: THE NIGHT BEFORE.

MR. TORRES: THE MEMORY IS COMING BACK. MICHAEL GIPSON, WHO IS DOING A GREAT JOB. IN FACT, THE COMMITTEE WILL BE VISITING US PRETTY SOON, MARIA, IN TERMS OF WORKING OUT A DATE. BUT ALSO IN REFERENCE TO OTHER QUESTIONS, THE BRIDGES PROGRAMS, WHICH WAS CITED EARLIER, WE OUGHT TO GIVE A REPORT BACK TO OUR BOARD MEMBERS AS TO THE NUMBER OF BRIDGES STUDENTS WHO HAVE FOUND WORK IN THE STEM CELL AREA WITH VERY IMPORTANT POSITIONS. WE HAVE ONE OF THEM THAT WORKS FOR US IN OUR COMMUNICATIONS DEPARTMENT, FOR EXAMPLE, AND WE HAVE MANY OTHER BRIDGES STUDENTS WHO ARE WORKING IN LABS THROUGHOUT THE COUNTRY. SO I THINK WE SHOULD GIVE A REPORT TO OUR BOARD MEMBERS AS TO WHAT THOSE FOLKS ARE DOING.

WHAT HAS OCCURRED IS THAT THE TWO PIECES OF LEGISLATION THAT I HAD HOPED TO HAVE THIS BOARD

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

APPROVE ARE NOW DEAD. AND THE REASON THEY ARE DEAD IS STILL UNCLEAR. THEY HAVEN'T TOLD US WHY THEY OPPOSED IT, AND EVEN THE AUTHOR OF THE BILLS CAN'T FIGURE OUT WHY THEIR BILLS REMAINED IN WHAT'S CALLED THE SUSPENSE FILE OF THE ASSEMBLY APPROPRIATIONS COMMITTEE.

THE FIRST BILL WOULD ESTABLISH THAT THE BOARD OF MEDICAL QUALITY ASSURANCE CREATE CRITERIA TO LICENSE STEM CELL CLINICS IN CALIFORNIA. NOW, THAT LEGISLATION IS STILL BEING WORKED ON, AND I'VE GIVEN AT LEAST FOUR ALTERNATIVE STRATEGIES TO THE AUTHOR TO CONTEMPLATE AS TO HOW TO REVIVE THE ISSUE EITHER ADMINISTRATIVELY OR THROUGH THE LEGISLATIVE PROCESS. AND WHAT'S ASTOUNDING TO ME IS THAT THERE WAS NO REAL MONEY IN THIS BILL, AND YET IT WAS RETAINED IN THE ASSEMBLY APPROPRIATIONS COMMITTEE WHILE $12 BILLION IN OTHER BILLS WENT OUT. AND THE OTHER BILL THAT WAS DEFEATED WAS THE ROMAN REED SPINAL CORD INJURY LEGISLATION FOR $5 MILLION, WHICH PASSES EVERY YEAR. AND, AGAIN, THE CHAIR OF THAT COMMITTEE, WHO I'M GOING TO HAVE SOME WORDS WITH, DID NOT REALLY EXPLAIN WHY THAT BILL REMAINED IN THE, QUOTE, SUSPENSE FILE.

THE OTHER CASUALTY OF THAT SUSPENSE FILE WAS AB 1105 BY ASSEMBLY MEMBER GIPSON WHICH

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

APPROPRIATED 15 MILLION FOR SICKLE CELL CENTERS THROUGHOUT THE STATE, WHICH WOULD HAVE BEEN AN EXCELLENT COMPLEMENT TO THE 38 MILLION THAT THIS BOARD HAS PROVIDED FOR SICKLE CELL RESEARCH AND TREATMENT.

SO THAT'S WHERE WE ARE AT. AND, AGAIN, I'M TALKING TO THE AUTHOR OF THAT BILL TO SEE WHETHER OR NOT THERE'S ANY WAY TO REVIVE AT LEAST PART OF THE FUNDING AND THE ROMAN REED BILL WAS $5 MILLION, AT LEAST PART OF THE 15 MILLION FUNDING FOR THE SICKLE CELL ANEMIA BILL THAT WE SEE NOW CURRENTLY IN THE SUSPENSE FILE.

SO I THINK THE BOTTOM LINE IS THERE'S NO REPORT TO APPROVE. AND I THINK I'LL WAIT UNTIL THE SESSION IS OVER. MAY 31ST IS THE LAST DAY THAT ANY BILL OUT OF ITS HOUSE OF ORIGIN CAN MOVE FORWARD. AND, OF COURSE, THE LEGISLATIVE SESSION ENDS ON SEPTEMBER 13TH OF THIS YEAR, SO WE'LL HAVE A BETTER IDEA AS TO WHERE WE ARE AT AND HOW WE ARE MOVING.

CHAIRMAN THOMAS: THANK YOU, SENATOR TORRES. I THINK WE ALL SHARE YOUR INCREDULITY, THAT ALL THREE OF THESE DIDN'T PASS RESOUNDINGLY AND HAVE NO IDEA WHY ANYBODY WOULD OPPOSE, PARTICULARLY GIVEN HOW FLUSH THE STATE IS IN FUNDING AND THE ACUTE NEED THAT EACH OF THESE INITIATIVES ENTAIL. SO WE LOOK

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FORWARD TO HEARING MORE ON THE SUBJECT DOWN THE ROAD.

OKAY. ITEM 13, UPDATE AND DISCUSSION FROM THE JOINT MEETING OF THE GOVERNANCE AND THE SCIENCE SUBCOMMITTEE. SENATOR TORRES TO INTRODUCE MR. TOCHER.

MR. TORRES: THANK YOU VERY MUCH, MR. CHAIRMAN, AND THANK YOU, SHERRY LANSING, AS CHAIR OF THE GOVERNANCE COMMITTEE COULD NOT BE -- IS SHE ON THE LINE -- COULD NOT BE HERE. I STILL WANT TO RECOGNIZE HER CONTRIBUTIONS AND THANK HER FOR HER EFFORTS. SHE WAS AT A REGENTS MEETING THAT WHOLE DAY, SO IT WAS IMPOSSIBLE FOR HER TO PARTICIPATE IN THIS DISCUSSION. BUT I WANT TO THANK JEFF SHEEHY, WHO IS THE CHAIR OF THE SCIENCE COMMITTEE, AS WELL AS MR. TOCHER -- WHO'S CLOSING THE DOORS NOW. MULTITALENTED, MULTISKILLED -- MR. TOCHER AND ALSO A THANK-YOU TO JAMES HARRISON AND OUR CHAIRMAN FOR PUTTING TOGETHER WHAT HAS BEEN A VERY IMPORTANT EXERCISE IN BRINGING FORWARD TO THE BOARD SOME OF THE SUGGESTIONS THAT WE MIGHT PROFFER TO MR. KLEIN AND OTHERS WHO ARE SUPPORTING A NEW INITIATIVE ON THE 2020 BALLOT.

SO I'LL TOSS IT OVER, IF THAT'S OKAY WITH YOU, JEFF, TOSS IT OVER TO SCOTT, THEN WE'LL MOVE AD

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SERIATIM.

MR. TOCHER: THANK YOU VERY MUCH, SENATOR. AS THE SENATOR JUST INDICATED, THE POINT OF THIS IS REALLY JUST TO HAVE A DISCUSSION, NOT TO ACTUALLY VOTE ON PARTICULAR IDEAS OR INITIATIVES, BUT REALLY TO CREATE A RECORD OF FEEDBACK FOR EVERYONE HERE, EVERYONE ON THE BOARD, AND TO SUPPLEMENT THAT WITH FEEDBACK THAT WAS ELICITED A COUPLE WEEKS AGO AT THE JOINT SUBCOMMITTEE THAT THE SENATOR JUST REFERRED TO.

BASICALLY WHAT THIS IS IS YOU WILL SEE A PRESENTATION OF SEVERAL IDEAS THAT THE TEAM CAME UP WITH IN ORDER TO SPARK A CONVERSATION AROUND SOME OF THE ISSUES THAT HAVE ARISEN IN OUR MINDS AND ALSO IN THE MINDS OF OTHERS THAT MIGHT BE FRUITFUL FOR DISCUSSION AND POSSIBLE TREATMENT IN A FUTURE INITIATIVE. WE DON'T INTEND, HOWEVER, THIS LIST TO BE EXHAUSTIVE. SO IF THERE'S ANYTHING THAT YOU DON'T SEE ON HERE THAT YOU'D LIKE TO DISCUSS, YOU SHOULD ABSOLUTELY FEEL FREE TO BRING IT UP AS WELL.

WITH THAT, JUMPING RIGHT IN, THIS IS AN ISSUE THAT I KNOW MANY OF YOU ARE FAMILIAR WITH WHO HAVE BEEN WITH THE AGENCY FOR SOME TIME. YOU MAY KNOW THAT CIRM ADOPTED VERY STRINGENT CONFLICT OF INTEREST LAWS WHICH ARE MODELED IN THE BEST

PRACTICES THAT WERE ESTABLISHED BY THE NATIONAL ACADEMY OF SCIENCES AND OTHERS AND WHICH EXCEED THE CONFLICT OF INTEREST STANDARDS THAT APPLY NORMALLY TO MOST STATE AGENCIES AND PUBLIC OFFICIALS.

THE CONTROLLER, I BELIEVE IT WAS BACK IN '07, REVIEWED CIRM'S CONFLICT OF INTEREST POLICIES AND AT THAT TIME FOUND NO VIOLATIONS OF THE COI RULES AND THE AWARD OF GRANTS, NOR HAS ANY SUCH VIOLATION BEEN DOCUMENTED SINCE. NEVERTHELESS, THERE HAS PERSISTED IN SOME QUARTERS, SUCH AS THE LITTLE HOOVER COMMISSION AND THE SUBSEQUENT REPORT BY THE IOM, THAT HAVE SUGGESTED THAT THE STRUCTURE OF THE ICOC CREATES THE PERCEPTION OF CONFLICTS OF INTEREST BY VIRTUE OF THE PRESENCE OF ON THE BOARD SERVICE BY MEMBERS WHO REPRESENT INSTITUTIONS THAT RECEIVE FUNDS FROM THE AGENCY.

SO AS YOU KNOW, SUBSEQUENT TO THAT, THE BOARD CREATED THE APPLICATION REVIEW SUBCOMMITTEE OF WHICH THOSE INSTITUTIONAL MEMBERS ARE NONVOTING MEMBERS, AND THE FINAL VOTING ON AN AWARD IS DONE BY THE REMAINDER OF THE BOARD. SO THE CHALLENGE WAS HOW TO HARNESS THE EXPERTISE THAT THESE INSTITUTIONAL MEMBERS HAVE AND THE CONTRIBUTIONS THAT WE KNOW ARE INCREDIBLY INVALUABLE WHILE POSSIBLY ELIMINATING OR AT LEAST ADDRESSING THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CONFLICT OF INTEREST CRITICISM FROM THE FOLKS THAT I'VE MENTIONED.

SO WE AT THE SUBCOMMITTEE LEVEL DISCUSSED A RANGE OF POSSIBILITIES, EVERYTHING FROM CONTINUING WITH THE EXISTING APPLICATION REVIEW SUBCOMMITTEE PROCESS. ANOTHER IDEA WAS TO APPOINT FORMER RETIRED INSTITUTIONAL MEMBERS FROM THOSE INSTITUTIONS. AND MEMBER JUELSGAARD SUGGESTED ANOTHER APPROACH WHICH WOULD BE TO SQUARELY ADDRESS THE ISSUE IN THE NEW INITIATIVE ITSELF BY DECLARING, A FINDING THAT THE SERVICE OF SUCH MEMBERS DOES NOT CONSTITUTE A CONFLICT OF INTEREST.

I THINK THE SENTIMENT AT THE JOINT SUBCOMMITTEE MEETING WAS VERY MUCH THAT THE INSTITUTIONAL PARTICIPATION WAS MISSED AND IS SOMETHING THAT THE SUBCOMMITTEES WOULD LIKE TO SEE RESURRECTED IN A MORE ROBUST MANNER BEFORE THESE REFORMS WERE ADOPTED BY THE AGENCY.

SO, ANYWAY, THAT'S THE ISSUE AND LIKE YOUR THOUGHTS.

MR. TORRES: ANY COMMENTS?

DR. JUELSGAARD: I'LL JUST REITERATE WHAT I SAID AT THE SCIENCE GOVERNANCE COMMITTEE MEETING, WHICH IS THAT TO ME THIS SORT OF STARTS WITH WHAT'S IN THE BACKGROUND, RIGHT. SO WE HAVE THESE

FINDINGS. WE'VE ESTABLISHED THE POLICY AT THE BEGINNING AS ONE ESTABLISHED FOR THE NATIONAL ACADEMY OF SCIENCES, AND WE'VE HAD REVIEWS OF OTHERS THAT HAVE INDICATED THAT THERE'S NOT A CONFLICT OF INTEREST. AND THEN WE'RE MET WITH THIS NOTION OF A PERCEIVED CONFLICT OF INTEREST, NOT A CONFLICT OF INTEREST, BUT A PERCEIVED CONFLICT OF INTEREST. SO THAT'S KIND OF THE BACKGROUND.

SO FROM MY POINT OF VIEW, THEN, HAVING EXPERIENCED BOTH THE PARTICIPATION OF INSTITUTIONAL MEMBERS AND NOW THE LACK OF PARTICIPATION AFTERWARDS, IT'S KIND OF A COST BENEFIT ANALYSIS. TO BE QUITE HONEST, I THINK WE'VE LOST A LOT OF BENEFIT FROM THEM, AND THAT'S REALLY BEEN A COST. AND THE COST OF GOING BACK TO DEAL WITH THE PERCEIVED CONFLICT OF INTEREST IS ONE THAT I THINK THAT WE CAN ADEQUATELY DEAL WITH.

