

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: CROWNE PLAZA HOTEL  
1177 AIRPORT BOULEVARD  
BURLINGAME, CALIFORNIA

DATE: SEPTEMBER 5 AND 6, 2012  
4 P.M. AND 9 A.M.

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

BRS FILE NO.: 91120 & 91121

## BARRISTERS' REPORTING SERVICE

### I N D E X

ITEM DESCRIPTION	PAGE NO.
1. CALL TO ORDER.	4
2. PLEDGE OF ALLEGIANCE.	4
3. ROLL CALL.	5
4. CHAIRMAN'S REPORT.	7
5. PRESIDENT'S REPORT	10
ACTION ITEMS	
6. CONSIDERATION OF APPOINTMENT OF NEW SCIENTIFIC MEMBERS OF THE GRANTS WORKING GROUP.	28
7. CONSIDERATION OF AMENDMENTS TO THE GRANTS ADMINISTRATION POLICY.	30
8. CONSIDERATION OF APPLICATIONS FOR DISEASE TEAM THERAPY DEVELOPMENT AWARDS (RFA 10-05).	35
CLOSED SESSION	
ACTION ITEMS	
10. CONSIDERATION OF APPLICATION FOR RESEARCH LEADERSHIP AWARDS (RFA 09-04).	244
11. CONSIDERATION OF ITEMS FROM THE SCIENCE SUBCOMMITTEE	232
12. CONSIDERATION OF APPLICATIONS FOR BASIC BIOLOGY IV AWARDS (RFA 11-03).	286
13. CONSIDERATION OF MINUTES FROM THE MAY 2012 AND JULY 2012 BOARD MEETINGS.	196

**BARRISTERS' REPORTING SERVICE**

I N D E X (CONT'D.)

15. CONSIDERATION OF PROPOSED AMENDMENTS TO THE INTELLECTUAL PROPERTY REGULATIONS	197
16. CONSIDERATION OF MODIFICATIONS TO THE EXTRAORDINARY PETITION POLICY AND ADOPTION OF ADDITIONAL INFORMATION POLICY.	378
DISCUSSION ITEM	
17. COMMUNICATIONS UPDATE.	435
ACTION ITEMS	
18. CONSIDERATION OF RESOLUTION HONORING TED LOVE.	427
19. CONSIDERATION OF AMENDMENTS TO THE STRATEGIC PARTNERSHIP FUNDING CONCEPT PLAN.	212
20. CONSIDERATION OF ADOPTION OF AMENDMENTS TO MEDICAL AND ETHICAL STANDARDS, REGULATIONS 100060 AND 100070.	242
21. PROPOSED ADDITIONAL AGENDA ITEM: CONSIDERATION OF A RESOLUTION HONORING DAVID SERRANO-SEWELL	427

**BARRISTERS' REPORTING SERVICE**

1 BURLINGAME, CALIFORNIA; THURSDAY, SEPTEMBER 6, 2012

2 9 A.M.

3  
4 CHAIRMAN THOMAS: MEMBERS OF THE BOARD,  
5 PLEASE TAKE THEIR SEATS. DO WE HAVE ANYBODY WHO'S  
6 GOING TO BE ON BY PHONE STARTING AT 9 O'CLOCK?

7 I'D LIKE TO WELCOME EVERYBODY TO PHASE II  
8 OF THE SEPTEMBER 5TH, 6TH, 2012, MEETING OF THE  
9 INDEPENDENT CITIZENS OVERSIGHT COMMITTEE OF CIRM.  
10 HAD A VERY PRODUCTIVE SESSION, LASTED TILL 10  
11 O'CLOCK LAST NIGHT. I WANT TO THANK BOARD MEMBERS  
12 AGAIN FOR STICKING WITH IT AND GETTING THROUGH A  
13 SIGNIFICANT AMOUNT OF THE AGENDA. I THINK, AS YOU  
14 WILL SEE, THAT WILL PAY DIVIDENDS IN OUR SESSION  
15 TODAY. SO THANK YOU, BOARD MEMBERS, THANK YOU,  
16 STAFF, THANK YOU, MEMBERS OF THE PUBLIC WHO SAT  
17 THROUGH THE MEETING WITH US YESTERDAY EVENING.

18 WE'RE GOING TO TAKE UP A NUMBER OF ITEMS  
19 TODAY. I WANT TO START WITH -- LET'S SEE. I  
20 HAVEN'T GOTTEN TO THAT. OKAY. MARIA, PLEASE CALL  
21 THE ROLL. DO WE NEED TO DO THE PLEDGE OF ALLEGIANCE  
22 AS WELL, OR DOES THAT CARRY OVER, MR. HARRISON?

23 MR. HARRISON: THIS IS A CONTINUATION, SO  
24 WE DON'T NEED TO DO IT AGAIN.

25 CHAIRMAN THOMAS: THANK YOU FOR THAT

**BARRISTERS' REPORTING SERVICE**

1 CLARIFICATION.

2 MS. BONNEVILLE: ROBERT PRICE.

3 DR. PRICE: HERE.

4 MS. BONNEVILLE: DAVID BRENNER.

5 DR. BRENNER: HERE.

6 MS. BONNEVILLE: JACOB LEVIN. ANNE-MARIE

7 DULIEGE.

8 DR. DULIEGE: HERE.

9 MS. BONNEVILLE: MARCY FEIT. MICHAEL

10 FRIEDMAN.

11 DR. FRIEDMAN: HERE.

12 MS. BONNEVILLE: LEEZA GIBBONS.

13 MS. GIBBONS: HERE.

14 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM

15 HAWGOOD.

16 DR. HAWGOOD: HERE.

17 MS. BONNEVILLE: STEPHEN JUELSGAARD.

18 DR. JUELSGAARD: HERE.

19 MS. BONNEVILLE: SHERRY LANSING. BERT

20 LUBIN.

21 DR. LUBIN: HERE.

22 MS. BONNEVILLE: MICHAEL MARLETTA. LEON

23 FINE.

24 DR. FINE: HERE.

25 MS. BONNEVILLE: PHIL PIZZO.

**BARRISTERS' REPORTING SERVICE**

1 DR. PIZZO: HERE.  
2 MS. BONNEVILLE: CLAIRE POMEROY.  
3 DR. POMEROY: HERE.  
4 MS. BONNEVILLE: FRANCISCO PRIETO.  
5 DR. PRIETO: HERE.  
6 MS. BONNEVILLE: CARMEN PULIAFITO.  
7 DR. PULIAFITO: PRESENT.  
8 MS. BONNEVILLE: ROBERT QUINT.  
9 DR. QUINT: HERE.  
10 MS. BONNEVILLE: DUANE ROTH.  
11 MR. ROTH: HERE.  
12 MS. BONNEVILLE: JOAN SAMUELSON.  
13 MS. SAMUELSON: PRESENT.  
14 MS. BONNEVILLE: JEFF SHEEHY.  
15 MR. SHEEHY: HERE.  
16 MS. BONNEVILLE: JONATHAN SHESTACK.  
17 MR. SHESTACK: HERE.  
18 MS. BONNEVILLE: OSWALD STEWARD.  
19 DR. STEWARD: HERE.  
20 MS. BONNEVILLE: JONATHAN THOMAS.  
21 CHAIRMAN THOMAS: HERE.  
22 MS. BONNEVILLE: ART TORRES.  
23 MR. TORRES: HERE.  
24 MS. BONNEVILLE: KRISTINA VUORI.  
25 DR. VUORI: HERE.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: JAMES ECONOMOU.

2 DR. ECONOMOU: HERE.

3 CHAIRMAN THOMAS: OKAY. WE'RE GOING TO  
4 START WITH A NUMBER OF THE SHORTER ITEMS IF WE CAN  
5 GET A COUPLE OF THOSE OUT FIRST. SO LET'S GO WITH  
6 ITEM NO. 11, WHICH IS CONSIDERATION OF ITEMS FROM  
7 THE SCIENCE SUBCOMMITTEE. DR. FEIGAL, YOU WILL BE  
8 PRESENTING, PLEASE.

9 DR. FEIGAL: FIRST OF ALL, I JUST WANTED  
10 TO SAY A FEW THANKS FOR THE DISCUSSION ON THE  
11 ADDITIONAL ANALYSIS YESTERDAY. I JUST WANT TO GIVE  
12 A SPECIAL THANKS TO THE SCIENTIFIC OFFICERS WHO  
13 ACTUALLY SPENT AN ENORMOUS AMOUNT OF TIME TRYING TO  
14 PUT TOGETHER A CREDIBLE PROCESS FOR HOW TO EVALUATE  
15 INFORMATION AND THE AMOUNT OF WORK THAT THEY'VE DONE  
16 TO TRY AND MAKE IT AS EVIDENCE BASED AS POSSIBLE.  
17 SO I'D REALLY LIKE TO THANK THE SCIENTIFIC OFFICERS  
18 FOR THAT.

19 I'D LIKE TO PARTICULARLY THANK DR. GILL  
20 SAMBRANO FOR HIS EFFORTS TO REALLY PUT FORWARD A  
21 VERY HIGH QUALITY, HIGH CALIBER-TYPE PROCESS. AND I  
22 KNOW WE'RE GOING TO BE DISCUSSING PERHAPS SOME  
23 CONSTRUCTIVE WAYS OF DOING THESE KIND OF DISCUSSIONS  
24 IN THE FUTURE. BUT GIVEN THE EXPEDIENCY OF NEEDING  
25 TO WORK VERY QUICKLY, I THINK THEY DO DESERVE A

## BARRISTERS' REPORTING SERVICE

1 SPECIAL ROUND OF THANKS. SO I DO WANT TO THANK  
2 THEM, AND I WANT TO THANK THE BOARD FOR THE  
3 DISCUSSION THAT TOOK PLACE.

4 WHAT I'D NOW LIKE TO TALK ABOUT IS  
5 ACTUALLY THE EXTERNAL INNOVATION INITIATIVE. THIS  
6 IS AN INITIATIVE APPROVED BY THE BOARD BACK IN  
7 DECEMBER 8TH, AND THIS WAS REALLY A PROPOSAL TO  
8 ALLOW CIRM FUNDING FOR CALIFORNIA SCIENTISTS WANTING  
9 TO COLLABORATE ON EXISTING, ONGOING, EXTERNALLY  
10 FUNDED PROJECTS WITH SCIENTISTS THAT ARE EXTERNAL TO  
11 CALIFORNIA.

12 THERE ARE TWO AMENDMENTS THAT WE WANTED TO  
13 MAKE TO THAT ALREADY APPROVED INITIATIVE, AND YOU  
14 HAVE THAT IN YOUR PREREAD. THESE AMENDMENTS WERE  
15 DISCUSSED AT THE JULY 25TH SCIENCE SUBCOMMITTEE  
16 MEETING. THEY WERE APPROVED. AND SO WE ARE NOW  
17 BRINGING THEM FORWARD AT THIS ICOC. SO THEY'VE  
18 ALREADY BEEN DISCUSSED AND APPROVED AT THE  
19 SCIENTIFIC SUBCOMMITTEE.

20 THE TWO AMENDMENTS ARE TO ALLOW CIRM  
21 FUNDING FOR CALIFORNIA SCIENTISTS WANTING TO  
22 COLLABORATE WITH SCIENTISTS EXTERNAL TO CALIFORNIA  
23 ON AN EXISTING, EXTERNALLY FUNDED PROJECT. IN THE  
24 PAST WHAT WE'VE REQUIRED IS, FOR PEOPLE TO  
25 COLLABORATE, WE HAD TO BE THE INITIATOR OF THE RFA



**BARRISTERS' REPORTING SERVICE**

1 OF THE INITIATIVE. WHAT WE WOULD NOW BE ALLOWING IS  
2 FOR AN ALREADY EXISTING PROJECT THAT'S ALREADY  
3 EXTERNALLY FUNDED THE ABILITY TO ALLOW THOSE  
4 CALIFORNIA SCIENTISTS TO BOLT ONTO THAT TYPE OF  
5 PROJECT.

6 IT WOULD BE REVIEWED THROUGH OUR GRANT  
7 REVIEW GROUP PROCESS, BUT WE WOULD ALLOW A MORE  
8 FLEXIBLE MECHANISM TO ENABLE OUR CALIFORNIA  
9 SCIENTISTS TO COLLABORATE EXTERNALLY OUTSIDE OF  
10 CALIFORNIA. I KNOW CALIFORNIA HAS TREMENDOUS  
11 SCIENTIFIC TALENT; BUT WE KNOW IN ORDER TO MOVE THE  
12 SCIENCE FORWARD, IT TAKES REALLY A GLOBAL  
13 COLLABORATION. AND WE WANT TO DO WHAT WE CAN TO  
14 FACILITATE THAT.

15 THE SECOND AMENDMENT IS REALLY TO INCREASE  
16 THE FLEXIBILITY OF THE AWARD DURATION AND THE  
17 AMOUNT. WE ARE GOING TO STAY WITHIN THE SET-ASIDE  
18 OF 15 MILLION; BUT WHAT WE WANT TO DO IS GO FROM A  
19 REQUIREMENT THAT IT'S ONLY 500,000 AWARD FOR A  
20 12-MONTH PERIOD, WE WANT INCREASE THAT UP TO A  
21 CEILING OF \$1.5 MILLION AWARD UP TO A 36-MONTH  
22 PERIOD.

23 SO THESE ARE REALLY THE ONLY TWO  
24 AMENDMENTS THAT WE'RE MAKING TO AN ALREADY APPROVED  
25 EXTERNAL INNOVATION INITIATIVE. SO LET ME STOP

**BARRISTERS' REPORTING SERVICE**

1 THERE AND SEE IF THERE'S ANY QUESTION.

2 CHAIRMAN THOMAS: JEFF OR OS, IN YOUR  
3 CAPACITIES AS CO-CHAIR OF THE SCIENCE SUBCOMMITTEE,  
4 DO YOU WISH TO COMMENT ON EITHER OF THESE?

5 DR. STEWARD: I THINK THE MAIN THING IS  
6 JUST TO INCREASE SOME FLEXIBILITY AND OPPORTUNITIES.

7 MR. SHEEHY: I WOULD SECOND THAT. I GIVE  
8 STAFF TREMENDOUS CREDIT FOR INTRODUCING THESE  
9 ELEMENTS THAT ALLOW US TO BE MORE NIMBLE. THIS IS  
10 KIND OF THE GOAL OF THE FUND, TO BE ABLE TO SEIZE  
11 OPPORTUNITIES. THERE'S GREAT SCIENCE GOING ON  
12 OUTSIDE OF CALIFORNIA. THIS WILL GIVE OUR  
13 RESEARCHERS A CHANCE TO TAKE PART IN IT. I THINK  
14 IT'S A GREAT IDEA.

15 CHAIRMAN THOMAS: DO WE HEAR A MOTION TO  
16 APPROVE THESE AMENDMENTS?

17 MS. SAMUELSON: I HAVE A QUESTION. DR.  
18 FEIGAL, CAN YOU EXPLAIN THE RELATIONSHIP AND THE  
19 INTERACTION BETWEEN THIS PROCESS AND THE GRANTS  
20 WORKING GROUP?

21 DR. FEIGAL: SO WE WOULD HAVE THE SAME  
22 PROCESS. THE PROPOSALS WILL COME IN. WE'LL PUT OUT  
23 AN RFA OR PROGRAM ANNOUNCEMENT THAT WILL COVER THE  
24 SCOPE OF WHAT WE WANT TO SEE COME IN IN TERMS OF  
25 PROPOSALS. THE PROPOSALS WOULD HAVE TO BE CONNECTED

## BARRISTERS' REPORTING SERVICE

1 TO SOME OTHER EXTERNALLY FUNDED PROJECT THAT'S GOING  
2 ON, BUT THE CALIFORNIA COMPONENT AND THE CONTEXT IN  
3 WHICH THEY'RE PLACED WITH THE BIGGER PROJECT WOULD  
4 COME TO THE GRANTS REVIEW GROUP.

5 SO IT WOULD BE REVIEWED, RECOMMENDATIONS  
6 WOULD BE MADE FROM THE GRANTS REVIEW GROUP, AND THEN  
7 THE ICOC WOULD MAKE THE DECISIONS ABOUT FUNDING.

8 MS. SAMUELSON: AND WOULD THE GRANT  
9 REVIEW -- WOULD THE GRANT THEY'RE REVIEWING COMPRISE  
10 ALL THE FUNDS THAT ARE BEING SPENT FROM CIRM FUNDS?

11 DR. FEIGAL: THEY WOULD HAVE TO DESCRIBE  
12 THE SCOPE OF WHAT IT IS THEY'RE GOING TO DO, THE  
13 ACTIVITIES AND THE BUDGET THAT GO WITH IT. AND WHAT  
14 WE WOULD ALSO WANT TO SEE IS THE CONTEXT IN WHICH  
15 THEY'RE WORKING WITH THE EXTERNAL GROUP, BUT  
16 REALIZING THAT'S EXTERNALLY FUNDED. IT WOULD  
17 COME -- JUST TO BE CLEAR, IT'S THE SAME PROCESS WE  
18 USE FOR ALL OF OUR OTHER INITIATIVES. THEY WOULD  
19 COME TO THE GRANTS REVIEW GROUP FOR REVIEW AND  
20 RECOMMENDATIONS, AND THE RECOMMENDATIONS WOULD BE  
21 BROUGHT FORWARD TO THIS BODY FOR FINAL FUNDING  
22 DECISION.

23 MS. SAMUELSON: HOW DOES THE EXTERNAL  
24 GROUP OF SCIENTISTS, WHAT ROLE DO THEY PLAY THEN?

25 DR. FEIGAL: THEY ARE ALREADY EXTERNALLY

**BARRISTERS' REPORTING SERVICE**

1 VETTED AND FUNDED BY SOME OTHER TYPE OF RESOURCE.  
2 AND SO THE PROPOSAL THAT'S ACTUALLY COMING FORWARD  
3 THAT USES CIRM FUNDING WOULD BE THE MAJOR FOCUS THAT  
4 WE'RE WORKING ON, BUT THEY'D HAVE TO SHOW THEIR  
5 COLLABORATION, THEY'D HAVE TO SHOW HOW THEY'RE  
6 INTEGRATING WITH THE OTHER PROJECT, BUT WHAT WE  
7 WOULD BE REVIEWING WOULD BE THE CALIFORNIA  
8 COMPONENT.

9 MS. SAMUELSON: BUT IT'S THE SAME GRANT.  
10 IT'S THE SAME PROJECT.

11 DR. FEIGAL: NO. WE WOULD HAVE TO GIVE A  
12 CIRM GRANT FOR THE CALIFORNIA PROJECT.

13 MS. SAMUELSON: BUT IT'S ONE  
14 COLLABORATIVE -- I'M NOT UNDERSTANDING. BUT IT'S  
15 ONE GRANT, IT'S ONE PROJECT.

16 DR. FEIGAL: FOR THIS PARTICULAR ASPECT OF  
17 IT, THEY'D HAVE TO SHOW HOW THE INTEGRATION IS TIED  
18 INTO PLACE. THERE'D PROBABLY BE SOME LETTER OF  
19 COLLABORATION TO SHOW THAT THE GROUPS ARE WORKING  
20 TOGETHER, BUT IT WOULD BE A CIRM-ISSUED GRANT.

21 MS. SAMUELSON: BUT --

22 DR. FEIGAL: -- FOR THE CALIFORNIA  
23 COMPONENT.

24 MS. SAMUELSON: AND IS THAT -- BUT THE  
25 COLLABORATION, THAT IS WHAT THE GRANT'S ALL ABOUT,

**BARRISTERS' REPORTING SERVICE**

1 RIGHT?

2 DR. FEIGAL: WE ARE NOT -- THEY WOULD  
3 DESCRIBE IT IN THEIR PROPOSAL IN TERMS OF WHAT  
4 THEY'RE DOING THAT IS COLLABORATING WITH THE OTHER  
5 GROUP. BUT PRIMARILY WHAT WOULD BE REVIEWED BY THE  
6 GRANTS REVIEW GROUP WOULD BE THE SCOPE OF ACTIVITIES  
7 THAT THE CALIFORNIA COMPONENT IS DOING. THEY COULD  
8 DESCRIBE THAT IN THE CONTEXT OF THE LARGER PROJECT.

9 MS. SAMUELSON: BUT THEY WOULDN'T BE ABLE  
10 TO INCLUDE IN THEIR ANALYSIS WHETHER THAT  
11 COLLABORATION IS SOUND OR WORKING WELL OR DESIGNED  
12 FOR --

13 DR. FEIGAL: WELL, PRESUMABLY FOR A STRONG  
14 PROPOSAL, THEY WOULD PROVIDE WHAT'S GOING ON WITH  
15 THE TOTAL PROJECT AND WHY THEIR CONTRIBUTION TO IT  
16 OR THEIR COMPONENT OF IT WOULD ADD STRENGTH OR VALUE  
17 TO THAT PROJECT.

