BEFORE THE

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

REGULAR MEETING

LOCATION: ROBERTSON AUDITORIUM
1675 OWENS STREET
SAN FRANCISCO, CALIFORNIA

DATE: AUGUST 19 AND 20, 2009
4:30 P.M. AND 9:30 A.M.

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

BRS FILE NO.: 82475

I N D E X

SAN FRANCISCO, CALIFORNIA;

WEDNESDAY, AUGUST 19, 2009; 4:45 P.M.

CHAIRMAN KLEIN: WHAT WE'RE GOING TO DO HERE, WHILE WE HAVE A FEW MEMBERS IN TRANSIT, WE'RE GOING TO LAUNCH THIS MEETING AND COVER SOME OF THE ITEMS THAT ARE INFORMATIONAL UPDATES FOR THE PUBLIC AND FOR THE BOARD MEMBERS SO THAT WE CAN MOVE INTO DEEP SUBSTANCE IMMEDIATELY UPON THE MEMBERS' ARRIVAL.

I'D LIKE TO START BY WELCOMING EVERYONE TO SAN FRANCISCO. WE DEEPLY APPRECIATE THE COOPERATION OF THE MISSION BAY STAFF IN HELPING US FEEL AT HOME HERE AND DIRECTING ALL OF OUR MEMBERS AS THEY COME IN. IT'S BEEN A TREMENDOUS COOPERATIVE EFFORT TO PULL THIS MEETING TOGETHER, AGAIN WITH MELISSA KING AND JENNA PRYNE PUTTING IN A TREMENDOUS AMOUNT OF WORK ORGANIZATIONALLY TO MAKE THIS A SUCCESS.

WE'RE GOING TO COVER BASIC BIOLOGY I APPLICATIONS AND A NUMBER OF OTHER IMPORTANT ITEMS. IF WE HAVE NO MEMBERS JOINING BY PHONE TONIGHT, BUT WE WILL TOMORROW. THE PROCEEDINGS BOTH DAYS ARE BEING AUDIOCAST AND MADE AVAILABLE BY THE INTERNET.

MELISSA, WOULD YOU PLEASE LEAD US IN THE PLEDGE OF ALLEGIANCE.

(THE PLEDGE OF ALLEGIANCE.)

CHAIRMAN KLEIN: MELISSA, EVEN THOUGH WE DON'T HAVE A FULL QUORUM, PLEASE CALL THE ROLL, AND THEN WE'LL AUGMENT THE ROLL AS MEMBERS SHOW UP.

MS. KING: DONALD DAFOE FOR RICARDO AZZIZ.

DR. DAFOE: HERE.

MS. KING: ROBERT PRICE FOR ROBERT BIRGENEAU.

DR. PRICE: HERE.

MS. KING: FLOYD BLOOM. DAVID BRENNER.

DR. BRENNER: HERE.

MS. KING: WILLIAM BRODY. JACOB LEVIN FOR SUSAN BRYANT.

DR. LEVIN: HERE.

MS. KING: MARCY FEIT.

MS. FEIT: HERE.

MS. KING: MICHAEL FRIEDMAN. LEEZA GIBBONS.

MS. GIBBONS: HERE.

MS. KING: MICHAEL GOLDBERG. SAM HAWGOOD.

DR. HAWGOOD: HERE.

MS. KING: BOB KLEIN.

CHAIRMAN KLEIN: HERE.

MS. KING: SHERRY LANSING. GERALD LEVEY. TED LOVE.

DR. LOVE: HERE.

MS. KING: ED PENHOET. PHIL PIZZO. CLAIRE POMEROY.

DR. POMEROY: HERE.

MS. KING: FRANCISCO PRIETO. ELIZABETH FINI FOR CARMEN PULIAFITO.

DR. FINI: HERE.

MS. KING: ROBERT QUINT. JEANNIE FONTANA FOR JOHN REED.

DR. FONTANA: HERE.

MS. KING: DUANE ROTH.

MR. ROTH: HERE.

MS. KING: JOAN SAMUELSON.

MS. SAMUELSON: HERE.

MS. KING: DAVID SERRANO-SEWELL. JEFF SHEEHY.

MR. SHEEHY: HERE.

MS. KING: JONATHAN SHESTACK. OSWALD STEWARD. AND ART TORRES.

MR. TORRES: HERE.

CHAIRMAN KLEIN: THANK YOU VERY MUCH.

SINCE OUR LAST MEETING, WE HAD THE OPPORTUNITY TO REVIEW THE REVISED NIH GUIDELINES. IT IS EXTRAORDINARILY IMPORTANT THAT THOSE GUIDELINES CAPTURE ESSENTIALLY ALL OF THE COMMENTS

THAT OUR AGENCY PUT FORTH. ADDITIONALLY, IT'S EXTRAORDINARILY IMPORTANT THAT THERE WAS A HIGH CONSENSUS OF THE INTERSTATE ALLIANCE. AND GEOFF LOMAX OF OUR STAFF IS ONE OF THE CO-CHAIRS OF THE INTERSTATE ALLIANCE, SO THERE WAS TREMENDOUS COORDINATION BETWEEN OUR AGENCY AND OTHER LEADING STATES IN THEIR SUBMISSION.

THE CONSISTENCY AND QUALITY OF THOSE REPORTS, LED BY THE EXTENSIVE SUBMISSIONS MADE BY THIS AGENCY, HAVE LED TO FEEDBACK TO US FROM THE NIH INDICATING THAT OUR LEADERSHIP ROLE THROUGH OUR SCIENTIFIC STAFF WAS EXTREMELY IMPORTANT IN THEM BEING ABLE TO DOCUMENT THE VALUE OF GRANDFATHERING THIS BROAD SPECTRUM OF LINES AND FOLLOWING PROTOCOLS THAT OUR STANDARDS COMMITTEE FELT WERE APPROPRIATE.

SO IT IS APPROPRIATE AT THIS MEETING TO THANK OUR SCIENTIFIC STAFF AND PARTICULARLY GEOFF LOMAX FOR HIS TREMENDOUS WORK EFFORT IN ACCOMPLISHING THAT. LET'S GIVE THEM A HAND OF APPLAUSE.

(APPLAUSE.)

CHAIRMAN KLEIN: THERE WAS, I WOULD SAY, AN EXTREMELY HIGH VOLUME OF IDEOLOGICAL INPUT TO THAT PROCESS. AND GIVEN THE STRONG CONSENSUS SCIENTIFICALLY AMONG THE INSTITUTIONS, NIH INDICATED

THEY WERE ABLE TO GET PAST THAT, AND CERTAINLY THEIR FINAL NIH GUIDELINES DEMONSTRATES THAT RESULT.

MOVING THIS MEETING FORWARD, I'D LIKE TO ASK DR. TROUNSON TO PROVIDE THE PRESIDENT'S REPORT, AND I WILL SAVE SOME OF MY COMMENTS TO A LATER TIME. DR. TROUNSON.

DR. TROUNSON: THANK YOU VERY MUCH, CHAIR. AND I THINK IT'S -- THIS IS GOING TO BE QUITE AN INTERESTING MEETING, I THINK, BECAUSE THIS IS WHERE WE'RE STARTING TO PUSH VERY HARD INTO OUR TRANSLATIONAL PROGRAM. SO I THINK IT'S GOING TO BE READILY APPARENT BY SOME OF THE ISSUES THAT HAVE BEEN RAISED, AND I HOPE YOU WILL BE SUPPORTIVE OF THIS STRONG MOVE THAT WE'RE MAKING.

SO AS I USUALLY DO, I WANT TO OPEN WITH SOME OF THE SCIENCE, IF WE MAY, MELISSA. AND I'VE CHOSEN, AGAIN, A NUMBER OF REPORTS THAT HAVE COME OUT IN THE SCIENCE LITERATURE. THE FIRST ONE YOU WILL BE WELL AWARE OF BECAUSE IT'S THE LAFERLA LAB AT UC IRVINE FOR THEIR WORK ON NEURAL STEM CELLS AND IMPROVING COGNITION IN AN ANIMAL MODEL OF ALZHEIMER'S DISEASE, AND THAT COGNITION IN THOSE ANIMALS, BRINGING BEHAVIOR BACK TOWARDS NORMAL, IS REALLY SPECTACULAR.

AND THEY SHOWED THAT THEY COULD ACHIEVE

THAT ALMOST AT THE SAME LEVEL BY USING A TROPHIC FACTOR CALLED BRAIN-DERIVED NEUROTROPHIC FACTOR. SO THIS SET OF EXPERIMENTS IS PUBLISHED IN THE *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES* IN JULY, AND I THINK IT'S A PAPER THAT EVERYONE'S BEEN LOOKING FORWARD TO. WE KNOW IT BETTER THAN PROBABLY MOST PEOPLE. BUT THEY SHOWED THAT BY USING TRANSPLANTATION OF NEONATAL STEM CELLS OUT OF THE VERY YOUNG MOUSE WHERE YOU CAN ACTUALLY OBTAIN LARGE NUMBERS OF NEURAL STEM CELLS, IF THEY TRANSPLANTED THOSE INTO A MODEL OF ALZHEIMER'S DISEASE, AN INTERESTING MODEL THAT THEY HAVE, THEY'RE ABLE TO SHOW THAT DESPITE ALL OF THE AMYLOID PLAQUES AND TANGLED MORPHOLOGY THAT EXISTS, IT DIDN'T SHOW ANY REAL EFFECT ON THAT, BUT THERE WAS A TREMENDOUS CHANGE IN THE LEARNING AND MEMORY DEFICITS IN THOSE ANIMALS.

THAT WAS REALLY A BIG SURPRISE. AND THEY WENT BACK TO SEE WHAT WAS IT THAT WAS HAVING THIS IMPACT. AND THEY LOOKED AT THE BDNF MOLECULE. IT'S A NEUROTROPHIC FACTOR THAT IS PRESENT. AND THEY SHOWED THAT THEY'RE ABLE TO GET THE -- RETAIN THE FUNCTION OF BEHAVIOR IN THESE MICE BY USING INJECTIONS OF BDNF. SO THIS IS REALLY INTERESTING, AND I THINK WE'RE GOING TO SEE SOME DEVELOPMENTS IN

THIS AREA REALLY BECAUSE IT IS THOUGHT THAT ALZHEIMER'S REALLY WAS AN ISSUE WHERE YOU REALLY HAD TO CORRECT THE MORPHOLOGY. WHETHER THAT'S TRUE OR NOT, I THINK IN THE LONG TERM WE'LL HAVE TO WAIT AND SEE. BUT AT LEAST IN THIS MODEL OF ALZHEIMER'S DISEASE, THEY GOT SOME SPECTACULAR EFFECTS.

AND I THINK IT FITS RATHER NICELY WITH A PAPER I SHOWED YOU EARLIER ON FROM THE GENENTECH GROUP, WHICH WAS LOOKING AT THE FACTORS ASSOCIATED WITH THE LOSS OF THESE NEUROTROPHIC FACTORS. IF THERE WAS A DEFICIT OF THOSE IN ANIMALS, YOU'VE GOT THE KIND OF DEATH RECEPTOR RESPONSES THAT KILL NEURONS THAT WAS VERY TYPICAL OF ALZHEIMER'S DISEASE. SO ADD THESE TWO TOGETHER AND IT'S STARTING TO LOOK LIKE A VERY LOGICAL AND INTERESTING STORY. AND HOPEFULLY WE'LL BRING SOME OPTIMISM, I THINK, TO TREATMENTS FOR ALZHEIMER'S DISEASE IN THE FUTURE.

THE NEXT SLIDE IS NOT SUCH A GOOD STORY, BUT I DON'T THINK I SHOULD ALWAYS BRING GOOD STORIES TO YOU. I THINK IT WAS A VERY IMPORTANT PAPER AND ONE WHICH WE'LL SEE THESE KIND OF THINGS HAPPEN, I THINK, IN AN UNPREDICTABLE WAY. BUT THIS GROUP HAD BEEN TRYING NEURAL TRANSPLANTS IN PATIENTS WITH HUNTINGTON'S DISEASE. CLEARLY HUNTINGTON'S DISEASE

IS A TERRIBLE, TERRIBLE DISEASE, BUT NOT VERY MUCH TREATMENT AVAILABLE. AND AS YOU KNOW, YOU'VE HEARD FROM IN THE PROGRAMS PUT TO YOU IN THESE MEETINGS THAT WE'RE LOOKING -- WE'RE REALLY LOOKING HARD FOR SOMETHING THAT MIGHT HELP THESE PATIENTS.

WELL, THESE WERE PATIENTS WHO WERE BEING TREATED WITH FETAL STRIATAL TRANSPLANTS, FETAL BRAIN TRANSPLANTS, INTO THE STRIATUM TEN YEARS AGO. SO IT'S TEN YEARS, A DECADE, SINCE THEY PUT THESE TRANSPLANTS IN THERE.

NOW, THE OUTCOME FOR THESE PATIENTS, TWO OUT OF THE THREE PATIENTS THAT THEY LOOKED AT IN DETAIL WAS VERY DISAPPOINTING. THE GRAFTS UNDERWENT DEGENERATIVE CHANGES SIMILAR TO HUNTINGTON'S DISEASE WITH ACTUALLY A PREFERENTIAL LOSS OF THE PROJECTION NEURONS, WHICH ARE THE ONES THAT ARE LOST IN THIS DISEASE AND THE ONES THAT ARE SUFFERING BADLY. AND THE ALLOGRAFTS DEGENERATED MORE RAPIDLY THAN THE PATIENT'S OWN NEURONS, PARTICULARLY THOSE PROJECTION NEURON SUBTYPES.

SO THESE STARTED TO RAISE UNCERTAINTY ABOUT THIS TYPE OF APPROACH AS A THERAPEUTIC FOR HUNTINGTON'S DISEASE. AND IT IS ONE WHICH WILL CLEARLY BE REFLECTIVE IN THE FDA AND REGULATORY AUTHORITIES WHEN FURTHER DEVELOPMENTS COME FORWARD

FOR STEM CELL TRANSPLANTS.

SO WHAT I WOULD SAY HERE IS THAT THIS OUTCOME IN HUNTINGTON'S DISEASE IS SIGNIFICANTLY DIFFERENT THAN THE OUTCOME OF NEURAL TRANSPLANT IN PARKINSON'S DISEASE WHERE THERE IS NO INDICATION OF SUCH A THING HAPPENING. SO MAY WELL BE ASSOCIATED WITH THE DISEASE, AND CLEARLY THERE COULD VERY WELL BE VERY DIFFERENT TYPES OF DISEASES THAT HAVE TO BE TREATED IN DIFFERENT WAYS. AND IT MAY BE THAT THE SITUATION IN THE BRAIN OF THESE PATIENTS IS REALLY NOT SUPPORTIVE OF THOSE TRANSPLANTS, AND CLEARLY THIS MIGHT BE -- IMMUNOLOGISTS, COLLEAGUES OF MINE, HAVE SAID THAT THEY FELT THAT THIS ALSO PROBABLY INCLUDES AN IMMUNE COMPONENT IN THAT RESPONSE LOSS.

SO I THINK IT IS AN INTERESTING PAPER. I THINK IT'S ONE WE NEED TO REFLECT ON. AND I BRING IT TO YOU BECAUSE I THINK YOU NEED TO GET THE WHOLE PERSPECTIVE OF WHAT'S GOING ON.

MS. SAMUELSON: I THINK THIS IS REALLY IMPORTANT TO OUR WORK, AND I THINK IT'S A BETTER WORD THAN ATTITUDE, BUT THAT'S IN THE BALLPARK OF WHAT I'M TALKING ABOUT. IT SEEMS TO ME THAT THIS IS EXACTLY WHAT WE WANT SCIENTISTS TO BE DOING. WE WANT THEM TO GO OUT THERE AND DARE TO TAKE A RISKY STEP THAT THEY DON'T KNOW IS GOING TO SUCCEED AND

SEE IN THE RESULTS SUCCESSES IN THAT THEY'VE MOVED THE SCIENCE AHEAD, RIGHT?

DR. TROUNSON: RIGHT.

MS. SAMUELSON: THAT PREFERENTIAL LOSS MAY BE THE KEY TO SOMETHING ABOUT THE PATHOLOGY OF HUNTINGTON'S, RIGHT?

DR. TROUNSON: EXACTLY.

MS. SAMUELSON: AND I'M ALSO SEEING THIS AS MARGINAL AND WHATEVER IT WAS, SOMETHING, INTRANSIENT CLINICAL BENEFITS, MAYBE THERE WAS ALSO SOME HINT ABOUT THE REAL EFFECTIVE THERAPY DOWNSTREAM WHEN THEY CAN CORRECT SOMETHING ELSE. THEY MAY HAVE A WEALTH OF NEW INFORMATION, AND THAT'S POSSIBLE, CHEERED, I WOULD THINK. IT SEEMS LIKE IT'S ABOUT THE CULTURE OF WHAT WE'RE SUPPORTING THAT REWARDS THAT RISKY ATTITUDE AND EFFORT.

DR. TROUNSON: RIGHT. AND SO I THINK YOU'RE EXACTLY RIGHT. AND THAT WAS -- THE PAPER DREW OUR ATTENTION TO THAT, THAT THIS MAY HELP IN THE MODELING WITH HUNTINGTON'S DISEASE. AND VERY SPECIFICALLY, WE NEED TO BE CERTAIN ABOUT WHAT IS THE ENVIRONMENTAL SITUATION THAT'S LEADING TO THE PREFERENTIAL LOSS AND DAMAGE OF THE TRANSPLANT. AND IT MAY BE AN IMMUNE -- MAY BE MUCH MORE SENSITIVE IN AN IMMUNE WAY. OF COURSE, YOU MAY BE GETTING IT

JUST BECAUSE THE DISEASE AMPLIFIES ANY IMMUNE DIFFERENCES AND CAUSES THAT. ALL TO BE FOUND OUT. JOAN, AS YOU SAY, WITHOUT THAT, WE COULD DO A WHOLE LOT OF ANIMAL EXPERIMENTS AND NOT REALLY HAVE THIS INCORPORATED INTO OUR THINKING.

CHAIRMAN KLEIN: DR. TROUNSON, I THINK FOR CONTEXT FOR WHEN THE TRANSCRIPT COMES OUT SO THAT THIS QUOTE ISN'T TAKEN OUT OF THE BROADER CONTEXT THAT I KNOW JOAN IS ALWAYS WORKING WITHIN, JOAN IS TALKING ABOUT COURAGE WITH ALL THE RISK MINIMIZATIONS AND FDA APPROVALS THAT ARE NECESSARY WITH ALL THE SAFETY STEPS BEING TAKEN. SO IT IS TAKING A RISK WHEN YOU'VE MINIMIZED EVERY RISK POSSIBLE OR REASONABLY POSSIBLE AND HAVE FULL FDA APPROVAL. I THINK THAT'S THE CONTEXT JOAN IS TALKING ABOUT COURAGE.

MS. SAMUELSON: IT'S NOT BELITTLING THE RISK OR TRYING TO PRETEND IT'S NOT THERE. IT'S ACKNOWLEDGING THAT IT IS AN ESSENTIAL INGREDIENT. AND NOT ONLY THAT, BUT WE CAN ACCEPT A LOT OF THAT RISK AND FAILURE, SO-CALLED FAILURE, ALONG THE WAY WHEN IT ISN'T REALLY FAILURE BECAUSE PEOPLE ARE SUFFERING AND DYING AT THE SAME TIME. AND WE -- IF WE DON'T DO THIS AS AGGRESSIVELY AS WE CAN, MORE OF THEM ARE GOING TO SUFFER AND DIE. SO TO BE PASSIVE

ABOUT IT IN THE FACE OF THIS DIFFICULT SCIENTIFIC DIFFICULTY ISN'T HELPING ANYBODY. TO THE CONTRARY.

DR. TROUNSON: SO, YOU KNOW, I THINK IT WILL BE INTERESTING WHEN WE LOOK A LITTLE FURTHER DOWNSTREAM WITH OUR DISEASE TEAMS BECAUSE ONE OF THE STRATEGIES IS DIFFERENT TO THE NEURAL CELL TRANSPLANTS, AND I THINK THAT'S A QUITE DIFFERENT APPROACH. AND SO WE MAY HAVE TO LOOK AT THE KINDS OF APPROACH WITHIN THE FRAMEWORK BECAUSE WE'VE CLEARLY GOT TO GO TO FDA AT SOME POINT IN TIME TO GET APPROVAL TO DO THIS.

NEXT SLIDE IS THERE ARE A NUMBER OF REPORTS, AND I'M GIVING YOU TWO OF THEM, THAT IPS CELLS, THE INDUCED PLURIPOTENTIAL STEM CELLS, CAN SUPPORT FULL-TERM DEVELOPMENT OF TETRAPLOID BLASTOCYSTS COMPLEMENTATION, A HECK OF A MOUTHFUL. SHOWN DOWN ON THE BOTTOM OF THE RIGHT-HAND SCREEN YOU SEE A BLASTOCYST. NOW, THAT BLASTOCYST, WHEN THEY'RE DOING THIS WORK, THAT BLASTOCYST IS TETRAPLOID, THAT IS, THEY'VE DOUBLED UP ON THE CHROMOSOMES, AND THEY MULTIPLIED THE CHROMOSOMES BY TWO, SO THERE'RE FOUR IN INSTEAD OF TWO IN.

NOW, THESE FOUR-IN BLASTOCYSTS CAN PRODUCE PLACENTA, BUT CAN'T PRODUCE A FETUS, RIGHT. SO THEY'RE INCAPABLE OF PRODUCING ANY EMBRYONIC

COMPONENT, BUT THEY CAN PRODUCE A PLACENTA.

SO THE RED CELLS THAT ARE BEING INJECTED IN THERE ARE CELLS, IN THIS CASE IPS CELLS, THAT CAN MAKE AN EMBRYO. SO WHAT YOU'VE DONE IS A COMPLEMENTARY PROCEDURE, AN EXPERIMENTAL PROCEDURE. IT'S TERRIFIC STUFF. I USED TO DO THIS IN MY OWN LAB. I LOVE THIS SORT OF EXPERIMENT, SO THAT'S WHY I'VE GOT A PICTURE OF IT THERE. IN A SENSE IT'S A VERY SIMPLE AND NOT TOO COMPLICATED PROCEDURE. BUT OUT OF THAT THE MOUSE SHOWN THERE ON THE LEFT IS TOTALLY DERIVED OF IPS CELLS. IT'S GOT NO OTHER CELLS IN IT, RIGHT. IT'S NOT A CHIMERA. IT'S MADE COMPLETELY FROM THE IPS CELLS BECAUSE THE PLACENTAL PART WAS DISCARDED, OF COURSE, AT BIRTH, RIGHT. SO THE TETRAPLOID PART IS GONE, AND THE EMBRYO IS NOW THE MOUSE.

NOW, I BRING THAT TO YOUR ATTENTION BECAUSE IT'S BEEN A DIFFICULTY IN THIS AREA TO DO THAT. WE'VE BEEN ABLE TO DO THAT WITH EMBRYONIC STEM CELLS, AND IT'S BEEN SAID THAT THERE'S A BIG DIFFERENCE BETWEEN IPS CELLS AND EMBRYONIC STEM CELLS IN THIS CHARACTERISTIC. CLEARLY THESE TWO PAPERS AND THERE'S A THIRD PAPER IN ADDITION TO THAT -- SORRY. THERE'S THREE PAPERS UP THERE, THREE DIFFERENT PAPERS, ONE OF THOSE FROM SCRIPPS GROUP.

IT WAS IN *NATURE LETTERS* IN AUGUST, SO ONE OF THE GROUPS THAT WE'VE BEEN SUPPORTING AT SCRIPPS. AND IT SHOWS THAT THESE CELLS HAVE A CAPABILITY OF INFORMING -- PRODUCING A WHOLE ANIMAL AND THAT ANIMAL CAN BREATHE. YOU CAN'T DO IT EVERY TIME. THAT'S ONE OF THE THINGS ABOUT IT. YOU CAN'T DO IT WITH EVERY CELL LINE THAT YOU MAKE, BUT YOU CAN DO IT WITH SOME OF THEM. BUT THAT'S NOT ALTOGETHER DIFFERENT FROM EMBRYONIC STEM CELLS. USUALLY YOU CAN MAKE A TETRAPLOID COMPLEMENTARY EMBRYO AND LIVE-BORN MOUSE OUT OF EMBRYONIC STEM CELLS, BUT IT ALSO TAKES YOU ABOUT THE SAME KIND OF EFFORT AS THEY DID HERE.

SO WHAT WE'RE SAYING HERE IS THESE CELLS HAVE THE ABILITY TO FORM THE WHOLE ORGANISM, AND THAT ORGANISM CAN BREATHE. SO EVEN THE GERM CELLS. SO I THINK IT'S SOMETHING THAT WE NEED TO RECOGNIZE, THEY'VE GOT OVER THAT PARTICULAR STEP.

NEXT SLIDE, NEXT ONE. I WANTED TO SORT OF TALK TO YOU ABOUT A PAPER WHICH IS, I THINK, SPECTACULAR AND HAS TAKEN SOME TIME TO ACTUALLY GET PUBLISHED. AND IT'S REALLY OUT OF THE STANFORD UNIVERSITY GROUP AND THE LEAD LABORATORY OF IRV WEISSMAN. AND IT'S REALLY VERY, VERY IMPORTANT SCIENCE. THIS IS ABOUT A "DON'T EAT ME" MOLECULE,

AND THIS IS CANCER. AND I'M BRINGING IT TO YOU BECAUSE I THINK THE ISSUES ARE OF CANCER AND "DON'T EAT ME" NEED TO START TO INFILTRATE YOUR THOUGHTS AS WELL.

SO THEY WORKED WITH A PRIMITIVE BLADDER CANCER CELL, AND THEY WERE SHOWN TO BE CLOTHED IN A PROTEIN KNOWN AS CD 47, WHICH HAS A STRONG INHIBITORY SIGNAL FOR MACROPHAGE PHAGOCYTOSIS. SO THE MACROPHAGES WANDER AROUND THE BODY EATING OTHER CELLS, PARTICULARLY STUFF THAT'S NOT NEEDED OR IS DEGENERATE OR IS DANGEROUS. SO THE MACROPHAGES ARE EATING THINGS. SO THAT'S PHAGOCYTOSIS. THEY EAT THEM UP.

SO NOW THIS INHIBITORY SIGNAL MOLECULE HAS BEEN CALLED BY THE GROUP A "DON'T EAT ME" MOLECULE, SO IF IT'S GOT IT ON THERE, THE MACROPHAGES DON'T EAT THEM. SO THESE CELLS THEN BECOME AN ESCAPE SYSTEM. SO BLOCKAGE OF THE CD 47 RESULTED IN MACROPHAGE ENGULFMENT OF THE BLADDER CELLS; BUT IF THEY WERE COVERED WITH THIS MOLECULE, THE MACROPHAGES LEFT THEM ALONE. YOU DON'T NEED TO LEAVE ALONE CANCER CELLS. YOU REALLY DO NEED THEM EATEN UP.

SO THERE WAS SOME HETEROGENEITY IN OTHER ACTIVATED ONCOGENIC PATHWAYS THAT ARE CANCER RELATED

IN THESE TUMOR INITIATING CELLS, BUT THE CD 47 WAS PREDICTIVE OF THE WORST CLINICAL PROGNOSIS IN THESE PARTICULAR PATIENTS. SO A HIGH LEVEL OF THE CD 47 EXPRESSION MAY BE A COMMON PROPERTY OF CANCER STEM CELLS AND THEIR PROGENY. SOME TYPES OF LEUKEMIA CELLS ALSO USE THE SAME MECHANISM TO ESCAPE THE IMMUNE SYSTEM. SO IT LOOKS LIKE A FAIRLY COMMON PROPERTY TO STOP OUR OWN DEFENSES FROM CLEANING UP DANGEROUS AND NASTY CELLS. AND I THINK IT'S A BEAUTIFUL PIECE OF WORK PUBLISHED IN *PNAS* IN 2009, AND IT PROBABLY IS NOW GOING TO -- "DON'T EAT ME" MOLECULES ARE PROBABLY GOING TO ENTER OUR VOCAB PRETTY COMMONLY FROM NOW ON.

THE NEXT ONE IS A PAPER THAT'S JUST COME OUT FROM THE SALK GROUP HEADED UP BY THE BELMONTE GROUP, AND BELMONTE IS PUBLISHING VERY STRONGLY. HE WORKS IN BOTH SPAIN AND AT THE SALK. AND HE'S A VERY, VERY GOOD RESEARCHER PRODUCING SOME VERY FINE PAPERS.

WHAT THE STORY IS HERE IS ONE OF BIOLOGY'S SUDDEN BRAKES HAVE BEEN PUT ON IPS CELLS IN A QUITE DRAMATIC WAY. AND IT REALLY HAS TO DO WITH THE P 53 TUMOR SUPPRESSIVE PATHWAY. P 53 PATHWAY REDUCES CANCER INITIATION BY ACTUALLY INDUCING CELL DEATH OR PROGRAM CELL DEATH OR APOPTOSIS, ALL CELL CYCLE

RISK, IN RESPONSE TO A WHOLE RANGE OF DIFFERENT STRESS SIGNALS AND OVEREXPRESSION OF ONCOGENES LIKE CMYC.

NOW, IPS ARE REPROGRAMMED. THEY'RE REPROGRAMMED BY CMYC, KLF 4, TWO ONCOGENES. SO THEY'RE PART OF THE GENES THAT ARE USED TO REPROGRAM SOMATIC CELLS THAT DIFFERENTIATE BACK TO THE EMBRYONIC CELL TYPE, THE IPS TYPE, AND THEY CAN ACTIVATE THE P 53 PATHWAY BY A MECHANISM OF CDNA DAMAGE.

NOW, THESE CELLS, IF YOU TAKE ADULT CELLS, AND THEY'RE MUCH MORE EASILY PROGRAMMED IF THEY HAVE A LOWER P 53 OR A LOWER P 21. P 21 IS THE TARGET GENE FOR P 53, SO EITHER ONE OF THESE, IF YOU REDUCE THAT, IT IS MUCH EASIER TO REPROGRAM THE CELLS. SO IF YOU BLOCK KNOCKOUT, KNOCK DOWN, DO SOMETHING WITH THE P 53, IT IS MUCH EASIER TO REPROGRAM YOUR CELLS. YOU ACTUALLY DON'T NEED ALL FOUR OF THEM. YOU CAN ACTUALLY REPROGRAM THEM WITH OCT 4 AND SOX-2, FOR EXAMPLE.

NOW, THE SILENCING OF P 53, ALSO SIGNIFICANTLY, THIS IS WHERE IT WAS DONE MOST IN THE MOUSE, SHOWED SIGNIFICANTLY INCREASED HUMAN SOMATIC CELL REPROGRAMMING OF IPS CELLS, SO BOTH IN THE MOUSE AND THE HUMAN.

NOW, WHAT DOES THIS MEAN? IT MEANS THAT IF YOU'RE MANIPULATING P 53, WHICH YOU ARE DOING, OR SELECTING REPROGRAMMED CELLS, YOU ARE SELECTING REPROGRAMMED CELLS AND IPS CELLS, THIS MAY WELL FAVOR REDUCED SIGNALING OF P 53 AND INCREASE THE RISK OF MALIGNANT TRANSFORMATIONS AND UNSTABLE GENOMES THAT FAVOR THE INITIATION OF CANCER.

NOW, WHAT WE'RE SAYING IS THAT'S A CONCERN, IT'S A BIOLOGICAL CONCERN, IT'S A CELL BIOLOGY ISSUE WHICH IS NOW VERY MUCH OUT IN THE OPEN AND WE HAVE TO WORK ON THIS. WE HAVE TO SHOW THAT EITHER THE MANIPULATION OF P 53 TO GET CELLS REPROGRAMMED OR THE SELECTION OF THE CELLS THAT ARE REPROGRAMMED HAVE NOT GOT THIS BIAS OF A LOW SIGNALING OF THE P 53 PATHWAY, OTHERWISE THERE IS AN INDWELLING RISK THAT YOU WILL SIGNIFICANTLY ELEVATE THE INITIATION OF CANCER.

SO IT WAS AN INTERESTING SET OF PAPERS THAT WERE PRODUCED AT THE INTERNATIONAL STEM CELL RESEARCH SOCIETY, AND IT REALLY SORT OF PUT THE BRAKES A BIT ON THE WORK OF THE PEOPLE WORKING ON IPS CELLS, PARTICULARLY THOSE THAT WANT TO TAKE THEM QUICKLY TO THE CLINIC. BUT HANG ABOUT, WAIT A MINUTE. WE NEED TO SORT OF TAKE A GOOD, HARD LOOK AT THIS AND MAKE SURE WE'RE NOT DOING SOMETHING

WHICH IS GOING TO BE DETRIMENTAL IN THE LONG TERM. SO I THINK THEY'RE AN INTERESTING GROUP OF PAPERS.