AND, AS I SAID, SO ESSENTIALLY WHAT I THINK WE SHOULD DO IS GO BACK TO FULL PARTICIPATION OF THE PEOPLE THAT WERE INVOLVED BEFORE WITH THE ACADEMIC INSTITUTIONS OR RESEARCH INSTITUTIONS, AND THAT TO PUT INTO WHOEVER PROPOSES THE NEW PROPOSITION LANGUAGE THAT SPECIFICALLY DECLARES THAT THE PARTICIPATION OF THOSE INDIVIDUALS IS NOT A CONFLICT OF INTEREST. AND SO THAT IF ANYBODY RAISES

THIS NOTION DOWN THE ROAD OF A PERCEIVED CONFLICT OF INTEREST, IT'S ALREADY BEEN SPOKEN TO BY THE VOTERS OF THE STATE, WHO ARE THE ONES FUNDING THIS INSTITUTION. AND THAT FOR ME IS MORE COMPELLING THAN SOMEBODY'S IDEA OF A PERCEIVED CONFLICT OF INTEREST.

MR. TORRES: EXCELLENT POINT, WHICH I AGREE WITH WHOLEHEARTEDLY. ANY OTHER COMMENTS?

DR. PRIETO: THE ONLY CONCERN I HAVE WITH THAT IS HOW IT'S GOING TO BE READ BY SOME OF THE PUBLIC OR CERTAIN OPPONENTS OF ANY NEW INITIATIVE AS A STEP BACKWARDS. WHETHER IT'S TRUE OR NOT, I THINK IT'S CLEAR THAT THERE REALLY WAS VERY LITTLE TRUTH TO IT, IT MAY BE SOLD THAT WAY. AND THAT'S A CONSIDERATION.

CHAIRMAN THOMAS: SO IN THE COURSE OF THE JOINT SUBCOMMITTEE MEETING, I, JUST FOR THE REST OF THE BOARD TO HEAR, I REITERATED HOW WE GOT TO THAT PLACE, WHICH MR. JUELSGAARD ALLUDED TO, WHICH IS WE HAD A SERIES OF REPORTS BY VARIOUS AUTHORITATIVE ENTITIES STARTING WITH THE LITTLE HOOVER COMMISSION MOVING ON TO WHAT WE CALL THE EXTERNAL ADVISORY PANEL THAT I THINK CIRM APPOINTED BEFORE MY TIME, AND THEN CULMINATING IN THE IOM. EACH HAD IN IT SORT OF QUITE VEHEMENT LANGUAGE ABOUT THE CONFLICT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OF INTEREST ISSUE, WHICH HAS ALWAYS BEEN JUST PERCEIVED, AS CORRECTLY NOTED BY MR. JUELSGAARD. WITH RESPECT TO ANY GIVEN FUNDING AWARD, THERE'S NEVER BEEN AN ACTUAL CONFLICT.

BUT THE FACT OF THE MATTER IS WE HAD A LOT OF NEGATIVE FEEDBACK, WHICH WE DIDN'T DO ANYTHING ABOUT. AND WHEN THE IOM REPORT CAME OUT, THAT ELEMENT OF IT IN PARTICULAR WAS DULY NOTED IN THE PRESS STATEWIDE. AND IT WAS OUR FEELING AT THE TIME WE NEEDED TO HAVE A COMPREHENSIVE RESPONSE TO THAT. THERE WERE OTHER THINGS IN THERE AS WELL, WE FELT UNANIMOUSLY, WERE VERY UNFAIR SUGGESTIONS AND COMMENTS WITH RESPECT TO PATIENT ADVOCATE PARTICIPATION, ET CETERA. SO WE FELT WE HAD TO DEAL WITH THIS, AND THAT WAS WHERE THE IDEA OF THE APPLICATION REVIEW SUBCOMMITTEE WAS BORN, UNDERSTANDING THAT IT WAS GOING TO REDUCE PARTICIPATION OF THOSE 13 ENTITIES THAT ARE ELIGIBLE FOR FUNDING OTHER THAN TO NOTE THAT WHAT IT ACTUALLY PRECLUDED WAS NOT PARTICIPATION IN THE DISCUSSION OR CONSIDERATION OF ANY GIVEN AWARD UNLESS IT'S YOUR OWN, OF COURSE, YOUR OWN INSTITUTION. WHAT IS SOLELY PRECLUDED WAS ACTUALLY VOTING ON THE GRANTS, BUT THAT DID HAVE A BIT OF A CHILLING EFFECT, NO QUESTION. AND WE HAVE, I THINK, BEEN THE WORSE FOR

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THAT CHILLING EFFECT.

SO THE ISSUE IS WHAT DO WE DO ABOUT IT. IT'S NOT A SIMPLE QUESTION BECAUSE, AS DR. PRIETO SUGGESTS, AS SOON AS WE SUGGEST WE'RE GOING TO REVERSE COURSE ON THAT, THAT WILL BE SOMETHING THAT THE PRESS PICKS UP, EVEN THOUGH WE STILL NOW WELL INTO CIRM'S EXISTENCE HAVE NEVER HAD A CONFLICT WITH RESPECT TO ANY FUNDING AWARD. I THINK THE IDEA OF PUTTING IT IN THE MEASURE IS AN INTERESTING ONE, STEVE, BECAUSE THAT IS SOMETHING THAT WOULD ALLOW THE PUBLIC TO SPEAK UP ON THAT ISSUE. I'M NOT SURE THAT EVEN IF THEY DO, THAT WILL EVER PUT THE ISSUE TO BED BECAUSE IT'S ONE OF SORT OF THE FAVORITES OF THE CRITICISMS THAT HAVE BEEN LEVELED AT CIRM OVER THE YEARS.

SO I THINK -- THE QUESTION OF WHAT TO DO ON THIS IS TRICKY. I DO AGREE THAT WE'VE LOST INSIGHT FROM A NUMBER OF THOSE MEMBERS, BUT WE DO HAVE TO BE REALLY CAREFUL BECAUSE I THINK THAT THIS IS SOMETHING THAT'S AN EASY CONCEPT TO COMPREHEND BY ANYBODY WHO MIGHT OPPOSE THE MEASURE, AND THAT COULD HAVE AN IMPACT ON HOW THE MEASURE IS COVERED IN THE PRESS LEADING UP TO THE VOTE AND WHAT THE VOTE ULTIMATELY IS.

DR. PRIETO: I'M NOT NECESSARILY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

OPPOSED --

DR. MARTIN: I HAVE NOTHING MORE TO ADD.

MR. TORRES: DR. MARTIN WAS NEXT.

DR. MARTIN: I HAVE NOTHING MORE TO ADD ON THAT NOW.

DR. PRIETO: I'M NOT NECESSARILY OPPOSED, BUT I THINK THAT WE WOULD HAVE TO BE VERY CAREFUL AND REALLY EXPLICIT HOW WE PRESENTED IT AND REFERENCING OUR HISTORY AND THE FACT THAT, IN FACT, WE HAVE HAD, BEFORE OR AFTER THE CHANGES, NO CONFLICTS OF INTEREST. I THINK A LOT OF WHAT'S BEEN DISCUSSED TODAY SHOWS THAT, COMPARED TO MANY OTHER STATE AGENCIES, THIS ONE HAS BEEN EXEMPLARY, UNUSUALLY SO. WE WOULD HAVE TO BE ABLE TO ADDRESS THAT HEAD-ON.

MR. TORRES: MR. SHEEHY.

MR. SHEEHY: THANK YOU, SENATOR TORRES. SO LIKE MR. JUELSGAARD, I'LL LARGELY BE RECAPITULATING WHAT I HEARD AT THE HEARING. BUT I THINK SOMETHING INCREDIBLY VALUABLE WAS LOST. AND I DO NOTE FOR THE RECORD THAT I DID VOTE AGAINST THIS CHANGE. I THINK JOAN SAMUELSON AND I WERE THE ONLY ONES.

ONE OF THE MAGICAL THINGS ABOUT PROP 71 WAS BRINGING TOGETHER ACADEMIC RESEARCHERS, INDUSTRY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

INDIVIDUALS, AND IT WAS GREAT TO HEAR FROM ED PENHOET TODAY, WHO WAS SUCH A GREAT FORCE ON THIS BOARD, AND PATIENT ADVOCATES. I DON'T KNOW OF VERY MANY INSTANCES WHERE WE'RE ALL BROUGHT TOGETHER AS PEERS WITH UNIQUE POINTS OF VIEW TO CONTRIBUTE TO THIS CAUSE. AND I HAVE FOUND THAT TO BE ONE OF THE MOST FANTASTIC THINGS ABOUT THIS WHOLE ENTERPRISE.

I THINK THE CONFLICTS OF INTEREST ISSUE HAS ALWAYS BEEN COLORED BY, FIRST OF ALL, I THINK A BIT OF MISUNDERSTANDING SINCE HALF -- AND I HOPE IT GOES UP. I HOPE WE INCLUDE THE DEAN OF THE UNIVERSITY OF CALIFORNIA AT RIVERSIDE, WHICH NOW HAS A MEDICAL SCHOOL, AUTOMATICALLY ONTO THE BOARD, BUT HALF OF THEM ARE UC. CONFLICT OF INTEREST BETWEEN THE STATE OF CALIFORNIA AND THE STATE OF CALIFORNIA IS IRRATIONAL. I DON'T EVEN THINK, MR. TOCHER COULD ELABORATE ON THIS, BUT I DON'T THINK THE STATE NECESSARILY RECOGNIZES THE CONFLICT OF INTEREST BETWEEN TWO STATE INSTITUTIONS. WE ALL HAVE A COMMON MISSION TO ADVANCE THE CAUSE OF THE PEOPLE OF CALIFORNIA.

I AGREE WITH DR. PRIETO, THAT WE NEED TO HAVE A DEEPER DISCUSSION ABOUT THIS. THERE HASN'T BEEN A PROBLEM. ALL OF US WORKING TOGETHER HAS BEEN A GREAT BENEFIT TO THIS INSTITUTION. AND REALLY I

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FEEL LIKE WE MISSED SOMETHING. I LOOK AROUND THE TABLE AND I CAN SEE THE DIFFERENCE IN TERMS OF RELATIONSHIP BETWEEN MEMBERS WHO WERE BEFORE AND MEMBERS WHO WERE HERE AFTERWARD. I REALLY ENJOYED THE RELATIONSHIPS THAT DEVELOPED AMONGST BOARD MEMBERS HAVING VERY VIGOROUS SOMETIMES DEBATES OVER APPLICATIONS AND BRINGING OUR PERSPECTIVES TOGETHER. AND JUST I THINK THAT WE'VE LOST SOMETHING VERY VALUABLE IN TERMS OF COHESION, IN TERMS OF INVOLVEMENT FROM ALL OF OUR BOARD BECAUSE AT THE END OF THE DAY WE'RE A FUNDING AGENCY. AND IF A PORTION OF THE BOARD CANNOT PARTICIPATE IN THOSE DECISIONS ACROSS THE BOARD, IT KIND OF REALLY REDUCES THEM TO SECOND TIER STATUS. I FEEL LIKE THAT IF THAT HAPPENED TO PATIENT ADVOCATES, I'D BE HORRIFIED.

AND THE OTHER POINT I'D LIKE TO MAKE IS THAT THE IOM DID RECOMMEND THE SAME PROHIBITIONS ON PATIENT ADVOCATES, AND WE REFUSED TO GO ALONG WITH THAT. SO IF IT'S GOOD FOR A GOOSE, IT'S GOOD FOR THE GANDER. I THINK WE NEED TO STAND UP AND SAY WE ALL COME HERE WHERE WE'RE NOT GOING TO VOTE ON ANYTHING THAT DIRECTLY AFFECTS OUR INSTITUTION, BUT WE CAN COME MORE GENERALLY BECAUSE THE REASON WE ARE HERE IS THE MISSION OF CIRM, CURES, CURES THAT WILL BENEFIT PEOPLE SUFFERING FROM LIFE-THREATENING

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

DISEASES AND CONDITIONS.

MR. TORRES: THANK YOU, JEFF. YES, DOCTOR.

DR. SANDMEYER: SO I'M AT THE HISTORICAL PERSPECTIVE, AND NOW I'VE BEEN DECLARED CONFLICTED, BUT I DON'T FULLY APPRECIATE WHY CIRM DECIDED THAT IT HAD TO DIVERGE FROM WHAT'S BEEN THE LONG-STANDING FEDERAL GRANT REVIEW PROCESS WHERE INSTITUTIONS THAT ARE INVOLVED, ARE DIRECTLY INVOLVED IN THE SCIENTIFIC REVIEW OF GRANTS. IT'S ALWAYS BEEN THE CASE THAT ACADEMIC INSTITUTIONS WHO QUALIFY FOR GRANT FUNDING ARE INVOLVED DIRECTLY IN THE SCIENTIFIC REVIEW PROCESS. SO I GUESS THAT'S MY QUESTION.

MR. TORRES: I THINK SOME OF US MAY HAVE TO REREAD THE IOM'S MESSAGE.

CHAIRMAN THOMAS: THE SIMPLE ANSWER IS THE -- SO WE ASKED FOR THE IOM TO REVIEW US, SPECIFICALLY BOB DID BACK IN WHATEVER YEAR IT WAS, 2006, MAY HAVE BEEN A LITTLE LATER THAN THAT BECAUSE THE REPORT WAS DECEMBER OF '12.

MR. TORRES: IT WAS AFTER '09 BECAUSE I WAS HERE.