18 MS. SAMUELSON: AND THAT WOULD BE PART OF  
19 SCORING AND GRANT RECOMMENDATIONS ON THE PART OF THE  
20 GRANTS WORKING GROUP.

21 DR. FEIGAL: THAT WOULD BE PART OF WHAT  
22 WE'D BE LOOKING AT, WHAT THE GRANT REVIEW GROUP  
23 WOULD BE LOOKING AT.

24 MS. SAMUELSON: OKAY. OKAY. AND THAT  
25 OTHER PROCESS WOULDN'T SLOW IT UP? IT'S IMPORTANT.

**BARRISTERS' REPORTING SERVICE**

1 IF THESE ARE COLLABORATIVE PROJECTS, THAT'S WHAT WE  
2 REALLY NEED, IT SEEMS TO ME, AND WE SHOULD HAVE OUR  
3 EXPERTS WE'RE RELYING ON LOOKING AT THAT AS PART OF  
4 THEIR REVIEW. AND IT SOUNDS LIKE THAT'S WHAT  
5 THEY'RE DOING. OKAY. GOOD. THANK YOU.

6 DR. FEIGAL: THANK YOU.

7 MR. ROTH: MR. CHAIR, I'LL MAKE A MOTION  
8 TO APPROVE.

9 CHAIRMAN THOMAS: IS THERE A SECOND?

10 DR. FRIEDMAN: SECOND.

11 CHAIRMAN THOMAS: SECONDED. I HEARD DR.  
12 FRIEDMAN AMONGST OTHERS. WE'LL GIVE HIM THE SECOND  
13 ON THIS ONE. ANY FURTHER DISCUSSION BY MEMBERS OF  
14 THE BOARD?

15 DR. JUELSGAARD: SO, ELLEN, IN THESE  
16 SITUATIONS, I'M JUST FOCUSED ON INTELLECTUAL  
17 PROPERTY FOR A MOMENT, HOW DO WE ENVISION THE  
18 OWNERSHIP OF ANY INVENTIONS THAT ARISE FROM THESE  
19 COLLABORATIONS WITH SOMEBODY ON THE OUTSIDE?

20 DR. FEIGAL: THEY WOULD HAVE TO DISCUSS  
21 THAT WITHIN THE SCOPE OF THEIR APPLICATION. SO  
22 THEY'D HAVE TO PROACTIVELY TALK ABOUT HOW THAT WOULD  
23 BE HANDLED, AND THAT WOULD BE PART OF OUR  
24 ASSESSMENT.

25 DR. TROUNSON: IT WOULD BE NO DIFFERENT TO

## BARRISTERS' REPORTING SERVICE

1 THE COLLABORATIONS WE CURRENTLY HAVE. WE DO  
2 BOLT-ONS ALREADY WITH THE STATE OF MARYLAND,  
3 GERMANY, AND OTHERS. AND SO WE WOULD USE EXACTLY  
4 THE SAME PROCESS.

5 CHAIRMAN THOMAS: OTHER COMMENTS BY  
6 MEMBERS OF THE BOARD?

7 MS. SAMUELSON: ANOTHER QUESTION. I TAKE  
8 IT THERE ISN'T ANY PROBLEM WITH THE CALIFORNIA CURES  
9 ACT'S LIMITATION OF FUNDING TO CALIFORNIA  
10 SCIENTISTS.

11 DR. FEIGAL: WE WOULD FOLLOW THE LAW, AND  
12 WE WOULD HAVE THE MONEY GO FOR --

13 MS. SAMUELSON: YEAH.

14 DR. FEIGAL: -- WHAT WE'RE APPROVED TO DO.

15 MS. SAMUELSON: I ASK THAT FEELING THAT WE  
16 WON'T SUCCEED IF OUR ACTIVITY ISN'T INTERNATIONAL ON  
17 A DAILY BASIS. SO I THINK WE MUST HAVE THESE  
18 COLLABORATIONS. I'M THRILLED THAT YOU'RE BRINGING  
19 IT TO US. BUT ENOUGH SAID. THANK YOU.

20 CHAIRMAN THOMAS: ANY COMMENTS BY MEMBERS  
21 OF THE PUBLIC ON THE MOTION? HEARING NONE, IS THIS  
22 A VOICE VOTE, MR. HARRISON? ALL THOSE IN FAVOR OF  
23 THE MOTION PLEASE SAY AYE. OPPOSED? ABSTENTIONS?  
24 DO WE HAVE --

25 MS. FEIT: I VOTED YES.

**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: THANK YOU, MARCY. GOOD  
2 MORNING, MARCY. OKAY. THE MOTION PASSES. THANK  
3 YOU VERY MUCH.

4 DR. FEIGAL: THANK YOU VERY MUCH.

5 CHAIRMAN THOMAS: GEOFF LOMAX. WE'D LIKE  
6 TO MOVE TO ITEM NO. 20 HERE.

7 MR. HARRISON: WE STILL HAVE ONE MORE ITEM  
8 FROM THE SCIENCE SUBCOMMITTEE, THE MISSION  
9 STATEMENT.

10 CHAIRMAN THOMAS: THANK YOU, MR. HARRISON.  
11 WHO DO WE HAVE PRESENTING ON THAT?

12 MR. HARRISON: ALL OF THE BOARD'S  
13 SUBCOMMITTEES HAVE MISSION STATEMENTS. THE SCIENCE  
14 SUBCOMMITTEE WAS INITIALLY ESTABLISHED WITHOUT A  
15 MISSION STATEMENT. WE BROUGHT A PROPOSED MISSION  
16 STATEMENT TO THE SCIENCE SUBCOMMITTEE WITH THE  
17 SUPPORT OF THE CO-CHAIRS, AND IT WAS RECOMMENDED FOR  
18 YOUR APPROVAL.

19 AS YOU WILL SEE IN TAB 11 OF YOUR BINDER,  
20 IT'S A FAIRLY STRAIGHTFORWARD MISSION STATEMENT. IT  
21 DEFINES THE MEMBERSHIP AS WELL AS THE JURISDICTION  
22 OF THE SUBCOMMITTEE, AND WE'D ASK FOR YOUR APPROVAL.

23 CHAIRMAN THOMAS: DO I HEAR A MOTION TO  
24 THAT EFFECT?

25 DR. PIZZO: SO MOVED.



**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: DEAN PIZZO. THE SECOND?

2 DR. PRIETO: SECOND.

3 CHAIRMAN THOMAS: DR. PRIETO. ANY  
4 DISCUSSION BY MEMBERS OF THE BOARD? ANY COMMENTS  
5 FROM THE PUBLIC? HEARING NONE, PROCEED IMMEDIATELY  
6 TO A VOICE VOTE. ALL THOSE IN FAVOR PLEASE SAY AYE.  
7 OPPOSED? ABSTENTIONS? MARCY.

8 MS. FEIT: YES.

9 CHAIRMAN THOMAS: THANK YOU. MOTION  
10 APPROVED. THANK YOU, MR. HARRISON.

11 DR. LOMAX, PLEASE, IF YOU COULD PROCEED  
12 NOW TO ITEM 20, WHICH IS CONSIDERATION OF ADOPTION  
13 OF AMENDMENTS TO THE MEDICAL AND ETHICAL STANDARDS  
14 REGS X AND Y.

15 DR. LOMAX: THANK YOU, MR. CHAIRMAN,  
16 MEMBERS OF THE BOARD. IN MAY OF THIS YEAR, YOU  
17 AUTHORIZED US TO INITIATE PUBLIC COMMENTS ON A  
18 SERIES OF AMENDMENTS TO THE MEDICAL AND ETHICAL  
19 STANDARDS. THE AMENDMENTS INCLUDE SECTIONS 160, AND  
20 THE AMENDMENTS TO THIS SECTION WOULD PROVIDE GREATER  
21 FLEXIBILITY TO THE OVERSIGHT COMMITTEES THAT REVIEW  
22 AND APPROVE -- TO THE PROCESS OF REVIEWING RESEARCH  
23 THAT IS FUNDED BY CIRM. AND SPECIFICALLY IT ALLOWS  
24 NONSCIENTISTS AND PUBLIC MEMBERS TO RECEIVE SOME  
25 SORT OF STIPEND OR COMPENSATION FOR THEIR WORK. AND

**BARRISTERS' REPORTING SERVICE**

1 THAT RECOMMENDATION WAS ALSO ENDORSED BY THE  
2 STANDARDS WORKING GROUP.

3 AND TO SECTION 170 WE OFFERED OUR GRANTEES  
4 GREATER FLEXIBILITY IN TERMS OF AFFIRMING COMPLIANCE  
5 WITH CIRM STANDARDS. SO A STEM CELL RESEARCH  
6 OVERSIGHT COMMITTEE OR AN AUTHORIZED INSTITUTIONAL  
7 OFFICIAL CAN DECLARE TO CIRM THAT THEIR PROTOCOLS  
8 CONFORM TO OUR STANDARDS.

9 THESE AMENDMENTS WENT OUT FOR PUBLIC  
10 COMMENT. WE RECEIVED NO PUBLIC COMMENT. AND TODAY  
11 WE'RE REQUESTING THAT YOU AUTHORIZE US TO MOVE  
12 FORWARD WITH THE PROCEDURES TO FINALIZE THESE  
13 REGULATIONS.

14 CHAIRMAN THOMAS: THANK YOU, DR. LOMAX.  
15 DO I HEAR A MOTION FROM A MEMBER OF THE BOARD TO SO  
16 APPROVE?

17 MR. TORRES: SO MOVED.

18 CHAIRMAN THOMAS: MOVED BY SENATOR TORRES.  
19 SECONDED BY DEAN HAWGOOD. FURTHER DISCUSSION FROM  
20 MEMBERS OF THE BOARD? ANY COMMENTS FROM MEMBERS OF  
21 THE PUBLIC? HEARING NONE, BEFORE WE VOTE, WOULD  
22 LIKE TO THANK DR. LOMAX FOR HIS CONTINUED HARD WORK  
23 KEEPING US IN LINE ETHICALLY AT ALL TIMES AND ALSO  
24 TO MEMBERS OF THE COMMITTEE THAT HE CONVENES, WHICH  
25 IS A VERY DEDICATED GROUP, AND WE THANK ALL FOR YOUR

**BARRISTERS' REPORTING SERVICE**

1 HARD WORK.

2 ALL THOSE IN FAVOR OF THE MOTION PLEASE  
3 SAY AYE. OPPOSED? ABSTENTIONS? MARCY.

4 MS. FEIT: YES.

5 CHAIRMAN THOMAS: THANK YOU. MOTION  
6 APPROVED. THANK YOU, DR. LOMAX.

7 DR. LOMAX: I'D JUST LIKE TO ADD THAT OUR  
8 GRANTEE INSTITUTIONS HAVE MADE TREMENDOUS EFFORT TO  
9 REALLY EMBRACE OUR REGULATIONS AND MOVE THIS PROCESS  
10 ALONG AS WELL. SO I'D LIKE TO GIVE A SHOUT OUT TO  
11 THEIR COMMITMENT TO THIS PROCESS AND OUR  
12 REGULATIONS.

13 CHAIRMAN THOMAS: DULY NOTED. AND THANK  
14 YOU AGAIN.

15 WE'RE GOING TO PROCEED NOW TO DISCUSSION  
16 OF THE RESEARCH LEADERSHIP AWARD, WHICH IS ITEM NO.  
17 10. DR. YAFFE.

18 DR. YAFFE: MR. CHAIRMAN, MEMBERS OF THE  
19 BOARD, MEMBERS OF THE PUBLIC, I'M HERE TO PRESENT  
20 THE CONTINUATION FOR YOUR CONSIDERATION OF  
21 RECOMMENDATIONS FROM THE GRANTS WORKING GROUP OF THE  
22 RESEARCH LEADERSHIP AWARD. AS THE CHAIR MENTIONED,  
23 THIS IS ITEM NO. 10.

24 AND JUST TO BRIEFLY REVIEW THIS PROGRAM,  
25 PARTICULARLY FOR THOSE WHO MAY BE NEW TO THE BOARD,

**BARRISTERS' REPORTING SERVICE**

1 THE GOALS OF THE RESEARCH LEADERSHIP AWARD ARE TO  
2 FACILITATE THE RECRUITMENT TO CALIFORNIA OF THE MOST  
3 PRODUCTIVE AND PROMISING EARLY TO MIDCAREER  
4 SCIENTISTS IN STEM CELL BIOLOGY AND REGENERATIVE  
5 MEDICINE. AND FOLLOWING THEIR RECRUITMENT, TO  
6 SUPPORT THEIR ROBUST AND INNOVATIVE RESEARCH  
7 PROGRAMS FOCUSED ON FUNDAMENTAL STUDIES OF  
8 PLURIPOTENT AND PROGENITOR STEM CELL BIOLOGY AND/OR  
9 THE TRANSLATIONAL STUDIES LEADING TO INNOVATIVE STEM  
10 CELL-BASED THERAPIES FOR DISEASE AND INJURY.

11 THIS PROGRAM IS OPEN TO NON-PROFIT  
12 CALIFORNIA INSTITUTIONS. IT HAS THE REQUIREMENT  
13 THAT THE CANDIDATE OR PRINCIPAL INVESTIGATOR MUST  
14 HOLD A POSITION OUTSIDE CALIFORNIA AT THE TIME OF  
15 APPLICATION AND HAVE BEEN INDEPENDENT FOR AT LEAST  
16 THREE YEARS.

17 THE INDIVIDUAL INSTITUTIONS THAT ARE  
18 APPLYING FOR THESE AWARDS MAY RECEIVE ONLY ONE  
19 AWARD. YOU, THE ICOC, AUTHORIZED UP TO EIGHT  
20 AWARDS. FOUR AWARDS HAVE BEEN MADE TO DATE, ONE TO  
21 ROBERT WECHSLER REYA AT SANFORD BURNHAM INSTITUTE,  
22 ONE TO PETER COFFEY UC SANTA BARBARA, ONE TO ZHIGANG  
23 HE AT UC BERKELEY, AND THE MOST RECENT TO ANDREW  
24 MCMAHON AT USC.

25 THESE AWARD FEATURES RESEARCH SUPPORT FOR

## BARRISTERS' REPORTING SERVICE

1 UP TO SIX YEARS, THE PROVISION THAT AWARDEES MUST  
2 COMMIT AT LEAST 75 PERCENT OF THEIR TIME TO STEM  
3 CELL AND REGENERATIVE MEDICINE RESEARCH, AND  
4 ELIGIBLE COSTS THAT INCLUDE THE PI'S SALARY, LAB  
5 OPERATIONS, FUNDS FOR LAB RELOCATION, FUNDS FOR  
6 EQUIPMENT WHICH MUST BE MATCHED BY THE APPLICANT  
7 INSTITUTION, AND APPROPRIATE FUNDS FOR FACILITIES  
8 AND INDIRECT COSTS -- I SHOULD SAY APPROPRIATE  
9 INDIRECT COSTS.

10 THE APPLICATIONS ARE REVIEWED AND WERE  
11 REVIEWED BY THE GRANTS WORKING GROUP. THE CRITERIA  
12 FOR THEIR REVIEW INCLUDES RESEARCH VISION AND PLANS.  
13 HERE THEY'RE PARTICULARLY FOCUSED ON THE  
14 SIGNIFICANCE AND THE INNOVATION OF THE PLAN.

15 THE PI'S ACCOMPLISHMENTS AND POTENTIAL.  
16 HERE CONSIDERING PAST RESEARCH ACHIEVEMENT, THE  
17 IMPACT OF THE APPLICANT'S WORK BOTH PAST AND  
18 POTENTIAL, THE LEADERSHIP QUALITIES AND ABILITY OF  
19 THE CANDIDATE, AND AN ASSESSMENT OF ACCOMPLISHMENTS  
20 AND POTENTIAL BY LEADERS IN THE FIELD, AND THIS IS  
21 ASSESSED VIA LETTERS OF RECOMMENDATION.

22 AND THE THIRD KEY REVIEW CRITERION IS  
23 INSTITUTIONAL COMMITMENT AND ENVIRONMENT. HERE  
24 WE'RE INTERESTED IN BOTH WHAT WILL THE INSTITUTION  
25 PROVIDE FOR THE CANDIDATE, AND HOW WILL THE

**BARRISTERS' REPORTING SERVICE**

1 CANDIDATE'S RECRUITMENT AFFECT AND ENHANCE THE  
2 INSTITUTION.

3 THIS RFA IS ON A RECURRING CYCLE WITH  
4 DEADLINES APPROXIMATELY EVERY THREE MONTHS. THE  
5 MOST RECENT DEADLINE, APPLICATION DEADLINE, WAS MAY  
6 16TH. THE APPLICATIONS RECEIVED -- TWO APPLICATIONS  
7 WERE RECEIVED. THEY WERE REVIEWED AT THE GRANTS  
8 WORKING GROUP REVIEW, TELEPHONIC REVIEW, ON JUNE  
9 20TH. AND THE RESULTS OF THAT REVIEW WERE THE  
10 ASSESSMENT OF TWO APPLICATIONS, ONE YOU REVIEWED AT  
11 THE JULY MEETING. IT WAS APPROVED. THAT WAS ANDREW  
12 MCMAHON. AND THE ONE WE'RE BRINGING FOR YOUR  
13 CONSIDERATION TODAY IS THE SECOND WITH A TITLE "STEM  
14 CELL PATHOLOGIES IN PARKINSON'S DISEASE AS A KEY TO  
15 REGENERATIVE STRATEGIES." THE REQUESTED FUNDS ARE  
16 APPROXIMATELY 6.7 MILLION. THIS RECEIVED A SCORE OF  
17 57, AND THE GRANTS WORKING GROUP RECOMMENDED IT FOR  
18 FUNDING.

19 AT THIS POINT I'LL BE HAPPY TO ANSWER  
20 QUESTIONS, OR PERHAPS MR. SHEEHY MAY HAVE COMMENTS.

21 CHAIRMAN THOMAS: MR. SHEEHY, DO YOU HAVE  
22 COMMENTS?

23 MR. SHEEHY: HOW DO YOU WANT TO PROCEED  
24 WITH THIS?

25 MS. SAMUELSON: I COULD GIVE A BRIEF

## BARRISTERS' REPORTING SERVICE

1 SUMMARY IF WE THINK THAT MAKES SENSE.

2 THIS IS A WONDERFUL OPPORTUNITY FOR OUR  
3 PORTFOLIO. WHEN THE EXTERNAL ADVISORY PANEL MADE  
4 ITS RECOMMENDATIONS TO US ABOUT HOW WE SHOULD BE  
5 PROCEEDING TO BE ACHIEVING OUR MISSION AS  
6 AGGRESSIVELY AS POSSIBLE, THEY SAID THEY HOPED AND  
7 RECOMMENDED THAT WE MAKE SURE THAT WE ARE ADVANCING  
8 AS A GLOBAL LEADER ON STEM CELL RESEARCH BECAUSE  
9 WE'RE THE ONLY PEOPLE IN THAT POSITION.

10 I AM CONFIDENT THAT WHEN DR. LANGSTON, THE  
11 HEAD OF PARKINSON'S INSTITUTE, IS ABLE TO BEGIN  
12 COLLABORATING WITH HIS LAB WITH DR. DENNIS STEINLER  
13 AND HIS LAB, THEY WILL HAVE FORMED A GLOBAL  
14 LEADERSHIP THAT WILL BE HELPING US IN SIGNIFICANT  
15 DEGREE ACCOMPLISH THAT RECOMMENDATION.

16 LET ME JUST TELL YOU VERY BRIEFLY WHAT  
17 THIS WILL ENTAIL. THE PARKINSON'S INSTITUTE HAS  
18 MADE A BREAKTHROUGH, STARTLING BREAKTHROUGH  
19 DISCOVERIES IN AREAS OF PARKINSON'S RESEARCH IN  
20 PARTICULAR, BUT AFFECTING FAR BEYOND THAT, BEGINNING  
21 WITH THE THING THAT DR. LANGSTON FOUNDED THE  
22 INSTITUTE TO PROCEED FROM, WHICH WAS HIS DISCOVERY  
23 OF MPTP, WHICH WAS A STREET DRUG THAT WAS MIXED  
24 TOGETHER IN THE GARAGES OF HEROIN ADDICTS TO ATTEMPT  
25 TO GET THAT SAME HIGH. AND INSTEAD, OVERNIGHT, IN

**BARRISTERS' REPORTING SERVICE**

1 ADDITION TO THE HIGH, THEY WOKE UP WITH ADVANCED  
2 PARKINSON'S DISEASE. AND THAT DISCOVERY WAS FOUND  
3 BY DR. LANGSTON IN A NEUROLOGICAL LAB IN THE SOUTH  
4 BAY WHEN THE COMPANIONS OF THE PATIENT WHO WAS IN  
5 THAT LAB WERE IN JAILS AND PSYCHIATRIC FACILITIES  
6 BEING PROBED AND JAILED TO TRY TO FIGURE OUT WHAT  
7 WAS GOING ON WITH THEIR STRANGE BEHAVIOR.