SO NOW POINT TO YOU SOME CHANGES IN PERSONNEL. YOU'VE SEEN IAN SWEEDLER HERE. HE'S SITTING ON THE END, OUR CHAMPION LEGAL COUNSEL. WELL, HE'S BEEN ESSENTIALLY ON LOAN TO US BY THE STATE AND BEEN WORKING NOT FOR FREE, NOT FOR NOTHING, BUT ESSENTIALLY WITHOUT ANY RECOGNITION OF CONTINUATION ON A THREE-MONTH OR SIX-MONTH PROGRAM. ANYWAY, IT'S BEEN A DIFFICULT TIME FOR IAN. HE'S STUCK WITH US. AND WE'VE APPOINTED OUR GENERAL COUNSEL, ELONA BAUM. SHE WANTED IAN TO BE THE DEPUTY AND IAN HAS ACCEPTED. SO WE'RE VERY PLEASED THAT HE'S TAKEN ON THIS. HIS ADVICE IN THE DETAIL OF WHAT WE NEED TO GET THROUGH IS SUPERB, AND I'M SO PLEASED HE'S ON BOARD AS A DEPUTY COUNSEL. AND WE DO NEED HIS ADVICE A LOT.

SO IT'S IN RECOGNITION OF A GREAT JOB, AND I THANK HIM FOR BEING PATIENT IN GETTING THIS THROUGH TO GIVING HIM A PROPER APPOINTMENT.

SO NICK WARSHAW IS ALSO HERE. HE'S SENIOR ADMINISTRATIVE COORDINATOR FOR THE DEPUTY CHAIR. HE IS FORMERLY WITH OBAMA FOR AMERICA, AND ART TELLS ME HE'S A GOOD ACQUISITION. AND NOW ART FEELS TOTALLY WHOLESOME AND FULSOME AND DELIVERING HIS PROGRAM.

SO THAT'S GOOD.

CHILA SILVA-MARTIN IS HERE SOMEWHERE JUST BEHIND US. THERE SHE IS. AND SHE'S JOINED MARGARET FERGUSON AS A FINANCIAL SERVICE OFFICER. WE, AS MICHAEL GOLDBERG KNOWS, WE BATTLE HARD TO KEEP ALL THE IN-HOUSE FINANCES IN A SUPERB STATE THAT BRINGS GREAT JOY TO AUDITORS AND CHAIRMEN AND CHAIRS OF THE FINANCE COMMITTEES. AND MARGARET HAS BEEN WORKING INCREDIBLE HOURS A DAY, AND SO WE'RE REALLY NOW PLEASED THAT CHILA HAS JOINED US AS AN OFFSIDER, A PARTNER, FOR MARGARET. I THINK PROBABLY MARGARET MIGHT STEP DOWN NEXT YEAR, SO WE'RE GOING TO BE EVEN MORE PLEASED THAT WE'VE GOT SOMEBODY WHO'S ABLE TO TAKE OVER THIS VERY IMPORTANT JOB BECAUSE IT'S REALLY CRITICAL FOR DEALING WITH THE STATE'S MONEY AND MAKING SURE THAT IT'S CHAPERONED PROPERLY.

GABRIEL THOMPSON IS THE DEPUTY GRANTS OFFICER. I DON'T THINK SHE'S HERE, BUT SHE'S ALSO -- HE IS HERE.

NOW, WE HAD A MEETING OF OUR CIRM GLOBAL COLLABORATIVE FUNDING GROUPS, AND I JUST WANT TO GIVE YOU DOT POINT OUTCOMES OF THAT. WE HAD REPRESENTATIVES OF NINE COUNTRIES. WE HAVE AGREEMENTS WITH FIVE OF THEM. WE HAD ANOTHER FOUR WHO ARE REALLY VERY KEEN TO JOIN IN THIS

COLLABORATIVE FUNDING EFFORT AND JOIN US AS BEING ABLE TO WORK TOGETHER WITH OUR CALIFORNIAN SCIENTISTS.

WE FOCUSED ON THE COLLABORATIVE FUNDING EFFICIENCY AND ADVANTAGES AND CHALLENGES INVOLVED. FACE-TO-FACE MEETINGS ARE PRETTY IMPORTANT BECAUSE WE'RE DEALING WITH VERY SENIOR FUNDING ORGANIZATIONS. THE SPANISH GOVERNMENT AND THE MRC IN THE UK AND THE CANADIAN CONSORTIUM ARE VERY SENIOR GROUPS, AND WE'RE TRYING TO MAKE SURE THAT WE HAVE A VERY GOOD AND EASY ONGOING RELATIONSHIP. AND THANKS TO NANCY KOCH AND TO ELONA BAUM AND OUR SCIENTISTS, WE'VE BEEN ABLE TO DO THAT VERY WELL. BUT WE'RE ALSO ABLE TO GET FACE TO FACE AND GET SOME THINGS ON THE TABLE AND DISCUSSED AND COMPLETED VERY WELL.

THE CONSENSUS WAS THERE'S A VERY STRONG DEMAND FOR THE SCIENTISTS IN CALIFORNIA AND IN THOSE OTHER COUNTRIES FOR COLLABORATIVE FUNDING. BIG SCIENCE REQUIRES COLLABORATIVE FUNDING. THERE'S A CLEAR RECOGNITION THAT IT'S GOING TO BE MUCH BETTER IF WE DO IT COLLABORATIVELY, AND THE CHALLENGES WHEREVER THEY ARE CAN BE MITIGATED BY THE ADVANTAGES OF DOING IT.

THERE WAS SIGNIFICANT INTEREST IN

COLLABORATING WITH CIRM, AND THERE WAS ALSO INTEREST IN NETWORKING THAT GROUP AS WELL SO THAT SOME OF THESE COUNTRIES CAN WORK TOGETHER AS WELL WITH CALIFORNIA. WE HAVE A HUB-AND-SPOKE PROCESS WHERE THE COUNTRIES WORK ONE ON ONE WITH US. IN THE FUTURE WE MAY SEE MORE THAN ONE COUNTRY WORKING TOGETHER WITH US SO IT GIVES A REAL NETWORK. AND I THINK THAT COULD REALLY DO SOME VERY SIGNIFICANT THINGS ACROSS SOME OF THESE SPACES.

AND WE'RE PLANNING THE NEXT MEETING IN 2010, THE ISSCR MEETING WHICH IS HERE IN SAN FRANCISCO.

THE NATIONAL LINKAGES, AGAIN, BEING WORKED ON BY ELONA VERY STRONGLY. WORKING WITH THE FDA NOW WE'VE GOT AGREEMENT WITH THE FDA TO HAVE REGULAR CONSORTIUM LIAISON UPDATE MEETINGS ON A QUARTERLY BASIS ON STEM CELL SCIENCE, LOOKING AT QUALITY CONTROL AND RISK MANAGEMENT. WE WENT TO MEET WITH THEM EARLIER THIS YEAR, AND THEY WERE VERY STRONGLY POSITIVE. WE'VE GOT THE ARRANGEMENT, AND NOW ELONA IS HELPING US SET UP THE GROUPINGS THAT ARE GOING TO COME TO MEET WITH THE FDA.

THEY'RE GOING TO HAVE A MINIMUM OF 15 OFFICERS FROM THE FDA THERE, AND WE WILL PROBABLY BRING 20 TO 30 CONSORTIUM PEOPLE TO THE MEETING,

INCLUDING MEMBERS OF THE BIOTECH INDUSTRY WHERE IT'S APPROPRIATE AND ALSO ACADEMIC INSTITUTIONS WHERE IT'S APPROPRIATE. AND OTHER STATES, THE ISSCR HAS INDICATED THEY WOULD LIKE TO BE INVOLVED AS DOES THE STATE ORGANIZATION.

THE NIH MEETING, WE'RE WORKING ON HARMONIZATION OF INTERESTS THERE. WE'VE JUST -- THE DIRECTOR OF THE NIH HAS JUST BEEN APPOINTED. AND INTERESTINGLY, I WAS THE ONE THAT, BY ERROR REALLY, PREDICTED HE WAS GOING TO GET THE JOB IN JANUARY BECAUSE I WAS ASKED IF I HAD ANY VIEW OF WHO WAS GOING TO BE APPOINTED. AND I SAID NO IDEA, BUT THE ONLY PERSON'S NAME I HEARD WAS THE CURRENT DIRECTOR'S NAME, AND IT WAS PUT OUT IN THE PRESS AS IF I KNEW, WHICH I DIDN'T.

FRANCIS COLLINS HAS THE POSITION. HE'S VERY STRONGLY SUPPORTIVE OF STEM CELLS. I HAD THE OPPORTUNITY TO MEET WITH HIM AS PART OF THE OBAMA GROUP, TRANSITION GROUP. AND I FELT HE WAS VERY STRONGLY SUPPORTIVE AND A VERY GOOD PERSON THAT WE COULD WORK WITH. SO NOW WE HAVE THE OPPORTUNITY TO DO THAT.

MS. SAMUELSON: I JUST WANTED TO NOTE I WAS WATCHING CSPAN THE OTHER DAY ON TUESDAY, AND THEY REBROADCAST HIS PRESS CONFERENCE FROM HIS FIRST

DAY AT WORK. AND HE MENTIONED AMONG A VERY FEW KEY THEMES, ONE OF THEM WAS TRANSLATIONAL EFFORTS, AND HE MADE A BIG POINT OF IT AND A BIG POINT THAT STEM CELL TECHNOLOGY WAS A PIECE OF IT. SO HE'S A PARTNER WITH US, IT SEEMS TO ME. HE MUST BE.

DR. TROUNSON: AND SO I WILL MAKE NOW AN APPOINTMENT TO SEE HIM, AND WE'LL SEE HOW WE CAN CONNECT WITH IT. AND I'LL TAKE ELONA WITH ME AND OTHER SCIENTISTS, MAYBE THE CHAIR WOULD LIKE TO COME WITH US, AND WE CAN SEE WHAT WE CAN DO IN ASSOCIATION WITH THIS NEW APPOINTMENT.

U.S. STATE STEM CELL AGENCIES, WE'RE UNDER DISCUSSION WITH A NUMBER OF THEM AS POTENTIAL COLLABORATIONS IN SEVERAL STATES. AND I THINK VERY CLEARLY THAT'S GOING TO HAPPEN. WE'RE GOING TO HAVE PARTNERS IN SOME OF THE OTHER STATES. AND THIS IS A LITTLE BIT OVERDUE, BUT THERE WAS SOME DIFFICULTIES LAST YEAR IN GETTING FOCUS ON THAT, BUT THERE'S CLEARLY NOW A FOCUS ON THAT. SO I THINK THAT WILL BE HELPFUL FOR ALL OUR COLLABORATIONS TO BE ABLE TO SAY, OKAY, WE'VE GOT SCIENTISTS IN OTHER STATES THAT WE CAN WORK WITH AND THAT THOSE OTHER STATES WILL PICK UP THE BILL FOR THAT. SO THAT'S GREAT.

MY PRIORITIES ARE PRINTED OUT THERE. WE'VE SPENT A LOT TIME ON DISEASE TEAM GRANT

APPLICATIONS AND COLLABORATIVE ISSUES. THE DISEASE TEAMS IS JUST A FABULOUS PROGRAM, AND YOU WILL HEAR MORE AND MORE OF THAT. I THINK YOU ARE GOING TO BE SURPRISED, DELIGHTED, AND IMPRESSED WITH WHAT COMES FORWARD.

WE'VE BEEN WORKING ON THE TRANSPLANT IMMUNOLOGY RFA AND A JAPAN WORKSHOP. THE JAPANESE WANTED A WORKSHOP ON IMMUNOLOGY WITH US. I THINK JEFF SHEEHY MIGHT HAVE SAID THAT TRANSPLANTATION IMMUNOLOGY WITH A WORKSHOP AWHILE AGO. IT'S TIME; IT'S IMPORTANT. ABSOLUTELY. ONE OF THE BIG ROADBLOCKS THERE. I THINK NOW WE'VE GOT IT UNDER -- WELL AND TRULY UNDER WAY. I THINK WE'RE GOING TO LOOK FORWARD TO HOPEFULLY SEEING SOME PROGRESS IN THAT AREA.

WE REALLY HAVEN'T ENGAGED SIGNIFICANTLY WITH THE TRANSPLANTATION COMMUNITY YET, AND I HOPE THAT THIS WILL DO IT, AND WE'RE WORKING HARD TO ENSURE THAT THAT HAPPENS. WE WANT TO KNOW WHETHER THERE'S AN OPPORTUNITY FOR TOLERANCE TO BE MADE IN PATIENTS RATHER THAN KEEPING THEM ON MASSIVE IMMUNE SUPPRESSION. SO THAT'S WHAT WE WANT TO PUSH FOR THAT. IMMUNE SUPPRESSION IS ITSELF A DANGEROUS ACTIVITY. WE'D LIKE TO SEE TOLERANCE COMING FORWARD. THE COROLLARY OF THAT IS CAN WE CORRECT

AUTOIMMUNITY. IT'S THE SAME ISSUE. IT'S JUST THE OTHER WAY AROUND, SO AUTOIMMUNITY IS A TARGET.

THERE'S ALSO A REALLY INTERESTING ROLE OF IMMUNE CELLS IN TISSUE REGENERATION. AND IN SOME SPECIES, IF YOU KNOCK OUT THE IMMUNE CELLS, YOU DON'T GET REGENERATION OF LIMBS AND THINGS LIKE THIS. SO THE IMMUNE SYSTEM IS PLAYING A BIG ROLE IN OTHER SPECIES. WE NEED TO KNOW IF IT'S PLAYING A BIG ROLE IN OUR SPECIES.

I'VE BEEN WORKING ON THE POSITION DESCRIPTION FOR THE VICE PRESIDENT OF R & D, AND WE'VE MET WITH THE BOARD ON THAT MATTER. ALSO PAT HAS BEEN WORKING, PAT OLSON, ON RESTRUCTURING THE SCIENCE OFFICE. STRATEGIC PLAN AND OPERATIONAL PLAN, I'VE SPENT QUITE A BIT OF TIME ON THAT. LITTLE HOOVER COMMISSION ISSUES FROM MANAGEMENT, ISSUES RAISED ABOUT CIRM IP REGULATIONS AND LOANS FOR COMPANIES KEEP COMING UP. THEY'RE ISSUES THAT WE NEED TO ADDRESS, AND WE NEED TO READDRESS THEM, AND WE NEED TO SOLVE THEM. SO WE'RE WORKING HARD ON THAT.

MAJOR FACILITIES PROGRAMS, WE'RE COMPLETING THAT PROCESS. AND I THANK JOHN ROBSON FOR A TERRIFIC JOB IN USHERING THAT WHOLE PROGRAM THROUGH TO ITS COMPLETION. IT'S NEARLY THERE.

DEVELOPING NETWORKS IN THE U.S. SCIENCE AND INDUSTRY ALL THE TIME, WORKING ON A PROGRAM OF CIRM RESEARCH LEADERSHIP AWARDS. AGAIN, A LOT OF WORK DONE BY JOHN ROBSON IN THAT AREA. DIALOGUE WE'VE ESTABLISHED WITH THE MAJOR PHARMACEUTICAL INDUSTRIES. THE PHARMACEUTICAL INDUSTRIES, THERE'S A FRAME HERE WHERE THESE MAJOR COMPANIES ARE MAKING DIRECT CONNECTION AND DIALOGUE WITH US. THEY WANT TO BE PART OF REGENERATIVE MEDICINE STEM CELL THERAPIES. THERE WAS A VIEW SOME TIME AGO THAT THE PHARMACEUTICAL INDUSTRY WASN'T INTERESTED IN IT. THAT IS COMPLETELY WRONG NOW. THEY'VE CHANGED THEIR MIND, IF THE VIEW WAS THAT IN THE PAST, AND THEY'RE VERY, VERY AGGRESSIVE IN WANTING TO BECOME PART OF THIS. SO THERE'S AN OPPORTUNITY THERE, I THINK, FOR US TO DO SOMETHING VERY IMPORTANT.

THE UPCOMING GRANT REVIEWS FOR THE DISEASE TEAMS WILL BE SEPTEMBER 9TH TO THE 11TH, SO NOBODY GET THE SWINE FLU, PLEASE, FOR THAT. IT'S GOING TO BE A VERY IMPORTANT PROGRAM AND I THINK ONE WHICH WE'LL ALL ENJOY. SO THAT'S ON.

UPCOMING RFA'S, THE TWIN TO BASIC BIOLOGY I WE'LL BE CONSIDERING TODAY OR TOMORROW. BASIC BIOLOGY II, WE'LL POST THE RFA IN AUGUST. THAT'S THIS MONTH. THE STEM CELL TRANSPLANTATION

IMMUNOLOGY, WE HAD CONCEPT CLEARANCE FOR IT HERE AT THIS MEETING. WE HOPE TO GET THAT WITH YOUR SUPPORT AND POST THE RFA OCTOBER-NOVEMBER. AND THE EARLY TRANSLATIONAL, THE SECOND TRANSLATIONAL II PROGRAM CONCEPT CLEARANCE, WE'LL BRING IT TO YOU IN THE DECEMBER MEETING AND POST THE RFA AROUND FEBRUARY THE 10TH. JUST SOME HEADS UP ON WHERE WE'RE GOING WITH RFA'S.

THE DISEASE TEAM RESEARCH AWARDS, TO LET YOU KNOW, WE RECEIVED 31 FULL APPLICATIONS: SEVEN APPLICATIONS WITH PI'S OR CO-PI INSTITUTIONS, 29 NOT-FOR-PROFIT, 13 INSTITUTIONS, NINE HAD A DESIGNATE AS AN INTERNATIONAL COLLABORATIVE FUNDING PARTNER. THERE'S 210 MILLION ICOC APPROVAL FOR THE BUDGET, AND 66 MILLION IS IN COLLABORATIVE FUNDING PARTNER REQUESTS IN THAT PROGRAM. SO YOU CAN SEE THAT WE ARE, AGAIN, LEVERAGING OUR MONEY. I THINK WE'LL BE ABLE TO DO THIS MORE AND MORE, BUT I THINK THE CHAIR WOULD APPROVE OF SOME LEVERAGE GOING ON, AND I HOPE OTHER MEMBERS OF THE BOARD WILL. THIS IS MONEY COMING FROM THE OTHER INSTITUTIONS TO BACK THOSE PROJECTS. OF COURSE, WE DON'T KNOW WHICH ONES ARE GOING TO BE SELECTED AT THE MOMENT.

APPROXIMATELY 25 PERCENT OF CIRM FUNDS REQUESTED ARE DESIGNATED TO SUPPORT FOR-PROFIT

ORGANIZATIONS, ABOUT A QUARTER OF THEM ARE COMPANY APPLICANT INSTITUTIONS, THERE'S A PI, CO-PI SPONSOR INSTITUTION WITH SUBCONTRACT FOR GOODS AND SERVICES. THAT'S HOW WE'VE DEFINED THE FOR-PROFIT ORGANIZATION. THE REVIEW, AS I SAID, WILL BE SEPTEMBER 9TH AND 11TH. AND THERE IS NOW EVIDENCE FOR NEW PARTNERSHIP COLLABORATIONS WITHIN CALIFORNIA THAT WE'VE NEVER SEEN BEFORE. AND THAT'S WHAT WE REALLY WANTED. WE NEEDED TO CREATE NEW WORKING PARTNERSHIPS, AND THAT'S NOW HAPPENED. THAT'S ONE OF THE REALLY STRONG POSITIVES OUT OF THIS. THOSE PARTNERSHIPS WON'T GO AWAY. ONCE THEY'RE CREATED, THEY'LL WANT TO KEEP WORKING. EVEN IF THEY DON'T GET THE GRANT, THEY'LL KEEP WORKING TOGETHER TO IMPROVE THEIR POSITIONS TO GET GRANTS. I THINK THIS IS EXACTLY WHAT WE WANTED TO HAPPEN AND IS HAPPENING.

MS. SAMUELSON: (INAUDIBLE.)

DR. TROUNSON: SEVEN APPS WITH PI.

MS. SAMUELSON: THE OTHERS DON'T HAVE A PI? I JUST DON'T UNDERSTAND WHAT THAT MEANS.

CHAIRMAN KLEIN: FOR-PROFIT. SEVEN HAVE A FOR-PROFIT PI OR CO-PI.

DR. TROUNSON: DISEASE TEAM RESEARCH AWARDS RECEIVED. THERE'S A DIVERSITY OF THERAPEUTIC

APPLICATIONS. AGAIN, TO FIT YOU IN, APPROXIMATELY FOUR-FIFTHS OF CELL THERAPY OR CELL AND GENE THERAPY, ONE-FIFTH SMALL MOLECULE OR BIOLOGIC THERAPIES, AUTOIMMUNE DISEASES, CANCER, CARDIOVASCULAR DISEASE, DIABETES, EYE DISEASE, HEMATOPOIETIC DISORDERS, HIV/AIDS, LIVER DISEASE, MUSCULOSKELETAL DISEASE, NEUROLOGICAL DISORDERS AND INJURY, PERIPHERAL VASCULAR DISEASE AND TISSUE REPAIR. SO THAT GIVES YOU A BIT OF A FLAVOR OF WHAT THOSE 31 PROJECTS ARE AIMING. SO IT COVERS A FAIR --

DR. POMEROY: WHEN YOU LOOKED AT THAT LIST, WERE THERE ANY GAPS THAT YOU NOTICED THAT WERE DISAPPOINTING TO YOU?

DR. TROUNSON: LOOK, I THINK THERE'S ALWAYS DISAPPOINTMENTS. YOU CAN TAKE A CANCER AREA AND YOU CAN THINK THAT WE MIGHT HAVE SOURCED IT MORE BROADLY IN THE CANCER AREA, CANCER STEM CELLS. I WAS A BIT SURPRISED BECAUSE THE CANADIANS WERE CERTAINLY OFFERING ANOTHER $20 MILLION THAT IN THEORY WAS UP TO $40 MILLION, SO YOU WOULD HAVE THOUGHT YOU'D ATTRACT A LOT OF PEOPLE IN. IT WASN'T AS BIG AS I THOUGHT, TO BE HONEST, CLAIRE.

AGAIN, I THOUGHT THERE WAS SOME WORK ON -- I WOULD HAVE THOUGHT THE LUNG WOULD HAVE BEEN A

TARGET. IT'S A BEAUTIFUL ORGAN TO TARGET WITH CELL THERAPIES. NOT REALLY IN THERE. LIVER DISEASE I THOUGHT WAS QUITE DIFFICULT, BUT IT IS IN THERE. SO, YOU KNOW, THERE ARE THINGS WHICH ARE GAPPED AND MISSING, AND WE'RE GOING TO TAKE A LOOK AT THAT BECAUSE THERE ARE SOME SURPRISES, I THINK. AND AS MUCH AS YOU TAKE THE NEUROLOGICAL DISORDERS, AND, OF COURSE, YOU COULD HAVE HAD A MUCH BIGGER SPECTRUM. I THINK THE ONES THAT HAVE GONE UP ARE CERTAINLY ONES THAT ARE VERY, VERY INTERESTING PROPOSALS THAT I THINK ARE EXCITING. NEVERTHELESS, I THOUGHT THERE COULD HAVE BEEN MORE IN THAT AREA AS WELL. THERE'S NOT -- FROM MEMORY, I DON'T KNOW IF THERE'S AN MS ONE, FOR EXAMPLE. I WOULD HAVE EXPECTED THAT.

SO, YES. BUT WE'LL BE GOING AGAIN NEXT YEAR, AND WE'LL DO A BIT OF HOMEWORK AS WELL AND SEE IF THERE'S SOME REASON WHY THEY'RE NOT IN THAT POSITION. THEY MAY FEEL THAT THEY'RE BETTER BACK IN THE EARLY TRANSLATION. AND THAT'S PICKING UP SOME OF THE WORK THAT REALLY THAT THEY THINK IS NOT REALLY READY FOR THAT FOUR-YEAR RUN.

CHAIRMAN KLEIN: I THINK, DR. TROUNSON, THAT ENDING POINT IS A VERY IMPORTANT POINT AS RELATED TO THE CANADIAN INITIATIVE BECAUSE THE CANADIAN CALIFORNIA CANCER STEM CELL INITIATIVE,

WHICH WAS ACTUALLY AN OUTGROWTH OF A COLLABORATIVE CONFERENCE BOB DYNES PULLED TOGETHER ABOUT THREE YEARS AGO, ONLY HAD ITS MONEY ON THE TABLE CREDIBLY IN THE LAST NINE MONTHS OR SO. SO THERE'S AN ISSUE OF MATURITY OF THE EFFORTS TO BE ABLE TO MEET OUR THRESHOLD CRITERIA. AND I THINK AS THE NEXT DISEASE TEAM ROUND COMES FORWARD, MANY OF THOSE WILL HAVE MORE MATURITY.

BETWEEN TOM HUDSON'S EFFORTS IN THE PROVINCE OF ONTARIO, WHICH HAS PULLED TOGETHER A COUPLE HUNDRED MILLION THEMSELVES IN MATCHING FUNDS THAT ARE AVAILABLE, AND THE TOTAL CANADIAN EFFORT, INCLUDING GENOME CANADA, WHICH HAS AN AGGREGATE TOTAL OF $250 MILLION IN MATCHING FUNDS AVAILABLE, THERE COULD BE SOME REAL COLLABORATIVE POSSIBILITIES THERE THAT HAVEN'T YET MATURED.

DR. TROUNSON: RIGHT. I THINK WHAT'S GOING TO HAPPEN IS A LOT OF INTEREST IN THE SOCIETIES FROM THE MAJOR JOURNALS, *SCIENCE* AND *NATURE*, SAYING TO ME YOU ARE GOING TOO QUICKLY TOO FAST. AND I DON'T THINK YOU CAN GO TOO QUICKLY TOO FAST AS LONG AS YOU'RE BACKING THE SAFETY OF THE EFFICACY SYSTEMS THAT ARE REQUIRED BY FDA. SOME OF THESE PROPOSALS, I THINK, ARE GOING TO GET TO AN IND IN TWO OR THREE YEARS.

NOW, EVEN WHEN THEY DO SAY THAT, MY ADVICE TO THEM IS TO SAY ALWAYS TRY AND MAKE IT A FOUR-YEAR PROJECT BECAUSE YOU DON'T KNOW WHAT YOU'RE GOING TO HIT ON THE WAY GOING THERE. BUT WHEN THEY TELL ME ABOUT SOME OF THESE PROJECTS, I'M ASTONISHED AT HOW FAR THEY'VE GOT AND HOW FAST THEY'RE GOING AND WHY THEY'RE LOOKING AT US TO BUILD THESE TEAMS. AND I THINK THE WHOLE WORLD WILL SORT OF SWITCH TO LOOK AT US AND SAY, WELL, LET'S HOPE IT GOES ALL RIGHT, BUT THE SENSE OF IT IS I THINK WE WILL HAVE ACTUALLY STEPPED VERY STRONGLY FORWARD IN THIS AREA, VERY STRONGLY FORWARD. AND YOU CAN TELL THAT THE BRITISH, SOME OF THE BRITISH FRONTLINERS HAVE JOINED UP WITH THE CALIFORNIANS TO BE PART OF THIS. SO IT'S A VERY INTERESTING PROCESS, I THINK. WE PICKED UP SOME OF FRONTLINERS AS PARTNERS, SOME OF THE UK FRONTLINERS AS PARTNERS, AND CLEARLY THAT'S THE CASE IN THE CANCER AREA AS WELL.

MS. SAMUELSON: DO WE HAVE ANY DOCUMENTS THAT SHOW WHERE THE PROGRESS IS BY DISEASE? I KNOW THERE'S A LIST IN THE BACK OF THE STRATEGIC PLAN, A LIST OF PAPERS, SO THAT'S ONE MEASURE OF PROGRESS. WHAT DO WE HAVE THAT'S DISEASE SPECIFIC, AND WHAT WOULD IT TAKE TO GET IT?

DR. TROUNSON: WE'RE JUST SETTING INTO A

NEW SYSTEM THAT WILL MORE EASILY GET THAT, JOAN. WHAT WE'VE HAD IN THE PAST, I'VE GOT THAT OUT IN THE PAST, BUT I'VE NOT ALWAYS BEEN VERY SATISFIED WITH IT. SO PAT AND HER COLLEAGUES ARE PUTTING TOGETHER THIS MANAGEMENT SYSTEM THAT WILL ALLOW US TO MORE EASILY GET THAT INFORMATION IN A MORE -- IN A WAY WHICH YOU'D FEEL MORE COMFORTABLE ABOUT YOU REALLY GOT IT. OFTEN THE PROJECTS, EVEN THE ABSTRACTS, DON'T DESCRIBE ACCURATELY THE ACTUAL DISEASE. THEY'RE IN A MORE GENERALIZED WAY AND WHERE DO YOU PUT THEM, AND YOU CAN ACTUALLY GET QUITE A BIAS OUT OF THAT FROM PARTICULARLY SOME OF THE EARLIER GENERALIZED PROGRAMS. EVEN THE TOOLS AND TECHNOLOGIES THAT CAN RELATE TO ONE OR OTHER DISEASE, BUT THEY DON'T SAY ANYTHING ABOUT IT, SO YOU'VE GOT TO SORT OF LOOK TO SEE HOW YOU CAN INTERPRET THAT.

SO THAT SYSTEM WILL BE COMING FORWARD. THEY'VE BEEN WORKING REALLY HARD ON THE SYSTEM TO GET IT UP SO WE CAN HAVE SOME QUALITY DATA FOR WHAT YOU'RE ASKING.

MS. SAMUELSON: IS IT CIRM-WIDE OR IS IT INTERNATIONAL?

DR. TROUNSON: THIS IS CIRM.

MS. SAMUELSON: DOES IT DESCRIBE THE

STATUS OF THE DISEASE?

DR. TROUNSON: THIS IS CIRM-WIDE. I DON'T KNOW IF THERE IS A -- I DON'T THINK THERE IS ONE, A DATABANK, IN THAT FORM, THAT INFORMATION IN THAT FORM AT THE PRESENT TIME THAT I KNOW OF. I MIGHT BE WRONG. I MIGHT HAVE TO LOOK INTO THAT FOR YOU BECAUSE I'M NOT AWARE OF ONE WHICH GOES ACROSS THE INTERNATIONAL BOUNDARIES.

MS. SAMUELSON: MIGHT THAT BE A GOAL OF THE COLLABORATIONS BECAUSE THAT SEEMS WITHOUT THAT, THAT'S THE POINT. WE COULD HAVE ONE PROJECT THAT ISN'T REPRESENTATIVE OF ENORMOUS PROGRESS OR NONE.

DR. OLSON: JUST TO SPEAK TO THAT A LITTLE BIT. I THINK THAT IS WHY IN, SAY, A REVIEW OF SOMETHING LIKE A DISEASE TEAM APPLICATION, IT'S VERY IMPORTANT FOR US TO GET THE ACTUAL DISEASE EXPERTS BECAUSE THE DISEASE EXPERTS ARE THE PEOPLE WHO ARE MOST KNOWLEDGEABLE ABOUT THE STATE OF THE FIELD AT ANY ONE POINT. THEY'RE THE ONES THAT WE WOULD RELY ON. AND WE COULD TRY AND DO THAT, BUT THAT IS JUST AN EVER CHANGING AND EVER MOVING TARGET. AND SO YOU WORK WITH THE PEOPLE WHO MAKE IT THEIR JOB DAY IN AND DAY OUT TO KNOW WHAT'S GOING ON IN THEIR FIELD, AND THOSE ARE THE PEOPLE YOU CALL ON. THOSE ARE THE EXPERTS.

DR. TROUNSON: I THINK IN SOME STATES THE NIH WILL LOOK FOR THAT INFORMATION AS WELL. SO THAT MIGHT BE SOMETHING THAT WE COULD COMBINE WITH THEM IN DOING.

MS. SAMUELSON: IT'S NOT THAT WE WOULD GENERATE ALL OF IT, BUT MAYBE PROVIDE THE LIBRARY OR THE CONVENING PLACE OR SOMETHING BECAUSE IT SEEMS TO ME THAT'S AN ESSENTIAL PIECE TO KNOW WHERE THE SCIENCE IS.