CHAIRMAN THOMAS: WE ASKED FOR THEM -- THEY'RE SORT OF THE GOLD STANDARD OBVIOUSLY OF

REVIEWERS. AND THEY CAME BACK WITH VERY UNAMBIGUOUS, STRONG LANGUAGE ABOUT THE CONFLICTS OF INTEREST AND HOW THAT WAS A REAL PROBLEM THAT NEEDED TO BE ADDRESSED. SO OUR CHOICES AT THE TIME WERE IGNORE THEM, EVEN THOUGH WE ASKED FOR THEIR INPUT --

MR. TORRES: AND PAID FOR IT.

CHAIRMAN THOMAS: -- AND PAID FOR IT, OR TO DO SOMETHING ABOUT IT IN A WAY THAT CHANGED THE DYNAMICS THAT WOULD KNOCK OUT EVEN THE PERCEPTION OF CONFLICTS. AS I SAY, THE ONE THING THAT IT PRECLUDED WAS VOTING. IT DID NOT PRECLUDE FULL PARTICIPATION IN THE DISCUSSION ABOUT ANYTHING UNLESS IT WAS YOUR OWN INSTITUTION BEING DISCUSSED. THE FACT THAT IT PRECLUDED THE VOTING, NONETHELESS, KEPT SOME OF THE MEMBERS FROM ATTENDING AS MUCH AS THEY DID. THAT WAS THE HISTORY. THAT'S WHY WE DECIDED TO DO SOMETHING BECAUSE WE REALLY TOOK A MAJOR HIT IN THE PRESS ALL OVER THE STATE WHEN THAT IOM REPORT CAME OUT.

AND WE IMMEDIATELY GOT A REHABILITATED, ALMOST REVERSE RESPONSE ALL OVER THE STATE WHEN WE CAME OUT WITH THE RECOMMENDED CHANGES. SO THAT'S A BIT MORE OF A HISTORY.

DR. STEWARD: JUST MAYBE TO POINT OUT, I THINK THERE ARE TWO ISSUES HERE: WHAT WE DO FOR THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

REST OF THE LIFETIME OF CIRM 2.0 AND WHAT HAPPENS WITH THE NEW INITIATIVE. JUST TO POINT OUT, WE DON'T REALLY HAVE ANY INPUT DIRECTLY INTO WHAT GOES INTO THE NEW INITIATIVE. WE COULD, IF WE WISHED, EXPRESS AN OPINION. I DON'T NECESSARILY THINK THAT THIS MATTER WOULD BE THE ONLY THING THAT WE WOULD WANT TO EXPRESS AN OPINION ON SHOULD WE CHOOSE TO DO SO. BUT JUST TO POINT OUT, THERE ARE TWO THINGS. ONE IS DOING SOMETHING NOW FOR THE REST OF THAT TIME WE ARE HERE, AND THEN REALLY THE OTHER IS OUT OF OUR HANDS EXCEPT IN TERMS OF MAKING A RECOMMENDATION SHOULD WE CHOOSE TO DO SO.

MR. TORRES: SO YOU'RE ADVOCATING THAT PERHAPS WE SHOULD CONSIDER CHANGING BACK TO THE OLD PATTERN BEFORE INITIATIVE?

DR. STEWARD: I'M JUST SAYING THERE'S TWO THINGS, THAT'S ALL. I THINK THAT WE OUGHT TO MAYBE TALK ABOUT EACH OF THOSE THINGS SEPARATELY RATHER THAN HAVING A DISCUSSION THAT'S MIXING EVERYTHING UP AT THE SAME TIME. THAT'S ALL.

MR. TORRES: WHAT I DO ANTICIPATE IS OBVIOUSLY THIS HEARING IS PUBLIC NOW. WHATEVER EMERGES IN OUR REPORT, WHICH WE'LL NOT VOTE ON, WILL ALSO BE AVAILABLE TO THE PUBLIC; I.E., THE POTENTIAL AUTHORS OF THE NEW INITIATIVE. SO I THINK THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

MESSAGE WILL BE CLEAR AS TO WHAT THE INTENT IS OR THE CONSENSUS IS ON MANY OF THESE ISSUES.

AND I THINK WE WERE CHARGED, WHAT, 700,000 BY IOM, 700,000 FOR A REPORT THAT WE REQUESTED TO REVIEW US. I MIGHT ADD THAT THE HOUSE OF LORDS ALSO CAME OUT TO SAN FRANCISCO TO REVIEW US AT NO COST AND GAVE US AN INCREDIBLE REPORT. IN FACT, ONE OF THE MEMBERS OF THE HOUSE OF LORDS COMMITTEE CAME OUT TO CALIFORNIA WAS THE FIRST FEMALE HEAD OF THE JAMES BOND AGENCY IN ENGLAND BECAUSE SHE'S NOW A MEMBER OF THE HOUSE OF LORDS.

THEY WERE SO INTERESTED IN WHAT WE WERE DOING AND HOW WE WERE PROGRESSING, THAT THEY DECIDED TO COME OUT AND REVIEW US AT NO EXPENSE TO US OR THE STATE OF CALIFORNIA. SO IT'S JUST ASTONISHING TO ME. ENOUGH OF MY OPINIONS. ANY OTHER COMMENTS ON THIS ISSUE? PUBLIC COMMENT.

DR. CHIU: THANK YOU. ARLENE CHIU FROM CITY OF HOPE. I WONDERED IF IN THIS DELIBERATION, WHICH IS AN IMPORTANT ONE, WHETHER YOU WANT TO IDENTIFY THE BENEFITS OF HAVING THESE MEMBERS WHO ARE NOT ALLOWED TO VOTE TO VOTE. IS THERE ANY BENEFIT TO IT?

MR. TORRES: WHAT'S YOUR OPINION ON THAT?

DR. CHIU: I DON'T KNOW. I HAVEN'T

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FOLLOWED THE VOTING. I HEAR THAT THE PERCEPTION IS REALLY WE'RE AFRAID THE PERCEPTION MIGHT BE BLOWN UP, MAKING CIRM LOOK LIKE WE ARE NOT DEALING FAIRLY WITH THE FUNDS THAT WE ARE STEWARDS OF. BUT DID WE LOSE ANYTHING BY NOT HAVING THESE MEMBERS PARTICIPATE? THAT'S ALL.

MR. TORRES: I THINK SOME OF THE COMMENTS THAT WERE ARTICULATED EARLIER BY MR. JUELSGAARD AND MR. SHEEHY CLEARLY POINTED TO THE BENEFITS THAT WE LOST. I TOO CAN ASSOCIATE MYSELF WITH THOSE COMMENTS BECAUSE IT BROUGHT A TREMENDOUS AMOUNT OF KNOWLEDGE AND HISTORY AND ALSO A CAMARADERIE, WHICH IS SO IMPORTANT WHEN WE'RE BRINGING PATIENT ADVOCATES, SCIENTISTS, INDUSTRIALISTS, CORPORATE INTERESTS, ACADEMICS ALL IN ONE ROOM. IT IS AN ASTONISHING ACHIEVEMENT.

MR. SHEEHY: MAYBE A DATA POINT FOR DR. CHIU. WHEN WAS THE LAST TIME WE WENT INTO CLOSED SESSION TO DISCUSS AN APPLICATION? WHEN WE HAD THE ACADEMIC MEMBERS WHO REALLY WOULD DIVE INTO THE SCIENCE, WE WOULD DO THAT ROUTINELY. VIRTUALLY EVERY TIME WE REVIEWED A GRANT, WE WOULD GO INTO CLOSED SESSION. AND SO INEVITABLY WHAT WE DO IS WE UNDERMINE ONE OF THE KEY PROTECTIONS FOR OUR PEER REVIEW PROCESS AT THE GRANTS WORKING GROUP.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

NOW, THAT IS IN CLOSED SESSION AND IS A ROUTINE WITHIN THE SCIENTIFIC WORLD. WHEN WE FIRST STARTED TO OPERATIONALIZE THIS, WHICH, BY THE WAY, WAS PERMITTED EXPLICITLY IN PROP 71 BECAUSE WE DO HAVE RULES IN CALIFORNIA THAT SAY ALL MEETINGS HAVE TO BE OPEN TO THE PUBLIC, WE EXCLUDED IN PROP 71 THE GRANTS WORKING GROUP AND THE STANDARDS WORKING GROUP. WE PUSHED THE STANDARDS WORKING GROUP, WHICH WERE DEALING WITH ETHICAL ISSUES, TO ACTUALLY BE PUBLIC WHICH WAS CONTRARY TO THE NATIONAL ACADEMY OF SCIENCES AND THEIR REVIEW OF STEM CELL ETHICS RULES. AND WE FOUND OUT THAT THAT WAS MUCH MORE PRODUCTIVE, AND WE HAD ZERO CONTROVERSY IN CALIFORNIA, UNLIKE WHAT HAPPENED IN WASHINGTON AS WE WERE IMPLEMENTING THE FIRST PRACTICAL RULES FOR DOING EMBRYONIC STEM CELL RESEARCH IN THE COUNTRY BECAUSE IT WAS ALL OPEN TO THE PUBLIC.

OPPONENTS GOT TO COME AND HAVE THEIR SAY AND GOT TO HEAR WHAT WE HEARD. BUT SCIENTIFIC FUNDING BY PRACTICE, AND I THINK I'M CONVINCED BY NECESSITY, NEEDS TO TAKE PLACE IN PRIVATE. THE ONLY WAY WE CAN ENSURE THE PRIVACY OF THE GRANTS WORKING GROUP IS THAT THE ACTUAL DECISIONS, WHICH MUST BE IN PUBLIC, ARE TAKEN BY THE BOARD. AND THE ONLY WAY TO ENSURE THAT IS IF WE HAVE VIGOROUS DEBATE AT THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

BOARD. AND WITHOUT THE SCIENTIFIC ACUMEN OF THE INSTITUTIONAL MEMBERS, OUR DEBATES ARE REALLY NOT QUITE WHERE THEY WERE. IN FACT, THEY'RE SUBSTANTIALLY LESS THAN WHAT THEY WERE. AND THAT DOES, OVER THE LONG COURSE OF A REFUNDED CIRM, THREATEN, I THINK, THE ABILITY TO KEEP THE GRANTS WORKING GROUP DELIBERATIONS SECRET BECAUSE THEY END UP BEING THE DE FACTO DECISION MAKERS BECAUSE WE DON'T UTILIZE THE FULL REPERTOIRE OF BRAIN POWER THAT WE HAVE TO BEAR ON THE ISSUE, ESPECIALLY THOSE MOST EXPERIENCED IN THE SCIENCE. I THINK A LOT OF THE INDUSTRY FOLKS ARE AT THAT SAME LEVEL, BUT WE LOSE A LOT OF THE BOARD, AND A LOT OF THE PATIENT ADVOCATES ARE VERY SOPHISTICATED IN SCIENCE, BUT STILL THE PEOPLE WHO HAVE -- THE INSTITUTIONAL PEOPLE JUST ADDED THAT EXTRA BIT THAT LED TO SOME EXTRAORDINARILY ROBUST DISCUSSIONS THAT WE SIMPLY DON'T HAVE ANYMORE.

DR. JUELSGAARD: I THINK JEFF REALLY SAID A LOT OF WHAT I WOULD SAY. I THINK FOR ME IT BOILS DOWN TO PARTICIPATION. AND I KNOW, J.T., YOU INDICATED THAT THE NONVOTING MEMBERS COULD STILL SPEAK UP, THEY JUST COULDN'T VOTE. TO BE QUITE HONEST WITH YOU, I DON'T REMEMBER THE LAST TIME ONE OF THE NONPARTICIPATING MEMBERS DID SPEAK UP -- THIS

IS JUST ECHOING WHAT JEFF SAID -- AND I CAN UNDERSTAND THAT. IF YOU DON'T HAVE A STAKE IN THE VOTING, WHY GO TO ANY EFFORT TO MAKE ANY COMMENT? IT'S JUST HARDLY WORTH IT IF YOU DON'T HAVE ANYTHING THAT'S GOING TO MAKE A DIFFERENCE.

I THINK WE'VE LOST IN PARTICIPATION OF SOME VERY VALUABLE PEOPLE WHOSE INSIGHTS I TRULY RESPECTED, AND I THINK WE'RE SEEING THAT AT THE PARTICIPATION AT THESE BOARD MEETINGS BOTH IN TERMS OF PERSONAL PARTICIPATION THAT IS SHOWING UP OR BEING ON THE PHONE, BUT ALSO IN DISCUSSION AROUND APPLICATIONS. SO FOR ME THAT'S BEEN A BIG LOSS.

THIS HAS BEEN, AS I LOOK BACK ON IT, A BIT OF AN EXPERIMENT FROM MY POINT OF VIEW. ALL RIGHT. WELL, THEN LET'S JUST TRY THIS APPLICATION REVIEW SUBCOMMITTEE AND SEE HOW IT ALL GOES AS OPPOSED TO A DEFINITIVE FIX. AND FROM MY POINT OF VIEW, I WOULD END THE EXPERIMENT AND GO BACK TO THE WAY THINGS WERE IF I COULD WAVE THE MAGIC WAND.

MR. TORRES: THANK YOU, ANY OTHER COMMENTS ON THIS ISSUE? MR. TOCHER.

DR. MARTIN: I'M CONCERNED THAT WE ARE IN A VULNERABLE POSITION FOR THE 2.0, THAT PERCEPTION OF THE PERCEPTION OF A COI COULD REALLY DAMAGE US. I THINK, AS J.T. SAID, AND I THINK THAT MOST

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

IMPORTANT RIGHT NOW TO THE FIELD AND TO CALIFORNIA IS TO GET THIS 2.0 FUNDED. AND I WORRY ABOUT THAT VULNERABILITY. WE ARE BEING RATIONAL. THE VOTERS AND THE PRESS WILL NOT BE RATIONAL ABOUT THIS, AND YOU CAN ALMOST BE GUARANTEED OF THAT JUST BECAUSE OF THE HISTORY, I'M AFRAID.

