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:	SHEF	RATON GATEW	AY HOTEL
	SAN	FRANCISCO,	CALIFORNIA

- DATE: FEBRUARY 16, 2007 8:30 A.M.
- REPORTER: BETH C. DRAIN, CSR CSR. NO. 7152
- BRS FILE NO.: 77055

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SAN FRANCISCO, CALIFORNIA; FRIDAY, FEBRUARY 16. 2007 1 2 08:45 A.M. 3 4 CHAIRMAN KLEIN: ALL RIGHT. IF THE MEETING 5 WILL COME TO ORDER. WE HAVE AN AMBITIOUS SCHEDULE ON A 6 HISTORIC DAY. WE WILL HAVE A QUORUM THIS MORNING. WE 7 HAVE A BOARD MEMBER WHO IS SICK, ONE IS WHO STILL ON 8 THEIR WAY, BUT WE WILL DEFINITELY HAVE A QUORUM THIS 9 MORNING. WE CAN PROCEED ON AN INTERIM BASIS WHILE 10 WE'RE WAITING FOR AN ARRIVAL. AND HOW CLOSE ARE WE? 11 MR. HARRISON: WE ARE ONE SHY OF A QUORUM. 12 CHAIRMAN KLEIN: AND THE TIMEFRAME ESTIMATE 13 FOR THAT? 14 MS. KING: ABOUT 15 MINUTES. 15 CHAIRMAN KLEIN: OKAY. 16 DR. KESSLER: COULD WE AGENDA AT FUTURE 17 MEETINGS A DISCUSSION OF HOW WE CAN DEAL WITH THAT 18 PROCEDURAL ISSUE? 19 CHAIRMAN KLEIN: YES. 20 DR. KESSLER: THERE MAY BE TIMES WHEN THE 21 CHAIR WILL WANT TO AVOID THIS SITUATION AND ALLOW 22 TELEPHONIC. I MEAN THERE'S A LOT OF PROS AND CONS, BUT 23 IF WE AGENDA THAT ISSUE FOR THE DISCUSSION OF THE ICOC 24 AT AN APPROPRIATE TIME, IT MAY BE WORTH AVOIDING 25 FURTHER HEADACHES.

1 CHAIRMAN KLEIN: QUITE APPROPRIATE. I'LL 2 CALENDAR THAT ITEM.

3 WHILE WE'RE PREPARING FOR THAT ARRIVAL OF 4 THAT BOARD MEMBER, WITH ANOTHER BOARD MEMBER ON THEIR 5 WAY AFTER THAT, I'D LIKE TO WALK THROUGH AND REFRESH 6 EVERYONE'S UNDERSTANDING OF THE RULES UNDER WHICH WE'RE 7 OPERATING THIS MORNING. AS YOU KNOW, THIS IS HOPEFULLY 8 A VERY HISTORIC DAY WITH OUR FIRST RESEARCH GRANTS. WE 9 HAVE BEFORE US THE POTENTIAL APPROVAL OF FUNDING THAT 10 WOULD EXCEED IN ONE SESSION THE NIH FUNDING FOR 11 EMBRYONIC STEM CELL RESEARCH FOR THE ENTIRE COUNTRY FOR 12 ALL OF LAST YEAR. CALIFORNIA HAS A TREMENDOUS 13 OPPORTUNITY TO MAKE A DISTINCTIVE CONTRIBUTION TO THE 14 FUTURE OF THE COUNTRY.

15 THIS IS A CONTINUATION OF A GREAT TRADITION 16 IN CALIFORNIA THAT STARTED WITH THE ENVIRONMENTAL 17 LEGISLATION, THE CLEAN SKIES LEGISLATION, BUT CONTINUED 18 INTO THE MEDICAL AREA. MANY OF YOU MAY REMEMBER THAT 19 WHEN THE FEDERAL GOVERNMENT WOULD NOT FUND AIDS 20 CLINICAL TRIALS, IT WAS THE CALIFORNIA LEGISLATURE THAT 21 FUNDED AIDS CLINICAL TRIALS.

22 SOME OF YOU MAY KNOW THAT YEARS AGO, BEFORE 23 THIS BOARD WAS BROUGHT TOGETHER, BEFORE PROPOSITION 71, 24 THAT THE LEGISLATURE APPROVED FUNDING UNDER THE ROMAN 25 REED ACT THAT WENT TO THE CHRISTOPHER REEVE CENTER AT

1 UC IRVINE THAT ALLOWED A LAB TO BE SET UP WITHOUT 2 FEDERAL FUNDS THAT PERMITTED EMBRYONIC STEM CELL 3 RESEARCH TO PROCEED TO THE POINT THAT THIS LAB IS 4 CURRENTLY APPLYING TO START THE FIRST HUMAN TRIALS. 5 THOSE TRIALS WOULD BE EXPECTED TO TAKE A VERY LONG 6 TIME, HAVE TO START WITH SAFETY TRIALS. IT CAN LEAD US 7 THROUGH MANY HURDLES, BUT IT WAS THE FORESIGHT OF THE 8 CALIFORNIA LEGISLATURE THAT ALLOWED THESE TO GO 9 FORWARD.

10 CERTAINLY DON REED AND GLORIA REED AND ROMAN 11 REED ARE DISTINGUISHED GUESTS HERE TODAY. THEY ARE 12 PART OF THAT TRADITION.

13 SO AS WE FOCUS ON THE CRITICAL BUSINESS AHEAD FOR THE DAY, I WOULD LIKE TO WALK THROUGH THE VERY 14 15 IMPORTANT RULES WE HAVE TO GUARD AGAINST CONFLICTS OF 16 INTEREST. WHEN WE DISCUSS AN INDIVIDUAL GRANT, WE 17 WILL, BEFORE THE DISCUSSION, CALL OUT THOSE PARTIES WHO 18 ARE IN CONFLICT, SO IT IS CLEAR TO THE PUBLIC AND TO 19 THE BOARD AND TO THE BOARD MEMBER, AS A REMINDER, THAT 20 THEY ARE NOT PARTICIPATING IN THE DISCUSSION, NOR 21 VOTING ON ANY ITEM ON WHICH THEY HAVE A CONFLICT OF 22 INTEREST.

IN ADDITION, WHEN WE DO A BLOCK OF FOUR OR
FIVE VOTES, WE WILL CALL IT OUT IN ADVANCE WHERE THE
CONFLICTS ARE. IT IS IMPORTANT TO NOTE THAT WHEN THE

MEMBER VOTES, IF THEY CLEARLY STATE THAT THEY ARE
 VOTING ONLY ON THOSE ON WHICH THEY DO NOT HAVE A
 CONFLICT OF INTEREST, THEN THE STAFF WILL DOUBLE-CHECK
 AND MAKE CERTAIN THAT, IN FACT, THEY ONLY REGISTER THE
 VOTES ON THOSE ITEMS ON WHICH THEY DO NOT HAVE A
 CONFLICT OF INTEREST.

7 WHEN WE HAVE A VOTE TODAY ON FUNDING FOR A 8 GROUP OF GRANTS ON WHICH WE'VE ALREADY GONE THROUGH, 9 SUCH AS THE GROUP WE WENT IN GREAT DETAIL LAST NIGHT. 10 SINCE WE'VE ALREADY GONE THROUGH THE CONFLICTS LAST 11 NIGHT, RATHER THAN STATING ALL THE CONFLICTS FOR 30 OR 12 40 OR 50 GRANTS THAT MIGHT BE IN TIER 1 OR TIER 2 OR 13 ANY OTHER GROUPING, IT WOULD BE APPROPRIATE FOR THE BOARD MEMBERS TO STATE THAT THEY ARE VOTING YES ONLY ON 14 15 THOSE ITEMS ON WHICH THEY DO NOT HAVE A CONFLICT OF 16 INTEREST. IT WOULD ALSO BE IMPORTANT TO NOTE THAT A NO 17 VOTE IS ONLY ON THOSE ITEMS ON WHICH THEY DO NOT HAVE A 18 CONFLICT OF INTEREST.

19 SO PROCEDURALLY THIS IS THE SYSTEM TO ENSURE 20 THAT WE HAVE A PUBLIC DOUBLE-CHECK ON OUR SYSTEM, WE 21 HAVE A STAFF DOUBLE-CHECK ON OUR SYSTEM, AND THE BOARD 22 MEMBERS HAVE LISTS IN FRONT OF THEM OF THE ITEMS ON 23 WHICH THEY HAVE A CONFLICT WHICH HAVE BEEN IDENTIFIED 24 BY THE BOARD MEMBER IN CONJUNCTION WITH STAFF AS A 25 DOUBLE-CHECK SYSTEM.

1 IT IS, THEREFORE, WITH A SYSTEM FOCUSED VERY 2 ACUTELY ON MAKING CERTAIN THAT WE HAVE OBJECTIVE 3 SCIENCE AS OUR GUIDE AS OUR MISSION IS EXTRAORDINARILY 4 IMPORTANT TO CONTRIBUTE TO THE EFFORT OF SCIENCE AND 5 MEDICINE TO REDUCE HUMAN SUFFERING THAT WE WILL PROCEED 6 ON THIS VERY IMPORTANT DAY.

LAST NIGHT WE BEGAN -- WE HAVE A QUORUM, AND
DR. PIZZO HAS JOINED. THANK YOU, DR. PIZZO. YOU ARE A
VERY IMPORTANT MAN THIS MORNING. AND DR. JENNINGS,
THANK YOU FOR JOINING. YOU'RE VERY IMPORTANT TO THIS
QUORUM.

12 LAST NIGHT WE ENDED THE REVIEW AFTER SEVEN 13 HOURS OF DELIBERATION, AND YOU HAVE A SHEET BEFORE YOU AS BOARD MEMBERS THAT SHOWS YOU THAT WE ENDED WITH 14 15 GRANT 295, WHICH BROUGHT US TO APPROXIMATELY 28.6 16 PERCENT OF THE GRANTS UNDER CONSIDERATION, AT A POINT 17 LAST NIGHT WHERE WE GOT IN THE DEBATE ON INDIVIDUAL 18 GRANTS TO VERY FINE DISTINCTIONS FROM ONE GRANT TO THE 19 NEXT. IT IS APPROPRIATE THIS MORNING TO CONSIDER 20 WHETHER WE'D LIKE TO MAKE THAT TIER 1 OF THE APPROVALS 21 AND THEN CONTINUE TO TIER 2 APPROVALS, BUILDING A 22 SECOND SET OF APPROVALS DURING THE DAY.

THERE ARE, AS I UNDERSTAND IT, DR. CHIU, 66
GRANTS IN THE GROUP WE HAVE COMPILED TO DATE. AND DO
WE KNOW HOW MANY INSTITUTIONS ARE ROUGHLY REPRESENTED

IN THAT? TWENTY INSTITUTIONS, SO WE HAVE A GREAT DEAL
 OF DIVERSITY IN THE INSTITUTION, AND WE HAVE A
 TREMENDOUS PORTFOLIO OF GRANTS.

4 WHAT IS THE PLEASURE OF THE BOARD? IS THERE 5 A MOTION BY ANY MEMBER OF THE BOARD TO CONSIDER AS TIER 6 1 THE --

MS. KING: EXCUSE ME, CHAIRMAN KLEIN. WE
WOULD NEED TO TAKE ROLL CALL BEFORE WE ENTERTAIN THAT
MOTION.

10 CHAIRMAN KLEIN: THAT'S FINE. WE WILL HAVE ROLL CALL BEFORE WE DO THAT, BUT I'M TRYING TO JUST GET 11 A QUICK SENSE OF WHERE WE'RE GOING THIS MORNING FOR 12 13 TIMING. AND I ACTUALLY LAUNCHED ON THAT BEFORE I 14 REALIZED WE HAD A QUORUM AT THE MOMENT. LET ME BREAK AT THIS MOMENT. LET'S DO THE ROLL CALL. LET'S DO THE 15 PLEDGE OF ALLEGIANCE. AND THEN LET'S DO IT IN REVERSE 16 17 ORDER, AND LET'S THEN PROCEED DOWN THIS TRACK.

18 MELISSA KING WILL LEAD US IN THE PLEDGE OF19 ALLEGIANCE.

20 (THE PLEDGE OF ALLEGIANCE.)

21 CHAIRMAN KLEIN: AND THE ROLL CALL.

22 MS. KING: RICARDO AZZIZ.

23 DR. AZZIZ: HERE.

24 MS. KING: PAUL JENNINGS FOR DAVID BALTIMORE.

25 DR. JENNINGS: HERE.

1		MS.	KING: ROBERT BIRGENEAU.
2		DR.	BIRGENEAU: HERE.
3		MS.	KING: SUSAN BRYANT. MARCY FEIT.
4		MS.	FEIT: HERE.
5		MS.	KING: MICHAEL FRIEDMAN. MICHAEL
6	GOLDBERG.		
7		MR.	GOLDBERG: HERE.
8		MS.	KING: FRANCIS MARKLAND FOR BRIAN
9	HENDERSON	•	
10		DR.	MARKLAND: HERE.
11		MS.	KING: DAVID KESSLER.
12		DR.	KESSLER: HERE.
13		MS.	KING: BOB KLEIN.
14		CHA	IRMAN KLEIN: HERE.
15		MS.	KING: SHERRY LANSING.
16		MS.	LANSING: HERE.
17		MS.	KING: GERALD LEVEY.
18		DR.	LEVEY: HERE.
19		MS.	KING: TED LOVE. RICHARD MURPHY. TINA
20	NOVA. ED	PEN	HOET.
21		DR.	PENHOET: HERE.
22		MS.	KING: PHIL PIZZO.
23		DR.	PIZZO: HERE.
24		MS.	KING: CLAIRE POMEROY.
25		DR.	POMEROY: HERE.

1 MS. KING: FRANCISCO PRIETO. JOHN REED. 2 DUANE ROTH. 3 MR. ROTH: HERE. 4 MS. KING: JOAN SAMUELSON. DAVID 5 SERRANO-SEWELL. 6 MR. SERRANO-SEWELL: HERE. 7 MS. KING: JEFF SHEEHY. 8 MR. SHEEHY: HERE. 9 MS. KING: JONATHAN SHESTACK. OSWALD 10 STEWARD. 11 DR. STEWARD: HERE. 12 MS. KING: JANET WRIGHT. 13 DR. WRIGHT: HERE. 14 CHAIRMAN KLEIN: THANK YOU, MELISSA. 15 STAFF IS ALWAYS TREMENDOUSLY VALUABLE IN GUIDING A 16 PROCEEDING. 17 TO GO BACK TO THE POINT WE WERE AT IN THE 18 DISCUSSION, SO WE'RE AT A POINT TO DECIDE WHETHER WE'D 19 LIKE TO HAVE TIER 1 FUNDING, WHICH IS OUR HIGHEST 20 CATEGORY OF FUNDING, DECIDED AT THIS LEVEL, AND THEN GO 21 ON TO BUILD THE SECOND PORTFOLIO FOR CONSIDERATION OF 22 TIER 2 FUNDING. IS THERE ANY MOTION FROM THE BOARD? 23 DR. LEVEY. DR. LEVEY: I WOULD CERTAINLY MAKE THAT 24 25 MOTION.

CHAIRMAN KLEIN: SO DR. LEVEY'S MOTION IS TO 1 2 HAVE TIER 1 FUNDING THAT WOULD GO THROUGH GRANT NO. 3 295. 4 DR. AZZIZ: SECOND. 5 CHAIRMAN KLEIN: AND THERE'S A SECOND FROM 6 DR. AZZIZ. 7 DR. HALL: MR. CHAIR, WE WOULD BE HAPPY, IF 8 YOU WISH, TO PUT ON THE SCREEN A CUMULATIVE COUNT THAT 9 WILL SHOW HOW MUCH MONEY THAT INVOLVES. 10 CHAIRMAN KLEIN: THAT'S EXACTLY WHERE I'M 11 GOING. THANK YOU. 12 DR. HALL: WE CAN DO THAT. 13 CHAIRMAN KLEIN: THE NUMBER YOU ARE GOING TO 14 SEE, I BELIEVE, IS APPROXIMATELY 41 MILLION. ON A 15 COMPARATIVE BASIS IN TERMS OF THE HIGH QUALITY SCIENTIFIC AND CLINICAL GRANTS WE'RE LOOKING AT HERE 16 17 TODAY, THE NUMBER FOR THE NATION FOR LAST YEAR FOR NIH 18 FUNDING WAS APPROXIMATELY 38 MILLION. 19 DR. HALL: CAN YOU READ THAT, BOB? 20 CHAIRMAN KLEIN: WELL, READ IT BECAUSE SOME 21 PEOPLE ARE FURTHER AWAY FROM THE SCREEN THAN I AM. 22 DR. HALL: THE CUMULATIVE, WE DON'T HAVE THE CUMULATIVE ONES HERE BECAUSE THEY POSSIBLY MIGHT BE 23 24 SWITCHED AROUND. IT'S 41,156,000. LET ME JUST MAKE 25 THE POINT THAT AFTER THE AWARDS ARE MADE, WE WILL WORK

1 WITH THE INSTITUTIONS TO BE SURE THAT ALL THE NUMBERS 2 ARE RIGHT. AND INVARIABLY THOSE NUMBERS GET ADJUSTED, 3 SO THAT IS AN APPROXIMATE NUMBER OF WHAT THIS WOULD BE, 4 AND IT MAY BE SLIGHTLY MORE OR SLIGHTLY LESS THAN THAT 5 WHEN ALL IS SAID AND DONE. 6 DR. LEVEY: THE TOTAL NUMBER OF GRANTS IS 60? 7 MR. SHEEHY: IS IT 66 OR 67? 8 DR. LEVEY: THERE'S A SECOND PART TO THE 9 MOTION. 10 CHAIRMAN KLEIN: MY UNDERSTANDING, AMY LEWIS, 11 IT IS 66. THAT'S RECONFIRMED. 12 MR. SHEEHY: COULD WE JUST GET THE GRANT 13 NUMBER THAT CONSTITUTES THE LAST ONE ON THE LIST? 14 CHAIRMAN KLEIN: 295. ALL RIGHT. 15 TO NOW FRAME THIS QUESTION, THE FIRST MOTION 16 IS TO COMPLETE THE TIER 1 GROUPING AT THIS POINT. WE 17 WILL THEN DO A SECOND MOTION THAT DEALS WITH THE FUNDING, THE TOTAL DOLLAR AMOUNT. WE COULD COMBINE 18 19 THOSE INTO ONE MOTION OR DO THEM AS SEPARATE MOTIONS. 20 BUT THE MOTION THAT'S ON THE FLOOR AT THE MOMENT IS TO 21 END TIER 1 FUNDING AT THIS AMOUNT AT THIS POINT. 22 NOW, REMEMBER HISTORICALLY WE HAVE HAD 23 APPROXIMATELY \$25 MILLION SET ASIDE FOR TIER 1. AS DR. 24 HALL SAID LAST NIGHT, THAT WAS BEFORE REALIZING THE 25 EXTRAORDINARY SCOPE AND QUALITY OF THE GRANTS THAT

WOULD BE RECEIVED. WE HEARD A GREAT DISCUSSION LAST
 NIGHT ABOUT THE EXTREMELY HIGH QUALITY OF THE SCIENCE
 THAT IMPRESSED THE SCIENTISTS AND CLINICIANS FROM OUT
 OF THE STATE OF CALIFORNIA WHO PARTICIPATED IN THE PEER
 REVIEW PROGRAM. AND CERTAINLY THE PATIENT ADVOCATES ON
 THE BOARD THAT ARE ON THAT COMMITTEE VALIDATED THEIR
 PERCEPTION OF THAT QUALITY.

8 SO AT THIS MOMENT IT APPEARS WE HAVE A VERY 9 HIGH OUALITY PORTFOLIO IN TIER 1. AND THERE WILL BE A 10 PROCEDURE WHERE WE WILL LOOK, AFTER TIER 1, AT WHAT WE 11 WANT TO DO IN TERMS OF BUILDING A TIER 2 PORTFOLIO. 12 THE PROCEDURE WE FOLLOWED LAST NIGHT, TO MINIMIZE 13 CONFLICTS, AS EXPLAINED BY COUNSEL, WOULD BE THE SAME 14 PROCEDURE WE WILL FOLLOW AFTER THIS VOTE, WHICH WOULD 15 BE TO INDIVIDUALLY GO THROUGH GRANTS OR SMALL GROUPS OF 16 GRANTS TO BUILD THAT PORTFOLIO AND THEN LOOK AT THE 17 DOLLAR AMOUNT AND THEN MAKE A DECISION IF WE WANTED TO 18 ELIMINATE ANY FROM THAT PORTFOLIO. IS THAT CORRECT, 19 COUNSEL?

20 MR. HARRISON: YES. THAT'S ONE APPROACH. 21 ESSENTIALLY WHAT YOU WOULD BE DOING IS WINNOWING DOWN 22 TIER 2 INTO THOSE THAT YOU THINK SHOULD BE FUNDED, 23 ASSUMING THAT YOU HAVE SUFFICIENT FUNDS.

24 CHAIRMAN KLEIN: SO --25 MS. LANSING: I HAVE A POINT CLARIFICATION ON

THIS SUBJECT. I FULLY SUPPORT THE MOTION TO FUND TIER 1 2 1. BUT THE PROCESS THAT WE WENT THROUGH LAST NIGHT, AND 3 I JUST WANT TO MAKE SURE, THIS IS ONLY FOR CLARITY, WAS 4 WE GOT THROUGH A HUGE PORTION, BUT NOT ALL OF TIER 2. 5 AND WE TOOK SOME OF THOSE IN TIER 2 AND MOVED THEM INTO 6 TIER 1. AND SO BEING VERY SENSITIVE TO THE ONES THAT 7 WE WERE NOT ABLE TO GET THROUGH BECAUSE IT WAS 10:30 AT 8 NIGHT, AND OUR MINDS, WE FELT, WOULD BE SHARPER IN THE 9 MORNING. I GUESS IS THE KIND WAY TO PUT IT. AND I 10 DON'T THINK ANYONE SHOULD OBJECT TO THAT SINCE WE 11 STARTED AT 2 O'CLOCK IN THE AFTERNOON.

12 I DON'T WANT THOSE ONES THAT WE DIDN'T 13 FINISH -- MY QUESTION IS WHEN WE GET TO THOSE THAT WE 14 DIDN'T FINISH, CAN WE MOVE THEM INTO TIER 1? THAT'S 15 WHAT I'M SAYING EVEN WITH AN ADDITIONAL MOTION SAYING 16 WE WANT TO ADD THEM TO TIER 1.

17 CHAIRMAN KLEIN: WHAT WE COULD -- THERE ARE 18 TWO PROCEDURAL APPROACHES HERE. ONE IS IF, IN FACT, 19 THE MOTIONS CARRY TO HAVE THIS GROUP BE TIER 1 AND THEN 20 TO APPROVE THE FUNDING ON TIER 1, WE COULD LATER EITHER 21 ADD GRANTS SPECIFICALLY TO TIER 1 WITH AN APPROVAL TO 22 INCREASE THE FUNDING, OR CREATE A TIER 2 WHERE WE 23 SPECIFICALLY APPROVE THE FUNDING.

24 MS. LANSING: BUT --

25 CHAIRMAN KLEIN: COUNSEL, IS THAT CORRECT?

1 MS. LANSING: I GUESS BEING IN TIER 2 AND 2 GETTING YOUR MONEY IS JUST GREAT, BUT IS THERE ANYTHING 3 THAT A SCIENTIST WOULD PREFER TO BE IN TIER 1 AND GET 4 THEIR FUNDING, OR DOES IT MAKE NO DIFFERENCE? AND THIS 5 IS JUST MY NAIVE QUESTION.

6 MR. HARRISON: I THINK ULTIMATELY IF YOU 7 DECIDE TO FUND A GROUP OF APPLICATIONS IN TIER 2, 8 EFFECTIVELY YOU'RE PUTTING THEM INTO AN ENLARGED TIER 9 1.

10 MS. LANSING: GREAT. THAT'S ALL I NEED TO 11 KNOW.

DR. HALL: AT THE END OF THE MEETING, THERE
PRESUMABLY WILL BE ONLY TWO CLASSES OF GRANTS, THOSE
THAT GET FUNDED AND THOSE THAT DO NOT.

15 MS. LANSING: THANK YOU.

16 CHAIRMAN KLEIN: THANK YOU VERY MUCH. VERY17 NICELY PUT.

18 MR. SHEEHY: I WAS GOING FOLLOW THROUGH WITH 19 YOUR SUGGESTION, IF THE MAKER OF THE MOTION IS AMENABLE 20 TO COMBINE THE TWO, THE DESIGNATION OF THROUGH 295 AS 21 TIER 1 AND TO AUTHORIZE FUNDING FOR THESE GROUPS OF 22 GRANTS, IF THE MAKER OF THE MOTION IS COMFORTABLE WITH 23 THAT AMENDMENT AND THE SECOND.

CHAIRMAN KLEIN: DR. LEVEY, WOULD YOU BECOMFORTABLE WITH MAKING THE MOTION TO HAVE THIS BE TIER

1 1 AND TO APPROVE THE FUNDING OF 41,155,000,

2 APPROXIMATELY, TO COVER THOSE GRANTS WE'VE ALREADY GONE3 THROUGH?

4 DR. LEVEY: YES, I WOULD.

5 CHAIRMAN KLEIN: MAKER OF THE MOTION ACCEPTS.6 AND THE SECOND?

7 DR. AZZIZ: I DO.

8 CHAIRMAN KLEIN: DR. AZZIZ IS THE SECOND.

9 OKAY. SO THE MOTION IS AS AMENDED.

10 NOW, WHAT WE'RE GOING TO DO ON THIS VOTE IS, 11 AS I STATED EARLIER, BECAUSE WE'VE ALREADY GONE THROUGH 12 ALL OF THE INDIVIDUAL CONFLICTS, THE MEMBERS ON THIS 13 VOTE WILL STATE, WHEN THEY VOTE, THAT THEY'RE VOTING 14 YES OR NO EXCEPT FOR THE GRANT APPLICATIONS ON WHICH 15 THEY HAVE A CONFLICT.

16 SO WITH THAT STATEMENT, IS THERE A DEBATE ON 17 THIS MOTION? SEEING NO DEBATE ON THIS MOTION FROM THE 18 BOARD, IS THERE COMMENT FROM THE AUDIENCE?

MR. SIMPSON: JOHN SIMPSON FROM THE
FOUNDATION FOR TAXPAYER AND CONSUMER RIGHTS. I WANTED
TO COMMEND THE BOARD MEMBERS WHO WERE PRESENT YESTERDAY
AND TOOK PART IN A VERY, VERY THOROUGH AND DELIBERATIVE
PROCESS, GOING THROUGH EACH OF THESE. A NUMBER OF US
THOUGHT THAT THIS MIGHT END UP BEING A RUBBER STAMP.
THOSE WHO WERE HERE YESTERDAY AND REALLY DID PROBE IN

1 GREAT DEPTH SHOULD BE COMMENDED FOR THAT.

2 MY MOTHER ALWAYS SAID IF YOU CAN'T SAY 3 SOMETHING NICE, DON'T SAY ANYTHING AT ALL. FOR THE 4 MEMBERS THAT WERE UNABLE TO BE HERE AND LACKED A 5 QUORUM, I SHAN'T SAY ANYTHING.

6 THE OTHER POINT THAT I WANTED TO MAKE IS I'M 7 AWARE THAT THE CHAIRMAN IS TRYING TO MAKE THIS AS 8 TRANSPARENT AS POSSIBLE. I CONTINUE FOR THE RECORD TO 9 POINT EVERYONE'S ATTENTION TO CONNECTICUT WHERE THEY 10 HAVE MANAGED ALREADY TO PUT OUT \$21 MILLION TO ABOUT --11 \$19 MILLION TO 21 GRANTEES, AND THEY HAVE A MORE 12 TRANSPARENT PROCESS THAT WOULD, I THINK, ELIMINATE SOME 13 OF THIS NOTION OF POSSIBLE CONFLICT WHERE ALL THE APPLICANTS ARE IDENTIFIED BY NAME AND THEIR 14 15 AFFILIATIONS. I WOULD COMMEND THAT PROCESS TO 16 CALIFORNIA TO FOLLOW IN THE FUTURE. THANK YOU VERY 17 MUCH. CHAIRMAN KLEIN: THANK YOU. ANY ADDITIONAL 18

19 PUBLIC COMMENTS?

20 MR. REYNOLDS: THANKS. GOOD MORNING. I'M 21 JESSE REYNOLDS FROM THE CENTER FOR GENETICS AND 22 SOCIETY. I'D LIKE TO TAKE THIS OPPORTUNITY TO EXPAND A 23 LITTLE BIT ON WHAT MR. SIMPSON SAID ABOUT THE PROCESS 24 OF APPROVING THE GRANTS, WHICH I'LL ACKNOWLEDGE IN A 25 NUMBER OF WAYS HAS IMPROVED OVER THE COURSE OF THE LAST

COUPLE OF YEARS. I WOULD CERTAINLY ENDORSE HIS
 RECOMMENDATION THAT THE FULL LIST OF BOTH -- THE FULL
 LIST OF APPLICANTS AT SOME POINT IN TIME BECOME PUBLIC
 INFORMATION IN ORDER SO THAT THE PUBLIC CAN KNOW BOTH
 WHO IS AWARDED MONIES AS WELL AS WHOSE APPLICATIONS ARE
 REJECTED.

7 I WOULD ALSO LIKE, TOUGH, TO EXPAND THAT CALL 8 FOR TRANSPARENCY BY POINTING OUT THAT WE ARE STILL 9 CONCERNED THAT THE MEMBERS OF THE GRANTS REVIEW WORKING 10 GROUP ARE STILL NOT REQUIRED TO DISCLOSE THEIR PERSONAL 11 FINANCIAL INTERESTS. I DO SEE THAT WHO DID RECUSE 12 THEMSELVES IS NOW IDENTIFIED ON EACH GRANT, AND I THINK 13 THAT'S A POSITIVE STEP FORWARD, BUT I THINK THAT SUCH 14 TRANSPARENCY ONLY IMPROVES THE GRANT PROCESS. AND I 15 KNOW THAT I'M NOT ALONE IN THIS. I WAS CHECKING THIS 16 MORNING, AND THIS POSITION HAS BEEN ENDORSED BY THE 17 EDITORIAL BOARDS OF SOME OF THE LARGEST PAPERS IN THE STATE. I KNOW THE L.A. TIMES AND SAN JOSE MERCURY NEWS 18 19 AND THE SACRAMENTO BEE EDITORIAL BOARDS HAVE ENDORSED 20 THIS DISCLOSURE. SO I ENCOURAGE YOU TO CONSIDER THIS 21 POLICY. THANK YOU.

CHAIRMAN KLEIN: THANK YOU VERY MUCH.
ADDITIONAL PUBLIC COMMENT? THANK YOU. IN TAKING THIS
ROLL CALL, I WOULD CALL ATTENTION TO THE FACT THAT
WE'RE AT APPROXIMATELY 80 PUBLIC MEETINGS IN THE LAST

24 MONTHS, A TREMENDOUS DEDICATION TO ACHIEVE THE
 HIGHEST STANDARDS OF TRANSPARENCY. WE WILL IMPROVE, WE
 WILL CONTINUE TO IMPROVE, WE WILL STRIVE TO IMPROVE OUR
 TRANSPARENCY, BUT 80 PUBLIC MEETINGS IS UNPRECEDENTED
 IN THE HISTORY OF THE STATE OF CALIFORNIA FOR A NEW
 AGENCY FORMATION OR ANY SITTING AGENCY IN EXISTENCE FOR
 THIS TIME PERIOD.

8 JAMES.

9 MR. HARRISON: BOB, COULD I JUST MAKE ONE 10 CLARIFICATION SO THAT MEMBERS UNDERSTAND THAT THOUGH 11 YOU'RE VOTING ON TIER 1 EN BLOC, IF THERE'S A 12 PARTICULAR APPLICATION THAT YOU BELIEVE SHOULD NOT BE 13 FUNDED, YOU'RE ENTITLED TO SPECIFY THAT YOU VOTE IN 14 FAVOR OF THE MOTION WITH THE EXCEPTION, NOT ONLY OF 15 THOSE APPLICATIONS IN WHICH YOU HAVE A CONFLICT, BUT 16 YOU CAN IDENTIFY PARTICULAR APPLICATIONS IF YOU 17 DISAGREE WITH THE RECOMMENDATION. CHAIRMAN KLEIN: OKAY. THANK YOU. 18 19 MS. KING: RICARDO AZZIZ.

20 DR. AZZIZ: YES, EXCEPT FOR THE ONES THAT I 21 HAVE A CONFLICT IN, PLEASE.

22 MS. KING: PAUL JENNINGS.

DR. PRICE: I AM IN FAVOR OF THE MOTION WITH
THE EXCEPTION OF THOSE APPLICATIONS I HAVE A CONFLICT.
MS. KING: ROBERT BIRGENEAU.

1 DR. BIRGENEAU: YES, WITH THE EXCEPTION OF 2 THOSE APPLICATIONS FOR WHICH I HAVE A CONFLICT. 3 MS. KING: SUSAN BRYANT. MARCY FEIT. 4 MS. FEIT: YES, EXCEPT FOR THOSE APPLICATIONS 5 WHICH I HAVE A CONFLICT. 6 MS. KING: MICHAEL FRIEDMAN. MICHAEL 7 GOLDBERG. 8 MR. GOLDBERG: YES, WITH THE EXCEPTION OF 9 THOSE FOR WHICH I HAVE A CONFLICT. 10 MS. KING: FRANCIS MARKLAND. 11 DR. MARKLAND: YES, EXCEPT FOR THOSE 12 APPLICATIONS WITH WHICH I HAVE A CONFLICT. 13 MS. KING: DAVID KESSLER. DR. KESSLER: YES, EXCEPT FOR THOSE 14 15 APPLICATIONS WITH WHICH I HAVE A CONFLICT. 16 MS. KING: BOB KLEIN. 17 CHAIRMAN KLEIN: YES ON ALL APPLICATIONS. MS. KING: SHERRY LANSING. 18 19 MS. LANSING: YES, WITH THE EXCEPTION OF 20 THOSE THAT I HAVE A CONFLICT. 21 MS. KING: GERALD LEVEY. 22 DR. LEVEY: YES, EXCEPT FOR THOSE FOR WHICH I 23 HAVE A CONFLICT. 24 MS. KING: TED LOVE. RICHARD MURPHY. TINA 25 NOVA. ED PENHOET.

1 DR. PENHOET: YES, EXCEPT FOR THOSE WITH 2 WHICH I HAVE A CONFLICT. 3 MS. KING: PHIL PIZZO. 4 DR. PIZZO: YES, EXCEPT FOR THOSE FOR WHICH I 5 HAVE A CONFLICT. 6 MS. KING: CLAIRE POMEROY. 7 DR. POMEROY: YES, EXCEPT FOR THOSE WITH 8 WHICH I HAVE A CONFLICT. 9 MS. KING: FRANCISCO PRIETO. JOHN REED. 10 DUANE ROTH. 11 MR. ROTH: YES ON ALL GRANTS. 12 MS. KING: JOAN SAMUELSON. DAVID 13 SERRANO-SEWELL. 14 MR. SERRANO-SEWELL: YES. 15 MS. KING: JEFF SHEEHY. 16 MR. SHEEHY: YES, EXCEPT FOR THOSE 17 APPLICATIONS FOR WHICH I HAVE A CONFLICT. 18 MS. KING: JONATHAN SHESTACK. OSWALD 19 STEWARD. DR. STEWARD: YES, EXCEPT FOR THOSE ON WHICH 20 21 I HAVE A CONFLICT. 22 MS. KING: JANET WRIGHT. 23 DR. WRIGHT: YES. 24 MR. HARRISON: THE MOTION CARRIES, 18 AYES, 25 ZERO NOES, AND WE'LL HAVE INDIVIDUAL VOTES ON THE

1 APPLICATIONS LATER.

2 CHAIRMAN KLEIN: THANK YOU, COUNSEL. 3 (APPLAUSE.) 4 CHAIRMAN KLEIN: JOHN SIMPSON, COME FORWARD. 5 MR. SIMPSON: MAKE IT CLEAR. WILL YOU BE 6 MAKING THE LIST OF ALL THE CONFLICTS IN TOTO AVAILABLE 7 TO THE PUBLIC AFTER THE MEETING? 8 CHAIRMAN KLEIN: IT IS MY UNDERSTANDING THAT WE WILL; IS THAT CORRECT, DR. HALL? YES, WE WILL. 9 10 MR. SIMPSON: PRESUMABLY WHEN YOU MAKE THE 11 ANNOUNCEMENT, SO TODAY? MEMBERS OF THE PRESS WILL HAVE 12 IT, FOR INSTANCE, OR HAVE ACCESS TO IT? 13 CHAIRMAN KLEIN: I NEED TO ASK DR. HALL. DR. HALL: IT'S A PUBLIC DOCUMENT. 14 15 CHAIRMAN KLEIN: YES. THE ANSWER IS YES. 16 MR. SIMPSON: THANK YOU. 17 CHAIRMAN KLEIN: WE CONTINUE TO TRY AND ADVANCE THIS TRANSPARENCY. 18 19 I WOULD LIKE TO NOW GO BACK TO AN ITEM THAT 20 IS VERY IMPORTANT BECAUSE IT'S IN MEMORY OF A BOARD 21 MEMBER WHO IS NOT HERE TODAY, BUT EXCEPT FOR A TRAGIC 22 ACCIDENT, WOULD ABSOLUTELY BE HERE BECAUSE LEON THAL'S 23 DEDICATION TO THIS MISSION WAS EXTRAORDINARY. 24 THE ITEM ON THE AGENDA, I BELIEVE, WAS 25 ORIGINALLY ITEM 5; IS THAT CORRECT?