8 AND THEY WERE UNABLE TO EITHER SPEAK OR  
9 MOVE SUFFICIENTLY TO COMMUNICATE WHAT WAS GOING ON.  
10 DR. LANGSTON SAW PARKINSON'S, GAVE HIM L-DOPA, AND  
11 HE SAID, "WHAT'S GOING ON HERE. PEOPLE HAVE BEEN  
12 TREATING ME BADLY, AND I CAN'T MOVE OR SPEAK," HE  
13 SAID AS HE MOVED AND SPOKE ON L-DOPA, AND THE REST  
14 IS HISTORY.

15 THE INSTITUTE HAS BEEN A GLOBAL LEADER  
16 ITSELF ON ISSUES OF THE NATURE OF PARKINSON'S  
17 DISEASE AND EXTENDING FROM THAT THROUGH THE  
18 ENVIRONMENTAL CONNECTIONS OF PESTICIDES AND  
19 HERBICIDES AND OTHER TOXINS WITH PARKINSON'S DISEASE  
20 AND OTHER NEURODEGENERATIVE DISORDERS. AND REALLY  
21 THE PARKINSON'S INSTITUTE HAS BEEN ALONE IN MOVING  
22 AHEAD AGGRESSIVELY IN THAT FIELD.

23 THEY WILL JOIN WITH DR. STEINLER ON WHAT  
24 IS MAYBE THE HOT ISSUE IN PARKINSON'S RESEARCH, THE  
25 ISSUE OF STEM CELL PATHOLOGIES. FOR SOME TIME



## BARRISTERS' REPORTING SERVICE

1 THERE'S BEEN AN ATTEMPT TO MOVE AHEAD WITH CLINICAL  
2 TRIALS ON PARKINSON'S. AND THERE HAVE BEEN SEVERAL  
3 THAT HAVE BEEN CONDUCTED, BUT THEY HAVE BEEN  
4 FOUNDERING. AND ONE REASON IS BELIEVED TO BE THAT  
5 THERE'S SOME SORT OF AGENT THAT IS COMMUNICATED BY  
6 THE STEM CELL WHEN IT'S GOING INTO THE DISEASE  
7 ENVIRONMENT OR COMING OUT FROM THAT ENVIRONMENT TO  
8 AFFECT A STEM CELL LINE.

9 AND THERE ARE LOTS OF THEORIES ABOUT IT AS  
10 THERE HAVE BEEN WITH LOTS OF THE ISSUES IN THE  
11 COMPLEX DISEASE THAT IS PARKINSON'S. BUT THERE  
12 HASN'T BEEN A CONCERTED EFFORT WITH THE APPROPRIATE  
13 EXPERTISE TO REALLY ATTACK IT. AND THAT'S WHAT'S  
14 SUGGESTED HERE IN VERY BRIEF WORDS.

15 DR. LANGSTON IS HERE IN THE AUDIENCE AND  
16 AVAILABLE TO ANSWER QUESTIONS, IF NECESSARY. HE'S  
17 THE APPLICANT INSTITUTE -- REPRESENTING THE  
18 APPLICANT INSTITUTION. DR. STEINLER IS READY TO BE  
19 ON THE PHONE IF NEEDED TO ANSWER QUESTIONS.

20 I THINK THAT'S AN OVERVIEW. I AM, AS A  
21 PATIENT, I AM THRILLED WITH THE OPPORTUNITY TO BE  
22 ABLE TO WATCH THE MAGIC THAT WILL HAPPEN WHEN THESE  
23 TWO MINDS ARE ABLE TO WORK TOGETHER AND DO IT WITH  
24 THE FUNDS NECESSARY TO TACKLE THIS ENORMOUSLY  
25 COMPLICATED ISSUE. SO WITH THAT, MAYBE WE SHOULD

**BARRISTERS' REPORTING SERVICE**

1 MOVE ON.

2 CHAIRMAN THOMAS: MR. SHEEHY.

3 MR. SHEEHY: JUST A COUPLE OF COMMENTS.

4 ONE, THE BREAK IN THE SCORES IS LARGELY DUE TO  
5 REALLY A SIGNIFICANT DIFFERENCE OF OPINION BETWEEN  
6 TWO OF THE WORLD'S LEADING EXPERTS IN PARKINSON'S.  
7 SO IF YOU KNEW THE NAMES, THEY'RE FOLKS THAT WE  
8 WOULD ALL KNOW. AND THEY JUST CAME DOWN ON THIS  
9 REALLY STARKLY DIFFERENT IN HOW THEY THOUGHT THIS  
10 APPLICATION WOULD WORK.

11 AND SO THAT REALLY DROVE IT. ONE OF THESE  
12 EXPERTS SAID THEY THOUGHT THIS WAS A TREMENDOUS  
13 APPLICATION, THAT IT WOULD PROVIDE SYNERGIES, THAT  
14 THIS CANDIDATE WOULD PROVIDE TREMENDOUS SYNERGIES TO  
15 THIS INSTITUTE AND TAKE IT TO A WHOLE NEW LEVEL.  
16 THE OTHER PERSON DIDN'T LIKE IT. AND IT WAS REALLY  
17 THAT STARK. WHEN YOU HAVE TWO KEY PEOPLE, YOU'RE  
18 KIND OF LEFT WITH A FAIRLY BIG GAP BETWEEN WHAT THE  
19 SCORES ARE AND SOME REAL DIFFICULTY IN COMING TO A  
20 CLEAR CONSENSUS.

21 IN PROGRAMMATIC REVIEW THE GROUP DID  
22 SUPPORT MOVING THIS FORWARD. AND I THINK PART OF  
23 THE PROBLEM TOO WAS THAT FOR OUR EXPERTS, NOT A LOT  
24 OF THEM KNEW MUCH ABOUT THE PARKINSON'S INSTITUTE.  
25 I THINK THAT THAT IS A DILEMMA WE FACE GENERICALLY

**BARRISTERS' REPORTING SERVICE**

1 IN THIS RFA IS THAT SOME OF OUR PROGRAMS ARE  
2 INTERNATIONALLY KNOWN. SOME OF THE INSTITUTIONS IN  
3 CALIFORNIA ARE INTERNATIONALLY KNOWN AND SOME ARE  
4 REALLY NOT WELL-KNOWN MUCH OUT OF CALIFORNIA. AND  
5 SO PART OF WHAT THIS DOES LOOK AT IS WHAT THE IMPACT  
6 OF WHAT THIS RECRUIT WILL BE ON THE INSTITUTION.  
7 AND IF YOU DON'T HAVE A GOOD KNOWLEDGE BASE ABOUT  
8 THE INSTITUTION WHEN YOU START OUT, THEN I THINK  
9 YOU'RE AT SIGNIFICANT DISADVANTAGE STRUCTURALLY IN  
10 THIS RFA.

11 AND IT GOES TO, IN MY MIND, ONE OF THE  
12 DILEMMAS THAT WE'VE FACED ALL ALONG AS A BOARD, AS  
13 AN AGENCY IS WHETHER OUR GOAL IS TO MAKE SURE THAT  
14 THE INSTITUTIONS, OUR LEADING INSTITUTIONS, CONTINUE  
15 TO FLOURISH AND DO WELL, OR WHETHER OUR GOAL IS TO  
16 ALSO MAKE SURE THAT OTHER INSTITUTIONS IN CALIFORNIA  
17 ALSO GET THE OPPORTUNITY TO ATTAIN THE HIGHEST RANK  
18 THAT THEY CAN DO.

19 WE, I BELIEVE, HAVE BEEN SUCCESSFUL IN OUR  
20 TRAINING GRANTS AND OUR FACILITIES GRANTS IN  
21 EXPANDING THE CAPACITY OF CALIFORNIA TO ABSORB THE  
22 RESEARCH FUNDS THAT WE'VE BEEN ALLOCATED BY THE  
23 STATE, AND THAT IS PART WHAT WE EXIST TO DO, NOT  
24 SIMPLY TO CONTINUE TO BUILD PROGRAMS THAT ARE  
25 ALREADY WORLD-CLASS, BUT TO BUILD NEW PROGRAMS AND

## BARRISTERS' REPORTING SERVICE

1 BRING THEM UP TO A WORLD-CLASS LEVEL. OTHERWISE  
2 IT'S JUST NOT SIMPLY GOING TO BE FEASIBLE TO SPEND  
3 THE FUNDS THAT WE HAVE.

4 SO THAT IS -- TO MY MIND THAT WAS LIKE THE  
5 KEY PROGRAMMATIC CONSIDERATION. AND, AGAIN, WORKING  
6 OFF THE RECOMMENDATION OF A WORLD EXPERT, A LEADING  
7 EXPERT IN PARKINSON'S WHO FELT THAT THIS PARTICULAR  
8 RECRUITMENT, THIS SCIENCE WOULD HAVE THE OPPORTUNITY  
9 TO REALLY PROPEL THIS INSTITUTE TO A WHOLE NEW LEVEL  
10 OF ACTIVITY, THAT IT FULFILLED A SIGNIFICANT GAP IN  
11 THEIR SCIENTIFIC BENCH, SO TO SPEAK. THAT WAS KIND  
12 OF HOW THIS ALL BROKE DOWN.

13 CHAIRMAN THOMAS: DEAN PIZZO, THEN DEAN  
14 PULIAFITO, AND THEN DR. STEWARD.

15 DR. PIZZO: I THINK, JOAN, THANK YOU FOR  
16 YOUR STATEMENTS, WHICH WERE EXCEPTIONALLY WELL PUT  
17 WITH REGARD TO THE PROGRAMMATIC ISSUES AND  
18 INITIATIVES IN PARKINSON'S DISEASE, WHICH I BOTH  
19 UNDERSTAND AND SUPPORT FROM BOTH A SCIENTIFIC AND  
20 MERITORIOUS PERSPECTIVE. I THINK JEFF HAS ADDED TO  
21 THIS IN TERMS OF PROGRAMMATIC CONSIDERATIONS.

22 BUT I'D LIKE TO ALSO FRAME THIS IN A  
23 SLIGHTLY DIFFERENT WAY JUST FOR DISCUSSION BECAUSE I  
24 THINK THERE IS A BIG ISSUE AT STAKE. ON THE ONE  
25 HAND, WHEN WE'RE TALKING ABOUT SUPPORTING A

**BARRISTERS' REPORTING SERVICE**

1 PROGRAMMATIC INITIATIVE, A GRANT OR AN EFFORT IN A  
2 DISEASE-SPECIFIC AREA, I THINK WE CAN BE REFINED AND  
3 CONSIDERED IN THE SCOPE OF THE PROJECT AND ITS  
4 LIMITATIONS.

5 I THINK THE CHALLENGE HERE, AT LEAST THE  
6 CHALLENGE FOR ME, IS THAT WE'RE NOW TALKING ABOUT  
7 CONSIDERABLE AMOUNT OF SUPPORT THAT IS NOT JUST  
8 ABOUT A PROJECT, BUT ABOUT A NEW INVESTIGATOR TO  
9 JOIN THIS COMMUNITY. AND I AGREE THAT THE SEED SOIL  
10 ISSUE IS AN IMPORTANT ONE, THE BROAD ISSUE OF  
11 MERITOCRACY VERSUS INSTITUTIONAL ENHANCEMENT OF HOW  
12 AN INDIVIDUAL FLOURISHES. BUT WE'RE LOOKING AT NOT  
13 JUST THE SHORT-TERM, IMMEDIATE INVESTMENT IN A  
14 PROJECT, BUT IN MANY WAYS THE LONG-TERM INVESTMENT  
15 IN AN INDIVIDUAL. AND THAT'S THE PART THAT I HAVE  
16 MORE DIFFICULTY WITH ON THE BASIS OF THE INFORMATION  
17 THAT WE HAVE AVAILABLE TO US RIGHT NOW.

18 WHAT I SEE IN THE READ IS NOT IN ANY WAY A  
19 NEGATIVE COMMENTARY ON THE PROJECT AND THE  
20 IMPORTANCE OF THE DISEASE AREA, BUT CONCERNS FAINT  
21 PRAISE, AT LEAST LOOKING AT THE CODE WORDS THAT ARE  
22 USED WITH REGARD TO THE INDIVIDUAL, WHICH ARE NOT AS  
23 LAUDATORY AS ONE WOULD LIKE TO SEE. AND WHILE I  
24 CERTAINLY WASN'T THERE, JEFF, AND CAN'T COMMENT, AND  
25 I UNDERSTAND THE DYNAMICS OF HOW STRONG VOICES

## BARRISTERS' REPORTING SERVICE

1 INFLUENCE CROWD DYNAMICS, THERE IS A, QUOTE, 35  
2 PERCENT, NEARLY A THIRD OR JUST ABOVE A THIRD OF THE  
3 GROUP, THAT OFFERED A MINORITY VIEW AND DID SO IN  
4 REASONABLY STRONG WAYS.

5 SO I'M TROUBLED BY NOT THE PROGRAMMATIC  
6 ISSUE, BUT BY THE INDIVIDUAL THAT WE'RE RECRUITING  
7 AND WHETHER THIS IS WORTH THE INVESTMENT OR WILL  
8 YIELD AN INVESTMENT OF SIGNIFICANCE, NOT JUST FOR  
9 THIS PROJECT, BUT FOR MANY OTHERS OVER A LONG PERIOD  
10 OF TIME TO COME.

11 MS. SAMUELSON: I'VE GOT A LOGISTICAL  
12 QUESTION. I HAVE BEFORE ME THE THREE LETTERS OF  
13 RECOMMENDATION WHICH I THINK ARE GOING TO BE A GREAT  
14 STARTING POINT TO ADDRESS ONE OF THOSE TWO ISSUES.

15 IS OUR I.T. SPECIALIST AROUND HERE BECAUSE  
16 THEY'RE HERE AND THEY COULD BE ON THE OTHER SCREENS?

17 DR. YAFFE: I BELIEVE THAT'S PROPRIETARY  
18 AND CONFIDENTIAL INFORMATION. THOSE LETTERS WERE  
19 SUBMITTED WITH THE UNDERSTANDING THAT THEY WERE NOT  
20 GOING TO BECOME PUBLIC, ALTHOUGH WE COULD CERTAINLY  
21 DISCUSS THEM IN CLOSED SESSION.

22 MS. SAMUELSON: I COULD CALL AND GET THE  
23 PERMISSION. THIS IS ADDRESSING EXACTLY DR. PIZZO'S  
24 QUESTION.

25 CHAIRMAN THOMAS: I THINK, JOAN, WE ARE

**BARRISTERS' REPORTING SERVICE**

1 GOING TO HAVE A CLOSED SESSION ON THIS TOPIC. SO WE  
2 CAN DISCUSS IT AT THAT POINT.

3 DR. PULIAFITO: WAS THAT CANDIDATE EVER  
4 CONSIDERED FOR THIS AWARD PREVIOUSLY?

5 MS. SAMUELSON: YES. NOT IN THIS CONTEXT.

6 DR. PULIAFITO: MY QUESTION WAS WAS THIS  
7 CANDIDATE -- WAS THIS PERSON PREVIOUSLY NOMINATED  
8 FOR A RESEARCH LEADERSHIP AWARD AT CIRM?

9 CHAIRMAN THOMAS: MR. HARRISON.

10 MR. HARRISON: LET ME ANSWER CAREFULLY.  
11 THIS APPLICANT HAS NEVER BEEN BEFORE THE BOARD WITH  
12 AN APPLICATION FOR A RESEARCH LEADERSHIP AWARD.

13 DR. PULIAFITO: WHAT'S THE QUALIFICATION?

14 MR. SHEEHY: SHOULD WE GO INTO CLOSED  
15 SESSION?

16 MS. SAMUELSON: MAYBE WE CAN JUST GO  
17 THERE.

18 DR. STEWARD: ACTUALLY ALL I WANTED TO DO  
19 WAS A MAKE A MOTION TO APPROVE JUST SO WE COULD PUT  
20 THIS ON A FOOTING FOR SORT OF FORMAL DISCUSSION.

21 DR. PRIETO: I'LL SECOND.

22 CHAIRMAN THOMAS: BEEN MOVED AND SECONDED.  
23 CONTINUED DISCUSSION.

24 DR. PRICE: CAN I ASK A QUESTION? IS IT  
25 POSSIBLE FOR US TO BE TOLD THE ACTUAL SCORES OF THE

## BARRISTERS' REPORTING SERVICE

1 MEMBERS OF THE GRANTS WORKING GROUP, THE INDIVIDUAL  
2 SCORES, RATHER THAN JUST STANDARD DEVIATION?

3 DR. SAMBRANO: SO I CAN'T GIVE YOU THE  
4 INDIVIDUAL SCORES, BUT WHAT I CAN DO IS GIVE YOU THE  
5 MEDIAN, WHICH IS A 58. THE RANGE WAS FROM 30 TO 75  
6 WITH A STANDARD DEVIATION OF 14.

7 MS. SAMUELSON: THERE'S A DIFFERENCE OF  
8 OPINION ABOUT THOSE NUMBERS. WE'RE GOING TO, I  
9 SUPPOSE, HAVE TO DISCUSS THAT IN CLOSED SESSION AS  
10 WELL.

11 CHAIRMAN THOMAS: THANK YOU, DR. SAMBRANO.  
12 OTHER COMMENTS BY MEMBERS OF THE BOARD? MR. SHEEHY.

13 MR. SHEEHY: I REALLY THINK THAT MAYBE WE  
14 SHOULD GO TO CLOSED SESSION. THAT'S MY SENSE ON  
15 THIS ONE BEFORE WE DO ANYTHING ELSE.

16 CHAIRMAN THOMAS: OKAY. I THINK THAT'S  
17 FAIR. MEMBERS, WHY DON'T WE DO -- SO WE HAVE A  
18 BUNCH OF PEOPLE HERE OR SOME AT ANY RATE FOR PUBLIC  
19 COMMENT. LET'S HEAR FROM THEM FIRST BEFORE WE GO TO  
20 CLOSED SESSION.

21 ANYBODY WHO WOULD LIKE TO SPEAK, PLEASE  
22 STATE YOUR NAME. YOU HAVE THREE MINUTES EACH, AND I  
23 ASK THAT YOU RESPECT THAT TIME LIMITATION. THANK  
24 YOU.

25 DR. LANGSTON: WELL, THIS IS VERY



**BARRISTERS' REPORTING SERVICE**

1 INTERESTING. I'M BILL LANGSTON, CEO AND MEDICAL  
2 DIRECTOR OF THE PARKINSON'S INSTITUTE. I'M  
3 INTERESTED YOU HAVE TWO WORLD AUTHORITIES ON  
4 PARKINSON'S. I JUST WON THE PRITZKER AWARD FOR  
5 LEADERSHIP IN PARKINSON'S DISEASE PRESENTED BY THE  
6 FOX FOUNDATION, WHICH IS THE TOP AWARD IN THE FIELD.  
7 SO I FEEL A LITTLE COMFORTABLE SPEAKING ON THIS  
8 SUBJECT ALONG WITH WHOEVER YOUR EXPERTS ARE. I  
9 WOULD LOVE TO KNOW.

10 WHAT I THINK I'M GOING TO DO IS THERE'S SO  
11 MANY ISSUES THAT HAVE BEEN BROUGHT UP, AND I'VE GOT  
12 THREE MINUTES. IT'S REALLY IMPOSSIBLE TO HIT THEM  
13 ALL.

14 DENNIS, THE CANDIDATE, IS, I THINK, A  
15 WORLD-CLASS SCIENTIST. I'M NOT SURE WHERE THIS  
16 CONCERNS ABOUT HIS CREDENTIALS COME FROM. HE'S ON  
17 THE MICHAEL FOX BOARD AS THE STEM CELL  
18 REPRESENTATIVE. THAT'S A PRETTY HIGH HONOR IN OUR  
19 FIELD.

20 ONE OTHER COMMENT ABOUT THE INSTITUTE,  
21 SOMEONE SAID THE INSTITUTE IS NEW TO CALIFORNIA, NOT  
22 OUTSIDE OF CALIFORNIA. ACTUALLY I THINK WE'RE MUCH  
23 BETTER KNOWN AROUND THE WORLD THAN WE ARE IN  
24 CALIFORNIA. SO IT'S JUST THE OPPOSITE, I BELIEVE.