MR. TORRES: I HAVE A LITTLE MORE CONFIDENCE IN THE VOTERS, AND I PRAY FOR THEM EVERY DAY. ANY OTHER COMMENTS?

DR. MARTIN: MOST EFFECTIVE THING YOU COULD DO.

MR. TORRES: ANY OTHER COMMENTS ON THIS ISSUE?

DR. PRIETO: FOURTEEN YEARS AGO THE VOTERS WERE PRETTY RATIONAL AND HOPEFUL, AND I THINK WE GAVE THEM REASON TO HOPE. THAT WOULD BE THE KEY PART OF ANY CAMPAIGN.

DR. MALKAS: EVEN MORE NOW WITH THE TRACK RECORD OF HOPE.

MR. TORRES: ALL RIGHT. MR. TOCHER.

MR. REED: I REMEMBER DISTINCTLY IT'S BEEN AN IMPORTANT ISSUE, AND I THOUGHT THAT J.T. WAS SMART TO SAY, ALL RIGHT, WE'RE GOING TO TAKE THIS BOLD STEP. AND HE DID AND THERE WAS A SMALL, BUT REAL COMMENT IN RETURN FROM IOM. THEY BASICALLY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SAID, WELL, THAT'S OKAY, BUT THEY WEREN'T ENTHUSIASTIC. AND ALSO I'VE NOTICED A LOT OF NEWSPAPER REPORTS ABOUT THE POSSIBILITY OF CIRM COMING BACK AGAIN. IN ALMOST EVERY ONE OF THEM, THE OPPONENTS MENTION THAT THEY ARE NOT SOLVED. THEY'RE NOT HAPPY WITH IT. THOSE WHO WERE OPPOSED TO US BEFORE WILL BE OPPOSED TO US AGAIN.

I ALSO REALLY WANT TO HAVE THE EXPERTISE THAT WE HAVE ON THIS BOARD TO BE FULL FREE. FOR INSTANCE, DR. STEWARD IS ONE OF THE MOST BRILLIANT MEN IN SPINAL CORD INJURY IN THE WORLD, BUT I CAN'T REMEMBER THE LAST TIME HE ACTUALLY SAID SOMETHING ABOUT SPINAL CORD INJURY BECAUSE HE'S BEING CAREFUL AND CAUTIOUS. I THINK WE HAVE GONE TOO FAR THE OTHER WAY AND THAT WE SHOULD CONSIDER GOING BACK.

MR. TORRES: THANK YOU. ANY OTHER PUBLIC COMMENT AT ANY OF OUR SITES? THERE BEING NONE, MR. TOCHER.

MR. TOCHER: I'LL TRY TO FIND SOMETHING THAT SPARKS A LITTLE MORE CONVERSATION.

THIS IS INSPIRED BY A SUGGESTION AND OBSERVATION BY MEMBER SHEEHY.

MR. TORRES: ON THIS POINT, I THINK IT'S SELF-EXPLANATORY, BUT I THINK IT'S IMPORTANT FOR DR. MILLAN TO INDICATE WHAT WE HAD DISCUSSED AT THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

HEARING, THAT TO TAKE AN ALTERNATIVE PATH, IF THAT'S OKAY WITH YOU.

MR. TOCHER: ALTERNATIVE PATH TO?

MR. TORRES: TO RECOMMENDATIONS.

MR. TOCHER: I HAVE THAT INDICATED THERE.

MR. TORRES: RIGHT. YOU INDICATED THAT, AND I WANTED DR. MILLAN TO RESPOND TO THAT.

DR. MILLAN: I THINK THE BOARD APPROPRIATELY HAS TAKEN THIS UP AS A CONSIDERATION FOR COMMENT AND REFLECTION. AS YOU MAY RECALL, THIS BOARD APPROVED THE CONCEPT FOR A PUBLIC PRIVATE PARTNERSHIP INITIATIVE UNDER DR. MILLS, MY PREDECESSOR. THE PURPOSE OF THAT WAS TO STIMULATE AND ACCELERATE A PARTNERSHIP WITH INDUSTRY TO BRING OUR PROGRAMS TO COMMERCIALIZATION.

MANY OF YOU WERE INVOLVED. WE'VE DRAWN EXPERTISE BOTH FROM THIS BOARD AS WELL AS EXTERNAL ADVISORS IN TERMS OF THE BEST STRUCTURE FOR THIS. WE CAME UP WITH AN EXTREMELY CREATIVE STRUCTURE; BUT DESPITE ALL OF THAT, WHAT CAME IN OUR WAY IS THAT CIRM CANNOT HOLD EQUITY. AND WHAT HAPPENED WAS THAT MOST PARTNERSHIPS WITH INDUSTRY IN THE PRIVATE SECTOR REALLY, THAT COMPONENT IS SOMETHING THAT'S FUNDAMENTAL TO DEAL STRUCTURES. SO THAT, IN SHORT, GOT IN OUR WAY, AND WE HAD THE CONCEPT APPROVED. WE

HAD A LOT OF INTEREST ACTUALLY FROM POTENTIAL INDUSTRY PARTNERS; HOWEVER, WHAT GOT IN THE WAY IS THAT WE NEEDED TO STRUCTURE THIS TO GET AROUND THIS ISSUE OF CIRM NOT ACTUALLY BEING ABLE TO OWN EQUITY.

SO WE CREATED A STRUCTURE THAT REQUIRED, IT WAS VERY COMPLEX, WHICH INCORPORATED A DEBT KIND OF ENGINE, AND THAT WOULD BE CONVERTED ONCE THINGS PANNED OUT. SO THAT, I THINK, WAS A GENESIS FOR THIS DISCUSSION.

IN THE COURSE OF THE FUND-RAISING EFFORTS AND DISCUSSION, J.T., OUR CHAIRMAN, HAD MET WITH MANY DIFFERENT STAKEHOLDERS. AND THERE ARE SOME MODELS OUT THERE FOR PUBLIC PRIVATE PARTNERSHIPS, AND THE FEEDBACK THAT WE GET BACK IS IT'S JUST TOO BAD THAT CIRM WASN'T ABLE TO HAVE THIS EQUITY POSITION IN OUR PROGRAMS THAT COULD BENEFIT THE WHOLE EFFORT BY BEING ABLE TO DRAW ON SUCCESS OF THESE PROGRAMS TO BRING IT BACK AND FUND OTHER RESEARCH PROGRAMS. AND THERE ARE OTHER ENTITIES OUT THERE, NONPROFIT AGENCIES, THAT HAVE BEEN ABLE TO BENEFIT ONCE ONE OF THEIR PROGRAMS WENT INTO THE COMMERCIAL SPACE AND BECAME A SUCCESS. SO THAT'S KIND OF THE BACKDROP TO THIS DISCUSSION.

MR. TORRES: SO YOUR INTENT IS TO PURSUE THIS ISSUE INTERNALLY, AT LEAST FOR THE TIME BEING,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

AS WE MOVE FORWARD, BUT I WANTED TO GIVE OPPORTUNITY FOR JEFF, SINCE HE'S THE ONE WHO SUGGESTED IT TO BE PLACED ON THE AGENDA, TO GIVE US YOUR OPINIONS.

MR. SHEEHY: THANK YOU, SENATOR TORRES. I WAS REALLY LOOKING AT THE ATP PARTNERING INITIATIVE AND THAT EXPERIENCE. ALSO, WHEN WE WERE DEVISING OUR A LOAN PROGRAM, WHICH WAS FRANKLY NOT A SUCCESSFUL PROGRAM, IN BOTH INSTANCES WE WERE HAMPERED BECAUSE, ESPECIALLY FOR SMALL COMPANIES, WHICH IS TYPICALLY WHO WE WOULD BE PARTNERING WITH, DEBT IS ANATHEMA; WHEREAS, EQUITY, THEY CAN HAND OUT. AND THINGS DON'T GO WELL, WELL, THAT'S EQUITY, BUT DEBT HAS TO BE REPAID, HAS TO BE CARRIED ON THEIR BALANCE SHEETS, AND ALSO AFFECTS THEIR ABILITY TO OBTAIN FUTURE FUNDING. SO THAT'S POISON.

AND REFLECTING THAT, NO. 1, I DO THINK THE WORK THAT WE ARE DOING HAS THE POTENTIAL TO PRODUCE REVENUE. I THINK THAT'S CLEAR. AND SO TO MAKE SURE THAT WE CAN CAPTURE THAT REVENUE, NOT JUST SO THAT CIRM CAN GET FUNDING THROUGH THIS MECHANISM, BUT ALSO SO WE CAN GIVE A REAL RETURN TO THE STATE. EQUITY GIVES US THAT OPPORTUNITY TO SEE HUGE MULTIPLES OF RETURN. THEY'RE RARE, BUT I THINK WITH THE INVESTMENTS THAT CIRM, BOTH THIS ITERATION, BUT CERTAINLY IN THE SECOND ITERATION, IT WOULD BE GREAT

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

TO CAPTURE THAT AND LET THE VOTERS SEE THAT WE ARE REALLY PRODUCING REAL RETURNS FOR THEM, JUST ONE PRODUCT.

I THINK ABOUT THE FOLKS WHO DEVELOPED, IF YOU'RE IN THE HEPATITIS C SPACE AND YOU KNOW GILEAD HAS MAYBE THE BEST SELLING COMBINATION DRUG. ONE OF THE DRUGS IN THE COMBINATION WAS DEVELOPED IN A RESEARCH SETTING AND THEN WENT TO A SMALL BIOTECH, WHICH WAS SOLD FOR LIKE 10 TO $15 BILLION. ONE OF THOSE, I THINK, WOULD BE A VERY CLEAR INDICATION TO THE VOTERS OF THE VALUE WE ARE CREATING. IN ORDER TO CAPTURE THAT VALUE, WE HAVE TO BE PART OF THAT GAME, AND WE CAN'T BE PART OF THAT GAME UNLESS WE CAN HOLD EQUITY.

SO THAT'S THE DILEMMA. AND THE CONSTITUTION OF THE STATE OF CALIFORNIA SAYS THAT THE STATE CAN'T HOLD EQUITY, AS I UNDERSTAND IT.

CHAIRMAN THOMAS: RIGHT.

MR. TORRES: MR. JUELSGAARD, YOU WERE VERY CONTEMPLATIVE. I DIDN'T KNOW IF YOU HAD A RESPONSE.

DR. JUELSGAARD: NO. DURING THIS MEETING THAT WE HAD, THE GOVERNANCE AND SCIENCE COMMITTEE, IT'S VERY COMMON THESE DAYS. I HAD TWO RECENT EXPERIENCES, ONE WITH STANFORD AND ANOTHER WITH UCSF. BEING LICENSING INSTITUTIONS, THAT IS

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

LICENSING OUT TECHNOLOGY THAT THEY HAD, AND IN BOTH INSTANCES BOTH ORGANIZATIONS RETAINED EQUITY AS PART OF THAT LICENSING ARRANGEMENT.

SO I CAN'T SPEAK FOR OTHER INSTITUTIONS IN THE STATE, BUT CERTAINLY THOSE TWO DO THAT AS A MATTER OF PRACTICE. SO I'M A LITTLE CONFUSED WHY UCSF, WHICH I THINK HAS SOME RELATIONSHIP TO THE STATE, IS ABLE TO ENGAGE IN THAT KIND OF PRACTICE AND WE ARE PRECLUDED. SO I'M NOT QUITE SURE I UNDERSTAND THE BASIC WORKINGS OF THE LAW. NONETHELESS, I AGREE WITH JEFF. IT WOULD BE, I THINK, VERY WORTHWHILE TO HAVE THAT ABILITY AND TO FIX WHATEVER NEEDS TO BE FIXED IN ORDER FOR THAT TO TAKE PLACE.

MR. TOCHER: MR. JUELSGAARD RAISES A GOOD POINT. THE CONSTITUTION MAKES SORT OF TWO EXCEPTIONS TO THAT RULE GENERALLY. ONE IS THE UNIVERSITY OF CALIFORNIA CREATES IT AS A PUBLIC TRUST AND CREATES ALL SORT OF GOVERNING AUTHORITY AND POWER AND VESTS IT WITH THE UC REGENTS. AND SO IT DERIVES ITS AUTHORITY TO ENTER IN SUCH TRANSACTIONS IN THAT WAY.

THE OTHER IS CALPERS, OF COURSE, AND OTHER PUBLIC EMPLOYEE RETIREMENT FUNDS, WHICH ALSO ARE EXPRESSLY EXEMPTED FROM THE GENERAL PROHIBITION

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

AGAINST HOLDING STOCK.

MR. TORRES: SO IT WOULD REQUIRE SEPARATE LEGISLATION IF IT WERE NOT INCLUDED IN THE INITIATIVE TO PROCEED ALONG THESE LINES.

MR. TOCHER: IT WOULD REQUIRE A CONSTITUTIONAL AMENDMENT.

MR. TORRES: RIGHT. REQUIRE A CONSTITUTIONAL AMENDMENT, WHICH IS WHY IF WE WERE TO THINK OF THIS CONCEPT IN RECOMMENDING IT BE PLACED IN THIS INITIATIVE FOR 2020, THAT WOULD MEAN THAT THE AUTHORS HAVE TO COLLECT 900,000 SIGNATURES AS OPPOSED TO 600,000 SIGNATURES TO QUALIFY FOR THE BALLOT SINCE IT WOULD BE A CONSTITUTIONAL AMENDMENT, NOT A GENERAL STATUTE. AM I CORRECT?