1 MS. KING: YES.

2 CHAIRMAN KLEIN: THAT IS ITEM 5.

3 MR. HARRISON: IT WAS ITEM 12 ON THE AGENDA.
4 CHAIRMAN KLEIN: ITEM 12 ON THE AGENDA. WE
5 REORDERED IT.

6 LEON THAL, AS I STATED YESTERDAY, MADE
7 TREMENDOUS CONTRIBUTION TO ALZHEIMER'S RESEARCH, TO THE
8 LEADERSHIP OF CLINICAL TRIALS FOR ALZHEIMER'S,
9 INCLUDING RECENTLY RECEIVING ONE OF THE LARGEST
10 CLINICAL TRIAL GRANTS FOR ALZHEIMER'S IN THE HISTORY OF
11 NIH FOR \$50 MILLION FOR FIVE CONCURRENT TRIALS.

12 LEON THAL WAS A PROFESSOR OF NEUROSCIENCES AT 13 THE UNIVERSITY CALIFORNIA SAN DIEGO AND THE CHAIR OF 14 THAT DEPARTMENT. I WOULD LIKE, FOR THE BENEFIT OF THE 15 PUBLIC AND THE BENEFIT OF THE BOARD MEMBERS THAT 16 WEREN'T HERE YESTERDAY, IF PERHAPS, DUANE, YOU COULD 17 REPEAT YOUR STATEMENT FROM YESTERDAY FOR CONTEXT OF THE 18 DEDICATION OF THIS GREAT INDIVIDUAL TO OUR EFFORT.

AND THE PURPOSE OF THIS ITEM IS TO DECIDE WHETHER WE WILL, IN FACT, NAME THE HISTORIC GRANTS WE HAVE JUST APPROVED, THE FIRST SEED GRANTS OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE, AS THE LEON THAL SEED MONEY GRANTS. DUANE.

24 MR. ROTH: YES. FOR THOSE OF YOU THAT MAY25 HAVE KNOWN DR. THAL VERY WELL, HE WAS AN EXTRAORDINARY

1 INDIVIDUAL. HE COULD COMMUNICATE WITH SCIENTISTS ON 2 EVERY LEVEL, BUT PERHAPS HIS MOST IMPORTANT 3 CONTRIBUTION WAS A CLINIC THAT HE STARTED FOR EARLY 4 STAGE ALZHEIMER PATIENTS IN SAN DIEGO. AND AS I SAID 5 YESTERDAY, I HAPPEN TO BE IN THE SAME BUILDING WHERE 6 THAT CLINIC IS HELD EVERY WEDNESDAY. AND IT IS SUCH A 7 LARGE GROUP OF PEOPLE, THAT WE'RE NOT ALLOWED TO HAVE 8 ANY MEETINGS IN THE BUILDING THAT DAY BECAUSE OF THE 9 PARKING SITUATION.

10 AND I CAN TELL YOU THAT HIS STAFF AND ALL THE 11 COLLEAGUES THAT WORK AT THAT CLINIC ARE DEVASTATED BY 12 THE LOSS OF THEIR LEADER. BUT IT AFFECTS NOT ONLY 13 THEM, BUT MOST IMPORTANTLY, THE FAMILIES AND THE 14 PATIENTS THAT BELONG TO THAT GROUP. SO IT'S TRULY A 15 SAD DAY, BUT I THINK VERY IMPORTANT THAT THIS BE NAMED 16 IN HIS HONOR. I THINK HIS COLLEAGUES WILL GREATLY 17 APPRECIATE IT AS WELL AS HIS FAMILY.

SO I WOULD MOVE THAT WE NAME THESE THE LEONTHAL MEMORIAL SEED GRANTS.

20 CHAIRMAN KLEIN: IS THERE A SECOND FOR THAT 21 MOTION?

22 DR. LEVEY: SECOND.

CHAIRMAN KLEIN: SECOND FROM DR. LEVEY. AND
WOULD OTHER BOARD MEMBERS LIKE TO SPEAK TO THE MOTION?
MS. LANSING: I JUST SPEAK -- I VERY, VERY,

1 VERY MUCH SUPPORT THIS MOTION, AND I THINK IT'S INCREDIBLY APPROPRIATE. I THINK THE LOSS OF DR. THAL 2 3 IS JUST ONE OF THE TRAGEDIES THAT I THINK ALL OF US 4 HAVE EXPERIENCED. HE WAS AN EXTRAORDINARY MAN AND AN 5 EXTRAORDINARY MAN TO WORK WITH. NOT ONLY DID HE BRING 6 HIS INCREDIBLE INTELLIGENCE AND KNOWLEDGE, BUT HE 7 BROUGHT HIS KINDNESS AND HIS ABILITY TO COLLABORATE 8 WITH PEOPLE. YOU ARE ALWAYS HAPPY WHEN YOU SAW HIM. 9 AS A PATIENT ADVOCATE. I HAVE TO SAY THAT HE WAS 10 SOMEBODY I ALWAYS COULD TURN TO ASK QUESTIONS. HE WAS 11 JUST ONE OF THE BEST PEOPLE I'VE EVER MET IN MY LIFE, 12 AND ONE OF THE JOYS OF BEING ON THIS BOARD WAS GETTING 13 TO KNOW HIM.

SO I THINK THAT HIS DEDICATION TO THE BOARD, 14 15 HIS DEDICATION TO SCIENCE ALL MAKES IT INCREDIBLY 16 APPROPRIATE THAT WE NAME THESE SEED GRANTS AFTER HIM. 17 AND THIS TRAGEDY IS TRULY ONE OF THE SADDEST THINGS THAT I THINK ALL OF US WHO KNEW HIM HAVE EXPERIENCED. 18 19 MR. SERRANO-SEWELL: GETTING TO KNOW ALL MY 20 COLLEAGUES HAS BEEN A WONDERFUL EXPERIENCE, AND ESPECIALLY DR. THAL. AND IT WAS DURING THAT FIRST YEAR 21 22 WHEN WE WERE HOSTING THE PATIENT SPOTLIGHTS, AND WE DID 23 THIS PATIENT SPOTLIGHT FOR ALZHEIMER'S IN SACRAMENTO 24 WHERE I REALLY GOT TO SEE FIRSTHAND DR. THAL IN ACTION 25 AND THE ADMIRATION, RESPECT HE HAD OBVIOUSLY IN THE

SCIENTIFIC COMMUNITY WITH HIS COLLEAGUES, BUT ALSO WITH
 THE PATIENT ADVOCATES. THOSE PATIENTS THAT TESTIFIED
 THAT DAY, THEY WERE SO LOVING. HE WAS VERY LOVING WITH
 THEM. THERE WAS A SENSE OF HOPE AND JOY.

5 I'VE GOT TO SAY, YOU KNOW, DR. LEON THAL, 6 THIS GUY, HE'S A GREAT PATIENT ADVOCATE. I WAS GLAD TO 7 COUNT HIM AS ONE OF THE PATIENT ADVOCATES. THIS IS 8 SOMEONE WHO REALLY STEPPED UP AND DEMONSTRATED WHAT THE 9 GOOD WORK THAT WE CAN DO, AND I THOUGHT HE WAS ABLE TO 10 BRIDGE IN A WAY THAT IS ALWAYS SO DIFFICULT IN THESE 11 KINDS OF SETTINGS, BEING A SCIENTIST, BEING A 12 CLINICIAN, BEING A PATIENT ADVOCATE. AND SO HE WAS A 13 RESOURCE FOR ALL OF US, AND HE'LL BE GREATLY MISSED.

14 CHAIRMAN KLEIN: THANK YOU. ANY OTHER BOARD 15 COMMENTS? I WOULD LIKE TO HAVE A ROLL CALL VOTE FOR 16 THIS. IT IS MY SUGGESTION THAT IF THIS PASSES, THAT WE 17 ALL, WITH THE AUDIENCE HOPEFULLY, STAND IN A MOMENT OF 18 CELEBRATION AND THEN A MOMENT OF REVERENCE IN SILENCE. 19 BEFORE THAT VOTE, DO WE HAVE IN THE AUDIENCE

20 A PUBLIC SPEAKER TO THIS MOTION?

MR. REED: AS A PERSON THAT KNOWS THE SCIENCE
DEEPLY AND INTENSELY, DR. THAL WAS ALWAYS ABLE TO MAKE
HIS EXPRESSIONS CLEAR SO THAT WE, WHO DON'T ALWAYS
UNDERSTAND YOU SCIENTISTS, WERE ABLE TO UNDERSTAND HIM.
THE GENTLENESS AND KINDNESS, THE SENSE OF HUMOR THAT

1	PEOPLE HAVE MENTIONED WERE TRUE IN EVEN THE MOST CASUAL
2	CONTACTS. IT'S A WONDERFUL THING. I KNOW HE WOULD
3	HAVE TAKEN GREAT JOY IN THIS HONOR THAT YOU BESTOW ON
4	HIM. THANK YOU.
5	CHAIRMAN KLEIN: THANK YOU VERY MUCH. ANY
6	ADDITIONAL SPEAKERS? WITH THAT, WE WILL HAVE A ROLL
7	CALL VOTE.
8	MS. KING: RICARDO AZZIZ.
9	DR. AZZIZ: YES.
10	MS. KING: PAUL JENNINGS.
11	DR. JENNINGS: YES.
12	MS. KING: ROBERT BIRGENEAU.
13	DR. BIRGENEAU: YES.
14	MS. KING: SUSAN BRYANT. MARCY FEIT.
15	MS. FEIT: YES.
16	MS. KING: MICHAEL FRIEDMAN. MICHAEL
17	GOLDBERG.
18	MR. GOLDBERG: YES.
19	MS. KING: FRANCIS MARKLAND.
20	DR. MARKLAND: YES.
21	MS. KING: DAVID KESSLER.
22	DR. KESSLER: YES.
23	MS. KING: BOB KLEIN.
24	CHAIRMAN KLEIN: YES.
25	MS. KING: SHERRY LANSING.

MS. LANSING: YES. 1 2 MS. KING: GERALD LEVEY. 3 DR. LEVEY: YES. 4 MS. KING: TED LOVE. RICHARD MURPHY. TINA 5 NOVA. ED PENHOET. 6 DR. PENHOET: YES. 7 MS. KING: PHIL PIZZO. 8 DR. PIZZO: YES. WITH DEEP RESPECT, YES. 9 MS. KING: CLAIRE POMEROY. FRANCISCO PRIETO. 10 JOHN REED. DUANE ROTH. 11 MR. ROTH: YES. 12 MS. KING: JOAN SAMUELSON. DAVID 13 SERRANO-SEWELL. 14 MR. SERRANO-SEWELL: YES. MS. KING: JEFF SHEEHY. 15 16 MR. SHEEHY: YES. 17 MS. KING: JONATHAN SHESTACK. OSWALD 18 STEWARD. 19 DR. STEWARD: YES. 20 MS. KING: JANET WRIGHT. 21 DR. WRIGHT: YES. 22 CHAIRMAN KLEIN: THE MOTION PASSES. 23 MR. HARRISON: WE NEED TO LEAVE IT OPEN UNTIL 24 DR. POMEROY RETURNS. 25 CHAIRMAN KLEIN: ALL RIGHT. WE WILL AWAIT

1 THAT MOMENT.

2 DR. PIZZO: MR. CHAIRMAN, WHILE WE'RE 3 WAITING, CAN YOU SHARE WITH US HOW YOU ARE PLANNING TO 4 CONVEY THIS INFORMATION TO THE FAMILY OF DR. THAL? 5 CHAIRMAN KLEIN: THE INTENT WAS, SINCE HE IS 6 DEEPLY ENROOTED IN THE SAN DIEGO COMMUNITY, TO ASK THE 7 SAN DIEGO MEMBERS ON THE BOARD IF THEY WOULD ACCEPT THE 8 HONOR OF CONVEYING THIS IN THE MOST INTIMATE AND 9 PERSONAL MANNER POSSIBLE, WITH THE ADMIRATION AND 10 THOUGHTS OF THE BOARD. 11 ANY ADDITIONAL COMMENTS WOULD BE ACCEPTED? 12 MS. KING: I JUST HAVE SOME BRAND NEW 13 INFORMATION I'D LIKE TO SHARE WITH THE BOARD ABOUT 14 THIS. I JUST GOT THIS E-MAIL. THERE WILL BE A 15 MEMORIAL SERVICE FOR DR. LEON THAL ON MONDAY, MARCH 5TH 16 AT 2 P.M. AT THE INSTITUTE OF THE AMERICAS ON THE UCSD 17 CAMPUS, AND ALL ARE WELCOME TO ATTEND. 18 CHAIRMAN KLEIN: THANK YOU. WE WILL LEAVE 19 THIS ITEM OPEN FOR A MOMENT WHILE WE WAIT FOR DR. 20 POMEROY MOMENTARILY TO RETURN. 21 ALL RIGHT. WE WILL GO NEXT TO CONSIDERATION 22 OF THE NEXT ITEM. IF WE CAN BRING UP THE SCREEN ON THE 23 GRANTS, PLEASE. 24 I'M GOING TO COMPLETE THIS ITEM. DR. 25 POMEROY, THE MOTION BEFORE US IS TO NAME --

1 DR. POMEROY: I'M STRONGLY IN SUPPORT OF THIS 2 MOTION. 3 CHAIRMAN KLEIN: THANK YOU. IF WE, AS AN 4 HONOR TO DR. LEON THAL, WE HAVE JUST NAMED THESE THE 5 DR. LEON THAL SEED MONEY GRANTS. IF WE COULD ALL FIRST 6 STAND WITH APPLAUSE AND THEN A MOMENT OF SILENCE AND 7 **REVERENCE**. 8 (APPLAUSE AND MOMENT OF SILENCE IN HONOR 9 OF DR. LEON THAL.) 10 CHAIRMAN KLEIN: THANK YOU. 11 WE WILL NOW GO FORWARD WITH OUR CONSIDERATION 12 OF ITEMS THAT WE DID NOT DISCUSS YESTERDAY. LET ME ASK 13 DR. HALL. I BELIEVE THAT WE DISCUSSED THE TWO ITEMS 14 THAT ARE THE 77 SCORES THAT ARE THERE. AND SO AREN'T 15 WE REALLY ACTUALLY AT ITEM 321? THAT'S AN 16 INFORMATIONAL REQUEST. 17 DR. HALL: YES. WE DISCUSSED ALL THE 77 SCORES LAST NIGHT. 18 19 DR. PENHOET: THE PRECISE VOTE, I BELIEVE, 20 FOR THOSE TWO -- SOME OF THE ONES WE VOTED WERE TO MOVE 21 DOWN, SOME WERE TO MOVE UP. THESE TWO WERE VOTED -- WE 22 CONSIDERED MOVING THEM UP. WE DID NOT PASS MOVING THEM 23 UP, BUT THEY STAYED IN TIER 2, SO THEY'RE STILL ON THE 24 LIST IS MY UNDERSTANDING. 25 DR. HALL: THEY REMAIN ELIGIBLE FOR FUNDING, 249

1 BUT THEY HAVE BEEN DISCUSSED.

2 DR. POMEROY: MY EYESIGHT ISN'T GOOD ENOUGH, 3 SO STEM CELL MAY ADDRESS THAT ISSUE IN THE FUTURE, BUT 4 FOR RIGHT NOW COULD DR. HALL JUST READ OFF THE NUMBERS 5 OF IF WE WERE -- WHAT THE CUMULATIVE AMOUNT OF FUNDING 6 WOULD BE IF WE WENT THROUGH THE 77S, WE WENT THROUGH 7 THE 76'S AND WE WENT THROUGH THE 75S? 8 DR. HALL: TO GO TO THE 77S WOULD TAKE US 9 THROUGH \$42.3 MILLION. TO GO DOWN THROUGH THE 76S WOULD 10 TAKE US TO \$44 MILLION, AND TO GO DOWN TO THE 75S WOULD 11 TAKE US TO \$46 MILLION, AND TO GO TO 74 WOULD TAKE US 12 TO \$48 MILLION. 13 DR. POMEROY: THANK YOU. MS. LANSING: ALL OF TIER 2 GOES TO 71. WHAT 14 WOULD IT TAKE US IF WE FUNDED ALL OF TIER 2? 15 16 DR. HALL: \$53.4 MILLION, AND THAT WOULD ALSO 17 TAKE IT TO THE 38TH PERCENTILE. 18 CHAIRMAN KLEIN: GIVES EVERYONE A CONTEXT. 19 DR. HALL: THAT WOULD REPRESENT 85 GRANTS; IS 20 THAT CORRECT? 84. 86 GRANTS. 21 CHAIRMAN KLEIN: ALL RIGHT. 22 MS. LANSING: I JUST NEED A CONTEXT, ZACH. I 23 WAS PART OF THE GRANTS COMMITTEE, BUT I JUST WANT TO BE 24 SURE I'M REMEMBERING THIS CORRECTLY. THE GRANT 25 COMMITTEE SAID, CORRECT ME IF I'M WRONG, SAID IF THERE

WAS ENOUGH MONEY, THAT THEY WOULD RECOMMEND FUNDING ALL
 OF TIER 2; IS THAT CORRECT? OR AM I MISREMEMBERING IT?
 DR. HALL: TIER 2 BY DEFINITION IS THOSE
 GRANTS THAT ARE RECOMMENDED FOR FUNDING IF FUNDING IS
 AVAILABLE.

6 MS. LANSING: THAT'S ALL I WANT TO KNOW. 7 DR. HALL: SO IN A SENSE THEY SAY THESE ARE 8 ELIGIBLE FOR -- THEY WOULD CONSIDER GRANTS THAT IF YOU 9 THOUGHT THESE WERE ELIGIBLE FOR FUNDING, THEY COULD BE 10 FUNDED.

MS. LANSING: I'M NOT SUGGESTING THAT WE DO IZ IT, BUT I JUST WANTED TO CLARIFY.

13 CHAIRMAN KLEIN: THANK YOU. THAT GIVES US A 14 CONTEXT. WE NEED TO -- IF WE CAN RETURN THE SCREEN TO 15 THE ITEM THAT WE ARE ADDRESSING AT THIS POINT. WITH 16 THE ASTUTE EXPLANATION OF DR. PENHOET, THAT IT IS 17 IMPORTANT THAT WE ADDRESS THE TWO 77S BECAUSE WE LEFT THEM IN THEIR PRIOR POSITION, BUT WE DID NOT DECIDE 18 19 WHETHER OR NOT WE WERE FUNDING THEM. SO WE NEED TO 20 KNOW WHETHER WE'RE GOING TO FUND THE TWO GRANTS AT 77, 21 WHICH WERE DEBATED LAST NIGHT IN GREAT DETAIL.

IS THERE DISCUSSION BY THE MEMBERS, A MOTION,
OR WHAT IS THE PLEASURE OF THE BOARD AS TO THE TWO 77
GRANTS THAT WE DEBATED LAST IN DETAIL BEFORE WE GET TO
THE 76 SCORE?

1 DR. AZZIZ: I HAVE A MOTION. 2 CHAIRMAN KLEIN: DR. AZZIZ. 3 DR. AZZIZ: I WOULD LIKE TO MAKE A MOTION. 4 I'M LOOKING AT MY -- I'M GOING TO HAVE TO LOOK UP AT 5 THE SCREEN. THE TWO -- I HAVE A MOTION THAT THE TWO 6 GRANTS THAT ARE CURRENTLY SCORED 77 BE INCLUDED FOR 7 FUNDING IN VIEW OF THE FACT THAT THEIR STRENGTHS 8 OUTWEIGH THEIR WEAKNESS UPON REVIEW. 9 DR. WRIGHT: SECOND. 10 CHAIRMAN KLEIN: MOTION IS MADE AND SECONDED. 11 COMMENT FROM THE BOARD? CONFLICTS BEFORE WE DO THE 12 COMMENTS. THANK YOU, JEFF. 13 MR. TOCHER: FOR GRANT 377, THE CONFLICTS ARE 14 BRYANT, LANSING -- FOR GRANT 377, THE CONFLICTS ARE 15 BRYANT, LANSING, AND STEWARD. AND 477 IT IS LANSING. 16 CHAIRMAN KLEIN: ALL RIGHT. DR. BIRGENEAU. 17 DR. BIRGENEAU: FOR THOSE OF US WHO WERE NOT 18 HERE YESTERDAY, I WONDER IF WE COULD GET A VERY BRIEF 19 SUMMARY OF WHAT OCCURRED WITH RESPECT TO THESE TWO AND 20 WHY THEY'RE -- PRESUMABLY THEIR SCORES BEGAN LOWER THAN 21 77 OR ELSE THEY WOULDN'T HAVE BEEN IN TIER 3 AND GOT 22 MOVED UP. 23 CHAIRMAN KLEIN: VERY APPROPRIATE QUESTION. 24 DR. CHIU, COULD YOU PROVIDE THAT? 25 DR. CHIU: 377 DEALS WITH LOOKING AT THE

1 EFFECTS OF IMMUNOSUPPRESSIVE DRUGS ON THE BEHAVIOR OF 2 STEM CELLS, SOMETHING THAT COULD POSSIBLY HAVE 3 IMPORTANT CLINICAL RAMIFICATIONS BECAUSE 4 IMMUNOSUPPRESSIVE DRUGS WILL BE USED IN TRANSPLANTATION 5 EVENTUALLY FOR CLINICAL THERAPY. AND THEY'RE USING IT 6 IN THE CONTEXT OF NON-SCID SPINAL CORD INJURY MOUSE TO 7 SEE IF THERE'S FUNCTIONAL RECOVERY. THAT'S THE SHORT 8 SYNOPSIS OF IT. 9 DR. BIRGENEAU: BUT THAT DOESN'T EXPLAIN TO 10 ME --11 DR. CHIU: THE WEAKNESS AND STRENGTHS. 12 DR. BIRGENEAU: WHY THERE WAS A CHANGE IN THE 13 RATING? 14 DR. CHIU: IT HAD STAYED -- IT WASN'T EXACTLY 15 A CHANGE IN THE RATING, RATHER IT WAS NOT BUMPED UP 16 LAST NIGHT BECAUSE THE OTHER ONES THAT SCORED 77 17 RECEIVED MUCH HIGHER ENTHUSIASM FROM THE BOARD. THERE WAS NO CHANGE IN ITS STATUS. DID YOU WANT MORE 18 19 INFORMATION ON THE APPLICATION? 20 DR. BIRGENEAU: I'M CONFUSED. SO EVEN THOUGH 21 THESE TWO WERE RATED 77, THEY WERE NEVERTHELESS PUT 22 **BELOW PROPOSALS RATED 71?** 23 DR. CHIU: THE ONE THAT'S 74, AS YOU SEE 24 ABOVE IT, WAS RATED TO BE PROGRAMMATICALLY AND 25 SCIENTIFICALLY MORE ENTHUSIASTICALLY RATED BY THE BOARD

1 THAN THE TWO 77S.

DR. BIRGENEAU: I'M STILL CONFUSED.
MS. LANSING: WHAT HAPPENED WAS IT'S RATED
77, SO THE ONLY THING THAT YOU'RE ASKING IS WHY THE 74
IS AHEAD OF IT.

6 DR. BIRGENEAU: WELL, TO THE EXTENT THAT 7 OTHERWISE THE LIST OF RECOMMENDATIONS FOLLOW THE 8 NUMERICAL RATING, AND SUDDENLY WE FIND TWO 77S THAT ARE 9 PUT BELOW A LARGE NUMBER OF PROPOSALS WITH LOWER 10 NUMERICAL SCORES.

11 MS. LANSING: THE QUESTION WAS WE DIDN'T KNOW 12 HOW MUCH MONEY WE HAD, AND WE STILL DON'T KNOW, I 13 GUESS, ACTUALLY, AND SO WE WERE TRYING TO SAY IF WE HAD 14 A LIMITED AMOUNT OF MONEY AND COULDN'T FUND EVERYTHING, 15 WHAT ABSOLUTELY HAD TO GO INTO TIER 1. AND WE ACTUALLY 16 DIDN'T FINISH THE PROCESS, AND WE ACTUALLY HAVE TO GO 17 THROUGH THE REST OF THESE.

18 DR. PENHOET: THAT'S CORRECT. MAYBE I CAN 19 GIVE YOU A GENERAL OVERVIEW OF WHAT WE DID LAST NIGHT, 20 BOB. WHEN WE GOT INTO THE CATEGORY OF THE ORIGINAL 21 TIER 2 AND AS WE WORKED OUR WAY DOWN THROUGH THE LIST 22 TO LOWER AND LOWER NUMBERS BELOW 80, WE HAD VIGOROUS 23 DEBATE ON MANY OF THE GRANTS THAT WERE IN THIS 77 24 REGION. SO WE DISCUSSED THEM EXTENSIVELY. WE WENT 25 THROUGH THE STRENGTHS AND WEAKNESSES. WE MOVED SOME OF

1 THEM TO THE NONFUNDING CATEGORY. SO WE MOVED THEM OUT 2 OF TIER 2 INTO TIER 3. OTHER ONES WE MOVED UP INTO 3 TIER 3, AND THEY JUST WENT WHEREVER THEIR NUMBER WAS ON 4 THE LIST -- INTO TIER 1. EXCUSE ME. THEY JUST WENT 5 BACK INTO TIER 1 WHEREVER THEIR NUMBER APPEARED. WE 6 DIDN'T HAVE A RANK ORDERING BEYOND THAT. WE JUST PUT 7 THEM IN THE TIER.

8 FOR THESE TWO GRANTS SPECIFICALLY, WE HAD A 9 LONG DISCUSSION OF THE STRENGTHS AND WEAKNESSES OF 10 THESE GRANTS, AND WE DECIDED THAT THEY DID NOT WARRANT 11 BEING PUT IN TIER 1 BASED ON OUR ANALYSIS, SO WE WERE 12 RESPECTFUL OF THE SCORES GIVEN BY THE GROUP, BUT WE 13 EXERCISED OUR RESPONSIBILITY TO EVALUATE THESE 14 OURSELVES. WE WENT THROUGH THESE ONE BY ONE. WE 15 DISCUSSED FOR NO. 77. FOR EXAMPLE, ONE OF THE 16 WEAKNESSES WAS THEIR ABILITY TO TRACK THESE CELLS AND 17 TO REALLY UNDERSTAND EXACTLY WHERE THEY WENT, ETC. SO WE HAD A DISCUSSION ABOUT THAT. SO WE DISCUSSED IT IN 18 19 QUITE SOME DETAIL AND DECIDED NOT TO MOVE IT UP, BUT WE 20 ALSO DECIDED NOT TO MOVE IT DOWN. THEREFORE, IT STAYED 21 HERE. SO THE RANK ORDER HERE DOESN'T NECESSARILY, AT 22 THE MOMENT AT LEAST, REFLECT OUR VIEWS. THERE ARE SOME 23 77S WHICH ARE NOW IN CATEGORY 3, FRANKLY.

CHAIRMAN KLEIN: MAYBE I CAN ALSO HELP DR.BIRGENEAU BY SAYING THAT THE CONSIDERATION OF BUILDING

1 THE SECOND POOL PUTS GRANTS INTO THE SECOND POOL THAT 2 ARE ELIGIBLE FOR FUNDING; BUT WHEN YOU BUILD THE WHOLE 3 POOL, WE MAY HAVE 20 GRANTS IN THERE. YOU MAY ONLY 4 HAVE ENOUGH MONEY TO FUND 15 GRANTS. AT THAT POINT YOU 5 WILL KNOW THE RELATIVE MERITS OF ALL THE GRANTS YOU HAVE IN THE POOL. AND BASED ON THE DEBATE LAST NIGHT, 6 7 YOU MAY GO BACK TO THESE TWO ITEMS IN GREATER DEPTH AND 8 DECIDE TO TAKE THEM OUT AS PART OF THE FIVE GRANTS YOU 9 TAKE OUT TO MEET THE BUDGET THAT CAN ONLY COVER 15 10 GRANTS.

SO AT THIS POINT YOU ARE NOT ELECTING TO
 ACTUALLY FUND THOSE TWO GRANTS, BUT MERELY TO KEEP THEM
 ELIGIBLE IN THE POOL FOR FUNDING.

DR. PENHOET: THEN I MIGHT ADD, JUST TO GIVE 14 15 YOU ANOTHER SENSE OF THE DISCUSSION WE HAD AND THE 16 SIGNIFICANT DECLINE IN QUALITY OF THE GRANT 17 APPLICATIONS AS PERCEIVED BY US, WHEN WE GOT INTO THIS 18 RANGE, THE VOTES BEGAN TO BE QUITE SPLIT. WE HAD MANY 19 PEOPLE WHO WERE IN FAVOR OF MOVING THEM UP OR DOWN, 20 MANY OTHER PEOPLE WHO WERE AGAINST MOVING THEM UP OR 21 SO I THINK THAT REFLECTED A LEVEL OF CONCERN DOWN. 22 THAT WE'RE NOW MOVING INTO A QUALITY RANGE WHERE MANY PEOPLE HERE HAD CONCERNS, AND WE VOTED SOME UP, SOME 23 24 DOWN, BUT MOST OF THE VOTES WERE SPLIT AT THAT TIME. 25 SO THERE WAS PRETTY GOOD ROBUST DISCUSSION

ABOUT EACH OF THESE. AND, YOU KNOW, IF YOU JUST LOOKED
 AT THE VOTING PATTERN ON A GRANT-BY-GRANT BASIS, YOU
 WOULD SEE IN THE VOTING PATTERN ITSELF A SIGNIFICANT
 LEVEL OF CONCERN EMERGING JUST AS A RESULT, IF YOU LOOK
 TODAY AT WHAT THE VOTING WAS YESTERDAY, ON THESE
 GRANTS.

7 DR. LEVEY: AND, BOB, ALSO WE WERE QUITE 8 MINDFUL OF THE STUDY SECTION AND THEIR EVALUATION OF 9 THESE GRANTS. AND I THINK THE BASIC DISCUSSION THAT 10 WENT BACK AND FORTH IN MANY OF THESE WAS WHETHER OR NOT 11 WE SHOULD UP THEM TO TIER 1, MAINTAIN THEM AT TIER 2. 12 AND DEPEND ON WHETHER OR NOT MONEY WAS AVAILABLE TO 13 FUND TIER 2. AND EVERYBODY, I THINK MOST EVERYBODY, 14 WAS VERY SYMPATHETIC TOWARDS BEING ABLE TO FUND THROUGH 15 TIER 2 BECAUSE OF THE WORK OF THE STUDY SECTION. AND I 16 BELIEVE THERE WERE ONE OR TWO ACTUALLY THAT GOT KICKED 17 DOWN TO WHAT WE CALL TIER 3 AFTER LOOKING AT THAT. BUT 18 WE REALLY DID SPEND QUITE A BIT OF TIME GOING THROUGH 19 THESE GRANTS.

20 DR. PENHOET: I BELIEVE THAT IN TOTAL WE 21 MOVED ABOUT 30 GRANTS, IF I REMEMBER CORRECTLY, FROM 22 TIER 2 INTO TIER 1. YOU PROBABLY HAVE THE EXACT 23 NUMBER, ARLENE. 24 DR. CHIU: SOMETHING LIKE 28. I BELIEVE.

24DR. CHIU: SOMETHING LIKE 28, I BELIEVE.25DR. PENHOET: WE DID MOVE 28 GRANTS UP TO

TIER 2, WE MOVED TWO DOWN TO TIER 3, AND THE REST OF
 THEM ARE STILL IN HERE.

3 I MIGHT ADD, JUST TO GIVE YOU AN OVERALL FLAVOR AGAIN, I THINK MANY PEOPLE HERE, STARTING WITH 4 5 ME, EXPRESSED A CONCERN THAT WHEN WE GOT BELOW 75, 6 THERE WAS A SIGNIFICANT DROP-OFF IN THE QUALITY AS WE 7 CAN PERCEIVE IT. SO I DON'T KNOW WHERE WE'LL END UP 8 WITH THE FINAL PAYLINE HERE, BUT WE DID DISCUSS EACH OF 9 THESE INDIVIDUALLY LAST NIGHT TO MAKE THESE DECISIONS 10 AND TAKE VOTES. OKAY. 11 SO ANY FURTHER DISCUSSION OF 77? 12 MR. ROTH: WHILE WE'RE ON THE SUBJECT OF 13 77s --14 DR. PENHOET: 377 IS THE GRANT NUMBER. IT ALSO HAS A SCORE OF 77. 15 16 MR. ROTH: WHILE WE'RE ON THE 77S IN THIS 17 CONVERSATION, SO WE DON'T HAVE TO REVISIT IT AGAIN, THERE WERE, IN ADDITION, TWO 77S THAT WERE MOVED IN THE 18 19 DO NOT FUND CATEGORY. AND THOSE HAD MORE SERIOUS 20 DISCUSSION ABOUT WHY THEY WERE MOVED THERE. SO THEY'RE 21 DOWN BELOW THE LINE NOW. 22 DR. AZZIZ: JUST TO BE CLEAR, WE DO HAVE A 23 MOTION ON THE TABLE.

CHAIRMAN KLEIN: WE DO. YOU MADE A MOTION TOAPPROVE GRANT 377 FOR FUNDING.

1DR. AZZIZ: THAT'S CORRECT. ACTUALLY NO.2BOTH GRANTS 377 --3DR. PENHOET: 377 AND 477.4DR. PIZZO: CAN WE MODIFY THAT TO DO EACH ONE5INDIVIDUALLY RATHER THAN DO THEM BOTH TOGETHER?

6 DR. AZZIZ: PHIL, I BELIEVE THAT ACTUALLY 7 YESTERDAY WE DISCUSSED THESE AT SOME LENGTH. THE 8 FEELING WAS TO LEAVE THEM IN TIER 2 DEPENDING ON HOW 9 MUCH MONEY THERE WAS, AND THAT'S WHY I'M PROPOSING THEM 10 TO BE GROUPED, SO I'D PREFER NOT TO DO THAT.

11 DR. PENHOET: THE MOTION IS TO APPROVE BOTH. 12 I THINK YOU HAVE TO VOTE THE MOTION UP OR DOWN. DO WE 13 HAVE A SECOND TO THE MOTION?

14 DR. WRIGHT: YES.

15 DR. PENHOET: SECOND, DR. WRIGHT. ANY 16 FURTHER DISCUSSION? ANY DISCUSSION FROM THE -- WOULD 17 ANYBODY LIKE TO HEAR SOMETHING ABOUT 477, MORE 18 INFORMATION THAN WHAT YOU ALREADY HAVE IN YOUR BOOK AND 19 YOU HAVE READ?

20 CLAIRE, I BELIEVE YOU HAD A CONCERN ABOUT 21 477, IF I REMEMBER. WAS THAT THE GRANT THAT DIDN'T 22 HAVE A CLEAR --

23 DR. POMEROY: WE MOVED THAT DOWN.

24DR. PENHOET: -- EXPERIMENTAL PLAN? WE DID25MOVE THAT ONE DOWN.

NO FURTHER DISCUSSION. WHO HAS A CONFLICT,
 PLEASE?

3 MS. KING: BRYANT, LANSING, AND STEWARD WITH 4 REGARD TO 377, AND WITH REGARD TO 477, LANSING. 5 DR. PENHOET: NO FURTHER DISCUSSION, WE'LL 6 VOTE ON INCLUDING THESE TWO -- JOHN SIMPSON HAS A 7 QUESTION OR A COMMENT. 8 MR. SIMPSON: JOHN SIMPSON FROM THE 9 FOUNDATION FOR TAXPAYER AND CONSUMER RIGHTS. I SEE AND 10 UNDERSTAND WHAT YOU'RE DOING WITH THESE TWO AT 77, BUT 11 IT DOES SEEM TO ME HERE VERY QUICKLY YOU NEED TO BE 12 EXPLAINING TO YOURSELVES AND TO THE PUBLIC WHAT YOUR 13 TOTAL POOL THAT'S GOING TO BE AVAILABLE IS GOING TO BE. AND I'M WONDERING IF THAT DOLLAR FIGURE WILL BE COMING 14 15 OUT FAIRLY SOON. THAT SEEMS TO BE QUITE RELEVANT. 16 DR. PENHOET: GOOD POINT. THANK YOU. CAN WE 17 CALL THE ROLL CALL FOR THIS. MS. KING: WE CAN IF WE HOLD THAT UNTIL 18 19 CHAIRMAN KLEIN JOINS SO WE HAVE A QUORUM, WE CAN DO IT 20 THAT WAY, OR WE CAN --21 DR. PENHOET: WELL, I HAD AN OFFLINE 22 DISCUSSION WITH BOB. AND, JAMES, OUR UNDERSTANDING 23 PREVIOUSLY HAS BEEN IF THE MEETING HAS A QUORUM, WE DO

24 NOT REQUIRE A QUORUM ON EVERY SINGLE VOTE. AND SO I

25 WAS CONFUSED BY YOUR COMMENT EARLIER THAT WE ACTUALLY

1 NEEDED CLAIRE HERE FOR THE VOTE.

2 MR. HARRISON: TO TAKE ACTION YOU NEED TO 3 HAVE A QUORUM PRESENT. 4 DR. PENHOET: I THOUGHT WE RESOLVED THIS AT A 5 PREVIOUS MEETING AND SO DID BOB. 6 MR. HARRISON: I WILL DOUBLE-CHECK. 7 DR. PENHOET: WOULD YOU DO THAT, PLEASE? 8 WELL, IF WE CAN'T VOTE ON THIS, WE'LL --9 MS. KING: DR. PENHOET, WE CAN TAKE THE VOTE 10 AND JUST HOLD THE ITEM OPEN LIKE WE DID EARLIER. 11 DR. PENHOET: YES, WE'LL DO THAT. 12 MS. KING: SO WHY DON'T WE DO THAT. AGAIN, 13 THOSE IN CONFLICT WITH THIS APPLICATION ARE SHERRY 14 LANSING AND OSWALD STEWARD. 15 STARTING THE ROLL. RICARDO AZZIZ. 16 DR. AZZIZ: YES. 17 MS. KING: PAUL JENNINGS. DR. JENNINGS: YES. 18 19 MS. KING: ROBERT BIRGENEAU. 20 DR. BIRGENEAU: YES. 21 MS. KING: MARCY FEIT. 22 MS. FEIT: YES. 23 MS. KING: MICHAEL FRIEDMAN. MICHAEL 24 GOLDBERG. 25 MR. GOLDBERG: YES.