25 WE ARE DEDICATED TO PARKINSON'S. WE ARE

**BARRISTERS' REPORTING SERVICE**

1 FACILE, WE CAN MOVE QUICKLY, WE HAVE GREAT  
2 SCIENTISTS.

3 IN MY REMAINING TWO MINUTES, I WOULD LIKE  
4 TO TELL YOU WHY WE'RE SO EXCITED ABOUT THIS SCIENCE.  
5 I'VE BEEN IN THE TRANSPLANT FIELD FOR 20 YEARS. WE  
6 ALWAYS ASSUMED THAT STEM CELLS WOULD TAKE OVER AFTER  
7 WE WORKED WITH FETAL CELLS. KIND OF ON THE WAY TO  
8 THE THEATER, SOMETHING FUNNY HAPPENED. AND THAT IS  
9 FOR US SOMETHING TOTALLY UNEXPECTED HAPPENED. THESE  
10 HEALTHY TRANSPLANTED NEURONS GOT PARKINSON'S  
11 DISEASE. THEY DEVELOPED LEWY BODIES. SOMEHOW  
12 PARKINSON'S DISEASE WAS TRANSMITTED FROM THE HOST  
13 BRAIN WITH PARKINSON'S TO HEALTHY YOUNG NEURONS.

14 THIS WAS A STUNNER BOTH BECAUSE WE THOUGHT  
15 THIS WAS GOING TO CURE PARKINSON'S AND, NO. 2, IT  
16 WAS THE FIRST EVIDENCE WE'VE HAD IN THE HISTORY OF  
17 MEDICINE THAT WHATEVER LURKS IN THE BRAIN AND CAUSES  
18 THIS DISEASE IS STILL THERE AND IS CAPABLE OF BEING  
19 TRANSMITTED.

20 THIS GRANT DIRECTLY ADDRESSES THAT MAJOR  
21 BOTTLENECK IN TRANSPLANTATION. DENNIS HAS BEEN  
22 WORKING IN THIS AREA A NUMBER OF YEARS. WE'VE BEEN  
23 WORKING IN THIS AREA FOR A NUMBER OF YEARS. WE HAVE  
24 A NEW THEORY WHICH WE JUST HAVE DATA AS RECENTLY AS  
25 LAST WEEK WORKING WITH ZONDO BREAKFIELD AT HARVARD,

**BARRISTERS' REPORTING SERVICE**

1 THAT NEUROPROGENITOR CELLS ACTUALLY FORM LITTLE  
2 BLOBS, LITTLE PACKETS THAT BREAK OFF THE CELL AND  
3 CARRY THIS TOXIC PROTEIN WITH THEM. THAT'S THE  
4 HYPOTHESIS OF THE GRANT, AND WE HAVE STRONG DATA  
5 THIS ACTUALLY HAPPENS WITH STEM CELLS.

6 NOW, TACKLING THAT PROBLEM AND SOLVING THE  
7 ISSUE OF WHY THIS -- HOW THIS DISEASE GETS  
8 TRANSMITTED FROM CELL TO CELL WOULD BE A HUGE  
9 BREAKTHROUGH IN THE FIELD. AND THIS IS WHAT I THINK  
10 DENNIS AND OUR GROUP, THE RICHNESS OF THE  
11 PARKINSON'S INSTITUTE AND PARKINSON'S AND THE  
12 RICHNESS OF HIS BACKGROUND AND EXPERTISE, I THINK WE  
13 CAN SOLVE THIS, PARTICULARLY WITH THIS NEW EXOSOMAL  
14 HYPOTHESIS. AND EVEN IF IT'S THE SECOND ONE THAT'S  
15 MORE IMPORTANT, WE CAN DO THAT.

16 LAST 30 SECONDS. THERE'S A TWO-FOR HERE.  
17 IF WE CAN FIGURE OUT WHY THESE TOXIC PROTEINS GO  
18 FROM CELL TO CELL, WE ACTUALLY MAY SOLVE A  
19 FUNDAMENTAL PROBLEM IN PARKINSON'S. IF YOU READ THE  
20 ARTICLE IN *SCIENCE* BY THE NOBEL PRIZE WINNER STANLEY  
21 PRUSINER ABOUT THE TIME OUR GRANT WAS SUBMITTED, IT  
22 TURNS OUT THAT MAYBE MOST NEURODEGENERATIVE DISEASES  
23 INVOLVE THIS TYPE OF PREON-LIKE OR TOXIC PROTEIN  
24 TRANSMISSION. IF WE CAN SOLVE THIS WITH STEM CELLS  
25 FOR TRANSPLANTATION, WE ACTUALLY MIGHT ALSO SOLVE

**BARRISTERS' REPORTING SERVICE**

1 THE FUNDAMENTAL PROBLEM IN PARKINSON'S.

2 SO I JUST HOPE, WHEN YOU'RE TALKING ABOUT  
3 ALL THESE ISSUES, YOU REALIZE AT LEAST IN OUR  
4 COMMUNITY THERE'S SOME HUGE SCIENCE HERE THAT COULD  
5 BE TRANSFORMATIVE FOR TRANSPLANTATION AND FOR  
6 PARKINSON'S. THANK YOU.

7 CHAIRMAN THOMAS: THANK YOU, DOCTOR.

8 MS. KATSAROS: HELLO. MY NAME IS ROBIN  
9 KATSAROS. MY HUSBAND IS JOHN KATSAROS. HE IS A  
10 PARKINSON'S PATIENT, AND HE'S BEING SEEN BY THE  
11 PARKINSON'S INSTITUTE. I DIDN'T KNOW I HAD ONLY  
12 THREE MINUTES, SO MY NOTES HAVE SORT OF GONE BY THE  
13 WAYSIDE. BUT AFTER SITTING IN THE BACK AS AN  
14 OBSERVER AND LISTENING TO WHAT'S GOING ON, I'M A  
15 LITTLE DISAPPOINTED BECAUSE I SEE THERE'S SOME  
16 POLITICS GOING ON.

17 AND I THINK IT'S INTERESTING THAT SOMEBODY  
18 MENTIONED THAT THE PARKINSON'S INSTITUTE IS NOT  
19 KNOWN VERY WELL OUTSIDE OF CALIFORNIA. PROBABLY  
20 BECAUSE THEY DON'T SPEND A LOT OF MONEY ON  
21 MARKETING, AND THAT'S BECAUSE THEY SPEND THEIR MONEY  
22 ON RESEARCH AND DEVELOPMENT. THEY HAVE DONE SOME  
23 REMARKABLE, LIFE-CHANGING DEVELOPMENTS AT THE  
24 PARKINSON'S INSTITUTE. BILL -- DR. LANGSTON JUST  
25 MENTIONED THAT HE WAS AWARDED THE PRITZKER HONOR.

**BARRISTERS' REPORTING SERVICE**

1 IT'S PRESTIGIOUS. I DON'T KNOW THERE'S A LOT OF  
2 OTHER PEOPLE IN THIS ROOM THAT CAN SAY THAT THEY'VE  
3 BEEN HONORED SOMETHING WITH A \$500,000 AWARD.  
4 \$100,000 OF IT WENT TO HIS OWN PERSONAL RESEARCH.

5 DR. CAROLYN TANNER, WHO IS THE DIRECTOR OF  
6 CLINICAL RESEARCH, WAS RECENTLY AWARDED THE 2012  
7 NEUROLOGIST OF THE YEAR AWARD BY ANA. THIS  
8 ORGANIZATION IS KNOWN WORLDWIDE BY A LOT OF PEOPLE.  
9 I'M SORRY IF SOME OF YOU HERE IN THIS ROOM AREN'T  
10 QUITE FAMILIAR WITH THEIR REPUTATION, BUT THEY ARE  
11 WORLD RENOWNED. THEY HAVE A NIMBLE, SMALL, FOCUSED  
12 TEAM OF PEOPLE AND RESEARCHERS, AND THEY ARE THE  
13 ONLY INSTITUTE IN THE ENTIRE UNITED STATES, I'D LIKE  
14 TO REPEAT THAT, IN THE ENTIRE UNITED STATES THAT  
15 COMBINES BASIC RESEARCH, CLINICAL RESEARCH, PATIENT  
16 THERAPY, AND PATIENT TREATMENT. AND THAT'S A STORY  
17 THAT WE NEED TO BE TELLING.

18 I AM PROUD OF THAT. I AM PROUD TO BE  
19 ASSOCIATED WITH THIS ORGANIZATION, AND I THINK THAT  
20 THE TEAM THAT HE HAS PUT TOGETHER IS ABSOLUTELY  
21 AWESOME. I THINK CALIFORNIA WOULD BE WELL SERVED.  
22 AND AS A TAXPAYER, I THINK IT'S IMPORTANT THAT WE  
23 PUT OUR MONEY AND OUR RESEARCH INTO PLACES AND  
24 PEOPLE AND THINGS THAT HAVE MADE A DIFFERENCE. THIS  
25 ORGANIZATION HAS MADE A DIFFERENCE. AND I STRONGLY

**BARRISTERS' REPORTING SERVICE**

1 URGE ALL OF YOU AND ANYBODY WHO IS QUESTIONING, AND  
2 WHEN YOU GO INTO YOUR PRIVATE SESSION, THAT YOU  
3 THINK ABOUT THAT AND YOU THINK ABOUT THE PEOPLE IN  
4 THIS ROOM THAT HAVE PARKINSON'S, THE JOAN  
5 SAMUELSONS, THE PEOPLE THAT ARE WORKING HARD, AND  
6 YOU THINK ABOUT A SMALL ORGANIZATION THAT CAN MAKE A  
7 DIFFERENCE IN FINDING A CURE FOR THIS HORRIBLE  
8 DISEASE. THANK YOU.

9 MR. TORRES: AS A NEPHEW OF A PARKINSON'S  
10 PATIENT WHO HAS PASSED ON, AND I KNOW MANY HERE IN  
11 THIS ROOM SHARE THIS DISEASE, UNFORTUNATELY. BUT IF  
12 ANYBODY IN THIS ROOM RECOGNIZES WHAT POLITICS IS, I  
13 THINK I AM AN EXPERT. AND BELIEVE ME, MA'AM, THE  
14 WORK THAT I'VE DONE FOR THE LAST THREE YEARS WITH  
15 THIS BOARD HAS NEVER RESTED DECISIONS ON POLITICS.  
16 IT HAS RESTED THEIR DECISIONS ON COMMITMENT, ON  
17 PROGRAMMATIC REVIEW, AND ON THE SCIENCE. AND I HOPE  
18 YOU GO AWAY FROM THIS MEETING WITH A LITTLE BIT MORE  
19 COMFORT THAT WHATEVER DECISIONS ARE MADE ARE NOT  
20 GOING TO BE POLITICAL ON THIS BOARD.

21 CHAIRMAN THOMAS: THANK YOU, SENATOR.  
22 NEXT, PLEASE.

23 MR. WASSON: GOOD MORNING. MY NAME IS  
24 GREG WASSON, AND HERE TODAY IS MY WIFE ANN. WE WERE  
25 BOTH DIAGNOSED WITH PARKINSON'S DISEASE 17 YEARS

**BARRISTERS' REPORTING SERVICE**

1 AGO. WE'VE BEEN ACTIVE PARKINSON'S PATIENT  
2 ADVOCATES FOR WELL OVER A DECADE.

3 BEGINNING IN 2001, WE REGULARLY TESTIFIED  
4 BEFORE THE CALIFORNIA STATE SENATE IN SUPPORT OF THE  
5 LEGISLATION THAT LEGALIZED EMBRYONIC STEM CELL  
6 RESEARCH AND SOMATIC CELL NUCLEAR TRANSFER IN  
7 CALIFORNIA. I'VE ALSO TESTIFIED BEFORE THE UNITED  
8 STATES SENATE ON REGENERATIVE MEDICINE, AND I WAS A  
9 MEMBER OF THE WORKING GROUP THAT HELPED PASS  
10 PROPOSITION 71 AND CREATE THE CIRM.

11 IN THE TIME THAT WE'VE BEEN PARKINSON'S  
12 PATIENT ADVOCATES, WE HAVE LEARNED THAT PARKINSON'S,  
13 WHICH IS THE SECOND MOST PREVALENT NEUROLOGICAL  
14 ILLNESS, ONE THING WE'VE LEARNED IS THAT PARKINSON'S  
15 IS A FAR MORE COMPLEX DISEASE AND RESISTANT TO  
16 SIGNIFICANT THERAPEUTIC INTERVENTION THAN WE HAD  
17 THOUGHT A DECADE AGO. WE NOW KNOW THAT SOLVING THE  
18 RIDDLE OF PARKINSON'S WILL REQUIRE MORE, MORE HARD  
19 WORK BY OUR FINEST SCIENTIFIC MINDS, MORE HARD WORK  
20 BY OUR BEST INSTITUTIONS, MORE FUNDING FROM AGENCIES  
21 THAT HAVE BEEN CREATED TO SPEED THE TIME TO CURES  
22 FOR CHRONIC DISEASES LIKE PARKINSON'S, AND ABOVE  
23 ALL, WE NEED CREATIVITY, IMAGINATION, AND WISDOM.

24 DR. DENNIS STEINLER, THE PRINCIPAL  
25 INVESTIGATOR UNDER THE PROPOSED GRANT, IS

**BARRISTERS' REPORTING SERVICE**

1 INTERNATIONALLY RENOWNED FOR HIS WORK IN STEM CELL  
2 AND NEUROSCIENCE RESEARCH, INCLUDING PARKINSON'S  
3 DISEASE. HIS PRESENT PROPOSAL, INCLUDING USE OF  
4 DISEASE-IN-A DISH CLINICAL PROTOCOLS TO TEST THE  
5 HYPOTHESIS OF CELL-TO-CELL TRANSMISSION THROUGH THE  
6 MEDIUM OF EXOSOMES EXEMPLIFIES THE KIND OF CREATIVE  
7 APPROACH BY RESEARCHERS THAT IS SORELY NEEDED IF WE  
8 ARE TO MAKE REAL PROGRESS IN THE FIGHT AGAINST  
9 PARKINSON'S.

10 DR. STEINLER WOULD BE TEAMING UP WITH THE  
11 PARKINSON'S INSTITUTE, WHICH COMPLEMENTS THE  
12 OBJECTIVES OF HIS RESEARCH PROPOSAL AS WELL AS THE  
13 ENTREPRENEURIAL SPIRIT IT EMBODIES. THE PI IS KNOWN  
14 THROUGHOUT THE PARKINSON'S COMMUNITY FOR INNOVATIVE  
15 THINKING AND LANDMARK ACHIEVEMENTS. FROM THE USE OF  
16 MPTP TO CREATE THE FIRST ANIMAL MODELS FOR TESTING  
17 PREHUMAN CLINICAL TRIALS OF PARKINSON'S DISEASE  
18 THERAPIES TO THE JUSTLY HERALDED TWIN STUDIES THAT  
19 INVESTIGATED THE ROLE OF GENETICS IN PD, TO THE  
20 LATEST THINKING ON THE NEXUS BETWEEN THE ENVIRONMENT  
21 AND GENETICS AND THE DEVELOPMENT AND PROGRESSION OF  
22 PARKINSON'S, THE INSTITUTE HAS CONSISTENTLY BEEN AT  
23 THE FOREFRONT OF PARKINSON'S RESEARCH.

24 WE AS ADVOCATES HAVE WORKED WITH THE  
25 INSTITUTION ON NUMEROUS PROJECTS INCLUDING THE



## BARRISTERS' REPORTING SERVICE

1 IMPLEMENTATION AND CREATION OF THE CALIFORNIA  
2 PARKINSON'S DISEASE REGISTRY. AS PATIENTS, WE ALSO  
3 RECEIVE OUR OWN PERSONAL CARE AT THE PI AND HAVE  
4 DONE SO FOR THE LAST FIVE YEARS. IN BOTH  
5 CAPACITIES, WE HAVE OBSERVED THE DAILY INTERACTION  
6 BETWEEN RESEARCHERS, PATIENTS, AND PHYSICIANS. THIS  
7 CROSS POLLINATION, WHICH OCCURS BOTH BY DESIGN AND  
8 THE COINCIDENCE OF EVERYBODY BEING IN THE SAME PLACE  
9 AT THE SAME TIME, CREATES A REMARKABLY FERTILE  
10 ATMOSPHERE FOR THE GENERATION OF NEW IDEAS AND  
11 APPROACHES TO THE INVESTIGATION AND TREATMENT OF  
12 THIS DISEASE.

13 WE ARE CONFIDENT THAT DR. STEINLER AND THE  
14 INSTITUTE WILL BE STIMULATING A SUPPORTIVE  
15 ENVIRONMENT IN WHICH TO CONDUCT THE PROPOSED  
16 RESEARCH. WE STRONGLY URGE THE APPROVAL OF THIS  
17 AWARD. THANK YOU.

18 MS. WASSON: AMEN TO THAT.

19 CHAIRMAN THOMAS: THANK YOU BOTH.

20 MR. GREENBERG: MY NAME IS JERRY  
21 GREENBERG. I SERVED IN VIETNAM FROM '68 TO '69.  
22 DURING THAT HORROR, I WAS EXPOSED TO AGENT ORANGE.  
23 SERVICE FOR MY GOVERNMENT, I WAS ATTACKED BY  
24 PARKINSON'S. THE PARKINSON'S INSTITUTE HAS BEEN A  
25 GODSEND. TREATMENT, I'VE BEEN WORKING WITH SOME OF

## BARRISTERS' REPORTING SERVICE

1 THE RESEARCHERS. I'VE BEEN WORKING WITH OTHERS AT  
2 THE PARKINSON'S INSTITUTE AS AN ADVOCATE, A  
3 VOLUNTEER. PEOPLE THERE ARE GREAT. THE ABILITY FOR  
4 ME AS A PATIENT TO TALK DIRECTLY TO THE RESEARCHERS  
5 IS UNIQUE.

6 WHAT IS IMPORTANT TO REALIZE, THAT WITH  
7 THE AGING POPULATION AND THE GREATER PREVALENCE OF  
8 CHEMICALS IN THE ENVIRONMENT, PARKINSON'S IS A  
9 GROWING DISEASE. AND PARKINSON'S MODEL ALSO RELATES  
10 TO ALS, PICK'S, ALZHEIMER'S, AND OTHERS OF THIS ILK.

11 SO THIS RESEARCH WHICH IS BEING PROPOSED  
12 HERE MIGHT EXTEND WELL BEYOND PARKINSON'S, MIGHT  
13 EXTEND GENERALLY TO DEGENERATIVE BRAIN DISORDERS.

14 I WATCHED MY MOTHER DEGENERATE AND DIE  
15 FROM ALZHEIMER'S. I'VE SEEN PATIENTS THAT ARE MUCH  
16 WORSE THAN I AM WITH PARKINSON'S. IT'S A TERRIBLE  
17 DISORDER. FOR ME IT MEANT GIVING UP TWO OF MY  
18 AVOCATIONAL PASSIONS. I LOVE COOKING. I WAS ONCE A  
19 NATIONAL FINALIST IN A COOKING CONTEST; BUT WITH NO  
20 SENSE OF SMELL, WHICH IMPACTS THE TASTE, I CAN'T  
21 CREATE DISHES ANYMORE.

22 I WAS IN THE MIDDLE OF A WOODWORKING  
23 PROJECT CARVING THE TEN COMMANDMENTS. AND I'VE GOT  
24 A DRUG-RESISTANT TREMOR. COULD YOU IMAGINE TRYING  
25 TO CARVE LIKE THIS? I WAS ALSO INVITED TO JOIN A

**BARRISTERS' REPORTING SERVICE**

1 FENCING CLUB BECAUSE I FENCED IN COLLEGE. AGAIN,  
2 WOULD YOU LIKE TO FENCE AGAINST ME WHEN I HAVE MY  
3 HAND LIKE THAT?

4 AS NOTED, IT'S A TERRIBLE DISORDER. AND I  
5 SEE THIS AS A WAY OF AT LEAST HALTING THE  
6 PROGRESSION, IF NOT GENERATING THE CURE. SO I BEG  
7 OF YOU TO APPROVE THIS.

8 IN SERVING MY GOVERNMENT, I ENDED UP WITH  
9 THIS. I'M ASKING MY GOVERNMENT TO HELP ME END IT.  
10 THANK YOU.

11 CHAIRMAN THOMAS: THANK YOU. NEXT PLEASE.

12 MR. LANE: HI. I'M BOB LANE FROM CHICO,  
13 CALIFORNIA. I WAS HERE AT YOUR JULY MEETING. SINCE  
14 THAT MEETING, I'VE TOURED THE PARKINSON'S INSTITUTE  
15 RESEARCH FACILITY. I AM A PARKINSON'S ADVOCATE, I  
16 AM A PARKINSON'S INSTITUTE PATIENT, AND I HAVE THIS  
17 LITTLE SHAKING GOING ON.