MR. TOCHER: THAT'S CORRECT.

CHAIRMAN THOMAS: SO JUST FOR THE FULL BOARD'S CLARIFICATION, WHEN WE ARE TALKING ABOUT ABILITY TO HOLD EQUITY, IS THAT CIRM HOLDS EQUITY AS A MEANS OF GENERATING EVERGREENING REVENUE FOR CIRM TO PUT OUT FURTHER MONEY, OR IS IT HOLDING EQUITY ON BEHALF OF THE STATE'S GENERAL FUND WHERE EQUITY RETURNS WILL GO BACK TO THE GENERAL FUND?

MR. SHEEHY: MY POSITION IS THAT WE SHOULD ACHIEVE BOTH. I DO THINK, BECAUSE WE HAVE OBTAINED BOND FUNDING THAT IS BEING REPAID OUT OF THE GENERAL

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FUND, THAT WE HAVE AN OBLIGATION TO RETURN FUNDING TO THE GENERAL FUND. BUT I ALSO THINK THAT THIS INSTITUTION HAS VALUE, AND WE'VE DEMONSTRATED OUR VALUE. SO A CONTINUED SOURCE OF FUNDING FOR THIS INSTITUTION IS ALSO IMPORTANT. SO I WOULD SEEK TO ACHIEVE BOTH GOALS IN SOME PROPORTION.

MR. TORRES: ROYALTIES.

MR. SHEEHY: IT'S JUST A QUESTION OF PROPORTION.

DR. MALKAS: IN A WAY COULDN'T YOU FOLD THIS IN AS A SUSTAINABILITY MODEL?

MR. TORRES: SORRY, DOCTOR. I HAVE TO INTRODUCE YOU TO SPEAK. DR. MALKAS.

DR. MALKAS: COULDN'T WE PUT THIS IN AS THE LANGUAGE AROUND IT BEING A SUSTAINABILITY MODEL? SO IN A WAY THIS STATE IS WINNING, SO THEY PUT THEIR INITIAL INVESTMENT IN, BUT THE CIRM IS KEEPING ITSELF ALIVE.

MR. TORRES: I THINK THAT'S A FUTURE DISCUSSION WHICH NEEDS TO TAKE PLACE. I DON'T THINK -- IF THAT'S WHAT YOU SUGGEST TO THE AUTHORS, THEN YOU'RE GOING TO HAVE TO COME UP WITH ANOTHER 3 MILLION TO COLLECT 300,000 MORE SIGNATURES. THAT'S THE PROBLEM.

MR. SHEEHY: CAN I JUST MAKE A POINT TO

THAT? I THINK PART OF IT HAS TO DO WITH THE GENESIS OF CIRM AND PROP 71, WHICH EXPLICITLY PROMISED A RETURN TO THE STATE. IF YOU LOOK AT OUR INTELLECTUAL PROPERTY POLICIES, THEY'RE VERY SPECIFIC, THAT THE ATTACHMENTS WE DO HAVE ON IP THAT'S GENERATED RETURNS TO THE STATE. SO THE ONLY TIME WE'VE EVER BEEN ABLE TO CONTEMPLATE TO CIRM A DIRECT RETURN HAS BEEN IN THE CONTEXT OF LOANS AND THEN WITH ATP3.

SO I THINK THE RETURN TO THE STATE HAS TO BE A SIGNIFICANT PART OF WHATEVER RETURN WE GET, BUT I ALSO THINK THAT IT DOES MAKE SENSE TO SUSTAIN CIRM AND TO EVERGREEN IT.

MR. TORRES: THE OTHER OPTION, OF COURSE, IS THAT, AS MANY OF YOU MAY KNOW, THERE ARE TWO WAYS TO PROCEED AN INITIATIVE ON THE BALLOT. ONE, THROUGH THE GATHERING OF SIGNATURES OR THROUGH THE LEGISLATURE. AND THIS OTHER ALTERNATIVE THAT WE'RE TALKING ABOUT NOW MIGHT BE A MINUTE CHANGE THAT WOULD FIND FAVOR WITHIN THE LEGISLATIVE PROCESS AND EASY TO GET ON THE BALLOT AS OPPOSED TO A WHOLE INITIATIVE, WHICH HAS BEEN MY INTENT FROM THE BEGINNING AS WE'VE HAD THIS DISCUSSION. LET'S AVOID THIS IN 2020, BUT LET'S NOT AVOID IT AFTER WE WIN, WHICH WE WILL, TO MOVE FORWARD ON THIS OTHER ISSUE

WHICH WE CAN DO SO MUCH EASIER WITHIN THE LEGISLATIVE PROCESS, AND I THINK WITH MUCH RECEPTION THAT WOULD BE FAVORABLE TO US AND TO THE PEOPLE OF CALIFORNIA.

DR. PRIETO: ARE YOU SUGGESTING THAT WE DON'T SUGGEST TO THE AUTHORS THAT THIS BE PUT AS PART OF AN INITIATIVE?

MR. TORRES: NO, I DO NOT THINK THAT WOULD BE FAIR TO THE PEOPLE THAT ARE TRYING TO RAISE THE MONEY TO COLLECT THE SIGNATURES AND THEN NOW PUTTING AN ADDITIONAL HEAVIER BURDEN FOR MORE SIGNATURE COLLECTION WHEN WE DON'T NEED TO DO THAT RIGHT NOW.

DR. PRIETO: SO WOULD YOU BE SUGGESTING AS THIS LEGISLATIVE SOLUTION THAT THE LEGISLATURE PUT FORWARD AN INITIATIVE ALL ENCOMPASSING TO SUPPORT THE CONTINUED EXISTENCE OF CIRM --

MR. TORRES: NO.

DR. PRIETO: -- INCLUDING OR SEPARATELY TO ADDRESS THIS ISSUE AFTER?

MR. TORRES: AFTER.

DR. PRIETO: I JUST WONDER. I REALIZE IT WOULD CREATE --

MR. TORRES: 2020-2021 LEGISLATIVE SESSION IF WE DECIDE, AFTER HAVING MORE DISCUSSION, IT'S NOT GOING TO BE THE END OF OUR DISCUSSIONS ON THIS

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

ISSUE, AFTER WE THINK THAT'S A GOOD IDEA, THEN WE CAN APPROACH THE LEGISLATURE AND SAY WE'D LIKE FOR YOU TO CONSIDER THIS CHANGE, BUT IT'S STILL A BIG IF.

DR. PRIETO: I THINK IT'S CLEARLY A GOOD IDEA. IT WOULD PUT A BURDEN ON THE INITIATIVE AND SIGNATURE GATHERING; HOWEVER, IT WOULD ALSO CREATE A VERY EXPLICIT POSITIVE OUTCOME IN THE EVENT THERE WAS A SUCCESSFUL VOTE. AND IT WOULD PUT IT FORWARD AS PART OF THE CAMPAIGN THAT WE'RE GOING TO BE, AND BASED ON OUR EXPERIENCE, WE'RE GOING TO CREATE A MECHANISM TO GUARANTEE THAT THESE THERAPIES THAT ARE GOING FORWARD RETURN SOMETHING TO THE PEOPLE OF CALIFORNIA.

MR. TORRES: THAT'S GOOD TO SAY. HAVING RAISED MILLIONS OF DOLLARS AS CHAIRMAN OF THE DEMOCRATIC PARTY, IT IS NOT EASY TO RAISE MONEY IN THIS STATE AND CERTAINLY NOT EASY TO RAISE MONEY FOR SIGNATURE GATHERING.

DR. BLUMENTHAL: I JUST WANT TO SECOND WHAT MR. SHEEHY SAID A FEW MINUTES AGO, THAT WHEN THIS PROPOSITION ORIGINALLY PASSED, THERE WAS A LOT OF ADVERTISING TO THE EFFECT THAT THIS WOULD STIMULATE THE ECONOMY IN CALIFORNIA BY GENERATING NEW COMPANIES, NEW START-UPS, AND NEW TECHNIQUES.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SO THAT CLEARLY DID MATTER TO THE VOTERS OF CALIFORNIA.

I THINK THE POINT THAT YOU MAKE, SENATOR TORRES, ABOUT THE DIFFICULTY OF DOING A CONSTITUTIONAL AMENDMENT AS OPPOSED TO AN INITIATIVE IS A REALLY GOOD ONE. I GUESS MY QUESTION IS ONE THING WE HAVEN'T DISCUSSED IS THE POSSIBILITY OF CREATING A SEPARATE ENTITY THAT COULD ACTUALLY HOLD EQUITY THAT'S SEPARATE -- IT'S ONE OF THE BULLET POINTS, BUT WE HAVE NOT DISCUSSED THAT YET IN THIS DISCUSSION, AND I'D BE INTERESTED IN KNOWING IF THAT'S A FEASIBLE WAY OF ACHIEVING THESE ENDS WITHOUT NECESSARILY JUMPING THROUGH ALL OF THOSE HOOPS.

MR. TORRES: JEFF, YOU WANTED TO RESPOND.

MR. SHEEHY: I BELIEVE, IF I'M CORRECT, THE WAY WE LEFT THE COMMITTEE MEETING WAS THAT A SMALL GROUP WOULD BE WORKING TO LOOK AT THAT POSSIBILITY. AND ONE OF THE THINGS THAT I BROUGHT UP IS POTENTIALLY PARTNERING IN SOME FASHION WITH THOSE ENTITIES THAT CAN HOLD EQUITY, SPECIFICALLY PERS, FOR INSTANCE, CAN HOLD EQUITY WHICH THE TREASURER IS HEAVILY INVOLVED WITH. BUT TO ACTUALLY CONTINUE TO WORK THIS IDEA TO SEE IF THERE'S A WAY WE CAN DO IT WITHOUT HAVING TO MAKE ANY FORMAL

CHANGES TO THE CONSTITUTION.

MR. TORRES: THAT'S WHAT I MENTIONED EARLIER WHEN I HAD DR, MILLAN MAKE HER COMMENTS WAS THAT WE WERE LOOKING AS A COMMITTEE TO AN ALTERNATIVE PATHWAY TO GIVE US A MUCH MORE IN-DEPTH REVIEW OF ALL THAT'S ON THE TABLE. AND NONE OF THIS, OF COURSE, IS DEFINITIVE. IT'S STILL IN OUR DISCUSSION STAGES.

ALL RIGHT. MR. TOCHER, MOVING RIGHT ALONG. AND SPEAKING OF EQUITY, HERE IS THE NON SEQUITUR THAT A STATE AGENCY CAN OWN AN OFFICE BUILDING AS EQUITY, AND WE'RE GOING THROUGH THAT RIGHT NOW BECAUSE MY OTHER HAT AS A MEMBER OF THE COVER CALIFORNIA BOARD, WE'RE GOING THROUGH THAT RIGHT NOW AND DISCUSSING WHAT BUILDINGS WE'RE GOING TO BUY IN SACRAMENTO BECAUSE WE HAVE OUTPACED OUR SIZE THERE ON EXPOSITION BOULEVARD. I THOUGHT, WAIT A MINUTE, THE STATE AGENCY CAN OWN A BUILDING, BUT WE CAN'T DO THIS FOR OUR PATIENTS. IT'S RIDICULOUS. I'M SORRY, MR. TOCHER. I DIDN'T WANT TO TAKE ALL YOUR --

MR. TOCHER: NOTHING TO ADD EXCEPT JUST A REPORT FROM THE SUBCOMMITTEE, THAT THE NOTION HERE IS TO SORT OF, GIVEN THE UNIQUE STRUCTURE OF CIRM HAVING A VERY LIMITED ADMINISTRATIVE BUDGET THAT'S

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CAPPED AT 6 PERCENT AND GIVEN THE EXTRAORDINARY COSTS THAT ARE ASSOCIATED WITH CIRM'S OFFICE SPACE AND SUCH, WHICH CURRENTLY NOW COMES OUT OF OUR ADMINISTRATIVE BUDGET, THE NOTION IS PERHAPS TO HAVE THE NEW MEASURE TAKE THIS OUT OF THE ADMINISTRATIVE BUDGET AND SEPARATELY ASCRIBE FUNDS TO ALLOW CIRM TO OBTAIN HEADQUARTERS MOVING FORWARD AND NOT HAVE IT BE PART OF THE BUDGET. THE SUBCOMMITTEE SEEMED ENTHUSIASTIC.

MR. TORRES: AT THE END OF THE DAY, AS I FOUND OUT IN OUR DISCUSSIONS WITH COVER CALIFORNIA, PURCHASING BUILDINGS BY A STATE AGENCY IS A DIRECT BENEFIT TO THE STATE AT THE END OF THE DAY BECAUSE WE ARE MAINTAINING AN ASSET. YES, WE'RE MAKING MORTGAGE PAYMENTS, BUT THE VALUE OF THAT PROPERTY IS INCREASING, AND AT SOME POINT THAT PROPERTY MAY BE SOLD. WHO'S TO BENEFIT, BUT THE TAXPAYERS. I THINK THIS IS A VIBRANT DISCUSSION.

ANYTHING ELSE ON THIS ISSUE? ANY PUBLIC COMMENT? ANY OF OUR SITES? MR. TOCHER.

MR. TOCHER: THE NEXT IS SURROUNDING OUR ADMINISTRATIVE BUDGET -- WE'RE JUST GOING TO RESTART THE PRESENTATION SO THAT YOU CAN FOLLOW ALONG ONLINE.