DR. TROUNSON: YOU KNOW, PART OF THAT DESCRIPTION OF WHAT I WANTED OF THE VP R & D WAS TO BE REALLY ACROSS THAT BECAUSE THAT IS THE SPACE THAT WE NEED TO KNOW, THE DISEASE AREAS, WHO'S WORKING IN IT, WHO'S WHO IN THE ZOO. WE NEED TO BE VERY CLEAR WHICH COMPANIES ATTACH TO WHICH, WHAT ARE THE PRIORITIES IN THE PHARMACEUTICAL INDUSTRY, HAVE A VERY CLEAR VISION OF ALL OF THAT.

NEXT. WE'VE GOT THE 2010 GRANTEE CONFERENCE. IT'S IN MARCH 3D TO 5TH. WE HOPE THAT SOME OF YOU WILL COME TO THAT, THOSE WHO ARE INTERESTED. IT WAS A GREAT GIG LAST TIME. EVERYBODY LOVED IT. IT'S IN SAN FRANCISCO. WE'RE GOING TO MOVE IT NEXT TIME, SO IT'S NOT ONLY SAN FRANCISCO. SO WE'LL BRING IN THE OTHER CITIES, SO IT'S THIS TIME IN SAN FRAN.

BRINGS TOGETHER CIRM GRANTEES TO FOSTER INTERACTIONS BETWEEN THEM, PRESENTS GRANTEE'S WORK IN BASIC AND TRANSLATIONAL STEM CELL SCIENCE, AND INCLUDES PROMINENT NON-CALIFORNIAN SPEAKERS. WE'VE REALLY GOT SOME FANTASTIC PEOPLE TO OPEN, A PERSON TO OPEN THE MEETING, THE CURRENT NEW CHANCELLOR OF THE UCSF. VERY PLEASED TO HAVE HER OPEN. SHE'S A VERY SPECIAL PERSON, AND I THINK SHE'LL DO WONDERS IN HER INTERACTIONS WITH OUR GRANTEES. SHE'S A VERY, AS I SAID, A VERY SPECIAL TRANSLATIONAL CLINICAL PERSON WHO'S HAD A VERY MAJOR IMPACT NATIONALLY AND INTERNATIONALLY.

SO THIS IS GOING TO BE A REALLY TERRIFIC MEETING, AND WE HOPE THAT SOME OF THE PATIENT ADVOCATES WHO FEEL INCLINED WILL COME ALONG TO THAT. IT'S GREAT. AND WE'RE, AS USUAL, HIGHLIGHTING INNOVATION AND EXCITEMENT IN THAT AREA. WE DO IT UNDER COLD SPRING HARBOR RULES SO THAT PEOPLE OPEN UP THEIR BOOKS AND GIVE US THE DATA, BUT WE DON'T REPORT IT OUT INTO THE PUBLIC. THAT ENABLES PEOPLE TO SORT OF WORK WITH EACH OTHER WITHOUT FEELING THAT THEIR DATA WILL SORT OF SLIP OFF INTO THE PUBLIC IN SOME WAY.

UPCOMING WORKSHOP IN JAPAN ON IMMUNOLOGY TO BE HELD IN KYOTO AUGUST 31ST TO SEPTEMBER THE

1ST. IT WAS REQUESTED BY THE JAPANESE JST. THE GOAL IS TO FACILITATE THE DEVELOPMENT OF COLLABORATIVE PROJECTS BETWEEN CALIFORNIA AND JAPANESE SCIENTISTS FOR THE UPCOMING IMMUNOLOGY RFA, AND WE'VE GOT EIGHT GREAT YOUNG SCIENTISTS WHO ARE MIDCAREER, REALLY DOING THE TOP-LINE WORK, AND THEY HOPEFULLY WILL CREATE SOME PARTNERSHIPS WITH THEIR JAPANESE COLLEAGUES. AND IT'S HOSTED BY THE JST THIS TIME, WHICH IS GOOD FOR US. WE DON'T HAVE TO DO ALL THE WORK.

AND I JUST SAID THIS TEAM IS WORKING SO WELL TOGETHER. I HAVE TO TELL YOU THEY'RE STEPPING IN AND HELPING ONE ANOTHER. IT'S JUST ONE OF THE PHENOMENAL MOMENTS AROUND AT THE PRESENT TIME THAT THIS IS A GREAT TEAM. YOU SHOULD REALLY -- I'M SO IMPRESSED WITH THEM. IT'S JUST A WONDERFUL TEAM TO WORK WITH. AND EVERY ONE OF THEM IS DOING MORE THAN YOU COULD EVER ASK OF THEM. I JUST THINK IT'S FANTASTIC, CHAIR. AND I THINK SOMETIMES WE SAY THIS JUST BECAUSE IT'S -- WE DO EACH TIME. THIS TIME I'M SAYING IT'S JUST A FANTASTIC GROUP OF PEOPLE, AND THEY'RE JUST SO WELL MATCHED AND HELPFUL TO ONE ANOTHER THAT IT'S A PLEASURE TO WORK WITH THEM. AND I THINK THOSE OF YOU WHO SPEND TIME AT CIRM WILL GET THAT AS A VERY STRONG POSITIVE FEELING.

CHAIRMAN KLEIN: SO I THINK IT'S AN APPROPRIATE MOMENT THAT WE GIVE AN APPLAUSE FOR THE ENTIRE TEAM WHO ARE TREMENDOUS.

(APPLAUSE.)

DR. TROUNSON: SO I'M GOING TO PASS OVER TO SOME OF MY COLLEAGUES JUST TO GIVE -- FIT YOU IN WITH SOME SPECIAL ITEMS. I HOPE YOU'LL APPRECIATE THIS, BUT THE SCIENTIFIC HIGHLIGHTS FROM THE ISSCR IS GOING TO BE DELIVERED BY PAT. PAT AND THE YOUNG SCIENTIFIC OFFICERS WERE THERE. IT WAS A MAGNIFICENT TIME. SHE'S GOING TO GIVE YOU SOME PLUMS OFF THE CHERRY TREE. THAT'S NOT QUITE THE RIGHT WAY TO SAY IT.

DR. PRIETO: JUST A QUESTION I SHOULD HAVE ASKED EARLIER. BUT I WONDERED, THE PAPER YOU PRESENTED ON THE TETRAPLOID MICE, DO WE KNOW WHAT THE ORIGINAL SOURCE OF THOSE IPS CELLS WAS?

DR. TROUNSON: THERE WAS A RANGE OF SOURCES. THERE WERE FIBROBLASTS, THERE WERE SKIN CELLS. THERE WAS QUITE A RANGE IN THERE. THERE ARE THREE DIFFERENT PUBLICATIONS. I THINK I'LL HAVE TO MAKE SURE THAT I GOT ALL THE OTHER CELLS. I KNOW THE FIBROBLASTS, I KNOW THE SKIN CELLS WERE IN THERE, THE KERATINOCYTES. I'LL ACTUALLY CHECK ON THE OTHERS FOR YOU JUST TO MAKE SURE I'M NOT SELLING

SOMETHING THAT WASN'T, BUT THERE WAS A RANGE OF CELL TYPES WHICH ALL WORK.

BUT YOU MAKE A GOOD POINT, THAT IT WAS MUCH MORE DIFFICULT TO MAKE THEM FROM SOME CELL TYPES THAN OTHERS. SO, AGAIN, WHEN THEY LOOKED AT THIS, AND THERE WAS A PAPER, INTERESTING PAPER, FROM YAMANAKA THAT'S NOT REPORTED THERE, HE SAYS THAT CERTAIN CELL TYPES ARE MUCH EASIER TO MAKE THE IPS CELLS FROM THAN OTHERS. AND BELMONTE SAYS IN SOME OF THOSE CELLS, THESE ARE THE ONES THAT HAVE LOWER P 53, HE MAKES THAT POINT, KERATINOCYTES ARE EASIER TO MAKE INTO IPS THAN MOST OTHER CELL TYPES AND THEY'VE GOT THE LOWEST P 53. SO THERE'S SOME INTERESTING THOUGHTS THERE, BUT I'LL PICK OUT THE OTHER CELL TYPES IN THE PAPER TO MAKE SURE THAT I'VE ANSWERED YOUR QUESTION FULLY.

DR. OLSON: THIS IS ACTUALLY THE ISSCR MEETING IS PROBABLY THE PREMIERE STEM CELL MEETING ANNUALLY, SO THIS IS A REALLY BIG ONE. THERE WERE ABOUT 3100 MEETING ATTENDEES. THERE WERE OVER 100 INVITED TALKS. THIS IS A WORLDWIDE MEETING. SO I HAVE TO SAY THAT FOR THE INVITED TALKS, TEN SPEAKERS WERE CIRM GRANTEES, TEN OF THE INVITED SPEAKERS. SO GIVEN A WORLDWIDE MEETING, WE THOUGHT THAT WAS A PRETTY GOOD PERCENTAGE. IN ADDITION TO THE OVER

HUNDRED INVITED TALKS, THERE WERE OVER 1700 POSTERS.

AND WHAT THIS MEETING DOES IS IT REALLY HIGHLIGHTS THE BROAD SCOPE OF STEM CELL RESEARCH. THIS IS THE BASIC, THIS IS THE TRANSLATIONAL, THIS IS MODEL SYSTEMS, THIS IS HUMAN, THIS IS INDUCED PLURIPOTENT, THIS IS EVERYTHING.

SO IF I COULD HAVE THE NEXT SLIDE. I'M NOT GOING TO SAY MUCH ABOUT THIS BECAUSE ALAN HAS ALREADY HIGHLIGHTED IT. I'D SAY PROBABLY THE BIGGEST BUZZ AT THE MEETING WAS AROUND THE MECHANISMS OF REPROGRAMMING AND WHAT'S INVOLVED IN THE ACQUISITION OF PLURIPOTENCY. THERE MUST HAVE BEEN FOUR TO FIVE PLENARY SPEAKERS OR CONCURRENT SESSION SPEAKERS WHO FOCUSED ON THESE MECHANISMS. THERE WERE A NUMBER OF POSTERS. I THINK ALAN HAS ALREADY HIGHLIGHTED THE ROLE OF P 53. THAT'S ALSO BEING CORRELATED WITH THE LOSS OF PROLIFERATIVE POTENTIAL. SO LATE PASSAGE CELLS DON'T DO SO WELL. MORE DIFFERENTIATED CELLS AREN'T SO EASILY PREPROGRAMMED. AND IT'S THESE MECHANISMS THAT HAVE HIGH PROLIFERATION POTENTIAL AND P 53 AND THESE CELL CYCLE CONTROLS THAT ARE ALL STARTING TO COME TOGETHER.

WHY DO WE CARE ABOUT THIS? I THINK WE CARE FOR SEVERAL REASONS. FIRST, IF WE ARE

INTERESTED IN CELLS FROM DISEASE FROM PATIENTS, IF YOU CAN REPROGRAM A LOT MORE EFFICIENTLY, YOU CAN GET A NUMBER OF LINES READILY. A LOT OF TIMES I THINK SOME DISEASES, THE CELLS ARE VERY DIFFICULT TO REPROGRAM. SO IF WE UNDERSTAND THE MECHANISMS, WE CAN GET A LOT MORE LINES. WE CAN LEARN ABOUT THE MECHANISMS OF DISEASE. WE CAN ADD LINES FOR SCREENING.

ALSO WHEN WE TALK SOMETIMES ABOUT DOING AUTOLOGOUS CELL THERAPY WITH ONE'S OWN CELLS, IF YOU CAN REPROGRAM EFFICIENTLY, THAT REALLY MAKES THAT A LOT MORE FEASIBLE. YOU'VE ALREADY HEARD ALAN MENTION THE CONCERNS ABOUT -- I MEAN P 53 IS A TUMOR SUPPRESSOR. IN ACTIVATING IT, REDUCING IT THEORETICALLY INCREASES THE CANCER RISK, AND HE'S ALSO HIGHLIGHTED ARE THE POPULATIONS OF CELLS THAT REPROGRAM NATURALLY, THOSE THAT HAVE WHATEVER TRANSIENTLY ARE NOT, REDUCED REPROGRAMMING. WELL, YOU ACTUALLY ALREADY FIND SCIENTISTS THINKING ABOUT THE FACT THAT CAN WE DO TRANSIENT INHIBITION OF P 53? CAN WE PUT IN AN ANTISENSE RNA OR AN SIRNA THAT INHIBITS P 53, WE GET THE REPROGRAMMING DONE, WE LOSE THE PLASMID, AND NOW YOU AREN'T SELECTING THAT POPULATION THAT MAY HAVE REDUCED P 53 UNDER NORMAL CIRCUMSTANCES.

SO THERE ARE WAYS THAT I THINK SCIENTISTS ARE ALREADY THINKING ABOUT DOING THIS.

DR. PIZZO: IS THE P 53 NATIVE OR MUTANT?

DR. OLSON: NO. WHAT THEY'RE FINDING IS THAT IF THEY DECREASE P 53 IN CELLS BY A NUMBER OF MECHANISMS, BY PUTTING IN AN SIRNA TO INHIBIT, IF THEY DECREASE P 53, IF THEY KNOCK OUT P 53, IF THEY PUT IN A DOMINANT NEGATIVE MUTANT, IN THOSE CIRCUMSTANCES REPROGRAM EFFICIENCY GOES WAY UP.

I ALSO WANTED TO JUST FOCUS A LITTLE BIT ON SOME OF THE HIGHLIGHTS FROM DIFFERENTIATION. NOW, WHY DO WE CARE ABOUT THIS? AND I WOULD REMIND YOU ALL THAT THE STARTING POINT FOR EFFICIENT DIFFERENTIATION OF CELLS FOR ACTUAL THERAPEUTIC USE HAS BEEN WHAT WE'VE LEARNED FROM DEVELOPMENTAL BIOLOGY. IT'S BEEN YOUR BASIC SCIENTISTS UNDERSTANDING WHAT IT TAKES TO GET FROM, SAY, AN ES CELL TO A BETA CELL. SO YOU LOOK AT NOVACEL. NOVACEL'S IN VITRO DIFFERENTIATION PROTOCOLS ARE VERY MUCH BASED ON WHAT DEVELOPMENTAL BIOLOGISTS HAVE DONE. GERON'S IN VITRO DIFFERENTIATION PROTOCOLS ARE BASED ON WHAT BASIC BIOLOGISTS HAVE DONE.

SO SOME OF THIS WORK IS ALSO JUST BEAUTIFUL, AND I JUST WANT TO HIGHLIGHT A COUPLE OF

THE TALKS THAT WE HEARD. MARK KRASNOW FROM STANFORD. HE HAS DONE SOME ABSOLUTELY GORGEOUS WORK WHERE HE'S FOUND OUT A WAY TO IN VIVO MARK SINGLE CELLS, AND HE'S USED THAT TO TRACK THEIR FATE. AND WHAT HE HAS PREVIOUSLY SHOWN, AND THIS IS IN A MOUSE, HE HAS SHOWN THAT THE BRANCHING IN A LUNG, SO GOING FROM ONE CELL TO THIS VERY COMPLEX STRUCTURE DURING DEVELOPMENT IS THE RESULT OF ONLY THREE BRANCHING MODES IN THREE DIFFERENT SEQUENCES. IT'S LIKE A COMPUTER PROGRAM AND SUBROUTINE. AND IT'S JUST BEAUTIFUL WORK THAT HE'S DONE.

HE'S NOW EXTENDED THIS TO DEFINE SIMILAR TYPES OF DEVELOPMENTAL PATHWAYS FOR THE PULMONARY ARTERIES AND VEINS IN THE AIRWAY SMOOTH MUSCLE DEVELOPMENT. HE HAS DEFINED TEN-KEY SIGNALING PATHWAYS. HE HAS FOUND NEW MOLECULES. WHY IS THIS -- WHY COULD THIS BE IMPORTANT TO US? CHRONIC ASTHMA IS HYPERPROLIFERATION OF THE SMOOTH MUSCLE DEVELOPMENT. IF WE UNDERSTAND THIS A LITTLE BIT MORE, WE MAY BE ABLE TO COME UP WITH SOME THERAPIES. SO THAT WAS ONE TALK THAT I THINK WAS A HIGHLIGHT.

THERE'S ANOTHER -- THERE WAS ANOTHER TALK FROM HANS CLEVER OF THE HUBRECT INSTITUTE IN THE NETHERLANDS. AND WHAT HE'S DONE, HE'S IDENTIFIED A PROTEIN CALLED LRG 5, WHICH HAS BEEN SHOWN TO

SPECIFICALLY MARK SIX CELLS IN WHAT'S CALLED THE CRYPT OF THE INTESTINAL VILLI. AND WHAT HE'S SHOWN IS THAT THESE ARE THE CELLS THAT GIVE RISE TO ALL THE OTHER -- TO THE INTESTINE BASICALLY. THEY GIVE RISE TO THE INTESTINE. NOT ONLY DO THEY GIVE RISE TO ALL THE INTESTINAL LINEAGE CELLS, THE VILLI, BUT ALSO TO THE GUT STEM CELLS.

PROBABLY ONE OF THE NEATEST THINGS HE'S SHOWN IS THAT YOU CAN TAKE ONE OF THESE CELLS AND YOU CAN PUT IT IN VITRO UNDER CERTAIN CONDITIONS AND YOU CAN GET A LITTLE VILLI. YOU CAN GET A LITTLE INTESTINE FORMED. SO IT CREATES ITS OWN NICHE. IT IS SELF-INSTRUCTIVE. THIS IS VERY DIFFERENT FROM YOUR BLOOD-FORMING CELLS WHICH HAVE A REQUIREMENT FOR A SPECIFIC NICHE. SO THIS IS VERY EXCITING. IT ALSO ACTUALLY MAY OFFER SOME CLUES TO INTESTINAL CELL CANCER. SO HE'S FINDING SOME CORRELATE THERE AS WELL.

THE OTHER THING -- SO YOU'VE HEARD ABOUT -- THESE ARE BOTH TWO EXAMPLES OF CELL BIOLOGISTS DOING WORK TO ACTUALLY DEFINE DEVELOPMENT DIFFERENTIATION PATHWAYS. THAT'S A STARTING POINT. NOW YOU HAVE DOUG MELTON. DOUG MELTON IS SAYING I NEED BETA CELLS. I NEED BETA CELL PROGENITORS AND I NEED A LOT OF THEM. AND SO THE PATHWAYS THAT YOU

SEE OR THE DEVELOPMENTAL PATHWAYS THAT USE COMPLEX GROWTH FACTORS AND THINGS LIKE THAT, HE WANTS TO DO IT DIFFERENTLY. SO HE HAS DEVELOPED SCREENING METHODS WHEREBY HE HAS IDENTIFIED TWO SMALL MOLECULES THAT CAN SUBSTITUTE FOR GROWTH FACTORS, WHAT HAVE YOU, AT TWO DIFFERENT STAGES IN THE DIFFERENTIATION FROM ES CELLS TO ESSENTIALLY THE PANCREATIC PROGENITOR. SO HE'S NOT COVERED ALL THE STEPS THERE, BUT HE'S COVERED A COUPLE OF THEM.

HE'S ONLY GOT PROBABLY ABOUT 30 PERCENT EFFICIENCY AT THIS POINT. HE CAN GO FROM DEFINITIVE ENDODERM TO PANCREATIC PROGENITOR WITH A LITTLE LESS, ABOUT 30-PERCENT EFFICIENCY. THAT'S PROBABLY NOT GOOD ENOUGH. HE HASN'T FUNCTIONALLY CHARACTERIZED THIS YET, BUT THIS SHOWS WHAT YOU CAN DO WHEN YOU HAVE ASSAYS AND YOU HAVE LIBRARIES.

AND THIS IS WHAT YOU ARE GOING NEED. HE'S CONVINCED THAT THE ONLY WAY YOU ARE GOING TO GET THE CELL NUMBERS YOU NEED FOR BETA CELL PROGENITORS IS STARTING WITH AN ES POPULATION. SO THAT'S THE FOCUS HE'S TAKING.

I WANTED TO TELL YOU A LITTLE BIT ABOUT TRANSLATIONAL HIGHLIGHTS. AGAIN, WE TALK ABOUT WHAT'S BASIC BIOLOGY DO FOR US. WELL, THERE'S BEEN SOME VERY BEAUTIFUL WORK IN DEVELOPING THE ZEBRAFISH

AS A MODEL SYSTEM. AND ONE OF THE THINGS THAT THEY'VE DONE IS THEY'VE IDENTIFIED, I BELIEVE IT'S CALLED, AN ALBINO ZEBRAFISH. IT'S GOT VARIOUS REPORTERS IN IT. IT REALLY ALLOWS TO YOU TRACK WHAT'S GOING ON.

AND SO LEONARD ZON AT THE HARVARD STEM CELL GROUP, WHAT HE'S DONE -- WELL, FIRST, THE UNMET NEED IS I THINK WE'VE ALL KNOWN THAT UMBILICAL CORD BLOOD TRANSPLANT, SO A SINGLE CORD IS INSUFFICIENT NUMBER OF STEM CELLS TO TYPICALLY HELP AN ADULT. SO IN ADULT CELL LEUKEMIA, IF YOU USE A SINGLE CORD, YOU'LL ONLY GET 40 PERCENT ENGRAFTMENT EFFICIENCY, AND THAT'S NOT GOOD ENOUGH. SO A HOLY GRAIL IN THE FIELD HAS BEEN TO TRY AND EXPAND THE HEMOPOIETIC STEM CELLS IN THE CORD.

WHAT HE HAS DONE IS HE HAS USED THE ZEBRAFISH, AND WHAT THE ZEBRAFISH HAVE IS THEY HAVE A REGION THAT IS WHAT'S CALLED A HEMOGENIC ENDOTHELIUM, WHICH MEANS THE LINING OF YOUR BLOOD VESSEL. THERE'S ONE PART OF IT IN THE ZEBRAFISH THAT GIVES RISE ESSENTIALLY TO ALL YOUR HEMOPOIETIC CELLS. HE HAS USED A VERY SELECTIVE CHEMICAL LIBRARY. MANY OF THE COMPOUNDS ARE ALREADY APPROVED. HE'S SCREENED THAT LIBRARY IN THIS ASSAY WHERE HE CAN LOOK AT THESE ZEBRAFISH AND FIND THESE

LITTLE BLOOD CELLS DEVELOPING, AND HE HAS IDENTIFIED A COMPOUND WHICH, IN FACT, ALLOWS THIS TO HAPPEN.

AND THAT COMPOUND HAS BEEN -- IT'S ACTUALLY -- IT'S PROSTAGLANDIN E2 ACTUALLY. AND WHAT HE'S DONE IS HE'S ALREADY -- AND IND HAS BEEN SUBMITTED AND A CLINICAL STUDY HAS BEEN APPROVED WHERE TWO CORDS WILL BE USED FOR A TRANSPLANT FOR LEUKEMIA. ONE WILL BE TREATED EX VIVO WITH THIS COMPOUND, AND THEN HE WILL LOOK TO SEE WHICH ONE DOMINATES THE ENGRAFTMENT PROCEDURE.

SO IT'S ACTUALLY BEEN A VERY -- THIS HAS ONLY BEEN A COUPLE OF YEARS. THIS IS ONE OF THOSE SITUATIONS WHERE, YOU KNOW, YOU'VE GOT A MOLECULE THAT PEOPLE KNOW ABOUT. YOU'RE DOING AN EX VIVO SITUATION, AND YOU CAN MOVE INTO THE CLINIC QUICKLY.

THE ONLY OTHER ONE I WANTED TO TALK ABOUT, AND SOME OF YOU MAY BE FAMILIAR WITH THIS WORK. JOHN WAGNER PRESENTED THIS AT THE STANDARDS WORKING GROUP, I THINK, LAST YEAR WHERE HE TALKED ABOUT THIS DISEASE CALLED RECESSIVE DYSTROPHIC EPIDERMOLYSIS BULLOSA, RDEB. AND THIS IS REALLY A TERRIBLE DISEASE. AND WHAT IT IS IT'S A RECESSIVE MUTATION IN COLLAGEN 7 WHICH RESULTS IN THE SKIN, THE EPIDERMIS, THE SKIN, OUTER LAYER OF THE SKIN, NOT ANCHORING TO THE DERMIS.

AND CHILDREN WHO ARE BORN WITH THIS DISEASE DON'T HAVE A VERY GOOD PROGNOSIS. BASICALLY THEIR SKIN SLOUGHS OFF. AND SO THIS IS REALLY NOT GOOD.

AND WHEN JOHN TALKED ABOUT THIS LAST YEAR, I BELIEVE HE COMPLETED HIS PRECLINICAL STUDIES IN AN ANIMAL MODEL, AND HE MAY HAVE TREATED ONE PATIENT. WHAT THEY'RE USING IS ALLOGENEIC BONE MARROW STEM CELLS, SO THEY ISOLATE BONE MARROW. THEY'VE ACTUALLY TREATED, I BELIEVE, SIX PATIENTS AT THIS POINT. FOUR OF THE SIX PATIENTS ARE STILL ALIVE, AND THEY'RE ACTUALLY SEEING MEASURABLE OUTCOMES. THEY'RE SHOWING OVER TIME INCREASED COLLAGEN 7 PRODUCTION. THEY'RE SHOWING AN INCREASE IN ANCHORING FIBRILS WITH A HIGH DEGREE OF STATISTICAL SIGNIFICANCE. BUT PERHAPS MOST IMPORTANTLY FOR THE PATIENTS, THEY'RE ACTUALLY SEEING THE SKIN HEALING.

SO THIS IS JUST ONE OF THESE REALLY IMPRESSIVE EXAMPLES WHERE YOU CAN REALLY -- IT'S AN ORPHAN DISEASE, BUT IT REALLY TELLS YOU THAT WHEN YOU GET IT RIGHT, YOU CAN REALLY MAKE A DIFFERENCE.

(APPLAUSE.)

MR. SHEEHY: CAN I ASK A QUICK QUESTION, PAT? DO THEY DO MYOABLATION, PARTIAL OR FULL?

DR. OLSON: OH, YEAH. ACTUALLY I THINK

THEY DID DO A CONDITIONING REGIMEN.

MR. SHEEHY: DO YOU KNOW WHAT THAT WAS?

DR. OLSON: CYCLOPHOSPHAMIDE, BUSULFAN, AND FLUDARABINE.

MR. SHEEHY: IT WAS A PARTIAL ABLATION?

DR. OLSON: I THINK IT WAS PARTIAL.

MR. SHEEHY: SO WHAT WAS HIS ENGRAFTMENT LIKE? THEY GOT GOOD --

DR. OLSON: THEY ACTUALLY SHOWED -- THEY SHOWED CHIMERISM IN BOTH THE ORAL MUCOSA IN THE SKIN UP TO 27 PERCENT FROM THE DONOR.

MR. SHEEHY: SO THIS WORKED PRETTY --

DR. OLSON: YEAH. SO IT ACTUALLY WORKED PRETTY WELL.

CHAIRMAN KLEIN: THIS IS A FOLLOW-ON FROM THE PRESENTATION AT OUR STANDARDS WORKING GROUP.

MR. SHEEHY: HE WAS DOING THIS WITH CORD BLOOD FROM MATCHED SIBLINGS.

DR. OLSON: HE'S DOING IT WITH BOTH. HE ACTUALLY --

MR. SHEEHY: THIS IS A GREAT EVENT. JOHN IS A GREAT MAN.

CHAIRMAN KLEIN: SO ONE OF OUR GREAT BENEFITS OF HAVING TREMENDOUS CONTRIBUTIONS AND PARTICIPATION FROM MEMBERS FROM OUT OF STATE ON OUR

STANDARDS COMMITTEE AND IN OUR PEER REVIEW IS WE GET THE EARLY INSIGHTS INTO THIS TYPE OF BEAUTIFUL INNOVATION.

DR. TROUNSON: SO, CHAIR, WE WANT TO BRING UP THE -- JUST BRING YOU UP TO SPEED ON REIMBURSEMENT OF STEM CELL THERAPIES, THE WORK THAT WE'RE DOING. SO IF ELONA CAN FILL YOU IN BRIEFLY ON THAT.

MS. BAUM: I GUESS I HAVE TO SAY GOOD EVENING, I THINK, TECHNICALLY SPEAKING. AS ALAN SAID, I JUST HAVE A FEW SLIDES TO GET YOU UP TO DATE ON THE REIMBURSEMENT PROJECT THAT WE'RE DOING. WE'RE NOT EVEN AWARE IF YOU KNOW THAT THIS IS GOING ON. BUT BEFORE I START WITH MY FEW SLIDES, I WANTED TO GIVE A VERY BIG THANK YOU TO DON GIBBONS WHO'S BEEN DRIVING THE PROJECT ON A DAY-TO-DAY BASIS.

LET ME GIVE YOU A LITTLE BACKGROUND. OBVIOUSLY I DON'T HAVE TO TELL YOU WHAT THE MISSION IS. BUT AS PART AND PARCEL OF THE MISSION, WE ALL UNDERSTAND THAT WE HAVE TO IDENTIFY POTENTIAL BARRIERS TO CIRM SUCCESS. AND IT'S MY UNDERSTANDING SOME TIME AGO THAT THE BOARD ACTUALLY THOUGHT THAT OR INQUIRED AS TO WHETHER OR NOT REIMBURSEMENT ISSUES WOULD PRESENT A BARRIER FOR THE SUCCESS OF OUR MISSION. AND STAFF TOOK THIS VERY SERIOUSLY,

AND WE HAVE UNDERTAKEN A BRIEF STUDY ON THIS ISSUE. AND I'M JUST APPRISING YOU OF THE FACT THAT WE ARE UNDERTAKING THIS STUDY AND THAT WE WILL HAVE RESULTS SHORTLY.

I WANT TO SET THE GROUNDWORK BY STATING THAT I THINK THERE'S TWO SORT OF LENSES THAT YOU CAN LOOK AT THE REIMBURSEMENT ISSUE FROM. THE FIRST IS SORT OF THE PATIENT PERSPECTIVE. WHAT'S THE LIKELIHOOD OF COVERAGE? WHAT WOULD THE SCOPE BE? THE OTHER IS ALSO FROM THE PERSPECTIVE OF INDUSTRY. WE WANT TO MAKE SURE THAT THE SCOPE OF COVERAGE WILL BE AT A PRICE TO CONTINUE TO INCENTIVIZE INVESTMENT IN THAT AREA. SO IT'S WITH THAT LENS THAT WE'RE UNDERTAKING THIS REVIEW.

AND WHAT WE'VE DONE IS WE HAVE HIRED THE NICHOLAS PETRIS CENTER, THANKS TO ED PENHOET WHO CONNECTED US WITH THEM. THEY'RE MUCH ESTEEMED AND THEY'VE DONE A TERRIFIC JOB ON HELPING US SCOPE THE PROJECT IN A VERY ECONOMICAL WAY.

OUR OBJECTIVE IS TO UNDERSTAND THE MAGNITUDE THAT MIGHT EXIST, IF IT DOES EXIST, IN ONLY SORT OF A VERY HIGH LEVEL WAY, BUT ALSO TO IDENTIFY WHERE HURDLES WOULD EXIST AS WELL.

AND THE APPROACH IS PRETTY SIMPLE, BUT I THINK WE'LL GET SOME TERRIFIC INFORMATION FROM IT.

WHAT WE'RE DOING IS WE'RE INTERVIEWING THE KEY THOUGHT LEADERS IN THIS AREA, AND WE WILL BE DRAWING FROM GOVERNMENT BUT ALSO FROM INDUSTRY. WE'VE ALREADY OR THEY ACTUALLY, THE PETRIS CENTER, HAS ALREADY INTERVIEWED SOME KEY THOUGHT LEADERS AT CMS, CENTERS FOR MEDICAID AND MEDICARE SERVICES. I HAPPEN TO KNOW THAT GENENTECH HAS AGREED TO PARTICIPATE IN ONE OF THESE INTERVIEWS.

I THINK GENENTECH IS IMPORTANT BECAUSE THEY'VE GOTTEN APPROVALS AND REIMBURSEMENTS FOR LUCENTIS FOR MACULAR DEGENERATION, WHICH I UNDERSTAND IS A RELATIVELY EXPENSIVE DRUG, AND THAT'S THE CONCERN HERE AND, OF COURSE, SOME STEM CELL COMPANIES. NEVER TRY TO SAY THAT REALLY QUICKLY.

LIKE I SAID, THIS IS A REALLY SHORT PRESENTATION. WE'RE EXPECTING A DRAFT REPORT FROM THE PETRIS CENTER IN SEPTEMBER. AND, AGAIN, WE WILL PRESENT IT TO THE BOARD IN OCTOBER. AND, AGAIN, THE PURPOSE IS TO SIMPLY INFORM THE BOARD. WE DON'T KNOW WHETHER OR NOT THERE TRULY IS AN ISSUE; BUT IF THERE IS AN ISSUE, AT THAT TIME I THINK WOULD BE THE APPROPRIATE TIME TO DISCUSS POTENTIAL ACTIONS.