1	1	MS.	KING: FRANCIS MARKLAND.
2	Ι	DR.	MARKLAND: YES.
3	r	MS.	KING: DAVID KESSLER.
4	I	DR.	KESSLER: YES.
5	r	MS.	KING: BOB KLEIN.
6	(CHAI	IRMAN KLEIN: YES.
7	r	MS.	KING: GERALD LEVEY.
8	Ι	DR.	LEVEY: YES.
9	ı	MS.	KING: TED LOVE. RICHARD MURPHY. TINA
10	NOVA. ED	PENH	IOET.
11	Ι	DR.	PENHOET: YES.
12	r	MS.	KING: PHIL PIZZO.
13	I	DR.	PIZZO: YES.
14	r	MS.	KING: CLAIRE POMEROY.
15	I	DR.	POMEROY: YES.
16	r	MS.	KING: FRANCISCO PRIETO. JOHN REED.
17	DUANE ROTH	•	
18	ſ	MR.	ROTH: YES.
19	r	MS.	KING: JOAN SAMUELSON. DAVID
20	SERRANO-SE	WELL	
21	r	MR.	SERRANO-SEWELL: YES.
22	r	MS.	KING: JEFF SHEEHY.
23	r	MR.	SHEEHY: YES.
24	r	MS.	KING: JONATHAN SHESTACK. JANET WRIGHT.
25	I	DR.	WRIGHT: YES.

1DR. PENHOET: WITH BOB'S VOTE, DID WE HAVE A2QUORUM?

3 MS. KING: WE DID.

4 OSWALD STEWARD, WE DO NEED YOUR VOTE FOR ONE 5 OF THOSE. I APOLOGIZE.

DR. STEWARD: YES, EXCEPT FOR THE ONE ONWHICH I HAVE A CONFLICT.

8 DR. PENHOET: THANK YOU. OKAY. SO WE ARE 9 NOW RECOMMENDING 377, 477, BOTH 77S, FOR APPROVAL.

10 YOU KNOW, I THINK WE'VE HEARD SOME SENTIMENT 11 ABOUT ACTUALLY DISCUSSING FOR A MOMENT THE TOTAL 12 FUNDING AND, THEREFORE, A PAYLINE THAT WE WOULD WORK 13 TOWARDS IN THE REMAINING PART OF THIS MEETING. I THINK 14 THE PREREADS, WE HAD ANTICIPATED THAT WE MIGHT FUND UP 15 TO \$45 MILLION. \$45 MILLION WOULD TAKE US THROUGH 16 THE -- SLIGHTLY BEYOND THE -- THE LAST 75 BRINGS US TO 17 \$46,300,000. IF WE ELIMINATE THE 75S, THE LAST 76 WOULD BRING US TO 44 MILLION; IS THAT CORRECT? AM I 18 19 READING THAT CORRECTLY? SO I THINK A DISCUSSION IS IN 20 ORDER NOW ABOUT THE TOTAL AMOUNT OF MONEY WE WANT TO 21 FUND.

OBVIOUSLY IT'S IN AN ITERATIVE PROCESS, AND
IT REFLECTS TOTAL AMOUNT OF MONEY, BUT ALSO THE QUALITY
OF THE THINGS WHICH FALL BELOW THAT LINE. SHERRY.
MS. LANSING: I FEEL VERY STRONGLY ABOUT

1 THIS, AND I KNOW IT'S TEDIOUS, AND I KNOW HOW MUCH TIME 2 IT TOOK LAST NIGHT, BUT I REALLY BELIEVE THAT, SINCE 3 THE GRANT PEER REVIEW SAID THAT EVERYTHING IN TIER 2 4 WAS WORTHY OF FUNDING, I THINK WE HAVE A RESPONSIBILITY TO GO THROUGH ALL OF TIER 2, EVEN IF THEY'RE BELOW 75, 5 6 BECAUSE, AS WE CAN SEE, WE TOOK A 74 AND PUT IT IN TIER 7 I THINK IF WE'RE GOING TO DO OUR RESPONSIBILITY, 1. 8 AND IT WILL TAKE A GREAT AMOUNT OF TIME, I THINK WE 9 NEED TO GO THROUGH EACH GRANT. WE NEED TO VOTE ON 10 WHETHER WE THINK IT SHOULD BE FUNDED OR SHOULD NOT BE 11 FUNDED, AND NOT WORRY ABOUT THE MONEY.

12 THEN I THINK WHEN WE SEE HOW MUCH WE'VE 13 SPENT, THEN I THINK WE NEED TO SAY, OKAY, WHAT ARE WE 14 GOING TO ELIMINATE BECAUSE WE ONLY HAVE A CERTAIN 15 AMOUNT OF MONEY. I THINK TO DO IT THE OTHER WAY IS NOT 16 TO DO OUR RESPONSIBILITY BECAUSE WE MAY LIKE A 71 MORE 17 THAN A 77. IT'S POSSIBLE.

DR. PENHOET: THAT'S CERTAINLY POSSIBLE. 18 19 AND, YOU KNOW, THERE ARE TWO WAYS OF GOING THROUGH THIS 20 PROCESS. ONE WOULD BE THAT YOU APPROVE GRANTS UP TO A 21 DOLLAR FIGURE, AND THEN YOU LOOK AT THE ONES BELOW THAT 22 AND SEE IF YOU WANT TO REPLACE ANY OF THE ONES 23 PREVIOUSLY APPROVED WITH ONE OF THE ONES BELOW. OR WE 24 CAN SIMPLY JUST KEEP GOING; BUT AT THE END OF THE DAY, 25 WHEN WE CUT BACK, WE WILL HAVE TO RANK ORDER THESE

BECAUSE WE'RE AT A PLACE WHERE, UNLESS SOMETHING MOVES
 IN THE LIST, THERE WOULDN'T BE ANY WAY TO DECIDE EXCEPT
 BY RANK ORDERING DIFFERENTLY THAN THEY'RE CURRENTLY
 RANK ORDERED.

5 MR. GOLDBERG: I PERSONALLY SUPPORT THAT 6 APPROACH, WHICH IS ESTABLISH THE PAYLINE AND THEN 7 REVISIT IF THERE'S ANYTHING THAT FALLS BELOW THE 8 PAYLINE THAT WE CANNOT COMFORTABLY REJECT.

9 CHAIRMAN KLEIN: LET ME SUGGEST THAT THIS HAS 10 BEEN LOOKED AT EXTENSIVELY FROM A LEGAL PERSPECTIVE. 11 AND I'M GOING TO ASK JAMES HARRISON, AFTER I QUICKLY 12 SUMMARIZE, TO REFINE MY STATEMENT. BUT THE PROCEDURE 13 THAT CREATES THE LEAST OPPORTUNITY, HOPEFULLY 14 ELIMINATES ANY CONFLICTS, IS TO BUILD THE PORTFOLIO 15 FIRST, THEN DECIDE WHAT YOU ARE FUNDING, AND THEN GO 16 BACK, AND TO THE EXTENT THAT YOU HAVE MORE GRANTS THAN 17 WHAT YOU CAN FUND, TO INDIVIDUALLY ELIMINATE GRANTS. 18 IS THAT CORRECT, JAMES?

MR. HARRISON: THAT IS CORRECT. OUR GOAL IN
DEVISING THESE PROCEDURES HAS BEEN TO, AS BOB SAID,
BOTH MINIMIZE AND ELIMINATE POTENTIAL CONFLICTS OF
INTEREST WHERE POSSIBLE. AND WHEN WE BEGIN TO TALK
GLOBALLY ABOUT A FUNDING POOL, IT HAS A POTENTIAL OF
CREATING A CONFLICT FOR EVERY MEMBER WHO HAS AN
INTEREST IN AN APPLICATION THAT HAS NOT YET BEEN

1 FUNDED; WHEREAS, WHEN WE LOOK AT SPECIFIC APPLICATIONS 2 AND, AS BOB SAID, BUILD A PORTFOLIO AND THEN LOOK AT 3 THE TOTAL PACKAGE OF APPLICATIONS WE'VE PUT INTO THAT 4 PORTFOLIO AND INDIVIDUALLY MAKE DECISIONS ABOUT 5 WHETHER, GIVEN THE TOTAL BUDGET AT THAT POINT IN TIME, 6 CERTAIN APPLICATIONS SHOULD BE PULLED OUT BECAUSE WE'VE 7 SPENT TOO MUCH. THAT'S A PREFERABLE WAY TO DO BECAUSE 8 IT FOCUSES THE CONVERSATION ON PARTICULAR APPLICATIONS 9 AND THEREBY MINIMIZES THE POTENTIAL FOR CONFLICTS OF 10 INTEREST.

11 DR. PIZZO: I HEAR WHAT YOU'RE SAYING AND 12 APPRECIATE THE COMMENTS, BUT I'M WORRIED THAT WE COULD 13 MAKE THE PERFECT THE ENEMY OF THE GOOD IN THIS PROCESS. 14 AND WHAT I'M REALLY WORRIED ABOUT IS AFTER WE'VE GONE 15 THROUGH, LET'S JUST SAY, FOR EXAMPLE, A RANKING OF ALL 16 OF THE GRANTS, IN ESSENCE, WHAT WE THEN HAVE TO DO, IF 17 WE'RE GOING TO ELIMINATE TO SOME DOLLAR VALUE, IS GO BACK AND RECONSIDER EVERY SINGLE GRANT BECAUSE HOW DO 18 19 WE KNOW PROPRIMUM AS TO WHERE WE'RE GOING TO DRAW THE 20 LIMIT? SO IT REALLY MEANS GOING BACK OVER LITERALLY 21 ALL, EVERY SINGLE ONE OF THE GRANTS AND REORDERING 22 BECAUSE YOU CAN'T JUST REORDER THE BOTTOM TIER IN THAT. 23 YOU HAVE TO REORDER AGAINST THE WHOLE TIER. AND I FEAR 24 THAT THIS IS GOING TO MAKE THIS PROCESS MUCH MORE 25 DIFFICULT AND CHALLENGING THAN WE ARE THINKING IT

1 MIGHT.

AND WHILE THE MOTIVATIONS ARE SOUND, AND I APPRECIATE THE CONCERNS ABOUT CONFLICT OF INTEREST, I DO THINK WE HAVE TO DRAW SOME LINES AROUND REALITY. THERE'S SO MUCH MONEY THAT WE HAVE AVAILABLE. WE'RE GOING TO HAVE TO FUND WHAT WE HAVE.

I THINK THAT A DISCUSSION, QUITE HONESTLY,
ABOUT WHETHER IT'S PRUDENT TO GO ABOVE 41 TO 45 IS A
TOPIC FOR DEBATE BECAUSE WE DON'T KNOW WHERE WE'RE
GOING TO BE WITH REGARD TO THE FULL FUNDING GOING
FORWARD. I'M CONCERNED ABOUT THE RECOMMENDATIONS THAT
ARE NOW PROCEEDING.

13 CHAIRMAN KLEIN: I UNDERSTAND THE POINT, DR. 14 PIZZO. OBVIOUSLY IN PROCEEDING, WE COULD INCREMENTALLY 15 BUILD THIS PORTFOLIO, BUT LET ME ASK COUNSEL. WE COULD 16 HAVE A GENERAL DISCUSSION ABOUT THE BUDGETING, SO WE 17 HAVE A TENTATIVE NUMBER THAT WE WANT TO ARRIVE AT, REALIZING THAT THAT IS OPEN TO AMENDMENT. 18 I KNOW 19 THERE'S A HUNDRED OPTIONS WE'VE LOOKED AT IN THIS 20 PROCESS. AND SO I'M TRYING TO BE RESPONSIVE OBVIOUSLY 21 TO DR. PIZZO'S POINT AND ALSO REMEMBERING ALL HUNDRED 22 DISCUSSIONS.

IS THERE A SUGGESTION, MR. HARRISON, THAT YOU
HAVE? AND I WOULD SAY ONE OF THE APPROACHES, DR.
PIZZO, TO SIMPLIFY OUR PROCESS MIGHT BE IF WE MOVED

1 UPWARD IN TIERS SO THAT WE WENT THROUGH ONLY 10 OR 15 2 GRANTS AT ONE TIME BEFORE MAKING AN INCREMENTAL 3 DECISION ON FUNDING. THAT WOULD LEAVE THE COMMITTEE IN A POSITION THAT IT WAS FRESH IN THEIR MIND WHAT THE 4 5 DISCUSSION WAS AND PERHAPS THEY WOULDN'T HAVE REDEBATE. 6 THEY WOULD KNOW WHICH ITEM THEY WANTED TO PULL IF WE 7 WERE NOT GOING TO APPROVE THAT TIER. BUT BY GOING UP 8 IN SMALL TIERS, WE WOULD HOPEFULLY BE OPERATING WITHIN 9 THE RANGE THAT WE THOUGHT WAS REASONABLE AND PRUDENT 10 WITHOUT HAVING TO PULL OUT OF THAT TIER.

11 DR. PIZZO: I WANT TO HARKEN BACK TO, I THINK, WHAT WAS A VALID POINT THAT SHERRY LANSING MADE 12 13 EARLIER, WHICH WAS TO, AND FOR THE PUBLIC AND FOR THE 14 RECIPIENTS OF GRANTS, TO BLUR THE SENSE THAT IF THEY 15 WERE IN TIER 2, THEY WERE, QUOTE, AND FUNDED, THAT THEY 16 MIGHT BE SEEN AS LESSER QUALITY THAN IF THEY WERE IN 17 TIER 1. IN ESSENCE, BY DOING WHAT WE'VE DONE, WE'VE 18 COLLAPSED THE FORMER TIER 2 AND TIER 1.

BUT IF WE JUST TAKE A STEP BACK, IN COMING INTO THIS PROCESS, THERE WAS A CUTOFF THAT WAS MADE BETWEEN TIER 1 AND TIER 2 BY US, PERHAPS, INDIVIDUALLY AND BY THE REVIEWERS SEPARATELY. AND SO IF WE'RE GOING TO GO BACK NOW AND SORT OF RETEST THIS, THEN WE CAN'T RETEST, IN MY OPINION, JUST AGAINST TIER 2. WE HAVE TO DO THE WHOLE PROCESS. AND I JUST AM WORRIED THAT THAT

OPENS UP A MAJOR CHALLENGE FOR US SINCE THE REGRADING
 OF ALL THESE GRANTS.

3 CHAIRMAN KLEIN: WE'VE ALREADY APPROVED THE 4 TIER 1 GRANTS. AND --

5 DR. PIZZO: THEN WE BLURRED IT BY SAYING THAT 6 THOSE THAT HAVE COME INTO -- THAT WERE IN TIER 2 THAT 7 WERE, QUOTE, MOVED UP BECAME TIER 1. SO IN A SENSE 8 WE'VE CREATED A NEW TIER 1.

9 CHAIRMAN KLEIN: OUR PHILOSOPHY, AS PROPERLY 10 ARTICULATED BY SHERRY LANSING AND BY YOU EARLIER, WAS 11 THAT AS WE APPROVE ADDITIONAL INCREMENTS, WE'RE ONLY 12 TEMPORARILY REFERRING TO THEM FOR PROCESS PURPOSES FOR 13 DISTINCTION AS TIER 2, BUT THEY WILL BE AUGMENTATIONS 14 OF TIER 1 AS APPROVED.

15 DR. PENHOET: LET ME TRY A MINOR MODIFICATION OF WHAT I SAID BEFORE. ONE POSSIBILITY IN MY MIND 16 17 WOULD BE TO PICK A TENTATIVE NUMBER FOR APPROVAL IN 18 TERMS OF DOLLARS, TO CONTINUE DOWN THE LIST UNTIL WE 19 HAVE FILLED THE DOLLAR AMOUNT, THEN TO CONTINUE 20 DISCUSSING THE REST OF THE GRANTS, AND SEE WHETHER WE 21 WANT TO REPLACE ANY OF THE GRANTS IN THE FIRST GROUP 22 THAT GETS US TO, SAY, 45 MILLION WITH ANY OF THE ONES 23 BELOW. THAT WOULD ALLOW US TO CONTAIN THIS PROCESS IN 24 A WAY WITHOUT HAVING TO HAVE JUMP BALL ON ALL THE 25 GRANTS BECAUSE I THINK IF YOU TAKE ALL THE 25 REMAINING

ONES AND TRY TO RERANK ORDER ALL OF THOSE, IT WILL BE
 A --

3 DR. PIZZO: I'M NOT IN FAVOR OF DOING THAT. 4 SO LET'S JUST SAY PRACTICALLY THAT YOU DO WHAT YOU 5 SAID. YOU HAVE A CUTOFF, AND THEN WE GO DOWN AND LOOK 6 AT THOSE THAT ARE BELOW THAT, AND WE WANT TO MOVE UP 7 ONE OF THOSE. WELL, WHAT DO WE MOVE IT UP AGAINST? DO 8 WE MOVE IT UP AGAINST THE LOWEST ONE ON THE LIST, OR DO 9 WE MOVE IT UP AGAINST ANY THAT ARE ON THE LIST IS 10 REALLY WHAT I'M ASKING?

DR. PENHOET: I THINK IT WOULD PROBABLY BE AGAINST ANY THAT ARE ON THIS SMALL LIST BECAUSE WE'VE ALREADY APPROVED ALL THE TIER 1 GRANTS. THAT'S DONE. SO WE WILL NOT INVADE THAT SPACE FURTHER, BUT --

DR. PIZZO: IS THAT THE CONSENSUS BECAUSE
THAT WOULD BE HELPFUL IF THAT WERE THE CASE, BUT I WAS
CONCERNED THAT WE WERE COLLAPSING THINGS.

DR. PENHOET: I WAS JUST TRYING TO FIND APRACTICAL WAY TO GET THROUGH THE REST OF THIS.

20 DR. PIZZO: THAT'S WHAT I'M ABOUT. I'M 21 TRYING TO BE PRACTICAL AS WELL.

22 MR. SHEEHY: I ACTUALLY WANT TO DO SOMETHING 23 TO TRY TO WINNOW US DOWN A BIT BECAUSE -- AND I THINK 24 IN A WAY WE KIND OF TOUCHED ON THIS DISCUSSION LAST 25 NIGHT WHEN WE TALKED ABOUT THE 71 THAT HAD BEEN MOVED

1 UP. AND I WOULD BE VERY COMFORTABLE MAKING A MOTION 2 NOW NOT TO CONSIDER ANYTHING BELOW 74 SO THAT WE LEAVE 3 THOSE PERMANENTLY IN TIER 2 TO SOME FUTURE DATE IF WE 4 IDENTIFY, BUT FOR THE PROCESS OF THIS ROUND TODAY, IF 5 YOU NOTICE, THAT'S ABOUT THE 33D PERCENTILE, AND I 6 THINK THAT'S A FAIR PERCENTILE. AS THE NUMBERS START 7 TO GO DOWN, THE QUALITY DROPS OFF.

8 AND TO KIND OF RECAPITULATE SOME OF WHAT WENT 9 ON AT THE WORKING GROUP, THIS LINE WAS DRAWN MORE --10 WAS NOT DRAWN SO MUCH BY A SCIENTIFIC DISCUSSION AS 11 BY -- IT WAS MORE HEAVILY INFLUENCED BY DISTRIBUTION. 12 THERE WERE SOME DISCUSSIONS, AND OBVIOUSLY THAT ONE 71 13 HAD BEEN TAGGED UP, BUT I WOULD LIKE TO MAKE THAT 14 MOTION. AND THEN AT LEAST WE'RE REALLY WORKING WITH 15 THE MUCH SMALLER GROUP, AND THAT GIVES US AT LEAST A 16 STARTING POINT TO HAVE A FUTURE DISCUSSION. BY THE 17 WAY, THAT GETS US A MUCH SMALLER GROUP OF MONEY BECAUSE I DON'T THINK WE'LL GO ALL THE WAY TO 53 TODAY MYSELF. 18 19 DR. PIZZO: YOU HAVE A MOTION. 20 MR. SHEEHY: I'D LIKE TO MOVE THAT WE NOT CONSIDER -- THAT WE LEAVE FOR TODAY POTENTIAL SOME 21 22 FUTURE FUNDING, BUT THIS IS TIER 2, AND THAT WE DO NOT 23 ANTICIPATE TO HAVE FUNDING FOR THIS GROUP TODAY. WE 24 DON'T PLAN TO FUND IT. 25 DR. HALL: IS THAT A PROPOSAL TO MOVE THEM

1 INTO TIER 3?

2 MR. SHEEHY: NO. IT'S TO KEEP THEM IN TIER 3 2, BUT WITHOUT FUNDING.

4 CHAIRMAN KLEIN: THE PURPOSE, I THINK, DR. 5 HALL --

6 MR. SHEEHY: WE HAVE FUNDED TIER 1. THIS IS 7 TO LEAVE THEM IN TIER 2 WITHOUT FUNDING. I THINK 8 ANYTHING ELSE THAT WE MOVE, WE SHOULD MOVE IT INTO 9 FUNDING OR LEAVE IT IN TIER 2. SO I WANT TO TAKE THIS 10 GROUP AND LEAVE IT IN TIER 2 WITHOUT FUNDING; BUT IF AT 11 SOME FUTURE POINT -- LET'S SAY OUR LAWSUIT GETS SETTLED 12 TOMORROW. WE MAY WANT TO COME BACK, AND WE'RE 13 DEFINITELY NOT GOING TO FUND THE TIER 3S EVER, I THINK. 14 IT'S NOT RATIONAL FROM A SCIENTIFIC POINT OF VIEW. THERE'S STILL SOME MERIT IN THESE APPLICATIONS. IF WE 15 16 SUDDENLY WERE TO HAVE MORE MONEY, IDENTIFY MORE FUNDS 17 WITHIN THE NEXT MONTH OR TWO MONTHS, WE MAY WANT TO COME BACK AND REVISIT IT. AT LEAST FOR THE APPLICANTS, 18 19 I WOULD NOT HOLD OUT A LOT OF HOPE, BUT AT LEAST SO 20 THAT WE'RE WORKING WITH A SMALLER GROUP. AND THE 21 QUALITY REALLY DOES DROP OFF PRETTY SIGNIFICANTLY. 22 CHAIRMAN KLEIN: AND JUST TO PUT CONTEXT 23 AROUND THAT, JEFF, I THINK IT WOULD BE APPROPRIATE TO 24 STATE YOU ARE MAKING A GENERAL STATEMENT SO THAT, JUST 25 AS WE MOVE SOME OF THE APPLICATIONS WE WENT THROUGH

1 YESTERDAY DOWN INTO TIER 3, IT IS POSSIBLE LEGALLY AND 2 SCIENTIFICALLY THAT THIS BOARD WOULD FIND AN 3 APPLICATION IN TIER 3 TO MOVE UP FOR PROGRAMMATIC OR 4 SCIENTIFIC REASONS. BUT AS A GENERAL STATEMENT, WE 5 WOULDN'T BE FUNDING ANYTHING THAT WE PUT IN TIER 3 6 BECAUSE IT'S DEFINITIONAL, THAT IF WE PUT IT IN TIER 3, 7 WE'RE NOT GOING TO FUND IT UNLESS WE MAKE A SPECIFIC MOTION TO TAKE IT OUT OF TIER 3. 8

9 MR. SHEEHY: THAT'S ACCURATE.

10 DR. PIZZO: JUST PERHAPS IF YOU'RE WILLING TO 11 MODIFY YOUR AMENDMENT AND YOUR PROPOSAL IN THIS WAY, 12 THAT IF ANYONE WISHES, ANY MEMBER OF THE ICOC WISHES TO 13 BRING UP ANY GRANT BELOW THE CUTOFF, THAT THEY COULD DO 14 THAT, AND THAT WAY WE CAN ACCOMPLISH BOTH GOALS. WE'LL 15 HAVE A CUTOFF AND ALLOW ANYONE TO RAISE CONCERNS.

16 MR. SHEEHY: THE FRIENDLY AMENDMENT IS17 ACCEPTED.

18 CHAIRMAN KLEIN: IS THERE A SECOND ON THIS 19 AMENDMENT?

20 DR. PIZZO: I'LL SECOND THAT.

CHAIRMAN KLEIN: THERE'S A SECOND AS AMENDED.
SO THE MOTION, MR. HARRISON, AS AMENDED IS TO NOT
CONSIDER GRANTS BELOW 74 EXCEPT AS STATED BY DR. PIZZO
AND ACCEPTED BY JEFF SHEEHY, THAT ANY INDIVIDUAL GRANT
THAT A MEMBER ON THIS BOARD ISOLATES FOR CONSIDERATION

1 THAT'S BELOW 74 CAN THEN ALSO BE CONSIDERED. 2 MS. LANSING: CAN WE HAVE A DISCUSSION? 3 CHAIRMAN KLEIN: SHERRY LANSING. MS. LANSING: SO WE GET TO DISCUSS THIS 4 5 MOTION? 6 CHAIRMAN KLEIN: YES. WE ARE NOW -- WE NEED 7 TO UNDERSTAND THE CONFLICTS. WE NEED TO STATE THE 8 CONFLICTS. SO IF YOU'LL JUST PAUSE FOR A MOMENT BECAUSE THERE ARE A NUMBER OF GRANTS HERE, AND WE NEED 9 10 TO IDENTIFY -- LET'S JUST WALK THEM DOWN ONE BY ONE AND 11 IDENTIFY THE CONFLICTS, PLEASE. YOU'RE STARTING WITH 12 76 SCORES, DOING THE 75S, AND DOING THE 74S. 13 DR. PENHOET: I THINK THE MOTION IS 14 DIFFERENT, BOB. THE MOTION IS NOT TO CONSIDER ANYTHING 15 BELOW. 16 CHAIRMAN KLEIN: THAT'S CORRECT. 17 MR. HARRISON: JUST FOR THE RECORD, THE APPLICATIONS THAT WOULD BE ENCOMPASSED THIS MOTION ARE 18 19 180, 279, 411, 153, 219, 232, 159, 308, 360, 221, 247, 20 AND 314. 21 CHAIRMAN KLEIN: I AM SORRY. WAS THE MOTION 22 NOT TO CONSIDER ANYTHING BELOW 74? NOT TO CONSIDER 74 AND BELOW. 23 MR. SHEEHY: 74 BELOW. THIS WILL MAKE IT A 24 25 LITTLE BIT EASIER. BECAUSE IF YOU LOOK, THAT'S THE 33D

PERCENTILE. THAT WAS PART OF THE RATIONALE. IT IS
 EXACTLY 33.3 PERCENT.

CHAIRMAN KLEIN: BELOW 74.

3

4 MR. HARRISON: FOR THE RECORD, THE LIST I 5 READ IS ACCURATE WITH THE EXCEPTION OF 180, 279, AND 6 411, WHICH WOULD NOT BE ENCOMPASSED WITHIN THIS MOTION. 7 MR. SHEEHY: THAT'S A REAL CLEAR NUMERICAL, 8 AND THAT IS PART OF THE RATIONALE. 9 CHAIRMAN KLEIN: LET ME ASK DUANE. WE NEED 10 TO STATE THE CONFLICTS, AND THEN WE'LL HAVE THE 11 COMMENTS. MR. ROTH: BUT I HAVE A COMMENT THAT'S 12 13 DIFFERENT THAN A SPECIFIC NUMBER HERE. 14 CHAIRMAN KLEIN: ALL RIGHT. 15 MR. ROTH: THE QUESTION TO THE MAKER OF THE 16 MOTION WOULD YOU, BASED ON WHAT YOU JUST SAID, INSTEAD 17 OF USING A CUTOFF AS A NUMERICAL NUMBER, A PERCENTAGE OF GRANTS THAT WOULD BE FUNDED AT 33.3 PERCENT, AND 18 19 THEN WE COULD DECIDE WHAT MAKES UP THAT 33.3 PERCENT AS 20 OPPOSED TO NOT CONSIDERING ANYTHING IN THIS CATEGORY 21 THAT WAS RECOMMENDED TO BE FUNDED BY THE WORKING GROUP? 22 CHAIRMAN KLEIN: DUANE, WHILE I UNDERSTAND 23 THE ELEGANCE OF THAT SUGGESTION, IN TERMS OF THE 24 CONFLICTS ISSUES, IT WOULD MAKE IT MORE DIFFICULT FOR 25 US TO ELIMINATE THE CONFLICTS FOR THE VOTE. SO IF WE

COULD VOTE THIS WAY, AND REMEMBER DR. PIZZO'S
 SUGGESTION, WHICH WAS ACCEPTED, ALLOWS US TO CONSIDER
 ANY GRANT BELOW THE 74 LEVEL TO PUT IT INTO THE HIGHER
 CATEGORY.

5 MR. SHEEHY: I WOULD NOTE THAT WE STILL 6 MIGHT, IF WE IDENTIFIED FUTURE FUNDS, THEY'RE NOT BEING 7 PUT IN TIER 3. AND I ALSO WOULD NOTE THAT THE 33.3 8 PERCENTILE REALLY IS TO ME IN SOME WAYS A QUALITY 9 STANDARD. SO IT'S NOT NECESSARILY REPRESENTING THE 10 PERCENTAGE OF GRANTS IN THIS SET I WOULD LIKE TO 11 APPROVE. IT ACTUALLY REPRESENTS THE PERCENTAGE OF 12 GRANTS THAT RECEIVED HIGH SCORES. SO IT'S MORE THE 13 METRIC OF THE SCORES THAT WERE GIVEN AT THE WORKING 14 GROUP, SO THIS IS THE TOP THIRD BASICALLY IN TERMS OF 15 NUMERICAL SCORES IS WHAT'S DRIVING THIS, NOT THE FACT 16 THAT IT'S A THIRD OF THE GRANTS.

17 CHAIRMAN KLEIN: BUT ALSO, AS RECOGNIZED, FOR 18 EXAMPLE, YESTERDAY BY YOU TAKING A GRANT AT 74 SCORE 19 AND ELEVATING IT, THERE ARE GRANTS BELOW THE LEVEL THAT 20 WE WILL INDIVIDUALLY LOOK AT AND BRING INTO THE TOP 21 SCORE BECAUSE OF JUDGMENTS MADE INDEPENDENTLY BY THIS 22 BOARD. IS THAT CORRECT?

23 MR. SHEEHY: ABSOLUTELY.

24 CHAIRMAN KLEIN: THANK YOU.

25 MR. HARRISON: COULD WE PAUSE FOR A BRIEF

MOMENT SO THAT WE CAN VERIFY POTENTIAL CONFLICTS OF
 INTEREST BEFORE THE DISCUSSION PROCEEDS ANY FURTHER?
 WE MAY NEED TO HAVE JEFF WITHDRAW HIS MOTION AS TO ONE
 OF THE APPLICATIONS. SO WE JUST WANT TO BE VERY
 CAREFUL BEFORE WE PROCEED FURTHER.

6 CHAIRMAN KLEIN: I THINK WE WILL BE AT A GOOD 7 POINT TO TAKE A FIVE-MINUTE BREAK WHILE WE MAKE CERTAIN 8 THAT WE'RE DOING THIS CORRECTLY. WE DON'T NEED FIVE 9 MINUTES. THAT'S FINE. WE'LL TRY AND GET THROUGH THIS 10 ITEM, SO WE'LL JUST PAUSE FOR A SECOND.

11 I'D LIKE TO ANNOUNCE THAT FOR THE RECORD JOAN
12 SAMUELSON IS NOW PRESENT. THANK YOU, JOAN, FOR MAKING
13 A GREAT EFFORT FOR A LONG DRIVE TO GET HERE THIS
14 MORNING WITH LOTS OF TRAFFIC AND OTHER ISSUES.

15 JUST A SECOND.

16 MR. HARRISON: WE HAVE COMPLETED OUR REVIEW 17 OF THE CONFLICTS, AND IT APPEARS THAT JEFF SHEEHY HAS A 18 CONFLICT OF INTEREST IN ONE OF THE APPLICATIONS 19 ENCOMPASSED WITHIN THIS GROUP. AND THAT IS APPLICATION 20 308. SO WHAT WE WOULD RECOMMEND IS THAT THE MOTION 21 THAT JEFF MADE BE MODIFIED TO EXCLUDE 308, AND THAT CAN 22 BE DEALT WITH BY A SEPARATE MOTION.

23 MR. SHEEHY: SO I WILL AMEND MY MOTION TO
24 OMIT -- SO BASICALLY MY MOTION IS NOT TO FUND AT THIS
25 TIME, TO MAINTAIN IN TIER 2, BUT NOT TO FUND TODAY

1 ANYTHING THAT HAS SCORED BELOW 74 EXCEPT FOR 2 APPLICATION NO. 308 WITH WHICH I HAVE A CONFLICT. AND 3 TO ALSO INCLUDE THE FRIENDLY AMENDMENT THAT THIS DOES 4 NOT PRECLUDE ANY MEMBER FROM IDENTIFYING AN APPLICATION 5 IN THIS GROUP AND MOVING IT INTO TIER 1 FOR FUNDING 6 TODAY. 7 CHAIRMAN KLEIN: AND, JEFF, THAT WOULD BE IN 8 THIS GROUP OR ANY OTHER APPLICATION; IS THAT RIGHT? 9 MR. SHEEHY: THAT'S IN TIER 2. 10 CHAIRMAN KLEIN: THANK YOU. 11 MS. KING: BOB, WE NEED TO READ THE CONFLICTS 12 NOW. 13 MR. TOCHER: WITH REGARD TO APPLICATION 153, 14 JENNINGS AND PENHOET; FOR 219, BRYANT, LANSING, AND 15 NO CONFLICTS ON 232, NOR 159. ON 308 THE STEWARD. 16 CONFLICTS ARE FEIT, KESSLER, LANSING, AND SHEEHY. 17 CHAIRMAN KLEIN: CAN YOU SPEAK A LITTLE LOUDER, SCOTT? 18 19 308 IS FEIT, KESSLER, AND --MR. TOCHER: MR. SHEEHY: NOT INCLUDED IN THE MOTION. 20 21 MR. TOCHER: 360 IS BRYANT, LANSING, AND 22 STEWARD; 221 IS LANSING; 247 IS BRYANT, LANSING, AND 23 STEWARD; AND 314 IS AZZIZ, LANSING, LEVEY, AND MEYER. 24 CHAIRMAN KLEIN: ALL RIGHT. ADDITIONAL 25 COMMENTS FROM THE BOARD? SHERRY LANSING.

1 MS. LANSING: I'M GOING TO VOTE NO ON THIS. 2 I AT LEAST WANT TO URGE ALL OF US BEFORE WE VOTE TO 3 CONSIDER WHAT WE'RE DOING. AND I UNDERSTAND VERY MUCH 4 THE TIME THAT IT TAKES, BUT I THINK THERE ARE EIGHT 5 MORE TO GO THROUGH THE WHOLE THING OR NINE. I DIDN'T 6 COUNT THEM UP. I JUST THINK THAT HAVING BEEN PART OF 7 THE GRANT REVIEW AND HAVING HAD THE PEER REVIEW 8 SCIENTISTS SAY TO US IF THERE IS ADDITIONAL MONEY, HERE 9 IS THE SECOND SECTION. AND YOU'RE TALKING ONE POINT 10 DIFFERENCE OR .5, YOU KNOW, IN TERMS OF THE TOTAL 11 FUNDED. I JUST DON'T UNDERSTAND WHY WE'RE NOT GOING 12 THROUGH THEM ONE BY ONE, DECIDING WHETHER WE WANT TO 13 FUND THEM, DECIDING WHETHER WE DON'T WANT TO FUND THEM. 14 AND THEN, I GUESS TO ANSWER PHIL'S QUESTION, IF WE SPEND TOO MUCH MONEY, THEN LET'S JUST LOOK AT THIS 15 16 SECOND GROUP AND SEE WHAT WE WOULD ELIMINATE. BUT IT'S 17 VERY INTERESTING TO ME THAT YESTERDAY THERE WERE MANY, MANY, MANY CHANGES, AND WE WERE A VERY TOUGH GROUP, AND 18 19 THAT'S GREAT. AND I JUST HAVE A FEELING THAT WE WON'T 20 SPEND TOO MUCH MONEY.