LET ME JUST SUMMARIZE IT. THIS IS AN ITEM

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THAT PERTAINS TO CIRM'S ADMINISTRATIVE BUDGET. PROP 71 INITIALLY CAPPED CIRM'S FULL-TIME EMPLOYEES AT 50 AND ITS ADMINISTRATIVE BUDGET, AS I JUST MENTIONED, AT 6 PERCENT OF THE BOND PROCEEDS. SUBSEQUENT LEGISLATION INCREASED THE CAP ON THE NUMBER OF FULL-TIME EMPLOYEES, BUT THE 6-PERCENT CAP REMAINS, WHICH, OF COURSE, PLACES CHALLENGES ON CIRM'S ABILITY TO FULFILL ITS ADMINISTRATIVE FUNCTION AND MISSION.

ONE OF THE WAYS THAT THIS HAS COME TO PASS IS WHEN CIRM ADMINISTERS ITS FUNDS, AS YOU KNOW, WITH REGARD TO, FOR INSTANCE, OUR CLIN AND TRAN PROGRAMS, MANY OF THESE PROGRAMS NOW ARE MILESTONE DRIVEN, SO PAYMENTS ON PROGRAMS AREN'T MADE ALL AT ONCE BUT UPON ACHIEVEMENT OF MILESTONES THAT ARE ESTABLISHED BEFORE THE AWARD IS CONTRACTED. WHAT THAT MEANS IS SOMETIMES THOSE AWARDS, IF THEY FAIL TO REACH THOSE MILESTONES AND THE PROGRAM ENDS, CIRM IS ALLOWED TO RECOVER THOSE FUNDS AND REDEPLOY THEM TO NEW AWARDS. UNFORTUNATELY THE 6-PERCENT CAP DOESN'T APPLY TO THOSE NEW, IN QUOTES, RECOVERED FUNDS. NEVERTHELESS, THERE'S AN ADMINISTRATIVE BURDEN THAT CONTINUES HAPPILY WITH US ABLE TO REDEPLOY THOSE FUNDS.

ONE OF THE IDEAS WAS TO ALLOW AN

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

ADDITIONAL 6 PERCENT OR SOME PERCENTAGE ON REDEPLOYED AND RECOVERED FUNDS TO ENSURE THAT WE'RE ABLE TO MAINTAIN THE NECESSARY INFRASTRUCTURE MOVING FORWARD.

AND ANOTHER IDEA THAT CAME OUT OF THE SUBCOMMITTEE AND THE DISCUSSION OF THIS ITEM WAS ALSO HAVING, WHICH WOULD BE ALLOCATED OUT OF THE RESEARCH BUDGET, WOULD BE A PERIODIC SCIENTIFIC-BASED MEETING EVERY, SAY, THREE OR FOUR YEARS THAT WOULD LOOK AT THE SCOPE OF THE CIRM PORTFOLIO, THE STATE OF THE SCIENCE, AND DISCUSS HOW AND WHAT AREA CIRM SHOULD BE FOCUSING ON IN THE FUTURE. AND THAT SUCH A LARGE MEETING WOULD BE APPROPRIATED FROM RESEARCH FUNDS AS OPPOSED TO OUR ADMINISTRATIVE FUNDS.

MR. TORRES: COMMENTS?

MR. SHEEHY: I JUST WANTED TO MAKE ONE ON THE 6 PERCENT. WHAT ARE WE RETURNING ON CLINICAL GRANTS NOW, 10 TO 20 PERCENT COMES BACK? DO YOU KNOW, DR. MILLAN?

DR. MILLAN: I'LL HAVE GABE THOMPSON RESPOND TO THAT. IT'S BEEN BOUNCING AROUND -- GO AHEAD.

MR. THOMPSON: IN RECENT YEARS IT'S BEEN 30 --

MR. TORRES: IDENTIFY YOURSELF.

MR. THOMPSON: GABRIEL THOMPSON, VICE PRESIDENT OF GRANTS AND OPERATIONS.

IT'S BEEN ABOUT 30 TO $40 MILLION PER CALENDAR YEAR THAT WE'VE BEEN GETTING. OBVIOUSLY THAT NUMBER WILL GO DOWN AS WE ISSUE LESS AWARDS, BUT IT'S SUBSTANTIAL.

MR. SHEEHY: SO WE'RE INTERNALLY DISINCENTIVIZING CLOSING OUT THESE GRANTS BECAUSE WE ARE ADDING TO THE WORKLOAD WITHOUT ADDING TO THE ADMINISTRATIVE REIMBURSEMENT BECAUSE THE NEW MONEY THAT COMES IN WHICH WE CAN REALLOCATE WE NO LONGER CAN TAKE 6 PERCENT TO ADMINISTER THAT GRANT. SO THIS IS A DEFECT.

I TALKED TO DR. MILLS ABOUT THIS A COUPLE YEARS AGO WHEN WE WERE LOOKING AT WHERE WE WERE HEADING AND THAT THE ADMINISTRATIVE PIECE IS CAPPED. SO I THINK THIS WOULD BE A GREAT CHANGE TO MAKE.

MR. TORRES: ALL RIGHT. ANY OTHER COMMENTS? ANY PUBLIC COMMENTS FROM OTHER SITES? NO. THANK YOU.

DR. STEWARD: I'M JUST CURIOUS. I THINK THIS 6-PERCENT NUMBER WAS SORT OF OUT OF THE HAT. AND I'M JUST CURIOUS IF THAT NUMBER ACTUALLY MAKES SENSE, LOOKING IN RETROSPECT, OR IS THAT SOMETHING

THAT OUGHT TO ALSO BE DISCUSSED AS PART OF THIS?

MR. TORRES: ANYBODY HAVE AN ANSWER? WE WILL TAKE THAT IN ABEYANCE. WE'LL TAKE IT UNDER SUBMISSION, COUNSELOR. ANY OTHER COMMENTS ON THIS ISSUE? MAKE IT QUICK NOW. WANT TO GET THIS OVER WITH.

CHAIRMAN THOMAS: THANK YOU, SENATOR TORRES.

I THINK IT WAS JUST SORT OF A RANDOM NUMBER THAT BOB PICKED ORIGINALLY, WANTED TO MAKE IT SOMETHING THAT WAS WAY BELOW THE NUMBERS THAT YOU ARE USED TO SEEING IN TERMS OF ADMINISTRATIVE BURDEN, WHICH ARE TYPICALLY 12 PERCENT OR WHATEVER. I DON'T KNOW IF RAISING IT TO 7 PERCENT OR WHATEVER WOULD MAKE A BIG DIFFERENCE. YOU'VE STILL GOT A BIG DELTA THERE, AND THAT, OF COURSE, WOULD REALLY BE A MATERIAL ADD TO HELP ON THE ADMINISTRATIVE SIDE IF YOU DID SO. I DO THINK IT'S AN ISSUE THAT WARRANTS FURTHER DISCUSSION.

MR. TORRES: ALL RIGHT.

MR. SHEEHY: I'LL MAKE IT QUICK. I THINK WE'VE DONE WELL. I THINK THIS IS ONE OF THE MAJOR SELLING POINTS FOR CIRM IS THAT WE'VE CREATED IMPRESSIVE OUTCOMES. THE NIH IS NOW PARTNERING WITH US USING OUR SYSTEMS THAT WE DEVELOPED AT MUCH LOWER

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

COST PER DOLLAR EXPENDED THAN THEY DO. SO I DON'T THINK THE AMOUNT THAT THEY SPEND ON ADMINISTRATION COMPARES FAVORABLY TO OURS GIVEN OUR MRU WE JUST SIGNED WITH THEM. I THINK THAT THAT IS A MAJOR SELLING POINT ACTUALLY FOR CIRM.

MR. TORRES: OKAY. MR. TOCHER, NEXT, SCOPE.

MR. TOCHER: I THINK JUST TO THE POINT THAT JEFF JUST MADE WITH REGARD TO OUR RECENT PARTNERING AND LEVERAGING OF RESOURCES WITH NIH, THIS PERTAINS TO THE SCOPE OF THE SCIENCE THAT'S FUNDED, WHICH IS DESCRIBED IN THE INITIATIVE. AND IT INDICATES, OF COURSE, THAT PROP 71 IS TO FUND STEM CELL RESEARCH AND OTHER VITAL RESEARCH OPPORTUNITIES. AND IT ESTABLISHES A PRIORITY FOR PLURIPOTENT AND PROGENITOR CELL RESEARCH AND CONTAINS THE PHRASE "UNLIKELY TO RECEIVE ADEQUATE OR TIMELY NIH FUNDING." AS PART OF THIS PROCESS OF IDENTIFYING WHAT ARE VITAL RESEARCH OPPORTUNITIES, IT REQUIRES THE GRANTS WORKING GROUP TO ULTIMATELY DETERMINE WHETHER A GIVEN PROPOSAL FULFILLS THAT ELEMENT.

AND, OF COURSE, THAT WAS AS ENVISIONED WHEN THE INITIATIVE WAS WRITTEN. BUT IN PRACTICE, AS I THINK YOU'VE SEEN, IT'S THE ICOC, OF COURSE,

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

THE FULL BOARD, THAT ESTABLISHES THE PROGRAM STRUCTURES WHICH INCLUDE THE ELIGIBILITY REQUIREMENTS AND IN SOME CASES THE TYPE OF TECHNOLOGICAL FOCUS, WHICH IS DONE HERE, FULL BOARD MEETINGS, IN PUBLIC, WITH THE BENEFIT OF PUBLIC COMMENT TO HELP INFORM THAT PROCESS.

AND AS JEFF JUST OBSERVED, FOR INSTANCE, WE ACTUALLY LOOK AT THE BENEFITS AND THE UPSIDES OF CERTAIN PARTNERSHIPS THAT WE HAVE WITH INSTITUTIONS SUCH AS THE NIH EVEN IF THAT FUNDING IS ULTIMATELY SOMEWHAT UNPREDICTABLE FROM YEAR TO YEAR. SO I THINK THE CHALLENGE HERE IS TO SEE HOW WE CAN CAPTURE CIRM'S ABILITY TO CONTINUE TO FUND NEW AND INNOVATIVE TECHNOLOGIES.

AND SO SOME OF THE IDEAS AND SOME OF THE FEEDBACK FROM THE DISCUSSION AT THE JOINT SUBCOMMITTEE WAS TO SIMPLIFY THIS APPROACH TO ELIMINATE ANY REFERENCE WHAT THE VALUE THAT CIRM BRINGS TO THE TABLE IS REGARDLESS OF NIH'S POSTURE OR ABILITY FROM ONE YEAR TO THE NEXT AND THAT OUR VALUE STANDS ON ITS OWN.

TO ENSURE AS WELL THAT THE SCOPE AND REACH OF OUR FUNDING PROGRAMS BE DETERMINED AT THE ICOC LEVEL AS OPPOSED TO A MULTISTEP PROCESS. AND SPECIFICALLY WITH THE DEFINITION TO THE TECHNOLOGIES

THAT WOULD BE REACHED IN THE NEW INITIATIVE, THAT WE EXPAND THE DEFINITION TO INCLUDE REGENERATIVE MEDICINE WITH A DEFINITION THAT IS CONSISTENT WITH HOW THAT TERM IS USED AT THE NIH, FDA, AND OTHER LARGE INSTITUTIONS. SO THAT WAS THE FEEDBACK.

MR. TORRES: DR. MILLAN, DID YOU HAVE INPUT BEFORE WE MOVE TO THE BOARD MEMBERS ON THIS ISSUE?

DR. MILLAN: NOTHING TO ADD.

MR. TORRES: ANYONE ELSE? NOTHING FROM OUR PROGRAMMATIC CHAIR? ALL RIGHT. ANY OTHER COMMENTS FROM THE PUBLIC? ANY PUBLIC COMMENTS AT OUR SITES? WORKING GROUPS, ANOTHER CONTROVERSIAL ISSUE.

MR. TOCHER: WE ARE WINDING DOWN, THE PENULTIMATE SLIDE.

SO IN ADDITION TO SOME OF THE CONSTRAINTS THAT WE TALKED ABOUT THE PROPOSITION ON THE FUNCTIONS, FOR INSTANCE, OF THE GRANTS WORKING GROUP, IT'S FAIRLY DETAILED ABOUT THE CURRENT PROPOSITION ABOUT THE GRANTS WORKING GROUP'S COMPOSITION AS WELL AS THE RESPONSIBILITIES.

IN PRACTICE WHAT THE GRANTS WORKING GROUP PANELS HAVE BEEN MOST UTILIZED FOR ARE TAILORED TO REVIEWS WHERE, AS I SAID A MOMENT AGO, THE PRIMARY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

POLICY CALLS IN TERMS OF THE TARGETS OF THE FUNDING AND THE TECHNOLOGIES IS DONE AT THE LEVEL OF THE ICOC IN THE CONTEXT OF CONSIDERING AND ADOPTING AND REFINING YOUR CONCEPT PLANS.

IN ADDITION, THE CLINICAL STAGE PROGRAMS HAVE VARIED EXPERTISE REQUIREMENTS THAT SOMETIMES CAN BE A CHALLENGE WITH REGARD TO THE RESTRICTIVE LANGUAGE IN THE EXISTING PROPOSITION.

SO SOME OF THE IDEAS THAT WERE DISCUSSED AT THE SUBCOMMITTEE LEVEL WERE ALLOWING A RANGE OF -- RIGHT NOW GIVEN THE SCIENTIST REQUIREMENT IS FIXED, THAT INSTEAD, TO ALLOW FLEXIBILITY IN FUTURE REVIEWS, THAT THE BOARD BE ALLOWED TO CREATE PANELS OF VARIED NUMBERS OF SCIENTIFIC EXPERTISE TO ALLOW US TO ENSURE THAT A GIVEN PANEL MEETS THE DEMANDS OF THE APPLICATIONS WITHIN THAT CONSIDERATION ROUND, DONE SO MINDFUL, OF COURSE, OF NOT DILUTING THE PARTICIPATION OF THE OTHER MEMBERS OF THE WORKING GROUP, SUCH AS THE PATIENT ADVOCATES.