DR. PRIETO: AS PART OF THIS REPORT, ARE YOU LOOKING AT OR ARE THEY LOOKING AT WHAT OTHER

COUNTRIES ARE DOING AND WHETHER THEY'VE DEVELOPED POLICIES YET?

MS. BAUM: NO. IT'S NOT ON THAT LARGE OF A SCALE. IT'S REALLY WHAT WE ANTICIPATE HERE IN TERMS OF POTENTIAL HURDLES. SINCE WE'RE SORT OF IN A GAME-CHANGING STATE, IT'S A VERY APT TIME TO BE UNDERSTANDING WHAT THE LANDSCAPE IS. AND IF THERE ARE ANY POTENTIAL HURDLES, MAYBE THIS IS THE TIME TO TAKE SOME ACTION.

CHAIRMAN KLEIN: DR. PRIETO, THEY ARE INVOLVING ART TORRES IN THIS PROCESS. SO GIVEN THAT HE WAS THE PRIOR SENATE CHAIR OF THE INSURANCE COMMITTEE, HE'S WORKING WITH THEM ON THE ISSUE OF REIMBURSEMENT, MEDICARE, MEDICAID, AND OTHER REIMBURSEMENT PROGRAMS, AS WELL AS GOVERNMENTAL REIMBURSEMENT PROGRAMS UNDER MEDI-CAL AND PRIVATE INSURANCE ISSUES. BUT THIS, YOU CAN ANTICIPATE, IS GOING TO, I THINK, BE A PRELIMINARY IDENTIFICATION REPORT OF OBJECTIVES IN OCTOBER. AT LEAST I WOULD EXPECT IT TO BE, AND IT'S GOING TO TAKE A LONG TIME TO WORK THROUGH THE INSURANCE GOVERNMENTAL REIMBURSEMENT ISSUES THAT ARE INVOLVED HERE. IT'S A VERY HELPFUL FIRST STEP, BUT IS ONE OF MANY STEPS, INCLUDING, I THINK, YOUR SUGGESTION, WHICH THEY CAN'T GET DONE BY OCTOBER, BUT DOWNSTREAM CERTAINLY

OUR COLLABORATORS IN THE UNITED KINGDOM AND CANADA AND AUSTRALIA AND OTHER COUNTRIES CAN PROVIDE US SOME INPUT. DUANE.

MR. ROTH: YES. SO ONE OF THE KEY ISSUES HERE TO ME IS TO MAKE SURE WE UNDERSTAND THE COST OF THESE DISEASES, NOT THE REIMBURSEMENT, BUT WHAT DOES IT REALLY COST BECAUSE WHAT WE'RE TRYING TO ADDRESS IS NOT A TREATMENT, BUT A CURE. AND WHAT IS THE VALUE OF A CURE? AND CAN YOU PUT THAT FORWARD BEFORE YOU EVER START TALKING ABOUT WHAT WE'RE GOING TO REIMBURSE?

SO TO ME, IF I HAVE A DISEASE, A DEBILITATING DISEASE, I'D WANT TO MAKE SURE THAT MY SOCIETY OR MY ORGANIZATION UNDERSTOOD HOW MUCH MONEY WOULD BE SAVED, NOT EVEN THE HUMAN COST, THE DIRECT COST PER PATIENT ON AVERAGE TO CURE THAT DISEASE. AND THAT'S THE STARTING POINT THAT I THINK WE HAVE TO GET TO. THEN THE REGULATORS, THE REIMBURSERS, AND THE INDUSTRY HAVE SOMETHING UP HERE THEY CAN POINT TO THAT WASN'T LOOKED AT AS A BIASED NUMBER. SO I HOPE THAT'S PART OF WHAT THEY'RE GOING TO GET AT TO REALLY UNDERSTAND IF YOU CURE TYPE 1 DIABETES, WHAT'S THE VALUE OF THAT OVER THE LIFETIME?

CHAIRMAN KLEIN: SO THERE IS, DUANE, AN ONGOING STUDY THAT MAYBE DR. TROUNSON CAN COMMENT,

AN ECONOMIC STUDY, TO IDENTIFY THE DIRECT AND INDIRECT BENEFITS FROM THESE THERAPEUTIC ADVANCES. DR. TROUNSON, WOULD YOU LIKE TO ADDRESS THAT?

DR. TROUNSON: WELL, YOU ARE MAKING A VERY GOOD POINT. AND WE'RE TAKING THE MYELIN PROLIFERATIVE DISORDER AS ONE EXAMPLE. WHAT WE NEED TO DO IS GET SOME EXAMPLES WHERE THERE IS SOME IDEA OF WHAT THE COST MIGHT BE. SO WE'RE IN THIS STAGE WHERE SOME OF THAT IS STILL RATHER UNKNOWN. BUT WHERE THERE ARE SOME KNOWNS ABOUT IT, THAT'S WHERE WE WANT TO DERIVE ADDITIONAL DATA.

SO YOU'RE ABSOLUTELY RIGHT, DUANE, BUT WE NEEDED TO MAKE A START SOMEWHERE. WE WILL MAKE SOME ASSUMPTIONS, I THINK, IN THE FIRST PLACE ABOUT THE COST OF SOME CELL THERAPIES AND SOME PHARMACEUTICAL THERAPEUTICS AND JUST SEE HOW THAT WORKS.

CHAIRMAN KLEIN: SO I WAS SPECIFICALLY REFERRING WE HAVE A CONTRACTED ECONOMIC STUDY. AND I THINK WHAT DR. TROUNSON IS REFERRING TO IS, AS A SUBSET OF THAT CONTRACTED ECONOMIC STUDY, ONE OF THE CASES THEY'RE BEING ASKED TO LOOK AT IS KATRINA JAMIESON'S BIOPROLIFIC BLOOD DISEASE, AT LEAST LEUKEMIA, ON A COST-BENEFIT ANALYSIS AS AN EARLY EXAMPLE OF POTENTIAL SAVINGS, BUT IT'S A MUCH BROADER STUDY THAT GOES ACROSS A SPECTRUM OF DISEASE

TO IDENTIFY THE COST OF THOSE DISEASES AS A BACKGROUND DATABASE THEY CAN USE TO ACCOMPLISH WHERE YOU'RE GOING, I THINK, DUANE.

MR. ROTH: THAT'S CORRECT. AND IT'S JUST I SO WORRY ABOUT NOT DOING THIS PROSPECTIVELY. ONCE A DRUG IS PUT FORWARD AND YOU CAN SEE IT AND THE COMPANY OR SOMEONE SAYS THIS IS THE VALUE, EVERYBODY SAYS, "WHAT, ARE YOU KIDDING ME? THAT'S THE VALUE? HOW DID YOU CALCULATE THAT?" AND IT BEGINS WITH THE BIAS. INSTEAD OF PUTTING THAT OUT HERE FIRST BEFORE A DRUG EXISTS, SAYING IF A DRUG EXISTS, THIS IS WHAT THE SAVINGS WOULD TRULY BE, THE OUT-OF-POCKET COST, NOT THE HUMAN SUFFERING AND ALL THAT, BUT PRODUCTIVITY, THINGS LIKE THAT.

SO GETTING THAT OUT IN FRONT WILL PULL PEOPLE TOWARDS THAT, INCLUDING THE REIMBURSEMENT AGENCIES. AND IF WE COULD ALL AGREE ON THAT, THAT CREATES GREAT INCENTIVE FOR COMPANIES THEN TO INVEST, WHICH IS OUR BIGGEST CONCERN HERE. WHO WILL PAY FOR A CURE?

WE KNOW WHAT THEY'LL PAY FOR A TREATMENT THAT WILL MAINTAIN SOMEBODY, BUT WHO WILL PAY IF YOU REALLY CURE ONE OF THESE, ESPECIALLY THESE CHILDHOOD DISEASES? THAT'S MY BIG CONCERN.

DR. TROUNSON: WE'RE TRYING TO DO THAT,

BUT THERE'S SOME RELUCTANCE ON BEHALF OF SOME OF THE ORGANIZATIONS TO GIVE US A REALITY EXAMPLE. SO WHAT WE'RE TRYING TO DO IS WORK IT THROUGH IN THE PROCESS. IF IT WENT THIS WAY, WHAT WOULD YOU IMAGINE IT MIGHT BE? SO THERE IS SOME NECESSITY AT THIS POINT IN TIME THAT THEY DON'T WANT TO PREJUDICE A PRICE THEMSELVES, BUT WE'RE WORKING OUR WAY TOWARDS IT AS BEST WE CAN, DUANE. WE AGREE WITH WHAT YOU ARE SAYING.

MS. BAUM: IT'S STANDARD PRACTICE, AT LEAST AMONG THE LARGER BIOTECH AND PHARMA, TO START THE PROCESS, THE DIALOGUE, ON REIMBURSEMENT AT THE PHASE I STAGE.

MR. ROTH: SO THAT'S THE PROBLEM. IT'S COMPANY DATA. WHAT I'M SUGGESTING IS IT OUGHT TO BE A GROUP LIKE OURS OR DISEASE ASSOCIATIONS PROSPECTIVELY DOING THAT. ONCE THE COMPANY GETS INVOLVED, BIAS SETS IN AND EVERYBODY HAS AN OPINION ABOUT THAT. I'VE BEEN THERE. I UNDERSTAND THIS PERFECTLY. I'M TRYING TO SUGGEST THAT IF YOU HAVE THESE DEBILITATING DISEASES FOR WHICH THERE ARE NO CURES AND YOU WANT CURES, THAT YOU OUGHT TO AT LEAST KNOW WHAT YOUR COST OF YOUR DISEASE IS SO THAT SOMEBODY CAN LOOK AT IT OBJECTIVELY BEFORE A POTENTIAL CURE. AND THEY GO CAN YOU BELIEVE THESE

GREEDY? THAT'S WHAT HAPPENS ONCE THE COMPANY GETS INVOLVED.

MS. BAUM: WHAT I WAS GOING TO SAY IS THAT THE ECONOMIC IMPACT STUDY THAT WE ARE CONDUCTING WILL BE HELPFUL WHEN THEY GO IN TO MAKE THEIR PITCH ON COVERAGE ESSENTIALLY.

CHAIRMAN KLEIN: I THINK, DUANE, LET'S TAKE THIS INTERNALLY AND IN EXECUTIVE COMMITTEE TRY AND DEVELOPMENT A PRIORITY BECAUSE YOUR POINT IS CLEARLY HISTORICALLY VERY ACCURATE, AND PROSPECTIVELY WE SHOULD LEARN FROM THE HISTORY. I DO THINK THAT THE ECONOMIC STUDY THAT'S UNDER CONTRACT WILL GIVE US SOME OF THIS DATA, AND THERE ARE OTHER SOURCES THAT WE PREVIOUSLY IDENTIFIED RELATED TO THE UNIVERSITY OF PENNSYLVANIA AND SOME OTHER WELL-KNOWN NATIONAL RESEARCHERS THAT WORK WITH THE NIH AND THE CONGRESSIONAL BUDGET OFFICE THAT CAN SERVE AS A DATA STARTING POINT. BUT THIS IS A PROCESS THAT'S GOING TO TAKE SOME TIME, SO WE'LL INTERNALIZE THAT AND TRY AND WORK WITH DR. TROUNSON AND HIS STAFF TO GET TO THIS OBJECTIVE AND REPORT BACK TO THE BOARD.

MS. BAUM: DR. PRIETO.

DR. PRIETO: I JUST WANT TO MAKE SURE THAT WE'RE TAKING A BIG ENOUGH -- LOOKING AT A BIG ENOUGH

PICTURE HERE. I THINK I VERY MUCH AGREE WITH WHAT DUANE IS SAYING, THAT THE COST OF THE DISEASE, AND A LOT OF THAT DATA IS AVAILABLE. I KNOW MY ASSOCIATION CAN TELL YOU SOME COSTS OF DIABETES, LIFETIME COST AND ANNUAL COSTS AND TYPICAL OUT-OF-POCKET COSTS. BUT ALSO IT'S NOT JUST THE SCIENTIFIC GAME THAT'S CHANGING HERE, AND THERE ARE OTHER MODELS FOR HOW OTHER COUNTRIES ARE HANDLING THESE ISSUES.

THE UK, FOR EXAMPLE, HAS THE NICE, WHICH SPECIFICALLY LOOKS AT QUESTIONS LIKE THIS IN DECIDING WHAT THE DISPOSITION IS GOING TO BE WITH A REGARDS TO A PARTICULAR NEW TREATMENT OR HOPEFULLY WILL PRESENT THEM WITH A NEW CURE IN MAKING DECISIONS LIKE THAT. AND I THINK WE CAN LEARN SOMETHING FROM THAT.

MS. BAUM: THAT'S GREAT INPUT.

CHAIRMAN KLEIN: ELONA.

DR. TROUNSON: I THINK THAT'S A GOOD POINT. WE WANTED TO TAKE THAT UP IN THE NEXT PHASE RATHER THAN -- THESE PEOPLE WEREN'T REALLY SORT OF CAPABLE OF GETTING ACROSS THAT SPACE, BUT THERE'S A NEXT PHASE THAT HAS TO DO THAT.

CHAIRMAN KLEIN: DR. LOVE.

DR. LOVE: ELONA, I WANTED TO NOT ONLY

AGREE WITH DUANE AND FRANCISCO, BUT ALSO REASSURE YOU THAT I ACTUALLY TALKED TO THE GROUP EARLIER TODAY. AND I SPECIFICALLY WENT THROUGH NICE AND WHAT THEY'RE DOING, SPECIFICALLY TALKED ABOUT DIABETES AND THE COST OF THAT, HEART FAILURE, THE COST OF THAT, TO MAKE THOSE COSTS GO AWAY. SO AT LEAST AS A PROCESS, I THINK THEY'RE SENSITIVE TO THE ISSUES. I DON'T KNOW WHAT THE REPORT WILL LOOK LIKE, BUT I THINK YOUR POINTS HAVE ALREADY BEEN ARTICULATED TO THE GROUP.

MS. BAUM: VERY GLAD TO HEAR THAT. THAT'S ALL I HAD. IT WAS REALLY JUST A STATUS UPDATE WITH THE REAL INFORMATION COMING IN OCTOBER.

CHAIRMAN KLEIN: THERE ARE SEVEN DISEASES ON WHICH THERE IS VERY DETAILED RESEARCH INFORMATION FROM THE ORIGINAL ECONOMIC STUDIES THAT WERE DONE DURING THE CAMPAIGN THAT DREW ON NIH SOURCES, CONGRESSIONAL SOURCES, AND UNIVERSITY-BASED SOURCES THAT WE BELIEVE ARE UNBIASED COST ANALYSIS OF THE LONG-TERM COST OF CHRONIC DISEASE. THE MOST RECENT CONGRESSIONAL TESTIMONY HAS SUGGESTED, IN TERMS OF THE HEALTHPLAN THAT'S BEEN PROPOSED, THAT 74 PERCENT OF THE HEALTH COSTS IN THIS COUNTRY ARE FROM CHRONIC DISEASE. SO IF YOU CAN HAVE EARLY INTERVENTION, THERE'S A TREMENDOUS VALUE THERE, BUT YOU HAVE TO

IDENTIFY THAT IMMEDIATELY, INTERVENTION AS A CURE. DR. TROUNSON.

DR. TROUNSON: I WONDER IF WE CAN ASK DON GIBBONS TO JUST UPDATE YOU QUICKLY ON STEM CELL AWARENESS DAY, WHICH IS NEARBY.

MR. GIBBONS: GOOD EVENING AND THANKS FOR LETTING ME UPDATE YOU WITH THREE TOPICS VERY QUICKLY. FIRST OFF, THERE'S ANOTHER WHITE PAPER THAT WE'RE WORKING ON. THIS ONE I'M TEAMING UP WITH GEOFF LOMAX FOR OBVIOUS REASONS. AS WE MOVE TOWARD THE CLINIC, WE REALLY NEED TO MAKE SURE THAT ANY CLINICAL TRIALS WE FUND REFLECT THE DIVERSITY OF THE CALIFORNIA POPULATION. AND THERE HAVE BEEN SOME VERY BIG HISTORICAL ROADBLOCKS TO RECRUITMENT IN TRIALS IN GETTING A GOOD CROSS-SECTION OF THE POPULATION INTO TRIALS.

SO AS A FIRST STEP, WE WANTED TO TAKE A LAY OF THE LAND, JUST A LISTENING TOUR OF THE STATE TO SEE WHAT THE SITUATION WAS. SO VERY EARLY ON WE CONTACTED PAM FOBBS, THE CHAIR OF THE ICOC DIVERSITY COMMITTEE, TALKED TO HER ABOUT WHAT WE WERE THINKING ABOUT DOING. SHE WAS COMFORTABLE WITH IT. WE CONTRACTED WITH EMILY FRIEDMAN. SHE'S A WOMAN WHO TEACHES ETHICS AT BU. SHE WROTE THE WHITE PAPER ON DIVERSITY FOR THE AMERICAN HOSPITAL ASSOCIATION,

VERY VERSED IN THE FIELD AND VERY GOOD AT DOING WHITE PAPERS BASED ON TAKING A PULSE FIRST.

THIS IS -- SO SHE'S GOING TO LISTEN TO PEOPLE IN THE COMMUNITIES, LISTEN TO RESEARCHERS WHO HAVE WORKED IN THE VARIOUS COMMUNITIES IN CALIFORNIA WITH THE EYE TOWARD LOOKING FOR, NOT ONLY BARRIERS SO WE CAN IDENTIFY BARRIERS, BUT WAYS OVER THEM. WE HOPE TO PRODUCE A GRID THAT SHOWS IN THIS COMMUNITY YOU MAY FIND THIS BARRIER, AND SOMEBODY AT THIS INSTITUTION HAS FOUND A WAY PAST THAT BARRIER SO THAT WE CAN GIVE SOMETHING VERY CONSTRUCTIVE TO OUR GRANTEES THAT SAY HERE'S A WAY AROUND THIS BARRIER.

NOW, HER REPORT, WHICH WILL COME TO YOU THIS WINTER SOMETIME, IS REALLY A STARTING POINT. ONE, WE WANT YOUR FEEDBACK ON IT. A LOT OF YOU HAVE EXPERIENCE IN THIS FIELD. BUT, TWO, WE WANT TO TAKE THAT BACK TO THE COMMUNITIES, TAKE IT BACK TO SOME PEOPLE THAT ADVISED THE PROP 71 CAMPAIGN, AND SAY DOES THIS SOUND RIGHT TO YOU, NO. 1. AND, TWO, GETTING PAST THESE BARRIERS ARE PROBABLY BEYOND CIRM'S MEANS. WE WILL NEED TO GO BACK TO THEM AND SAY HOW CAN WE WORK WITH YOU TO LEVERAGE WHAT WE CAN DO WITH WHAT YOU CAN DO TO GET PAST THESE BARRIERS.

SO THAT'S ANOTHER WHITE PAPERWORK WE'RE WORKING ON. AGAIN, IT'S LIKE THESE OTHERS. IT'S A

FIRST STEP MOVING DOWN THIS PIPELINE, BUT I THINK IT'S A VERY IMPORTANT ONE.

CHAIRMAN KLEIN: DON, ON THAT POINT I WOULD STRONGLY SUGGEST THAT BEFORE A REPORT COMES BACK TO US, THAT IT GOES THROUGH OUR DIVERSITY COUNCIL. THE CALIFORNIA MEDICAL ASSOCIATION HAS A DIVERSITY COUNCIL. THEIR REPRESENTATIVES SIT ON OUR DIVERSITY COUNCIL. AND IT IS IMPORTANT THAT WE NOT JUST STUDY MINORITIES AND THEIR PARTICIPATION, BUT WE REALLY HEAR FROM THE INDIVIDUALS THAT ARE IN THE FIELD ACTIVELY PARTICIPATING.

THERE'S SOME GREAT SCHOLARSHIP; BUT UNLESS YOU'RE IN THE FIELD INVOLVED AND UNDERSTAND SOME VERY SUBTLE CULTURAL ISSUES WITH WHY CERTAIN GROUPS DON'T HAVE A HIGH PARTICIPATION RATE IN CLINICAL TRIALS, I DON'T THINK YOU'RE GOING TO GET THE BEST INFORMATION. SO BEFORE IT COMES BACK HERE, I'D LIKE TO HAVE THE ADDITIONAL VOICES AND OPINIONS OF OUR DIVERSITY COUNCIL ADDED TO GIVE US A PERSPECTIVE. I KNOW THE RESEARCHER IS EXTREMELY WELL REGARDED, AND I THINK THIS IS AN IMPORTANT EXERCISE. I APPLAUD YOUR INITIATIVE IN MOVING IT FORWARD. IT'S JUST IMPORTANT THAT THEY MEANINGFULLY PARTICIPATE IN THE REPORT THAT COMES BACK TO US.

MR. GIBBONS: THAT'S ALREADY BUILT INTO

THE PROCESS, MR. CHAIRMAN. WE DID INVOLVE PAM UP FRONT AS WELL ANOTHER MEMBER OF HER COMMITTEE. MOST OF THE PEOPLE YOU'RE ADDRESSING ARE ON HER INTERVIEW LIST. SO SHE WILL BE LISTENING TO THEM IN THE PROCESS AND THEN GOING BACK TO THEM AGAIN BEFORE IT COMES BACK TO THE BOARD.

AND WE HAVE WORKED WITH PAM ABOUT A WORKSHOP IN JANUARY OR FEBRUARY, AND SO SHE WILL BRING HER ENTIRE COMMITTEE TOGETHER IN JANUARY OR FEBRUARY. AND THE NEXT BOARD MEETING THIS CAN POTENTIALLY GO TO WOULD BE THE END OF FEBRUARY, SO THEY WILL HAVE A CHANCE TO MEET AND REFLECT PRIOR TO THAT BOARD MEETING WHERE WE COME TO YOU.

CHAIRMAN KLEIN: OKAY. THANK YOU.

MR. GIBBONS: THAT WORKSHOP, HOWEVER, PAM WANTS TO BE BROADER THAN THIS. SHE WANTS TO ADDRESS PIPELINE ISSUES AS WELL. AND WE WOULD BE INVITING THE DIRECTORS OF OUR BRIDGES PROGRAM, THE DIRECTORS OF OUR TRAINING PROGRAM TO COME TO THAT TO DISCUSS THE PIPELINE ISSUE BECAUSE IT'S ANOTHER SIDE OF THIS COIN THAT WE HAVE TO ADDRESS.

CHAIRMAN KLEIN: OKAY.

MR. GIBBONS: ANYTHING ELSE ON THAT? OKAY.

STEM CELL AWARENESS DAY IS, I MENTIONED

THE LAST TIME WE TALKED, COMING ON SEPTEMBER 23D. VERY QUICK UPDATE. THERE IS A WEBSITE UP AND AVAILABLE TO SEE WHAT IS PLANNED SO FAR. IT'S STEMCELLDAY.COM OR STEMCELLDAY.ORG, WHICHEVER YOU CHOOSE. WE HAVE GOTTEN VERY GOOD TRACTION AMONGST OUR GRANTEES AND AMONGST THE HIGH SCHOOL TEACHERS IN CALIFORNIA. ON THAT DAY WE'LL HAVE ABOUT 50 CLASSROOMS WITH A GRANTEE FROM CIRM IN THERE GIVING A STEM CELL GUEST LECTURE.

ONE SCHOOL IN SAN DIEGO IS CALLING A SCHOOLWIDE ASSEMBLY, WHERE WE WILL BE REACHING 400 STUDENTS IN ONE HIT. I HEARD TODAY FROM JAN NOLTA THAT HER SCHOOL IN SACRAMENTO IS DOING THE SAME THING, SO WE'LL BE REACHING SEVERAL HUNDRED WITH THAT AS WELL. A COUPLE OF INSTITUTIONS AROUND THE STATE ARE PLANNING SEMINARS THAT DAY.

IF YOU GUYS WANT TO PLAN ANYTHING, EVEN IF IT'S AS SIMPLE AS A BARBECUE IN WHICH YOU EXPLAIN TO YOUR NEIGHBORS WHAT'S DOING, WE ARE TRYING TO CREATE A GRASS ROOTS WEBSITE THAT TALKS ABOUT THINGS GOING ON AROUND THE WORLD. SOME OF OUR WORLD PARTNERS ARE ORGANIZING EVENTS FOR THAT DAY.

SENATOR TORRES HAS BEEN WORKING WITH SOME OF THE MAYORS AROUND THE STATE TO GET PROCLAMATIONS FOR THAT DAY. IT WAS IN RESEARCH AMERICA'S

NEWSLETTER IN JULY.

THESE DAYS ARE NOT GREAT PR EVENTS TRADITIONALLY. WHAT THEY ARE, IF THEY'RE DONE WELL, IS A GRASS ROOTS LOCALIZED EVENT THAT CAN BUILD OVER THE YEARS. WE DID ONE LAST YEAR. THIS HAS CLEARLY BUILT THIS YEAR. WE HOPED GOING FORWARD THAT IT WOULD BECOME MORE OF A TRUE GRASS ROOTS EFFORT THAT WOULD BUILD AND CONTINUE TO GROW, AND WE'LL SEE WHAT HAPPENS.

THE LAST THING -- ANY QUESTIONS ABOUT STEM CELL AWARENESS DAY? THE LAST THING I WANT TO DO IS SHOW A VERY BRIEF TWO-MINUTE VIDEO TO YOU. YOU AT THE SAN DIEGO MEETING HEARD A VERY EMOTIONAL PRESENTATION BY SOME OF KATRINA JAMIESON'S PATIENTS. VERY POWERFUL. IT WAS 20 MINUTES LONG. THAT'S HARD TO USE FOR ADVOCACY. ONE OF MY COLLEAGUES HAS EDITED THIS DOWN TO TWO MINUTES THAT I THINK YOU WILL FIND IS VERY POWERFUL.

(PAUSE IN PROCEEDINGS.)

MR. GIBBONS: WE MAY HAVE TO SHOW IT TO YOU LATER IN THE MEETING, BUT IT IS AVAILABLE ON YOUTUBE, ON THE CIRM T.V. SITE ON YOUTUBE.

CHAIRMAN KLEIN: WE CAN GO FORWARD AND COME BACK TO IT WHEN WE HAVE IDENTIFIED IT EASILY.

MR. GIBBONS: THERE IT IS.

CHAIRMAN KLEIN: WE WILL REVISIT THIS. AND THANK YOU VERY MUCH FOR THE REPORT. ART TORRES.

MR. TORRES: YES. I'D LIKE TO APPLAUD YOUR COLLEAGUES. AND BASICALLY WHO ARE THE FOLKS THAT WORK WITH YOU ON IT?

MR. GIBBONS: TODD DUBNICOFF AND AMY ADAMS.

MR. TORRES: I WANT TO THANK BOTH OF THEM AS WELL BECAUSE THIS VIDEO WAS SENT TO EVERY MEMBER OF THE LEGISLATURE. WE WILL ALSO BE SENDING A VIDEO ON ALZHEIMER'S TO EVERY MEMBER OF THE LEGISLATURE THAT THEY'RE WORKING ON NOW. IT'S JUST A CONTINUAL PATTERN OF EDUCATING THE DECISION MAKERS ON WHAT WE'RE DOING IN A VERY PERSONAL WAY. AND YOUTUBE IS A WAY TO DO IT, ESPECIALLY WITH YOUNG STAFF PEOPLE THAT MAKE AN IMPACT ON THEIR MEMBERS.

CHAIRMAN KLEIN: THANK YOU. AND THANK YOU, ART, FOR THAT TREMENDOUS OUTREACH TO THE LEGISLATURE.

(THE VIDEO WAS THEN SHOWN, NOT HEREIN TRANSCRIBED.)

DR. TROUNSON: SO MORE STORIES LIKE THAT, CHAIR, AND WE REALLY WILL HAVE A HUGE IMPACT IN THE WHOLE COMMUNITY. THAT DOES HIT IT VERY HARD. I'D BE VERY SURPRISED IF PEOPLE DON'T GET THEIR HEADS

UP. IT'S BRIEF ENOUGH AND POIGNANT ENOUGH TO REALLY MAKE THE POINT.

CHAIRMAN KLEIN: I WOULD REMIND EVERYONE IT CAME OUT OF TWO POST DOCS THAT WERE PART OF THE TRAINING GRANT PROGRAM AS WELL AS A SEED GRANT, SO THAT'S TREMENDOUS PROGRESS.

DR. TROUNSON, DO YOU HAVE ANY ADDITIONAL REPORTS?

DR. TROUNSON: CAN I ASK GEOFF LOMAX TO AGAIN VERY BRIEFLY REPORT TO YOU ON THE WORKSHOP, THE ETHICS WORKSHOP, THE SCRO ETHICS WORKSHOP THAT WAS HELD JUST RECENTLY?

DR. LOMAX: TWO VERY QUICK UPDATES HERE. THANK YOU, DR. TROUNSON. FIRST, JUST TO REMIND YOU ALL, WE'RE VERY SENSITIVE TO THE ISSUE THAT REGULATIONS CAN BE CHALLENGING AND FRUSTRATING, AND WE DON'T WANT REGULATIONS TO BE CHALLENGING AND FRUSTRATING. WE WANT THEM TO BE EFFECTIVE. SO ONE OF THINGS THAT WE'VE BEEN DOING OVER THE YEARS IS CONTINUALLY EVALUATE HOW OUR REGULATIONS ARE -- HOW THE IMPLEMENTATION IS GOING.

AND SO WE'VE HELD A SERIES OF WORKSHOPS OVER THE YEARS. THE LAST ONE WAS THIS JUNE WHERE WE CONVENED REPRESENTATIVES FROM 13 CALIFORNIA RESEARCH INSTITUTIONS. IT WAS ALSO ATTENDED BY MEMBERS OF

THE STANDARDS WORKING GROUP. WE ALSO MADE A POINT TO HAVE THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH ATTEND BECAUSE THEY HAVE REGULATIONS GOVERNING STEM CELL RESEARCH WHICH IS NOT FUNDED BY CIRM.

AND I WANT TO JUST BRIEFLY TOUCH ON THE MAJOR RECOMMENDATIONS. THIS REPORT IS ALSO ON OUR WEBSITE. THERE WAS A LOT OF DISCUSSION ABOUT THE NEED FOR GREATER CONSISTENCY WITH STATE AND FEDERAL REGULATIONS AND GUIDELINES. AND THE REAL DRIVER HERE OBVIOUSLY WAS WITH THE NIH COMING ON BOARD. THERE WAS A REAL PLEA FROM THIS COMMUNITY FOR US TO REALLY PAY ATTENTION TO THE NEW FEDERAL GUIDELINES AND DO EVERYTHING THAT WE CAN TO MAKE THEIR LIFE AS EASY AS POSSIBLE.

AND THE STANDARDS WORKING GROUP WILL BE CONSIDERING THESE ISSUES ON SEPTEMBER 17TH AND 18TH. SO I AM CURRENTLY IN THE PROCESS OF PREPARING A MORE DETAILED SET OF RECOMMENDATIONS BASED ON THE WORKSHOP FOR THE STANDARDS WORKING GROUP.

IT'S ALSO -- AGAIN, THIS IS, I THINK, WHERE THE NIH IS GOING TO BE INCREDIBLY HELPFUL. THERE'S STILL A NEED TO REALLY CREATE OR IDENTIFY A LIST OF COMPLIANT STEM CELL LINES. AND NIH REPORTS THEY NOW HAVE THE STAFF IN PLACE AND ARE MOVING FULL SPEED AHEAD. THAT'S TERRIFIC. WE'VE ALSO MADE SOME

PROGRESS ON THIS FRONT, WHICH I'LL JUST SHOW YOU IN ONE MOMENT.

AND FINALLY, WE ALSO HAD SOME HEALTHY DISCUSSION ABOUT SORT OF JUST THE OPERATIONAL ASPECTS OF THE STEM CELL RESEARCH OVERSIGHT COMMITTEES AND THINGS WE COULD DO TO SORT OF CLARIFY OUR EXPECTATIONS WITH OUR GRANTEES. THE NICE THING THERE IS I THINK WE CAN DO SOME THINGS TO HELP OUR GRANTEES WITHOUT NECESSITATING REGULATORY CHANGES SIMPLY BY GIVING THEM IMPROVED GUIDANCE.