I JUST DON'T KNOW HOW WE CAN ARBITRARILY SAY,
OKAY, HERE'S A NUMBER WHEN ONE IS 74 AND THE NEXT
NUMBER 73. IF IT WAS 68, I WOULD UNDERSTAND IT. BUT
THEY'RE SO CLOSE, AND THERE'S, WHAT IS IT, NINE MORE,
AND IT JUST SEEMS AN ARBITRARY THING, AND IT DOESN'T

1 SEEM FAIR TO THE SCIENTISTS AND IT DOESN'T SEEM FAIR TO 2 THE PEER REVIEW GROUP THAT REALLY SAID THIS IS THE 3 GROUP THAT WE THINK, IF THERE'S EXTRA MONEY, YOU SHOULD 4 FUND. I THINK WE SHOULD TAKE THE TIME AND DO IT ALL. 5 CHAIRMAN KLEIN: DAVID SERRANO-SEWELL. 6 MR. SERRANO-SEWELL: I HAVEN'T DECIDED HOW 7 I'M VOTING ON THE MOTION, BUT I UNDERSTAND IT. I DON'T 8 THINK IT'S, SHERRY, ARBITRARY. I THINK WHAT I HEARD 9 JEFF SAY IS THAT THERE IS A NUMBER. IT WAS FROM HIS 10 UNDERSTANDING AND HIS PARTICIPATION AT THE GRANTS 11 WORKING GROUP, AND EVERYONE COULD SORT OF WALK OUT WITH 12 THEIR OWN CONCLUSIONS OF WHAT PEOPLE THOUGHT THEY SAID, 13 BUT THAT THIS NUMBER, THERE'S A REASONABLE EXPLANATION 14 FOR IT. IT REPRESENTS A CAP OF THE PERCENTAGE THAT 15 OUGHT TO BE FUNDED AND NOT TO BE FUNDED. IT'S VERY 16 FRUSTRATING BECAUSE, AS YOU SAY, SHERRY, THE NUMBERS 17 BETWEEN, THEY'RE SMALL, THEY'RE VERY INSIGNIFICANT, NOT INSIGNIFICANT, BUT IT'S ALWAYS GOING TO BE THAT WAY, IT 18 19 SEEMS, IN ANY SORT OF -- WHEN YOU REALLY GET DOWN TO 20 IT, THERE'S ALWAYS GOING TO BE A FINE AMOUNT, SMALL 21 AMOUNT OF POINTS THAT SEPARATE THIS ONE FROM THAT ONE. 22 SO MY MAIN COMMENT WAS TO SAY THAT I THINK 23 THAT THE MOTION DID HAVE SOME BASIS FOR IT. PEOPLE 24 VOTE YES, NO ON IT, BUT THERE IS SOME RATIONAL 25 EXPLANATION FOR IT.

MS. LANSING: BUT THERE WAS - MR. SERRANO-SEWELL: REASONABLE MINDS CAN
 DIFFER ON IT.

4 MS. LANSING: I'M NOT CRITICIZING JEFF'S 5 MOTION. I'M JUST SAYING THAT GROUP TWO HAD A NATURAL 6 CUTOFF BEFORE WE GOT TO GROUP THREE, AND IT WASN'T JUST 7 ONE POINT. THE GRAPH WAS KIND OF CLEAR. AND THERE'S A 8 REASON WHY THIS IS GROUP TWO, THERE'S A REASON WHY IT WAS GROUP ONE, AND THERE'S A REASON WHY IT WAS GROUP 9 10 THREE. AND I UNDERSTAND OUR DESIRE TO MOVE THROUGH THE PROCESS, AND I UNDERSTAND THE PERCENTAGE THAT WE CAN 11 12 FUND. I WITHDRAW THE WORD "ARBITRARY." I JUST THINK 13 IT'S TOO CLOSE, AND I THINK WE OWE IT TO OURSELVES TO 14 GO THROUGH THE ENTIRE GROUP.

DR. JENNINGS: POINT OF CLARIFICATION ON THE MOTION, WHICH IS WORDED IN TERMS OF SCORES BELOW 74. DOES THAT INCLUDE GRANTS NO. 387 AND 157 WHO ARE TIER 3, BUT HAVE SCORES OF 77? ARE THEY INCLUDED IN THE MOTION OR NOT?

20 CHAIRMAN KLEIN: NOT AS CURRENTLY WORDED.

21 DR. JENNINGS: THANK YOU.

22 CHAIRMAN KLEIN: DR. AZZIZ.

DR. AZZIZ: I JUST WANT TO SPEAK TO THE
MOTION. AND I APPRECIATE SHERRY'S CONCERNS. HERE,
HOWEVER, THERE IS A SPREAD. WE'RE TALKING ABOUT SCORES

1 OF 73 AND BELOW, WHICH IS SIGNIFICANTLY DIFFERENT THAN 2 THE 77S AND ABOVE THAT WE JUST APPROVED. THERE'S STILL 3 A GRAY ZONE, SO I'M VERY COMFORTABLE SAYING THAT THESE 4 GRANTS, WITH WHATEVER EXCEPTIONS I HAVE, SHOULD REALLY 5 NOT BE FUNDED AT THIS MOMENT IN TIME.

6 THE SECOND THING IS THAT ACTUALLY THE ENTIRE 7 BOARD HAS HAD AN OPPORTUNITY TO REVIEW THE ENTIRE 8 PORTFOLIO. WE ACTUALLY WENT THROUGH IT. WE PICKED THE 9 GRANTS THAT WE THOUGHT REALLY WE DIDN'T AGREE WITH 10 REVIEWERS. IN FACT, YESTERDAY WAS AN EXAMPLE OF HOW 11 EACH OF US IDENTIFIED THOSE GRANTS AND SAID, OKAY, THIS 12 NEEDS MOVED UP OR DOWN. SO THIS ISN'T LIKE WE HAVE NOT 13 REVIEWED THESE GRANTS, WE HAVE NOT ALREADY DECIDED 14 WHICH ONES HAVE MERIT AND NEEDED TO BE MOVED UP. WE 15 ACTUALLY WENT THROUGH THIS PROCESS BEFORE THIS MEETING 16 AND DURING THE MEETING. SO I'M VERY COMFORTABLE WITH 17 THIS. I SUPPORT IT, AND I SUPPORT IT FOR THOSE TWO 18 **REASONS**.

19 CHAIRMAN KLEIN: ALL RIGHT.

20 MS. FEIT: I DON'T AGREE WITH THE MOTION, AND 21 THE REASON IS I BROUGHT THAT UP YESTERDAY. I BROUGHT 22 IT UP LAST NIGHT. I SAID WHY DON'T WE CUT IT OFF. WE 23 LOOKED AT THE 77S, AND I SPOKE TO THE QUALITY ISSUE, 24 AND IT WAS THE MANDATE OF THE BOARD LAST NIGHT THAT WE 25 SPEND THE TIME AND REVIEW THE GRANTS. I THINK WE OWE

1 IT TO THE PROCESS TO FINISH THAT REVIEW. VERY GOOD 2 ARGUMENTS WERE MADE FOR GRANTS WITH LOWER SCORES. AND 3 WE WERE APPRECIATIVE OF THE INFORMATION THAT WE GOT AS 4 A BOARD BECAUSE WE HAD DONE THE REVIEW. SO I THINK 5 WE'RE OBLIGATED TO FINISH THE REVIEW OF TIER 2.

6 MR. ROTH: MR. CHAIRMAN, IF I COULD SPEAK TO 7 THAT TOO. THE POINT THAT WAS JUST MADE A LITTLE BIT 8 AGO IS THE ONE THAT I THINK I'M MOST TROUBLED BY. WE 9 TOOK TWO 77'S AND MOVED THEM INTO THE DO NOT FUND 10 CATEGORY. AND I THINK THAT SORT OF OBLIGATES US TO 11 LOOK AT ALL OF THEM AND MOVE THEM INTO THE DO NOT FUND 12 CATEGORY AS OPPOSED TO JUST PICKING TWO THAT WE WENT 13 IN-DEPTH ON. DO NOT FUND OR FUND.

14 CHAIRMAN KLEIN: ALL RIGHT. MEMBERS, ANY
15 MORE COMMENTS FROM THE MEMBERS? ANY COMMENTS FROM THE
16 PUBLIC? JOHN SIMPSON.

17 MR. SIMPSON: JOHN SIMPSON FROM THE 18 FOUNDATION FOR TAXPAYER AND CONSUMER RIGHTS. YOU'RE NOW INTO, I THINK, THE MOST DIFFICULT AND CHALLENGING 19 20 THING, WHICH IS WHERE YOU'RE DOWN -- WHERE THE NUMBERS 21 DON'T ACTUALLY MEAN AS MUCH AS THE SCIENTIFIC ANALYSIS 22 AND THE STRENGTHS AND THE WEAKNESSES. AND MY 23 RECOLLECTION OF THAT LAST NIGHT'S DISCUSSIONS WAS THAT 24 WAS PRECISELY WHY SOME WERE MOVED DOWN.

25 I STILL THINK YOU NEED TO HAVE A PAYLINE.

1 JUST BECAUSE YOU HAVE, AS MY MOTHER USED TO SAY, THE 2 MONEY IS IN YOUR POCKET DOESN'T MEAN YOU NEED TO SPEND 3 IT. AND I PERSONALLY WOULD SUGGEST THAT ALL OF THESE 4 SCORES FROM ABOUT 76 DOWN HAVE SUBSTANTIAL WEAKNESSES 5 AND PROBABLY OUGHT NOT BE FUNDED; HOWEVER, THE FACT 6 THAT YOU'VE MOVED TWO 77S DOWN MEANS THAT I PROBABLY 7 SHOULD SHUT UP AND LET EACH OF YOU GO THROUGH EACH ONE 8 OF THEM AS QUICKLY AND AS RAPIDLY AS POSSIBLE BECAUSE 9 YOU PROBABLY DO OWE THAT TO ALL THOSE CANDIDATES IN 10 THAT TIER. THANK YOU.

11 MR. REED: JUST NOTICING THAT TWO OF THOSE, 12 ONE IS ON MYELIN LEUKEMIA STEM CELLS, ANOTHER ONE ON 13 MICROFLUIDIC PLATFORM. THE ROMAN REED ACT HAS DONE A 14 LITTLE WORK ON THE MICROFLUIDIC PLATFORM, AND THAT 15 SEEMS TO BE AN EXTREMELY USEFUL TOOL FOR THE STEM CELL 16 RESEARCHERS TO HAVE TO WORK WITH.

AND SECONDLY, THAT LEUKEMIA IS JUST SUCH AN IMPORTANT ISSUE, I WOULD LOVE TO SEE IT BE GIVEN A FULL ARGUMENT. I WOULD GO WITH SHERRY. I THINK IT'S TREMENDOUSLY EASY FOR ME TO SIT OVER HERE AND SAY YOU GUYS SHOULD DO MORE WORK, BUT I THINK WRESTLING IT OUT IS IMPORTANT.

CHAIRMAN KLEIN: THANK YOU. ANY ADDITIONAL
PUBLIC COMMENT? WE WILL CALL THE ROLL WITH MEMBERS,
WHEN YOU ARE CALLED, PLEASE NOTE THAT YOU ARE ONLY

1 VOTING YES OR NO WITH THE EXCEPTION OF THOSE IN WHICH YOU HAVE A CONFLICT. CALL THE ROLL. 2 3 MS. KING: RICARDO AZZIZ. 4 DR. AZZIZ: YES, WITH THE EXCEPTION OF THOSE 5 THAT I HAVE A CONFLICT WITH. 6 MS. KING: PAUL JENNINGS. 7 DR. JENNINGS: YES WITH THE EXCEPTION OF THE 8 PROPOSALS I HAVE A CONFLICT IN. 9 MS. KING: ROBERT BIRGENEAU. 10 DR. BIRGENEAU: YES. 11 MS. KING: SUSAN BRYANT. MARCY FEIT. 12 MS. FEIT: NO, WITH THE EXCEPTION OF THE 13 GRANT THAT I HAVE A CONFLICT. 14 MS. KING: MICHAEL GOLDBERG. 15 MR. GOLDBERG: YES, WITH THE EXCEPTION OF 16 THOSE FOR WHICH I HAVE A CONFLICT. 17 MS. KING: FRANCIS MARKLAND. 18 DR. MARKLAND: YES. 19 MS. KING: DAVID KESSLER. 20 DR. KESSLER: NO, WITH THE EXCEPTION OF THOSE 21 I HAVE A CONFLICT. 22 MS. KING: BOB KLEIN. 23 CHAIRMAN KLEIN: NO. 24 MS. KING: SHERRY LANSING. 25 MS. LANSING: NO, WITH THE EXCEPTION OF THOSE

1 I HAVE A CONFLICT.

2 MS. KING: GERALD LEVEY. 3 DR. LEVEY: NO, WITH THE EXCEPTION OF THOSE I 4 HAVE A CONFLICT. 5 MS. KING: TED LOVE. RICHARD MURPHY. TINA 6 NOVA. ED PENHOET. 7 DR. PENHOET: NO, WITH THE EXCEPTION OF THE 8 ONE WITH WHICH I HAVE A CONFLICT. 9 MS. KING: PHIL PIZZO. 10 DR. PIZZO: YES. 11 MS. KING: CLAIRE POMEROY. 12 DR. POMEROY: YES. 13 MS. KING: FRANCISCO PRIETO. JOHN REED. 14 DUANE ROTH. 15 MR. ROTH: NO. 16 MS. KING: JOAN SAMUELSON. 17 MS. SAMUELSON: NO. 18 MS. KING: DAVID SERRANO-SEWELL. 19 MR. SERRANO-SEWELL: NO. MS. KING: JEFF SHEEHY. 20 21 MR. SHEEHY: YES. 22 MS. KING: JONATHAN SHESTACK. OSWALD 23 STEWARD. 24 DR. STEWARD: NO, WITH THE EXCEPTION OF THE 25 ONES ON WHICH I HAVE A CONFLICT.

1 MS. KING: JANET WRIGHT. 2 DR. WRIGHT: YES. 3 MS. KING: MR. SHEEHY, I ASSUME YOUR VOTE WAS 4 WITH THE EXCEPTION OF THOSE WITH WHICH YOU HAVE A 5 CONFLICT. 6 MR. SHEEHY: NO. WE ELIMINATED FROM THE 7 MOTION THE ONE WHICH I HAD A CONFLICT, IF I REMEMBER 8 CORRECTLY. 9 MR. HARRISON: WAS THE STEWARD VOTE A NO 10 VOTE? I'M SORRY I MISSED IT. 11 MS. KING: STEWARD VOTE WAS A NO. WRIGHT WAS 12 A YES. CHAIRMAN KLEIN: YOU KNOW YOU'RE IN SENSITIVE 13 14 TERRITORY WHEN THE LAWYERS ARE COUNTING THE VOTES. 15 MR. HARRISON: THE LAWYER IS RIGHT. THE NO 16 VOTES ARE TEN AND THE YES VOTES ARE YES. I'M SORRY. 17 THE NO VOTES ARE TEN, THE YES VOTES ARE NINE. THE 18 MOTION FAILS. 19 CHAIRMAN KLEIN: THANK YOU. 20 MR. SHEEHY: COULD I MAKE A MOTION THEN? 21 CHAIRMAN KLEIN: JEFF SHEEHY WOULD LIKE TO 22 MAKE A MOTION. JEFF. MR. SHEEHY: IN ORDER TO EXPEDITE THIS, 23 24 BECAUSE I'VE ALREADY LOOKED, JUST TO MAKE, 321, DO I 25 HAVE A CONFLICT? I'M FLIPPING THROUGH IT. I READ

1 THIS. I DON'T THINK I DO. I'D LIKE TO MOVE TO LEAVE 2 THIS WHERE IT IS. SO I THINK WE SHOULD JUST START AT 3 THE LIST. THE NEXT ONE UP IS 321, WHICH RECEIVED A 4 SCORE OF 76. SO I THINK WE SHOULD START OFF WITH THE 5 MOTION ON EACH ONE, WHETHER TO LEAVE IT OR MOVE IT UP. 6 AND I'M GOING TO MAKE THE MOTION. I'VE READ THROUGH 7 THIS, EVEN THOUGH I HAVE A STRONG INTEREST IN PURSUING 8 STEM CELL TECHNOLOGIES THAT PROMOTE T-CELL GENERATION, 9 THE WEAKNESSES SEEM PRETTY SIGNIFICANT TO ME. AND THEN 10 PERHAPS WE CAN MOVE ON TO A DISCUSSION, BUT I WOULD 11 LIKE TO MAKE A MOTION TO LEAVE THIS IN TIER 2 AT THIS 12 POINT.

13 CHAIRMAN KLEIN: SO THE IMPLICATION OF YOUR 14 MOTION IS THAT THE MOTION IS TO NOT PUT IT INTO THE 15 PORTFOLIO THAT WOULD GO INTO TIER 1; IS THAT CORRECT? 16 MR. SHEEHY: YES.

17 CHAIRMAN KLEIN: SO A VOTE FOR THIS MOTION 18 MEANS -- I'M JUST TRYING BEFORE WE GET THE SECOND, A 19 VOTE FOR THIS MOTION OR A SECOND TO THIS MOTION WOULD 20 MEAN THIS WOULD NOT BE PUT INTO THE AUGMENTED TIER FOR 21 FUNDING. IS THERE A SECOND?

22 DR. PIZZO: SECOND.

23 CHAIRMAN KLEIN: THERE IS A SECOND. SECOND,24 DR. PIZZO. CONFLICTS.

25 MR. TOCHER: GOLDBERG AND PIZZO HAVE

1 CONFLICTS WITH THIS. OKAY.

2 DR. LEVEY: CAN WE HAVE A CLARIFICATION ON 3 THIS? 4 CHAIRMAN KLEIN: THE MOTION HE IS ASKING IS 5 THAT THIS NOT BE PUT INTO THE NEW POOL FOR FUNDING. 6 OKAY. HE DOES NOT WANT THIS TO BE PUT INTO THE POOL 7 FOR FUNDING. OKAY. IS THERE A SECOND TO THIS MOTION? 8 DR. LEVEY: SECOND. 9 CHAIRMAN KLEIN: SECOND FROM DR. LEVEY. CAN 10 STAFF ADDRESS STRENGTHS AND WEAKNESSES? 11 DR. WRIGHT: I HAVE A QUESTION. SO DOES THAT 12 MEAN THAT THIS WOULD MOVE TO TIER 3, NOT FUNDED? 13 MR. SHEEHY: THIS WOULD REMAIN IN TIER 2. 14 DR. WRIGHT: I THINK YOU BETTER REPHRASE 15 THAT. 16 CHAIRMAN KLEIN: BY REMAINING IN TIER 2, IT 17 MEANS IT COULD BE AVAILABLE FOR FUTURE FUNDING IF A SOURCE WERE IDENTIFIED LATER. 18 19 MR. SHEEHY: SO IF I NEED TO MAKE AN 20 AMENDMENT TO THAT SPECIFIC EFFECT, I WOULD LIKE TO HAVE 21 IT REMAIN IN TIER 2 AND NOT BE MOVED INTO TIER 1 TODAY. 22 DR. HALL: THIS IS AN APPLICATION THAT 23 CONCERNS A GROUP OF LYMPHOCYTES CALLED T-CELLS, WHICH 24 ARE IMPORTANT FOR PROTECTION AGAINST INFECTION IN 25 CANCER. THESE CELLS ARE PRODUCED BY THYMIC EPITHELIAL

CELLS AND THE PRODUCTION OF T LYMPHOCYTES CALLED
 THYMOPOESIS, WHICH GOES ON IN ALL OF OUR BODIES ALL THE
 TIME, IS ABNORMAL EITHER AS A RESULT OF A GENETIC
 DEFECT OR RELATIVELY RARE DISEASE CALLED DE GEORGE
 SYNDROME. THYMIC FUNCTION ALSO DECLINES WITH AGE AND
 IS COMPROMISED BY HIV INFECTION, CHEMOTHERAPY, OR
 RADIATION THERAPY.

8 SO THE APPLICANT IS AN INVESTIGATOR WHO'S 9 HIGHLY SKILLED AND WELL-KNOWN IN THE FIELD OF 10 THYMOPOESIS AND IS INTERESTED IN INVESTIGATING THE 11 POSSIBILITY OF USING HUMAN EMBRYONIC STEM CELLS AS A 12 SOURCE OF REPLACEMENT FOR THYMIC EPITHELIAL CELLS. 13 THAT IS, TO TRY TO GENERATE FROM HUMAN EMBRYONIC STEM CELLS THYMIC EPITHELIAL CELLS THAT COULD THEN BE 14 15 TRANSPLANTED AND USED AS A SOURCE OF NEW T-CELLS: THAT 16 IS, FOR THYMOPOESIS.

17 SO THE STRENGTHS OF THE APPLICATION ARE JUDGED TO BE THE EXPERIENCE OF THE APPLICANT IN 18 19 EXPERIMENTAL THYMOPOESIS AND IN SEVERAL OF THE 20 TECHNOLOGIES THAT WILL BE USED IN THE GRANT. THE MOST 21 SERIOUS POTENTIAL PROBLEM, HOWEVER, THEY IDENTIFY AS 22 THE POSSIBLE LACK OF POSITIVE RESULTS. AND THE POINT 23 IS THAT NOT VERY MUCH IS KNOWN ABOUT THE 24 DIFFERENTIATION SIGNALS THAT ARE REQUIRED FOR THIS, AND 25 IT IS NOT CLEAR HOW THESE WILL BE TESTED.

1 NOW, THE APPLICANT PROPOSES TO TEST THE 2 FEASIBILITY OF DOING THIS BY GENERATING THESE CELLS AND 3 THEN PUTTING THEM INTO HUMAN EMBRYONIC -- CELLS DERIVED 4 FROM HUMAN EMBRYONIC STEM CELLS INTO NUDE MICE; THAT 5 IS, MICE IN WHICH THE CELLS WOULD SURVIVE. BUT THE 6 MAIN CRITICISM IS THAT THERE IS NO POSITIVE CONTROL. 7 THAT IS, THAT WHAT YOU WOULD LIKE TO DO IN THIS 8 EXPERIMENT IS TO TAKE MOUSE THYMIC EPITHELIAL CELLS 9 THAT YOU'VE DERIVED FROM MOUSE EMBRYONIC STEM CELLS AND 10 SHOW THAT WHEN YOU PUT THEM INTO MICE, THEY HAVE THE DESIRED EFFECT. THAT IS, THEY'RE CAPABLE OF GENERATING 11 12 MORE T-CELLS. THIS IS THE POSITIVE CONTROL THAT ALLOWS 13 YOU, WHEN YOU PUT IN HUMAN CELLS, TO SAY IF THEY'RE 14 COMPETENT, THIS EXPERIMENT SHOULD WORK. IF THEY'RE NOT 15 COMPETENT, IT SHOULD FAIL.

16 THE OTHER QUESTION THAT CAME UP IN THIS WAS 17 THE -- I THOUGHT I REMEMBERED THIS. BUT, YES, THE LACK OF EXPERIENCE OF THIS LABORATORY WITH HUMAN EMBRYONIC 18 19 STEM CELL CULTURE AND DIFFERENTIATION, AND THERE WAS 20 NOT A COLLABORATOR MENTIONED. AND THE DISCUSSION, 21 COMMENT WAS THE INVESTIGATOR PERHAPS UNDERAPPRECIATES 22 THE DIFFICULTY OF GETTING THIS SYSTEM STARTED WITHOUT A 23 HUMAN EMBRYONIC STEM CELL COLLABORATOR.

CHAIRMAN KLEIN: ALL RIGHT. THANK YOU FORTHE SCIENTIFIC SUMMARY OF STRENGTHS AND WEAKNESSES. IS

1 THERE ADDITIONAL COMMENT FROM THE BOARD?

2 DR. BIRGENEAU: JUST A QUESTION TO GUIDE ALL 3 OF THE DISCUSSION GOING FORWARD, INCLUDING THIS ONE, 4 WHICH I DIDN'T HEAR, HAVE NOT YET HEARD A CLEAR 5 NUMERICAL DOLLAR NUMBER OF WHERE OUR CUTOFF IS. 6 CHAIRMAN KLEIN: THE BOARD HAS APPROVED TIER 7 1 AT THIS POINT, BUT THE BOARD WILL NEED TO HAVE A 8 DISCUSSION AS TO WHETHER THEY WANT TO -- WHERE THE 9 FINAL LIMIT IS. BUT WITH EACH VOTE. WE'RE ESSENTIALLY 10 POTENTIALLY GOING TO INCREASE THE AMOUNT. THE WAY THE 11 MOTION IS STATED RIGHT NOW --12 DR. BIRGENEAU: BUT HOW MUCH? WHAT KIND OF 13 FLEXIBILITY DO WE HAVE? CHAIRMAN KLEIN: RIGHT. FROM A CASH FLOW 14 15 PERSPECTIVE, IN THE DISCUSSION LAST NIGHT, IT'S 16 PROBABLY BENEFICIAL FOR THE AUDIENCE AND THE BOARD TO 17 GO BACK THROUGH THAT SUBJECT AREA. WE HAVE IN ONE OF OUR VARIOUS OPTIONS ABOUT 20 MILLION THAT WAS SITTING 18 19 OUT IN AUGUST OR SEPTEMBER IN OUR CASH FLOW. ON A 20 REASONABLE ANALYSIS, EVEN IF WE WERE TO GET A SUPREME 21 COURT DECISION IN OCTOBER, WE COULD CONDUCT A GRANT 22 REVIEW IN JULY, AUGUST, SEPTEMBER, AND THEN BE PREPARED 23 TO AWARD IN OCTOBER BY ISSUING BONDS RIGHT WHEN THE 24 SUPREME COURT DECISION IS MADE.

25

TO PREPARE FOR THAT OPPORTUNITY, WE WENT TO

THE STATE FINANCE COMMITTEE AND HAVE ALREADY AUTHORIZED
 \$55 MILLION OF ADDITIONAL G.O. BONDS THAT ARE APPROVED
 AND READY TO GO WITH DOCUMENTATION WE'LL WORK ON
 BETWEEN NOW AND THAT TIME PERIOD.

5 SO ON A CASH FLOW BASIS, THERE'S 20 MILLION 6 THAT WE COULD POTENTIALLY TAKE AND AUGMENT FROM THAT 7 DESIGNATED POOL WITHOUT ADDRESSING ANY OF THE OTHER 8 USES BETWEEN NOW AND THAT SUPREME COURT DECISION.

9 NOW. WE DO NOT KNOW FOR CERTAIN THAT THAT 10 SUPREME COURT DECISION WILL HAPPEN IN THAT TIMEFRAME. 11 THAT'S A REASONABLE RISK ANALYSIS. WE HAVE ON A 12 HISTORICAL BASIS RESPONDED INNOVATIVELY WITH THE HELP 13 OF THE STATE TREASURER, THE STATE CONTROLLER, AND 14 CERTAINLY WITH THE BOLD AND DECISIVE MOVE OF THE STATE 15 GOVERNOR. WE OPTIONALLY, IF WE WERE SUCCESSFUL AT THE 16 COURT OF APPEALS, POTENTIALLY HAVE THE ABILITY TO ISSUE 17 BONDS WITH BOND INSURANCE OR OTHER CREDIT ENHANCEMENT 18 THAT WOULD ALLOW US A SEPARATE OPTION.

BUT AT THIS MOMENT, BASED UPON AVAILABLE FUNDS, THE BASIC PARAMETERS ARE TWO. ONE, THAT YOU LOOK TOWARDS THAT PERIOD AND THAT CASH FLOW, AND/OR YOU LOOK AT THE FACT THAT IN THE COMPREHENSIVE GRANT ROUND, IT IS AN \$80 MILLION NUMBER OVER FOUR YEARS. THE GOVERNOR VERY SPECIFICALLY, AS GUIDANCE TO US, WANTED US TO USE THE MONEY IN THE NEAR TERM PENDING A

1 DECISION. CERTAINLY IF WE FUNDED THE FIRST TWO YEARS 2 AND LOOKED TO FUTURE DOLLARS TO FUND THE NEXT TWO 3 YEARS, WHILE COMMITTING TO THE FOUR-YEAR TERM WITH A 4 CONDITION AT TWO YEARS, IF WE ARE NOT IN EXISTENCE 5 AFTER TWO YEARS, WE HAVE OTHER PROBLEMS, BUT WE HAVE 6 THE ABILITY AS WELL TO TAKE A PORTION OF THAT 40 7 MILLION OR IN THE ALTERNATIVE TAKE A PORTION OF THAT 40 8 MILLION AND USE IT TO AUGMENT THESE GRANTS.

9 SO YOU HAVE SOMETHING IN THE RANGE OF 20 TO 10 40 MILLION WITH A STRATEGIC NEED NOT TO ERODE THE REST 11 OF THE STRATEGIC PLAN. THERE'S A BALANCING HERE. THE 12 COMMENTS MADE BY THE BOARD YESTERDAY IS WHILE WE LOOK 13 FOR A STRATEGICALLY BROAD PLATFORM CAPTURING THE 14 OPPORTUNITY FOR YOUNG INVESTIGATORS AND BRILLIANT 15 PEOPLE COMING INTO THE FIELD, WE WANT A BROAD SPECTRUM 16 BECAUSE THIS IS THE PIPELINE FOR FUTURE COMPREHENSIVE 17 GRANTS WITHIN REASONABLE LIMITS THAT THIS BOARD MUST 18 DETERMINE.

SO THOSE ARE KIND OF THE PARAMETERS AND THEOPTIONS AND THE RISK ISSUES.

21 DR. BIRGENEAU: WE, THEREFORE, IN FACT, HAVE 22 SIGNIFICANT FLEXIBILITY BEYOND THIS NUMBER OF 43 23 MILLION.

CHAIRMAN KLEIN: WE HAVE SIGNIFICANTFLEXIBILITY. IF WE WANT TO TAKE THAT FLEXIBILITY, IT

1 DOES MEAN, TO THE EXTENT THAT WE GO ABOVE -- THAT IF WE 2 GO ABOVE ABOUT 20 MILLION, WE ARE SIGNIFICANTLY LOOKING 3 AT READJUSTING -- IF WE GO ABOVE 20 MILLION, WE'RE 4 SIGNIFICANTLY GOING TO DOWNSTREAM ADJUST OTHER 5 PRIORITIES AND THE WEIGHTING OF OTHER PRIORITIES. 6 DR. PENHOET: BUT THE TOTAL, BOB, IS 44 7 MILLION. THE ORIGINAL NUMBER WAS 24 MILLION. 8 CHAIRMAN KLEIN: 25. 9 DR. BIRGENEAU: IF WE GO SIGNIFICANTLY ABOVE 10 45 MILLION, WE WILL BE COMPROMISING OTHER FUTURE 11 POSSIBLE PROGRAMS? 12 CHAIRMAN KLEIN: WE COULD BE OR REDUCING 13 OTHER FLEXIBILITY IN THE FUTURE. DR. BIRGENEAU: SO THE RECOMMENDED CUTOFF IS 14 15 \$45 MILLION, YOUR BEST PERSONAL JUDGMENT? 16 CHAIRMAN KLEIN: MY BEST PERSONAL JUDGMENT. 17 DR. BIRGENEAU: YOUR BEST PERSONAL JUDGMENT IS THAT \$45 MILLION IS A SENSIBLE CUTOFF? 18 19 CHAIRMAN KLEIN: AS A PERSONAL GOAL, I STATED 20 YESTERDAY THAT WE HAD 52 MILLION IN CAPITALIZED 21 INTEREST OVER THE NEXT THREE YEARS, AND MANAGING THE 22 INVESTMENT INCOME AND THE INTEREST EXPENSE, I WOULD 23 LIKE TO GET THAT NUMBER DOWN BY 20 MILLION. I DON'T 24 KNOW HOW MUCH I CAN ACHIEVE IN THAT GOAL, BUT TO THE 25 EXTENT I CAN ACHIEVE IT, IT WOULD NOT OTHERWISE MODIFY

OUR BUDGET. THE ANSWER IS YES. MY RECOMMENDATION IS
 45, IN THAT RANGE. TOO MUCH INFORMATION. ANY OTHER
 QUESTIONS?

4 MS. SAMUELSON: I HAVE A QUESTION. SO WHEN 5 YOU SAID TWO YEARS OF COMPREHENSIVE GRANT FUNDING, IS 6 THAT TWO YEARS OUT FROM NOW?

CHAIRMAN KLEIN: TWO YEARS OUT FROM NOW.
MS. SAMUELSON: WHY ARE YOU SAYING TWO YEARS
WHEN THE GOVERNOR WANTS IT SPENT NEAR TERM? COULDN'T
THAT BE JUST THE FIRST YEAR OF FUNDING ON THE
COMPREHENSIVES, WHICH WOULD FREE UP SOME MORE?
CHAIRMAN KLEIN: WELL, THE TWO YEARS OF
FUNDING GIVES PEOPLE AND INSTITUTIONS A MINIMUM KIND OF

14 PREDICTABLE HORIZON FOR FUNDING, STABILITY OF 15 PREDICTABLE FUNDING FOR TWO YEARS OUT. SO IF WE NEED 16 TO INNOVATE IN SOME WAY TO DEAL WITH THE FUNDING BEYOND 17 THAT FOR SOME COMPLETELY UNEXPECTED ISSUES, WE HAVE 18 TIME.

MS. SAMUELSON: WOULDN'T THE GRANT AWARD BE
FOR THE FOUR YEARS, BUT WE JUST NEED CASH FLOW FOR ONE?
I GUESS I'M NOT UNDERSTANDING WHY THE COMMITMENT TO THE
GRANTEE NEEDS TO HAVE THE CASH, THE FUNDS AVAILABLE FOR
TWO FULL YEARS.

CHAIRMAN KLEIN: WELL, I THINK THIS IS GOINGTO BE DEBATED WHEN WE GET TO THE COMPREHENSIVE ROUND,

AND CERTAINLY THERE'S A NUMBER OF OPTIONS THAT THE
 BOARD CAN CONSIDER WITH YOUR RECOMMENDATION FROM THE
 GRANTS WORKING GROUP.

4 MS. SAMUELSON: THANKS.

5 CHAIRMAN KLEIN: DR. POMEROY.

6 DR. POMEROY: I WOULD LIKE TO SPEAK TO THE 7 MOTION. AND I WOULD LIKE TO SPEAK AGAINST THE MOTION 8 BECAUSE I THINK THAT THIS PARTICULAR GRANT SHOULD BE 9 MOVED UP TO THE TIER 1 FUNDING. I THINK THE IMPORTANCE 10 OF UNDERSTANDING THE FUNDAMENTAL BIOLOGY OF HOW T-CELLS 11 ARE GENERATED IS VERY IMPORTANT. THIS GRANT SEEMS TO 12 BE TAKING SOMEONE WHO HAS EXPERIENCE WITH A LOT OF THE 13 NECESSARY TECHNIQUES IN A DIFFERENT SYSTEM; AND WHILE 14 THERE IS CONCERN ABOUT THE LACK OF HUMAN EMBRYONIC STEM 15 CELL FAMILIARITY, THAT'S WHAT A SEED GRANT IS IS TO 16 ATTRACT SKILLED PEOPLE INTO THIS FIELD.

SO THE IMPORTANCE OF T-CELLS AND TREATING
HIV, AND I SAY THIS AS AN HIV DOC, AND OTHER
IMMUNODEFICIENCIES ATTRACT ME TO THIS GRANT, SO I WOULD
BE IN FAVOR OF FUNDING THIS ONE.

21 MR. SHEEHY: IF I COULD RESPOND TO THAT. 22 WITH THAT PRESENTATION, I'D LIKE TO WITHDRAW MY MOTION 23 AND MAKE A NEW MOTION TO FUND IF I CAN GET THE SECOND 24 FROM THE -- AND IT'S PROCEDURALLY A LITTLE BIT BETTER 25 BECAUSE THAT WAY, WE ONLY ONE HAVE VOTE INSTEAD OF TWO.

1 THAT'S THE OTHER REASON.

2 DR. POMEROY: I'LL SECOND THE NEW MOTION. 3 CHAIRMAN KLEIN: IS THE PRIOR SECOND WILLING 4 TO THEN WITHDRAW THEIR POSITION? 5 DR. LEVEY: YES, I WITHDRAW. 6 CHAIRMAN KLEIN: YES. ALL RIGHT. SO WE HAVE 7 A NEW MOTION. WE HAVE A SCIENTIFIC PRESENTATION. WE 8 HAVE DISCUSSION FROM THE BOARD. IS THERE MORE BOARD 9 DISCUSSION? IS THERE AUDIENCE DISCUSSION? WE HAVE 10 HEARD THE CONFLICTS. WE WILL HAVE A ROLL CALL VOTE. 11 PLEASE STATE WHEN YOU ARE VOTING THAT YOU ARE VOTING 12 EXCEPT FOR THOSE. 13 MS. KING: IT'S JUST ONE, AND I WILL NOT CALL THOSE THAT HAVE A CONFLICT WITH IT. 14 15 RICARDO AZZIZ. 16 DR. AZZIZ: YES. 17 MS. KING: PAUL JENNINGS. DR. JENNINGS: YES. 18 19 MS. KING: ROBERT BIRGENEAU. SUSAN BRYANT. 20 MARCY FEIT. 21 MS. FEIT: YES. 22 MS. KING: MICHAEL FRIEDMAN. FRANCIS 23 MARKLAND. 24 DR. MARKLAND: YES. 25 MS. KING: DAVID KESSLER.