18 I AM NOT A SCIENTIST. I SPENT A LOT OF MY  
19 LIFE COLLECTING HEROES. IF YOU WILL PARDON ME,  
20 ERNIE BANKS WAS ONE OF THEM, A SPLINTER OF A GUY  
21 FROM THE CUBS WHO COULD HIT HOME RUNS.

22 A FEW WEEKS AGO I DISCOVERED A NOTE IN MY  
23 FILE THAT MY GRANDFATHER, MY MATERNAL GRANDFATHER,  
24 WROTE TO MY OTHER GRANDPA. HE WAS DESCRIBING THE  
25 SYMPTOMS OF PARKINSON'S. THEY HAD NO IDEA THAT HE

## BARRISTERS' REPORTING SERVICE

1 WAS DESCRIBING THE SYMPTOMS OF PARKINSON'S. THIS  
2 WAS 69 YEARS AGO AND WAS WRITTEN AS PART OF A  
3 TRANSMISSION BETWEEN TWO GRANDPAS ABOUT THEIR  
4 GRANDSON'S BIRTH IN SAN ANTONIO, TEXAS.

5 ETHEL WAS SUBSEQUENTLY DIAGNOSED AS HAVING  
6 PARKINSON'S. AND AS YOU KNOW, AT THAT TIME THERE  
7 WAS NO MEDICINE FOR MY GRANDMOTHER.

8 IN 1959 MY GRANDFATHER DIED, AND MY  
9 GRANDMOTHER WAS LEFT ALONE WITH PARKINSON'S. AND I  
10 WAS SHUTTLED OFF TO CUBA, NEW YORK, A BOOMING  
11 METROPOLIS OF A THOUSAND PEOPLE, TO HELP HER FOR THE  
12 SUMMER. ETHEL LIKED A LITTLE HELP IN THE GARDEN.  
13 SHE LIKED TO PLAY CARDS. SHE WASN'T HARD TO PLEASE.  
14 AND I WATCHED HER STRUGGLE UP THE STAIRCASE IN A  
15 TWO-STORY HOUSE WHERE SHE LIVED BY HERSELF FOR  
16 ANOTHER TEN YEARS. THIS WILL GIVE ALL OF US HOPE.  
17 SHE LIVED FOR 29 YEARS AFTER THAT DIAGNOSIS WITH  
18 PARKINSON'S TO THE AGE OF 80.

19 I WAS RECENTLY MADE, AS I MENTIONED, A  
20 PARKINSON'S ADVOCATE BY THE FOUNDATION. AND AT THAT  
21 MEETING I MET JIM WONG, ANOTHER OF MY HEROES, A  
22 BIOLOGIST. JIM CAN HARDLY WALK. HE DIDN'T COME  
23 WITH A CHIP ON HIS SHOULDER. HE CAME TO HELP THE  
24 OTHER ADVOCATES LEARN WHAT TO DO AS ADVOCATES TO  
25 SUPPORT PEOPLE WITH PARKINSON'S WHO UNDERSTAND THIS

**BARRISTERS' REPORTING SERVICE**

1 DISEASE BECAUSE THEY HAVE IT.

2 I MET CARL AMES FROM PEORIA, ARIZONA. HE  
3 WALKED FORWARD, HE'D STOP, AND HE'D HAVE TO WALK  
4 BACKWARD TO GET GOING AGAIN, ANOTHER OF THE MALADIES  
5 THAT COMES WITH THIS DISEASE. AND YOU KNOW THESE  
6 STORIES. I KNOW YOU KNOW THEM. AND I'LL MOVE  
7 ALONG.

8 MY SYMPTOMS, AS YOU CAN SEE, ARE  
9 RELATIVELY MILD. I'M VERY FORTUNATE. WHAT YOU  
10 DON'T SEE IS THE LOSS OF SENSE OF SMELL AND SO ON.  
11 AS YOU KNOW, NOBODY KNOWS WHAT CAUSES THIS DISEASE,  
12 LET ALONE THE CURE. AND THAT'S THE PROBLEM. MR.  
13 CHAIRMAN AND MEMBERS OF THE BOARD, IT HAS BEEN 69  
14 YEARS SINCE MY GRANDMOTHER CORRESPONDED WITH -- MY  
15 GRANDFATHER CORRESPONDED WITH MY OTHER GRANDPA ABOUT  
16 THE DISEASE.

17 JIMMY, CARL, AND ANOTHER GUY, CHRIS, THAT  
18 I WAS GOING TO MENTION ARE 40 YEARS OLD AND HAVE THE  
19 DISEASE. IF THE STATISTICS ARE CORRECT, HALF A  
20 MILLION PEOPLE, ALMOST THERE, HALF A MILLION PEOPLE  
21 IN CALIFORNIA ALONE HAVE THE DISEASE. WE NEED YOUR  
22 HELP. I ASK YOU PLEASE VOTE FOR THIS PROPOSAL.  
23 THIS IS A TOUGH DISEASE. AND AS WE'VE SAID, MANY  
24 PEOPLE -- MANY MORE PEOPLE ARE BECOMING AFFLICTED  
25 WITH IT. THANK YOU FOR YOUR TIME AND CONSIDERATION.

**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: THANK YOU. NEXT PLEASE.

2 MS. NURIEGA: MY NAME IS JOANNE NURIEGA  
3 (PHONETIC), AND I'VE BEEN DIAGNOSED WITH PARKINSON'S  
4 FOR ALMOST TEN YEARS. I WAS NOT GOING TO SPEAK, BUT  
5 SOMETHING PROPELLED ME OUT OF MY SEAT.

6 FIRST OF ALL, I APPRECIATE YOUR CONCERN  
7 FOR THE MONEY AND WHERE IT GOES. WE'RE IN A  
8 GOVERNMENT THAT SEEMS TO BE OUT OF CONTROL  
9 FINANCIALLY. SO I'M GLAD YOU'RE NOT FOLLOWING SUIT  
10 AND YOU'RE BEING VERY CAREFUL IN WHERE YOU PUT THE  
11 \$6 MILLION.

12 WHEN I WAS DIAGNOSED, IN MY TERROR, I  
13 SPENT MANY HOURS ON THE INTERNET LOOKING FOR HELP.  
14 I FOUND THE PARKINSON'S INSTITUTE AND READ ABOUT IT,  
15 AND I THOUGHT, WELL, THERE'S NO WAY THIS IS IN  
16 CALIFORNIA. THIS IS PROBABLY IN NEW YORK, BUT I'M  
17 GOING. WHEREVER THIS PLACE IS I'M GOING. WHEN I  
18 SAW THE WORD "SUNNYVALE," I JUST BROKE DOWN IN TEARS  
19 BECAUSE I KNEW THIS IS WHERE I SHOULD BE.

20 THE PARKINSON'S INSTITUTE IS NOT TUCKED IN  
21 THE CORNER OF A MEDICAL FACILITY THAT DEALS WITH A  
22 LOT OF OTHER DISEASES. THEY ARE PARKINSON'S  
23 INSTITUTE, AND THEY'RE THE ADVOCATES FOR PEOPLE LIKE  
24 ME. WHEN I WENT THERE, I GOT THE HELP I NEEDED.  
25 BECAUSE OF THEM, I THINK I'M STANDING HERE IN GOOD

**BARRISTERS' REPORTING SERVICE**

1     CONDITION.  I HAVE BAD MOMENTS AND I HAVE GOOD  
2     MOMENTS, AND I'VE BEEN DETERMINED TO RISE ABOVE THIS  
3     DISEASE.

4                 SO IT SEEMS THE ISSUE HERE IS NOT MY  
5     TREMOR AND NOT MY LOSS OF SMELL AND NOT MY SOFT  
6     SPEECH TO YOU.  THE ISSUE HERE IS YOU'RE TRYING TO  
7     FIGURE OUT WHERE TO PUT YOUR MONEY.  AND I AM ASKING  
8     YOU TO PUT YOUR MONEY IN THE PARKINSON'S INSTITUTE.  
9     IF YOU'RE CONCERNED ABOUT THE CALIBER OF THE DOCTOR  
10    THEY'RE BRINGING, PERSONALLY I CAN'T IMAGINE THEM  
11    GOING THROUGH ALL THIS, TAKING \$6 MILLION AND NOT  
12    PICKING THE BEST DOCTOR IN THE WHOLE WORLD.  WHY  
13    WOULD THEY DO THAT?  WHY WOULD THEY PICK SOMEBODY  
14    INFERIOR AND WASTE THE MONEY?

15                THIS IS OUR CHANCE.  THIS IS OUR CHANCE TO  
16    GET SOME HELP.  IN MY PURSE I HAVE A LITTLE  
17    CONTAINER OF YELLOW PILLS.  THAT'S ALL THAT KEEPS ME  
18    MOVING.  IT'S NOT GOING TO KEEP ME MOVING FOREVER.  
19    PEOPLE TELL ME I'M FAIRLY YOUNG.  I FEEL OLD  
20    SOMETIMES, BUT MAYBE I HAVE 20, 30 YEARS AHEAD OF  
21    ME.  I DON'T KNOW.  BUT THE YELLOW PILLS AREN'T  
22    GOING TO GET ME THROUGH.  THEY'RE GOING TO TURN ON  
23    ME, AND THEY'RE GOING TO CAUSE DYSKINESIA PROBABLY.  
24    THESE YELLOW PILLS AREN'T GOING TO KEEP ME WALKING  
25    AND DOING THE THINGS I WANT TO DO.

**BARRISTERS' REPORTING SERVICE**

1 PLEASE, PLEASE WHEN YOU GO IN YOUR CLOSED  
2 SESSION, CONSIDER US. I THANK YOU, THE PEOPLE THAT  
3 DON'T HAVE PARKINSON'S, THAT YOU PUT YOUR TIME IN  
4 THIS. WE REALLY APPRECIATE WHAT YOU'RE DOING.  
5 PLEASE CONSIDER US AS YOU MAKE YOUR DECISION. THANK  
6 YOU.

7 CHAIRMAN THOMAS: THANK YOU. THAT WOULD  
8 APPEAR TO CONCLUDE PUBLIC COMMENT. I THINK WE CAN  
9 NOW, MR. HARRISON --

10 DR. JUELSGAARD: JUST ONE MORE THING, AND  
11 I DON'T KNOW WHETHER THIS SHOULD BE ADDRESSED IN  
12 OPEN SESSION OR CLOSED SESSION, BUT I'LL RAISE IT.  
13 SO WHEN DR. SAMBRANO PRESENTED THE REVIEW CRITERIA  
14 FOR THIS PARTICULAR AWARD, THE THIRD ONE WAS  
15 INSTITUTIONAL COMMITMENT AND ENVIRONMENT. AND BEAR  
16 WITH ME JUST A MINUTE. IN THE REVIEW DONE BY THE  
17 GRANTS WORKING GROUP, THERE'S A SENTENCE AT THE END  
18 OF A PARAGRAPH THAT SAID, "REVIEWERS FELT THAT THE  
19 CANDIDATE WOULD BRING LEADERSHIP IN FUNDAMENTAL  
20 STUDIES TO DISEASE MECHANISMS AND BASIC NSC  
21 RESEARCH."

22 HERE'S THE IMPORTANT QUESTION FROM MY  
23 POINT OF VIEW. THE QUESTION WHETHER THE INSTITUTION  
24 COULD PROVIDE A CRITICAL MASS OF PERSONNEL,  
25 ESSENTIAL RESOURCES, CORE FACILITIES, AND AN



**BARRISTERS' REPORTING SERVICE**

1 APPROPRIATE ENVIRONMENT TO ENABLE ACHIEVEMENT OF THE  
2 PROJECT GOALS.

3 SO IS THERE SOMEBODY WHO COULD SPEAK TO  
4 THAT PARTICULAR PART OF THIS ISSUE SINCE IT IS ONE  
5 OF OUR REVIEW CRITERIA?

6 CHAIRMAN THOMAS: MR. SHEEHY.

7 MR. SHEEHY: I WANT TO CLARIFY. I THINK  
8 THAT SOME FOLKS MAY HAVE THOUGHT THAT I WAS BEING  
9 CRITICAL OF THE PARKINSON'S INSTITUTE. I DO THINK  
10 WE NEED TO HEAR FROM DR. LANGSTON. BUT I WAS  
11 SPECIFICALLY TRYING TO ADDRESS WHAT I FELT WAS A  
12 LIMITATION IN THE REVIEW IN PART BECAUSE OF THAT  
13 SENTENCE AND BECAUSE THAT'S ONE OF THE MAJOR  
14 CRITERIA FOR THIS GRANT.

15 PEOPLE WERE LOOKING UP THE INSTITUTE AND  
16 DEBATING THIS, LOOKING IT UP ON THE WEBSITE AND  
17 DEBATING THIS IN REAL-TIME. THAT IS NOT GOOD  
18 EVIDENCE BASIS FOR DETERMINING WHETHER SUFFICIENT  
19 CAPACITY EXISTS AT AN INSTITUTE TO ABSORB IT. AND I  
20 FELT THAT THERE WERE SEVERAL PEOPLE IN THE ROOM WHO  
21 DID NOT HAVE ENOUGH KNOWLEDGE ABOUT THE INSTITUTE TO  
22 BE MAKING THOSE KINDS OF JUDGMENTS.

23 AND I PERSONALLY DID NOT KNOW ABOUT THE  
24 PARKINSON'S INSTITUTE TILL I CAME ONTO THIS BOARD,  
25 BUT I'VE BEEN IMPRESSED WITH THE WORK THAT THEY'VE

**BARRISTERS' REPORTING SERVICE**

1 DONE. WE HAVE GIVEN THEM GRANTS. AND I'VE BEEN  
2 PROUD TO VOTE FOR THOSE GRANTS. BUT I WAS  
3 EXPLAINING, TRYING TO EXPLAIN WHAT I FELT WAS A  
4 MAJOR SHORTCOMING IN THE REVIEW AMONGST SOME OF THE  
5 REVIEWERS.

6 IF YOU PULL UP THE INSTITUTE ON THE  
7 WEBSITE, AND TWO OF YOU OR THREE OF YOU ARE  
8 DISCUSSING THE PERSONNEL AND YOU HAVEN'T DONE THAT  
9 BEFORE YOU GOT HERE, YOU HAVEN'T ACTUALLY TRIED TO  
10 FIGURE OUT WHAT GOES ON AT THAT INSTITUTE. I DON'T  
11 CONSIDER THAT A STRONG EVIDENCE BASIS FOR MAKING  
12 THOSE JUDGMENTS. SO I WOULD LOVE TO HEAR FROM  
13 DR. LANGSTON THOUGH.

14 CHAIRMAN THOMAS: BEFORE DR. LANGSTON, WE  
15 HAVE DR. LUBIN.

16 DR. LUBIN: SO IN THE DESCRIPTION OF THE  
17 FACILITY THAT'S PART OF THE APPLICATION, WASN'T  
18 THERE AN EXTENSIVE DESCRIPTION OF THE SCIENCE THAT'S  
19 TAKING PLACE AT THE PARKINSON'S INSTITUTE, THE  
20 NUMBER OF INVESTIGATORS, THE GRANTS THAT THEY HAVE,  
21 ETC., ETC.?

22 MR. SHEEHY: COULD I RESPOND TO DR. LUBIN?  
23 I THINK YOU'VE BEEN ON THE OTHER SIDE OF THIS.  
24 MAYBE YOUR MEMORY IS SHORT, BUT YOU'VE BEEN ON THE  
25 OTHER SIDE OF -- I DON'T KNOW. I REMEMBER MAKING

**BARRISTERS' REPORTING SERVICE**

1 THE SAME ARGUMENT FOR A FACILITIES GRANT AND HAVING  
2 THE SAME EXPERIENCE WITH PEOPLE WHO REALLY DIDN'T  
3 UNDERSTAND WHAT WAS GOING ON AT THE INSTITUTE AND  
4 LOSING ON THAT PARTICULAR DEBATE.

5 DR. LUBIN: I KNOW WHAT HE'S TALKING  
6 ABOUT.

7 MR. SHEEHY: IT'S THE SAME THING.  
8 EVERYBODY KNOWS HARVARD. EVERYBODY KNOWS JOHNS  
9 HOPKINS. AND IT'S JUST YOU GET TO THESE OTHER  
10 INSTITUTIONS AND SOMETIMES I DON'T KNOW. YOU GUYS  
11 KNOW THIS. THIS IS YOUR WORLD. I'M SHOCKED BY IT  
12 SOMETIMES.

13 CHAIRMAN THOMAS: DR. YAFFE, THEN WE  
14 SHOULD HEAR FROM DR. LANGSTON.

15 DR. YAFFE: JUST IN DIRECT ANSWER TO DR.  
16 LUBIN, YES, THERE IS A DESCRIPTION IN THE  
17 APPLICATION OF THE RESEARCH FACILITIES AND  
18 LABORATORY AVAILABLE FOR THE RESEARCH. AND WE COULD  
19 DISCUSS DETAILS OF THAT IN CLOSED SESSION, IF  
20 NECESSARY.

21 CHAIRMAN THOMAS: DR. LANGSTON, PLEASE.

22 DR. LANGSTON: FIRST OF ALL, BIGGER IS NOT  
23 NECESSARILY BETTER. WE ARE NOT ONE OF THE BIG  
24 INSTITUTIONS IN CALIFORNIA. I THINK WE WAY MAKE UP  
25 FOR THAT IN TERMS OF OUR FOCUS. WE HAVE A 60,000

## BARRISTERS' REPORTING SERVICE

1 SQUARE FOOT FACILITY. A QUARTER OF THAT IS WET  
2 LABS. WE HAVE A FULL VIVARIUM. WE HAVE SOMETHING  
3 LIKE TEN DIFFERENT TRANSGENIC MODELS. WE HAVE THE  
4 FIRST TRANSGENIC EVER MADE IN OUR TRANSGENIC PEOPLE.  
5 WE HAVE PROBABLY THE WORLD LEADER, CERTAINLY U.S. IN  
6 LURK 2 BIOLOGY. WE HAVE A SUPERB SCIENTIST IN  
7 GENETICS WHO HAS SUBMITTED WITH ME TWO CIRM GRANTS,  
8 ONE OF WHICH WAS RATED NO. 1 IN 220, AND ONE OF  
9 WHICH WAS NO. 2. SO WE'RE WORKING WITH ZINC FINGER  
10 TECHNOLOGY NOW TO CORRECT GENETIC DEFECTS.

11 WE HAVE, AS I SAID, THE ONLY PRIMATE  
12 FACILITY IN THE WORLD DEDICATED JUST FOR PARKINSON'S  
13 RESEARCH. IT'S A VERY RICH COMMUNITY WITH A 25-YEAR  
14 HISTORY.

15 WE ALSO HAVE THE CAPACITY TO TRANSLATE  
16 STRAIGHT INTO THE CLINIC BECAUSE OUR CLINICAL  
17 RESEARCH GROUP DOES CLINICAL TRIALS, AND WE'VE TWICE  
18 GONE FROM A BASIC DISCOVERY IN THE LABORATORY TO A  
19 PHASE I CLINICAL TRIAL WITHOUT EVER LEAVING THE  
20 BUILDING. ALL OF THIS, MIND YOUR, IS IN ONE ROOF,  
21 DIFFERENT PEOPLE, SINGLE PURPOSE. SO FACILITIES HAS  
22 NEVER BEEN A PROBLEM FOR US. WE'VE GOT LOTS OF  
23 ROOM.

24 WE HAVE SOME MAJOR BACKERS. I GUESS I  
25 SHOULD SAY THIS. I THINK THEY GAVE ME PERMISSION.

**BARRISTERS' REPORTING SERVICE**

1 ANN AND SERGEY BRIN WERE GOING TO WRITE A LETTER IN  
2 SUPPORT OF THIS PROPOSAL. SO WE HAVE SOME PRETTY  
3 SOLID FINANCIAL BACKERS OUT THERE THAT WILL STEP  
4 FORWARD IF THERE'S ANY SHORTAGE. BUT WE HAVE A  
5 BOOMING LAB, AND I THINK WHAT'S EXCITING HERE IS THE  
6 TECHNOLOGY OF PUTTING OUR RICHNESS OF THE BENCH  
7 RESEARCH AND CLINICAL RESEARCH CAPABILITY WITH  
8 DENNIS' EXPERTISE IN STEM CELL, THE SKY IS THE  
9 LIMIT. I REALLY DO BELIEVE WE COULD WIND UP NOT  
10 ONLY FIGURING OUT THIS ROADBLOCK FOR  
11 TRANSPLANTATION, I BELIEVE WE COULD WIND UP SOLVING  
12 THIS DISEASE WITH THAT TEAM.