SO, AGAIN, THIS IS ONGOING EVALUATION WORK. IT WILL CONTINUE, AND THIS WAS JUST ANOTHER GOOD OPPORTUNITY TO HEAR FROM THEM.

ONE OF THE THINGS ON THE STEM CELL LINE FRONT IS IN OUR REGULATIONS THERE IS A VERY IMPORTANT PROVISION THAT STATES IF YOU ARE A CIRM GRANTEE AND YOU DERIVE A STEM CELL LINE UNDER OUR REGULATIONS, THAT STEM CELL LINE IS THEN ELIGIBLE FOR ALL OUR RESEARCHERS. IT'S VERY SENSIBLE, BUT IT ALSO GIVES US A MECHANISM TO START TO IDENTIFY LINES WHICH ARE ELIGIBLE FOR RESEARCH WITHOUT A LOT OF PAPERWORK OR BUREAUCRACY.

SO I'D LIKE TO GIVE A NOD TO THE UNIVERSITY OF CALIFORNIA SAN FRANCISCO. THIS IS A PRELIMINARY SHOT THAT ISN'T QUITE LIVE YET BECAUSE

THEY HAVE NOT IDENTIFIED A CONTACT FOR US FOR SOMEONE TO CONTACT IF THEY'RE INTERESTED IN THEIR STEM CELL LINE. UCSF TOOK A BIG LEAP FORWARD, AND WE HAVE A PROCESS WHICH THEY SUBMIT DOCUMENTATION CERTIFYING THAT THE STEM CELL LINE WAS, IN FACT, DERIVED UNDER OUR REGULATIONS. THE HEAD OF THE OVERSIGHT COMMITTEE MUST SORT OF VERIFY THAT, AND THE RESEARCHER MUST ALSO VERIFY THAT. AND SO WE'VE GOT 12 LINES THAT HAVE GONE THROUGH THIS PROCESS. WE'RE LOOKING FORWARD TO HAVING THEM OUT THERE IN THE PUBLIC QUICKLY, AND WE HOPE OTHER INSTITUTIONS WILL QUICKLY FOLLOW SUIT.

THIS IS ALSO GOING TO BE HELPFUL FOR ALLOWING US TO CONVINCE OUR COLLABORATORS BOTH NATIONALLY AND INTERNATIONALLY THAT THESE ARE STEM CELL LINES THAT SHOULD BE FAST-TRACKED INTO ANY NECESSARY REGULATORY APPROVAL PROCESS. SO WE HOPE THIS IS A SIGNIFICANT SMALL STEP FORWARD, BUT HOPEFULLY A SUBSTANTIVE ONE TO REALLY MAKE LIFE EASIER FOR OUR GRANTEES AND THE RESEARCH COMMUNITY IN GENERAL.

CHAIRMAN KLEIN: THANK YOU VERY MUCH. I KNOW IT IS A TREMENDOUS BENEFIT TO THE RESEARCHERS TO HAVE OUR REGULATIONS AS CONSISTENT AS REASONABLY POSSIBLE WITH THE NIH REGULATIONS.

DR. LOVE, YOU HAD SOME DISCUSSIONS ABOUT THIS GOAL RECENTLY. WOULD YOU LIKE TO COMMENT?

DR. LOVE: YEAH. I WAS JUST GOING TO EMPHASIZE THAT AS WE EVOLVE, I THINK IT WOULD BE IMPORTANT FOR US TO TRY TO MAKE SURE THAT WE MAKE ALL OF OUR REGULATIONS AT LEAST CONSISTENT, BUT ALSO AS BROAD AS THE FEDERAL GOVERNMENT REGULATIONS. I THINK, IN GENERAL, THEY'RE LIKELY TO BE MORE RESTRICTIVE. BUT CERTAINLY WHEN THEY LIBERALIZE BEYOND US, I THINK WE OUGHT TO MAKE SURE THAT WE FOLLOW SUIT IF WE CAN, IF IT'S APPROPRIATE AND ETHICAL, OF COURSE.

CHAIRMAN KLEIN: DR. PRICE, YOU'VE ALSO GONE INTO THIS SUBJECT RECENTLY.

DR. PRICE: I JUST WANTED TO ADD THAT WHEN THE STANDARDS WORKING GROUP, WHEN WE ADOPTED THOSE REGULATIONS, THERE WAS A LOT OF TALK ABOUT THE REGULATIONS BEING A LIVING DOCUMENT AND RESPONDING TO DEVELOPMENTS AS THEY OCCURRED. I DON'T KNOW WHETHER WE CAN GIVE INSTRUCTIONS TO THE WORKING GROUP BEFORE THEY REPORT ANYTHING, BUT I THINK IT WOULD BE THE SENSE OF THIS GROUP THAT IT WOULD BE RATHER UNFORTUNATE IF CIRM'S STANDARDS WERE MORE RESTRICTIVE THAN THE NIH STANDARDS. I DON'T THINK THAT'S THE POSITION WE WANT TO BE IN.

CHAIRMAN KLEIN: OKAY. A LOT OF PHENOMENAL WORK, OF COURSE, HAS GONE INTO GETTING THE NIH STANDARDS TO THE POINT THAT WE ARE TODAY. AS I COMMENTED EARLIER ON GEOFF LOMAX' WORK, ALSO LIKE TO CALL ATTENTION THAT ELONA BAUM PUT A GREAT DEAL OF EFFORT INTO THAT WORK, REALLY HELPING PUT SOME GOOD LEGAL EDGES ON IT. JAMES HARRISON AS WELL WAS A GREAT CONTRIBUTOR AS WERE A NUMBER OF BOARD MEMBERS. SO THIS IS A TREMENDOUS EFFORT, BUT IT IS OF TREMENDOUS VALUE IF WE CAN BE AT LEAST CONSISTENT WITH THEIR STANDARDS. AND AS HAS BEEN SAID BY TED, AS THEY MAKE THEM -- AS THEY PROGRESS FURTHER IN THEIR STANDARDS, HOPEFULLY WE AT LEAST KEEP UP WITH THOSE STANDARDS.

DR. TROUNSON: SO, CHAIR, THE NIH HAS AGREED TO BE PART OF THE STANDARDS WORKING GROUP AT THE NEXT MEETING. THEY WILL BE THERE TELEPHONICALLY. I THINK, GEOFF, IT'S FAIR TO SAY THAT THEY'RE VERY KEEN TO MAKE SURE THEY ARE HARMONIZED WITH WHAT WE'RE DOING. SO IT'S ON BOTH SIDES. SO WE REASSURE YOU THAT WE'LL BE DOING THE MAXIMUM TO DO THAT, AND IT'S REFLECTED BOTH WAYS.

CHAIRMAN KLEIN: AND CERTAINLY IT'S TO BE APPLAUDED THAT STAFF, WHETHER IT'S THE NIH OR THE FDA, TREMENDOUS COLLABORATIVE EFFORTS TO PULL

TOGETHER WITH THESE GROUPS ON THE FRONT END. SO I THINK WE ARE GOING STRONGLY IN THE RIGHT DIRECTION.

MR. SHEEHY: IT WOULDN'T BE INAPPROPRIATE TO NOTE AT THIS POINT THAT OUR EXTRAORDINARY STANDARDS WORKING GROUP MEMBER ALTA CHARO HAS RECEIVED TODAY AN APPOINTMENT TO THE FDA, DEPUTY TO THE FDA. SO I THINK THE CONCERNS -- I THINK WE'RE GOING TO BE VERY WELL INTEGRATED. AND WE REALLY OWE A LOT TO GEOFF AND TO BERNIE LO AND TO SHERRY LANSING FOR THE TREMENDOUS JOB THEY'VE DONE WITH THIS WORKING GROUP AND THEIR LEADERSHIP.

(APPLAUSE.)

DR. LOMAX: I WILL TAKE BACK TO THE WORKING GROUP BOTH NOT ONLY THE DESIRE OF OUR RESEARCH COMMUNITY, BUT OF OUR BOARD THE DESIRE FOR CONSISTENCY. THAT'S EXTRAORDINARILY HELPFUL. SO I THANK YOU FOR YOUR TIME.

CHAIRMAN KLEIN: THANK YOU VERY MUCH. THANK YOU TO THE WHOLE TEAM. JOHN ROBSON.

DR. TROUNSON: SO THIS IS THE LAST ONE. I'M SORRY IT'S SORT OF SPREAD OUT, BUT I THOUGHT IT WAS BEST YOU HEAR FROM THE PEOPLE WHO ARE REALLY SORT OF ENGAGED ON IT. JOHN IS LOOKING VERY FIRMLY AFTER OUR FINANCIAL OPERATIONS.

DR. ROBSON: MARGARET FERGUSON IS AWAY ON

VACATION, SO I'M GOING TO REPORT BOTH ON OUR EXPENDITURES REGARDS TO OUR OPERATIONS IN RELATION TO OUR BUDGET THROUGH JUNE, AND THEN I'LL ALSO GIVE YOU A VERY BRIEF REVIEW OF OUR PROJECTED TOTAL FINANCIAL CASH FLOW PICTURE.

BEFORE I START, I JUST WANTED TO ALERT YOU THAT, ACCORDING TO CIRM CONTRACTING POLICY, WE REPORTED LAST MONTH ON ALL OF OUR CONTRACT AND INTERAGENCY AGREEMENTS TO THE GOVERNANCE SUBCOMMITTEE, AND THAT REPORT IS IN YOUR BINDER. IT'S TAB 6. THAT'S THERE FOR YOUR INFORMATION.

NOW, I ALSO OWE YOU AN APOLOGY. AS YOU ARE GOING TO SEE IF WE PUT THE NEXT SLIDE UP, WE'RE REPORTING ON OUR -- AT LEAST SHOWING YOU OUR OPERATION EXPENDITURES IN A DIFFERENT WAY. MARGARET HAS BEEN PROVIDING YOU WITH A TABLE THAT HAS A FAIR AMOUNT OF INFORMATION, A LOT OF NUMBERS IN IT. WE THOUGHT IT MIGHT BE, AT LEAST FOR ORAL PRESENTATION PURPOSES, EASIER TO DO IT WITH A BAR GRAPH. OUR INTENTION WAS TO INCLUDE THE TABLE IN YOUR BINDER. WHEN I GOT HERE TODAY, I LOOKED TO SEE WHERE IT WAS IN THE BINDER. IT WASN'T THERE. SO I APOLOGIZE FOR THAT.

THOSE OF YOU WHO HAVE COMPUTERS, I THINK, PROBABLY HAVE AN E-MAIL FROM MELISSA THAT HAS THE

TABLE, AND WE'VE GOT SOME COPIES OF IT HERE WHICH WE'LL DISTRIBUTE. BUT IT'S THE SAME INFORMATION YOU'VE SEEN. AND I SHOULD ALSO EMPHASIZE THAT THESE ARE OUR EXPENDITURES THROUGH JUNE, BUT THEY ARE NOT THE FINAL REPORT TO THE FISCAL YEAR THAT ENDED ON JUNE 30TH. WE'RE STILL WAITING FOR SOME INFORMATION BACK FROM THE STATE ON ACCRUALS. WE THINK THAT'S GOING TO AMOUNT TO ABOUT ANOTHER $500,000 IN EXPENDITURES, BUT MARGARET WILL GIVE YOU A DETAILED REPORT ON THAT AT THE NEXT BOARD MEETING IN OCTOBER.

CHAIRMAN KLEIN: JOHN, THERE WAS ALSO AN IN-DEPTH LOOK AT LAST YEAR'S BUDGET AND THE BUDGET GOING FORWARD BY THE FINANCE COMMITTEE THAT DELVED INTO THE DETAILS.

DR. ROBSON: THAT LOOKED INTO CONTRACTS GOING FORWARD. THIS REPORT LOOKS AT CONTRACTS LOOKING BACK.

CHAIRMAN KLEIN: THAT'S RIGHT. THANK YOU.

DR. ROBSON: SO WHAT THE BAR GRAPHS ARE JUST SHOWING YOU ARE OUR EXPENDITURES. THE BLUE GRAPH -- THE BLUE BAR SHOWS WHAT WAS BUDGETED. THE ORANGE BAR SHOWS WHAT WE'VE ACTUALLY EXPENDED IN VARIOUS CATEGORIES. AND SO THE YELLOW BAR, THEN, IS THE DIFFERENCE, THE BALANCE THAT'S LEFT. ON THE LEFT SHOWS OUR TOTAL OPERATIONS, SO WE HAD A TOTAL

BUDGET OF 13 MILLION THAT WAS APPROVED FOR '08-'09, AND WHAT WE SPENT THROUGH JUNE IS A LITTLE OVER NINE MILLION.

THEN WE BROKE THAT DOWN INTO SALARIES AND BENEFITS AND ALSO OPERATIONS -- OTHER OPERATIONS AND EXPENDITURES. SO YOU CAN SEE THAT ALL THOSE -- BOTH OF THOSE CATEGORIES WE ARE UNDER BUDGET AS YOU'VE BEEN HEARING FROM MARGARET SINCE WE STARTED DOING THIS IN THE WINTER. AND WE EXPECT AT THE END TO BE ABOUT WHERE WE TARGETED, ABOUT 20 PERCENT UNDER THE BUDGET.

SO THE NEXT SLIDE I TALK ABOUT OUR OVERALL FINANCIAL CASH FLOW PICTURE GOING FORWARD. AND JUST TO REMIND YOU OF THE ASSUMPTIONS THAT ARE SHOWN IN THIS GRAPH, THIS GRAPH INCLUDES ALL OF THE PROGRAMS THAT ARE ONGOING THAT HAVE BEEN APPROVED OVER THE LAST THREE OR FOUR YEARS AND ALSO INCLUDES THOSE PROGRAMS THAT HAVE BEEN THROUGH CONCEPT APPROVAL BY YOU. AND THOSE ARE BASIC BIOLOGY AT $30 MILLION, DISEASE TEAMS AT $210 MILLION, AND BASIC BIOLOGY II AT ANOTHER 30 MILLION. THOSE ARE THE ONES THAT HAVE BEEN THROUGH CONCEPT APPROVAL.

AND JUST TO SHOW THE IMPACT OF ALL OF THIS ON OUR CASH FLOW, THE NEXT SLIDE SHOWS THIS IS THE DASHBOARD CHART THAT WE'VE BEEN USING FOR A WHILE

NOW. JUST TO REMIND YOU, THE VERTICAL BARS SHOW EXPENDITURES IN EACH QUARTER. THE TAN OR BROWN PART IS OUR OPERATIONS, AND THE GREEN IS FOR GRANTS. AND THEN THE GREEN LINE SHOWS THE BALANCE THAT WE PROJECT TO BE AVAILABLE FOR US TO SPEND IN THE BOND FUND. THE RED LINE IS WHEN THE BOND -- INDICATES WHERE THE BOND FUND GOES TO ZERO.

CHAIRMAN KLEIN: AND THESE ARE, JUST TO MAKE SURE EVERYONE IS ON THE SAME PAGE, BASED ON FUNDS WE CURRENTLY HAVE AVAILABLE.

DR. ROBSON: THE GREEN LINE SHOWS WHAT WE HAVE IN OUR BANK ACCOUNT, THE BOND FUND.

CHAIRMAN KLEIN: IN ADDITION, I'LL REMIND EVERYONE, WE HAVE 160 MILLION IN ADDITIONAL AUTHORITY THAT'S APPROVED THAT WE HAVEN'T SOLD YET. SO THAT IS AN ADDITIONAL RESERVE TO THESE NUMBERS.

DR. ROBSON: SO, AGAIN, AS LONG AS THE GREEN LINE IS ABOVE THE RED LINE, WE'RE IN GOOD SHAPE. AND YOU WILL SEE THAT THOSE LINES CROSS AT THE END OF NEXT YEAR, THE END OF 2010. AT DECEMBER 31, 2010, WE'RE PROJECTING THAT WE'LL HAVE A BALANCE, POSITIVE BALANCE, OF A LITTLE OVER $6 MILLION BASED ON THE MODELING WE'VE DONE WITH THE NUMBERS I JUST SHOWED YOU. OF COURSE, THESE NUMBERS WILL CHANGE IN THE NEXT TWO DAYS AS YOU MAKE

DECISIONS ABOUT BASIC BIOLOGY I. IF YOU FUND LESS THAN 30 MILLION OR MORE THAN 30 MILLION, THAT WILL HAVE AN IMPACT ON THESE NUMBERS. AND THEN YOU ALSO HAVE TWO PROGRAMS THAT YOU WILL MAKE DECISIONS ABOUT FOR CONCEPT APPROVAL. THOSE, THEN, WILL ALSO HAVE AN IMPACT ON THOSE NUMBERS, AND WE CAN TALK ABOUT THOSE CHANGES WHEN THOSE PARTICULAR PROGRAMS COME UP IF YOU WOULD LIKE. THAT'S ALL I HAVE.

CHAIRMAN KLEIN: THANK YOU VERY MUCH. ANY QUESTIONS? THANK YOU.

LET US MOVE FORWARD. THANK YOU. THIS IS ONE OF THOSE SESSIONS WHERE WE HAD SOME BACKED-UP REPORTS. IT'S VERY IMPORTANT TO HAVE SOME THOROUGH UNDERSTANDINGS ACROSS A LARGE SPECTRUM OF THE PRESIDENT'S ACTIVITY. AND THANK YOU FOR THE VERY EXPERT REPORTS.

I'D LIKE TO MOVE ACTION ITEM NO. 7. WE WILL FOCUS FIRST, THEN, ON CONSIDERATION OF RECOMMENDATIONS FROM THE LEGISLATIVE SUBCOMMITTEE REGARDING THE LITTLE HOOVER COMMISSION INITIALLY AND THEN, SECONDLY, AN ISSUE OF PUBLIC HEALTHCARE OPTION FOR THE NATIONAL HEALTHCARE LEGISLATION AS IT RELATES TO THE ACCESSIBILITY TO FUTURE STEM CELL THERAPIES.

TURN THIS OVER TO ART TORRES, THE ACTING

CHAIR, SUBJECT TO A LATER ITEM ON THE AGENDA, OF THE LEGISLATIVE COMMITTEE. YOU KNOW, YOU CAN NOW HAVE TWO TITLES. YOU'LL BE BOTH THE ACTING CHAIR AND THE CHAIR.

MR. TORRES: AS YOUR ACTING CHAIR OF YOUR SUBCOMMITTEE, BOB, I WANT TO THANK YOU FOR THE TREMENDOUS HONOR YOU HAVE GIVEN ME TO DEAL WITH THE LITTLE HOOVER COMMISSION.

CHAIRMAN KLEIN: WE NEVER PROMISED YOU A ROSE GARDEN.

MR. TORRES: BELIEVE ME, I HAVEN'T SEEN IT. IF WE CAN TURN TO ITEM 7, MEMBERS, WE'LL GO THROUGH THIS AS QUICKLY AS WE CAN BECAUSE I THINK EVERYBODY PRETTY WELL KNOWS WHERE WE STAND ON THESE RECOMMENDATIONS. BUT I WANTED TO MAKE SURE THAT THE LEGISLATURE UNDERSTANDS THAT THE APPROPRIATE TIME WHEN WE PRESENT OUR BOARD ACTION ON THE LITTLE HOOVER RECOMMENDATIONS, THAT WE'VE BEEN VERY, VERY CONTEMPLATIVE. I WANT TO THANK THE MEMBERS OF THE LEGISLATIVE SUBCOMMITTEE WHO SERVED FOR A VERY LONG TIME ON TWO HEARINGS THAT WE HELD ON JULY 16TH AND AUGUST 6TH TO PARTICIPATE IN THIS EFFORT TO CONSIDER THESE RECOMMENDATIONS SO THAT THE LITTLE HOOVER COMMISSION, AS WELL AS THE LEGISLATURE UNDERSTAND THAT WE DID NOT TAKE THESE LIGHTLY. WE REVIEWED

THEM VERY CAREFULLY, AND SO I'D LIKE TO TAKE THEM AD SERIATIM IN THREE SECTIONS.

THE FIRST SECTION ARE THE RECOMMENDATIONS WHICH THE LITTLE HOOVER COMMISSION MADE WHICH DIRECTLY IMPACT THE CONSTITUTIONALITY OF THOSE RECOMMENDATIONS. AND IF YOU LOOK ON ITEM NO. 1 THAT REQUIRE A NEW BALLOT MEASURE, LITTLE HOOVER RECOMMENDATIONS WERE TO REDUCE THE SIZE OF OUR BOARD, TO REDUCE MEMBER'S TERMS FROM EIGHT TO SIX, TO CONCENTRATE APPOINTMENT AND AUTHORITY IN THE GOVERNOR BY AUTHORIZING THE GOVERNOR TO APPOINT 11 OF 15 MEMBERS, TO ELIMINATE THE CHAIR'S STATUTORY RESPONSIBILITIES, AND TO AUTHORIZE THE BOARD TO SELECT A CHAIR AND VICE CHAIR FROM AMONG ITS 15 MEMBERS AS PROPOSED BY THE LITTLE HOOVER COMMISSION.

THE STAFF ANALYSIS PROVIDED BY THE VERY ABLE LEGAL COUNSEL, MR. JAMES HARRISON, QUICKLY RECOMMENDED TO US THAT THIS REALLY WAS IN VIOLATION OF THE CONSTITUTION OF CALIFORNIA AS WELL AS THE VIOLATION OF THE INTENT OF THE VOTERS IN PASSING BY A VERY LARGE PERCENTAGE PROPOSITION 71.

IF YOU LOOK IN THE STAFF ANALYSIS, ITEM B ON PAGE 2 OF THIS REPORT, YOU WILL SEE THAT REFERENCE. IN SUMMARY, THE BOARD COUNSEL ADVISED US AS MEMBERS OF THE SUBCOMMITTEE THAT THESE AMENDMENTS

ARE INCONSISTENT, AS I SAID, WITH THE VOTERS' INTENT AND CLEARLY UNCONSTITUTIONAL. AND, THEREFORE, THE SUBCOMMITTEE VOTED, BASED UPON THESE RECOMMENDATIONS, TO OPPOSE THESE RECOMMENDATIONS ITEMS 1 THROUGH 5 BY A VOTE OF EIGHT TO ZERO WITH ONE ABSTENTION TO OPPOSE THESE RECOMMENDATIONS. THAT WAS THE VOTE OF THE SUBCOMMITTEE AND ITS RECOMMENDATION TO YOU AS A FULL BOARD ON THAT ITEM.

NO. 2, THE POLICY CHANGES THAT WE AS A BODY COULD IMPLEMENT, WE ALSO WANTED TO CATEGORIZE IN A SEPARATE ITEM. THE LITTLE HOOVER COMMISSION RECOMMENDATIONS WERE TO MODIFY THE PREAPPLICATION REVIEW PROCESS, TO IDENTIFY ALL APPLICANTS IN CONNECTION WITH AN RFA, TO POLL PEER REVIEWERS TO DETERMINE WHETHER THEY WOULD RESIGN IF THEY WERE REQUIRED TO PUBLICLY DISCLOSE THEIR FINANCIAL INTERESTS. BOY, ISN'T THAT A REAL IMPORTANT ELEMENT? AND WE ALL KNOW WHAT THE ANSWER WOULD BE; BUT, OF COURSE, WE'RE GOING TO DO THAT. OF COURSE, WE'RE GOING TO POLL THE REVIEWERS.

ARE WE GOING TO AMEND THE MINUTES OF BOARD MEETINGS, DISCLOSE VOTE TALLIES AND RECUSALS? ABSOLUTELY.

ARE WE GOING TO ADD A PROVISION TO THE BOARD BYLAWS BY AUTHORIZING REMOVAL OF MEMBERS FOR

CAUSE? ABSOLUTELY NOT. BECAUSE NOT EVEN THE LITTLE HOOVER COMMISSION CAN REMOVE ITS MEMBERSHIP FOR CAUSE BECAUSE THEY'RE APPOINTED BY A SEPARATE ENTITY. HOWEVER, WE DID POINT OUT TO THE LITTLE HOOVER COMMISSION STAFF THAT THEY SHOULD HAVE READ THE STATUTE AND REALIZED THAT WE CAN GO TO THE ATTORNEY GENERAL BY A MAJORITY VOTE OF THIS BOARD AND REMOVE ANY ONE OF US FOR CAUSE, AND WE SHOULD DO THAT IF WE FEEL WE HAVE CAUSE TO DO THAT, TO GO TO JERRY BROWN OR WHOEVER IS THE NEXT ATTORNEY GENERAL AND RECOMMEND TO REMOVE US, IF THAT'S APPROPRIATE. AND THAT IS EXACTLY THE PROVISIONS THAT EVERY STATE AGENCY HAS WHO IS -- WHICH IS APPOINTED BY ITS MEMBERSHIP BY CONSTITUTIONAL AUTHORITY, INCLUDING THE LITTLE HOOVERITES.

NOW, OUR STAFF ANALYSIS CLEARLY POINTS THAT OUT ON PAGE 4 WHERE WE CLEARLY INDICATED THAT AT THE AUGUST 6TH MEETING, OUR PRESIDENT, MR. TROUNSON, REPORTED TO THE SUBCOMMITTEE REGARDING THOSE ITEMS ON 6 THROUGH 8. AND I WOULD LIKE TO HAVE BECAUSE I'M NOT A SCIENTIST, IF HE WOULD LIKE TO RESPOND VERY QUICKLY BECAUSE OF TIME ON WHY THOSE RECOMMENDATIONS WERE MADE BY YOU AND YOUR ABLE STAFF. ITEMS 6 THROUGH 8. THAT'S ON THE PREAPPLICATION REVIEW PROCESS AND IDENTIFICATION OF

ALL THE APPLICANTS IN CONNECTION WITH AN RFA ON A TRIAL BASIS.

DR. TROUNSON: THANK YOU, ART. SO IF I GO BY NUMBER, ITEM NO. 6 WAS WE WERE ASKED TO MODIFY THE PREAPPLICATION REVIEW PROCESS. ESSENTIALLY THIS IS PREMATURE BECAUSE IT'S STILL PART OF THE EXPERIMENTAL PROCESS, IF YOU LIKE, OR THE TRIAL THAT WE COMPLETE THE BASIC BIOLOGY II PREAPPLICATION AND THEN COME BACK TO THE BOARD, WHICH WE WOULD DO IN DECEMBER, TO REPORT ON THE PROCESS OF THE PREAPPLICATION PROCESS ACROSS THOSE THREE PARTICULAR RFA'S. WE'RE GOING TO DO THAT, AND THEN WE'LL PROBABLY SUGGEST SOME MODIFICATION.

MR. TORRES: ANY QUESTIONS BY MEMBERS OF THE BOARD? ALL RIGHT. THE NEXT ITEM WAS IDENTIFY ALL OF THE APPLICANTS IN CONNECTION WITH AN RFA ON A TRIAL BASIS.

DR. TROUNSON: WELL, WE THINK THAT THAT'S ESSENTIALLY INAPPROPRIATE BECAUSE IT'S NOT REQUIRED TO DO THAT BY ANY OTHER ORGANIZATION THAT WE KNOW WHERE YOU SUBMIT YOUR GRANTS AND THEN, EXCEPT FOR THE CONNECTICUT, THE ONE CONNECTICUT REVIEW, WHERE YOU'RE REQUIRED TO DETAIL THOSE APPLICANTS THAT WERE UNSUCCESSFUL.

THERE WOULD BE GREAT CONCERNS, I THINK,

FROM ACADEMICS. THEY'RE NOT REQUIRED TO DO THAT IN THEIR CV OR EVEN IN APPLICATIONS FOR OTHER GRANTS BECAUSE IF YOU'VE APPLIED FOR TEN GRANTS AND ONLY GOT TWO, YOU MIGHT BE CONSIDERED NOT THAT -- NOT APPROPRIATE. BUT YOU ALSO MAY, IF YOU ARE THE KIND OF RESEARCHER THAT I MIGHT HAVE BEEN, AND YOU WERE MORE INNOVATIVE, YOU MIGHT PUSH THE BAR FURTHER SO THAT YOU GOT TWO OUT OF EIGHT WAS A GREAT RETURN BECAUSE YOU WERE DOING MUCH MORE INNOVATIVE RESEARCH. SO YOU HAVE TO BALANCE OUT ON THE ACADEMIC SIDE, THE UPSIDES AND DOWNSIDES IN IT. IT WOULDN'T REALLY BE APPROPRIATE, AS FAR AS I'M CONCERNED AND MY COLLEAGUES.

BUT IT'S ALSO QUITE DAMAGING NOW THAT WE'VE GOT THE BIOTECH INDUSTRIES, THE NOT-FOR-PROFIT -- THE FOR-PROFIT SECTOR IN THERE BECAUSE THAT COULD HAVE AN IMMEDIATE IMPACT ON HOW THE FINANCIAL COMMUNITY SEES THEM. IF THEY APPLIED FOR A GRANT AND THEY DIDN'T GET IT, THEN IT MAY REALLY AFFECT THEIR VIABILITY. SO WE THINK IT'S INAPPROPRIATE.

CHAIRMAN KLEIN: TO FOCUS ON THIS LAST POINT, JUST SO IT'S WELL UNDERSTOOD, THAT IF SOMEONE IS IN THE PROCESS OF AN IPO OR EVEN AN ADDITIONAL ROUND OF VENTURE CAPITAL FUNDING AND THEY HAVE

STAKED THEIR CLAIM BASED ON A PARTICULAR APPROACH AND WE PUBLICLY HAVE REJECTED THIS APPROACH, IT COULD HAVE A SEVERE FINANCIAL IMPACT ON THEIR ABILITY TO COMPLETE THEIR FUNDING TO CARRY THEIR RESEARCH FORWARD. SO THERE'S SOME UNINTENDED CONSEQUENCES HERE THAT WOULD BE VERY SEVERE ON THE PRIVATE SECTOR.

MR. TORRES: ANY OTHER QUESTIONS BY MEMBERS OF THE BOARD? WE'LL PROCEED TO ITEM 8 WHICH IS TO POLL THE PEER REVIEWERS. THE STAFF POSITION ENDORSES THIS PROPOSAL, TO TAKE AN ANONYMOUS POLL OF THE WORKING GROUP'S MEMBERSHIP. ANY COMMENT? I THINK IT'S PRETTY CLEAR.

DR. TROUNSON: WE'LL DO THAT. WE'LL DO THAT AT OUR NEXT GRANTS WORKING GROUP.

MR. TORRES: ANY COMMENTS FROM MEMBERS OF THE BOARD?

MS. SAMUELSON: ART, I THINK YOU'VE DONE THIS ON MOST OF THE ITEMS. CAN YOU ALSO MAKE SURE THAT YOU ADD THE RECOMMENDATION OF THE LEGISLATIVE SUBCOMMITTEE MEMBERS IN ADDITION TO THE CIRM STAFF, RIGHT?

MR. TORRES: YES. WHAT I'M TRYING TO DO IS GET THE STAFF INPUT, AND THEN AT THE END OF EACH SECTION, ANNOUNCE THE VOTE OF WHAT THE COMMITTEE

WAS.

NOW WE'LL MOVE FORWARD ON AMENDING AMENDMENTS TO INCLUDE VOTE TALLIES AND CONFLICTS. MR. PRESIDENT.

DR. TROUNSON: WELL, THAT'S A MATTER FOR THE -- THAT'S A MATTER FOR THE BOARD.

MR. TORRES: WE ENDORSE THAT PROPOSAL.

CHAIRMAN KLEIN: AND THIS IS AN ITEM WHERE THE EXECUTIVE COMMITTEE HAS ACCEPTED THIS AS A MOVE TOWARD GREATER TRANSPARENCIES. THERE WAS NO ADVERSE PUBLIC POLICY PROBLEM, SO WE HAVE BEGUN TO ACTUALLY ALREADY IMPLEMENT THIS. WE THINK IT'S A VERY GOOD SUGGESTION, WHICH THE BOARD IS ALREADY CONFORMING TO.

MR. TORRES: ALL RIGHT. MOVING TO PAGE 6, ITEM 10. I'VE ALREADY ARTICULATED WHY THE COMMITTEE WAS OPPOSED TO THIS PROPOSAL AND WHY WE WOULD NOT BE SHY TO MOVE TO THE ATTORNEY GENERAL'S OFFICE TO REMOVE ANYONE OF THIS BOARD FOR CAUSE, WHICH IS OUR ONLY ALTERNATIVE GIVEN THE CONSTITUTIONAL AND STATUTORY AND THE CASE LAW, QUITE FRANKLY, THAT'S BEFORE US AND INCLUDED IN YOUR ANALYSIS ON PAGE 6.