1		DR.	KESSLER: YES.
2		MS.	KING: BOB KLEIN.
3		CHAI	IRMAN KLEIN: YES.
4		MS.	KING: SHERRY LANSING.
5		MS.	LANSING: YES.
6		MS.	KING: GERALD LEVEY.
7		DR.	LEVEY: YES.
8		MS.	KING: TED LOVE. RICHARD MURPHY. TINA
9	NOVA. ED	PENH	HOET.
10		DR.	PENHOET: YES.
11		MS.	KING: CLAIRE POMEROY.
12		DR.	POMEROY: YES.
13		MS.	KING: FRANCISCO PRIETO. JOHN REED.
14	DUANE ROTI	н.	
15		MR.	ROTH: YES.
16		MS.	KING: JOAN SAMUELSON.
17		MS.	SAMUELSON: YES.
18		MS.	KING: DAVID SERRANO-SEWELL.
19		MR.	SERRANO-SEWELL: YES.
20		MS.	KING: JEFF SHEEHY.
21		MR.	SHEEHY: YES.
22		MS.	KING: JONATHAN SHESTACK. OSWALD
23	STEWARD.		
24		DR.	STEWARD: YES.
25		MS.	KING: JANET WRIGHT.

1 DR. WRIGHT: YES. 2 CHAIRMAN KLEIN: WE NEED DR. BIRGENEAU. 3 MR. HARRISON: YES. IF WE CAN LEAVE THIS OPEN SINCE HE'S LEFT THE ROOM. 4 5 MS. KING: WE ACTUALLY HAVE A QUORUM WITHOUT 6 HIM ANYWAY. 7 MR. HARRISON: JOAN SAMUELSON HAS JOINED, SO 8 WE HAVE A QUORUM WITHOUT DR. BIRGENEAU. SO FOR THE 9 RECORD, THE MOTION PASSES. 10 CHAIRMAN KLEIN: THANK YOU. WE ARE NOW AT 11 ITEM 311; IS THAT CORRECT? 12 DR. PENHOET: MAKE A MOTION TO APPROVE 311 13 FOR FUNDING. 14 CHAIRMAN KLEIN: IS THERE A SECOND? 15 DR. AZZIZ: SECOND. 16 MR. TOCHER: SHERRY LANSING HAS THE CONFLICT. 17 CHAIRMAN KLEIN: SHERRY LANSING HAS A CONFLICT. THANK YOU. COULD WE HAVE A SCIENTIFIC 18 19 SUMMARY, PLEASE? 20 DR. HALL: AS YOU ALL KNOW, STEM CELLS ARE 21 GENERALLY GROWN ON FEEDER LAYERS; THAT IS, OTHER CELLS 22 THAT PRESUMABLY PROVIDE NUTRIENTS FOR THEIR SURVIVAL 23 AND SELF-RENEWAL. ONE OF THE AIMS OF MODERN RESEARCH 24 ON HUMAN EMBRYONIC STEM CELLS IS TO LEARN HOW TO GROW 25 THEM IN A DEFINED MEDIUM, PREFERABLY A CHEMICALLY

DEFINED MEDIUM; THAT IS, WITHOUT OTHER CELL TYPES OR
 WITHOUT AGENTS WHOSE CHEMICAL COMPOSITION IS NOT
 EXACTLY KNOWN. AND THIS IS AN IMPORTANT STEP ON THE
 WAY TO USING THESE CELLS FOR THERAPY.

5 THE PROPOSAL HERE IS TO LOOK FOR SMALL 6 MOLECULES THAT WILL ENHANCE THE SURVIVAL AND 7 SELF-RENEWAL OF HUMAN EMBRYONIC STEM CELLS. AND THE 8 PROPOSAL IS BASED ON THE SUCCESS OF THIS GROUP IN 9 SCREENING WHAT'S CALLED A LIBRARY, THAT IS, A 10 COLLECTION OF CHEMICAL COMPOUNDS, TO SEE IF COMPOUNDS 11 CAN BE IDENTIFIED THAT WILL PROMOTE STEM CELL SURVIVAL 12 AND SELF-RENEWAL IN THE ABSENCE OF FEEDER LAYERS.

13 THIS GROUP WAS SUCCESSFUL IDENTIFYING SUCH A MOLECULE FOR MOUSE EMBRYONIC STEM CELLS. SO THEY NOW 14 15 PROPOSE TO LOOK FOR THE ABILITY OF THIS MOLECULE AND RELATED MOLECULES TO SUPPORT THE GROWTH AND RENEWAL. 16 17 SELF-RENEWAL OF HUMAN EMBRYONIC STEM CELLS. AND THEY 18 WILL PROCEED IN THE WAY THEY DID BEFORE; THAT IS, BY 19 SCREENING A SUBSTANTIAL NUMBER OF COMPOUNDS IN ORDER TO 20 TEST FOR THIS.

SO THIS IS REGARDED AS AN INNOVATIVE AND
IMPORTANT PROPOSAL. THE STRENGTHS ARE A YOUNG AND
TALENTED GROUP THAT WILL DO THESE EXPERIMENTS IN AN
ENVIRONMENT THAT HAS ACTUALLY RESOURCES, INCLUDING A
LIBRARY OF COMPOUNDS AND GOOD EXPERIENCE MOSTLY WORKING

WITH MOUSE EMBRYONIC STEM CELLS. AND THE COMMENT WAS
 MADE, WHICH I THINK IS AN IMPORTANT ONE, THE FACT THAT
 THE FIRST COMPOUND THAT THIS GROUP ASSAYED HAD ACTIVITY
 HAS PROVIDED THE GROUP WITH THE OPTIMISM REQUIRED FOR
 THIS TYPE OF RESEARCH.

6 NOW, THE WEAKNESSES WERE AS FOLLOWS. AND ONE 7 OF THEM IS THAT THE LIBRARY OF COMPOUNDS IS 50, WHICH 8 MAY BE UPGRADED TO 200. AND WHILE THIS IS A REASONABLE 9 NUMBER FOR AN ACADEMIC LAB, IN FACT, IN THE PRIVATE 10 SECTOR AND IN SOME ACADEMIC LABS, AMONG THEM SOME THAT 11 WE WILL LIKELY BE FUNDING, HAVE THE CAPABILITY OF 12 SCREENING LITERALLY TENS OF THOUSANDS OF COMPOUNDS OR 13 HUNDREDS OF THOUSANDS OF COMPOUNDS. SO ONE OF THE WEAKNESSES IS THAT THE LIBRARY IS RELATIVELY SMALL 14 15 COMPARED TO WHAT ONE SEES IN INDUSTRIAL SETTINGS OR IN 16 HIGH-THROUGHPUT ACADEMIC SETTINGS. THEY SAY LUCK WILL 17 BE A CRUCIAL AND UNRELIABLE VARIABLE.

18 NOW, ONE OF THE POINTS ALSO THEY POINT OUT IS 19 THAT THE CHEMICAL SCREEN, ONE OF THE ADVANTAGES OF 20 DOING THIS IS THAT YOU CAN USE THE ACTIVE COMPOUNDS AS 21 PROBES TO IDENTIFY SIGNALING PATHWAYS THAT ARE 22 RESPONSIBLE FOR SELF-RENEWAL AND MAINTENANCE, BUT THE 23 APPLICANTS DON'T ACTUALLY TALK ABOUT THE POSSIBILITY OF 24 DOING THIS. THEY STOP SHORT OF GOING THIS EXTRA MILE. 25 SO THEY SAY THAT THE SIZE OF THE LIBRARY IS

1 RELATIVELY SMALL, THE DEGREE OF INNOVATION IN TERMS OF 2 DOING THE SCREEN IS NOT HIGH. THE INITIAL SUCCESS OF 3 THE APPROACH, THE CAREFUL APPROACH, AND THE REVIEWERS LIKED THE FACT THAT, CONTRARY TO MOST SCREENS, THEY 4 5 PLAN -- THE SMALL SIZE OF THE LIBRARY GAVE THEM THE 6 ADVANTAGE THAT THEY CAN TEST MULTIPLE CONCENTRATIONS OF 7 A COMPOUND. USUALLY YOU JUST TEST A SINGLE 8 CONCENTRATION; AND IF YOU GOT THE WRONG ONE, YOU MAY 9 NOT GET IT. AND THE QUALITY OF THE YOUNG, DEDICATED 10 RESEARCHERS WITH EXPERIENCE IN COMPOUND IDENTIFICATION, 11 ALL THESE FACTORS RAISE THE ENTHUSIASM OF THE REVIEWERS 12 FOR THIS PROPOSAL.

13 CHAIRMAN KLEIN: THANK YOU VERY MUCH.14 ADDITIONAL BOARD COMMENTS?

15 DR. PENHOET: I MADE THE MOTION TO APPROVE, BUT I'M GOING TO ARGUE THAT I'M GOING TO VOTE NO ON 16 17 THIS PROPOSAL. I THINK THAT PROBABILITY OF SUCCESS, IN MY VIEW, IS VERY LOW FOR THIS KIND OF RANDOM SCREENING 18 19 BASED ON SUCH A SMALL NUMBER OF MOLECULES. I DON'T 20 THINK THEY HAVE A REALLY GOOD ASSAY, WHICH IS CRITICAL 21 FOR DIFFERENTIATION, FOR EXAMPLE. SO THE FIRST STEP IN 22 ANY UNDERTAKING LIKE THIS IS THAT YOU HAVE A VERY A POWERFUL ASSAY. 23

AND THE SECOND PROBLEM IS, EVEN IF THEY GET TO 200 COMPOUNDS, THAT'S A VERY SMALL NUMBER OF

1 CHEMICALS, JUST HOPING THAT SOME OF THEM ARE GOING TO 2 AFFECT HUMAN EMBRYONIC STEM CELLS. THE LIKELIHOOD THAT 3 THAT'S THE CASE, AND THEY DO CLAIM THEY SAW SOMETHING 4 OF A HIT IN THEIR FIRST COMPOUND, IT WOULD BE NICE IF 5 THERE WERE MORE DATA ON EXACTLY WHAT THEY SAW. THEY 6 SAID THEY SAW INCREASED CELL NUMBERS, I GUESS. MANY 7 THINGS MIGHT BE ABLE TO DO THAT.

8 SO I THINK THE PROBABILITY TO ACTUALLY TO
9 LEARN ANYTHING FROM THIS IS QUITE SMALL.

10 DR. HALL: LET ME JUST SAY I THINK THE 11 SUCCESS WITH MOUSE EMBRYONIC STEM CELLS WAS QUITE 12 CLEAR, BUT FOR HUMANS IT'S NOT ESTABLISHED. I THINK 13 THE SUCCESS OF THAT ONE COMPOUND, IF I'M NOT MISTAKEN, 14 IS CLEAR.

15 CHAIRMAN KLEIN: ADDITIONAL BOARD COMMENTS? 16 DR. LEVEY: I WOULD AGREE WITH THE COMMENTS 17 THAT ED MADE. THE CHANCES OF THIS BEING SUCCESSFUL IS SMALL. AND I WOULD THINK THAT IF WE'RE AT THE POSITION 18 19 NOW WHERE WE'RE ON THE EDGE OF WHAT GETS FUNDED AND 20 WHAT DOESN'T, WE COULD APPROVE IT, BUT I THINK THIS IS 21 ONE THAT DESERVES IF FUNDING AVAILABLE BECAUSE IT DOES 22 HAVE A SMALL LIKELIHOOD OF SUCCESS.

DR. AZZIZ: I WOULD LIKE TO SPEAK TO THE
MOTION. I HAVE TO AGREE WITH DR. PENHOET AND DR.
LEVEY, BUT ONE OF THE THINGS THAT IS TANTALIZING FOR ME

1 ABOUT THIS PROPOSAL IS THAT IT DOES WORK IN AN ACADEMIC 2 SETTING. WE DO NEED TO GET MORE OF THE ACADEMIC 3 COMMUNITY INVOLVED IN THIS PROCESS. PART OF THE 4 CRITIQUE AND CRITICISM, OF COURSE, IS THE LIMITED 5 NUMBER OF SUBSTANCES BEING TESTED. AGAIN, IT DOES 6 PROVIDE SEED MONIES FOR THE DEVELOPMENT OF THESE IDEAS 7 IN AN ACADEMIC SETTING WHEREBY YOU WILL INCREASE THE 8 PARTNERSHIP IN THE DEVELOPMENT OF THE YOUNG 9 INVESTIGATORS.

10 SO ACTUALLY, AGAIN, AS I SECONDED THE MOTION, 11 I STILL STAND BY APPROVING THE MOTION.

12 DR. PIZZO: IF I CAN FOLLOW UP TO THAT. I 13 AGREE WITH THE COMMENTS THAT YOU'VE MADE, BUT I THINK 14 THAT THE COMMENTS THAT ED MADE ARE ALSO RELEVANT. THE 15 NUMBER OF SMALL MOLECULES BEING SCREENED HERE COMPARED 16 TO OTHER SMALL MOLECULE SCREENING EFFORTS IN ACADEMIC 17 PROGRAMS IS REALLY PRETTY MODEST; WHEREAS, THE 18 PRINCIPAL IS RIGHT, THIS PARTICULAR APPLICATION MAY NOT 19 BE AS WELL JUSTIFIED.

20 CHAIRMAN KLEIN: THANK YOU, DR. PIZZO.
21 ADDITIONAL COMMENTS BY THE BOARD? COMMENTS BY THE
22 PUBLIC? CONFLICTS.

23 MS. KING: SHERRY LANSING.

CHAIRMAN KLEIN: ALL RIGHT. IF WE COULD HAVEA ROLL CALL VOTE.

1 DR. PENHOET: MOTION WAS TO APPROVE THIS 2 GRANT FOR FUNDING. MR. HARRISON: IT'S APPLICATION NO. 311. 3 4 CHAIRMAN KLEIN: THAT'S RIGHT. 5 MS. KING: RICARDO AZZIZ. 6 DR. AZZIZ: YES. 7 MS. KING: PAUL JENNINGS. 8 DR. JENNINGS: NO. 9 MS. KING: ROBERT BIRGENEAU. 10 DR. BIRGENEAU: NO. 11 MS. KING: SUSAN BRYANT. MARCY FEIT. 12 MS. FEIT: NO. 13 MS. KING: MICHAEL FRIEDMAN. MICHAEL 14 GOLDBERG. 15 MR. GOLDBERG: NO. 16 MS. KING: FRANCIS MARKLAND. 17 DR. MARKLAND: NO. 18 MS. KING: DAVID KESSLER. 19 DR. KESSLER: YES. 20 MS. KING: BOB KLEIN. 21 CHAIRMAN KLEIN: NO. 22 MS. KING: GERALD LEVEY. DR. LEVEY: NO. 23 24 MS. KING: TED LOVE. RICHARD MURPHY. TINA 25 NOVA. ED PENHOET.

1 DR. PENHOET: NO. MS. KING: PHIL PIZZO. 2 3 DR. PIZZO: NO. 4 MS. KING: CLAIRE POMEROY. 5 DR. POMEROY: YES. 6 MS. KING: FRANCISCO PRIETO. JOHN REED. 7 DUANE ROTH. 8 MR. ROTH: YES. 9 MS. KING: JOAN SAMUELSON. 10 MS. SAMUELSON: YES. 11 MS. KING: DAVID SERRANO-SEWELL. 12 MR. SERRANO-SEWELL: YES. 13 MS. KING: JEFF SHEEHY. 14 MR. SHEEHY: NO. 15 MS. KING: JONATHAN SHESTACK. OSWALD 16 STEWARD. 17 DR. STEWARD: NO. 18 MS. KING: JANET WRIGHT. 19 DR. WRIGHT: YES. 20 MR. HARRISON: THE MOTION FAILS, 11 NOES, 21 SEVEN YESES. 22 CHAIRMAN KLEIN: ALL RIGHT. WE WILL MOVE ON 23 TO ITEM 464; IS THAT CORRECT? 24 DR. POMEROY: CAN I JUST CLARIFY? THAT MEANS 25 IT STAYS AT TWO, RIGHT?

1 CHAIRMAN KLEIN: IT STAYS IN TWO, YES. 2 ITEM 464. IS THERE A MEMBER THAT WISHES TO 3 MAKE A MOTION TO MOVE THIS ITEM, OR WOULD THE BOARD 4 LIKE TO PASS ON THIS ITEM? WHAT IS THE PLEASURE OF THE 5 BOARD? 6 MR. SHEEHY: I WILL MOVE TO MOVE THIS INTO 7 FUNDING, THOUGH I WILL STATE THAT I'M NOT SURE WHAT MY 8 ACTUAL VOTE WILL BE AT THIS POINT. I'M NOT IN 9 CONFLICT. AM I? 10 MR. TOCHER: THE CONFLICTS WITH APPLICATION 11 464 ARE LANSING AND POMEROY. 12 DR. WRIGHT: I'LL SECOND THAT MOTION. 13 CHAIRMAN KLEIN: YES. DR. WRIGHT. MOTION IS 14 OPEN FOR CONSIDERATION. COULD WE HAVE A SCIENTIFIC 15 SUMMARY? 16 DR. CHIU: THIS IS AN APPLICATION FROM A VERY SEASONED INVESTIGATOR THAT'S NEW TO THE FIELD OF STEM 17 CELL RESEARCH. THE INVESTIGATOR PROPOSES TO INDUCE 18 19 HUMAN EMBRYONIC STEM CELLS TO DIFFERENTIATE TO 20 ARTICULAR CARTILAGE, WHICH IS A RATHER CUTTING EDGE 21 AREA WHERE NOT A LOT OF WORK IS BEING DONE. 22 THE STRENGTHS IS -- THE MAJOR STRENGTH IS THE 23 GROUP. THE PI IN PARTICULAR IS CONSIDERED ONE OF THE 24 PIONEERS IN THE FIELD AND ONE OF THE FIRST PEOPLE TO 25 DESCRIBE BONE FORMATION, ECTOPIC BONE FORMATION, AND

1 PROTEINS AND MOLECULES THAT REGULATE BONE FORMATION.

2 SO THAT BACKGROUND IS VERY APPROPRIATE.

AND THE OTHER THING THAT HAS GENERATED SOME
ENTHUSIASM IS THAT ONLY RECENTLY HAVE THERE BEEN ANY
PUBLICATIONS IN THIS AREA OF INDUCING HUMAN EMBRYONIC
STEM CELLS TO A CARTILAGE PHENOTYPE.

THE PROPOSAL IS TO TEST ALL KINDS OF
DIFFERENTIATION MOLECULE OR MORPHOGENS IN THE CONTEXT
AND ALSO APPLYING MECHANICAL STRESS-INDUCING
DIFFERENTIATION TO THIS PHENOTYPE BECAUSE THAT'S WHAT'S
NORMALLY HAPPENING DURING DEVELOPMENT.

12 THE WEAKNESSES ARE THAT IT'S POSSIBLE TO USE 13 REGULAR MESENCHYMAL STEM CELLS TO DO THIS, AND SO GOING 14 TO HUMAN EMBRYONIC STEM CELLS IS A RATHER ROUNDABOUT 15 WAY OF DOING IT AND MIGHT INCUR TERATOMA FORMATION IN 16 THE PROCESS.

17 IT IS ALSO ANOTHER WEAKNESS AND WAS ACKNOWLEDGED BY THE APPLICANT THAT THIS MAY BE HARD TO 18 19 DO AND TO INTERPRET DUE TO IMPURITIES OF THE 20 TO-BE-TESTED CELL POPULATIONS GENERATED. THE PI IS NOT 21 AN EXPERT IN HUMAN EMBRYONIC STEM CELL RESEARCH, AND IT 22 WAS NOTED THAT THE WORK IS NOT HIGH RISK AND LIKELY TO 23 BE INFORMATIVE DESPITE THE FACT THAT THE PI HAS NO 24 EXPERIENCE WITH HUMAN EMBRYONIC STEM CELLS. 25 AND ONE OTHER WEAKNESS IS THAT MOST OF THE

WORK WILL BE DONE BY A POSTDOCTORAL FELLOW THAT IS TO
 BE NAMED, AND THAT'S THE GIST OF IT.

3 MR. SERRANO-SEWELL: DR. CHIU, IN THE 4 DISCUSSION PORTION OF WHAT I HAVE, THERE'S PART OF THE 5 FIRST SENTENCE THAT READS, AND I JUST DON'T KNOW WHAT 6 THIS MEANS, THERE IS A, QUOTE, NEED-TO ELEMENT IN THE 7 PROPOSAL. WHAT IS THAT?

8 DR. CHIU: RIGHT. ONE OF THE REVIEWERS NOTED 9 THAT BECAUSE THERE HAS BEEN CURRENT WORK DONE ON IT, 10 AND BECAUSE THIS INDIVIDUAL IS KNOWN IN THE CARTILAGE 11 FIELD, THAT IT HAS THAT "ME TOO, I'LL ALSO GET INTO THE 12 FIELD BECAUSE IT'S AN AREA I KNOW SOMETHING ABOUT USING 13 A NEW CELL TYPE."

14 CHAIRMAN KLEIN: ADDITIONAL QUESTIONS OF THE 15 BOARD?

16 DR. PIZZO: JUST A COMMENT ON THE CRITICISM. 17 YOU KNOW, I WELL RECALL DURING THE EARLY PHASES OF HIV WORK, THERE WAS A LOT OF PURPOSEFUL GOALS OF TRYING TO 18 19 GET PEOPLE TO MOVE INTO THE FIELD. IN THE EARLY DAYS 20 OF HIV RESEARCH, THERE WAS A VERY PURPOSEFUL EFFORT BY A NUMBER OF ORGANIZATIONS TO MOVE INVESTIGATORS INTO 21 22 THE FIELD WHO WERE INVOLVED IN MANY OTHER AREAS. I 23 THINK THAT'S ONE OF THE OBJECTIVES OF THE SEED GRANTS. 24 AND SO I WOULD JUST CAUTION THE CRITICISM, THAT THIS 25 PERSON HAS ASSAYS OR HAS AN APPROACH, AND THEY'RE

1 FINDING A NEW APPLICATION BECAUSE THERE'S AN

2 OPPORTUNITY FOR FUNDING AS NOT AS NEGATIVE AS IT MIGHT 3 SEEM BECAUSE I THINK IF WE CAN BRING NEW INVESTIGATORS 4 INTO THE FIELD, THAT'S ACTUALLY A GOOD THING TO DO, AND 5 WE CERTAINLY LEARNED THAT IN THE HIV ERA.

DR. CHIU: THAT'S WHY I POINTED OUT THIS IS ANEW-TO-THE-FIELD INVESTIGATOR.

8 MR. ROTH: ABSOLUTELY THAT WAS THE POINT I 9 WANTED TO MAKE. I THINK IT'S IMPORTANT THAT WE GET 10 EXPERIENCED INVESTIGATORS STARTED IN THE STEM CELL 11 AREA, AND THIS IS THE PERFECT EXAMPLE OF WHAT SEED 12 GRANTS ARE ABOUT.

MS. SAMUELSON: I WAS HAVING THE SAME
THOUGHT. IT SEEMED TO ME PERHAPS IN THE FUTURE WE
MIGHT WANT TO CHANGE THE LABELS WE USE IN SOME CASES TO
NOT WORDS LIKE WEAKNESS FOR THAT SORT OF LIMITATION AS
CONTRASTED WITH ANOTHER.

18 CHAIRMAN KLEIN: DR. PIZZO, IF YOU COULD ALSO19 SPEAK IN THE MIC, PLEASE.

20 DR. PIZZO: IT'S TO AFFIRM JOAN'S COMMENT. I 21 DON'T THINK OF IT AS A WEAKNESS. I THINK OF IT AS AN 22 OPPORTUNITY.

23 CHAIRMAN KLEIN: THANK YOU. THAT'S THE24 SPIRIT OF THIS BOARD.

25 DR. BIRGENEAU: BUT AT THE SAME TIME, IN

BRINGING NEW PEOPLE IN, ONE WOULD LIKE TO SEE IN THE
 PROPOSAL SOME SPARK OF CREATIVITY, AND I DON'T HAVE
 THAT SENSE HERE.
 DR. PIZZO: BUT IT'S A SMOLDERING EMBER THAT

4 DR. PIZZO: BUT IT'S A SMOLDERING EMBER THAT 5 MAY BECOME A SPARK LATER.

6 CHAIRMAN KLEIN: ALL RIGHT. ADDITIONAL BOARD7 COMMENT?

8 DR. WRIGHT: JUST ONE IN THE SENSE THAT THIS 9 MAY REPRESENT FROM A PROGRAMMATIC STANDPOINT AN AREA 10 THAT HASN'T BEEN COVERED IN THE GRANTS SO FAR.

11 DR. BIRGENEAU: IS THAT TRUE? THIS WOULD BE 12 THE ONLY SEED GRANT FUNDED THAT WOULD DEAL WITH THE 13 CARTILAGE ISSUE?

14 DR. CHIU: WE'RE CHECKING.

15 CHAIRMAN KLEIN: I THINK THAT THIS IS -- I16 THINK DR. WRIGHT IS CORRECT.

DR. CHIU: THAT IS CORRECT. AT THIS POINT IN
TIME; IS THAT CORRECT? THAT IS CORRECT. THIS WOULD BE
THE ONLY ONE ON CHONDROCYTE DIFFERENTIATION.

20 CHAIRMAN KLEIN: ALL RIGHT.

DR. PIZZO: JUST AS WE SAID YESTERDAY, WE DON'T WANT TO FILL OUR PORTFOLIO JUST SO THAT WE HAVE ALL THE BOXES AND PIGEONHOLES, SO I DON'T THINK WE SHOULD USE THAT AS A -- I DON'T THINK WE ARE, BUT WE SHOULDN'T USE THAT AS A CRITERIA, JUST LIKE WE WOULDN'T

1 USE EVERY DISEASE AS A CRITERIA TO MAKE SURE WE'RE 2 FILLED OUT. IT SHOULD BE BASED ON THE BEST QUALITY. 3 DR. JENNINGS: WHAT ABOUT THE ALLEGED 4 WEAKNESS THAT THE MORE SPECIALIZED STEM CELLS ARE MORE 5 APPROPRIATE FOR GROWING CARTILAGE, AND THOSE 6 SPECIALIZED STEM CELLS PRESUMABLY ARE DERIVED FROM THE 7 BASIC STEM CELLS? IS THAT A SIGNIFICANT TECHNICAL 8 WEAKNESS? 9

9 CHAIRMAN KLEIN: ALL RIGHT. AND, DR. PIZZO, 10 THERE WAS DISCUSSION, AT LEAST AT THE WORKING GROUP 11 LEVEL, THAT THERE MAY BE SOME UNDERFUNDED AREAS 12 NATIONALLY LIKE SCNT WHERE WE MIGHT WANT TO MAKE 13 PARTICULAR IMPORTANCE ON A PORTFOLIO BASIS.

14 DR. PIZZO: CERTAINLY I UNDERSTAND THAT AND 15 ACCEPT THAT. AND NOTHING THAT I'M SAYING IS AGAINST A 16 TARGETED OPPORTUNITY OF RESEARCH. WHAT I'M SPEAKING 17 ABOUT IS NOT FEELING AS A GROUP THAT WE HAVE TO FILL 18 EVERY AREA JUST BECAUSE THERE'S A PERCEIVED LACK.

CHAIRMAN KLEIN: I UNDERSTAND. ADDITIONAL
 MEMBERS OF THE BOARD COMMENTS? SEEING NONE. MEMBERS
 OF THE PUBLIC? NO MEMBERS OF THE PUBLIC. CAN WE STATE
 THE CONFLICTS AND HAVE THE ROLL CALL.

MS. KING: CONFLICTS ARE SHERRY LANSING ANDCLAIRE POMEROY.

25 RICARDO AZZIZ.

1		DR.	AZZIZ:	YES.
2		MS.	KING:	PAUL JENNINGS.
3		DR.	JENNING	S: NO.
4		MS.	KING:	ROBERT BIRGENEAU.
5		DR.	BIRGENE	AU: NO.
6		MS.	KING:	SUSAN BRYANT. MARCY FEIT.
7		MS.	FEIT:	YES.
8		MS.	KING:	MICHAEL FRIEDMAN. MICHAEL
9	GOLDBERG.			
10		MR.	GOLDBER	G: NO.
11		MS.	KING:	FRANCIS MARKLAND.
12		DR.	MARKLAN	D: YES.
13		MS.	KING:	DAVID KESSLER.
14		DR.	KESSLER	: NO.
15		MS.	KING:	BOB KLEIN.
16		CHA	ERMAN KL	EIN: YES.
17		MS.	KING:	GERALD LEVEY.
18		DR.	LEVEY:	NO.
19		MS.	KING:	TED LOVE. RICHARD MURPHY. TINA
20	NOVA. ED	PEN	HOET.	
21		DR.	PENHOET	: NO.
22		MS.	KING:	PHIL PIZZO.
23		DR.	PIZZO:	YES.
24		MS.	KING:	FRANCISCO PRIETO. JOHN REED.
25	DUANE ROTH	١.		

1	MR. ROTH: YES.
2	MS. KING: JOAN SAMUELSON.
3	MS. SAMUELSON: YES.
4	MS. KING: DAVID SERRANO-SEWELL.
5	MR. SERRANO-SEWELL: NO.
6	MS. KING: JEFF SHEEHY.
7	MR. SHEEHY: YES.
8	MS. KING: JONATHAN SHESTACK. OSWALD
9	STEWARD.
10	DR. STEWARD: YES.
11	MS. KING: JANET WRIGHT.
12	DR. WRIGHT: YES.
13	CHAIRMAN KLEIN: AT THIS POINT, IN
14	PREPARATION FOR THE GOVERNOR, WE WILL TAKE A BREAK FOR
15	ABOUT 15 OR 20 MINUTES. AND IF THE BOARD WOULD PLEASE
16	QUICKLY TAKE CARE OF ANY PERSONAL ITEMS, AND THEN YOU
17	ARE GOING TO FOLLOW MELISSA INTO THE ROOM FOR THE
18	GOVERNOR.
19	QUESTION. WHAT IS THE AVAILABILITY OF SPACE
20	FOR PATIENT ADVOCATES OR MEMBERS? WE DO HAVE AVAILABLE
21	SPACE. THANK YOU FOR THAT ACCOMMODATION. WE GREATLY
22	APPRECIATE IT. SO THERE WILL BE SPACE IN THE ROOM FOR
23	THE PRESS CONFERENCE FOR THE GOVERNOR FOR THE PATIENT
24	ADVOCATES. AND WE WILL LOOK FORWARD TO SEEING YOU
25	THERE IN A COUPLE OF MINUTES.

1 WHAT IS THE OUTCOME ON THE LAST ITEM? 2 MR. HARRISON: THE VOTE ON APPLICATION 464 TO 3 FUND IT PASSED WITH TEN YES VOTES AND SEVEN NO VOTES. 4 CHAIRMAN KLEIN: THANK YOU. 5 (A RECESS WAS TAKEN FOR THE GOVERNOR'S 6 PRESS CONFERENCE, NOT REPORTED, NOR HEREIN 7 TRANSCRIBED.) 8 CHAIRMAN KLEIN: IF EVERYONE COULD RECONVENE. 9 WE'RE GOING TO LOSE A QUORUM HERE IN ABOUT AN HOUR, SO 10 WE WANT TO HAVE ACTION HERE. WE'LL USE EVERY MINUTE WE 11 CAN BE PRODUCTIVE. IF WE COULD CALL THE BOARD BACK 12 TOGETHER, IT WOULD BE TREMENDOUS. OKAY. WE ARE 13 RECONVENING HERE. WE NEED A QUORUM. WE NEED ALL OF THE MEMBERS PRESENT. WE'RE GOING TO MOVE FORWARD. WE 14 HAVE SOME TREMENDOUS SCIENCE WE'VE GOT TO GO THROUGH. 15 16 COULD STAFF PLEASE PULL THE BOARD MEMBERS BACK INTO THE 17 SESSION? SCOTT TOCHER, COULD YOU PLEASE HELP FIND THE 18 19 BOARD MEMBERS AND PULL ANYONE IN. THANK YOU. MEDICINE 20 AND SCIENCE ARE MORE IMPORTANT THAN FOOD AT THIS MOMENT

IN OUR LIVES. ALL RIGHT. AMY DUROSS, IS THERE ANY
OTHER BOARD MEMBERS OUT? WE'RE GOING TO CONVENE. DR.
HALL, WE HAVE ABOUT AN HOUR BEFORE WE LOSE A QUORUM.
WE'RE TRYING TO MOVE EXPEDITIOUSLY.

25 ALL RIGHT. WE CAN'T GO TO THE VOTE WITHOUT

1 THE QUORUM, BUT WE'RE GOING TO PROCEED IN THE 2 DISCUSSION LEADING UP TO A VOTE WHILE WE'RE ASSEMBLING. 3 IF WE COULD SHOW ON THE SCREEN THE NEXT ITEM, PLEASE. 4 DR. POMEROY: BOB, CAN YOU REITERATE FOR US 5 HOW MUCH MONEY WE'VE COMMITTED SO FAR? 6 CHAIRMAN KLEIN: WHEN THEY BRING UP THE 7 SCREEN, I WILL BE EXCITED TO TELL YOU. ON THE SCREEN, 8 THE QUESTION THAT DR. POMEROY HAS IS WHAT DOLLAR AMOUNT 9 WOULD WE BE AT IF WE INCORPORATED THOSE THAT WE HAVE 10 NOW MOVED UP TO TIER 1. ALL RIGHT. OKAY. AND, DR. 11 HALL, WHICH GRANT IS IT THAT WE'RE ON? 12 DR. HALL: JUST FINISHED WITH 464, IF I'M NOT 13 MISTAKEN. 185. 14 CHAIRMAN KLEIN: GOING ON THE RECORD, WE'RE BACK ON THE RECORD AT THIS POINT. WE'RE OPENING THE 15 BOARD SESSION. ALL RIGHT. CAN WE MOVE FORWARD? MAY I 16 17 ASK, BEFORE WE GO THROUGH THE SCIENTIFIC DISCUSSION, IS THERE ANY BOARD MEMBER THAT WOULD LIKE TO MAKE A MOTION 18 19 TO MOVE THIS UP? OTHERWISE WE WILL SKIP TO THE NEXT 20 ITEM. IS THERE ANY BOARD MEMBER WHO WOULD LIKE TO 21 DISCUSS THIS PARTICULAR MOTION -- THIS PARTICULAR ITEM, 22 OR WOULD YOU LIKE TO HEAR THE SCIENCE AND THEN MAKE THE 23 DISCUSSION? 24 DR. AZZIZ: I MOVE THAT, UNLESS WE HAVE A

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MOTION TO MOVE, THAT WE DON'T DISCUSS THE SCIENCE.

1 CHAIRMAN KLEIN: UNLESS WE HAVE A MOTION TO 2 MOVE, WE'RE GOING TO THE NEXT ITEM; IS THAT CORRECT? 3 ALL RIGHT. WE HAVE NO PARTICULAR MOTION ON THAT ITEM. 4 THE NEXT ITEM WOULD BE 193; IS THAT CORRECT? 5 DR. CHIU: THAT'S CORRECT. MS. KING: THERE ARE NO CONFLICTS. 6 7 CHAIRMAN KLEIN: ALL RIGHT. 193. IF YOU 8 WOULD READ THE TITLE, THAT WOULD BE HELPFUL. 9 DR. CHIU: "RETINOIC ACID-FGF ANTAGONISM 10 DURING MOTOR NEURON DIFFERENTIATION OF HUMAN EMBRYONIC 11 STEM CELLS." 12 CHAIRMAN KLEIN: OKAY. ANY MEMBER OF THE 13 BOARD LIKE TO COMMENT ON THIS PARTICULAR? 14 DR. STEWARD: I'M MAKING A MOTION THAT WE 15 CONSIDER MOVING THIS UP TO TIER 1. 16 DR. WRIGHT: SECOND. 17 CHAIRMAN KLEIN: IT IS SECONDED BY DR. 18 WRIGHT. SCIENTIFIC PRESENTATION, PLEASE. 19 DR. CHIU: DR. RUTH GLOBUS WILL GIVE US THE 20 SCIENTIFIC SUMMARY. 21 CHAIRMAN KLEIN: IMMEDIATELY AFTER THAT, 22 BEFORE DISCUSSION, WE WILL HAVE CONFLICTS. AND IF 23 THERE ARE QUESTIONS, WE WILL STOP BEFORE THE QUESTION 24 IS ASKED TO DO CONFLICTS. 25 DR. GLOBUS: THIS IS A PROPOSAL BY AN -- THIS

1 IS A PROPOSAL BY AN INVESTIGATOR WHO IS NEW TO THE 2 FIELD. HE PROPOSES OR HE OR SHE PROPOSES TO TEST THE 3 IDEA THAT THERE ARE TWO IMPORTANT SIGNALING PATHWAYS 4 THAT INTERACT IN THE BASIC DIFFERENTIATION OF HUMAN 5 EMBRYONIC STEM CELLS. AND HE HAS TWO OBJECTIVES TO 6 ACHIEVE THAT. HE PROPOSES TO USE BOTH NIH-APPROVED AND 7 NONAPPROVED CELL LINES FOR THAT PROPOSAL.