13 I SAY THAT FROM MY HEART. I THINK THAT'S  
14 REALLY A POSSIBILITY. AND FACILITIES WILL NOT BE A  
15 LIMITATION.

16 CHAIRMAN THOMAS: THANK YOU, DR. LANGSTON.

17 DR. JUELSGAARD: IF I COULD ASK DR.  
18 LANGSTON JUST A QUESTION, PLEASE. SO YOU SPOKE A  
19 LOT ABOUT FACILITIES WHEREWITHAL, BUT I JUST WANT TO  
20 ASK ABOUT FINANCIAL WHEREWITHAL. AND THE COMMENT  
21 THAT YOU MADE IS THAT YOU HAVE STRONG BACKERS  
22 INCLUDING THE BRINS.

23 THE ONLY FINANCIAL INFORMATION I COULD  
24 FIND ON YOUR INSTITUTE SO FAR IS ON A WEBSITE CALLED  
25 CHARITY NAVIGATOR, WHICH IS A COMMON WEBSITE USED TO

## BARRISTERS' REPORTING SERVICE

1 RANK CHARITIES, AND THEY PROVIDE SOME FINANCIAL  
2 INFORMATION. CAN YOU JUST DESCRIBE A LITTLE BIT  
3 MORE ABOUT THE FINANCIAL HEALTH OF YOUR INSTITUTE?

4 DR. LANGSTON: THAT'S A WONDERFUL  
5 QUESTION. SOMETHING I THINK ABOUT EVERY DAY. WE  
6 ARE THE ONLY INSTITUTE OF OUR KIND THAT I KNOW OF --  
7 IF SOMEBODY CAN CORRECT ME ON THIS, I'D REALLY LOVE  
8 IT -- THAT STARTED FROM SCRATCH. ALMOST ALL OF THE  
9 BIG NONPROFITS, SCRIPPS, SALK, JONAS SALK STARTED  
10 THAT WITH THE FUNDS FROM THE SALK VACCINE, THE BUCK  
11 INSTITUTE, \$80 MILLION GRANT. WE STARTED FROM  
12 SCRATCH. AND WE HAVE PULLED OURSELVES UP BY OUR  
13 BOOTSTRAPS. WE LIVE ON GRANTS, PHILANTHROPY, WE'RE  
14 DOING MORE AND MORE WORK WITH INDUSTRY NOW THAT  
15 THERE'S SOME TARGETS OUT THERE FOR PARKINSON'S  
16 DISEASE.

17 SO WE'RE KIND OF VERY SILICON VALLEY.  
18 WE'RE VERY ENTREPRENEURIAL. IF IT LOOKS GOOD, WE GO  
19 FOR IT. WE RAISE FUNDS FROM EVERY SOURCE WE CAN.  
20 AND, IN ESSENCE, WE START EACH YEAR WITH GRANTS, NEW  
21 GRANTS, NEW FUNDRAISING, ETC. I REALLY THINK WE'RE  
22 QUITE UNIQUE THAT WAY. WE'RE VERY ENTREPRENEURIAL.  
23 I GUESS THAT MAY SOUND NOT LIKE THE ANSWER YOU'D  
24 LIKE TO HEAR, THAT WE HAVE A \$50 MILLION ENDOWMENT.  
25 ON THE OTHER HAND, IT KEEPS EVERYBODY WORKING, AND

**BARRISTERS' REPORTING SERVICE**

1 WE'VE BEEN HERE FOR 25 YEARS. AND SO IT'S LIKE A  
2 BUSINESS. IT'S LIKE A BUSINESS.

3 MS. SAMUELSON: I NEED TO ADD TO THAT.  
4 THAT TIME FRAME CORRESPONDS WITH THE TIME FRAME IN  
5 WHICH PARKINSON'S RESEARCH HAS BEEN FUNDED AT ALL BY  
6 THE FEDERAL GOVERNMENT. THAT'S NOT TRUE. 25 YEARS  
7 AGO ABOUT \$25 MILLION TOTAL WAS SPENT FROM THE NIH  
8 ON PARKINSON'S RESEARCH IN COMPARISON WITH HUNDREDS  
9 OF MILLIONS OF DOLLARS FOR ANY COMPARABLE DISORDER.  
10 AND IT'S BECAUSE NO ONE ASKED FOR IT, AND IT HAS  
11 BUILT FROM THERE. BUT THERE WEREN'T ANY FUNDS  
12 AVAILABLE FROM THE NIH BEFOREHAND, AND IT'S BEEN  
13 HARD WORK BY THE COMMUNITY GETTING COMPARABLE  
14 FUNDING THAT HAS BUILT IT FROM SCRATCH.

15 AND NOW IT'S TIME FOR THE STEM CELL MONEY  
16 TO BE ADDED TO THAT FOR THESE TERRIBLY COMPLEX  
17 PROBLEMS THAT NEED TO BE ADDRESSED. AND I THINK  
18 THAT'S GOOD NEWS. I DON'T THINK IT'S AN INDICATOR  
19 OF LACK OF SOPHISTICATION OR CALIBER OF THE  
20 INSTITUTE. I THINK IT'S THE DEGREE OF DIFFICULTY OF  
21 THESE PROBLEMS THAT DEMAND NOW MORE FUNDS. AND IT'S  
22 GOOD NEWS THAT IT WILL BE SPENT SO WELL.

23 AND I APPRECIATE COMPLETELY THAT YOU NEED  
24 TO BE CONVINCED OF THAT. I'M CONFIDENT YOU WILL  
25 BETWEEN THIS AND THE CLOSED SESSION.

**BARRISTERS' REPORTING SERVICE**

1           CHAIRMAN THOMAS: YES, SIR.

2           MR. TAYLOR: I'M CLYDE TAYLOR FROM THE  
3 PARKINSON'S INSTITUTE. MAY I ADDRESS PUBLIC  
4 COMMENT?

5           CHAIRMAN THOMAS: YES. THREE MINUTES,  
6 PLEASE.

7           MR. TAYLOR: THANK YOU FOR THE  
8 OPPORTUNITY. AND THANKS TO THE GRANTS WORKING GROUP  
9 FOR RECOMMENDING FUNDING OF THIS EXCEPTIONAL  
10 PROJECT. I WAS ASKED TO SPEAK A BIT ABOUT THE SCALE  
11 BECAUSE WE APPEAR SO SMALL IN TERMS OF OUR  
12 COLLABORATIONS. WORLDWIDE WE COLLABORATE WITH MAX  
13 PLANCK INSTITUTE IN GERMANY, WITH NUMEROUS  
14 UNIVERSITIES ON THE EAST COAST, INCLUDING HARVARD,  
15 WITH NUMEROUS PRIVATE PHARMACEUTICAL COMPANIES,  
16 WHICH, AS ANYONE WHO'S FAMILIAR WITH PHARMACEUTICALS  
17 OR DRUGS KNOW, THAT'S THE ONLY WAY BY WHICH WE WILL  
18 OBTAIN ANY NEW THERAPIES FOR PARKINSON'S IS THROUGH  
19 THE FUNDING AND THE EFFORTS OF DRUG COMPANIES,  
20 INCLUDING GENENTECH, INCLUDING NOVARTIS, AND  
21 NUMEROUS OTHERS. SO THE SCALE OF OUR SCIENTIFIC  
22 REACH IS NOT LIMITED TO WHAT'S WITHIN THE DOORS OF  
23 OUR BUILDING.

24           I DON'T KNOW IF IT HAS BEEN ADDRESSED IN  
25 EARLIER COMMENTS, BUT THERE WAS ALSO IN THE MINORITY



**BARRISTERS' REPORTING SERVICE**

1 OPINION OF THE GRANTS WORKING GROUP SOME COMMENTS  
2 ABOUT THE QUALIFICATIONS OF THE PRINCIPAL  
3 INVESTIGATOR RELATIVE TO PARKINSON'S. SO I'M NOT  
4 QUITE SURE WHERE THAT CAME FROM. I WOULD NOTE THAT  
5 THE INVESTIGATOR HAS BEEN ON THE SCIENTIFIC ADVISORY  
6 BOARD OF THE MICHAEL J. FOX FOUNDATION SINCE ITS  
7 INCEPTION. THAT'S EXCLUSIVELY DEVOTED TO  
8 PARKINSON'S. THE SECOND LARGEST FUNDER OF  
9 PARKINSON'S RESEARCH AFTER THE U.S. GOVERNMENT, HAS  
10 SOME 17 PUBLICATIONS SPECIFICALLY IN THIS FIELD, AND  
11 HAS BEEN DEDICATED TO THIS PARTICULAR AREA, WHICH IS  
12 BOTH INCLUSIVE OF PARKINSON'S AND CANCER, BUT THE  
13 MECHANISMS ARE THE SAME, FOR SOME TIME. GOOD. IN  
14 THE INTEREST OF TIME, I'LL THANK YOU.

15 CHAIRMAN THOMAS: THANK YOU. ANY COMMENTS  
16 BY MEMBERS OF THE BOARD BEFORE WE GO INTO CLOSED  
17 SESSION? DR. STEWARD.

18 DR. STEWARD: ANTICIPATING THE POSSIBLE  
19 NEED FOR CLOSED SESSION FOR THE OTHER APPLICANT FOR  
20 THIS, DO WE NEED TO MAKE -- SHALL WE DO THAT FIRST?

21 CHAIRMAN THOMAS: THE OTHER APPLICANT WE  
22 FUNDED IN JULY.

23 DR. STEWARD: I'M SORRY.

24 CHAIRMAN THOMAS: OKAY. HEARING NO OTHER  
25 BOARD DISCUSSION, WE NOW ADJOURN INTO CLOSED

**BARRISTERS' REPORTING SERVICE**

1 SESSION.

2 MS. FEIT: COULD YOU PLEASE ASK MARIA TO  
3 CALL ME WHEN YOU'RE BACK IN SESSION?

4 CHAIRMAN THOMAS: YES, WE SHALL, MARCY.

5 MR. HARRISON: THE BOARD WILL BE CONVENING  
6 IN CLOSED SESSION TO CONSIDER CONFIDENTIAL AND  
7 PROPRIETARY INFORMATION RELATED TO THE RESEARCH  
8 LEADERSHIP AWARD APPLICATION PURSUANT TO HEALTH AND  
9 SAFETY CODE SECTION 125290.30(F)(3)(B) AND (C).

10 CHAIRMAN THOMAS: THANK YOU, MR. HARRISON.

11 (THE BOARD THEN CONVENEED IN CLOSED  
12 SESSION, NOT REPORTED NOR HEREIN TRANSCRIBED. THE  
13 FOLLOWING WAS THEN HEARD IN OPEN SESSION:)

14 CHAIRMAN THOMAS: MEMBERS PLEASE TAKE  
15 THEIR SEATS. WE'VE NOW FINISHED OUR CLOSED SESSION  
16 AND ARE BACK IN OPEN SESSION. IS MARCY BACK ON THE  
17 PHONE? LET'S GIVE -- JENNA, ARE YOU --

18 MS. PRYNE: WORKING ON IT.

19 CHAIRMAN THOMAS: OKAY. SO MARCY WILL  
20 JOIN US IN A SECOND. SO THERE'S A MOTION ON THE  
21 TABLE THAT WE APPROVE THIS RESEARCH LEADERSHIP  
22 AWARD. ARE THERE ADDITIONAL COMMENTS BY MEMBERS OF  
23 THE BOARD?

24 MR. TORRES: CALL FOR THE QUESTION.

25 CHAIRMAN THOMAS: HEARING NONE, WE'VE

**BARRISTERS' REPORTING SERVICE**

1 ALREADY HAD PUBLIC COMMENT. THERE'S MICHAEL RIGHT  
2 THERE. OKAY. SO, MR. HARRISON, I BELIEVE THIS IS A  
3 ROLL CALL VOTE ITEM.

4 MR. HARRISON: CORRECT.

5 CHAIRMAN THOMAS: THANK YOU. MARIA,  
6 PLEASE CALL THE ROLL.

7 MS. BONNEVILLE: ROBERT PRICE.

8 DR. PRICE: YES.

9 MS. BONNEVILLE: DAVID BRENNER.

10 DR. BRENNER: YES.

11 MS. BONNEVILLE: JACOB LEVIN.

12 DR. LEVIN: YES.

13 MS. BONNEVILLE: ANNE-MARIE DULIEGE.

14 DR. DULIEGE: YES.

15 MS. BONNEVILLE: MARCY FEIT. MICHAEL  
16 FRIEDMAN.

17 DR. FRIEDMAN: YES.

18 MS. BONNEVILLE: LEEZA GIBBONS.

19 MS. GIBBONS: YES.

20 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM  
21 HAWGOOD.

22 DR. HAWGOOD: YES.

23 MS. BONNEVILLE: STEPHEN JUELSGAARD.

24 DR. JUELSGAARD: YES.

25 MS. BONNEVILLE: SHERRY LANSING. BERT

**BARRISTERS' REPORTING SERVICE**

1 LUBIN.  
2 DR. LUBIN: YES.  
3 MS. BONNEVILLE: MICHAEL MARLETTA. LEON  
4 FINE.  
5 DR. FINE: YES.  
6 MS. BONNEVILLE: PHIL PIZZO.  
7 DR. PIZZO: YES.  
8 MS. BONNEVILLE: CLAIRE POMEROY.  
9 DR. POMEROY: YES.  
10 MS. BONNEVILLE: FRANCISCO PRIETO.  
11 DR. PRIETO: AYE.  
12 MS. BONNEVILLE: CARMEN PULIAFITO.  
13 DR. PULIAFITO: YES.  
14 MS. BONNEVILLE: ROBERT QUINT.  
15 DR. QUINT: YES.  
16 MS. BONNEVILLE: DUANE ROTH.  
17 MR. ROTH: YES.  
18 MS. BONNEVILLE: JOAN SAMUELSON.  
19 MS. SAMUELSON: YES.  
20 MS. BONNEVILLE: JEFF SHEEHY.  
21 MR. SHEEHY: YES.  
22 MS. BONNEVILLE: JONATHAN SHESTACK.  
23 MR. SHESTACK: YES.  
24 MS. BONNEVILLE: OSWALD STEWARD.  
25 DR. STEWARD: YES.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: JONATHAN THOMAS.

2 CHAIRMAN THOMAS: YES.

3 MS. BONNEVILLE: ART TORRES.

4 MR. TORRES: AYE.

5 MS. BONNEVILLE: KRISTINA VUORI.

6 DR. VUORI: YES.

7 MS. BONNEVILLE: JAMES ECONOMOU.

8 DR. ECONOMOU: HERE.

9 MS. BONNEVILLE: MARCY, ARE YOU ON THE  
10 LINE?

11 CHAIRMAN THOMAS: THANK YOU, MARIA. THE  
12 MOTION PASSES.

13 (APPLAUSE.)

14 CHAIRMAN THOMAS: DR. LANGSTON,  
15 CONGRATULATIONS. YOU CAN CONVEY THOSE TO DR.  
16 STEINLER AS WELL. THANK YOU.

17 WE ARE NOW GOING TO MOVE ON TO THE  
18 CONSIDERATION OF THE APPLICATIONS FOR BASIC BIOLOGY  
19 IV. MR. HARRISON, DO YOU HAVE ANY OPENING COMMENTS  
20 ON PROCESS HERE?

21 MR. HARRISON: AS USUAL, STAFF WILL MAKE  
22 THE PRESENTATION REGARDING THE BASIC BIOLOGY  
23 APPLICATIONS. AFTER THAT PRESENTATION, THE CHAIR  
24 WILL ASK ANY OF YOU TO IDENTIFY APPLICATIONS ABOUT  
25 WHICH YOU WOULD LIKE TO HEAR MORE, AND STAFF WILL

## BARRISTERS' REPORTING SERVICE

1 MAKE A SPECIFIC PRESENTATION WITH RESPECT TO THOSE  
2 APPLICATIONS. TO THE EXTENT THAT ANY OF THE  
3 QUESTIONS WOULD REQUIRE CONFIDENTIAL INFORMATION TO  
4 BE CONVEYED, WE'LL DEFER FURTHER CONSIDERATION UNTIL  
5 CLOSED SESSION.

6 TYPICALLY WHAT WE DO IS TO START WITH  
7 MOTIONS TO MOVE APPLICATIONS FROM TIER III TO TIER  
8 I. AND THEN ONCE WE'VE EXHAUSTED THOSE, WE ASK FOR  
9 ANY APPLICATIONS -- ANY MOTIONS TO MOVE AN  
10 APPLICATION FROM TIER I TO TIER III BEFORE TAKING  
11 FINAL VOTES ON THOSE APPLICATIONS IN BOTH TIER I AND  
12 TIER III.

13 CHAIRMAN THOMAS: THANK YOU, MR. HARRISON.

14 DR. VESSAL: MR. CHAIRMAN, MEMBERS OF THE  
15 BOARD, HERE TO PRESENT TO YOU RECOMMENDATIONS FROM  
16 THE GRANTS WORKING GROUP FOR BASIC BIOLOGY ROUND IV  
17 APPLICATIONS FOR YOUR CONSIDERATION.

18 BRIEFLY AS AN OVERVIEW FOR THIS RFA, THE  
19 STUDIES WERE MEANT TO SUPPORT -- STUDIES FOR  
20 TACKLING THE SIGNIFICANT AND UNRESOLVED ISSUES THAT  
21 WERE IMPORTANT TO THE CONTROL OF THE STEM CELL FATE  
22 AND ALSO TO FOSTER CUTTING-EDGE RESEARCH TO  
23 UNDERSTAND THE MECHANISMS OF PLURIPOTENCY,  
24 DIFFERENTIATION, CELLULAR REPROGRAMMING, AND DISEASE  
25 MECHANISMS.

**BARRISTERS' REPORTING SERVICE**

1           ALSO, THOSE STUDIES THAT WERE FOCUSED  
2           PRIMARILY ON HUMAN CELLS WERE CALLED OUT FOR AND  
3           WITH AN EXCEPTION FOR GROUNDBREAKING STUDIES THAT  
4           WERE EITHER HIGHLY INNOVATIVE, THAT USED ANIMAL  
5           MODEL SYSTEMS, THAT WERE NECESSARY TO USE ANIMAL  
6           MODEL SYSTEMS.

7           THE PROJECT, IT'S A THREE-YEAR AWARD WITH  
8           A DIRECT PROJECT COST OF UP TO \$300,000 PER YEAR AND  
9           OVERALL OF ABOUT 25 GRANTS AND UP TO \$35 MILLION.

10           THE PROCESS FOR THE REVIEW, AS WITH THE  
11           PREVIOUS ROUNDS, IT INVOLVED A PRELIMINARY  
12           APPLICATION PROCESS WITH NO INSTITUTIONAL LIMITS ON  
13           THE NUMBER OF PRE-APPS. THE PRE-APPS WERE REVIEWED  
14           BY THE EXPERTS FROM OUTSIDE OF CALIFORNIA AS WELL AS  
15           THE CIRM SCIENTISTS. AND THEN THE FULL APPLICATIONS  
16           WERE REVIEWED BY THE GRANTS WORKING GROUP ON JUNE  
17           27TH THROUGH 29TH IN BERKELEY.

18           WE RECEIVED 357 PRELIMINARY APPLICATIONS  
19           FOR THIS RFA THIS YEAR, AND 64 WERE INVITED AND  
20           REVIEWED FOR FULL REVIEW BY THE GRANTS WORKING GROUP  
21           AND, OF COURSE, THE FINAL NUMBER TO BE DETERMINED  
22           PENDING ON YOUR APPROVAL.

23           THE REVIEW CRITERIA THAT THE GRANTS  
24           WORKING GROUP JUDGED THE APPLICATIONS WERE BASED ON  
25           THE SIGNIFICANCE AND INNOVATION, FEASIBILITY AND

**BARRISTERS' REPORTING SERVICE**

1 EXPERIMENTAL DESIGN, PRINCIPAL INVESTIGATOR AND THE  
2 RESEARCH TEAM INVOLVED, AND THE RESPONSIVENESS TO  
3 THE RFA.

4           HERE'S A BASIC CHART FOR THE DISTRIBUTION  
5 OF THE SCORES AND WHERE THE LINES WERE DRAWN FOR THE  
6 FIRST TIER AND THIRD TIER. YOU CAN SEE, 74 WAS  
7 WHERE IT WAS DRAWN FOR TIER I AND 66 WAS WHERE IT  
8 WAS FOR TIER III.

9           AND BASICALLY IN TERMS OF NUMBERS, 25  
10 APPLICATIONS WERE RECOMMENDED FOR FUNDING, FOR A  
11 TOTAL OF \$33.9 MILLION, AND 39 FELL IN THE TIER III  
12 THAT WERE NOT RECOMMENDED FOR FUNDING. AND, AGAIN,  
13 AS A REMINDER, WE HAD A \$35 MILLION BUDGET APPROVED  
14 BY YOU FOR THIS RFA. THANK YOU. IF YOU HAVE ANY  
15 QUESTIONS, I'LL BE HAPPY TO ANSWER.