CHAIRMAN KLEIN: MR. CHAIRMAN, TO BE CLEAR, THE LITTLE HOOVER COMMISSION ACTUALLY HAS A RULE TO REMOVE -- WHERE THEY CAN THEORETICALLY

REMOVE THEIR MEMBER. THE PROBLEM IS WE HAVE TWO LEGAL OPINIONS THAT INDICATE IT WOULD BE -- IT WOULD VIOLATE CASE LAW IN CALIFORNIA AND STATUTORY LAW IN CALIFORNIA FOR US OR FOR THE LITTLE HOOVER COMMISSION. SO THEY APPEAR TO ACTUALLY BE IN CONFLICT WITH ACTUAL CASE LAW BECAUSE THE INTENT OF TERM APPOINTMENTS IS, IN FACT, TO PROTECT THE INDEPENDENCE OF MEMBERS. IF THEY VIOLATED THE LAW, AS THE CHAIRMAN OF THE COMMITTEE HAS INDICATED, THE ATTORNEY GENERAL CAN ACT TO REMOVE THE MEMBER FOR THE VIOLATION OF LAW. BUT OTHERWISE, THE MEMBERS ARE PROTECTED TO PROTECT THE DIVERSITY OF OPINION COMING FROM THE APPOINTING OFFICER.

MR. TORRES: SO THE STAFF POSITION IS ARTICULATED THEREIN.

NOW MOVING TO ITEM 11, I'D LIKE TO TURN TO THE CHAIR, MR. KLEIN, WHICH WAS A RECOMMENDATION TO ADOPT A SUCCESSION PLAN FOR LEADERSHIP AND A TRANSITION PLAN FOR THE EVENTUAL EXPIRATION OF BOND FUNDING.

CHAIRMAN KLEIN: SO I CLEARLY ANNOUNCED THAT IN DECEMBER OF 2010 I WILL NOT BE SEEKING A REAPPOINTMENT FOR ANOTHER TERM. THE INTENT OF ANNOUNCING IT THIS EARLY IS SO THAT WE CAN HAVE AN ORDERLY TRANSITION PROCESS AND A SEARCH COMMITTEE

FOR A CHAIR WHERE WE CAN GIVE OURSELVES ENOUGH TIME TO, A, IDENTIFY POTENTIAL CANDIDATES; AND, B, SINCE WE CANNOT INDEPENDENTLY ELECT THEM, WE THEN HAVE TO COMMUNICATE TO THE CONSTITUTIONAL OFFICERS THE REASONS WHY WE THINK ONE OR TWO OR MORE CANDIDATES MIGHT BE GOOD MEMBERS TO BE CHAIR OR VICE CHAIR OF THIS BOARD SO THEY HAVE A TIME TO CONSIDER A NOMINATION OF THOSE MEMBERS.

AFTER THE NOMINATION, AS WE ALL KNOW, IT COMES BACK TO THE BOARD THEN TO ELECT FROM THOSE NOMINATED. BUT WE HAVE PLENTY OF TIME. WE WILL BE BRINGING TO THE BOARD A PROPOSED PLAN FOR THE SEARCH COMMITTEE AND THE IDENTIFICATION OF THIS PROCESS.

MR. TORRES: THANK YOU, MR. CHAIRMAN. ANY OTHER COMMENTS ON THAT ISSUE? ALL RIGHT. WE'LL MOVE FORWARD.

THE VOTE OF THOSE PROPOSALS WAS UNANIMOUS, THAT THE LEGISLATIVE SUBCOMMITTEE RECOMMENDS THAT THE BOARD ADOPT THE STAFF POSITIONS AS DESCRIBED ITEM 6 THROUGH 11.

MOVING ON TO THE NEXT SECTION, THAT IS, THOSE ITEMS THAT WOULD REQUIRE LEGISLATIVE INTERVENTION. THE LITTLE HOOVER COMMISSION RECOMMENDATIONS WERE TO ELIMINATE THE 50-EMPLOYEE CAP, WERE TO ELIMINATE THE 15-SCIENTIST CAP ON THE

GWG. CIRM HAS CURRENTLY PROBABLY APPROXIMATELY A HUNDRED FIFTY SCIENTIFIC MEMBERS AND ALTERNATES AVAILABLE TO SERVE ON PEER REVIEW. SO THE CAP HAS REALLY NEVER PRESENTED A PROBLEM. FOR EXAMPLE, FOR THE TOOLS AND TECHNOLOGY APPLICATIONS, WE RAN TWO CONCURRENT PEER REVIEW SESSIONS. AND NO. 14, REQUIRE THE CITIZENS FINANCIAL ACCOUNTABILITY OVERSIGHT COMMITTEE, WHICH WAS CREATED BY PROP 71 AND IS CHAIRED BY OUR GREAT STATE CONTROLLER JOHN CHEUNG, TO CONDUCT A PERFORMANCE AUDIT OF CIRM.

ON THAT POINT, I WANTED TO ARTICULATE TO THE BOARD, BECAUSE I DID MY HOMEWORK HERE, CURRENTLY THESE ARE THE AUDITS THAT WE HAVE TO UNDERGO. NO. 1, WE HAVE A YEARLY INDEPENDENT WITH A FIREWALL FINANCIAL AUDIT OF OUR ORGANIZATION. NO. 2, THE STATE CONTROLLER'S OFFICE HAS AN ANNUAL AUDIT REVIEW OF THE INDEPENDENT FINANCIAL AUDIT PERFORMED BY THE INDEPENDENT FINANCIAL AUDIT. NO. 3, THE STATE CONTROLLER'S OFFICE ALSO PERFORMS AN AUDIT REVIEW TO DETERMINE WHETHER WE HAVE COMPLIED WITH THE REQUIREMENTS OF PROP 71 AS IT RELATED TO CIRM'S CONFLICT OF INTEREST POLICIES, OUR GRANT ADMINISTRATION, OUR ADMINISTRATIVE EXPENSES AND EXPENDITURES. AND THAT, THE REPORT, WAS ISSUED ON MAY 1ST, 2008. I WOULD NOT RECOMMEND READING IT IN

ITS ENTIRETY, BUT IT'S A VERY INTERESTING DOCUMENT. AND NO. 4, THE BUREAU OF STATE AUDITS ALSO AUDITS US. AND NO. 5, THE APPROPRIATE LEGISLATIVE FISCAL COMMITTEES AND THEIR FISCAL SUBCOMMITTEES ALSO HAVE THE AUTHORITY TO AUDIT US, AND I'M SURE THEY'VE NEVER BEEN SHY IN DOING SO.

WHAT WE DON'T WANT TO SEE WHEN IT COMES TO PERFORMANCE IS FOR SOME AUDITORS IN THE STATE CONTROLLER'S OFFICE TO DETERMINE PERFORMANCE BASED ON SCIENTIFIC RATIONALE BECAUSE THEY'RE NOT QUALIFIED TO DO SO.

SO I DON'T SEE WHY WE NEED YET A SIXTH AUDIT BY THE CONTROLLER'S OFFICE WHEN I THINK, QUITE FRANKLY, AND TO THEIR CREDIT, THEY WORKED HARD, BUT I DON'T THINK THE LITTLE HOOVER COMMISSION REALLY KNEW HOW MANY AUDITS WE HAVE TO UNDERGO AS AN AGENCY. AND SO, THEREFORE, I WOULD RECOMMEND NOT APPROVING THAT RECOMMENDATION, BUT I WANTED TO GET TO THE 50-EMPLOYEE CAP ISSUE. MR. PRESIDENT.

DR. TROUNSON: WELL, I THINK, ACTING CHAIR, THAT, YOU KNOW, THIS IS A CHALLENGING ISSUE. AND I HAVE ASKED THE GENERAL COUNSEL TO WORK IN COLLABORATION WITH BOARD COUNSEL TO HELP US IN THIS BECAUSE I BELIEVE IN THE MEDIUM TO LONG TERM THAT WE WILL HAVE TO ADDRESS THIS MATTER IN SOME WAY BECAUSE

WE ARE RISING VERY QUICKLY TO THE MAXIMUM OF 50 PEOPLE. AND SO WE WILL BECOME HANDICAPPED UNDER THAT IN DUE COURSE. SO RIGHT NOW IT'S NOT A HANDICAP BECAUSE WE AREN'T THERE, BUT IT IS NOT GOING TO TAKE VERY LONG BEFORE WE ARE.

SO WHILE IT'S NOT AN ESSENTIAL ISSUE AT THE MOMENT, IT'S ONE OF THE ISSUES THAT WE SHOULD ADDRESS.

MR. TORRES: THAT WILL BE PART OF OUR REPORT TO THE LEGISLATURE IS THAT WE'RE NOT IGNORING THIS RECOMMENDATION. WE'RE TAKING IT SERIOUSLY AND UNDER REVIEW.

CHAIRMAN KLEIN: I'D LIKE TO EMPHASIZE MY UNDERSTANDING OF OUR EXECUTIVE COMMITTEE POSITION, DR. TROUNSON, IS THAT THERE IS NOT AN ISSUE ABOUT STAYING WITHIN THE 6-PERCENT CAP. VERY CLEARLY THE INTENT IS TO STAY WITHIN THE 6-PERCENT CAP. WE'VE SHOWN WE CAN OPERATE VERY WELL WITHIN IT. AND SO WE HAVE SHOWN TO BE GOOD STEWARDS OF THE STATE'S MONEY AND CAN OPERATE POTENTIALLY WITH LARGER STAFF STILL WITHIN THAT DISCIPLINED LIMITATION AS THE VOTERS PUT IN PLACE. IS THAT A CORRECT STATEMENT?

DR. TROUNSON: THAT'S CORRECT, CHAIR, ABSOLUTELY CORRECT. AND WE ANALYZED, WE ASKED JOHN ROBSON TO ANALYZE THAT ISSUE, AND IT IS VERY CLEARLY

THE CASE.

CHAIRMAN KLEIN: WE ALSO HAVE THE ABILITY TO AUGMENT OUR STATE TAXPAYER FUNDS BY CONTRIBUTIONS SUCH AS THE CITY AND COUNTY OF SAN FRANCISCO AND THE CHAMBER OF COMMERCE DID IN CONTRIBUTING FUNDS FOR OUR HEADQUARTERS OR OTHER DONOR FUNDS. SO WE HAVE THE OPPORTUNITY TO BE EXTREMELY DISCIPLINED. IF WE NEED AUGMENTATION FUNDS, WE'VE PROVEN AN ABILITY TO OBTAIN THEM.

MR. TORRES: ANY OTHER COMMENTS ON ANY OF THE ISSUES THAT HAVE BEEN -- MS. SAMUELSON.

MS. SAMUELSON: WE ALSO HAVE A HUGELY DEMANDING MISSION WHICH REQUIRES THAT WE PRODUCE, NOT JUST A REPORT AT THE END OF A GRANT THAT WE FUNDED, BUT A WORK PRODUCT THAT IS SUPPOSED TO AS SOON AS HUMANLY POSSIBLE PRODUCE CURES OF HUMAN SUFFERING AND DISEASE. AND SO WE HAVE TO HAVE A STAFF THAT CAN DELIVER ON THAT ENORMOUS MISSION.

SO I THINK IT'S AWFULLY IMPORTANT WE THINK ABOUT THIS SORT OF THING IN THIS CONTEXT. WE'RE NOT JUST ABOUT GREEN EYE SHADES AND BALANCING A BUDGET AND TRYING TO CUT THE BUDGET EVERY WHICH WAY AND THAT THAT'S A GOOD IN AND OF ITSELF. WE'VE GOT A WORK PRODUCT THAT'S TERRIBLY DEMANDING.

MR. TORRES: HERE. HERE. MR. PRICE.

DR. PRICE: I'LL WAIT UNTIL YOU GO THROUGH THE ENTIRE REPORT.

MR. TORRES: I JUST DID, AND NOW I'M READY TO MAKE THE RECOMMENDATIONS TO THE BOARD.

DR. PRICE: LET ME JUST MAKE A -- RAISE A QUESTION, VOICE A CONCERN, MAKE A SUGGESTION ALL AT ONCE, AND IT RELATES TO THE VERY FIRST RECOMMENDATION OF THE LEGISLATIVE SUBCOMMITTEE, WHICH READS, WE WANT TO FOLLOW COUNSEL'S ADVICE, THAT THE PROPOSED AMENDMENTS TO PROPOSITION 71 WOULD REQUIRE ANOTHER VOTE OF THE PEOPLE. AND MY CONCERN HERE IS REALLY ABOUT POLITICAL OPTICS. AND I HESITATE TO LECTURE THE HONORABLE VICE CHAIR IN MATTERS OF POLITICAL OPTICS. I WILL NONETHELESS PLOW AHEAD.

AND MY SUGGESTION IS THAT WE CHANGE THE LANGUAGE TO READ THAT WE FOLLOW COUNSEL'S ADVICE, THAT THE PROPOSED AMENDMENTS TO PROPOSITION 71 WOULD VIOLATE THE CURRENT CALIFORNIA CONSTITUTION. THE REASON I SUGGEST THAT IS I CAN ENVISION THE EDITORIAL IN THE *SACRAMENTO BEE* WITH THE HEADLINE, "ICOC OPPOSES A VOTE OF THE PEOPLE."

CHAIRMAN KLEIN: COULD I ASK FOR A FRIENDLY AMENDMENT?

MR. TORRES: ARE YOU DONE?

CHAIRMAN KLEIN: I'D MAKE A FRIENDLY AMENDMENT TO THAT SUGGESTION. PERHAPS WE COULD INDICATE BECAUSE THE PROPOSED AMENDMENT TO PROPOSITION 71 WOULD VIOLATE THE CONSTITUTION AND/OR THE INITIATIVE, AND IT HAS BEEN RECOGNIZED BY THE COURT SYSTEM THAT IT IS CRITICAL TO RESPECT THE VOTE OF THE 7 MILLION PEOPLE WHO APPROVED PROPOSITION 71.

DR. PRICE: THAT'S FINE. MAKES IT RATHER LONG.

MR. SERRANO-SEWELL: I DON'T WANT TO BELABOR THIS. BUT IF YOU READ THE -- FIRST OF ALL, IT WAS JAMES HARRISON WHO DID THE LEGAL ANALYSIS, I SUSPECT. LET'S RECALL THAT MR. HARRISON ALSO LED US IN OUR SUCCESSFUL LITIGATION. IT WAS THOSE BRIEFS THAT ARE INFLUENTIAL IN CRAFTING THIS LEGAL OPINION AND THE SENATOR'S RECOMMENDATION TO US.

SO JUST SPEAKING AS A LAWYER, SOMETIMES WHEN THE FACTS AND THE CASE LAW SUPPORT A POSITION, YOU CAN MASSAGE IT, BUT THE PROPOSAL FROM THE LITTLE HOOVER COMMISSION DOES VIOLATE PROP 71 AND WOULD REQUIRE ANOTHER VOTE OF THE PEOPLE. AND I THINK THAT'S WHAT THIS SAYS.

AND SO I'M COMFORTABLE WITH KEEPING IT AS IT IS. IF WE NEED TO ADD A SENTENCE HERE OR THERE, THAT'S FINE, BUT I DON'T WANT TO SPEND TOO MUCH TIME

ON IT.

MR. TORRES: LET ME REITERATE WHAT THE CURRENT LANGUAGE IS, AND THEN WE'LL GET BACK TO THE AMENDMENT AND THE FRIENDLY AMENDMENT. THE CONCLUSION IS ON PAGE 9, AND THE LEGISLATIVE SUBCOMMITTEE MAKES THE FOLLOWING RECOMMENDATIONS TO THE BOARD: NO. 1, OPPOSE THE LITTLE HOOVER COMMISSION RECOMMENDATIONS 1 THROUGH 5 BASED ON COUNSEL'S ADVICE THAT THE PROPOSED AMENDMENTS TO PROP 71 WOULD REQUIRE ANOTHER VOTE OF THE PEOPLE. AND THERE WERE TWO AMENDMENTS TO THAT STATEMENT. AND WOULD YOU RESTATE THEM PLEASE, DR. PRICE?

DR. PRICE: THE FRIENDLY AMENDMENT WAS MUCH LONGER, SO I'LL LET BOB RESTATE IT.

CHAIRMAN KLEIN: SO I WOULD LIKE TO MAKE A MOTION THAT WE ADOPT THIS RECOMMENDATION WITH A MODIFICATION TO THE LANGUAGE THAT WOULD START -- THAT WOULD MAKE AN INSERTION AND A MODIFICATION TO THE CURRENT LANGUAGE BY SAYING THAT THE PROPOSED AMENDMENTS TO PROPOSITION 71 WOULD VIOLATE THE CONSTITUTION AND THE INITIATIVE AND WOULD FAIL TO RESPECT -- AND WOULD NOT RECOGNIZE, AS THE STATE COURT SYSTEM HAS POINTED OUT, THE PRECIOUS VALUE OF AN INITIATIVE APPROVED BY 7 MILLION CALIFORNIANS.

MR. TORRES: ALL RIGHT. MR. HARRISON, FOR

YOUR COMMENTS.

MR. HARRISON: I HESITATE TO ADD ANYTHING TO WHAT'S ALREADY A RATHER LENGTHY SENTENCE. BUT TO DR. PRICE'S POINT, I THINK, IF I UNDERSTAND CORRECTLY, THE POINT THAT HE WAS MAKING IS THAT THE PROPOSED AMENDMENTS WOULD VIOLATE THE CALIFORNIA CONSTITUTION IF THEY WERE ADOPTED BY THE LEGISLATURE. THAT PERMITS US TO AVOID HAVING TO REFERENCE ANOTHER VOTE OF THE PEOPLE. SO I WOULD JUST RECOMMEND THAT WE INCLUDE THAT ELEMENT.

MR. TORRES: WITHOUT OBJECTION, THAT SHALL BE THE ORDER. ANY OTHER DISCUSSION? ALL RIGHT. I'D LIKE TO ASK FOR PUBLIC COMMENT. PLEASE IDENTIFY YOURSELF.

MR. REED: HELLO. MY NAME IS ROMAN REED. I HAVE THE GREAT FORTUNE OF HAVING THE ROMAN REED SPINAL CORD INJURY RESEARCH ACT OF 1999. AND I WOULD LIKE TO TELL YOU SOME THINGS THAT ARE VERY IMPORTANT TO ME AND MY FAMILY. FIRST, LET ME RELAY MY FATHER, DON C. REED'S, BEST REGARDS TO YOU FROM PARIS WHERE HE AND MY MOM ARE CELEBRATING THEIR 40TH ANNIVERSARY. SO I'M VERY PROUD OF THEM. HOW THEY GOT TO 40 YEARS DEALING WITH ME, I HAVE NO IDEA.

SO THIS WILL BE TWO VERY IMPORTANT ISSUES. FIRST, THE LITTLE HOOVER COMMISSION. WE URGE YOU

THAT OUR OWN LEGISLATIVE SUBCOMMITTEE'S RECOMMENDATIONS BE ADOPTED. PROPOSITION 71 HAS BEEN THROUGH THE FIRES. IT HAS BEEN TRIED, TESTED, AND TRUE. WHILE THERE'S ALWAYS ROOM FOR IMPROVEMENT IN ANYTHING, THE WHOLESALE DO-OVER SUGGESTED BY THE LITTLE HOOVER COMMISSION IS CONTRARY TO THE WISHES OF THE CALIFORNIA ELECTORATE AND, THEREFORE, MUST AND SHOULD BE REJECTED.

SECOND, AS YOU KNOW, THERE'S A VERY POSITIVE BILL MOVING THROUGH SACRAMENTO RIGHT NOW. THAT IS SENATE BILL 471 SPONSORED BY SENATORS GLORIA ROMERO AND DARRELL STEINBERG. SB 471 WOULD PUT STEM CELL EDUCATION INTO THE HIGH SCHOOLS AND COLLEGES OF OUR GREAT STATE. UNFORTUNATELY THERE IS A PROBLEM. ACCORDING TO SENATOR GLORIA ROMERO'S OWN LEGISLATIVE AIDE, JACKIE MCKINNEY, SB 471 WILL LIKELY BE RECOMMENDED FOR THE SUSPENSE FILE DUE TO AN UNANTICIPATED NEED OF $700,000.

THIS ESSENTIALLY MEANS THAT FOR THE BILL, AS MS. MCKINNEY PUTS IT, QUOTE, APPROPRIATIONS COMMITTEE STAFF HAS INDICATED IT WILL LIKELY BE A STAFF RECOMMENDATION THAT SB 471 BE PUT ON SUSPENSE BECAUSE OF A SECTION OF THE BILL REQUIRING THE STATE BOARD OF EDUCATION TO INCLUDE STEM CELL BIOLOGY IN A REVISION OF THE SCIENCE FRAMEWORK. THE RECENTLY

ENACTED BUDGET REVISION ELIMINATED THE CURRICULUM COMMISSION AND SUSPENDED FOR FIVE YEARS CURRICULUM REVISIONS AND NEW TEXTBOOK ADOPTIONS. THE CURRICULUM COMMISSION RECOMMENDS REVISED FRAMEWORKS TO THE STATE BOARD FOR ADOPTION, THUS, ACCORDING TO MS. RODRIGUEZ, SHE'S CONCLUDING THAT THE COST OF SB 471 INCLUDES 700,000 TO RESURRECT THE CURRICULUM COMMISSION, UNQUOTE.

SUDDENLY WHAT WAS A FREE BILL WITH ALMOST NO COST TO THE TAXPAYER HIMSELF HAS HAD A FEE TACKED ONTO IT WHICH ENDANGERS AND MIGHT BRING DOWN THE ENTIRE BILL. INTERESTINGLY, THE DEPARTMENT OF FINANCE OWN ANALYST DOES NOT AGREE WITH THIS COST AND SHOULD NOT BE INCLUDED IN THE ANALYSIS. OUR STEM CELL BILL, SB 471, MUST NOT BE MADE A HOSTAGE TO THE CURRENT SACRAMENTO FISCAL QUAGMIRE.

I WOULD HOPE THAT THE ICOC, BOTH AS A GROUP AND AS INDIVIDUAL MEMBERS, WOULD CONTACT THEIR APPROPRIATIONS COMMITTEE ASSEMBLYMAN KEVIN DELEON AND REQUEST THAT SB 471 NOT BE PUT IN THE SUSPENSE FILE.

FURTHER, I'D LIKE TO ADD THAT I COMPLETELY AGREE WITH MR. BOARDMEMBER DUANE ROTH WHO BROUGHT UP THE IMPORTANT NOTION OF PUTTING OUT THE GRAND TOTAL OF WHAT EACH INDIVIDUAL DISEASE COSTS AS THE SALK

INSTITUTE DID IN PREVENTING $30 BILLION A YEAR IN POLIO DAMAGE BY CREATING OF THE CURE. IT IS SUCH AN IMPORTANT MEASURE TO HAVE THE ACTUAL COST OUT THERE.

WORKING FOR THE BURGEONING STANFORD PARTNERSHIP FOR SPINAL CORD INJURY AND REPAIR UNDER THE DR. GARY STEINBERG AT THE WORLD CLASS STANFORD MEDICAL SCHOOL LED BY THE GREAT BOARD MEMBER PHILIP PIZZO. ABSOLUTELY. HE'S A GREAT LEADER.

DR. PIZZO: WELL SAID.

MR. TORRES: LET THE RECORD SHOW THAT DR. PIZZO SAID WELL SAID.

MR. REED: I REALIZE HOW IMPORTANT IT IS TO DO FUNDING TO FIND A CURE, AND TO BE ABLE TO PUT A NUMBER OUT THERE WILL DRAW ATTRACTORS WITH THE STRENGTH THAT IS NEARLY UNIMAGINABLE. SO I COMPLETELY CONCUR WITH YOU, MR. ROTH. THANK YOU, BOARD. AND YOU ARE DOING A FABULOUS JOB. THANK YOU.

MR. TORRES: THANK YOU, MR. REED. AND OUR LOVE AND BLESSINGS TO YOUR BEAUTIFUL PARENTS.

I'D LIKE TO RESPOND ON SB 471. I PERSONALLY SPOKE TO THE CHAIR OF THE APPROPRIATIONS COMMITTEE TO LET HIM KNOW THAT THE ANALYSIS BY HIS OWN COMMITTEE WAS NOT CORRECT TO REFER TO THE DEPARTMENT OF FINANCE ANALYSIS. BUT LET ME TELL YOU

WHAT USUALLY HAPPENS.

A BILL MAY GO TO SUSPENSE IF THERE'S A QUESTION MARK. THEN OUR CHALLENGE, MINE PARTICULARLY, IS TO MOVE THAT BILL OUT OF SUSPENSE WHEN WE RESOLVE THOSE ISSUES. WE'RE TRYING TO FIND OUT, BECAUSE THE HEARING WAS TODAY, AND IT MAY BE STILL GOING ON BECAUSE THERE ARE MANY BILLS THAT WERE ON THE AGENDA. WE'LL LET YOU KNOW AS SOON AS WE HEAR JUST WHAT THE STATUS IS AT THIS POINT.

MR. REED: THANK YOU SO MUCH.

MR. TORRES: ANY OTHER PUBLIC COMMENTS ON THE LITTLE HOOVER RECOMMENDATIONS OF THE LEGISLATIVE SUBCOMMITTEE? IF NOT, MR. CHAIRMAN, I WOULD MOVE THAT WE -- THAT THE BOARD APPROVE ITEMS 1, 2, AND 3 AS ARTICULATED ON PAGE 9.

MR. ROTH: I'LL SECOND. AND I'D LIKE TO MAKE JUST ONE COMMENT. AND THAT IS THAT I THINK THE LITTLE HOOVER COMMISSION REPORT DID WHAT THEY WERE ASKED TO DO. THEY DID IT IN A PROFESSIONAL AND REASONED WAY. THERE WAS NOTHING IN THIS REPORT THAT REALLY, I THINK, WAS UNREASONABLE FOR US TO CONSIDER. AND I THINK, LIKEWISE, OUR RESPONSE TO THEM WAS EXTREMELY PROFESSIONAL AND WELL THOUGHT OUT AND REASONED.

MUCH OF WHAT THEY'RE RECOMMENDING IS

OPINION, AND OPINIONS DIFFER, AND I THINK THAT'S THE BASIS OF IT. BUT I THINK WE DID A REMARKABLE JOB OF CONSIDERING THIS, TAKING IT VERY SERIOUS IN TERMS OF THEIR RECOMMENDATIONS AND DEALING WITH THOSE THAT WE COULD. SO I THANK EVERYBODY THAT WORKED ON THAT FOR MAKING THAT HAPPEN, INCLUDING THE LEADERSHIP THAT YOU HAD ON THIS, ART.

MR. TORRES: THANK YOU, MR. ROTH.

DR. PRIETO: MR. CHAIR, I'D JUST LIKE TO MAKE THE OBSERVATION FOR THOSE OF YOU WHO WEREN'T ON THE SUBCOMMITTEE. SEVERAL MEMBERS OF THE LITTLE HOOVER COMMISSION STAFF WERE PRESENT AT OUR SACRAMENTO SITE FOR THE LEGISLATIVE SUBCOMMITTEE MEETING. AND THEY MADE THE OBSERVATION TO THOSE OF US THERE AFTER WE HAD FINISHED THAT THEY WERE ACTUALLY VERY IMPRESSED WITH THE WAY WE HAD DEALT WITH THEIR REPORT, THAT IN CONTRAST TO MOST OTHER STATES AND COMMISSIONS, WHICH BASICALLY ACCEPT THESE REPORTS, THANK YOU VERY MUCH, AND IGNORE THEM, THAT WE -- SERIOUSLY THAT WE AGENDIZED THEM AND TOOK THEIR RECOMMENDATIONS POINT BY POINT AND DEALT WITH THEM SERIOUSLY. AND THEY WERE FAVORABLY IMPRESSED. WE DEALT WITH THIS IN A VERY PROFESSIONAL MANNER.

DR. LOVE: I THINK MY POINT IS A LITTLE BIT SIMILAR. I JUST WANTED TO EMPHASIZE THAT I

THOUGHT THE LEGISLATIVE COMMITTEE DID A BRILLIANT JOB IN TERMS OF GOING THROUGH THE LITTLE HOOVER COMMISSION REPORT, RESPONDING VERY THOUGHTFULLY. THIS DOCUMENT, ART, IS VERY WELL WRITTEN. I THINK BEAUTIFULLY DESCRIBES OUR POSITION. IT IS SOMETHING I THINK WE CAN EASILY GET BEHIND DEFENDING, SO I WANTED TO REALLY CONGRATULATE YOU FOR YOUR LEADERSHIP AND YOUR LEGISLATIVE SUBCOMMITTEE.

I DID HAVE ONE MINOR QUESTION I WANTED TO ASK, AND THAT REGARDS TAKING THE POLL WITH REGARD TO FINANCIAL DISCLOSURE. AND ONE OF THE RULES THAT YOU LEARN, AT LEAST I LEARNED IN MEDICINE, IS DON'T DO A TEST UNLESS YOU'RE WILLING TO ACT ON THE RESULTS. AND IT JUST MAKES ME WONDER OUT LOUD IF WE DO THIS POLL AND PEOPLE COME BACK SAYING THAT THEY WOULD BE OKAY WITH DISCLOSURE OR THEY WOULDN'T RESIGN, DO WE THEN WANT TO GO AHEAD AND DO THAT? I'M NOT ACTUALLY NOT SURE THAT WE DO.

SO I'M ASKING OUT LOUD DO WE REALLY WANT TO GENERATE INFORMATION, AT LEAST WITH THE PERCEPTION THAT WE MAY ACT ON IT WHEN, IN FACT, WE MAY NOT WANT TO ACT ON IT?

MR. TORRES: MR. SHEEHY. I'M SORRY. DR. TROUNSON FIRST, MR. SHEEHY, THEN MR. KLEIN.

DR. TROUNSON: WELL, I THINK THAT IS A

VERY VALID POINT, TED. WE FELT THAT THERE WAS NO REASON WHY WE SHOULDN'T DO IT. RATHER THAN MAYBE FRIGHTEN THE WHOLE OF THE 115 PEOPLE BY ASKING AND THEN HAVE THEM THINK THAT THAT'S WHAT WE'RE GOING TO DO, WE WOULD DO IT ANONYMOUSLY WITH THE GROUP THAT WAS SITTING DOWN TO COME TO THE GRANTS WORKING GROUP.

SO IF, FOR EXAMPLE, THERE WAS JUST PERHAPS ONE OR TWO WHO WERE CONCERNED, THE REST WERE OKAY WITH IT, THEN I THINK WE WOULD PROBABLY NEED TO CALL POLL THE WHOLE LOT. UNDER THOSE CIRCUMSTANCES, I THINK WE'D THEN HAVE TO BRING IT BACK TO THE LEGISLATIVE SUBCOMMITTEE AND SAY, WELL, THIS IS WHAT WE FOUND. AND IT MAY BE THAT IT WOULDN'T HAVE AN IMPACT ON THEM AND THEN HAVE THAT DISCUSSION HERE AGAIN.

SO I THINK PROBABLY THE STAFF FELT THAT THE REQUEST WAS FOR US TO DO IT. WE FELT THAT IT WAS NOT ONEROUS OR UNREASONABLE THAT WE DO THE POLL. AND IF IT TURNS OUT, OF COURSE, IF THEY OBJECT, THEN WE HAVE SUBSTANCE TO OUR CLAIM THAT MIGHT AFFECT THAT. IF IT DOES NOT, WE'LL BRING IT BACK TO THE LEGISLATIVE SUBCOMMITTEE.

MR. TORRES: MR. SHEEHY, MR. KLEIN, AND DR. PIZZO.

MR. SHEEHY: I ACTUALLY AGREE WITH DR. LOVE'S POINT. THIS EXERCISE ACTUALLY HAS BEEN GONE THROUGH IN THE PAST AS PART OF THE STRATEGIC PLANNING PROCESS UNDER -- FOR OUR FIRST STRATEGIC PLAN, WE ACTUALLY HAD A PUBLIC MEETING AT WHICH SEVERAL MEMBERS OF THE WORKING GROUP WERE AT, AND THE QUESTION WAS POSED TO THE MEMBERS OF THE WORKING GROUP. AND WE ACTUALLY HAD A VERY NEGATIVE REACTION TO THAT QUESTION. AND THE REVIEWER WHO HAD A NEGATIVE REACTION SUBSEQUENTLY RESIGNED FROM THE WORKING GROUP. SO ASKING THE QUESTION ITSELF DID HAVE A NEGATIVE IMPACT ON OUR ABILITY TO RECRUIT WORKING GROUP MEMBERS. SO I DON'T -- AGAIN, SO YOUR POINT IS VALUABLE.