8 THE REVIEWERS FOUND THAT IT WAS QUESTIONABLE 9 WHETHER THIS WORK WILL SIGNIFICANTLY INCREASE THE 10 PRODUCTION OF MOTOR NEURONS, WHICH IS ONE OF THE MAJOR 11 AIMS OF THE PROPOSAL. IN ADDITION, THE PRINCIPAL INVESTIGATOR HAS NO PREVIOUS EXPERIENCE, AND THE 12 13 REVIEWERS BELIEVED THAT A SIGNIFICANT EFFORT WOULD BE NEEDED TO RECAPITULATE PREVIOUSLY DOCUMENTED PROTOCOLS. 14 15 THE STRENGTHS OF THIS PROPOSAL INCLUDE THAT 16 IT IS THE APPLICATION OF ESTABLISHED NORMAL 17 DEVELOPMENTAL PATHWAYS AND REGULATORY MECHANISMS TO A HUMAN EMBRYONIC STEM CELL DIFFERENTIATION PROGRAM. THE 18 19 PROPOSAL IS THOUGHT TO BE WELL-FOCUSED, WELL-WRITTEN, 20 AND ADDRESSES MANY OF THE POTENTIAL PITFALLS OF THE 21 EXPERIMENTAL WORK. THE LABORATORY IT COMES FROM 22 PUBLISHES WELL, MEANING MANY PEER-REVIEWED PAPERS ARE 23 PRODUCED, EVEN THOUGH THERE'S LITTLE PRIOR EMBRYONIC 24 STEM CELL EXPERIENCE. THEY HAVE RECRUITED THE 25 CONTRIBUTION OF A COLLABORATOR WHO IS AN EXPERT IN

EMBRYONIC STEM CELL RESEARCH, AND WHO HAS AGREED TO
 CONTRIBUTE TIME TO THIS PROJECT.

3 WHILE THIS PROJECT IS CONSIDERED RELATIVELY 4 LIMITED IN SCOPE, THE STRENGTH OF THE PROJECT IS 5 CONSIDERED ITS FOCUS AND THE LIKELIHOOD THAT THESE ARE 6 RELEVANT PATHWAYS THAT HAVE BEEN SELECTED FOR STUDY. 7 ONE REVIEWER IN DISCUSSION COMMENTED THAT 8 THEY BELIEVE THE APPROACH IS UNLIKELY TO WORK GIVEN THE 9 PRECISION OF REGULATION THAT'S NEEDED FOR THOSE TWO 10 INTERACTING PATHWAYS. AND ANOTHER CONCERN IS THAT THE 11 TIMING OF THE APPLICATION OF THE SIGNALING MOLECULES

12 AND DOSE IS A CRITICAL ELEMENT THAT WILL MAKE THESE --13 ACHIEVING THEIR OBJECTIVE DIFFICULT.

14 CHAIRMAN KLEIN: THANK YOU VERY MUCH. BOARD15 COMMENT? CONFLICTS, PLEASE.

16MR. TOCHER: THERE ARE NO CONFLICTS WITH17THIS.

18 CHAIRMAN KLEIN: ALL RIGHT. THERE ARE NO19 CONFLICTS. ANY ADDITIONAL BOARD COMMENTS?

20 DR. STEWARD: SO COULD YOU ELABORATE JUST A 21 LITTLE BIT ON THE COMMENT THAT LITTLE NEW INFORMATION 22 IS EXPECTED REGARDING THE SPECIFICATION OF MOTOR 23 NEURONS BEYOND WHAT IS ALREADY KNOWN IN MOUSE AND 24 CHICK? IT SEEMS TO ME IT MAY BE KNOWN IN MOUSE AND 25 CHICK, BUT THE FACT THAT IT HASN'T BEEN DONE IN HUMAN

1 EMBRYONIC STEM CELLS STILL RAISES IMPORTANT ISSUES.

2 DR. CHIU: I BELIEVE THIS HAS BEEN DONE IN 3 HUMAN EMBRYONIC STEM CELLS.

4 CHAIRMAN KLEIN: ALL RIGHT. ANY ADDITIONAL 5 COMMENTS?

6 DR. WRIGHT: BOB, I HAVE ONE. FROM MY NOTES 7 OF THE GRANT REVIEW, AND I'M NOT SURE THAT THIS IS 8 ACCURATE, THAT THIS MAY BE ONE OF THE FEW ADDRESSING 9 MOTOR NEURONS, SPINAL CORD MOTOR NEURONS. AND, AGAIN, 10 TO DR. PIZZO'S COMMENT, WE WANT QUALITY FIRST AND 11 PROGRAMMATIC LEVELS REVIEWED SECOND, BUT THIS IS STILL 12 IN THE SECOND TIER AS DEEMED BY THE GRANT REVIEW GROUP. 13 CHAIRMAN KLEIN: DR. CHIU.

14DR. CHIU: HAS SPECIFIC RELEVANCE FOR ALS.15CHAIRMAN KLEIN: I THINK THERE WERE SOME --16THERE WAS SOME GENERAL EXCITEMENT ABOUT THE POTENTIAL17IMPACT AND VALUE OF THIS RESEARCH FOR ALS FROM THE18SCIENTIFIC AND CLINICIANS. ALL RIGHT. DAVID19SERRANO-SEWELL.

20 MR. SERRANO-SEWELL: I KNOW THAT WAS ONE OF 21 THE GOALS OF THE PROGRAMMATIC PORTION WAS TO TAKE A 22 LOOK AT THE SPECTRUM OF DISEASES THAT WE'RE FUNDING. 23 AND I'M SURE I KNOW THERE WAS A DISCUSSION ON ASSURING 24 THAT WE TOUCH UPON AS MANY CONDITIONS AS POSSIBLE. I 25 THINK THAT WAS ALSO RELEVANT TO THIS PROPOSAL. I'LL BE

1 SUPPORTING IT.

2 CHAIRMAN KLEIN: ALL RIGHT. ADDITIONAL 3 MEMBERS? PUBLIC COMMENT? SEEING NO PUBLIC COMMENT, 4 I'D LIKE TO CALL THE ROLL. 5 MS. KING: RICARDO AZZIZ. 6 DR. AZZIZ: NO. 7 MS. KING: PAUL JENNINGS. 8 DR. JENNINGS: NO. 9 MS. KING: ROBERT BIRGENEAU. 10 DR. BIRGENEAU: NO. 11 MS. KING: SUSAN BRYANT. MARCY FEIT. 12 MS. FEIT: YES. 13 MS. KING: MICHAEL FRIEDMAN. MICHAEL 14 GOLDBERG. 15 MR. GOLDBERG: NO. 16 MS. KING: FRANCIS MARKLAND. 17 DR. MARKLAND: NO. 18 MS. KING: DAVID KESSLER. 19 DR. KESSLER: NO. 20 MS. KING: BOB KLEIN. 21 CHAIRMAN KLEIN: YES. 22 MS. KING: SHERRY LANSING. 23 MS. LANSING: YES. 24 MS. KING: GERALD LEVEY. 25 DR. LEVEY: YES.

1 MS. KING: TED LOVE. RICHARD MURPHY. TINA 2 NOVA. ED PENHOET. 3 DR. PENHOET: YES. 4 MS. KING: PHIL PIZZO. 5 DR. PIZZO: NO. 6 MS. KING: CLAIRE POMEROY. 7 DR. POMEROY: YES. 8 MS. KING: FRANCISCO PRIETO. JOHN REED. 9 DUANE ROTH. 10 MR. ROTH: NO. 11 MS. KING: JOAN SAMUELSON. 12 MS. SAMUELSON: YES. 13 MS. KING: DAVID SERRANO-SEWELL. MR. SERRANO-SEWELL: YES. 14 15 MS. KING: JEFF SHEEHY. 16 MR. SHEEHY: YES. 17 MS. KING: JONATHAN SHESTACK. OSWALD 18 STEWARD. 19 DR. STEWARD: YES. 20 MS. KING: JANET WRIGHT. 21 DR. WRIGHT: YES. 22 MR. HARRISON: MOTION CARRIES 11 YES VOTES, 23 EIGHT NO VOTES. 24 CHAIRMAN KLEIN: ALL RIGHT. THANK YOU. WE'RE NEXT GOING TO 408. IS THERE ANY MEMBER THAT 25

1 WOULD LIKE TO MAKE A MOTION RELATED TO --2 DR. POMEROY: CAN YOU REPEAT THE VOTE 3 **RESULTS?** 4 CHAIRMAN KLEIN: ELEVEN TO 8; IS THAT 5 CORRECT? 6 MR. HARRISON: YES. ELEVEN TO EIGHT IN 7 FAVOR. 8 CHAIRMAN KLEIN: OKAY. IS THIS 408? YES. 9 ANY MEMBER -- FIRST OF ALL, CONFLICTS. 10 MS. KING: DR. MARKLAND. 11 CHAIRMAN KLEIN: ANY BOARD MEMBER WOULD LIKE 12 TO MOVE ON THIS ITEM? 13 DR. PENHOET: I'D LIKE TO RECOMMEND THIS GRANT FOR FUNDING. I THINK IT'S A VERY IMPORTANT AREA, 14 15 AND I BELIEVE THAT THE INVESTIGATOR HAS ALREADY 16 ESTABLISHED ALL THE METHODOLOGY REQUIRED TO DO THESE 17 EPIGENETIC ANALYSES. AND, FRANKLY, IF IT WAS UP TO ME, I PROBABLY WOULD HAVE SCORED THIS GRANT HIGHER IN THE 18 19 FIRST PLACE. I THINK IT'S A GOOD GRANT. CHAIRMAN KLEIN: OTHER BOARD COMMENTS? 20 21 DR. WRIGHT: SECOND. 22 CHAIRMAN KLEIN: SECOND FROM DR. WRIGHT. 23 DR. WRIGHT: BOB, I HAVE CLARIFICATION. WAS 24 THAT TO MOVE IT INTO TIER 1? 25 CHAIRMAN KLEIN: YES. OTHER BOARD COMMENTS?

PUBLIC COMMENTS? SEEING NO PUBLIC COMMENTS, CALL THE
 ROLL. EXCUSE ME. EXCUSE ME.

3 DR. CHIU: DR. PATRICIA OLSON WILL SPEAK TO4 THIS APPLICATION.

5 CHAIRMAN KLEIN: THANK YOU VERY MUCH. 6 DR. OLSON: THIS IS AN APPLICATION THAT 7 ADDRESSES ESSENTIALLY THE STRUCTURAL PACKAGING OF DNA 8 AND HOW IT AFFECTS REGULATION, AND, IN FACT, ONE 9 SPECIFIC FORM OF THE STRUCTURAL MODIFICATION, WHICH IS 10 DNA METHYLATION.

11 WHAT THIS INVESTIGATOR PROPOSES TO DO IS 12 CHARACTERIZE THE DNA METHYLATION PATTERN AT A LARGE 13 NUMBER OF GENE REGULATORY ELEMENTS IN HSC TO DETERMINE IF STEM CELLS CAN BE SUBJECT TO ABERRANT IRREVERSIBLE 14 15 SILENCING. SO THE HYPOTHESIS IS THAT REPRESSION OF 16 DIFFERENTIATION GENES IN CANCER CELLS CAN CONTRIBUTE TO 17 THEIR STEM CELL PROPERTIES; AND, THEREFORE, IT'S VERY IMPORTANT TO UNDERSTAND THE METHYLATION PATTERNS. THE 18 19 INVESTIGATOR CITES BOTH PUBLISHED AND UNPUBLISHED DATA 20 IN SUPPORT OF THIS HYPOTHESIS.

SO HE'S GOING TO LOOK AT HIGH-THROUGHPUT DNA
METHYLATION AND ACTUALLY PROBABLY MAYBE LESS
HIGH-THROUGHPUT, BUT INCREDIBLY SENSITIVE. SO HE WILL
BE ABLE TO -- THE PI WILL BE ABLE TO DETECT METHYLATION
PATTERNS IN A NUMBER OF GENES, AND THE PI WILL SCREEN A

NUMBER OF DIFFERENT LINES FOR THESE METHYLATION
 PATTERNS. THEREAFTER, THE PI WILL MONITOR EPIGENETIC
 ABNORMALITIES IN SELECTED LINES UNDER DIFFERENT CULTURE
 CONDITIONS BECAUSE, AGAIN, YOU MAY GET CHANGES
 DEPENDING ON CULTURE CONDITIONS.

6 THE STRENGTH OF THIS APPLICATION ARE IN THE 7 APPLICATION OF A VERY SENSITIVE AND RELATIVELY HIGH 8 THROUGHPUT TECHNOLOGY TO DO THE PROFILING IN MANY 9 DIFFERENT LINES. ANOTHER STRENGTH IS THAT A LARGE 10 AMOUNT OF COMPARATIVE DATA WILL BE GENERATED THAT COULD 11 PROVIDE A UNIQUE DATABASE FOR THE ENTIRE STEM CELL 12 COMMUNITY, AND THAT COULD BE USED AS A BENCHMARK FOR 13 STEM CELL QUALITY.

14 THE PI IS A LEADER IN THE FIELD OF DNA 15 METHYLATION IN CANCER AND HAS DONE WORK IN THE MURINE 16 STEM CELL FIELD. SO THERE'S A HIGH DEGREE OF 17 CONFIDENCE THERE COULD BE SOME SUCCESSFUL OUTCOME TO 18 THESE EXPERIMENTS.

19 THE WEAKNESS HAS TO DO WITH THE RESEARCH PLAN 20 COULD BE MORE FOCUSED, AND THERE WAS SOME QUESTION AS 21 TO WHAT CONSTITUTES A POSITIVE RESPONSE IN THE SENSE OF 22 WHAT IS YOUR CONTROL TO KNOW WHETHER A METHYLATION 23 PATTERN IS POSITIVE OR NEGATIVE. SO THAT WILL BE 24 ADDRESSED. THAT WAS A QUESTION. 25 IN THE DISCUSSION, AGAIN, THE SENSITIVITY OF

1 THE TECHNOLOGY WAS HIGHLIGHTED. THE EXPERTISE OF THE 2 INVESTIGATOR IN THIS AREA OF RESEARCH WAS HIGHLIGHTED. 3 AND THEN, AGAIN, PEOPLE DID MENTION HOW WILL WE KNOW IF 4 WE'RE LOOKING AT A POSITIVE OR A NEGATIVE FACTOR, BUT, 5 AGAIN, THEY HIGHLIGHTED THAT IT WILL GIVE YOU A 6 CHARACTERIZATION. THANKS. 7 CHAIRMAN KLEIN: THANK YOU VERY MUCH. BOARD 8 COMMENT RELATED TO THIS SCIENTIFIC SUMMARY? SEEING NO

9 ADDITIONAL BOARD COMMENT, PUBLIC COMMENT? SEEING NO
10 PUBLIC COMMENT, SCOTT, YOU HAVE THE EMINENT ROLE OF
11 HANDLING THE ROLL CALL.

MR. TOCHER: I WILL DO MY BEST. DR. MARKLANDHAS A CONFLICT.

14 RICARDO AZZIZ.

DR. AZZIZ: YES.

16 MR. TOCHER: PAUL JENNINGS.

- 17 DR. JENNINGS: YES.
- 18 MR. TOCHER: ROBERT BIRGENEAU.
- 19 DR. BIRGENEAU: NO.

20 MR. TOCHER: MARCY FEIT.

- 21 MS. FEIT: YES.
- 22 MR. TOCHER: MICHAEL GOLDBERG.
- 23 MR. GOLDBERG: NO.
- 24 MR. TOCHER: DAVID KESSLER.
- 25 DR. KESSLER: NO.

 CHAIRMAN KLEIN: YES. MR. TOCHER: SHERRY LANSING. MS. LANSING: YES. MR. TOCHER: GERALD LEVEY.
4 MS. LANSING: YES. 5 MR. TOCHER: GERALD LEVEY.
5 MR. TOCHER: GERALD LEVEY.
6 DR. LEVEY: YES.
7 MR. TOCHER: ED PENHOET.
8 DR. PENHOET: YES.
9 MR. TOCHER: PHIL PIZZO. DUANE ROTH.
10 MR. ROTH: YES.
11 MR. TOCHER: JOAN SAMUELSON.
12 MS. SAMUELSON: YES.
13 MR. TOCHER: DAVID SERRANO-SEWELL.
14 MR. SERRANO-SEWELL: YES.
15 MR. TOCHER: JEFF SHEEHY.
16 MR. SHEEHY: YES.
17 MR. TOCHER: OSWALD STEWARD.
18 DR. STEWARD: YES.
19 MR. TOCHER: JANET WRIGHT.
20 DR. WRIGHT: YES.
21 MR. TOCHER: I'M SORRY. AND CLAIRE POMEROY.
DR. POMEROY: YES.
23 CHAIRMAN KLEIN: WE WILL BE LOOKING AT, WHILI
24 WE'RE WAITING FOR THE ANNOUNCEMENT OF THE VOTE, AT THE
25 NEXT ITEM, WHICH WILL BE 311.

1 MR. HARRISON: WHILE YOU'RE CHECKING THAT, 2 THE MOTION TO FUND APPLICATION 408 CARRIED WITH 14 YES 3 VOTES AND THREE NO VOTES. 4 CHAIRMAN KLEIN: ALL RIGHT. 5 DR. AZZIZ: I THINK WE LOOKED AT 180 AND LEFT 6 IT AT TIER 2 YESTERDAY. 7 CHAIRMAN KLEIN: THE QUESTION IS AT THIS 8 POINT, WHERE WE'RE AT THE EDGE, DO WE WANT TO DEAL WITH 9 180, DO WE WANT TO COME BACK TO 180, BUT WE'RE RIGHT 10 NOW AT 311. AND DID WE LOOK AT 311? DR. HALL. I'M 11 JUST TRYING TO GET A CONFIRMATION FROM SCIENTIFIC STAFF 12 THAT SEEMS NOT TO BE CERTAIN. 13 DR. HALL: 311 IS PREVIOUSLY VOTED ON AND IT'S THE ONE I PRESENTED ON. 14 15 CHAIRMAN KLEIN: WE VOTED NOT TO MOVE IT. S0 16 DO WE WANT TO PASS OVER THAT AT THIS MOMENT? YES. 17 OKAY. THE NEXT ITEM IS 185. 18 DR. CHIU: WE DID 185. 19 CHAIRMAN KLEIN: WE WANT TO PASS OVER 185. 20 OKAY. THE NEXT ITEM IS 180. WE DID THAT ITEM. 279. 21 DR. STEWARD: I THINK WE DID 180 LAST NIGHT. 22 AND I WOULD JUST RAISE THE QUESTION OF WHETHER WE HAVE 23 SIGNIFICANTLY ALTERED OUR CONSIDERATIONS HERE. 24 CHAIRMAN KLEIN: DR. STEWARD, IF YOU WOULD 25 LIKE TO BRING 180 UP AT THIS TIME BECAUSE YOU FELT THAT

THE DEBATE LAST NIGHT WOULD INDICATE THAT IT SHOULD BE
 NOW CONSIDERED, THAT IS YOUR PREROGATIVE.

3 DR. STEWARD: I DO THINK THAT OUR PRIORITIES 4 HAVE CHANGED SOMEWHAT, AND THAT IT WOULD BE WORTH 5 RECONSIDERING THIS ONE. SO I WOULD LIKE TO MAKE A 6 MOTION THAT IT BE MOVED INTO THE FUNDABLE CATEGORY AT 7 THIS POINT.

8 CHAIRMAN KLEIN: ALL RIGHT. MOTION. IS
9 THERE A SECOND?

10 MS. SAMUELSON: I'LL SECOND THAT.

11 MR. TOCHER: EXCUSE ME, CHAIRMAN KLEIN, THE 12 CONFLICTS WITH APPLICATION 180 ARE AZZIZ, LANSING, AND 13 LEVEY.

14 CHAIRMAN KLEIN: THANK YOU. IF THERE WERE
15 BOARD MEMBERS -- THERE ARE BOARD MEMBERS PRESENT TODAY
16 THAT WEREN'T HERE LAST NIGHT. COULD WE HAVE A SHORT
17 SUMMARY OF THE STRENGTHS AND WEAKNESSES, PLEASE?

18 DR. CHIU: I'M GOING TO LET DR. KUMAR HARI19 ADDRESS THOSE TODAY.

20 DR. HARI: SO BRIEFLY, THIS IS A PROPOSAL TO 21 LOOK AT HUMAN EMBRYONIC STEM CELLS AND THEIR 22 DEVELOPMENT INTO RETINAL PIGMENT EPITHELIUM FOR USE IN 23 MACULAR DEGENERATION. WE DISCUSSED LAST NIGHT THAT 24 THIS IS AN IMPORTANT AREA OF RESEARCH IN THAT MACULAR 25 DEGENERATION IS A FORMIDABLE PROBLEM IN SOCIETY AND

THAT THERE ARE RECENT STUDIES SHOWING THAT FUNCTIONAL
 RETINAL PIGMENT EPITHELIUM CELLS CAN BE USED IN A RAT
 MODEL AND SHOWN TO BE FUNCTIONAL.

4 THE SIGNIFICANT STRENGTHS OF THE PROPOSAL ARE
5 THAT IT IS WELL-WRITTEN AND NICELY ORGANIZED,
6 PROCEEDING IN A VERY LOGICAL AND COMPREHENSIVE WAY TO
7 STUDY THESE CELLS AND THEIR DIFFERENTIATION.

8 THE MAIN WEAKNESS OF THIS PROPOSAL IS THAT IT 9 IS QUITE LARGE, VERY AMBITIOUS, READS MORE LIKE A 10 PROGRAM PROJECT THAN A SEED PROPOSAL, AND THAT THERE 11 ARE -- IT SEEMS ALMOST TOO COLLABORATIVE WITH ALMOST 12 EIGHT CO-PI'S AND AN OVERAMBITIOUS RESEARCH PLAN. I 13 BELIEVE THOSE WERE THE SIGNIFICANT STRENGTHS AND 14 WEAKNESSES.

15 I GUESS ONE OTHER POINT THAT CAME UP IN
16 DISCUSSION WAS THAT IT APPEARS THAT OTHER PEOPLE
17 OUTSIDE OF CALIFORNIA ARE ALSO WORKING ON THIS PROBLEM,
18 AND THAT PERHAPS THE FIELD HAS ALREADY MOVED BEYOND THE
19 STUDIES PROPOSED IN THIS APPLICATION.

20 CHAIRMAN KLEIN: THANK YOU VERY MUCH. ANY 21 MEMBER WHO WOULD LIKE TO QUICKLY SUMMARIZE THE BOARD 22 COMMENTS FROM LAST NIGHT?

DR. STEWARD: I COULD QUICKLY SUMMARIZE THEM.
I THINK THAT WHEN I PUT THIS UP LAST NIGHT FOR, LET'S
CALL IT, SPECIAL CONSIDERATION, IT WAS MORE OR LESS TO

1 QUESTION THE NEGATIVE COMMENTS ABOUT IT BEING TOO 2 LARGE, TOO COLLABORATIVE. AND I ARGUED AT THE TIME 3 THAT I THOUGHT THAT TOO COLLABORATIVE WAS ALMOST A NON 4 SEQUITUR. AND I THINK THAT IT WAS EXPLAINED THAT BY 5 TOO COLLABORATIVE, IT MEANT THAT THERE WERE REALLY JUST 6 TOO MANY HEADS IN THE THING MAYBE OR SOMETHING LIKE 7 THAT, AND NOT WELL-COORDINATED.

8 I THINK THAT ONE COMMENT WAS THAT IT WAS SO 9 BIG, THAT THERE WAS CONCERN THAT THE MONEY WOULD BE 10 JUST GOING OUT AND NOT HAVING ANYBODY REALLY TRULY 11 INTERACT. I TRIED TO SUMMARIZE BOTH THE NEGATIVE AND 12 THE POSITIVE COMMENTS OF THE BOARD IF ANYBODY WANTS TO 13 AMPLIFY ON THOSE.

14 CHAIRMAN KLEIN: ALL RIGHT. ANY ADDITIONAL 15 BOARD COMMENTS?

16 MS. SAMUELSON: I'D JUST LIKE TO POINT OUT 17 THAT AMONG THE STRENGTHS IN THE SUMMARY IT SAYS THAT IT'S LIKELY THAT NEW IMPORTANT INFORMATION WILL BE 18 19 GLEANED FROM THE STUDIES PLANNED IN THE APPLICATION. 20 SO IF THEY MAKE ANY PROGRESS AT ALL, SUCCEED AT ALL 21 WITH THE PLAN, THAT'S A BIG STRENGTH TO ME IN A 22 TERRIBLY IMPORTANT AREA THAT NEEDS TO BE TACKLED. AND, 23 YEAH, THAT'S IT.

CHAIRMAN KLEIN: I THINK THERE WAS ALSO ACOMMENT LAST NIGHT THAT THIS IS ONE OF THOSE GRANTS

THAT COULD BE CLOSER TO CLINICAL IMPLICATIONS THAN SOME
 OTHER GRANTS THAT WE WERE FUNDING. ALL RIGHT. ANY
 ADDITIONAL BOARD COMMENTS?

4 DR. BIRGENEAU: I WONDER IF WE COULD GET ANY 5 MORE DETAILS ON THIS. I THINK IT WAS ONE OF YOUR FINAL 6 OR MAYBE PENULTIMATE COMMENTS THAT, IN FACT, OUTSIDE OF 7 CALIFORNIA THE FIELD MAY HAVE EVEN MOVED BEYOND THIS.

8 DR. HARI: THE ONLY DETAIL REALLY THAT CAME 9 UP IN THE DISCUSSION, THERE WAS NO REAL -- WE DIDN'T 10 DISCUSS IN-DEPTH HOW FAR THOSE STUDIES HAD MOVED WITH 11 RESPECT TO THE ACTUAL EXPERIMENTS THAT HAD BEEN 12 COMPLETED, ONLY THAT OTHERS WERE WORKING IN THIS FIELD, 13 AND THAT IT APPEARS THEY HAVE MOVED BEYOND.

14 CHAIRMAN KLEIN: I THINK THAT'S VERY 15 ACCURATE, THAT IT WASN'T CLEAR TO ANYONE WHETHER IT HAD 16 OR HAD NOT MOVED, BUT THERE WERE OTHER STUDIES BEING 17 DONE IN THIS AREA BECAUSE IT'S AN AREA OF HIGH 18 INTEREST, BUT IT WASN'T CLEAR WHAT THE STATUS OF THOSE 19 STUDIES WERE.

20 DR. CHIU: JUST FOR CLARITY, I THOUGHT IT WAS 21 CLARITY THAT OTHERS HAD MOVED BEYOND, BUT WHAT WAS NOT 22 CLEAR WAS EXACTLY HOW FAR AND WHAT WERE THE DETAILS OF 23 THE ADVANCES THAT OTHERS OUTSIDE OF CALIFORNIA HAD MADE 24 WAS MY RECOLLECTION.

25 CHAIRMAN KLEIN: I THINK THERE'S SOME --

1 THERE WAS DIFFERENCES AMONG THE PEOPLE FROM MY 2 PERSPECTIVE IN LISTENING TO THE SESSION AS TO THAT 3 PERCEPTION. OKAY. PUBLIC COMMENT? NO PUBLIC COMMENT. 4 MR. SHEEHY: ONE THING THAT WAS KIND OF LOST 5 AND IS LOST IN THIS IS THAT THERE IS A VERY SIMILAR 6 GRANT THAT WAS ASTERISKED THAT THE SCIENTIFIC REVIEWERS 7 ACTUALLY THOUGHT WAS MUCH STRONGER. THEY ACTUALLY 8 LOOKED AT THIS AS BEING AN IMPORTANT AREA TO STUDY. IT 9 HAD A SCORE OF 81. AND IT'S ONE OF THE TOP ONES IF YOU 10 GO TO YOUR SHEETS. IT'S THERAPEUTIC POTENTIAL OF 11 RETINAL PIGMENT EPITHELIAL CELLS DERIVED FROM ATS CELLS 12 FOR RETINAL DEGENERATION. WE'VE ALREADY FUNDED THAT, 13 BY THE WAY, AND WE JUST DIDN'T DISCUSS IT. 14 SO IN THAT CONTEXT THAT WAS KIND OF DISCUSSED 15 VERY BRIEFLY LAST NIGHT, THAT WE'D ALREADY FUNDED ONE 16 IN THIS AREA THAT WAS A LITTLE BIT BETTER CONSTRUCTED. 17 CHAIRMAN KLEIN: ALL RIGHT. BOARD COMMENTS? PUBLIC COMMENT? SEEING NO PUBLIC COMMENT, CALL THE 18 19 ROLL. 20 MS. KING: PAUL JENNINGS. 21 DR. JENNINGS: NO. 22 MS. KING: ROBERT BIRGENEAU. 23 DR. BIRGENEAU: NO. 24 MS. KING: MARCY FEIT.

25 MS. FEIT: NO.

1	MS. KING: MICHAEL GOLDBERG.
2	MR. GOLDBERG: NO.
3	MS. KING: FRANCIS MARKLAND.
4	DR. MARKLAND: NO.
5	MS. KING: DAVID KESSLER.
6	DR. KESSLER: NO.
7	MS. KING: BOB KLEIN.
8	CHAIRMAN KLEIN: YES.
9	MS. KING: ED PENHOET.
10	DR. PENHOET: NO.
11	MS. KING: PHIL PIZZO. CLAIRE POMEROY.
12	DR. POMEROY: NO.
13	MS. KING: DUANE ROTH.
14	MR. ROTH: NO.
15	MS. KING: JOAN SAMUELSON.
16	MS. SAMUELSON: YES.
17	MS. KING: DAVID SERRANO-SEWELL.
18	MR. SERRANO-SEWELL: YES.
19	MS. KING: JEFF SHEEHY.
20	MR. SHEEHY: NO.
21	MS. KING: OSWALD STEWARD.
22	DR. STEWARD: YES.
23	MS. KING: JANET WRIGHT.
24	DR. WRIGHT: NO.
25	CHAIRMAN KLEIN: THANK YOU. WE'RE NEXT GOING

1 TO MOVE TO 279.

2 MR. HARRISON: FOR THE RECORD, THE MOTION TO 3 FUND APPLICATION 180 FAILED, 11 NO VOTES, 4 YES VOTES. 4 CHAIRMAN KLEIN: THANK YOU. 279, DOES ANY 5 MEMBER OF THE BOARD WANT TO MAKE A MOTION RELATED TO 6 THIS ITEM? 7 SEEING NONE, WE'LL MOVE TO THE NEXT ITEM, 8 411. DOES ANYONE WANT TO MAKE A MOTION RELATED TO 411? 9 SEEING NONE. IF I MOVE OVER ANYTHING TOO 10 QUICKLY, WE CAN COME BACK TO IT. NEXT ITEM IS 153. 11 ANY MEMBER WITH ANY DESIRE ON 153? 12 SEEING NO FOCUS, 219. IF WE CAN MOVE THE 13 CURSOR TO 219, PLEASE. ALL RIGHT. 14 LOOKING DOWN THIS FIELD, YOU WILL ALSO NOTICE THAT WE'RE GOING TO COME TO TWO THAT WERE ASTERISKED 15 16 THAT WE PRELIMINARILY MOVED OUT OF THE PRIORITY BOX FOR 17 PORTFOLIO REVIEW. DOES ANYONE WANT TO CALL ANY OF THE 18 ITEMS GOING DOWN TO THE FIRST ASTERISK, WHICH IS TWO 19 DOWN? 20 MS. LANSING: I WAS ACTUALLY INTERESTED IN 21 159, BUT AM I RECUSED? 22 CHAIRMAN KLEIN: 159. 23 MR. TOCHER: THERE ARE NO RECUSALS FOR 159. 24 CHAIRMAN KLEIN: 159, WE'LL GO TO 159. 25 MS. LANSING: JUST THE SCIENCE.

1 CHAIRMAN KLEIN: ALL RIGHT. IS THERE A 2 SECOND ON 159? 3 MS. FEIT: SECOND. 4 CHAIRMAN KLEIN: SECOND BY MARCY FEIT. 5 MS. KING: COULD WE PLEASE ASK MS. LANSING TO CLARIFY THE MOTION? 6 7 MS. LANSING: WELL, I'M NOT MOVING IT FOR 8 FUNDING. I JUST WANTED TO UNDERSTAND THE SCIENCE. 9 CHAIRMAN KLEIN: ALL RIGHT. 10 MS. LANSING: I DIDN'T UNDERSTAND IT. 11 CHAIRMAN KLEIN: IN ORDER TO EFFICIENTLY DO 12 THIS, LET'S GO THROUGH THE SCIENCE. 13 DR. HARI: VERY QUICK SYNOPSIS OF THE 14 SCIENCE, THIS IS A PROPOSAL TO STUDY AND BUILD A NEW 15 HUMAN MODEL FOR CHRONIC MYELOGENOUS LEUKEMIA. IT'S 16 BASED ON THE IDEA THAT LEUKEMIA ARISES FROM A VERY 17 SMALL POPULATION OF MALIGNANT CELLS, AND THE APPLICANTS PROPOSE TO DEVELOP A HUMAN SYSTEM BY ENGINEERING HUMAN 18 19 EMBRYONIC STEM CELLS WITH THE BCR/ABL ONCOGENE. FIRST 20 THEY WILL DEVELOP AND DIFFERENTIATE THESE CELLS IN 21 RESPONSE TO SPECIFIC SIGNALS, AND, SECOND, THE 22 APPLICANTS WILL INJECT THESE CELLS IN DIFFERENTIATED 23 DERIVATIVES INTO IMMUNOCOMPROMISED MICE TO STUDY 24 ENGRAFTMENT AND THE PROGRESSION OF LEUKEMIA. 25 WOULD YOU LIKE ME TO GO THROUGH THE STRENGTHS

1 AND WEAKNESSES?

2 CHAIRMAN KLEIN: WHAT WAS THE NEGATIVE? 3 DR. HARI: THE NEGATIVE OF THIS PROPOSAL IS 4 THAT THIS TYPE OF SYSTEM HAS ALREADY BEEN DEVELOPED IN 5 THE MOUSE MODEL AS WELL AS HUMAN UMBILICAL CORD STEM 6 CELLS USING THE BCR/ABL ONCOGENE. AND THE DIFFICULTY 7 HERE IS THAT IN GRAFTING THESE CELLS, IT APPEARS THAT 8 IN VIVO THEY DO NOT FORM LEUKEMIAS IN THE MODELS. 9 MS. LANSING: THANK YOU. THAT'S ALL I NEEDED 10 TO KNOW. 11 CHAIRMAN KLEIN: ALL RIGHT. SO TO BE CLEAR, 12 THE PARTIES MAKING THE MOTION HAVE WITHDRAWN THE 13 MOTION; IS THAT CORRECT? 14 MS. LANSING: YES. 15 CHAIRMAN KLEIN: AND THE SECOND? SECOND HAS ALSO WITHDRAWN THE MOTION. WE'LL GO THE NEXT ITEM. 16 17 MR. ROTH: ASTERISKED ITEM? CHAIRMAN KLEIN: ASTERISKED ITEM, 308. WE 18 19 MOVED IT. IT WAS PART OF THE PRIOR PORTFOLIO GROUP. 20 WE MOVED IT OUT OF THE PORTFOLIO RECOMMENDATION FOR 21 FUNDING, BUT IT IS STILL ELIGIBLE FOR FUNDING. DOES 22 ANYONE WANT TO DISCUSS THIS ITEM? 23 MR. ROTH: I WANT TO MOVE THAT WE FUND THIS 24 PROJECT, AND I'M GOING TO DO THE SAME ON THE NEXT 25 ASTERISKED ITEM JUST BECAUSE I THINK IT'S IMPORTANT

1 THAT THE REVIEW COMMITTEE CAME BACK AND ASKED US TO 2 GIVE SPECIAL CONSIDERATION, WHICH WE DID, TO ALL THE 3 ASTERISKED ITEMS. WE MOVED TWO OF THEM OUT TO BE 4 RECONSIDERED AS WE GO THROUGH THE FUNDING. 5 SO UNDERSTANDING WHY THE REVIEWERS FELT THIS 6 WAS SUCH AN IMPORTANT ITEM, I THINK, AND THE NEXT ONE, 7 I THINK WE SHOULD ACTUALLY HAVE A DISCUSSION. 8 CHAIRMAN KLEIN: ALL RIGHT. THERE'S A MOTION 9 TO MOVE ITEM 308 INTO TIER 1. IS THERE A SECOND? ALL 10 RIGHT. 11 MS. LANSING: I'LL SECOND IT. 12 MR. TOCHER: THE CONFLICTS FOR 308 ARE FEIT, 13 KESSLER, LANSING, AND SHEEHY, SO WE DO NOT HAVE A 14 SECOND. 15 CHAIRMAN KLEIN: IS THERE --16 MR. SERRANO-SEWELL: SECOND. 17 CHAIRMAN KLEIN: SECOND FROM DAVID SERRANO-SEWELL. OKAY. CAN WE HAVE A SCIENTIFIC 18 19 EXPLANATION OF THE STRENGTHS AND WEAKNESSES, PLEASE? 20 DR. CHIU: THIS IS DIRECTLY TARGETING 21 DIABETES BECAUSE THE SPECIFIC AIM IS RELEVANT TO 22 PRODUCTION OF INSULIN-SECRETING CELLS FOR TRANSPLANT 23 THERAPY. THERE HAS ALREADY BEEN PUBLISHED A PROTOCOL 24 RECENTLY GENERATING INSULIN-PRODUCING CELLS FROM HUMAN 25 EMBRYONIC STEM CELLS. AND THE FIRST GOAL IS TO

DETERMINE WHETHER THIS PUBLISHED PROTOCOL WORKS FOR A
 LARGE NUMBER OF HUMAN EMBRYONIC STEM CELL LINES; IN
 OTHER WORDS, TO REPLICATE THIS FINDING THAT'S BEEN
 PUBLISHED, USING BOTH NIH-APPROVED AND NIH-NOT-APPROVED
 LINES.