16           DR. STEWARD: WOULD IT BE POSSIBLE TO KEEP  
17 THAT GRAPH UP THERE? IT'S JUST USEFUL TO HAVE A  
18 VISUAL.

19           CHAIRMAN THOMAS: OKAY. MR. HARRISON, THE  
20 APPROPRIATE MOVE NOW IS TO MOVE TO APPROVE THOSE  
21 RECOMMENDED FOR FUNDING?

22           MR. HARRISON: I THINK THE STAFF WILL PUT  
23 UP THE SPREADSHEET THAT IDENTIFIES THE SCORES AND  
24 THE DISTRIBUTION OF APPLICATIONS IN TIER I AND TIER  
25 III. AND IF MEMBERS HAVE QUESTIONS CONCERNING



**BARRISTERS' REPORTING SERVICE**

1 SPECIFIC APPLICATIONS, NOW WOULD BE THE APPROPRIATE  
2 TIME TO IDENTIFY THEM SO THAT STAFF CAN MAKE  
3 ADDITIONAL PRESENTATION WE CAN ENTERTAIN FOR  
4 DISCUSSION AND ANY MOTION WITH RESPECT TO SUCH  
5 APPLICATIONS.

6 MR. SHESTACK: WHAT WAS THE CUTOFF NUMBER  
7 FOR TIER I?

8 DR. SAMBRANO: 74 AND 66.

9 CHAIRMAN THOMAS: LET'S WAIT TILL WE GET  
10 OUR GRAPHIC UP HERE.

11 MR. HARRISON: YOU CAN ALSO FIND A COPY OF  
12 THE SLIDE DECK THAT STAFF JUST PRESENTED IN YOUR  
13 BINDER.

14 CHAIRMAN THOMAS: I'M SORRY, MR. HARRISON.  
15 REPEAT THAT PLEASE.

16 MR. HARRISON: COPY OF THE SLIDE DECK THAT  
17 STAFF JUST PRESENTED IS IN YOUR BINDERS.

18 CHAIRMAN THOMAS: SO WE HAVE THOSE  
19 PROJECTS HIGHLIGHTED THERE ON THE SCREEN THAT HAVE  
20 BEEN RECOMMENDED FOR FUNDING. ARE YOU STILL ADDING  
21 TO THAT, GIL?

22 DR. SAMBRANO: I'M SORRY. SOMEHOW THE  
23 FILE DIDN'T CARRY OVER THE COLORS. BUT ON THIS  
24 COLUMN HERE, AND THIS TABLE IS ALSO IN YOUR BOOKS,  
25 IT SHOWS THE TIER AS TIER I OR TIER III. SO THAT'S

**BARRISTERS' REPORTING SERVICE**

1 ANOTHER WAY THAT YOU CAN LOOK AT THAT.

2 MR. HARRISON: SO THE QUESTION, CHAIR, FOR  
3 MEMBERS OF THE BOARD IS WHETHER THERE ARE ANY  
4 APPLICATIONS IN TIER III THAT THEY WOULD LIKE TO  
5 HEAR MORE ABOUT.

6 CHAIRMAN THOMAS: YES. MR. SHESTACK.

7 MR. SHESTACK: I JUST WANTED TO UNDERSTAND  
8 BECAUSE IT SEEMS LIKE IN TIER III THERE ARE SEVERAL  
9 PROJECTS WITH A SCORE OF 70 OR 71, WHICH IS ABOVE  
10 WHAT I THOUGHT THE CUTOFF WAS FOR TIER III. DID I  
11 MISUNDERSTAND?

12 DR. SAMBRANO: SO THE INITIAL CUTOFF FOR  
13 TIER I WAS AT 74. SO ANYTHING THAT WAS 74 OR ABOVE  
14 WAS DEEMED TO BE TIER I, MERITORIOUS. ANYTHING  
15 BELOW 66 WAS NOT. SO THAT WAS TIER III. THAT LEFT  
16 IN BETWEEN, WHICH WAS A TEMPORARY TIER II. EACH OF  
17 THOSE APPLICATIONS WERE DISCUSSED AND EITHER MOVED  
18 UP INTO TIER I, AS INDICATED FOR SOME OF THOSE, AND  
19 THE REST WERE MOVED INTO TIER III.

20 MR. SHESTACK: OKAY. I UNDERSTAND.

21 DR. PIZZO: DIFFERENT FROM OTHER TIMES IS  
22 YOU'VE BIFURCATED THIS INTO TIER I AND TIER III, OR  
23 RECOMMENDED FOR FUNDING OR NOT. MANY TIMES WE'VE  
24 HAD A KIND OF TIER II THAT WE WOULD MOVE THINGS UP  
25 OR DOWN.

**BARRISTERS' REPORTING SERVICE**

1 DR. SAMBRANO: SO THE PROCESS IS THE SAME  
2 AS FAR AS THE GRANTS WORKING GROUP WHERE WE GO  
3 THROUGH THIS PROCESS. THE FINAL RECOMMENDATIONS TO  
4 THE BOARD IN MANY CASES ENDS UP BEING JUST TO  
5 RECOMMEND OR NOT RECOMMEND. IT'S BEEN UNUSUAL TO  
6 HAVE A TIER II THAT REMAINS.

7 DR. PIZZO: I GUESS THE OTHER THING, JUST  
8 PROCEDURALLY, IS IF WE STAYED WITH THE RECOMMENDED  
9 FUNDING FOR THIS PARTICULAR AWARD, IT WOULD BE A  
10 ABOUT A MILLION POINT SIX OR SO MILLION DOLLARS, SO  
11 THAT'S THE DELTA THAT REMAINS IN TERMS OF WHATEVER  
12 DECISIONS WE MAKE.

13 DR. SAMBRANO: THAT'S CORRECT.

14 DR. PIZZO: UNLESS WE DECIDE TO ADD MORE  
15 MONEY.

16 CHAIRMAN THOMAS: CORRECT. THANK YOU,  
17 DEAN PIZZO.

18 MR. SHEEHY: I'D LIKE TO RAISE THE ISSUE  
19 OF GRANT NO. 5764. AND I REALLY WANT TO  
20 SPECIFICALLY ALLUDE TO THIS GRANT -- I REMEMBER THIS  
21 GRANT FROM PROGRAMMATIC REVIEW, AND THEY MOVED TO  
22 MOVE IT INTO TIER I. ONE OF THE PROGRAMMATIC  
23 CONSIDERATIONS WAS THIS WAS A NEW INVESTIGATOR,  
24 JUNIOR INVESTIGATOR. THEY THOUGHT IT WOULD REALLY  
25 PROPEL THEIR CAREER. BUT IF YOU LOOK, AND IF YOU

## BARRISTERS' REPORTING SERVICE

1 LOOK AT THE CRITERIA FOR THE GRANT, THE  
2 QUALIFICATIONS OF THE PRINCIPAL INVESTIGATOR AND THE  
3 RESEARCH TEAM WERE CRITICAL QUALIFICATIONS. AND  
4 THIS INVESTIGATOR, AT THE TIME OF APPLICATION, HAD A  
5 CO-APPOINTMENT WITH A DIFFERENT INSTITUTION. AND I  
6 QUOTE, "REVIEWERS WERE PUZZLED BY THE DUAL  
7 INSTITUTION APPOINTMENT AND EXPRESSED STRONG  
8 CONCERNS THAT THIS COULD JEOPARDIZE THE PI'S ABILITY  
9 TO LEAD THIS EFFORT."

10 NOW, WE HAVE A LETTER AND GENERALLY -- I  
11 DON'T WANT TO DIG INTO THESE. THIS IS BASIC  
12 SCIENCE. BUT SHE NOW HAS A FULL APPOINTMENT AT THE  
13 INSTITUTION THAT SHE'S APPLYING FOR A GRANT FOR.  
14 AND SO THAT ISSUE IS KIND OF MOOT. AND I FELT LIKE  
15 IN PROGRAMMATIC REVIEW THAT HER -- I FELT LIKE  
16 THAT -- I FEEL THAT THAT ISSUE BROUGHT HER BELOW THE  
17 FUNDING LEVEL BECAUSE THAT WAS ONE OF THE THREE  
18 MAJOR CRITERIA FOR THIS GRANT. AND I THINK THAT  
19 THIS CLARIFICATION REALLY -- IN MY MIND I THINK IF  
20 THE REVIEW GROUP HAD THIS INFORMATION, THEY WOULD  
21 HAVE APPROVED THIS GRANT. 5764.

22 THIS SCORED A 68. SO THIS WAS RIGHT  
23 UNDERNEATH THE MARGIN. AND I REMEMBER PEOPLE  
24 TALKING -- SOMEBODY WAS VERY PASSIONATE, AND I DON'T  
25 WANT TO SAY A SCIENTIFIC MEMBER OF THE REVIEW GROUP,

**BARRISTERS' REPORTING SERVICE**

1 SO THIS WAS NOT A PATIENT ADVOCATE INSTIGATION.  
2 WELL, YOU KNOW. I THINK THE MOTIVATION OF THE  
3 REVIEWER WAS THIS IS A PROMISING NEW INVESTIGATOR  
4 AND DOING INTERESTING SCIENCE. AND I REALLY FELT  
5 LIKE THERE WAS A GREAT DEAL OF CONCERN OVER THE DUAL  
6 APPOINTMENT. AND THE OTHER INSTITUTION WAS NOT IN  
7 CALIFORNIA, SO THAT JUST GETS REALLY MESSY. AND IN  
8 THIS LETTER IT'S CLEAR THAT THERE IS NOW A FULL  
9 APPOINTMENT AT A CALIFORNIA INSTITUTION. SO I  
10 PERSONALLY FEEL LIKE THAT ISSUE HAS BEEN ADDRESSED,  
11 AND I PERSONALLY MAKE A MOTION TO MOVE THIS INTO THE  
12 FUNDABLE CATEGORY.

13 CHAIRMAN THOMAS: IS THERE A SECOND?

14 MR. ROTH: I'LL SECOND.

15 CHAIRMAN THOMAS: SECONDED BY MR. ROTH.  
16 FURTHER COMMENTS BY MEMBERS OF THE BOARD? IT WOULD  
17 SEEM TO ME, BASED ON MR. SHEEHY'S DISCUSSION, THAT  
18 IF THAT WERE THE OVERRIDING ISSUE AS TO WHY IT  
19 WASN'T RECOMMENDED, THAT THIS SHOULD TAKE CARE OF  
20 THAT.

21 DR. JUELSGAARD: CAN WE HEAR FROM STAFF  
22 MORE FULLY ON THE REVIEW, PLEASE?

23 CHAIRMAN THOMAS: CERTAINLY.

24 DR. JUELSGAARD: AS OPPOSED TO JUST TRYING  
25 TO SIT HERE AND READ THROUGH IT QUICKLY.

**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: NOW HEAR FROM THE GIANTS  
2 FAN -- I'M SORRY, FROM BETTINA.

3 DR. STEFFEN: I'M DR. BETTINA STEFFEN IN  
4 CASE DR. THOMAS DIDN'T MENTION THAT. I AM A GIANTS  
5 FAN, AND I CAN GO ON IF YOU'D LIKE ME TO ELABORATE.

6 DR. FRIEDMAN: THREE MINUTES.

7 CHAIRMAN THOMAS: WHICH YOU HAVE IN GREAT  
8 DEAL IN THE PAST, SO WE'LL STIPULATE TO YOUR STATUS.  
9 THANK YOU.

10 DR. STEFFEN: ABOUT THE GRANT, I'M SORRY,  
11 SO ALL THAT ASIDE, THIS PROPOSAL IS TO STUDY THE  
12 DEVELOPMENT OF PACEMAKER CELLS FROM HUMAN-INDUCED  
13 PLURIPOTENT STEM CELLS IN ORDER TO GENERATE  
14 LONG-LASTING BIOLOGIC PACEMAKERS. AND THE PLAN  
15 FOCUSES ON THE ROLE OF A PARTICULAR ION CHANNEL IN  
16 THIS PROCESS, AND THE INVESTIGATOR WANTS TO STUDY  
17 THE ROLE OF THIS PARTICULAR CHANNEL IN THE  
18 DEVELOPMENT OF PACEMAKER CELLS. SO HOW DOES THIS  
19 PROTEIN AFFECT THE DIFFERENTIATION PATHWAY? AND THE  
20 INVESTIGATOR HAS IDENTIFIED A SMALL MOLECULE  
21 ACTIVATOR.

22 SO THE GRANTS WORKING GROUP RECOGNIZED THE  
23 SIGNIFICANCE OF THE PROPOSAL AND PRAISED THE CONCEPT  
24 OF THE BIOLOGIC PACEMAKER AND HIGHLIGHTED THAT WHILE  
25 THERE ARE DEVICES AVAILABLE, THEY EVENTUALLY HAVE TO

**BARRISTERS' REPORTING SERVICE**

1 BE REPLACED AND ARE NOT APPROPRIATELY SIZED TO  
2 PEDIATRIC PATIENTS. SO THAT WOULD BE AN IMPORTANT  
3 ROLE FOR A BIOLOGIC PACEMAKER.

4 AND THE GRANTS WORKING GROUP THOUGHT THAT  
5 THE PHARMACOLOGICAL INDUCTION, SO USING A SMALL  
6 MOLECULE TO INDUCE DIFFERENTIATION TO THIS  
7 PARTICULAR CELL TYPE, WAS AN INTERESTING AND  
8 FEASIBLE APPROACH.

9 WITH RESPECT TO THE FEASIBILITY AND THE  
10 EXPERIMENTAL DESIGN, THERE WERE A FEW CHALLENGES.  
11 REVIEWERS EXPRESSED CONCERN THAT SOME OF THE  
12 PROPOSED EXPERIMENTS RELY ON A SMALL MOLECULE WHERE  
13 THE ASSUMPTION WAS THAT IT'S A SPECIFIC ACTIVATOR OF  
14 THIS CHANNEL, AND THERE'S EVIDENCE THAT THE GRANTS  
15 WORKING GROUP FELT THAT SOME OF THESE AGENTS THAT  
16 WERE BEING EMPLOYED ARE NOT NECESSARILY SPECIFIC TO  
17 THIS SINGLE CHANNEL.

18 REVIEWERS SUGGESTED THAT THE PROPOSAL  
19 WOULD BE STRENGTHENED BY INCORPORATING SOME GENETIC  
20 MANIPULATION, SO EITHER KNOCK DOWN OR UP REGULATION  
21 OF THIS ION CHANNEL, TO CONFIRM ITS ROLE IN THE  
22 PACEMAKER FORMATION.

23 THE PROPOSAL LACKED A CLEAR PLAN  
24 DESCRIBING HOW TO ENSURE RETENTION OF THE PACEMAKER  
25 CELL PHENOTYPE OVER TIME AND DID NOT ADDRESS

**BARRISTERS' REPORTING SERVICE**

1 CARDIOMYOCYTE MATURITY. WHAT THAT MEANS IS IS WHEN  
2 YOU DRIVE THESE CELLS TO A PARTICULAR PHENOTYPE,  
3 THEY REVERT TO OTHER CELL TYPES. SO YOU HAVE TO  
4 FIGURE OUT HOW TO MAKE IT LONG LASTING IN CULTURE  
5 AND ALSO ENSURE THAT IT HAS THE MATURITY, THE FULL  
6 ELECTRICAL POTENTIAL OF AN ADULT-TYPE CELL IN ORDER  
7 TO GET THE RIGHT ELECTRICAL ACTIVITY.

8 THEY THOUGHT THE PROPOSAL WAS WELL WRITTEN  
9 AND HAD APPROPRIATE PRELIMINARY DATA. I THINK THE  
10 PI AND THE TEAM, I THINK MR. SHEEHY SUMMARIZED SOME  
11 OF THE CONCERNS, SO I WON'T GO OVER THOSE AGAIN, AND  
12 THOUGHT THAT THE PI HAD ASSEMBLED A TEAM WITH  
13 CO-INVESTIGATORS THAT DEMONSTRATE EXPERTISE IN STEM  
14 CELL BIOLOGY, CARDIOVASCULAR BIOLOGY, AND THE  
15 IMAGING REQUIRED TO EXECUTE THE PROGRAM. THE  
16 PROPOSAL WAS FELT TO BE RESPONSIVE.

17 YOU HAVE ALREADY HEARD ABOUT THE  
18 PROGRAMMATIC DISCUSSION, AND I WILL NOTE THAT AN  
19 EXTRAORDINARY PETITION WAS SUBMITTED FOR THIS  
20 APPLICATION.

21 MR. SHEEHY: JUST COULD I GET MORE DETAIL  
22 ON THE PROGRAMMATIC DISCUSSION BECAUSE I'M KIND OF  
23 PULLING THAT OUT OF MY MEMORY, AND YOU GUYS HAVE  
24 NOTES. CAN YOU KIND OF TALK ABOUT WHY THE MOTION  
25 WAS MADE AND WHAT THEY SAID? MAYBE GOING TO -- AND



**BARRISTERS' REPORTING SERVICE**

1 A LITTLE MORE DETAIL MAYBE ON THE SHORTCOMING FROM  
2 THE DUAL INSTITUTIONAL APPOINTMENT. I'M READING OFF  
3 THIS NOTE. I'M JUST TAKING IT ALL OUT OF MEMORY,  
4 BUT IF YOU HAVE A LITTLE MORE GRANULARITY ON WHAT  
5 IMPACT THAT MAY HAVE HAD ON THE REVIEW.

6 DR. STEFFEN: I THINK WHAT WAS REPRESENTED  
7 HERE WAS THAT THE MOTION WAS MADE TO MOVE THE  
8 APPLICATION TO TIER I, AND IT WAS NOTED THAT --  
9 WHAT'S WRITTEN UP HERE IS WHILE THERE WERE TECHNICAL  
10 FLAWS IN THE PLAN, IT ADDRESSED AN IMPORTANT TOPIC,  
11 SO SIGNIFICANCE. AND THAT IF GRANTED, THE AWARD  
12 COULD HELP LAUNCH THE PI'S CAREER. AND THERE'S A  
13 COMMENT HERE THAT THE PI'S TRACK RECORD REMAINED A  
14 CONCERN, AND THE MOTION DID NOT PASS.

15 THERE WAS SOME DISCUSSION ABOUT  
16 PUBLICATIONS, THERE WAS SOME DISCUSSION ABOUT THE  
17 SPLIT INSTITUTION, AND THEN THE VOTE WAS TAKEN.

18 CHAIRMAN THOMAS: IS THERE AN INTEREST,  
19 MR. SHEEHY, IN HEARING FROM THE EXTRAORDINARY  
20 PETITIONER?

21 MR. SHEEHY: SURE.

22 DR. LIEU: THANK YOU FOR THIS OPPORTUNITY.  
23 I AM DEBORAH LIEU. I AM THE PRINCIPAL INVESTIGATOR  
24 OF THIS GRANT, AND I WOULD JUST LIKE TO ADDRESS ONE  
25 OF THE MAJOR CONCERN FROM THE REVIEWER IN TERMS OF

**BARRISTERS' REPORTING SERVICE**

1 MY EXPERIENCE AS AN INDEPENDENT INVESTIGATOR.

2 ACTUALLY I DON'T THINK MY EXPERIENCE CAME  
3 THROUGH IN THE LIMITED TWO-PAGE BIOSKETCH. I  
4 ACTUALLY HAVE 24 PUBLICATIONS. NOT ALL OF THEM WERE  
5 LISTED BECAUSE THERE'S A SPACE CONSTRAINT. AND 12  
6 OF THOSE WERE ON HUMAN PLURIPOTENT STEM CELLS AND  
7 THEIR CARDIAC MUSCLE CELL DERIVATIVES. I'M THE  
8 SENIOR AUTHOR ON THREE OF THESE PUBLICATIONS, AND I  
9 ALSO HAVE THREE BIOLOGICAL PACEMAKER PUBLICATIONS AS  
10 RELEVANT TO THE PROPOSAL.

11 I HAVE BEEN WORKING WITH HUMAN PLURIPOTENT  
12 STEM CELLS AND THEIR CARDIAC DERIVATIVES FOR THE  
13 LAST SIX YEARS AND HAVE BEEN ADVISING CIRM-FUNDED  
14 LABS ON HOW TO CULTURE THESE HUMAN PLURIPOTENT STEM  
15 CELLS AND DIFFERENTIATION OF THESE CELLS. AND I  
16 WOULD JUST LIKE TO POINT OUT THIS IS NOT -- I'M NOT  
17 IN THIS GRANT ALONE. I'M SUPPORTED BY A VERY STRONG  
18 TEAM OF COLLABORATORS THAT ARE SENIOR AND  
19 EXPERIENCED AND ESTABLISHED.