CHAIRMAN KLEIN: IT'S IMPORTANT TO NOTE THIS IS A POLL, NOT A 51-PERCENT VOTE. SO WE CAN'T AFFORD TO LOSE 35 OR 40 PERCENT OF OUR WORKING GROUP. SO IF ANY SIGNIFICANT PORTION OF OUR WORKING GROUP WERE TO SAY THAT THIS IS NOT ACCEPTABLE, I WOULD, PERSONALLY SPEAKING AS AN INDIVIDUAL, BELIEVE THAT WE SHOULDN'T ADOPT THE PROCEDURE THAT MAY LOSE SOME OF THE BEST TALENT IN THE COUNTRY BECAUSE THE QUALITY OF OUR PEER REVIEWERS IS VITAL TO ACCOMPLISHING OUR MISSION.

SO THIS IS LET'S NOT CONFUSE THIS POLL

WITH A VOTE OF A MAJORITY. THIS IS -- IT'S VERY IMPORTANT THAT THERE BE A VERY HIGH DEGREE OF CONSENSUS THAT IT IS ACCEPTABLE TO BE ABLE TO GO FORWARD WITH IT. OTHERWISE WE COULD SEVERELY DAMAGE OUR ABILITY TO DO THE BEST PEER REVIEW POSSIBLE FOR THE PATIENTS AND VOTERS OF CALIFORNIA.

DR. PIZZO: SO I AGREE WITH THE COMMENTS THAT HAVE MADE. THE QUESTION THAT I HAVE IS WHETHER OR NOT THE OBJECTION IS TO DISCLOSURE AS A CASE IN POINT OR TO FILLING OUT FORM 700, WHICH IS A MUCH MORE ELABORATE PROCESS. WE DO THAT BECAUSE WE RECOGNIZE ITS IMPORTANCE. WE ALL DO DISCLOSURE IN OUR ACADEMIC INSTITUTIONS ON A REGULAR BASIS. IT'S JUST PART OF THE BUSINESS OF BEING IN A UNIVERSITY. AND IF IT WERE SORT OF A STANDARD DISCLOSURE FORM AS A COMPROMISE, I THINK THAT WOULD BE STRAIGHTFORWARD. I'D HAVE A HARD TIME BELIEVING THAT ANYONE WOULD OBJECT TO IT, BUT I CAN UNDERSTAND WHY SOME MIGHT OBJECT TO THE MORE ONEROUS PROCESS OF THE FORM 700.

MR. SHEEHY: WELL, LET ME RESPOND TO THAT. WELL, FIRST, THE REQUIREMENTS -- THE CONFLICT OF INTEREST RULES FOR THE WORKING GROUP ARE ACTUALLY MORE ONEROUS THAN FORM 700 AND MORE EXTENSIVE. THEY ALSO INCLUDE PROFESSIONAL CONFLICTS OF INTEREST. AND, IN FACT, THEY DO DISCLOSE -- IT'S NOT

DISCLOSURE PER SE. IT'S PUBLIC DISCLOSURE THAT THEY OBJECT TO.

AND I WOULD NOTE IN OUR LIST OF AUDITS THAT OUR ACTING CHAIR WENT THROUGH ON HIS EARLIER ITEM THAT THESE CONFLICT OF INTEREST DISCLOSURES ARE AUDITED BY AN EXTERNAL AUDITOR TO MAKE SURE THAT WE'RE COMPLYING WITH OUR OWN RULES. OUR RULES FOR CONFLICT OF INTEREST ARE MORE STRINGENT THAN NIH. SO WE HAVE A VERY RIGOROUS REGIME FOR OUR WORKING GROUP MEMBERS, AND THE ONLY THING IS THEY'D REALLY NOT LIKE TO READ THEM AND HAVE THEM DISCUSSED AND DIALOGUED WITH. IT MAY TO HAVE TO DO WITH OUR POLITICAL PROFILE, THE CONTROVERSY WITH OUR RESEARCH HAS BEEN -- HAS GENERATED. THERE'S SIGNIFICANT OPPOSITION. THERE'S A WHOLE HOST OF REASONS WHY YOU MIGHT IMAGINE SOMEBODY WOULD NOT LIKE THE WHOLE REALM OF THEIR FINANCIAL AND PERSONAL CONFLICTS OF INTEREST OUT IN THE PUBLIC REALM, BUT THEY'VE BEEN VERY WILLING TO DISCLOSE. THERE'S BEEN NO PROBLEM AT ALL IN GETTING DISCLOSURE.

MR. TORRES: ANY OTHER COMMENTS? DR. LOVE.

DR. LOVE: I JUST WANT TO REARTICULATE MY POINT A LITTLE BIT MORE FIRMLY. AND THAT IS THAT EVEN -- I HAVE NO DOUBT THAT THE POLL WILL COME BACK

AND REAFFIRM THAT PEOPLE ARE NOT INTERESTED IN THIS. BUT MY POINT IS REALLY A DIFFERENT ONE. THAT IS THAT EVEN IF THE POLL CAME BACK AND SAID SOMETHING THAT WE WERE SURPRISED WITH, MY STRONG RECOMMENDATION WOULD BE THAT WE NOT GO THERE. AND THE REASON I WOULD RECOMMEND THAT IS BECAUSE, AS I READ THIS REPORT, THERE'S GREAT JUSTIFICATION FOR THE PROCESS THAT WE'VE GOT IN PLACE AS BEING A HIGH QUALITY, HIGH INTEGRITY, GOLD STANDARD PROCESS. AND I WOULD BE RELUCTANT THAT WE LAYER ON TOP OF THAT MORE PAPERWORK, MORE BUREAUCRACY WHEN WE KNOW IT IS NOT GOING TO IMPROVE ANYTHING RELATED TO OUR MISSION.

SO I JUST AS A PRINCIPLE HAVE CONCERN ABOUT LAYERING SOMETHING THAT HAS NO UPSIDE AND MAY HAVE DOWNSIDES THAT WE DON'T EVEN ENVISION.

MR. TORRES: THANK YOU, DR. LOVE. ANY OTHER QUESTIONS BEFORE WE MOVE TO THE VOTE?

DR. TROUNSON: SO I THINK THE REQUEST WAS TO POLL THE PEOPLE, BUT NOT TO MAKE -- THERE WAS NO RECOMMENDATION FURTHER AND ANY FURTHER ACTION. SO THE ISSUE THAT WE TOOK ON BOARD WAS IT WAS VERY DIFFICULT TO FIND A REASON WHY WE WOULDN'T POLL AT LEAST A SUBSET. I WASN'T REALLY AWARE OF THE POINT JEFF MADE WHEN WE MADE THOSE RECOMMENDATIONS. I

WASN'T HERE AT THAT TIME.

BUT I THINK THAT THE SENSE THAT WE MIGHT LOSE SOMEONE WOULD BE A CONCERN FOR ME; BUT NOT TO DO THE POLL SEEMED TO BE, YOU KNOW, UNREASONABLE, AND SO MANAGEMENT WAS TRYING TO BE REASONABLE. BUT IT DIDN'T SAY THAT WE HAD TO TAKE ANY ACTION ON WHATEVER WE FOUND.

MR. SHEEHY: I WONDER IF THE MAKER OF THE MOTION WOULD TAKE A FRIENDLY AMENDMENT TO REMOVE THE REFERENCE TO THE POLL. I THINK THE PRESIDENT'S SIGNALED HE MAY BE -- BASED ON NEW INFORMATION, HE MAY BE FAVORABLE TOWARDS THAT. AND WE DO -- I MEAN --

MR. TORRES: YOUR AMENDMENT IS TO THE MAIN MOTION WHICH I MADE, WHICH WAS TO ACCEPT ITEMS 1, 2, AND 3. AND YOU ARE SUGGESTING THAT YOU AMEND THAT MOTION TO EXCLUDE ITEM NO. 8, STAFF POSITION ON PAGE 5.

MR. SHEEHY: YEAH. BECAUSE WE DO HAVE AN INSTANCE OF A MEMBER, WHEN THIS ISSUE WAS FIRST RAISED, OF A MEMBER REMOVING THEMSELVES FROM THE COMMITTEE, RESIGNING FROM THE COMMITTEE. SO GIVEN THAT THAT WASN'T -- THAT STAFF WAS NOT AWARE OF THAT WHEN THEY MADE THIS RECOMMENDATION, I WOULD SURE HATE TO LOSE EVEN A SINGLE REVIEWER. AS I STATED,

WE HAVE A MORE RIGOROUS CONFLICT OF INTEREST PROCESS THAN ANY AGENCY IN THE COUNTRY AS FAR AS I'M AWARE OF THAT REVIEW SCIENTIFIC GRANTS, THAT THESE INCLUDE THE PERSONAL CO-PUBLICATION, MENTOR/MENTEE RELATIONSHIPS, A WHOLE HOST OF RELATIONSHIPS THAT ARE NOT CONSIDERED BY THE FORM 700, AND THAT THESE CONFLICT OF INTEREST DISCLOSURES ARE AUDITED BY THE INDEPENDENT AUDITOR OF THE STATE, I THINK WE ARE NOT IN ANY WAY JEOPARDIZING OUR ACCOUNTABILITY TO THE PUBLIC BY NOT GOING THROUGH THIS EXERCISE.

MR. TORRES: I THINK YOU'LL FIND TREMENDOUS SYMPATHY WITH THE LEGISLATURE OF ANYONE NOT WANTING TO BE REQUIRED TO FILE A 700 FORM. SO I THINK THAT'S CERTAINLY GOING TO BE THE CASE THERE.

SO THE AMENDMENT TO THE MAIN MOTION READS THAT WE ADOPT ITEMS 1, 2, AND 3 AS ARTICULATED ON THE FINAL PAGE OF YOUR ITEM NO. 7, BUT TO ELIMINATE -- DO NOT ACCEPT RECOMMENDATION NO. 8. IS THAT A CORRECT STATEMENT OF YOUR MOTION?

MR. SHEEHY: YES.

MS. GIBBONS: DOES THE VOTE INCLUDE THE AMENDMENT TO ITEM 3 AS READ PRIOR?

MR. TORRES: YES.

MS. GIBBONS: AND THE ELIMINATION OF 8?

MR. TORRES: YES.

DR. PRIETO: I THINK IT'S A LITTLE HARD TO ARGUE PUBLICLY IN FAVOR OF REMAINING IGNORANT GIVEN THE TERMS UNDER WHICH WE WOULD BE CONDUCTING THIS POLL; THAT IS, ANONYMOUSLY POLLING OUR REVIEWERS AS TO WHETHER THIS PUBLIC DISCLOSURE WOULD IMPACT THEIR WILLINGNESS TO SERVE. I THINK I HAVE A FEELING FOR WHAT THE RESULTS OF THAT POLL IS GOING TO BE. AND IF THAT POLL COMES BACK WITH EVEN 10 OR 20 PERCENT OF OUR REVIEWERS SAYING, YES, THAT WOULD NEGATIVELY IMPACT THEM, THEN I KNOW WHAT MY VOTE WOULD BE ON ANY FUTURE CONSIDERATION OF THIS QUESTION, WHICH WOULD BE NO. LET'S NOT PUBLICLY DISCLOSE THIS GIVEN THE SAFEGUARDS WE ALREADY HAVE IN PLACE. BUT I DON'T THINK THAT EXTENDS TO REFUSING TO ASK THE QUESTION, PARTICULARLY UNDER THE TERMS WE'VE TALKED ABOUT, WHICH IS ASKING IT ANONYMOUSLY.

MR. TORRES: WELL, I'M IN A DILEMMA THEN. I WOULD LIKE TO RETRACT MY MOTION AND ALLOW THE MOTION ON ITEM NO. 8 TO BE STANDALONE AND LET THE COMMITTEE VOTE ON THAT MOTION ALONE BECAUSE I WOULD SURE LIKE TO HAVE A UNANIMOUS VOTE ON THE RECOMMENDATIONS THAT I CAN TAKE TO THE LEGISLATURE AND SAY WE UNANIMOUSLY SUPPORT THESE RECOMMENDATIONS. SO I WILL RETRACT MY MOTION.

AND THE MOTION ON THE FLOOR IS BY

MR. SHEEHY, WHICH IS TO -- HIS MOTION IS TO NOT ACCEDE TO THE POLL. IS THERE A SECOND?

DR. LOVE: SECOND.

MR. TORRES: SECOND BY DR. LOVE. DISCUSSION? I THINK WE'VE HAD IT.

MS. SAMUELSON: JUST TO BELABOR IT A LITTLE. I THINK IT'S IMPORTANT THAT THE RECORD REFLECT HOW ONEROUS OUR CONFLICT OF INTEREST RULES NOW ARE AND THE IMPACT OF THEM ON THE COMMITTEE. IT ALSO REQUIRES RECUSAL. AND WE HAVE MANY MEMBERS OF THE WORKING GROUP WHO ARE EXCLUDED BECAUSE OF THIS EXTENSIVE SERIES OF CONFLICT REQUIREMENTS FROM THE DISCUSSION, AND THAT REDUCES THE QUALITY OF OUR DISCUSSIONS CONSIDERABLY, IN MY OPINION.

I THINK OUR DISCLOSURE RULES, CONFLICT RULES ARE EXCESSIVE AND ONEROUS. AND THE THOUGHT OF ADDING TO THEM IS OFFENSIVE TO ME. AND I THINK IT WOULD BE DISINGENUOUS TO THINK ABOUT POLLING THE WORKING GROUP ESPECIALLY IF WE'VE ALREADY HAD AN EXAMPLE IN WHICH A MEMBER RESIGNED PERHAPS BECAUSE OF IT.

MR. TORRES: SO IF YOU'LL GO BACK TO PAGE 5, INDULGE ME FOR JUST A QUICK MOMENT, WE BASICALLY DID CITE THAT, BUT WE CAN EXPAND UPON THAT. IRRESPECTIVE OF WHAT THE VOTE IS TONIGHT ON THIS

MOTION, WE SHOULD INCLUDE THAT AS PART OF THE STATEMENT THAT WE GIVE TO THE LEGISLATURE. ALL RIGHT. ARE WE CLEAR ON WHAT THE MOTION IS?

DR. POMEROY: THIS RECOMMENDATION WAS REQUESTED OF US, AND IT SEEMED TO ME TO BE A BENIGN THING TO DO IN ORDER TO BUILD SOME TRUST WITH THE PUBLIC. WE KEPT SAYING, YOU KNOW, IF YOU REQUIRE PUBLIC DISCLOSURE, IT WILL HURT OUR MISSION BECAUSE WE WON'T BE ABLE TO GET PEOPLE AS EASILY. AND THEN WE SAID TRUST US. WE WON'T GO GET YOU THE DATA. THAT'S WHAT DECLINING TO DO THE POLL WOULD BE SAYING.

SO I THINK I KNOW WHAT THE POLL WOULD SHOW. I THINK THERE WOULD BE AT LEAST A SIGNIFICANT NUMBER OF PEOPLE WHO WOULD SAY THAT THAT WOULD NEGATIVELY IMPACT THEIR WILLINGNESS TO SERVE. BUT FOR ME AGREEING TO DO THIS POLL IS REACHING OUT AND SAYING WE'RE WILLING TO GO ASK THE QUESTION TO MAKE SURE THAT OUR PERCEPTION IS INDEED ACCURATE.

SO I WILL -- SEE IF I CAN GET MY DOUBLE NEGATIVES HERE CORRECT. I WILL NOT BE VOTING FOR THE AMENDMENT TO RETRACT THIS RECOMMENDATION.

MR. TORRES: ALL RIGHT. ANY OTHER COMMENTS FROM THE BOARD BEFORE MOVE TO PUBLIC COMMENT? MR. KLEIN.

CHAIRMAN KLEIN: I WOULD AGREE WITH DR. POMEROY. THIS IS AN EXAMPLE OF A POINT THAT WE CAN ACT TO ENHANCE TRUST WITH THE LEGISLATURE, ENHANCE TRUST WITH THE PUBLIC BECAUSE IF WE ARE TO VOTE AGAINST THIS, IT WILL BE SPUN IN THE OTHER DIRECTION. WE ARE PROVIDING TRANSPARENCY WHEREVER IT DOESN'T HARM OUR MISSION AND TO THE MAXIMUM EXTENT POSSIBLE AND, AS JOAN SAYS, CREATING INTERNAL RULES THAT ARE MUCH SEVERE THAN EVEN THE NIH. SO I THINK THIS IS AN OPPORTUNITY TO DO SOMETHING WHERE IT'S FAIRLY PREDICTABLE. WE CERTAINLY HAVE TAKEN POSITIONS IN THE PAST THAT WE WON'T DO DISCLOSURE BECAUSE WE BELIEVE IT WILL HURT OUR MISSION. THEY'RE CALLING THE QUESTION. I THINK IT IS IMPORTANT FOR US TO DO THIS POLL. WE'VE CHOSEN TO DO IT WITH A WORKING GROUP THAT IS AT THE AGENCY FOR A SPECIFIC REVIEW. IT IS A SUBSTANTIAL SAMPLE. AND I BELIEVE THAT BY DOING IT IN THAT CONTEXT AND TELLING THEM WHAT THE BOARD'S COMMUNICATION IS, THAT THERE'S NO INTENT TO FOLLOW THROUGH WITH THIS AS AN ACTION IF THERE'S ANY SIGNIFICANT IMPACT ON OUR MISSION, THAT WE WILL NOT LOSE ADDITIONAL REVIEWERS.

DR. PIZZO: ONE LAST COMMENT. JUST BECAUSE OF THE OPTICS THAT'S GOING ON AROUND THE COUNTRY WITH REGARD TO DISCLOSURE AND INVESTIGATIONS

THAT ARE GOING ON BY SOME OF OUR SENATOR COLLEAGUES, PARTICULARLY SENATOR GRASSLE, I THINK THAT IT IS GOING TO BE IMPORTANT AS WE PROCEED TO MAKE CLEAR THE VERY POINT THAT JEFF MADE, WHICH IS THAT THIS IS NOT AN ISSUE OF DISCLOSURE. I THINK WE NEED TO BE CLEAR THAT THE MEMBERS OF THE WORKING GROUP ARE DISCLOSING, AS YOU SAID, IN GREAT DETAIL. IT'S A MATTER OF MAKING THAT DISCLOSURE PUBLIC. THAT'S A VERY DIFFERENT THING, AND I THINK THAT REALLY, BECAUSE OF THE OPTICS OF THIS, THAT WE BE SURE THAT OUR COMMUNICATIONS SPEAK TO THE STRENGTH OF THE DISCLOSURES THAT WE'RE CURRENTLY ALREADY INVOKING AND DOING.

MR. TORRES: ANY OTHER COMMENTS FROM THE BOARD? PUBLIC COMMENTS? THERE BEING NONE, WE'LL CALL THE ROLL ON THIS MOTION. THE MOTION IS TO NOT ENDORSE THE RECOMMENDATION OF THE LITTLE HOOVER COMMISSION NO. 8, POLL PEER REVIEWERS TO DETERMINE WHETHER THEY WOULD RESIGN IF THEY WERE REQUIRED TO PUBLICLY DISCLOSE THEIR FINANCIAL INTERESTS. STAFF'S RECOMMENDATION WAS TO ENDORSE THIS PROPOSAL TO TAKE AN ANONYMOUS POLL OF THE GWG MEMBERS.

DR. PRICE: YES IS A NO ON THAT ISSUE?

MR. TORRES: CORRECT.

DR. PRICE: LIKE A PROPOSITION.

MR. TORRES: WELCOME TO AMERICAN POLITICS.
MS. KING: DONALD DAFOE.
DR. DAFOE: NO.
MS. KING: ROBERT PRICE.
DR. PRICE: YES.
MS. KING: DAVID BRENNER.
DR. BRENNER: YES.
MS. KING: JACOB LEVIN.
DR. LEVIN: NO.
MS. KING: MARCY FEIT.
MS. FEIT: YES.
MS. KING: LEEZA GIBBONS.
MS. GIBBONS: YES.
MS. KING: SAM HAWGOOD.
DR. HAWGOOD: NO.
MS. KING: BOB KLEIN.
CHAIRMAN KLEIN: NO.
MS. KING: TED LOVE.
DR. LOVE: YES.
MS. KING: PHIL PIZZO.
DR. PIZZO: NO.
MS. KING: CLAIRE POMEROY.
DR. POMEROY: NO.
MS. KING: FRANCISCO PRIETO.
DR. PRIETO: NO.

MS. KING: ELIZABETH FINI.
DR. FINI: NO.
MS. KING: JEANNIE FONTANA.
DR. FONTANA: YES.
MS. KING: DUANE ROTH.
MR. ROTH: NO.
MS. KING: JOAN SAMUELSON.
MS. SAMUELSON: YES.
MS. KING: DAVID SERRANO-SEWELL.
MR. SERRANO-SEWELL: NO.
MS. KING: JEFF SHEEHY.
MR. SHEEHY: YES.
MS. KING: ART TORRES.
MR. TORRES: NO.
MS. GIBBONS: I DON'T KNOW IF IT'S APPROPRIATE HERE, BUT I MISSTATED MY VOTE. I MEANT TO VOTE NO.
MS. KING: YOU SAID YES. YOU MEANT NO.
MS. GIBBONS: NO.
MS. KING: SHE MEANT TO VOTE NO, COUNSEL.
MR. TORRES: ALL RIGHT. THE MOTION DOES NOT CARRY. NOW WE'RE ON THE MAIN MOTION. I WILL MAKE IT AGAIN, AND THAT IS TO ACCEPT THE RECOMMENDATIONS ON THE CONCLUSION PAGE NO. 9, ITEMS 1, 2, AND 3. IS THERE A SECOND?

MR. ROTH: I WILL SECOND.

MR. TORRES: THANK YOU, DR. ROTH -- MR. ROTH.

MR. ROTH: THANKS FOR THE PROMOTION.

MR. TORRES: I THINK WE'VE HAD DISCUSSION. IS THERE ANY PUBLIC DISCUSSION ON THE MAIN MOTION?

CHAIRMAN KLEIN: THERE IS A POINT. LEGALLY I'VE CONFERRED WITH COUNSEL, AND I THINK IT IS IMPORTANT THAT WE CHANGE THIS LANGUAGE. COUNSEL.

MR. HARRISON: WITH RESPECT TO THE FIRST RECOMMENDATION OF THE LEGISLATIVE SUBCOMMITTEE, THE LANGUAGE WOULD READ: OPPOSE LEGIS- -- LITTLE HOOVER COMMISSION RECOMMENDATIONS 1 THROUGH 5 BASED ON COUNSEL'S ADVICE THAT THE PROPOSED AMENDMENTS TO PROP 71 WOULD VIOLATE THE CALIFORNIA CONSTITUTION AND PROP 71 AND WOULD FAIL TO RESPECT, AS THE CALIFORNIA COURTS HAVE RECOGNIZED, THE PRECIOUS RIGHT OF THE 7 MILLION VOTERS WHO APPROVED PROP 71.

CHAIRMAN KLEIN: THE IMPORTANCE IS THAT OUR PRIOR LANGUAGE, IF WE SAID BECAUSE IT WOULD NOT BE CONSTITUTIONAL IF APPROVED BY THE LEGISLATURE, THE LEGISLATURE CAN ACTUALLY APPROVE IT IN AN ACTION THAT PUTS IT ON THE BALLOT. SO THIS LANGUAGE IS MORE LEGALLY CORRECT.

MR. TORRES: ALL RIGHT. IS THERE A

COMMENT ON THE FINAL AMENDED MOTION, WHICH I ACCEPT AS A FRIENDLY AMENDMENT BY MR. KLEIN VIA MR. HARRISON? MR. SEWELL.

MR. SERRANO-SEWELL: I THINK I WANT TO SAY THIS RIGHT. PER THE LAST MOTION, I WOULD ENCOURAGE THE YESES TO VOTE YES ON THIS MOTION BECAUSE OF SOMETHING THAT VICE CHAIRMAN TORRES SAID EARLIER, THAT IT IS IMPORTANT THAT WE SEND HIM WITH A UNIFIED POSITION, A UNIFIED MESSAGE. I THINK THAT WILL BE RECEIVED VERY WELL WITH THE STAKEHOLDERS IN SACRAMENTO. ANYTHING SORT OF LESS AND ON THE MARGINS JUST SIMPLY WON'T DO IN THIS CASE. AND I KNOW SOMETIMES YOU'RE NOT -- YOU DON'T GET ALL OF YOU WANT, BUT THIS IS ONE OF THOSE SITUATIONS WHERE THE GREATER GOOD, IN MY VIEW, DICTATES A YES VOTE.

MR. TORRES: ANY FURTHER COMMENTS? ALL RIGHT. PUBLIC COMMENTS I THINK I ASKED. CALL THE ROLL.

MS. KING: ON THIS MOTION, YOU CAN DO A VOICE VOTE.

MR. TORRES: ALL IN FAVOR SIGNIFY BY SAYING AYE. ALL THOSE OPPOSED? ALL THOSE ABSTAINED? ALL RIGHT. THE MOTION CARRIES UNANIMOUSLY.

CHAIRMAN KLEIN: THANK YOU.

MR. TORRES: NOW WE'LL MOVE ON TO A QUICK REVIEW BY MR. ROTH.

CHAIRMAN KLEIN: I'D LIKE TO AT THIS MOMENT HAVE A ROUND OF APPLAUSE FOR OUR ACTING CHAIR.

(APPLAUSE.)

MR. TORRES: THANK YOU VERY MUCH. I'D PREFER A SALARY INCREASE, BUT OTHER THAN THAT. THANK YOU, MR. KLEIN. AND ALSO THIS WAS A TEAM EFFORT, SO LET'S BE VERY CLEAR ABOUT THAT FROM THE PRESIDENT'S OFFICE, FROM OUR OFFICES, FROM OUR COUNSEL. IT WAS A TEAM FROM OUR SCIENTISTS. IT WAS A TEAM EFFORT AND I'M VERY, VERY GRATEFUL FOR ALL YOUR HELP AND CERTAINLY THE BOARD'S HELP NOW. IT MAKES MY JOB EASIER IN TAKING THIS TO THE LEGISLATURE.

I'D LIKE TO INTRODUCE MR. ROTH NOW FOR A QUICK COMMENT ON THE BIOSIMILAR LEGISLATION. BEFORE I DO THAT, I WANT TO THANK HIM FOR MAKING A TRIP TO WASHINGTON TO MEETING WITH STAFF AND MEMBERS OF THE CONGRESS TO EDUCATE THEM OF WHAT OUR POSITION WAS IN A VERY POSITIVE AND REINFORCING WAY.

I ALSO WANT TO PUT IN THE RECORD MY GRATITUDE TO SENATOR FEINSTEIN FOR SUPPORTING OUR POSITION IN A LETTER SHE SENT ON JULY 14TH TO

SENATORS KENNEDY AND SENATOR DODD. AND I JUST WANT TO NOW THANK YOU AGAIN, DUANE, FOR THE WORK YOU DID ON THIS LEGISLATION. IT CONTINUES TO BE OUT THERE. AND GIVE US AN UPDATE.

MR. ROTH: THANK YOU VERY MUCH.

MS. KING: EXCUSE ME, MR. ROTH. BEFORE YOU BEGIN, IF I COULD JUST MAKE A COMMENT. FIRST OF ALL, I JUST WANTED TO REMIND SENATOR TORRES THAT WE'VE DONE ITEM 7 A, BUT WE STILL HAVE ITEM 7 B. AND THEN ON TOP OF THAT, THE ITEM THAT MR. ROTH IS ADDRESSING IS ACTUALLY ITEM NO. 21 FOR THE RECORD.

MR. TORRES: WITHOUT OBJECTION, IF WE CAN MOVE VERY QUICKLY TO ITEM 21 BEFORE WE MOVE TO ITEM 7 B.

MR. ROTH: SO ON THIS ITEM WE'VE DISCUSSED IT AT A NUMBER OF MEETINGS, WE TOOK SEVERAL VOTES ON IT. AND I WILL TELL YOU THAT I THINK THE CONCLUSION WE REACHED WAS ONE THAT MANY PEOPLE HADN'T THOUGHT ABOUT WHEN THEY WERE TALKING ABOUT BIOSIMILARS, THE IMPACT IT WOULD HAVE ON BRAND-NEW TECHNOLOGIES AND THE TIME IT WOULD TAKE. I ONLY POINT YOU TO THE NEWS YESTERDAY OR TODAY THAT GERON WAS DELAYED ONCE AGAIN IN STARTING THEIR CLINICAL TRIAL BECAUSE QUESTIONS ARISE AND THEY HAVE TO BE ADDRESSED AND ANSWERED. AND THAT'S ALWAYS WHAT HAPPENS TO THE

INNOVATOR, THE FIRST ONE THROUGH.

SO I THANK YOU FOR THAT POSITION. ART MENTIONED THE LETTER. THAT LETTER WAS WIDELY CIRCULATED IN CONGRESS. I CAN TELL YOU IT WENT WELL BEYOND OUR DELEGATION, AND IT WAS THE PIVOTAL LETTER THAT WENT TO THE SENATE COMMITTEE BEFORE THE VOTE THAT RESULTED -- FROM SENATOR FEINSTEIN THAT RESULTED, I THINK, IN TURNING THE TIDE.

I THINK WE SHOULD BE VERY PROUD OF THAT. WE HAD A VERY, VERY LARGE IMPACT HERE. AND I THINK IT WILL BENEFIT PATIENTS BECAUSE INVESTORS WILL BE MORE LIKELY TO ENTER IN AND INVEST IN THESE LONG-TERM THERAPIES THAT WE CLEARLY CARE SO MUCH ABOUT. SO THANK YOU FOR ALL THAT. THE VOTES WERE NOT EVEN CLOSE IN EITHER THE SENATE COMMITTEE OR THE HOUSE COMMITTEE. THEY WERE SO OVERWHELMINGLY IN FAVOR OF 12-YEAR DATA EXCLUSIVITY. SO THANK YOU.

MR. TORRES: THANK YOU VERY MUCH, MR. ROTH. ANY COMMENTS OR QUESTIONS? THERE BEING NONE, WE'LL MOVE TO ITEM 7 B. MR. SHEEHY IS THE MAIN PRESENTER OF THAT MOTION ON THE PUBLIC HEALTH OPTION. I BELIEVE THAT THAT IS BETWEEN -- IF I CAN TAKE AN INFORMAL, IF I MAY, AN INFORMAL CALL. IF WE CAN TAKE THIS UP BEFORE DINNER, IT WOULD BE GREAT. IF YOU WANT TO WAIT TILL AFTER DINNER. I THINK

MR. SHEEHY WANTED TO MAKE SURE THAT THE BOARD WAS WILLING TO TAKE THIS ISSUE UP NOW.

MS. KING: WE HAVE A MEMBER OF THE BOARD THAT NEEDED TO STEP OUT. WITHOUT THAT MEMBER, WE ACTUALLY DON'T HAVE A QUORUM, SO I'M GOING TO RECOMMEND THAT WE ACTUALLY TAKE THE DINNER BREAK BEFORE WE GET TO ITEM 7 B. WE CAN'T TAKE THE VOTE WITHOUT THAT MEMBER ANYWAY, AND THAT MEMBER NEEDS A BREAK.

MR. TORRES: WELL, THE DISCUSSION CAN TAKE PLACE, BUT NOT A VOTE.

MS. KING: THAT'S CORRECT.

CHAIRMAN KLEIN: THIS IS A QUESTION THAT JOAN COULD PARTICIPATE FULLY IN THE DISCUSSION IF WE WERE TO TAKE A BREAK FOR DINNER.

MR. SHEEHY: I THINK THIS IS PRETTY STRAIGHTFORWARD. IT'S A PUBLIC HEALTH INSURANCE OPTION. I DON'T THINK THAT THERE'S -- I CAN TALK ABOUT IT BRIEFLY, BUT I DON'T THINK WE CAN COME BACK AFTER DINNER. I DON'T THINK WE SHOULD SPEND A LOT OF TIME ON IT. I REALLY THINK THAT GIVEN THE DISCUSSION WE'VE HAD ABOUT ACCESS AND HOW THIS HAS INFLUENCED OUR MISSION, THAT THIS HAS BEEN AN ELEMENT IN OUR IP REGS THAT CONTINUES TO BEDEVIL US, THAT THE PUBLIC INSURANCE OPTION, RECOMMENDING THAT

THAT BE INCLUDED AS PART OF THE HEALTH REFORM CARE ACT.