THEN THE NEXT AIM IS TO TEST WHETHER GROWTH
FACTORS FOR JUST VERY COMMON SIGNALING PATHWAYS CAN
STIMULATE PROLIFERATION OF THESE DEVELOPED ENDODERMAL
CELLS AND THEN BE ENRICHED BY FACT SORTING.

10SO THIS IS HIGHLY SIGNIFICANT BECAUSE OF THE11DISEASE NEED SINCE THERE ARE NOT ENOUGH

12 INSULIN-PRODUCING CELLS TO TREAT THE DISEASE.

13 THE STRENGTHS IS THAT IT'S BASICALLY A SCREEN TO LOOK AT A LARGER NUMBER OF LINES MAYBE TO FIND THE 14 15 BEST LINE TO DO THIS AND TO DEVELOP BETTER PROTOCOLS. 16 THE PI HAS RECRUITED EXCELLENT AND ACCOMPLISHED 17 COLLABORATORS WITH APPROPRIATE EXPERTISE, PEOPLE WHO KNOW HOW TO DO HUMAN EMBRYONIC STEM CELL WORK VERY, 18 19 VERY WELL. METHODOLOGIES ARE STRAIGHTFORWARD AND DON'T 20 PROVE A PROBLEM IN PERFORMING THE WORK. THE PROPOSAL 21 IS THOUGHTFUL AND HAS CONSIDERED POTENTIAL DIFFICULTIES 22 AS WELL AS POSSIBLE OUTCOMES AND INTERPRETATIONS. 23 THE WEAKNESS IS THAT THE UNDERLYING

24 HYPOTHESIS IS NOT CLEAR, AND THE REVIEWERS WANTED MORE
25 RATIONALE AND MORE EXPERIMENTAL DETAILS BEYOND WHICH IS

THE PUBLISHED PROTOCOL THAT HAS ALREADY BEEN DESCRIBED.
 SO THEY POINTED TO THE PUBLISHED PROTOCOL, BUT THEN
 THEY DON'T TELL YOU ANY DETAILS ABOUT WHAT EXACTLY THEY
 WANT TO DO TO MIMIC AND TO IMPROVE ON THE PROTOCOL.

5 ONE REVIEWER FELT THE ABSENCE OF AN EXPLICIT 6 EXPERIMENTAL PLAN FOR THE SECOND AIM, TO DISCOVER OTHER 7 GROWTH FACTORS, MIGHT BE IMPORTANT AND FOUND THAT A 8 WEAKNESS. SO IN PROGRAMMATIC REVIEW, I SHOULD POINT 9 OUT THAT DURING PROGRAMMATIC REVIEW. THIS PROPOSAL WAS 10 RECOMMENDED ON THE BASIS THAT IT'S DIRECTLY RELEVANT TO 11 THE SEARCH FOR BETA-CELL REPLACEMENT THERAPY. IT ALSO 12 HAS IMPLICATIONS FOR OTHER DISEASES GIVEN THE SECOND 13 AIM OF DEVELOPING CONDITIONS FOR A GENERAL RANGE OF 14 ENDODERMAL DERIVATIVES, CELLS FROM THE ENDODERM.

15 CHAIRMAN KLEIN: THANK YOU, DR. CHIU, FOR
16 YOUR EXCELLENT, AS ALWAYS, REVIEW. THANK YOU.
17 ADDITIONAL COMMENTS? DR. STEWARD.

18 DR. STEWARD: LISTENING TO THAT, I HAVE TO 19 SAY I DIDN'T HEAR ANY MAJOR NEGATIVE COMMENTS EXCEPT 20 THAT EXPERIMENTAL DETAILS WERE NOT WELL SPECIFIED. IN 21 THE SPIRIT OF SEED GRANTS, IT SEEMS LIKE THIS MIGHT BE 22 ONE OF THE LOWER TIER CRITICISMS. I WONDER IF YOU 23 COULD JUST SAY SOMETHING ABOUT HOW STRONGLY THE 24 REVIEWERS FELT ABOUT THIS? WAS THIS REALLY A SERIOUS 25 WEAKNESS, OR IS IT JUST THAT IT WASN'T SPECIFIED AND SO

1 CAN'T TELL WHAT'S GOING ON?

2 DR. CHIU: THAT WAS THE ONLY MAJOR WEAKNESS 3 IDENTIFIED. I BELIEVE BECAUSE THEY WERE GOING TO 4 DUPLICATE A PUBLISHED PROTOCOL, ONE CAN UNDERSTAND 5 IMPORTANCE OF REPLICATING A PUBLISHED AND IMPORTANT 6 PUBLISHED PROTOCOL, ESPECIALLY WITH THE DIVERSITY OF 7 LINES. ON THE OTHER SIDE, THE NOVELTY AND LACK OF 8 DETAILS BALANCED THAT.

9 CHAIRMAN KLEIN: AND, DR. CHIU, CAN WE 10 UNDERSTAND, WAS THE LACK OF DETAIL RELATED TO THE 11 SECOND AIM OR THE FIRST AIM AND THE SECOND AIM?

12 DR. CHIU: I BELIEVE BOTH.

13 CHAIRMAN KLEIN: OKAY.

14DR. STEWARD: I WOULD JUST LIKE TO SPEAK IN15FAVOR OF THE MOTION TO APPROVE THIS. I THINK THAT16THERE ARE SOME AREAS OF THE PORTFOLIO THAT ARE ALMOST17MUST FUNDS, AND I WOULD VIEW THIS AS ONE OF THEM.

18 CHAIRMAN KLEIN: OKAY.

19DR. JENNINGS: CLARIFICATION, THE MEANING OF20THE ASTERISK AND THE COMMENTS THAT CAME BACK FROM THE21REVIEW PANELS. I DIDN'T QUITE GET -- NOW THAT I22UNDERSTAND THIS A LITTLE BETTER, I WANTED TO GET THAT23STRAIGHT.

CHAIRMAN KLEIN: IN THE PROGRAMMATIC PHASE OFTHE REVIEW, THERE WAS, BY THE WORKING GROUP, THERE WAS

A VERY HIGH CONSENSUS ON A CERTAIN NUMBER OF GRANTS
 THAT FOR PROGRAMMATIC OR NOVEL RESEARCH REASONS THEY
 THOUGHT THAT THESE WERE PARTICULARLY IMPORTANT TO OUR
 MISSION.

5 YES. ANY ADDITIONAL BOARD COMMENTS? DR. LEVEY: I WOULD SAY AT BEST TO KEEP THIS 6 7 WHERE IT IS AT TIER 2 BECAUSE WE HAD THIS DISCUSSION 8 YESTERDAY ABOUT THIS AND THE ENSUING GRANT THAT HAD 9 BEEN ASTERISKED. OUESTION WAS THE CRITICISMS ARE OUITE 10 SIGNIFICANT, AND, AGAIN, IT'S THE SCIENCE VERSUS BEING 11 THE ONE OR TWO REPRESENTATIVES OF A CERTAIN DISEASE GROUP. AND I THINK IT'S A SLIPPERY SLOPE TO START 12 13 MAKING DECISION BETWEEN SCIENCE THAT'S LESS THAN 14 TERRIFIC BETWEEN ONE ENTITY THAT MAY GET REJECTED 15 BECAUSE THERE'S BEEN MULTIPLE ABSTRACTS IN THAT FIELD 16 AND ANOTHER ONE THAT HAPPENS TO BE THE ONLY ONE. AND I 17 THINK IT'S NOT A GOOD PRECEDENT FOR THE BOARD TO SET.

DR. STEWARD: CAN I SPEAK TO THAT? AGAIN, I 18 19 WOULD TOTALLY AGREE IF THE CRITICISMS WERE REALLY BASED 20 ON THE SCIENCE. I DIDN'T HEAR THAT. WHAT I HEARD WAS 21 THAT THERE WASN'T ENOUGH DETAIL ABOUT THE SCIENCE, YET 22 I THINK I HEARD THAT THE GROUP WAS AN EXCELLENT GROUP. 23 IT WAS A GROUP THAT WAS WELL-RESPECTED. THIS IS A 24 MATTER OF DO WE TRUST THIS GROUP TO DO THE WORK EVEN 25 THOUGH THEY DON'T TELL US EVERYTHING THEY'RE GOING TO

1 DO OR NOT? AM I CORRECT IN THAT THIS IS A

2 WELL-RESPECTED GROUP?

3 DR. CHIU: YES. AND THE COLLABORATORS WERE
4 EXCELLENT IN TERMS OF HUMAN EMBRYONIC STEM CELL
5 EXPERTISE.

6 MS. SAMUELSON: LOOKING AT THE SUMMARY AND 7 THE DESCRIPTIONS, THEY'RE HIGHLY EXPERIENCED, EXCELLENT 8 ACCOMPLISHED COLLABORATORS, SO ON. I'M AGREEING THAT 9 IN THE SPIRIT OF A SEED GRANT AND IN THE CONTEXT IN 10 WHICH WE ARE TRYING TO JUMP-START THIS FIELD SO THAT 11 ACCOMPLISHED PEOPLE WILL CHOOSE TO GET INTO THE FIELD 12 AND AGGRESSIVELY TACKLE THESE PROBLEMS, THAT THE 13 WEAKNESSES SEEM TO ME TO BE MINOR IN COMPARISON TO THE 14 STRENGTHS.

15 CHAIRMAN KLEIN: DR. POMEROY.

16 DR. POMEROY: WHEN I READ THIS, I READ THE 17 UNDERLYING HYPOTHESIS IS NOT CLEAR, AND THERE WAS AN 18 ABSENCE OF AN EXPLICIT EXPERIMENTAL PLAN. I'M NOT 19 COMFORTABLE VOTING FOR THINGS ON PEOPLE'S REPUTATION. 20 THIS IS A GREAT GROUP. THEY CAN MAKE AN EXPLICIT 21 HYPOTHESIS AND AN EXPLICIT EXPERIMENTAL PLAN AND 22 REAPPLY NEXT TIME.

DR. LEVEY: AGAIN, NOT TO BEAT THIS TO DEATH,
YOU READ THIS LAST PARAGRAPH OF THE WEAKNESS. IT
MENTIONS THAT THE FACT THE PI HAS ASSEMBLED A TALENTED

STAFF. SIMILAR WORK IS NOT ONGOING IN HIS LABORATORY,
 AND THERE WILL BE A SIGNIFICANT LEARNING CURVE FOR
 HUMAN EMBRYONIC STEM CELL CULTURE AND MANIPULATION THAT
 WILL DELAY INITIAL PROGRESS. THERE'S CONCERN THAT THE
 PI IS NOT MAKING ENOUGH OF A COMMITMENT OF TIME TO THIS
 PROJECT.

WE ARE IN AN AREA NOW WHERE THESE GRANTS DID
8 EARN THE SORT OF LOWER RANKS THAT THEY HAVE, SO IT'S
9 WHAT EVERYBODY WANTS TO READ.

10 CHAIRMAN KLEIN: SURE. ADDITIONAL MEMBER 11 COMMENTS?

MS. SAMUELSON: MAYBE THIS IS A BIT OF A RORSCHACH BECAUSE I'M SEEING STRENGTHS IN THAT CASE. THIS SOUNDS LIKE A CASE OF IF THEY BUILD IT, IF WE FUND IT, THAT LAB WILL TURN TO IT AND ATTEND TO IT WITH THE EXPERTISE THAT THEY DESCRIBE THAT THEY HAVE. SO THAT SEEMS TO ME TO BE A PLUS.

CHAIRMAN KLEIN: ALL RIGHT. WE HAVE A 18 19 SPIRITED ARRAY OF VIEWS. IS THERE PUBLIC COMMENT? 20 MR. REED: I DON'T THINK IT'S A BAD THING THAT THESE ARE EXTREMELY BUSY PEOPLE. OBVIOUSLY IF YOU 21 22 WANT TO GET SOMETHING DONE, HIRE A BUSY PERSON. THIS 23 SEEMS TO BE THE MONEY HASN'T BEEN THERE, THEY HAVEN'T 24 BEEN ABLE TO DO THIS KIND OF RESEARCH, AND NOW WE'RE 25 TRYING TO BRING IN TOP PEOPLE INTO OUR FIELD. THIS

SEEMS TO BE LIKE A GOOD MAGNET TO BRING IN TOP PEOPLE
 TO OUR FIELD AND STRONG PEOPLE.

3 CHAIRMAN KLEIN: DR. PENHOET. 4 DR. PENHOET: JUST THE POINT, I BELIEVE THAT 5 THE ASTERISKS WERE PUT IN PLACE WITH FULL AGREEMENT OF 6 BOTH THE SCIENTIFIC REVIEWERS AND THE PATIENT 7 ADVOCATES; IS THAT CORRECT? FOR THOSE OF YOU WHO WERE 8 IN THE MEETING. SO IF IT GOT AN ASTERISK, IT DID GET 9 THE BLESSING OF THE SCIENTIFIC REVIEWER GROUP. THEY 10 DIDN'T --11 DR. HALL: THE ENTIRE GROUP OF WHOM 15 12 SCIENTISTS AND SIX -- SEVEN PATIENT ADVOCATES. 13 DR. PENHOET: SO THEY CONCURRED ON THE 14 ASTERISKIZATION OF THESE GRANTS. 15 CHAIRMAN KLEIN: ADDITIONAL BOARD COMMENT? 16 ADDITIONAL PUBLIC COMMENT? CAN WE CALL THE ROLL. 17 MS. KING: RICARDO AZZIZ. DR. AZZIZ: NO. 18 19 MS. KING: PAUL JENNINGS. 20 DR. JENNINGS: YES. 21 MS. KING: ROBERT BIRGENEAU. 22 DR. BIRGENEAU: NO. 23 MS. KING: MICHAEL GOLDBERG. 24 MR. GOLDBERG: NO. 25 MS. KING: FRANCIS MARKLAND.

1	DR. MARKLAND: NO.
2	MS. KING: BOB KLEIN.
3	CHAIRMAN KLEIN: ABSTAIN.
4	MS. KING: GERALD LEVEY.
5	DR. LEVEY: NO.
6	MS. KING: ED PENHOET.
7	DR. PENHOET: YES.
8	MS. KING: DUANE ROTH.
9	MR. ROTH: YES.
10	MS. KING: JOAN SAMUELSON.
11	MS. SAMUELSON: YES.
12	MS. KING: DAVID SERRANO-SEWELL.
13	MR. SERRANO-SEWELL: YES.
14	MS. KING: OSWALD STEWARD.
15	DR. STEWARD: YES.
16	MS. KING: JANET WRIGHT.
17	DR. WRIGHT: YES.
18	DR. POMEROY: YOU GUYS ARE GOING TO START
19	HURTING MY FEELINGS.
20	MS. KING: CLAIRE POMEROY. SCOTT TOLD ME
21	THAT HE DID THAT WHILE I STEPPED OUT, SO I HAD TO DO IT
22	TO MAKE HIM FEEL BETTER.
23	DR. POMEROY: NO.
24	MR. HARRISON: THE MOTION TO FUND APPLICATION
25	308 CARRIES WITH SEVEN YES VOTES, SIX NO VOTES, AND ONE

1 ABSTENTION.

2 CHAIRMAN KLEIN: ALL RIGHT. WE'RE GOING TO 3 THE NEXT ITEM. 360. IS THERE ANY BOARD MEMBER THAT 4 WANTS TO ADDRESS THIS ITEM? I'M GOING TO MOVE FORWARD. 5 WE CAN COME BACK IF WE MOVE TOO FAST. 6 NEXT ITEM IS 221. ANYONE WANTS TO ADDRESS 7 221? 8 MR. GOLDBERG: MR. CHAIRMAN, WHERE ARE WE IN 9 TERMS OF PROCESS NOW? 10 CHAIRMAN KLEIN: WHERE ARE WE IN TERMS OF 11 MONEY? 12 MR. GOLDBERG: JUST WONDERING HOW MUCH 13 FURTHER -- I JUST NEED A REMINDER OF HOW MUCH FURTHER WE'RE GOING TO CONTINUE. 14 15 DR. PENHOET: THREE MORE. 16 CHAIRMAN KLEIN: THREE MORE BASED UPON WHERE WE'RE AT RIGHT NOW. WHEN WE GET THERE, I WILL ALLOW 17 ANY BOARD MEMBER TO BRING UP ANY OTHER ITEM, INCLUDING 18 19 ITEMS IN TIER 3, WHICH WE MUST DO, AND IT IS AN OPTION 20 OF THE BOARD. 21 OKAY. SO MOVING ON TO 247. 22 MR. ROTH: I'D LIKE TO MAKE A MOTION THAT WE 23 APPROVE 247. 24 MR. SHEEHY: SECOND. 25 CHAIRMAN KLEIN: MOTION IS MADE BY DUANE ROTH

AND SECONDED BY JEFF SHEEHY. SCIENTIFIC PRESENTATION
 AFTER WE HAVE THE CONFLICTS.

3 MS. KING: CAN YOU PLEASE TELL US WHAT THE 4 MOTION IS SPECIFICALLY?

5 CHAIRMAN KLEIN: MOTION, AS I UNDERSTAND IT,6 TO MOVE IT INTO TIER 1; IS THAT CORRECT?

MR. ROTH: THAT'S CORRECT.

7

8 MR. TOCHER: THE CONFLICTS ARE LANSING AND9 STEWARD.

CHAIRMAN KLEIN: SCIENTIFIC PRESENTATION,
 PLEASE.

DR. OLSON: THANK YOU. LAST NIGHT WHEN WE DISCUSSED THIS, IT WAS RIGHTLY NOTED THAT THERE WAS CONCERN ABOUT MOVING AN APPLICATION FORWARD SIMPLY ON THE BASIS IT WAS THE SINGLE ONE THAT WAS NOTED AND THERE WAS NO MORE DISCUSSION AT THAT TIME. SO I THINK WE APPRECIATE THE OPPORTUNITY TO TALK ABOUT IT A LITTLE BIT MORE.

19 THIS IS AN APPLICATION FROM A LEADER IN THE
20 ALZHEIMER DISEASE FIELD WHO WOULD BE NEW TO STEM CELLS.
21 THIS PERSON PROPOSES TO DEVELOP A CELL MODEL FOR
22 ALZHEIMER'S DISEASE, A HUMAN CELL MODEL, AND THEN TO
23 USE THIS MODEL TO SCREEN FOR NEW TARGETS FOR
24 ALZHEIMER'S DISEASE DRUG DISCOVERY.
25 THE SPECIFIC RESEARCH PROPOSED IS TO

CONSTRUCT TWO CELL LINES, ONE THAT WOULD INCLUDE THE
 WILD TYPE PRECURSOR PROTEIN THAT'S BEEN IMPLICATED IN
 ALZHEIMER'S DISEASE AND ONE WITH A MUTANT PROTEIN
 THAT'S BEEN RECOGNIZED AS A HUMAN MUTANT.

5 THESE CELLS WOULD THEN BE INTRODUCED INTO HUMAN EMBRYONIC STEM CELLS AND THE CELLS DIFFERENTIATED 6 7 TO A NEURONAL LINEAGE. THEN ONCE THESE CELL LINES HAVE 8 BEEN ESTABLISHED AND CHARACTERIZED, THEY WOULD BE USED 9 TO SCREEN A LIBRARY OF SMALL NUCLEAR RNA'S WHICH 10 ESSENTIALLY HAVE BEEN ENGINEERED TO REFLECT ALL THE 11 COMMONLY KNOWN DRUG TARGETS OF CURRENT DISEASES. SO 12 THE IDEA IS TO TAKE TARGETS THAT ARE ALREADY KNOWN TO 13 BE, LET'S CALL THEM, DRUGGABLE, AND SEE IF ANY OF THOSE 14 WOULD BE APPROPRIATE ALZHEIMER'S TARGETS.

15 I THINK THE CONCERN, THE REASON THE WEAKNESS 16 HAD TO DO WITH RISK. IF YOU NOTICE, THE PROPOSAL IS 17 CONSIDERED TO BE RISKY. AND ONE OF THE CONCERNS AS TO 18 WHY IT WAS RISKY WAS THAT THE SCREENING ASSAY THAT YOU 19 WOULD USE IN THE DRUG SCREEN, THE CONCERN WAS THAT IT 20 WAS INSUFFICIENTLY SENSITIVE.

I WOULD COMMENT, HOWEVER, THAT IN THE
STRENGTHS IT IS NOTICED THAT THE PROPOSAL IS AMBITIOUS,
BUT FEASIBLE. I WOULD ALSO NOTE THAT THEY COMMENT THAT
THE INVESTIGATOR IS AN EXPERT IN THIS AREA AND
ADDRESSES POTENTIAL PROBLEMS THAT COULD ARISE, PROPOSES

ALTERNATIVE APPROACHES, WELL QUALIFIED TO ANALYZE THE
 PROTEOLYTIC PRODUCTS THAT COULD ARISE. SO, AGAIN, IT'S
 HOW YOU LOOK AT IT.

4 THERE WAS CONCERN ALSO, AND THIS HAS TO DO 5 WITH THE SENSITIVITY, THAT WOULD THE PROTEINS BE 6 SUFFICIENTLY WELL EXPRESSED IN THE TRANSFECTED CELL 7 LINES TO DO THE SCREENING. AND THERE WAS CITED A 8 PERSONAL COMMUNICATION FROM AN EXPERT IN HUMAN ESC 9 RESEARCH, WHO IS A COLLABORATOR ON THIS PROPOSAL, THAT, 10 IN FACT, THIS PROTEIN WAS WELL EXPRESSED IN PRELIMINARY 11 EXPERIMENTS.

12 THERE WAS CONCERN ABOUT THE NEURONAL TYPE. Ι 13 DON'T HAVE AN ANSWER TO THAT. THERE WAS CONCERN THAT 14 PERHAPS THE EXPRESSION OF THE MUTANT MIGHT BE TOXIC TO 15 THE CELL. IT WAS NOTED IN THE STRENGTHS THAT THESE 16 ISSUES WERE ADDRESSED. AND, FINALLY, AGAIN, WHAT I 17 JUST CITED, THERE WAS A COMMENT THAT LACK OF EXPERIENCE 18 IN WORKING WITH HUMAN EMBRYONIC STEM CELLS, BUT THIS 19 INVESTIGATOR HAS ENLISTED A COLLABORATOR WHO IS EXPERT AND RECOGNIZED AS SUCH IN HUMAN EMBRYONIC STEM CELLS. 20 21 IN THE PROGRAMMATIC REVIEW IT WAS NOTED THAT

THIS WAS AN ALZHEIMER'S PROJECT, AND OF THE PROJECTS THAT WE SAW, THIS WAS THE ONLY PROJECT THAT TARGETED THAT DISEASE, THAT THE INVESTIGATOR WAS CONSIDERED A LEADER IN THAT FIELD. THAT WAS CITED IN THE STRENGTHS.

AND THAT WE WOULD BE RECRUITING SAID INVESTIGATOR TO
 THE HUMAN EMBRYONIC STEM CELL FIELD. AND THOSE WERE
 THE REASONS THAT THE COMBINED WORKING GROUP RECOMMENDED
 THAT THIS ONE BE GIVEN SPECIAL CONSIDERATION IF
 ADDITIONAL FUNDING WAS AVAILABLE.

6

CHAIRMAN KLEIN: JEFF.

7 MR. SHEEHY: YEAH. I COULDN'T REALLY SPEAK 8 TO THE LAST ONE BECAUSE I WAS CONFLICTED. BEING A 9 LITTLE BIT SIMPLISTIC IN DESCRIBING THE PROGRAMMATIC 10 REVIEW. IT WAS A LITTLE BIT MORE COMPLEX THAN JUST, 11 OH, THIS IS AN ALZHEIMER'S ONE OR THIS IS A BETA-CELL 12 ONE. YOU HAVE REMEMBER THAT THERE WERE 230 GRANTS 13 REVIEWED. AND I THINK IF YOU LOOK -- THIS ONE IS 14 ACTUALLY A VERY GOOD EXAMPLE OF WHAT KIND OF WENT ON IN 15 THE PROGRAMMATIC REVIEW. IF YOU LOOK, THERE WERE TWO 16 FAIRLY STRONGLY HELD OPINIONS ON THIS GRANT THAT 17 CONTRADICTED EACH OTHER. AND THE RESEARCHER WHO BROUGHT IT UP, I MEAN THE REVIEWER, I THINK WAS ONE OF 18 19 THE ACTUAL REVIEWERS -- AND I THINK HE WAS ONE OF THE 20 CRITICS. IF MY MEMORY SERVES ME RIGHT, THE PERSON WHO NOTED IT WAS AN ALZHEIMER'S ONE WHO HAD BEEN ESPECIALLY 21 22 CRITICAL OF IT IN REVIEW, I BELIEVE, AND MY MEMORY IS 23 NOT THAT GOOD, HE HAD BEEN A TOUGH REVIEWER ANYWAY. 24 AND THAT'S WHAT THE PROGRAMMATIC REVIEW IS TRYING TO 25 MITIGATE WAS WHEN YOU HAD A RANGE OF VOTES, WHEN YOU

HAD A LITTLE BIT OF DISAGREEMENT BETWEEN REVIEWERS, IF
 YOU LOOK HERE, ONE REVIEWER THOUGHT THIS WAS A VERY
 ORIGINAL APPROACH, AND THE OTHER ONE DIDN'T THINK IT
 WAS SUCH A GREAT IDEA. FOUND THE INNOVATIVE ASPECT OF
 THIS TO BE LOW.

6 SO THAT NECESSARILY ENDS UP WITH A WIDER 7 RANGE OF -- THAT TENDS TO PUSH YOUR VOTE DOWN. AND I 8 THINK IN THE CONTEXT OF THIS, WITH ALL THE SCIENTISTS 9 TAKING PART IN THIS, I REALLY FELT, AT LEAST ON THIS 10 ONE, I DIDN'T TAKE PART IN THE OTHER ONE BECAUSE I WAS 11 CONFLICTED, BUT I THOUGHT THERE WAS A VERY, VERY STRONG 12 SENSE THAT THIS ONE SHOULD BE MOVED UP AND ASTERISKED. 13 I WOULD NOTE THAT THE FACT THAT IT WAS A 71 SHOULD NOT 14 BE AN EXPRESSION OF THE WEAKNESS OF THE FAITH OF THE 15 SCIENTISTS IN MOVING IT UP, BUT ACTUALLY AN EXPRESSION 16 OF KIND OF, OOPS, WE MADE A MISTAKE, IF THAT GIVES YOU 17 SOME TEXTURE, BECAUSE THEY WERE VERY RELUCTANT TO PLAY 18 WITH THEIR SCORES, LET ME TELL YOU.

19 MS. SAMUELSON: DOES THIS NEED A SECOND?

20 DR. BIRGENEAU: SECOND.

CHAIRMAN KLEIN: THERE IS A SECOND BY DR.
BIRGENEAU. I THOUGHT THAT THERE WAS. THE ISSUE WAS
RAISED. YOU WERE THE SECOND. JEFF WAS THE SECOND.
ALL RIGHT.

25 LET ME DISCUSS HERE A TECHNICAL ISSUE. THE

1 WAY WE DETERMINE A QUORUM IS THAT WE LOOK AT THE 2 POSITIONS THAT ARE VACANT. THERE ARE TWO POSITIONS 3 VACANT. WE HAVE A QUORUM FOR ALL THE VOTES WE'VE TAKEN 4 TO DATE EXCEPT FOR THE LAST ONE PRIOR TO THIS. AND LET 5 ME EXPLAIN TECHNICALLY WHERE WE'RE AT BECAUSE OF THE 6 STATISTICAL INTERFACE OF THE RULES. THAT WE HAVE 29 7 MEMBERS ON THE BOARD. DR. LEON THAL IS NO LONGER WITH 8 US, AND THE UC SAN DIEGO POSITION IS NOT FILLED. THAT 9 MEANS 27.

10 ON THE VOTE FOR THE LAST ITEM, AS IS SIMILAR FOR THE VOTE ON THIS ITEM, IF WE WERE TO PROCEED, HAS A 11 12 PROBLEM IN THAT THERE WERE FOUR MEMBERS WHO COULD NOT 13 VOTE IN THE LAST ITEM. THAT'S 23. NOW, 65 PERCENT OF 14 23 IS 15. THERE WERE 14 MEMBERS VOTING ON THE LAST 15 ITEM. THAT MEANS WE DIDN'T HAVE A QUORUM WHO COULD 16 VOTE ON THE LAST ITEM. THAT HAS NOT AFFECTED US 17 PREVIOUSLY TODAY AND WOULD NOT NECESSARILY AFFECT US ON 18 ANY LATER VOTE EXCEPT IT ALSO AFFECTS US ON THE VOTE, 19 POTENTIAL VOTE, ON THE ITEM BEFORE US.

20 QUESTION TO COUNSEL. NO. 1, IT IS MY 21 ASSUMPTION, BUT I WANT TO BE EDUCATED WITH THE BOARD, 22 THAT ON THE LAST ITEM, WE NEED TO INDICATE THAT THAT 23 WAS MERELY A STRAW VOTE AND CAN ONLY BE CONSIDERED AS A 24 STRAW VOTE. AND IF WE TAKE A VOTE ON THIS ITEM, IT 25 COULD ONLY BE A STRAW VOTE. IT CANNOT BE A VOTE TO

1 FUND. WE COULD LEAVE ITEMS WITH A STRAW VOTE TO 2 CONSIDER IF WE HAVE LATER FUNDING AVAILABLE AND COME 3 BACK, BUT WE DO NOT STATISTICALLY, BECAUSE OF THE 4 CONFLICTS THAT PRESENT THEMSELVES ON THESE TWO, HAVE 5 THE VOTES NECESSARY TO VOTE THEM INTO TIER 1. IS THAT 6 A CORRECT STATEMENT? 7 MR. HARRISON: THAT IS REGRETTABLY CORRECT. 8 MS. SAMUELSON: IS IT POSSIBLE TO CURE THE 9 OUORUM PROBLEM WITH A PHONE-IN OR SOMETHING OR SOMEBODY 10 COMING BACK? 11 CHAIRMAN KLEIN: YOU DIDN'T SAY A CLONE-IN, 12 DID YOU? 13 MS. SAMUELSON: SOMATIC CELL NUCLEAR 14 SUBSTITUTION. NO, I DIDN'T. 15 CHAIRMAN KLEIN: MR. HARRISON, QUESTION FROM 16 THE MEMBER JOAN SAMUELSON IS CAN YOU CURE THAT QUORUM 17 ISSUE WITH A PHONE-IN. I BELIEVE THAT THE ANSWER IS, 18 SINCE THERE'S NOT PREPUBLISHED NOTICE OF A PUBLIC 19 MEETING LIST SHOWING THE PERSON ON OUR AGENDA AS A 20 PHONE-IN SITE, WE CANNOT DO THAT; IS THAT CORRECT? 21 MR. HARRISON: THAT IS TECHNICALLY ACCURATE. 22 CHAIRMAN KLEIN: AND I THINK WE'RE CONSTANTLY 23 RESOLVING ANY DOUBT IN THE FAVOR OF THE MOST 24 CONSERVATIVE POSITION. SO WE DO NOT HAVE THAT OPTION. 25 MS. SAMUELSON: I GUESS I DON'T UNDERSTAND

1 WHY WE DON'T HAVE A QUORUM NOW WHEN WE HAD ONE. I WAS 2 THINKING PERHAPS THAT PERSON WAS SOMEWHERE. 3 CHAIRMAN KLEIN: WE DO HAVE A QUORUM EXCEPT 4 IN THE STATISTICAL SITUATION WHERE WE HAVE FOUR 5 CONFLICTED ON A VOTE. 6 MR. SHEEHY: WE HAD FOUR CONFLICTED ON THIS 7 ONE? 8 CHAIRMAN KLEIN: YES. SO THIS IS IN THE SAME 9 CATEGORY AS THE LAST ONE WE VOTED ON. 10 MR. HARRISON: THIS IS SLIGHTLY DIFFERENT IN 11 THE SENSE THAT WE ONLY HAVE TWO WHO ARE CONFLICTED, BUT 12 THE MATH WORKS OUT THE SAME. YOU NEED 17, AND WE ONLY 13 HAVE 16 WHO COULD PARTICIPATE. 14 CHAIRMAN KLEIN: ALL RIGHT. 15 MR. ROTH: MR. CHAIRMAN, IS IT POSSIBLE THAT WE COULD HOLD THESE TWO OVER TO THE MARCH MEETING? 16 17 CHAIRMAN KLEIN: YES, WE CAN. 18 MR. ROTH: WE COULD DEAL WITH IT TODAY. 19 CHAIRMAN KLEIN: IN FACT, IF THERE WERE A 20 SUGGESTION THAT WOULD BE -- I THINK IT'S AN EXCELLENT 21 SUGGESTION, THAT IF IT WERE ACCEPTABLE TO THE BOARD, ON 22 ANY ITEM WHERE WE REACH A STATISTICAL BARRIER, IT MIGHT 23 BE APPROPRIATE TO JUST HOLD THAT ITEM OVER TO THE MARCH 24 MEETING. THIS IS ONLY ITEMS WHERE IT APPEARS THAT THE 25 MEMBERS WANT TO VOTE.

1DR. BIRGENEAU: MY OWN INSTINCT, SINCE WE'VE2HAD THE DISCUSSION AND WE HAVE CONTEXT HERE, IS THAT A3STRAW VOTE WOULD BE USEFUL.

4 CHAIRMAN KLEIN: ALL RIGHT. COUNSEL, AM I 5 CORRECT THAT WE CAN PROCEED WITH THE STRAW VOTE?

MR. HARRISON: YOU CAN.

6

CHAIRMAN KLEIN: SO WITH THE -- DO WE NEED A
FORMAL MOTION BY THE BOARD TO ADOPT THE LAST VOTE AS A
STRAW VOTE?

10 MR. HARRISON: NO. IT WILL BE REFLECTED AS 11 SUCH BY VIRTUE OF THE FACT THAT A QUORUM WASN'T 12 PRESENT.

13 CHAIRMAN KLEIN: THANK YOU. OKAY. SO 14 ADDITIONAL MEMBER COMMENTS ON THIS ITEM? WE WOULD BE 15 VOTING AS A STRAW VOTE ON CONSIDERING THE ISSUE OF 16 MOVING IT INTO THE UPPER TIER. ANY PUBLIC COMMENT ON 17 THIS ITEM? NO PUBLIC COMMENT. CAN YOU CALL THE ROLL 18 AFTER STATING THE CONFLICTS.

19 MS. KING: LANSING AND STEWARD.

20 RICARDO AZZIZ.

21 DR. AZZIZ: YES.

22 MS. KING: PAUL JENNINGS.

23 DR. JENNINGS: YES.

24 MS. KING: MARCY FEIT.

25 MS. FEIT: YES.

1	MS. KING: MICHAEL GOLDBERG.
2	MR. GOLDBERG: YES.
3	MS. KING: FRANCIS MARKLAND.
4	DR. MARKLAND: YES.
5	MS. KING: DAVID KESSLER.
6	DR. KESSLER: YES.
7	MS. KING: BOB KLEIN.
8	CHAIRMAN KLEIN: YES.
9	MS. KING: GERALD LEVEY.
10	DR. LEVEY: YES.
11	MS. KING: ED PENHOET.
12	DR. PENHOET: YES.
13	MS. KING: CLAIRE POMEROY.
14	DR. POMEROY: YES.
15	MS. KING: DUANE ROTH.
16	MR. ROTH: YES.
17	MS. KING: JOAN SAMUELSON.
18	MS. SAMUELSON: YES.
19	MS. KING: DAVID SERRANO-SEWELL.
20	MR. SERRANO-SEWELL: YES.
21	MS. KING: JEFF SHEEHY.
22	MR. SHEEHY: YES.
23	MS. KING: JANET WRIGHT.
24	DR. WRIGHT: YES.
25	MS. KING: ROBERT BIRGENEAU.

1 DR. BIRGENEAU: YES.

CHAIRMAN KLEIN: THANK YOU. I THINK THIS IS
A SOPHISTICATED RANDOM SYSTEM TO SEE IF EVERYONE IS
PAYING ATTENTION. ALL RIGHT.

5 WE ARE AT ITEM 314. ANY MEMBER WANT TO 6 DISCUSS 314?

7 MR. HARRISON: FOR THE RECORD, ON THE LAST
8 VOTE, THE STRAW MOTION TO FUND APPLICATION 247 CARRIED
9 WITH 16 YES VOTES AND ZERO NO VOTES.