ANOTHER IDEA WAS TO SIMPLIFY WHAT IS NOW A STAGGERED TERM APPOINTMENT OF WORKING GROUP MEMBERS TO MULTIPLES OF SIX YEARS. THERE WAS A SUGGESTION OF SOMETHING AS LONG AS TEN YEARS, BUT THE JOINT SUBCOMMITTEE THOUGHT THAT PEOPLE GET LONG IN THE TOOTH AT THAT POINT, I GUESS.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

FINALLY, REEXAMINE THE GRANTS WORKING GROUPING ROLE IN RECOMMENDING CRITERIA AND AWARD MONITORING. AS YOU KNOW, THE AWARD MONITORING FUNCTION LARGELY EXISTS INTERNALLY AT CIRM WITH OUR SCIENTIFIC TEAMS THAT MEET REGULARLY WITH PROGRAM TEAM MEMBERS. AND IN SOME OF OUR TRAN AND, OF COURSE, CLIN AWARDS ARE ACTIVELY ENGAGED IN IDENTIFYING RISKS TO THE PROGRAM AND MAKING SURE THAT THE TEAM IS EQUIPPED TO MEET THOSE CHALLENGES.

MR. TORRES: I REMEMBER AND RECALL, WITHOUT BEING REMINDED, OF WHAT DR. STEWARD SAID AT OUR COMMITTEE MEETING ABOUT THE SIX-YEAR ISSUE OR THE TEN-YEAR ISSUE. I THOUGHT IT WAS A VERY PRECISE STATEMENT THAT OUGHT TO BE REPEATED TO THE BOARD.

DR. STEWARD: DO I HAVE TO REMEMBER EXACTLY WHAT I SAID?

MS. BONNEVILLE: READ THE TRANSCRIPT.

DR. STEWARD: I SAID THAT TEN YEARS WAS WAY TOO LONG, AND THAT THERE IS AN ISSUE OF JUST ASKING PEOPLE TO DEVOTE THAT MUCH TIME. IF I WAS ASKED TO DO ANYTHING FOR A TEN-YEAR PERIOD, I THINK I WOULD SAY NO UPFRONT. I DO THINK THAT THAT ALONG WITH THE FACT OF NEED FOR REJUVENATION IN A GROUP THAT SEEKS REGENERATIVE MEDICINE IS IMPORTANT.

MR. TORRES: YOU WOULD FAVOR NOT TEN

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

YEARS, BUT EVEN LESS THAN SIX?

DR. STEWARD: I THINK SIX HAS WORKED WELL. IT'S NOT INDENTURED SERVITUDE. IF SOMEONE DOESN'T WANT TO CONTINUE, THEY DON'T AND PEOPLE HAVEN'T. SO I THINK THAT'S FINE, BUT TEN YEARS, I THINK, IS WAY TOO LONG, FRANKLY. THANK YOU.

MR. TORRES: ANY OTHER COMMENTS, INPUT? PUBLIC INPUT? PUBLIC INPUT FROM OUR SITES? ALL RIGHT. MOVING RIGHT ALONG.

MR. TOCHER: LASTLY, IN TERMS OF OUR PRECEPT HER OF IDEAS REGARDS PROPOSAL OR SUGGESTION THAT PERHAPS ADDITIONAL AUTHORITY IN A NEW PROPOSITION ALLOW THE AGENCY TO SUPPLEMENT ITS EXISTING WORKING GROUPS, ITS EXISTING THREE WORKING GROUPS, ESPECIALLY THE GRANTS WORKING GROUP, TO PROVIDE FOR THE ABILITY TO CREATE AD HOC REVIEW PANELS THAT WOULD ADDRESS PROGRAMS OR INITIATIVES SUCH AS INFRASTRUCTURE INITIATIVES WHICH MAY HAVE UNIQUE REQUIREMENTS IN TERMS OF EXPERTISE AS OPPOSED TO PURELY SCIENTIFIC.

THERE WAS SOME RESISTANCE, HOWEVER, TO THE NOTION THAT THAT WOULD BE NECESSARY. THIS WAS THE DISCUSSION AT THE JOINT SUBCOMMITTEE. AND, INSTEAD, IT WAS THOUGHT THAT PERHAPS CIRM SHOULD NOT -- THAT SUCH INFRASTRUCTURE PROGRAMS MIGHT BE CONSIDERED

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

MORE OF A DISTRACTION FROM OUR CORE MISSION AND THAT WE SHOULD INSTEAD REDOUBLE OUR COMMITMENT TO PURELY SCIENTIFIC INITIATIVES AND IN THAT EFFORT TO REESTABLISH THAT FOCUS, MEMBER SHEEHY OBSERVED THAT THERE MIGHT BE AN EXPANDED ROLE PERHAPS FOR THE STANDARDS WORKING GROUP OR ANOTHER TO EVALUATE IMPORTANT ISSUES REGARDING ACCESSIBILITY TO CURES AND CELL THERAPIES FUNDED BY CIRM AS WELL AS THE PRICING CHALLENGES THAT WILL COME AS THESE THERAPIES AND CURES ARE BROUGHT TO MARKET. AND THAT WE SHOULD EVEN CONSIDER ADVOCATING FOR A ROLE IN EXPANDING RESEARCH FOR EXPLORING THE ISSUES AND WEIGHING IN ON THEM. JEFF, I DON'T KNOW IF THAT CAPTURED IT.

MR. SHEEHY: SO I THINK LIKE TWO ISSUES ARE BEING MATCHED UP. SO I PERSONALLY WAS NOT KEEN ON REALLY DOING A LOT OF INFRASTRUCTURE PROJECTS. WE'VE DONE THEM IN THE PAST, AND WE HAVE BEEN ABLE TO ASSEMBLE WORKING GROUPS THAT ARE FAIRLY DIVERSE. BUT, IN GENERAL, INFRASTRUCTURE IS NOT CIRM'S WHEELHOUSE. THE ONE THING THAT NIH DOES ARE THESE BIG, COLLABORATIVE, MULTI-INSTITUTION PROJECTS. THEY'RE VERY GOOD AT THAT, AT LEAST IT'S BEEN MY EXPERIENCE. WHERE WE'VE BEEN REALLY GOOD AT, AND I THINK DR. OLSON WAS TALKING ABOUT THIS, IS GETTING THE IDEA AT THE DISCOVERY STAGE, MOVING IT THROUGH

ALL THESE OTHER STAGES, AND GETTING INTO A PRODUCT THAT'S IN CLINICAL TRIAL, AND NOW WE'RE EVEN PARTNERING THEM WITH INDUSTRY. THAT'S OUR STRONG SUIT. SO WE CAN'T DO EVERYTHING.

AND TO MY MIND THE BIG INFRASTRUCTURE PROJECTS ARE A BIT OF A DISTRACTION. THEY'RE HARD TO MANAGE. THEY CAN BE BURDENSOME ON STAFF. THEN YOU MIGHT WANT TO START LOOKING AT RAISING THE STAFF LIMIT BECAUSE YOU'RE RUNNING THESE BIG INFRASTRUCTURE PROJECTS. AGAIN, THE NIH DOES THIS REALLY WELL.

THE SECOND POINT WAS GOING BACK TO THE GENESIS OF CIRM WHEN A LOT OF OUR EARLY STAGE FOUNDATIONAL PROJECTS, LIKE OUR NATIONAL FIRST TRAINING GRANTS, ALL HAD ELSI COMPONENTS, WHICH ARE ETHICS, LEGAL, SOCIAL -- ETHICAL, LEGAL, AND SOCIAL IMPLICATIONS. AND BOB KLEIN IN A BLOG POST WAS TALKING ABOUT ONE OF THE KEY IMPLICATIONS OF OUR RESEARCH WHICH IS WHO'S GOING TO PAY FOR IT. THESE ARE VERY EXPENSIVE PRODUCTS. AND TO ME THIS SEEMS TO SUGGEST THAT WE MIGHT WANT TO SET ASIDE A SMALL PERCENTAGE OF THE NEW BOND FUNDING, LIKE MAYBE HALF OF A PERCENT, WHICH DOESN'T SOUND LIKE MUCH EXCEPT WHEN YOU'RE TALKING ABOUT $5 BILLION, THAT IS A FAIR AMOUNT OF MONEY FOR THIS TYPE OF RESEARCH.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WE STILL HAVE ETHICAL ISSUES THAT COME UP. LOOK AT GENOME EDITING, RIGHT. AND THE STANDARDS WORKING GROUP HAS REALLY CUT BACK FROM WHAT THEY DO. WE ARE GOING TO HAVE TO TALK, NOT JUST ABOUT FUNDING, BUT ALSO EQUITY ISSUES, WHICH WE'VE KIND OF GLOSSED OVER, AND REALLY THAT BECOMES A SOCIAL ISSUE, THAT'S AN ETHICAL ISSUE. AND SO REALLY HAVING THAT TYPE OF RESEARCH BE PART OF OUR MISSION GOING FORWARD, I THINK, WOULD BE A SUBSTANTIAL CONTRIBUTION. AND ALREADY WE HAVE THIS RELATIONSHIP BETWEEN SENATOR TORRES AND COVER CALIFORNIA AND THIS BODY, BUT WE DON'T REALLY HAVE A MECHANISM TO PROMOTE THE KIND OF EVIDENCE BASED BECAUSE THAT'S THE KEY THING. WE NEED AN EVIDENCE-BASED DIALOGUE ON ISSUES LIKE COST, REIMBURSEMENT, DISSEMINATION, AND PROVISION OF THESE PRODUCTS AS WE GET THEM THROUGH THE PIPELINE.

MR. TORRES: THE BOARD SHOULD KNOW THAT AS A RESULT OF MY OTHER RESPONSIBILITY, I BROUGHT TO CIRM THE LEAD NEGOTIATOR FOR COVER CALIFORNIA WITH THIRD-PARTY PAYERS AND BLUE SHIELD AND HIGHEST OFFICERS OF BLUE SHIELD AND KAISER -- THEY HAD TO WALK A LONG DISTANCE, AS YOU CAN SEE -- TO HERE TO BEGIN THE DISCUSSIONS SO THAT WE EDUCATE THEM AS TO WHAT POTENTIAL TREATMENTS ARE IN STORE.

AND ONE OF THE PIVOTAL ISSUES THAT I'VE BEEN TRYING TO EDUCATE THIRD-PARTY PAYERS IS THAT WE SPEND 40 BILLION IN CALIFORNIA ALONE JUST FOR DIABETIC CARE. IF WE CAN COME UP WITH A TREATMENT THAT WILL HELP THAT, IMAGINE THE COSTS THAT WILL BE REDUCED TO YOU AS THIRD-PARTY PAYERS OF SO MANY OTHER ANCILLARY ISSUES THAT ARE RELATED TO DIABETES THAT WE HAVE TO TAKE CARE OF NOW.

SO THAT'S PART OF THE ISSUE. THE OTHER, OF COURSE, THE OTHER POPULATIONS OUT THERE THAT I KNOW JEFF HAS BEEN VERY INVOLVED WITH WITH HIV, AND WE'VE SEEN WHERE THAT HAS LED. I CAN'T BEAT YOU, DAVE, ON HOW MANY YEARS WE'VE DONE RESEARCH. MY FIRST GRANT WAS FOR 25 MILLION IN 1982 IN HIV FUNDING. NOBODY HEARD OF IT BEFORE. LOOK HOW LONG IT'S TAKEN US TO GET TO THIS POINT WHERE WE'RE GETTING ON THE CUSP OF POTENTIAL CURES.

SO I THINK OF ALL OF THESE ISSUES THE TREATMENT DYNAMIC, THE REIMBURSEMENT DYNAMIC IS GOING TO BE A KEY AS WE PUT ON OUR HATS AND FIGURE OUT JUST WHERE THE POPULATION IS, HOW DO WE DEAL WITH THE TRUMP AGENDA THAT WANTS TO DESTROY OBAMACARE, AND WHAT KIND OF SUBSIDIES DO WE PROVIDE FOR THE PREMIUM COSTS THAT EVERY CALIFORNIAN MUST ENDURE AS WE MOVE FORWARD. JEFF IS ABSOLUTELY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

RIGHT. WE ARE ON THIS CUSP OF TRYING TO FIGURE OUT NEXT STEPS, THE FUTURE, AND ESPECIALLY HOW WE ALLEVIATE THE PAIN OF A PATIENT NOT HAVING TO WORRY ABOUT PAYING FOR A TREATMENT.

DR. PRIETO: I THINK THIS IS GREAT. I THINK PART OF THE PROBLEM IS THAT A THIRD-PARTY PAYER, AS IS THE MODEL FOR BUSINESS IN MOST OF AMERICA, I THINK, ARE ALWAYS AND ALMOST EXCLUSIVELY FIXATED ON WHAT IS OUR RETURN IN THE NEXT QUARTER AND THIS YEAR, AND VERY HARD TO CHANGE THAT FOCUS TO WHAT IS THE LONG-TERM VIEW. WHAT DOES IT REALLY MEAN TO PREVENT OR TREAT CANCER AND GIVE A PERSON ANOTHER 20 YEARS OF PRODUCTIVE LIFE? THAT'S MORE OF A LARGER SOCIAL ISSUE.

I'VE WAITED AND HOPED MY ENTIRE CAREER TO SEE US HAVE SOME SORT OF A RATIONAL HEALTHCARE SYSTEM IN WHICH WE TOOK THAT KIND OF A LONG VIEW. I STILL HOPE WE MIGHT GET THERE SOMEDAY. I'M NOT HOLDING MY BREATH THAT THE THIRD-PARTY PAYERS ARE GOING TO PUSH THAT, BUT I HOPE WE WILL SEE IT.