I DON'T KNOW IF IT'S REALLY USEFUL FOR US TO DEBATE THIS FOR A VERY LONG TIME, AND MAYBE WE CAN JUST VOTE OUR CONSCIENCES FAIRLY QUICKLY IF WE DO THAT AFTER DINNER SO THAT JOAN CAN PARTICIPATE, BUT I DON'T THINK IT WOULD USEFUL UNLESS ANYONE REALLY THINKS WE NEED TO DEBATE THE RELATIVE MERITS.

I THINK -- I KNOW I'VE BEEN FOLLOWING THIS WHOLE THING VERY CLOSELY, AND I HOPE EVERYONE ELSE HAS, THE WHOLE HEALTHCARE REFORM EFFORT BY THE PRESIDENT. FOR ME PERSONALLY IT WOULD BE IMPORTANT TO BE ON RECORD FOR THIS AS PERHAPS THE ONLY MEMBER OF THIS BODY THAT EVER PRESENTED WITH A LIFE THREATENING ILLNESS WITHOUT INSURANCE AND HAVING HAD TO NEGOTIATE THAT MORASS. I'M VERY SYMPATHETIC TO FOLKS WHO DON'T HAVE INSURANCE IN THIS COUNTRY OR HAVE BEEN CUT OFF FROM INSURANCE OR HAVE REACHED LIFETIME CAPS, ETC., ETC. SO I'LL LEAVE IT TO THE PLEASURE OF THE CHAIR WHETHER WE DO IT NOW OR AFTER.

MR. TORRES: I THINK WE SHOULD DO IT AFTER DINNER AND HAVE A CHANCE TO CHEW ON THOSE WORDS. HOW'S THAT? ALL RIGHT. THANK YOU, MR. CHAIRMAN.

CHAIRMAN KLEIN: WE ARE GOING TO ADJOURN FOR DINNER. LET'S SAY THIS IS 40 MINUTES

APPROXIMATELY. IT'S DOWNSTAIRS. AND IT IS, IF YOU GO TO THE BOTTOM OF THE STAIRS AND STRAIGHT TO THE OTHER SIDE OF THE LOBBY, THERE WILL BE STAFF THERE TO DIRECT THE BOARD MEMBERS. SO THE VICE CHAIRS, THE VICE CHAIR'S RECOMMENDATION IS WE BE BACK HERE AT APPROXIMATELY 8:20.

AND LET ME ASK. WE ARE NOT CONDUCTING AN EXECUTIVE SESSION DURING THIS DINNER.

MS. KING: NO.

CHAIRMAN KLEIN: SO WE SHOULD BE ABLE TO HOLD TO OUR TIME PERIOD WITHIN FIVE OR TEN MINUTES. THANK YOU. WE STAND ADJOURNED FOR THIS BREAK.

(A RECESS WAS TAKEN.)

CHAIRMAN KLEIN: WE ARE GOING TO RECONVENE. AND THE HONORABLE ACTING CHAIR OF THE LEGISLATIVE COMMITTEE, OUR ESTEEMED LEADER, WILL LEAD US THROUGH SUBPART B.

MR. TORRES: MR. SHEEHY, ARE YOU HERE?

CHAIRMAN KLEIN: WHAT'S OUR STATUS, MELISSA, ON A QUORUM IF JOAN IS --

MS. KING: WE WILL NOT HAVE A QUORUM UNLESS DR. QUINT HAS ARRIVED, AND I HAVE NOT SEEN HIM YET.

CHAIRMAN KLEIN: DR. QUINT WAS ARRIVING. HAS HE ARRIVED YET?

MS. KING: I SPOKE TO HIM EARLIER. I STILL HAVE NOT SEEN HIM. SO IF WE DON'T HAVE JOAN, WE DON'T HAVE A QUORUM.

CHAIRMAN KLEIN: COULD WE HAVE -- LYNN, COULD YOU HELP MELISSA. LYNN HARWELL, IF YOU COULD TRY AND CONTACT DR. QUINT AND SEE IF HE IS, IN FACT, AVAILABLE. WHAT WE'RE GOING TO DO WITH YOUR PERMISSION --

MR. TORRES: I KNOW WHAT I'D LIKE TO DO. WHY DON'T WE JUST PUT OFF THIS ITEM TILL TOMORROW TO SEE WHETHER WE HAVE A QUORUM AT THAT POINT?

CHAIRMAN KLEIN: WHAT WE COULD DO POTENTIALLY IS HAVE THE DISCUSSION, LEAVE THE ROLL OPEN.

MS. KING: TAKE THE VOTE TOMORROW.

CHAIRMAN KLEIN: WE DO HAVE SOME MEMBERS WE NEED FOR THIS. ALL RIGHT. WHILE WE'RE WAITING FOR SOME MEMBERS TO RETURN, COULD WE HAVE AN UPDATE ON THE MAJOR FACILITIES PROJECTS, PLEASE? THIS IS ITEM NO. 20. AND WHILE WE ARE WAITING FOR MEMBERS TO RETURN, WE'RE GOING TO PROCEED ON ITEM NO. 20. DR. ROBSON.

DR. ROBSON: SO IN YOUR BINDER YOU SHOULD HAVE A REPORT WHICH IS A SUMMARY OF THE STATUS OF THE VARIOUS 12 MAJOR FACILITIES PROJECTS. FIRST

SLIDE THERE. JUST TO REMIND YOU A LITTLE BIT ABOUT THAT PROGRAM. CIRM HAS INVESTED 270 MILLION IN THOSE 12 FACILITIES. THAT MONEY HAS BEEN LEVERAGED UP THROUGH DONATIONS, OTHER CONTRIBUTIONS TO THE FACILITIES, AND PROMISED RECRUITMENTS UP TO ABOUT 1.1 BILLION. EIGHT OF THOSE PROJECTS ARE REALLY RUNNING PRETTY MUCH ON SCHEDULE, MAYBE WITH A FEW MINOR DELAYS THAT ARE TYPICAL WITH PROJECTS OF THIS SORT OF SCALE. BUT THE ECONOMIC SITUATION OVER THE PAST SEVERAL MONTHS HAS CAUSED SOME PROBLEMS FOR THREE OF THE PROJECTS, SOME DELAYS AT UC SANTA CRUZ, BUCK INSTITUTE, AND THE SANFORD CONSORTIUM IN SAN DIEGO.

AND THERE WAS ALSO SOME PROJECT REVISIONS AT UC MERCED. IF YOU RECALL, THEIR PROJECT WAS GOING TO BE OFF CAMPUS. THE SITE WAS OFF CAMPUS IN SOME RENTED SPACE. THERE WAS SOME DIFFICULTIES THERE, AND SO THEY'VE HAD SOME DELAYS. I DON'T REALLY WANT TO FOCUS, THIS IS JUST A BRIEF UPDATE ON THIS. I WON'T TALK ABOUT EIGHT THAT ARE DOING WELL. YOU CAN READ ABOUT THAT IN THE REPORT. BUT I WOULD LIKE TO JUST GIVE YOU A LITTLE BIT OF INFORMATION ABOUT THE OTHER FOUR.

UC SANTA CRUZ WAS HELD UP BECAUSE WHEN THERE WAS A FREEZE ON STATE FUNDS IN THE LOAN FUND,

THEIR PROJECT GOT STOPPED. THEY HAD MOVED ALONG AND WENT OUT AND CONTINUED TO DO WHAT THEY COULD TO PREPARE FOR THE PROJECT, BUT THE FUNDING, THE STATE CONTRIBUTIONS TO THOSE FUNDS, WERE HELD UP. THAT CHANGED JUST A FEW WEEKS AGO WHEN THERE WAS A PRIVATE BOND SALE AND THERE WAS MONEY RELEASED FOR THAT PROJECT TO SANTA CRUZ. SO THE THING IS NOW BACK ON GO. AND THEY ANTICIPATE OCCUPANCY IN APRIL OF 2011. SO THAT PROJECT IS -- THAT'S A VERY GOOD NEWS STORY WE HEARD JUST A COUPLE OF WEEKS AGO.

CHAIRMAN KLEIN: THEY PERFORMED ON ALL THEIR OBLIGATIONS WITH US. THE STATE, IN FACT, WAS NOT ABLE TO PERFORM ON TIME FOR UC SANTA CRUZ. SO THIS DELAY WAS OUTSIDE THEIR CONTROL.

DR. ROBSON: RIGHT. UC MERCED, THE INITIAL PROPOSAL, AS I SAID, WAS FOR IMPROVEMENTS ON LEASED FACILITIES. THERE WAS SOME DIFFICULTIES WITH THE LEASE. AND ALSO WHEN THEY HAD REALLY UNDERESTIMATED THE COST OF THE RENOVATIONS OUT THERE, THEY THEN CAME BACK TO WITH US A REVISED PROPOSAL. I THINK WE MAY HAVE DISCUSSED THIS WITH YOU BEFORE IN WHICH THEY WERE GOING TO RENOVATE SPACE WITHIN THEIR BASIC -- THEIR MAIN SCIENCE BUILDING AND HOUSE THE STEM CELL FACILITY THERE, THIS FOUNDRY THAT THEY'RE TALKING ABOUT.

SO THEY MADE A PROPOSAL TO US AND WE DID A SITE VISIT THERE. THE NEW PROPOSAL IS ACTUALLY UNDER BUDGET OR CERTAINLY WITHIN BUDGET. AND AT OUR SITE VISIT, WE ALL DETERMINED THAT IT WAS REALLY AN IMPROVEMENT, A FUNCTIONAL IMPROVEMENT. IT WOULD BRING THE FACILITY ON CAMPUS, ACCESS FOR FACULTY MEMBERS AND STUDENTS WOULD BE IMPROVED. IT WOULD BE RIGHT IN THE HEART OF THEIR FACILITY. SO IT REALLY LOOKED LIKE A BETTER PROPOSAL THAN THE ORIGINAL ONE THEY HAD SUBMITTED THAT HAD BEEN APPROVED.

WE TOOK THAT PLAN TO THE FACILITIES WORKING GROUP AND DISCUSSED IT IN SOME DETAIL. THEY ALSO APPROVED IT. AND PRESIDENT TROUNSON, WHICH IS HIS AUTHORITY, WE AUTHORIZED THE CHANGE. THAT PROJECT IS NOW, THE CONSTRUCTION HAS BEGUN OR THE RENOVATIONS HAVE BEGUN.

CHAIRMAN KLEIN: LET ME ASK THIS JUST AS A CLARIFICATION. I BELIEVE YOU CONFERRED WITH THE CO-CHAIRS OF THE FACILITIES WORKING GROUP AS VERSUS THE ENTIRE FACILITIES WORKING GROUP.

DR. ROBSON: NO. WE HAD A MEETING ABOUT IT.

CHAIRMAN KLEIN: OH, YOU DID. FINE.

DR. ROBSON: THE SANFORD CONSORTIUM, THIS ONE HAS BEEN A BIT MORE COMPLICATED AND IT'S STILL

ONGOING. AS YOU RECALL, WE, CIRM, COMMITTED $43 MILLION TO THAT. THAT'S A CONSORTIUM OF UCSD, THE BURNHAM, SALK, AND THE SCRIPPS TO BUILD A STEM CELL FACILITY. THEY ALSO RECEIVED A $30 MILLION GIFT FROM MR. SANFORD AND A NAMING OPPORTUNITY THERE. AND THE WHOLE PROJECT STILL REQUIRED ABOUT ANOTHER $40 MILLION. THEY WERE HAVING, BECAUSE OF THE ECONOMIC SITUATION, THEY WERE HAVING SOME DIFFICULTY GETTING, SECURING THOSE ADDITIONAL FUNDS.

THE GOVERNOR FOUND OUT ABOUT THIS. THE GOVERNOR IS VERY INTERESTED IN HAVING THIS PROJECT GO FORWARD. IT'S A BIG JOBS OPPORTUNITY FOR THAT AREA. IT'S A BIG CONSTRUCTION PROJECT. AND SO WORKING WITH THE TREASURER'S OFFICE, THE GOVERNOR MADE $43 MILLION AVAILABLE TO US BY ADDING FUNDS TO THE PMI, TO THE ACCOUNT IN THE LOAN FUND.

THE CONSORTIUM WAS STILL HAVING DIFFICULTY SECURING THEIR FUNDS BECAUSE THE BANKS WERE CONCERNED ABOUT WHETHER OR NOT THAT MONEY WOULD REMAIN AVAILABLE. SO THE MONEY HAS BEEN PUT INTO AN ESCROW ACCOUNT TO MAKE IT SECURE AND AVAILABLE TO THE UNIVERSITY, AND THE BANKS KNOW THAT IT'S THERE.

AT THIS POINT SANFORD STILL IS ABOUT $40 MILLION SHORT, BUT THEY HAVE A PLAN IN THE SUMMER OF 2010 TO DO PRIVATE PLACEMENT BONDS. NOW, THEIR PLAN

IS FOR THIS TO BE SECURED THROUGH THE UC SYSTEM, THAT IT WOULD BE GUARANTEED THAT IF THE BOND SALE FELL SHORT, THAT THE UC SYSTEM -- UC WILL MAKE UP THE DIFFERENCE. THAT HAS NOT BEEN APPROVED YET, BUT THAT'S THE PLAN, AND IT HAS TO BE APPROVED BY THE BOARD OF REGENTS.

NOW, IN ORDER TO GET THE PROJECT GOING AND NOT WAIT UNTIL THEY EITHER DO THE BOND SALE OR GET APPROVAL -- WELL, THEY STILL NEED APPROVAL FROM THE REGENTS, BUT TO DO THE BOND SALE NEXT SUMMER, THEY HAVE REQUESTED ACCESS TO THE FUNDS THAT ARE IN ESCROW AND ESSENTIALLY TO BORROW SOME OF THAT MONEY IN ADVANCE. IT WOULD NOT BE PAID OR CREDITED TO THEM UNTIL THEY MET THE REQUIREMENTS OF THE NGA AND THE MAJOR FACILITIES GAP, BUT IT WOULD ALLOW THEM TO BORROW SOME OF THE MONEY SO THE PROJECT CAN GET STARTED. THEY WOULD PAY US INTEREST ON THAT MONEY UNTIL IT WAS SECURED THROUGH THE NORMAL LAST-IN PAYMENTS THAT THEY'RE REQUIRED TO DO ACCORDING TO THE NGA. THE NGA HAS BEEN FINALIZED WITH THEM. MONEY IS IN ESCROW.

WE ARE -- IN CONCEPT, WE ARE IN FAVOR OF THIS PLAN, BUT WE STILL NEED ASSURANCES THROUGH UC, AND SO THAT IS STILL WORKING ALONG. WE'RE STILL IN NEGOTIATIONS WITH THAT ONE.

CHAIRMAN KLEIN: TO BE CLEAR, THE ASSURANCES THROUGH UC WOULD EITHER ASSURE US THAT THE FUNDS WOULD BE THERE TO COMPLETE OR THAT WE WOULD GET PAID BACK.

DR. ROBSON: YES. WE'LL GET PAID BACK, CORRECT.

THE LAST PROJECT I WANTED TO MENTION WAS THE BUCK INSTITUTE. THEIR SITUATION IS SOMEWHAT SIMILAR TO THE ONE IN SAN DIEGO IS THAT WE'VE AUTHORIZED $20.5 MILLION FOR THAT PROJECT. THAT MONEY HAS COME THROUGH A BUILD AMERICA BOND SALE, WHICH WAS PART OF THE BOND SALE WE DID IN APRIL, THE $505 MILLION THAT WERE RAISED. SO THE MONEY IS SECURE THERE FOR THEM. THEY'VE HAD SOME DIFFICULTY BECAUSE OF, AGAIN, BECAUSE OF THE ECONOMIC SITUATION RAISING THE MATCHING FUNDS THAT THEY NEED. THEY HAVE APPLIED TO THE GOVERNMENT FOR STIMULUS MONEY THROUGH SOME OF THESE PROGRAMS. IT'S BEEN RECOGNIZED BY THE BAY AREA AS AN IMPORTANT PROJECT FOR THAT REGION. AND WE ARE RIGHT NOW TRYING TO FINALIZE AN NGA, AND WE WOULD ANTICIPATE SETTING UP AN ESCROW ACCOUNT FOR THEM, A MODEL SIMILAR TO WHAT WE DID FOR UC SAN DIEGO.

CHAIRMAN KLEIN: AND TO MAKE THIS CLEAR, WE'VE REPORTED ON THIS PREVIOUSLY. THIS IS A

SITUATION WHERE IN THE FINANCIAL CRISIS, THE FINANCIAL INSTITUTION THAT WAS THEIR BANKER LOST THE CAPACITY TO PERFORM. SO THIS IS, AGAIN, A SITUATION THAT'S OUTSIDE THEIR CONTROL.

DR. ROBSON: SO JUST A FINAL, THIS IS JUST A SUMMARY OF SORT WHERE WE ARE IN OUR FINANCES FOR THE MAJOR FACILITIES. WE'VE RAISED FUNDS THROUGH THE BUILD AMERICA BOND SALE AND ALSO WE'VE GOTTEN FUNDS DIRECTLY FROM THE GOVERNMENT TO PUT INTO THE PMIA ACCOUNT FOR THE SANFORD PROJECT. THE POINT OF THIS SLIDE IS THAT I REALLY WANT TO MAKE A PUBLIC STATEMENT ABOUT IS WE HAVE ALL THE FUNDS THAT ARE NEEDED, AT LEAST CIRM'S COMPONENT OF ALL FUNDS NEEDED FOR THESE MAJOR FACILITIES PROGRAMS, THOSE FUNDS ARE INTACT, THEY'RE SECURE. THEY'RE EITHER IN ESCROW ACCOUNTS IN THE CASE OF SAN DIEGO OR THEY ARE EARMARKED FOR THOSE PROGRAMS AND THEY'RE IN OUR BOND FUND.

SO THAT'S THE UPDATE. WE'LL TRY TO BRING BACK SOME MORE DETAILS ON THIS MAYBE IN ABOUT SIX MONTHS, EARLY NEXT YEAR, AND WE'LL HAVE SOME MORE THINGS FINALIZED. SO ANY QUESTIONS?

CHAIRMAN KLEIN: OKAY. SO THANK YOU VERY MUCH FOR THAT REPORT. CONSIDER THE OPTIONS FOR THE BOARD HERE. WE HAVE A QUORUM, BUT ONE OF OUR

MEMBERS IS CURRENTLY UNABLE TO BE IN THE ROOM. WE PREVIOUSLY BASED THIS SITUATION BY PROCEEDING WITH THE DISCUSSION AND THEN LEAVING THE ROLL OPEN IN THAT SITUATION UNTIL THAT PERSON WAS ABLE TO RETURN. IF, IN FACT, BASED UPON JOAN'S HEALTH, SHE'S NOT ABLE TO RETURN TONIGHT, WE CONTINUE TO BE OPEN TILL TOMORROW MORNING. WE CAN IN THE ALTERNATIVE GO THROUGH ONLY INFORMATIONAL ITEMS AND ADJOURN FOR THE EVENING. WHAT IS THE PLEASURE OF THE BOARD? PLEASURE OF THE BOARD? INDIVIDUALS, DR. PRIETO.

DR. PRIETO: I THINK THE INFORMATIONAL ITEMS.

CHAIRMAN KLEIN: OKAY. SO IF WE GO TO -- I THINK THE CALL-OUT IS FOR ITEM NO. 19 IF WE COULD PROCEED TO THAT ITEM.

DR. ROBSON: OKAY. SHIFTING GEARS HERE. I WANTED TO GIVE YOU AN UPDATE ON THE LOAN PROGRAM THAT WE HAVE BEEN WORKING ON. AGAIN, RECALL THAT WE HAVE TARGETED APPROXIMATELY $500 MILLION TOWARDS LOANS TO FOR-PROFIT COMPANIES IN ADDITION TO THE GRANT PROGRAMS THAT WE HAVE. OVER THE PAST YEAR THERE WAS A LOAN TASK FORCE THAT DEVELOPED THE PARAMETERS FOR THIS PROGRAM. AND AS PART OF THAT, BECAUSE THE CIRM DOES NOT HAVE REALLY THE CAPACITY TO MANAGE, EITHER DO THE DUE DILIGENCE OR MANAGE

THIS PROGRAM IN-HOUSE WITH OUR STAFF, WE DON'T HAVE THE EXPERTISE OR THE CAPACITY TO DO THIS, IT WAS AGREED THAT WE WOULD HIRE SOME DELEGATED UNDERWRITERS TO HELP MANAGE THE PROGRAM.

AN RFP WAS WRITTEN AND SUBMITTED AT THE END OF MAY. AND IF I COULD HAVE THE NEXT SLIDE, WE GOT BACK FROM THAT, WE HAD FIVE BANKS THAT RESPONDED. THERE WERE TWO DIFFERENT MODELS THAT WERE PRESENTED TO US THROUGH THESE BANKS. ONE WAS A LOAN ORIGINATION MODEL IN WHICH THE BANK WOULD PROVIDE THE LOAN AND THEN THEY WOULD EARN THEIR FEE BY PUTTING A SPREAD ON THE INTEREST RATE SO THAT THEY WOULD GET PART OF THE INTEREST WHEN IT WAS RETURNED. THAT WAS ONE MODEL WE SAW.

THE OTHER MODEL WAS A FEE FOR SERVICE, WHICH WAS THE VARIOUS COMPONENTS OF THE SCOPE OF WORK THAT WE HAD IDENTIFIED. THEY WOULD CHARGE US FOR THOSE INDIVIDUAL THINGS, BUT THEY WOULDN'T ADD ANYTHING TO THE INTEREST RATE. SO THOSE ARE THE TWO MODELS WE SAW.

CHAIRMAN KLEIN: AND, DR. ROBSON, I'LL POINT OUT THAT THOSE LENDERS WHO YOU'RE CHARACTERIZING AS FEE FOR SERVICE ALSO SEE THEMSELVES AS LOAN ORIGINATOR SERVICERS. IT'S JUST THAT INSTEAD OF GETTING INTEREST RATE SPREAD,

THEY'RE GETTING A FEE FOR THE ORIGINATION SERVICE. IN THEIR CONTRACT PROPOSALS, THEY'VE ASKED THAT WE REFER TO THEM AS ORIGINATOR SERVICERS BECAUSE THAT IS THEIR CHARTER SCOPE OF THEIR ACTIVITIES.

DR. PRIETO: IS THERE A SIGNIFICANT DIFFERENCE IN THE COST TO US OF THESE TWO APPROACHES?

DR. ROBSON: THERE WAS A SIGNIFICANT DIFFERENCE, AND THAT WAS PART OF THE ANALYSIS. WE DID -- SO I'LL COME TO THAT, IF THAT'S OKAY. WE DID AN ANALYSIS OF THE FIVE RESPONSES TO THE RFP THAT WAS DONE BY THE STAFF. THERE WERE SEVERAL OF US WHO WORKED ON THIS. WE THEN MADE A PRESENTATION TO THE FINANCE SUBCOMMITTEE ON JUNE THE 30TH. THE COMMITTEE THEN DELIBERATED AND MADE A DECISION AS TO WHICH OF THESE WOULD BE SELECTED.

AND IF WE CAN HAVE THE NEXT SLIDE. THE EVALUATION WAS DONE ON A SCORING BASIS, AND THE FOUR CATEGORIES THAT WERE REVIEWED WERE THE QUALIFICATIONS AND EXPERIENCE OF THE APPLICANT, THE RESPONSIVENESS OF THE APPLICANT'S PROPOSAL TO THE DETAILS OF THE RFP, THE COST, AND THE INNOVATION. THAT IS, HOW CLOSELY DID THESE PROPOSALS SEEM TO FIT WITH OUR MISSION.

THERE WAS A FAIRLY SIGNIFICANT DIFFERENCE

IN COST. THE ONES THAT WERE THE LEAST EXPENSIVE WERE THE FEE FOR SERVICE. AND IN THE END, THE DECISION THAT WAS MADE BY THE FINANCE SUBCOMMITTEE WAS -- PREFERRED THE FEE-FOR-SERVICE MODEL. AND THERE WERE THREE BANKS THAT WERE SELECTED FOR FURTHER NEGOTIATION. TWO OF THOSE HAD THE FEE-FOR-SERVICE MODEL AND THE OTHER ONE HAD THE LOAN ORIGINATION MODEL OR, AS BOB WOULD PREFER, THE ONE WHICH WOULD CHARGE AN INTEREST SPREAD, THE LOAN ORIGINATION MODEL.

WE HAVE PROCEEDED WITH THIS NOW. LET ME JUST SAY THE REASON WE NEEDED TO HAVE -- THERE ARE SEVERAL REASONS WE NEEDED TO HAVE MORE THAN ONE DELEGATED UNDERWRITER TO WORK WITH. I THINK THE TWO MOST IMPORTANT ARE POTENTIAL CONFLICTS OF INTEREST. IF WE HAD AN APPLICANT WHO WAS A CLIENT OF THE BANK OR SOMETHING, THAT COULD BECOME AN ISSUE.

THE OTHER THE POINT IS THAT BANKS CHANGE THEIR POLICIES. BANKS HAVE HAD SOME DIFFICULTIES THESE DAYS. SO WE FELT THAT FOR OUR OWN SECURITY, WE NEEDED TO HAVE MORE THAN ONE BANK TO WORK WITH. SO WE HAVE THREE THAT WE'VE STARTED NEGOTIATIONS WITH.

JUST TO GIVE YOU A SORT OF WHERE WE ARE. WE'RE REALLY ONLY WORKING NOW WITH THE TWO PREFERRED

BECAUSE THEY WERE THE PREFERRED MODEL, THE FEE-FOR-SERVICE MODEL. SO WE'VE BEEN TALKING WITH COMERICA BANK AND SQUARE ONE BANK. SILICON VALLEY BANK IS THE THIRD. THEY WERE THE ONES WHO HAD THE LOAN ORIGINATION MODEL WHERE THEY WOULD CHARGE A SPREAD ON THE INTEREST. THOSE NEGOTIATIONS WILL FOLLOW ONCE WE'VE GOT SOMETHING IN PLACE WITH COMERICA AND SQUARE ONE. WE'RE WORKING WITH A PRETTY TIGHT TIMELINE. WE HAD ACTUALLY HOPED WE WOULD HAVE A CONTRACT BY NOW, BUT WE DON'T. BUT WE'RE MOVING FORWARD WITH BOTH OF THESE, AND WE HOPE TO HAVE SOMETHING SOON. THEY KNOW THAT THE TIMELINE IS TIGHT. AND I THINK WE'RE MAKING VERY GOOD PROGRESS HERE. IT'S JUST TAKEN A LITTLE BIT LONGER THAN WE WOULD HAVE LIKED.

I SHOULD SAY THAT IN THIS FIRST ROUND, WHAT WE REALLY NEED TO SET UP IS FOR THE DISEASE TEAMS BECAUSE WE HAVE APPLICATIONS THERE FOR PEOPLE WHO HAVE APPLIED FOR LOANS. SO WE ANTICIPATE THAT WE MAY ACTUALLY NEED TO BE ABLE TO PROVIDE LOANS. WE DO HAVE A BACKUP IN CASE WE CANNOT FINALIZE A CONTRACT. WE CAN DO THIS IN-HOUSE WITH A CONSULTANT WHO HAS HELPED US WITH SOME OTHER FINANCIAL ISSUES RELATED TO FOR-PROFITS. WE COULDN'T DO THIS ON A LONG-TERM BASIS, BUT I THINK ON THIS VERY FIRST TRY,

WE PROBABLY COULD DO IT THAT WAY BECAUSE WE WOULDN'T ANTICIPATE HAVING MORE THAN A COUPLE OF THESE APPLICATIONS, SO WE PROBABLY COULD MANAGE AT THIS TIME IN-HOUSE IF WE HAVE, BUT THAT'S NOT OUR PREFERENCE. OUR PREFERENCE IS TRY TO FINISH THE CONTRACTS IN TIME.

CHAIRMAN KLEIN: AND I THINK IT WOULD BE APPROPRIATE TO SAY THAT, GIVEN THE TIGHT TIMEFRAME, MOVING FORWARD WITH SILICON VALLEY BANK IS GOING TO BE IMPORTANT, IF FEASIBLE, SO THAT THE BOARD REALLY HAS THE FULL CHOICE AND THE COST DIFFERENCES IN FRONT OF THEM WHEN THEY ARE ASKED TO APPROVE THE DELEGATED UNDERWRITERS. WITH A PROTOTYPE PROCESS, WE WILL AND HAVE RUN INTO SOME ISSUES WITH THESE BANKING INSTITUTIONS AS THEY'VE -- THEIR LEGAL DEPARTMENTS HAVE UNDERSTOOD THE COMPLEXITY OF DEALING WITH THE STATE. SO WE NEED TO BRING FORWARD, TO THE EXTENT WE CAN, ALL THREE OPPORTUNITIES FOR THE BOARD SO THE BOARD CAN MAKE A DECISION.

ANY QUESTIONS? THANK YOU VERY MUCH. WE'VE ALREADY COVERED 20 AND 21. 19 IS COVERED. SO AT THIS POINT I'D ASK FOR ANY PUBLIC COMMENT, GENERAL PUBLIC COMMENT. SEEING NO PUBLIC COMMENT, WE WOULD THEN, UNLESS -- DR. QUINT IS NOT HERE YET.

MS. KING: ON THE ROAD.

CHAIRMAN KLEIN: HE'S ON THE ROAD. HE WON'T BE HERE IN TIME. SO WE WOULD THEN BE ADJOURNING. WHAT IS OUR SCHEDULE FOR THE MORNING?

MS. KING: THERE'S SPOTLIGHT AT 8:30, AND THE MEETING STARTS AT 9:30, AND THERE WILL BE BREAKFAST AVAILABLE HERE. JENNA, IF YOU COULD REMIND US AT WHAT TIME. AT 8 O'CLOCK. THERE WILL BE BREAKFAST AVAILABLE IN THE SAME ROOM WHERE WE JUST HAD DINNER; IS THAT CORRECT? YES.

CHAIRMAN KLEIN: INFORMATIONALLY, COULD YOU COVER FOR THE BOARD THE SPOTLIGHT MEMBERS WHO WILL BE MAKING PRESENTATIONS?

MS. KING: I BELIEVE DON GIBBONS PUT TOGETHER THIS SPOTLIGHT. MAYBE MR. GIBBONS WANTS TO MAKE THE ANNOUNCEMENT OF WHO WILL BE PRESENTING.

MR. GIBBONS: THIS IS A LITTLE BIT UNUSUAL SPOTLIGHT FOR YOU TOMORROW, BOARD MEMBERS, BECAUSE IT'S FOCUSED ON BASIC RESEARCH AND THE TIES BETWEEN BASIC RESEARCH AND THE CLINIC. AND BOARD MEMBER SAM HAWGOOD WILL DO THE INTRODUCTIONS AND BE FOLLOWED BY ARTURO ALVAREZ WITH BIO BY UCSF, OUR HOST HERE THIS EVENING.

CHAIRMAN KLEIN: ALL RIGHT. SO WE WILL LOOK FORWARD TO SEEING EVERYONE IN THE MORNING. IN

TERMS OF MATERIALS, WE CAN LEAVE THEM HERE. AND TRANSPORTATION? GIVEN THAT THIS IS A DIFFICULT LOCATION TO GET IMMEDIATE TAXIS TO AND GIVEN THAT WE'RE GOING TO BE ADJOURNING AT A DIFFERENT HOUR THAN ANTICIPATED, IF THOSE BOARD MEMBERS WHO HAVE CARS COULD IDENTIFY THEMSELVES SO OTHER BOARD MEMBERS COULD TRAVEL WITH THEM. AND TO EXTENT THAT STAFF HAS CARS THAT COULD TRANSPORT BOARD MEMBERS TO THE HOTEL, THAT WOULD BE APPRECIATED. SO LET US COORDINATE THAT THROUGH JENNA. AND THIS MEETING STANDS ADJOURNED. THANK YOU.

(THE MEETING WAS THEN ADJOURNED AT 9:10 P.M.)

REPORTER'S CERTIFICATE

I, BETH C. DRAIN, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF CALIFORNIA, HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT OF THE PROCEEDINGS BEFORE THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD AT THE LOCATION INDICATED BELOW

ROBERTSON AUDITORIUM
1675 OWENS STREET
SAN FRANCISCO, CALIFORNIA
ON
AUGUST 19, 2009

WAS HELD AS HEREIN APPEARS AND THAT THIS IS THE ORIGINAL TRANSCRIPT THEREOF AND THAT THE STATEMENTS THAT APPEAR IN THIS TRANSCRIPT WERE REPORTED STENOGRAPHICALLY BY ME AND TRANSCRIBED BY ME. I ALSO CERTIFY THAT THIS TRANSCRIPT IS A TRUE AND ACCURATE RECORD OF THE PROCEEDING.

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