10 CHAIRMAN KLEIN: THANK YOU. SEEING NO BOARD 11 MEMBER THAT WANTS TO CONSIDER THIS ITEM, IS THERE A 12 BOARD MEMBER THAT WANTS TO DISCUSS ANY OTHER ITEM, 13 INCLUDING ANY ITEM IN TIER 3, WHICH LEGALLY WE WILL 14 ALWAYS CONSIDER AS AN OPTION? ANY BOARD MEMBER CAN 15 IDENTIFY AN ITEM IN TIER 3. ALL RIGHT.

SEEING NO ACTION ITEM, COUNSEL, WE'RE
CONSTRUCTING THE LIST TO SEE WHAT THE TOTAL FUNDING IS.
COUNSEL, I HAVE A TECHNICAL QUESTION FOR YOU.
UNDERSTANDING THE MATHEMATICAL ISSUES, WHEN WE VOTE ON
FUNDING, WE VOTED FOR FUNDING, SO WE'RE CLEAR OF ALL
THOSE ISSUES THROUGH ALL THOSE WE'VE TAKEN ACTIONS ON?
MR. HARRISON: THAT'S CORRECT WITH THE

23 EXCEPTION OF THE LAST TWO.

24 CHAIRMAN KLEIN: SO THAT STATISTICAL PROBLEM 25 YOU'VE GONE BACK AND CHECKED DID NOT OCCUR ON ANY PRIOR

1 ITEM?

2 MR. HARRISON: WE'LL REVIEW THAT AND 3 DOUBLE-CHECK, BUT WE BELIEVE THAT'S TRUE BECAUSE WE 4 LOST DR. PIZZO ONLY A FEW MOMENTS AGO. 5 CHAIRMAN KLEIN: BUT IF THERE WERE A 6 STATISTICAL ISSUE WITH ANY PRIOR ITEM, WOULD IT BE THE 7 SENSE OF THE BOARD WE WOULD CARRY THAT ONE OVER AS A 8 STRAW VOTE AS WELL? 9 MR. ROTH: I'LL MAKE THAT AS A MOTION, THAT 10 ANY STATISTICAL ABERRATIONS WHEN THEY GO BACK AND 11 REVIEW BE CARRIED OVER TO THE MARCH MEETING. 12 CHAIRMAN KLEIN: ALL RIGHT. I THINK WE CAN 13 DO IT PROCEDURALLY WITHOUT A MOTION, BUT THANK YOU FOR 14 THAT SUGGESTION. ALL RIGHT. 15 SO, DR. HALL, WOULD YOU ANNOUNCE THE FINAL 16 RESULTS, PLEASE? 17 DR. HALL: I WAS JUST GOING TO SAY I WOULD GIVE YOU THE -- IF YOU FUND, INCLUDING THE LAST TWO FOR 18 19 WHICH THERE WAS A STRAW VOTE, NOT A QUORUM, THE TOTAL 20 IS ESSENTIALLY \$46 MILLION. IT'S 45.967. IF YOU DON'T 21 INCLUDE, THAT IS, IF THOSE ARE HELD OVER, THEN IT COMES 22 OUT TO 44.839, SO WE'RE RIGHT AT THE 45, \$46 MILLION. 23 CHAIRMAN KLEIN: WOULD ANY MEMBER OF THE 24 BOARD LIKE TO CHANGE ANYTHING WITH THESE NUMBERS? YOU 25 HAVE THE OPTION OF WITHDRAWING ANY ITEM THAT'S BEEN

1 APPROVED. SEEING NO MOTION TO DO SO, I WOULD LIKE TO 2 CONGRATULATE THE BOARD MEMBERS AND THE STAFF FOR THE 3 TREMENDOUS SACRIFICE THAT HAS LED US TO THIS POINT OF 4 INCREDIBLE CONTRIBUTION TO THE FUTURE OF CALIFORNIA AND 5 HONORING THE MANDATE OF THE SEVEN MILLION VOTERS WHO 6 VOTED FOR PROPOSITION 71 ON NOVEMBER 2, 2004. THIS IS 7 INDEED A MILESTONE.

8 AND DR. ARLENE CHIU, AS HAS BEEN STATED 9 PREVIOUSLY. YOUR REMARKABLE ACHIEVEMENT IN THE PEER 10 REVIEW WORKING GROUP SESSION WAS TREMENDOUS. IN 11 ADDITION, I THANK YOU TO DR. HALL FOR YOUR GREAT 12 CONTRIBUTION. AND I THANK YOU TO ALL OF THE STAFF, IN 13 PARTICULAR AMY DUROSS, WHO WILL BE LEAVING US, AND ERIN ROBBINS, I BELIEVE IS ALSO HERE, WHO WILL BE LEAVING 14 15 US, FOR THEIR REMARKABLE CONTRIBUTIONS THROUGH THIS 16 PROCESS. DR. CHIU.

DR. CHIU: I'D LIKE TO BEG THE INDULGENCE OF 17 THE BOARD FOR JUST TWO MINUTES IN THAT I FEEL LIKE I'M 18 19 THE BEARER OF THE CAKE, THE PERSON WHO BRINGS THE 20 BIRTHDAY CAKE INTO THE ROOM. I'M VERY GRATEFUL FOR ALL 21 THE COMMENTS, BUT I REALLY WANT TO STRESS THAT THE 22 SCIENCE TEAM PLAYED A TREMENDOUS ROLE IN BAKING THIS 23 CAKE. AND THE POINT IS THAT THE EXCELLENT COORDINATION 24 THAT YOU SAW WAS COMPLETELY DUE TO GIL SAMBRANO, WHO IN 25 A PAST LIFE MUST HAVE BEEN A SWISS TRAIN STATIONMASTER

1 TO HAVE COORDINATED IT. THE REST OF THE TEAM WITH PAT 2 OLSON, NOW WITH RUTH GLOBUS, WITH KUMAR HARI, WITH MARY 3 MAXON, EVERYBODY PITCHED IN TO WRITE AND DO ALL THAT. 4 AND IMPORTANT TWO OTHER GROUPS OF PEOPLE, WE COULD NOT 5 HAVE DONE ANY OF IT WITHOUT THE I.T. SYSTEM THAT MADE 6 IT POSSIBLE TO BLEND EVERYTHING IN, AND THAT'S ED 7 DORRINGTON THERE. 8 (APPLAUSE.) 9 DR. CHIU: AND TRICIA CHIVERA AND MAYBEL 10 CORTEZ AS WELL AS PAT BECKER, WHO IS UNABLE TO BE HERE 11 TODAY, WERE THE ONES WHO MADE IT ALL HAPPEN, SET 12 EVERYTHING UP, AND TIMED EVERYTHING. SO PLEASE THANK 13 THE -- ACKNOWLEDGE THE TEAM HERE THAT DID ALL THAT. 14 (APPLAUSE.) 15 DR. CHIU: AND AMY LEWIS WHO STAYED LATE EVERY NIGHT TO CALCULATE ALL THOSE SCORES. JUST FIGURE 16 17 231 TIMES 15 HAD TO BE CALCULATED EVERY NIGHT. CHAIRMAN KLEIN: AS SOMEONE WHO APPRECIATES 18 19 GREAT NUMBERS, AMY LEWIS, THANK YOU. 20 DR. KESSLER: ARLENE, WE'LL STIPULATE TO WHAT 21 YOU JUST SAID, BUT RECOGNIZE YOUR EFFORT WAS HEROIC. 22 (APPLAUSE.) 23 CHAIRMAN KLEIN: ALL RIGHT. AT THIS POINT 24 I'D LIKE TO TAKE A MOMENT BECAUSE BILL FISHER, THE CEO 25 OF NORTHERN CALIFORNIA AND NORTHERN NEVADA ALZHEIMER'S

ASSOCIATION IS HERE. I'D ASK THAT IF HE COULD ADDRESS
 US FOR A MOMENT. WE HAVE PREVIOUSLY, AS BILL KNOWS,
 NAMED THE SEED MONEY GRANTS AFTER DR. LEON THAL. AND
 IT'S A GREAT PRIVILEGE TO HAVE YOU HEAR THIS MORNING,
 BILL.

MR. FISHER: IT'S NICE TO BE WITH YOU, AND I 6 7 WON'T KEEP YOU LONG. I'VE BEEN SITTING AND LISTENING 8 WITH ADMIRATION TO YOUR DELIBERATIONS THIS MORNING. 9 LEON THAL WAS ON OUR NATIONAL BOARD OF DIRECTORS. HE 10 WAS THE CO-PRINCIPAL INVESTIGATOR WITH MIKE WEINER AT 11 UCSF IN OUR ALZHEIMER'S DISEASE NEUROIMAGING 12 INITIATIVE. HE WAS THE PRINCIPAL INVESTIGATOR IN THE 13 ALZHEIMER'S DISEASE COLLABORATIVE STUDIES GROUP.

14 I MET LEON FOR THE FIRST TIME IN THE EARLY 15 '90S WHEN HE CAME TO THE BAY AREA TO SPEAK TO A FAMILY 16 GROUP FOR US. AT THE TIME HE HAD BEEN ASKED BY THE NIA TO HEAD UP THE TACRINE STUDIES. I USED TO WORK IN THE 17 ALZHEIMER'S OFFICE WHEN WE WOULD GET CALLS FROM PEOPLE 18 19 BECAUSE THEY HAD HEARD OF A DRUGSTORE IN THE BAHAMAS 20 WHERE THEY COULD FLY AND GET TACRINE. THEY'D READ ABOUT IT IN THE WALL STREET JOURNAL, AND THEY THOUGHT 21 22 WE WERE KEEPING SOMETHING IMPORTANT FROM THEM.

ONE OF THE THINGS THAT STRUCK ME ABOUT LEON
IS I IRONICALLY DROVE HIM TO THE AIRPORT THAT EVENING
TALKING TO HIM ABOUT FAMILIES AND HOW DESPERATE THEY

WERE, AND THEY DIDN'T CARE ABOUT A LITTLE BIT OF LIVER
 TOXICITY IF IT WAS GOING TO REALLY ADDRESS ALZHEIMER'S
 DISEASE. HE SAID, "YEAH, BUT DOES IT WORK? THAT'S THE
 THING WE'VE GOT TO BE SURE OF," BUT HE UNDERSTOOD THE
 DESPERATION OF THE FOUR AND A HALF MILLION AMERICAN
 FAMILIES WHO DEAL WITH THIS ISSUE.

7 THE THING THAT STRUCK ME ABOUT LEON, I'M NOT 8 A SCIENTIST BY ANY STRETCH, BUT I LISTEN TO SOME OF THE 9 BEST ON A REGULAR BASIS. AND HE WAS ONE OF THOSE COULD 10 COMMUNICATE. HE COULD MAKE THE SCIENCE UNDERSTANDABLE. 11 AND I COULDN'T HELP THINKING, LISTENING TO YOUR 12 DELIBERATIONS THIS MORNING, THAT I'M SURE YOU MISSED 13 THERE'S A LOT THAT HE WOULD HAVE -- A LOT OF THE HIM. 14 ISSUES YOU WERE DISCUSSING ABOUT WHICH HE WOULD HAVE 15 SO WE LOST A REAL HERO. HE'S ONE OF THESE THOUGHTS. 16 GUYS WHO COULD MARSHAL PEOPLE, WHO COULD ENCOURAGE 17 COLLABORATION, WHO COULD DEAL WITH THE INDIVIDUAL AND 18 INSTITUTIONAL EGOS, AND THE MUNDANE THINGS LIKE HOW ARE 19 WE GOING TO BILL FOR THESE THINGS AMONG VARIOUS 20 INSTITUTIONS. JUST SUCH A GREAT GUY.

FORTUNATELY, I THINK, IN THE FIELD OF
ALZHEIMER'S SCIENCE, WE'RE NOT AS -- OUR BENCH IS
DEEPER THAN IT WAS 10, 15 YEARS AGO. WE'LL MISS HIM,
NO DOUBT, AND WE THANK YOU IN THE WORK THAT YOU DID
TODAY, WHICH IS ALL ABOUT HOPE FOR FUTURE GENERATIONS.

1 IT SEEMS TO ME FITTING THAT A MAN WHOSE LIFE WORK WAS 2 ALL ABOUT HOPE FOR FAMILIES WITH ALZHEIMER'S IN 3 PARTICULAR THAT YOU HAVE NAMED THESE GRANTS IN HIS 4 MEMORY. THANK YOU SO MUCH. THANK YOU FOR ALL YOUR 5 GOOD WORK AND BEST WISHES AS YOU GO FORWARD. 6 (APPLAUSE.) 7 CHAIRMAN KLEIN: COUNSEL, DO YOU HAVE A POINT 8 YOU'D LIKE TO MAKE? 9 MR. HARRISON: YES. IN OUR REVIEW OF THE 10 PRIOR VOTES, WE DETERMINED THAT THERE WAS ONE OTHER 11 MOTION TO MOVE APPLICATION 180 INTO THE FUNDING 12 CATEGORY. AND UNFORTUNATELY WE NEEDED 16 MEMBERS FOR A 13 QUORUM, AND WE ONLY HAD 15 MEMBERS PARTICIPATING IN THE 14 VOTE. SO THAT WILL ALSO BE ONE THAT WILL HAVE TO BE 15 HELD OVER UNTIL THE MARCH MEETING. 16 CHAIRMAN KLEIN: THANK YOU VERY MUCH. AND 17 LET BE SAID THIS IS A GROUP THAT DOUBLE-CHECKS. WE NOW HAVE ENTITLED OURSELVES TO LUNCH, WHICH MELISSA WILL OR 18 19 JENNA WILL LEAD US ACROSS THE HALL. 20 MR. HARRISON: EXCUSE ME. I MISSPOKE. 21 ACTUALLY THE VOTE ON THAT HAD BEEN NOT TO FUND. IT WAS 22 11 NO VOTES AND FOUR YES VOTES. 23 CHAIRMAN KLEIN: SO WE'RE OKAY. 24 DR. HALL: IT'S A GROUP THAT TRIPLE-CHECKS. 25 CHAIRMAN KLEIN: WHAT A TEAM. OKAY. SO WE

CAN NOW FOLLOW JENNA ACROSS THE AISLE. WE'LL TRY AND
 DO THIS IN 45 MINUTES AND COME BACK. THANK YOU.
 (A RECESS WAS TAKEN. THE BOARD THEN
 WENT INTO EXECUTIVE SESSION AT THE CONCLUSION OF LUNCH
 AND BEFORE RECONVENING THE OPEN SESSION TO DISCUSS
 LITIGATION. THE BOARD WAS THEN HEARD IN OPEN SESSION
 AS FOLLOWS:)

8 CHAIRMAN KLEIN: ALL RIGHT. WE ARE 9 RECONVENING THE MEETING ON THE RECORD. WE HAD AN 10 EXECUTIVE SESSION WHERE WE DISCUSSED AN UPDATE ON 11 LITIGATION. WE DID NOT TAKE ANY ACTION.

12 AND WE ARE GOING TO FOLLOW A PLAN TODAY TO 13 MOVE THROUGH THE REMAINING ITEMS AS FOLLOWS: WE WILL SKIP ITEM NO. 14; WE'RE GOING TO SKIP ITEM NO. 15; 14 15 WE'RE GOING TO TAKE A STRAW VOTE ON ITEM NO. 16 BECAUSE 16 WE WANT TO PROJECT OUT OUR DESIRE TO ADOPT AT THE 17 EARLIEST POSSIBLE DATE THE ADDITIONAL CONFLICT OF INTEREST POLICY REFINEMENT. THEN WE WILL HAVE A REPORT 18 19 ON ITEM 17, AND A REPORT ON ITEM 18, AND WE WILL NOT 20 CONSIDER TODAY ITEM 19.

OKAY. I'LL WAIT FOR A MOMENT AS THE STAFF
HELPS WITH THE BOARD. ALL RIGHT. WE HAVE RECONVENED.
WE ARE NOW BACK IN SESSION, AS I SAID A MOMENT AGO.
I'LL WAIT FOR A MOMENT NOW FOR STAFF.
AS WE RECONVENE, I WOULD LIKE TO SAY THAT WE

HAVE BEEN THROUGH A REMARKABLE PROCESS WITH THE HELP OF
 THREE ADDITIONAL INDIVIDUALS THAT WE COULD NOT HAVE
 DONE WITHOUT. THEY WERE CRITICAL, ESSENTIAL, PUT IN
 MASSIVE NUMBER OF HOURS, GREAT DETAIL. AND I'D LIKE TO
 RECOGNIZE EACH OF THOSE INDIVIDUALS IN SEQUENCE.

6 I FIRST WOULD LIKE TO RECOGNIZE MELISSA KING, 7 WHO TIRELESSLY WORKED WITH THE BOARD, WITH COUNSEL, 8 WITH THE ENTIRE ADMINISTRATION OF THIS AGENCY TO MAKE 9 CERTAIN THAT WE COULD INTEGRATE THE BOARD'S 10 CONSIDERATIONS, THE CONFLICTS ISSUES, THE DOCUMENTS 11 PRODUCTION WITH THE SCIENTIFIC SIDE OF OUR GREAT 12 ESTABLISHMENT. AND I'D LIKE TO HAVE A HAND FOR MELISSA 13 KING.

14 (APPLAUSE.)

25

15 CHAIRMAN KLEIN: AND I WOULD REMIND US ALL 16 THAT WE'RE ON THE COURT SCHEDULE WE'RE ON BECAUSE MELISSA GAVE UP ALL OF HER VACATION IN THE END OF 2005. 17 BEGINNING OF 2006 TO MAKE SURE WE GOT 30,000 PAGES OF 18 19 PRODUCTION OUT. THE OPPOSITION DIDN'T THINK IT WAS 20 POSSIBLE TO HAVE A JANUARY 3D DEADLINE FOR PRODUCTION. 21 BETWEEN DECEMBER 20TH AND JANUARY 3D, MELISSA, WORKING 22 WITH JAMES HARRISON, SCOTT TOCHER, DID A REMARKABLE 23 JOB. AMY DUROSS AND AMY LEWIS, I BELIEVE, ARE ALSO 24 GREAT PARTS OF THAT TEAM.

SECONDLY, I'D LIKE TO RECOGNIZE SCOTT TOCHER,

1 BUT I DON'T SEE HIM IN THE ROOM AT THE MOMENT. SO I'D 2 LIKE TO RECOGNIZE JAMES HARRISON BY SAYING, IN LEADING 3 OUR LEGAL TEAM'S INTERFACE WITH THE ATTORNEY GENERAL'S 4 OFFICE, SERVING AS SPECIAL COUNSEL, SERVING AS COUNSEL 5 TO THE BOARD, HE HAS BEEN A REMARKABLE CONTRIBUTOR, 6 FOLLOWING ON THE GREAT LEGACY OF HIS CONTRIBUTION AS 7 GENERAL COUNSEL TO THE CAMPAIGN AND ONE OF THE LEAD 8 ATTORNEYS THAT WORKED WITH ME IN DRAFTING OF THIS 9 INITIATIVE. BUT JAMES HARRISON HAS BEEN COMMITTED 10 MIND, BODY, AND SOUL IN 35, 40 HOURS A DAY, JUST A 11 REMARKABLE PERFORMANCE. AND I'D LIKE TO GIVE HIM A 12 HAND OF APPLAUSE. 13 (APPLAUSE.) 14 CHAIRMAN KLEIN: WE WILL PROCEED. WHEN SCOTT 15 TOCHER RETURNS, I'D LIKE TO MAKE SURE WE RECOGNIZE HIM. 16 IN CONSIDERATION OF OUR CALENDAR, AS THE 17 BOARD WAS ASSEMBLED, I INDICATED TO THE PUBLIC WE'D BE SKIPPING ITEMS 14 AND 15, AND GOING TO A STRAW VOTE ON 18 19 ITEM NO. 16. IF, IN FACT, I COULD GET A PRESENTATION 20 ON ITEM NO. 16. 21 SCOTT TOCHER. SEE, I TOLD YOU HE'S

22 IRREPLACEABLE. WHILE WE'RE WAITING FOR SCOTT TO23 RETURN, I WILL DISCUSS ITEM 17.

24 THE PRESIDENTIAL SEARCH SUBCOMMITTEE MET25 EARLIER THIS MONTH TO START OUR EXECUTIVE SEARCH

PROCESS. THE MAIN ITEM ON THE AGENDA WAS THE DECISION
 TO ISSUE AN RFP FOR AN EXECUTIVE SEARCH FIRM. THIS
 DEADLINE IS FRIDAY, FEBRUARY 3D. THAT RFP GOT ISSUED
 WITHIN 48 HOURS OF THE MEETING BEING OVER, BUT WE HAVE
 A REQUISITE WAITING PERIOD.

6 OUR NEXT SUBCOMMITTEE MEETING WILL BE HELD IN 7 EARLY MARCH. I BELIEVE IT'S MARCH 2D. AND I WOULD 8 LIKE TO POINT OUT THAT THERE'S A RECOMMENDATION TO 9 BRING TO THE MARCH ICOC MEETING A DISCUSSION OF THE 10 CHALLENGES AND THE ROLE OF THE NEXT PRESIDENT. IT WILL 11 BE A -- HE'S GOT BIG SHOES TO FILL, AS ZACH HALL HAS 12 BEEN A TREMENDOUS CONTRIBUTOR TO THIS AGENCY. AND 13 THERE WILL BE NEW CHALLENGES THAT WE WILL NEED TO 14 DEFINE. AND THAT IS A PROCESS THAT THE WHOLE BOARD 15 WILL BE ASKED TO PARTICIPATE IN AT THE MARCH ICOC 16 MEETING.

17 THE NEXT ITEM ON THE AGENDA IS ITEM 18, A 18 REPORT FROM THE LEGISLATIVE SUBCOMMITTEE. BUT I WILL 19 NOW, UPON THE RETURN OF SCOTT TOCHER, WAIT TO PRESENT 20 THAT ITEM.

I WOULD LIKE TO, SCOTT, AS I SAID WHILE YOU
WERE OUT, RECOGNIZE THAT YOU ARE ONE OF THREE GREAT
INDIVIDUALS WHO WERE PART OF THE TREMENDOUS EFFORT IN
DEALING WITH THE CONFLICTS ISSUES, IN DEALING WITH THE
LEGAL PROCESS ISSUES, AND INTERFACING THE BOARD EFFORTS

WITH THE SCIENTIFIC TEAM. IT'S A DEDICATION CLEARLY OF
 GREAT PASSION AND COMMITMENT, AND I'D LIKE TO EXPRESS
 OUR APPRECIATION FOR THAT.

4 (APPLAUSE.)

5 CHAIRMAN KLEIN: SO THIS IS ITEM NO. 16.

6 MR. TOCHER: THANK YOU. MR. CHAIRMAN AND 7 FELLOW BOARD MEMBERS, AS YOU KNOW, THE ICOC HAS ADOPTED 8 BYLAWS FOR THE FUNCTIONING OF THE GRANTS WORKING GROUP. 9 AND PART OF THAT STRUCTURE PROVIDES FOR SPECIALISTS WHO 10 ASSIST THE GRANTS WORKING GROUP IN THE EVALUATIONS OF 11 THE GRANTS, AS YOU'VE SEEN TODAY. THESE MEMBERS DO NOT 12 VOTE; HOWEVER, AS A MATTER OF PRACTICE, THE SPECIALISTS 13 HAVE ALWAYS COMPLIED WITH THE SAME POLICIES AND 14 PROCEDURES REGARDING DISCLOSURE AND AVOIDANCE OF 15 CONFLICTS OF INTEREST AS THE STANDING MEMBERS OF THE 16 WORKING GROUP WHO DO PARTICIPATE IN THE VOTING. 17 THAT HAS ALWAYS BEEN THE PRACTICE OF THE

FUNCTION OF THE GRANTS WORKING GROUP TO HAVE THE 18 19 SPECIALISTS FILE DISCLOSURE FORMS AND RECUSE THEMSELVES 20 WHEN NECESSARY. A REVIEW OF THE SPECIFICS OF THE 21 BYLAWS REVEALS THAT THAT POINT COULD BE CLARIFIED, 22 HOWEVER, TO SPECIFICALLY REFER TO THE SPECIALISTS IN 23 THE BYLAWS AS REQUIRED TO COMPLY WITH THE CONFLICT OF 24 INTEREST DISCLOSURE AND DISQUALIFICATION REQUIREMENTS. 25 SO JUST AS A MATTER OF FORMALITY, THERE IS

1 ATTACHED TO THE CONFLICT OF INTEREST POLICY UNDER TAB 2 16, AND WE ARE RECOMMENDING THAT THE ADDITION MADE ON 3 PAGE 3 BE MADE IN THE UNDERLINED TEXT THAT WOULD 4 INCLUDE THE DEFINITION OF MEMBER TO INCLUDE SPECIALISTS 5 SERVING IN THE WORKING GROUP.

6 AND WITH THAT, WE WILL MAKE CLEAR IN THE 7 WRITTEN POLICY THAT THIS APPLIES TO THE SPECIALISTS.

8 CHAIRMAN KLEIN: ALL RIGHT, SCOTT. WE ARE IN 9 A POSITION WHERE WE CAN TAKE A STRAW VOTE WITH A 10 COMMITMENT TO ESSENTIALLY ACT ON THIS AT THE VERY 11 BEGINNING OF THE MARCH MEETING. WE WANT TO MAKE IT 12 VERY CLEAR, THOUGH, AND TO TELESCOPE OR PROJECT OUT OUR 13 INTENT, SO THERE IS VERY A SPECIAL MEANING TO THIS 14 STRAW VOTE. IS THERE ANY DISCUSSION FROM THE MEMBERS? 15 I THINK IT REFLECTS BROAD CONSENSUS. ANY DISCUSSION 16 FROM THE PUBLIC?

17 MR. SIMPSON: JOHN SIMPSON FROM THE 18 FOUNDATION FOR TAXPAYER AND CONSUMER RIGHTS. I SUSPECT 19 I KNOW THE BOARD'S RESPONSE, BUT I SUSPECT I FEEL OBLIGATED TO RAISE IT. THIS WOULD BE AN APPROPRIATE 20 21 POINT TO REQUIRE THAT THOSE DISCLOSURES THAT ARE BEING 22 FILED BE MADE PUBLIC, AS YOU ALL DO WITH YOUR FORM 23 700S. I THINK WE'VE SEEN THROUGH THE PROCESS WHAT A 24 KEY ROLE THE ADVISORY SCIENTISTS PLAY, AND I THINK THAT 25 YOU ALSO WILL HAVE NUMBER OF EDITORIALS IN THE STATE'S

LEADING NEWSPAPERS THAT SUGGEST THAT, INDEED, NOT ONLY
 SHOULD THESE DISCLOSURES BE FILED, BUT THEY SHOULD BE
 FILED PUBLICLY. THANK YOU.

4 CHAIRMAN KLEIN: THANK YOU VERY MUCH. ALL 5 RIGHT. ANY ADDITIONAL COMMENTS FROM THE MEMBERS? IF 6 NOT, I BELIEVE WE COULD USE A VOICE VOTE. ALL RIGHT. 7 ACTUALLY WE WANT A RECORD OF THIS STRAW VOTE, SO I'D 8 LIKE TO CALL THE ROLL.

9 MS. KING: RICARDO AZZIZ.

10 DR. AZZIZ: YES.

11 MS. KING: PAUL JENNINGS.

12 DR. JENNINGS: YES.

13 MS. KING: ROBERT BIRGENEAU.

14 DR. BIRGENEAU: YES.

15 MS. KING: MARCY FEIT.

16 MS. FEIT: YES.

17 MS. KING: MICHAEL GOLDBERG.

18 MR. GOLDBERG: YES.

19 MS. KING: FRANCIS MARKLAND.

20 DR. MARKLAND: YES.

21 MS. KING: BOB KLEIN.

22 CHAIRMAN KLEIN: YES.

23 MS. KING: SHERRY LANSING.

24 MS. LANSING: YES.

25 MS. KING: ED PENHOET.

1	DR. PENHOET: YES.
2	MS. KING: CLAIRE POMEROY.
3	DR. POMEROY: YES.
4	MS. KING: DUANE ROTH.
5	MR. ROTH: YES.
6	MS. KING: JOAN SAMUELSON.
7	MS. SAMUELSON: YES.
8	MS. KING: DAVID SERRANO-SEWELL.
9	MR. SERRANO-SEWELL: YES.
10	MS. KING: JEFF SHEEHY.
11	MR. SHEEHY: YES.
12	MS. KING: OSWALD STEWARD.
13	DR. STEWARD: YES.
14	MS. KING: JANET WRIGHT.
15	DR. WRIGHT: YES.
16	MR. TOCHER: THANK YOU.
17	CHAIRMAN KLEIN: THE NEXT ITEM IS GOING TO
18	RETURN TO ITEM NO. 18, LEGISLATIVE SUBCOMMITTEE. I
19	WILL REPORT TO YOU ON THE LEGISLATIVE SUBCOMMITTEE THAT
20	HR, HOUSE BILL 3 AND SENATE BILL 5 THAT HAVE BEEN
21	PASSED BY THE HOUSE AND IS PENDING IN THE SENATE WITH
22	AN EXPECTATION THAT IT'S IN THE BEGINNING OF MARCH THAT
23	IT WILL GO THROUGH THE SENATE. THOSE BILLS ARE
24	EFFECTIVELY A REPEAT OF THE CASSEL-DEGETTE BILL, NOW
25	CALLED DEGETTE-CASSEL BECAUSE OF DEMOCRATIC MAJORITY,

1 SO IT'S A REPEAT OF HR 810.

2 THERE WAS A CONSENSUS AMONG THE COMMITTEE 3 THAT THESE BILLS WE SHOULD CONTINUE TO SUPPORT. WE ARE NOT IN A POSITION TO TAKE A VOTE TODAY, SO THIS ITEM AS 4 5 TO SUPPORTING THOSE BILLS WILL BE CONTINUED FORWARD. 6 I'D ALSO LIKE TO KNOW IF WE COULD JUST HAVE A 7 VOICE VOTE AND GENERAL SUPPORT AS A STRAW VOTE 8 INDICATION OF THE SUPPORT FOR THE CONGRESSIONAL 9 LEADERSHIP THAT IS MOVING FORWARD WITH THOSE BILLS. 10 DR. WRIGHT: SO MOVED. 11 CHAIRMAN KLEIN: MOVED BY JANET WRIGHT. IS 12 THERE A SECOND? 13 DR. AZZIZ: SECOND. 14 CHAIRMAN KLEIN: SECOND BY DR. AZZIZ. ALL IN 15 FAVOR. OPPOSED? WE HAVE A UNANIMOUS STRAW VOTE. 16 SECONDLY, WE LOOKED AT OMB CIRCULAR A-21 AND 17 CIRCULAR 110. THERE WAS EXPERT TESTIMONY BY IRV WEISSMAN AS TO THIS ISSUE. MANY INDIVIDUALS FOCUSED ON 18 19 THE IMPACT ON HEAVY ACCOUNTING BURDENS THAT ARE 20 SOMETIMES SUBJECTIVE AND MAKE THE INSTITUTIONS 21 VULNERABLE TO AUDITS. MANY PEOPLE HAVE FOCUSED ON THE 22 IMPACT ON EQUIPMENT, ON FEDERAL SPACE, ON GRADUATE 23 STUDENTS WHO ARE INTERPRETED NOT TO BE PERMITTED IF 24 THEY'RE ON NIH FELLOWSHIPS TO EVEN WALK THROUGH A 25 POST-PRESIDENTIAL LAB AND IN POST DOCS WHO ARE UNDER

THE SAME KIND OF CONSTRAINTS TO THE EXTENT THAT THEY
 ARE FUNDED WITH FEDERAL FUNDS.

3 IRV WEISSMAN SPOKE SPECIFICALLY TO THE ISSUE 4 OF CONCERN WHERE THERE IS FEDERALLY SUPPORTED RESEARCH, 5 FOR EXAMPLE, IN CREATING CELLULAR MATERIAL WITH RNA AND 6 DNA, THAT THE RESEARCHERS IN THE POST-PRESIDENTIAL 7 LINES WANT TO USE THE CELLULAR RESULTS OF THAT 8 FEDERALLY FUNDED RESEARCH IN THEIR POST-PRESIDENTIAL 9 LINE RESEARCH AND CANNOT WITHIN THEIR INSTITUTION'S 10 RESTRICTIONS GET ACCESS TO THAT MATERIAL. IN ADDITION, 11 HE INDICATED THAT STANFORD HAD REACHED A LEGAL DECISION 12 AND DIRECTIVE THAT THEY COULD NOT ACCESS CERTAIN 13 MICROARRAYS THAT HAD BEEN FUNDED WITH FEDERAL RESEARCH 14 AND WERE, THEREFORE, LIMITED AND NOT HAVING ACCESS TO 15 THE BEST MICROARRAYS THAT WOULD OTHERWISE BE EXTREMELY 16 VALUABLE FOR THEIR RESEARCH.

17 SO THERE'S FAR REACHING ASPECTS OF THIS. 18 NOW, THE QUESTION IS HOW DO WE ADDRESS THESE TREMENDOUS 19 BURDENS ON OUR RESEARCH INSTITUTIONS. AND THERE IS A 20 DIFFERENCE OF OPINION NATIONALLY AMONG ORGANIZATIONS 21 ABOUT HOW TO ADDRESS THOSE ISSUES. THE INTENT AT THE 22 LEGISLATIVE COMMITTEE LEVEL IS TO BRING TOGETHER 23 REPRESENTATIVES OF ALL POINTS OF VIEW FROM THE 24 SCIENTIFIC COMMUNITY AND THE LEGAL COMMUNITY AND HAVE 25 THE LEGISLATIVE COMMITTEE HAVE A FULL, BROAD SPECTRUM

1 INTAKE HEARING TO TRY AND GET TO A CONSENSUS POINT.

AS THE CONSENSUS IS DEVELOPED, THIS MATTER WILL BE BROUGHT BACK TO THIS BOARD. I THINK IT'S VERY IMPORTANT TO HAVE LEGAL CONSENSUS AND A SCIENTIFIC CONSENSUS BEFORE BRINGING SOMETHING BACK TO THIS BOARD BECAUSE IT'S A SENSITIVE AREA THAT A LOT OF PEOPLE HAVE THOUGHT CAREFULLY ABOUT, BUT THERE SEEMS TO BE A GREAT BEAL OF INTEREST.

9 DURING THE CHRISTMAS VACATIONS, GIVEN THE 10 BOARD MEMBERS ARE ALWAYS WORKING, DR. LEVEY, DR. 11 POMEROY, DR. SUE BRYANT, AND DEAN PIZZO AND THEIR 12 STAFFS WORKED WITH ME AND AMY DUROSS. THEY PUT 13 TOGETHER SOME LETTERS TO DRAW THE ATTENTION TO THIS 14 ISSUE TO MEMBERS OF CONGRESS TO HELP IN PROMOTING A 15 VERY ACUTE INSPECTION OF THE PROBLEM AND POSSIBLE 16 SOLUTIONS. BUT THIS IS IN A DUE DILIGENCE PHASE. SO 17 WE HAVE IDENTIFIED A BROAD SPECTRUM PROBLEM. WE'RE IN 18 A DUE DILIGENCE PHASE, AND WE HOPE TO BRING BACK THE 19 RESULTS OF THAT INVESTIGATION TO YOU.

20 THAT IS THE END OF THE REPORT FROM THE21 LEGISLATIVE SUBCOMMITTEE.

JAMES, I ALWAYS WORRY WHEN THE COUNSEL LOOKS PERPLEXED. IS THERE AN ITEM THAT YOU'D LIKE TO DRAW TO OUR ATTENTION? WE ARE NOT COVERING ITEM 9 BECAUSE WE LACK A QUORUM. WE'RE NOT COVERING ITEM 19 BECAUSE WE

1 LACK A QUORUM.

2 MR. HARRISON: NO.

3 CHAIRMAN KLEIN: I WOULD LIKE TO THANK THE 4 BOARD AGAIN FOR THEIR DEDICATION, AND I'D LIKE TO THANK 5 THE STAFF FOR THEIR DEDICATION, PROFESSIONAL INSIGHTS, 6 PROFESSIONAL DEDICATION. IT IS HAS BEEN A TREMENDOUS 7 TEAM. AND I'D LIKE TO THANK THE PUBLIC FOR THEIR 8 CONSTRUCTIVE SUGGESTIONS AND CRITICISMS ALONG THE WAY 9 AS WE SEARCH FOR TRANSPARENCY AT THE HIGHEST STANDARD. 10 AND I'D LIKE TO THANK THE REST OF THE STAFF FOR THEIR 11 TREMENDOUS SUPPORT. THIS IS A REMARKABLE DAY IN THE 12 HISTORY OF A REMARKABLE STATE, AND MAY TODAY'S ACTIONS LEAD TO SOME SIGNIFICANT FUTURE LESSENING OF SUFFERING 13 14 FROM CHRONIC DISEASE AND INJURY. THANK YOU. 15 (APPLAUSE.) CHAIRMAN KLEIN: WE STAND ADJOURNED. 16 17 (THE MEETING WAS THEN ADJOURNED AT 02:18 18 P.M.) 19 20 21 22 23 24 25

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

THE SHERATON GATEWAY HOTEL SAN FRANCISCO, CALIFORNIA ON FEBRUARY 16, 2007

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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