MR. TORRES: QUITE FRANKLY, THE REASON OBAMACARE DIDN'T GO DOWN THE TUBES IS BECAUSE OF THE THIRD-PARTY PAYERS AND THEIR SUPPORT BECAUSE IT WAS ESSENTIAL TO THEIR PRODUCTIVITY.

DR. PRIETO: SURE. THEY WANT THE

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

CUSTOMERS. AT SOME LARGER LEVEL YOU HAVE TO IMPOSE A LARGER VIEW UPON THAT SYSTEM. OTHER PEOPLE HAVE DONE THIS SUCCESSFULLY. LOOK AT THE UK AND THEIR ORGANIZATION WITH MAYBE THE BEST ACRONYM OF ALL, THE NICE, THE NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE, AND THEY LOOK AT THESE LARGER PICTURES AND DECIDE WHAT IS TO BE SPENT AND WHAT SHOULD BE SPENT ON WHAT AND TAKE A LONG-TERM VIEW. I HOPE WE'LL GET THERE. THAT'S OBVIOUSLY BEYOND THE SCOPE OF THIS, BUT ULTIMATELY THAT'S THE SOLUTION.

MR. SHEEHY: JUST A QUICK COMMENT TO DR. PRIETO'S POINT. WITHIN OUR CURRENT SYSTEM, IF WE CAN PROVIDE EVIDENCE AND DATA, PEOPLE WILL ACT. I LIKE TO USE THE EXAMPLE OF KAISER WITH PREEXPOSURE PROPHYLAXIS FOR HIV. THEY WERE ONE OF THE FIRST AND MOST AGGRESSIVE EARLY ADOPTERS OF THIS, WHICH IS BASICALLY YOU GIVE A PILL, ANTIRETROVIRAL PILL, IT HAS TWO DRUGS IN IT, YOU GIVE IT ON A DAILY BASIS TO PEOPLE WHO AREN'T INFECTED. IT'S 95 PERCENT EFFECTIVE IN PREVENTING NEW INFECTIONS, PROBABLY 99 PERCENT OR MORE. LIKE WHY WOULD KAISER GO TO PATIENTS WHO ARE NOT USING ANTIRETROVIRAL DRUGS BUT AT HIGH RISK FOR HIV AND SUDDENLY MAKE THIS EXPENDITURE? IT IS SOMEWHAT OF A CLOSED SYSTEM IN THAT THEY TEND TO TAKE PATIENTS FOR A LONG TERM, AND

ALSO THEY HAVE THE BEST ELECTRIC HEALTH RECORDS FOR THE LONGEST PERIOD OF TIME OF ANYBODY IN CALIFORNIA.

SO THEY WERE ABLE TO LOOK AND MODEL OUT THAT THIS WOULD BE COST-EFFECTIVE, THAT WE COULD GIVE PEOPLE THIS INTERVENTION FOR PERIODS IN THEIR LIFE WHEN THEY'RE SEXUALLY ACTIVE KNOWING THAT WE'RE NOT GOING TO BE RESPONSIBLE FOR PROVIDING HIV CARE. AND NOT ONLY JUST THE COST OF THE ANTIRETROVIRALS WHERE THEY'VE ACTUALLY GOT GOOD DATA SHOWING HIGHER RATES OF NON-HIV RELATED CANCERS, SOME CARDIOVASCULAR DATA IN PEOPLE WITH HIV. SO THEY'RE LOOKING AT THE COST OF AN HIV PATIENT VERSUS THE COST OF PROVIDING THIS INTERVENTION, WHICH, ALBEIT SLIGHTLY EXPENSIVE, IS BALANCED OUT BY THIS LARGER COST.

SO THAT'S WHAT I'M KIND OF WANTING TO POINT TO AND ALSO NEW MODELS OF PAYING. LIKE CAN YOU AMORTIZE A MILLION DOLLAR PAYMENT OVER 20 YEARS IF IT CURES A PATIENT, SAY, WITH SICKLE CELL? THE NUMBERS ADD UP, BUT YOU HAVE TO HAVE THE DATA IN ORDER TO PERSUADE THE PAYERS, AND YOU HAVE TO CREATE NEW MODELS OF PAYMENT POTENTIALLY TO DO IT, AND WE SHOULD BE IN THE FOREFRONT OF THAT.

MR. TORRES: AND THAT'S KEY TO WHAT YOU'RE DISCUSSING. THE NOTION OF CURRENT THIRD-PARTY

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

PAYERS BEING IN THAT MIX IS NOT LOOKING AT THE LONG TERM. YOU MAY COME UP WITH DIFFERENT PAYMENT OPPORTUNITIES AND FORMULAS WHICH WE'RE NOT EVEN THINKING ABOUT NOW, BUT YOU JUST DID.

CHAIRMAN THOMAS: SO I TOTALLY AGREE WITH ALL OF THESE COMMENTS THAT STEM FROM POINT 2 THAT MR. SHEEHY MADE IN HIS ORIGINAL COMMENTS ON THIS ITEM.

I DO WANT TO PLAY DEVIL'S ADVOCATE AND SPEAK ON BEHALF OF INFRASTRUCTURE. WHILE IT MAY NOT BE PART OF THE CORE MISSION, I THINK IT'S UNQUESTIONABLY VERY COMPLEMENTARY TO IT. FOR EXAMPLE, THE ALPHA CLINICS, WHICH I THINK ARE A ONE-OF-A-KIND NETWORK THAT HAVE BEEN SET UP TO GIVE THE SOUP-TO-NUTS TREATMENT TO THOSE WHO ARE LOOKING TO GET INTO CLINICAL TRIALS THAT CAN ACTUALLY DO SOMETHING AS OPPOSED TO FALLING PREY TO THE SNAKE OIL GUYS OUT THERE THAT ARE PEDALING THEIR WARES AND ACHIEVING NOTHING FOR PATIENTS.

SIMILARLY, I THINK THE IPS CELL BANK, WHICH ULTIMATELY WILL HAVE 2500 LINES, ALL OF WHICH WILL BE MADE AVAILABLE TO THE PUBLIC TO DO RESEARCH ON IN CONNECTION WITH THE CONDITIONS INVOLVED IN THOSE LINES IS A VERY VALUABLE SERVICE AND ANOTHER ONE OF OUR INFRASTRUCTURE PROGRAMS.

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

SO I THINK THAT PERHAPS ON A CASE-BY-CASE BASIS WE CAN ANALYZE WHETHER INFRASTRUCTURE IS WORTH DOING, BUT I WOULD ARGUE THAT WE CERTAINLY HAVE HAD SOME THAT ARE MAKING A MAJOR CONTRIBUTION.

MS. WINOKUR: THANK YOU. I WOULD SUGGEST THAT WE LOOK BACK LONG TIME AS SOME OF THE THINGS WE HAD TO DEAL WITH IN THE BEGINNING. LOOK AT WHAT PEOPLE ARE STILL SURVIVING AND WHETHER THEY MAYBE COME TO DO THE SAME THING AT MEETINGS ABOUT CIRM. LOOK AT SOME OF THE ISSUES THAT WERE BEING RAISED SO THAT WE CAN BE MORE AWARE OF WHERE SOME OF THE CRITICISMS ARE GOING TO COME FROM.

MR. TORRES: ALL RIGHT. THANK YOU VERY MUCH.

ANY OTHER PUBLIC COMMENT ON THIS LAST ISSUE BEFORE US, BEFORE THE REPORT? IF NOT, I JUST WANTED TO SAY A VERY GRATEFUL THANK-YOU TO DR. MILLAN FOR YOUR INPUT THROUGHOUT THIS PROCESS, TO OUR CHAIRMAN, J.T., AND ALSO TO OUR CO-CHAIR, MR. SHEEHY, AND THE MEMBERS OF THE SCIENCE COMMITTEE THAT PARTICIPATED IN THE GOVERNANCE COMMITTEE THAT PARTICIPATED IN THIS DISCUSSION. IT WAS VERY ROBUST AND FOR ME VERY EDUCATIONAL BECAUSE WE GOT TO HEAR THE HISTORY FROM THE OLD GUYS -- YEAH, JEFF. YOU'RE AN OLD GUY. YOU'RE A VETERANO -- FROM THE SENIOR

PEOPLE WHO WERE HERE AT THE BEGINNING, AND WE DON'T OFTEN GET THAT PERSPECTIVE.

I THINK THAT WAS EXTREMELY IMPORTANT FOR THE DISCUSSION WE HAD IN THE COMMITTEE AND CLEARLY FOR THE DISCUSSION WE HAVE HAD HERE. I JUST WANT TO THANK ALL OF YOU WHO PARTICIPATED FOR YOUR VERY THOUGHTFUL INPUT. IT'S GOING TO BE WELL HEARD.

SECONDLY, HISTORY ALSO HAS A WAY OF PROVIDING US PERSPECTIVE, AND THAT'S WHY I'VE SENT TO EACH OF THE BOARD MEMBERS A COPY OF THE IOM REPORT SO YOU CAN READ IT AT YOUR LEISURE, HA-HA, AND, TWO, A COPY OF THE HOUSE OF LORDS REPORT SO YOU CAN THRIVE ON THE GENEROSITY OF THE ENGLISH TOWARD OUR ENDEAVOR HERE IN CALIFORNIA. SO YOU HAVE BOTH REPORTS, WHICH IS ALSO A GOOD FRAMEWORK FOR HISTORY FOR HISTORICAL PERSPECTIVE.

AND, LASTLY, I JUST WANT TO THANK DOUG AND MARIA BONNEVILLE FOR THEIR HELP IN HELPING PUT THIS MEETING TOGETHER AND THE STATEMENT.

AND, LASTLY, BUT NOT LEAST, I WANT TO THANK SCOTT TOCHER. HE HAS WORKED SO HARD ON THIS EFFORT, AND I THINK HE GOT TO EDUCATE HIMSELF A LITTLE BIT MORE ABOUT CIRM, AT LEAST YOU SEEMED MUCH MORE INTELLIGENT ABOUT OUR PROVISION.

CHAIRMAN THOMAS: NOTHING LIKE DAMNING

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

WITH FAINT PRAISE.

MR. TORRES: HE KNOWS WHAT I MEAN AND HE KNOWS HOW GRATEFUL I AM FOR HIS INPUT AND ALWAYS BEING THERE FOR THE COMMITTEE AND FOR THE AGENCY. HERE IN THIS EFFORT, I JUST WANT TO THANK YOU AGAIN, SCOTT, BECAUSE YOUR EFFORT AND YOUR WISDOM AND YOUR SUPPORT, AND YOUR LEGAL COUNSEL HAS BEEN ABSOLUTELY BENEFICIAL TO THIS EFFORT.

AND TO GEORGE, WHEN YOU SAY WILL WE REAP THE ECONOMIC BENEFITS, WHEN WILL WE KNOW ABOUT THAT? WELL, THERE IS A DRAFT UNDERGOING NOW, AND PROBABLY BY THE FALL WE SHOULD HAVE A FINAL REPORT OF THE ECONOMIC IMPACT WE HAVE HAD ON CALIFORNIA. WE DID THAT INITIALLY WITH BERKELEY IN THE PAST BACK IN 2014 AND ANOTHER REPORT THEREAFTER. AND THIS WILL BE A REPORT GIVEN THE CONTEMPORARY PROGRAMS THAT WE'VE BEEN INVOLVED WITH, THE CONTEMPORARY RESULTS THAT WE'VE BEEN RECEIVING, AND A MUCH MORE CONTEMPORARY, INSTANTANEOUS REVIEW OF JUST WHAT OUR ECONOMIC BENEFIT HAS BEEN TO THE STATE OF CALIFORNIA. AND I WOULD VENTURE TO SAY THAT IT'S GOING TO BE A PRETTY GOOD REPORT.

THANK YOU, MR. CHAIRMAN. I LEAVE IT BACK TO YOU.

CHAIRMAN THOMAS: THANK YOU, MR. SENATOR.

I ECHO YOUR COMMENTS ABOUT SCOTT. THE FULLY PRAISEWORTHY COMMENTS, NOT THE SORT OF --

MR. TORRES: HE'S SCOTTISH. HE UNDERSTANDS.

CHAIRMAN THOMAS: IT WAS A GREAT DISCUSSION, AND I THINK IT WILL BE VERY HELPFUL TO PASS ALL THIS ALONG TO BOB TO HELP INFORM THE WRITING OF THE NEW INITIATIVE.

DO WE HAVE ANY PUBLIC COMMENT ON ANYTHING OF ANY NATURE FROM ANY SITE? HEARING NONE, OUR NEXT REGULARLY SCHEDULED IN-PERSON MEETING IS IN SEPTEMBER.

MS. BONNEVILLE: I'M SURE WE DO. I DON'T KNOW. I SHUT DOWN MY COMPUTER. END OF SEPTEMBER.

MR. TORRES: SHE WAS HOPEFUL.

CHAIRMAN THOMAS: ANYWAY, WITH THAT --

MR. TOCHER: 25TH.

CHAIRMAN THOMAS: SEPTEMBER 25TH. WITH THAT, EVERYBODY HAVE A WONDERFUL HOLIDAY WEEKEND. AND WE STAND ADJOURNED.

(THE MEETING WAS THEN CONCLUDED AT 1:44 P.M.)

133 HENNA COURT, SANDPOINT, IDAHO 83864
208-255-5453 208-920-3543 DRAIBE@HOTMAIL.COM

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 AT THE LOCATION INDICATED BELOW

1999 HARRISON STREET
SUITE 1650
OAKLAND, CALIFORNIA
ON
MAY 23, 2019

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
133 HENNA COURT
SANDPOINT, IDAHO
(208) 255-5453