20 DR. NIPAVAN CHIAMVIMONVAT WITH ME HERE  
21 TODAY, SHE IS THE LEADING EXPERT ON THE ION CHANNEL  
22 THAT WE WANT TO PURSUE IN DIFFERENTIATING THESE  
23 CELLS INTO PACEMAKER CELLS, AND SHE'S ACTUALLY THE  
24 PERSON WHO DISCOVERED THE EXISTENCE OF THIS ION  
25 CHANNEL IN CARDIAC MUSCLE CELL. AND OUR OTHER

**BARRISTERS' REPORTING SERVICE**

1 COLLABORATOR, DR. JAN NOLTA, SHE IS THE STEM CELL  
2 PROGRAM DIRECTOR AT UC DAVIS, AND SHE HAS OVER 20  
3 YEARS OF STEM CELL EXPERIENCE. AND LASTLY,  
4 DR. DONALD BERS, HE'S THE WORLD RENOWNED SCIENTIST  
5 ON CALCIUM SIGNALING, WHICH IS A VERY LARGE PART OF  
6 THIS GRANT AS WELL.

7 AND YOU MENTIONED BEFORE, MY DUAL  
8 INSTITUTIONAL APPOINTMENTS. I HAVE SINCE RESIGNED  
9 FROM MY ASSISTANT PROFESSOR POSITION AT MT. SINAI TO  
10 FOCUS MY RESEARCH A HUNDRED PERCENT AT UC DAVIS. SO  
11 I HOPE YOU WILL TAKE ALL THESE INTO CONSIDERATION IN  
12 REEVALUATING MY APPLICATION. THANK YOU.

13 DR. JUELSGAARD: SO IN LOOKING AT THE  
14 SLIDES THAT WE SAW JUST BEFORE WE GOT TO THIS POINT,  
15 SO WE HAVE RECOMMENDED FOR FUNDING 25 APPLICATIONS  
16 AND A TOTAL DOLLAR AMOUNT OF \$33.9 MILLION. THE  
17 BUDGET THAT WAS APPROVED BY THE ICOC IS 35 MILLION.  
18 SO ASSUMING WE APPROVE ALL THE CURRENTLY RECOMMENDED  
19 ONES, THAT LEAVES A DIFFERENCE OF 1.1 MILLION VERSUS  
20 THE BUDGET. AND THIS PARTICULAR PROPOSAL IS FOR  
21 1.33 MILLION.

22 SO IF WE DO PROCEED, I THINK WE SOMEHOW  
23 HAVE TO SQUARE THE BUDGET ISSUE WITH THIS PROCESS.

24 CHAIRMAN THOMAS: THE BUDGET, MR.  
25 JUELSGAARD, IS ALWAYS A TARGET. AND WE NEITHER NEED

**BARRISTERS' REPORTING SERVICE**

1 TO MEET THAT TARGET, NOR, IF WE FIND SCIENCE THAT WE  
2 BELIEVE SHOULD BE FUNDED, CONFINE OURSELVES TO THAT  
3 TARGET. SO I THINK THAT IF WE DO END UP EXCEEDING  
4 THAT BY SOME NUMBER, WE DO SO WITH OPEN EYES AND ARE  
5 DOING SO BECAUSE WE FEEL THESE SHOULD BE FUNDED.

6 DR. JUELSGAARD: SO I WOULD JUST NOTE THE  
7 DISCUSSION THAT WE HAD LAST EVENING WITH MR. SHEEHY  
8 LEADING THAT DISCUSSION AROUND FINDING ADDITIONAL  
9 MONEY FOR WHICHEVER PROGRAM IT WAS, I THINK THE  
10 STRATEGIC PARTNERSHIP FUND, AND MOVING THAT NUMBER  
11 FROM 30 MILLION TO 60 MILLION AND HIS STRONG  
12 INCLINATION TO FIND THAT MONEY FROM OTHER CATEGORIES  
13 OF FUNDING IN ORDER TO SUPPORT THAT ADDITIONAL  
14 AMOUNT.

15 SO I UNDERSTAND WHAT YOU JUST SAID, BUT I  
16 THINK WE'RE SOMEHOW OPERATING WITH TWO DIFFERENT  
17 PROCESSES IN PLACE SINCE WE AGREED WITH WHAT HE  
18 PROPOSED.

19 DR. TROUNSON: THOSE SAVINGS WERE FROM  
20 EARLY TRANSLATIONAL, NOT FROM BASIC BIOLOGY, JUST TO  
21 CLARIFY.

22 CHAIRMAN THOMAS: THANK YOU, MR.  
23 JUELSGAARD. I APPRECIATE YOUR POINT. I WOULD ASK  
24 FOR THOSE THAT HAVE BEEN HERE LONGER THAN SOME OF US  
25 HAVE BEEN, IN THE PAST WHEN WE HAVE EXCEEDED THE

**BARRISTERS' REPORTING SERVICE**

1 TARGET AMOUNTS, HAVE WE -- DR. OLSON, ANTICIPATING  
2 THE QUESTION.

3 DR. OLSON: I WAS JUST GOING TO COMMENT ON  
4 THE FACT THAT OBVIOUSLY THIS BOARD HAS BEEN WORKING  
5 IN THE PAST WITH \$3 BILLION TO ALLOCATE. AS YOU  
6 WILL RECALL, IN MARCH AND THEN AGAIN IN MAY, WE WENT  
7 THROUGH A STRATEGIC FINANCIAL PLAN WHERE WE SORT OF  
8 PUT FORTH -- IN ORDER TO ACHIEVE GOALS, WE HAD AN  
9 ALLOCATION OF MONEY TO DIFFERENT CATEGORIES. THE  
10 POINT THAT MR. SHEEHY BROUGHT UP YESTERDAY WAS VALID  
11 IN ASKING, OKAY, IF WE INTRODUCE AN ADDITIONAL 30  
12 MILLION, WHERE DO WE GET IT? WE DID HAVE SAVINGS,  
13 AS WAS NOTED, OF ROUGHLY 25 MILLION FROM EARLY  
14 TRANSLATION. AND THIS BOARD SAID WE WILL TAKE --

15 SO AT THE MOMENT YOU HAVE A SURPLUS OF  
16 ONLY ABOUT \$20 MILLION UNLESS YOU PROPOSE TO ADDRESS  
17 MONEY THAT HAS BEEN OTHERWISE ALLOCATED, WHICH IS  
18 OBVIOUSLY A DECISION THAT THE BOARD CAN MAKE. BUT I  
19 JUST WANT YOU TO RECOGNIZE THAT YOU ARE MAKING A  
20 DECISION.

21 AS OUR PRESIDENT SHOWED YESTERDAY OR AS  
22 CHILA SHOWED YESTERDAY, THE AMOUNT OF MONEY YOU HAVE  
23 LEFT TO SPEND IS NOT WHAT YOU ONCE HAD. SO I THINK  
24 THAT'S THE ONLY POINT THAT I BELIEVE MR. JUELSGAARD  
25 IS MAKING AND MR. SHEEHY MADE YESTERDAY.

**BARRISTERS' REPORTING SERVICE**

1 MR. SHEEHY: IF I COULD JUST CLARIFY MY  
2 POSITION. I DO THINK THERE'S A DIFFERENCE BETWEEN A  
3 PRIORI TRYING TO SAY WE'RE GOING TO MOVE \$30 MILLION  
4 INTO A GRANT ROUND WITHOUT HAVING SEEN THE  
5 APPLICATIONS AND NOT IDENTIFYING WHERE THAT \$30  
6 MILLION IS COMING FROM WHEN, AS DR. OLSON HAS SAID,  
7 WE DID A STRATEGIC PLAN THAT PRETTY MUCH ALLOCATED  
8 OUT WHAT WE WERE INTENDING TO SPEND. AND TO GO OVER  
9 BUDGET IN THIS PARTICULAR ROUND BY A COUPLE HUNDRED  
10 THOUSAND, THIS WAS THE ONE GRANT THAT STOOD OUT TO  
11 ME AS HAVING SOMETHING IN IT THAT I THOUGHT  
12 PERSONALLY MIGHT HAVE MADE A DIFFERENCE IN THE  
13 REVIEW.

14 AS A WHOLE, I WAS VERY COMFORTABLE WITH  
15 WHAT THE REVIEW DID IN THIS SESSION, BUT I DID THINK  
16 THAT THIS ISSUE OF A DUAL APPOINTMENT WAS  
17 SIGNIFICANT. AND MAKING IT EASIER FOR BABIES TO GET  
18 PACEMAKERS SEEMS LIKE IT MIGHT NOT BE A BAD IDEA.  
19 BUT, AGAIN, I THINK THESE ARE ALL JUDGMENTS THAT WE  
20 NEED TO MAKE INDIVIDUALLY. AND SO I DON'T THINK  
21 IT'S NECESSARILY INCONSISTENT WITH A PIECE OF  
22 SCIENCE FOR ME TO PICK OUT ONE THAT IS ROUGHLY WHERE  
23 WE ALLOCATED THE FUNDS TO BEGIN WITH.

24 I DO NOTE IN MOST OF OUR BASIC BIOLOGY  
25 ROUNDS, WE HAVE BEEN UNDER BUDGET. SO I'M JUST

**BARRISTERS' REPORTING SERVICE**

1 SUGGESTING MAYBE WE GO OVER A LITTLE BIT. BUT,  
2 AGAIN, THIS IS ONE GRANT. OTHERS MAY HAVE OTHER  
3 GRANTS. AND I DO AGREE FUNDAMENTALLY THAT WE NEED  
4 TO BE PRUDENT AND WE SHOULD USE SOME DISCRETION.  
5 THE REVIEW GROUP WORKED HARD ON THE RECOMMENDATIONS  
6 THEY MADE.

7 DR. JUELSGAARD: YES. I WOULD NOTE THAT  
8 THERE ARE SOME ADDITIONAL EXTRAORDINARY PETITIONS  
9 THAT WE MAY WIND UP TALKING ABOUT SUBSEQUENTLY. AND  
10 THE QUESTION, THEN, IS IF, LET'S SAY, WE VOTE ON  
11 THIS AT THIS TIME AND APPROVE IT AND WE'RE SLIGHTLY  
12 OVER THE BUDGET, WHAT ARE WE GOING TO THINK ABOUT  
13 THE BUDGETARY ISSUE IF WE ALSO THINK THOSE ARE  
14 WORTHY OF APPROVAL? SO WE NEED TO HAVE A LITTLE  
15 FINANCIAL DISCIPLINE AS WE MOVE FORWARD ALA SOME OF  
16 THE COMMENTS THAT WERE MADE EARLIER ABOUT SORT OF  
17 OUR FINANCIAL WHEREWITHAL AS WE MOVE FORWARD IN THE  
18 AGING OF THIS ORGANIZATION.

19 MR. SHEEHY: I AGREE TOTALLY. AND I READ  
20 THE EXTRAORDINARY PETITIONS, AND THIS WAS THE ONLY  
21 ONE THAT MOTIVATED ME TO MAKE THAT. AND I ACTUALLY  
22 FUNDAMENTALLY AGREE WITH YOU. I PROBABLY WOULDN'T  
23 MOVE UP MORE THAN ONE. AND IF OTHER FOLKS HAVE ONES  
24 THAT THEY WANT TO MOVE UP, I THINK WE SHOULD TALK  
25 ABOUT IT AND MAYBE PICK THE ONE THAT WE LIKE THE

## BARRISTERS' REPORTING SERVICE

1 BEST IF THAT'S INDEED WHAT WE'RE GOING TO DO OR DO  
2 ZERO.

3 I AGREE WITH YOUR IMPULSE TO HAVE US SIT  
4 HERE AND NOT SUDDENLY BLOW THE BUDGET TO BITS. BUT  
5 I PERSONALLY LOOKED THROUGH ALL THESE EXTRAORDINARY  
6 PETITIONS THAT CAME IN. I FELT THAT PEOPLE WERE  
7 ARGUING BACK AND FORTH WITH THE REVIEW GROUP. I  
8 THOUGHT THE REVIEW GROUP WORKED VERY HARD. THIS WAS  
9 THE ONLY ISSUE THAT KIND OF STOOD OUT FOR ME AS  
10 SOMETHING THAT MIGHT HAVE MADE A DIFFERENCE IN THE  
11 REVIEW, AND IT WAS NOT A SCIENTIFIC ISSUE. IT WAS A  
12 STRUCTURAL ISSUE. WHERE DOES THIS INDIVIDUAL WORK?

13 AND SO THAT'S WHY IT JUMPED OUT AS  
14 SOMETHING I COULD EASILY COMPREHEND. AND WE WERE  
15 ABOUT A GRANT UNDER BUDGET. THAT'S MY FRAMEWORK. I  
16 PERSONALLY AM NOT INTENDING TO MOVE UP ANY MORE.  
17 BUT I DO AGREE FUNDAMENTALLY WITH YOU THAT WE SHOULD  
18 NOT MOVE UP ALL FIVE OR SIX OR HOWEVER MANY WE HAVE  
19 WILLY-NILLY, AND WE SHOULD EXERT SOME DISCIPLINE  
20 BECAUSE THE GROUP DID WORK HARD IN REVIEWING THESE  
21 GRANTS.

22 CHAIRMAN THOMAS: CAN I JUST ASK A  
23 QUESTION RAISED BY SOMETHING MR. SHEEHY SAID? HOW  
24 UNDER BUDGET ARE WE ON PREVIOUS ROUNDS OF BASIC BIO?

25 DR. OLSON: I'M NOT SURE THAT'S REALLY THE



## BARRISTERS' REPORTING SERVICE

1 POINT. THE REASON I SAY THAT IS BECAUSE YOU HAVE AN  
2 EXPENDITURE -- YOU HAVE AWARDED ESSENTIALLY \$1.5  
3 BILLION. YOU HAVE CONCEPTS APPROVED OF ROUGHLY, AND  
4 NOT YET EITHER REVIEWED BY THE GRANTS WORKING GROUP  
5 AND REVIEWED BY THIS BOARD, TOTALING ROUGHLY 300 --  
6 LESS THAN THAT NOW, LET'S SAY 300 MILLION, AND YOU  
7 HAVE ROUGHLY 860 MILLION IN SO-CALLED FUTURE  
8 ALLOCATED MONEY THAT HAS BEEN BROADLY PLANNED TO  
9 ADDRESS STRATEGIC PRIORITIES.

10 SO THE FACT -- WE HAVE -- MOST, MANY OF  
11 OUR AWARDS, MOST OF OUR -- WELL, MAYBE NOT MOST AT  
12 THIS POINT, BUT VERY MANY OF OUR AWARDS FALL IN THE  
13 FUNDAMENTAL BIOLOGY CATEGORY BECAUSE OF THE FACT  
14 THEY DO TEND TO BE SMALLER AWARDS. THEY'RE MORE  
15 LIKE \$300,000 IN DIRECT PROJECT COST. SO \$900,000  
16 OVER THREE YEARS IN CONTRAST TO SAY THE EARLY  
17 TRANSLATION, THE SMALLEST OF WHICH IS 1.2 MILLION  
18 IN DIRECT PROJECT COST OR UP TO 3.5 MILLION IN  
19 CONTRAST TO DISEASE TEAMS, WHICH IS ROUGHLY, I'D  
20 SAY, 10 TO 12 MILLION OR 10 TO 15 MILLION IN DIRECT  
21 PROJECT COST. SO THAT WOULD BE MY RESPONSE.

22 CHAIRMAN THOMAS: I APPRECIATE THAT, DR.  
23 OLSON. WE DID HAVE DISCUSSIONS ON THESE POINTS AND  
24 THEY'RE ALL VERY IMPORTANT, BUT DID NOT ANSWER MY  
25 QUESTION. IF YOU COULD ANSWER THE QUESTION, PLEASE.

**BARRISTERS' REPORTING SERVICE**

1 DR. OLSON: I HAVE ALREADY ACCOUNTED -- I  
2 GUESS THE OTHER COMMENT I CAN MAKE, I DON'T HAVE THE  
3 EXACT NUMBERS, BUT THE SAVINGS IN ANY BASIC BIOLOGY  
4 ROUND HAS BEEN ALREADY ACCOUNTED FOR IN THE PLAN.

5 CHAIRMAN THOMAS: THAT STILL DOES NOT  
6 ANSWER.

7 DR. OLSON: THERE ARE NO SAVINGS REALLY.  
8 THERE'S ONLY THE \$20 MILLION THAT YOU HAVEN'T YET  
9 AWARDED UNDER THE DISEASE TEAM.

10 CHAIRMAN THOMAS: THE QUESTION PERTAINED  
11 TO UNDERFUNDING AGAINST BUDGET ON BASIC BIOLOGY  
12 ROUNDS.

13 DR. OLSON: IT WAS ONLY ONE ROUND WHERE WE  
14 HAD, IF I REMEMBER, AND I'M SORRY I AM RELYING ON  
15 MEMORY HERE, I BELIEVE IT WAS ONLY ONE ROUND WHERE  
16 WE HAD THE BASIC BIOLOGY INITIATIVE THAT ACCOUNTED  
17 FOR A ONE AND A TWO COMPONENTS TO IT, PART 1 AND  
18 PART 2, WHERE ONE ROUND WAS SUBSTANTIALLY  
19 UNDERFUNDED. IT WAS 17 MILLION VERSUS 30, BUT I  
20 BELIEVE THE NEXT BILLION WAS CONSIDERABLY OVER THAT.

21 SO I THINK IF YOU ACTUALLY LOOK IN, AND  
22 THIS IS IN THE DOCUMENT THAT WAS HANDED OUT TO YOU  
23 IN MARCH, AND I WOULD NEED TO CONSULT THAT TO  
24 SPECIFICALLY ADDRESS YOUR QUESTION, THAT PROBABLY  
25 THE BASIC BIOLOGY GENERALLY COMES IN ROUGHLY AT WHAT

**BARRISTERS' REPORTING SERVICE**

1 WAS ALLOCATED. WE'VE BEEN TRYING TO SIZE IT TO  
2 ADDRESS WHAT WE GENERALLY FUND.

3 CHAIRMAN THOMAS: DR. TROUNSON.

4 DR. TROUNSON: I'M JUST MAKING -- I JUST  
5 WANTED TO TAKE NOTE OF THE WAY THE DISCUSSION IS  
6 GOING. IT MAY BE OF INTEREST TO YOU, AND IF IT IS,  
7 I THINK, THEN, WE WOULD LIKE TO TALK A LITTLE BIT  
8 ABOUT IT, THAT, IN FACT, STAFF HAVE A VIEW ABOUT ONE  
9 OF THE PROJECTS. AND IT'S NOT ONE OF THE  
10 EXTRAORDINARY PETITIONS ACTUALLY, AND WE THINK THAT  
11 THE BOARD SHOULD HEAR ABOUT THAT. I WAS ACTUALLY  
12 NOT AT THE GRANTS REVIEW, SO I WAS REALLY SURPRISED  
13 THIS GRANT WASN'T FUNDED MYSELF.

14 BUT I DISCUSSED THIS WITH THE STAFF  
15 EXTENSIVELY, AND IT'S NOT AN EXTRAORDINARY PETITION.  
16 BUT BEFORE YOU COMPLETE THIS EXERCISE WHEN YOU'RE  
17 TALKING ABOUT MAYBE JUST ONE OR OTHER OF THESE  
18 PROJECTS, I WOULD ENCOURAGE YOU TO LISTEN TO ONE OF  
19 THESE WHERE A PETITION ACTUALLY DIDN'T ARISE. AND I  
20 THINK STAFF HAS A VERY STRONG VIEW ABOUT THIS  
21 PARTICULAR STUDY AND WHY PERHAPS IT OUGHT TO BE  
22 CONSIDERED.

23 CHAIRMAN THOMAS: PLEASE PROCEED.

24 DR. TROUNSON: MAYBE I CAN ASK THE SCIENCE  
25 OFFICER. THIS IS PROJECT 6158. ONE OF THE REALLY

## BARRISTERS' REPORTING SERVICE

1 BIG PROBLEMS IN STEM CELL RESEARCH IS THE FAILURE TO  
2 BE ABLE TO GET PLURIPOTENTIAL STEM CELLS ACROSS TO  
3 BONE MARROW COLONIZING HEMATOPOIETIC STEM CELLS.  
4 THIS IS A HUGE BARRIER. IT'S ONE OF THE MAJOR  
5 BARRIERS SEEN IN STEM CELL BIOLOGY.

6 THIS PARTICULAR STUDY IS LOOKING AT A  
7 NUMBER OF MODEL SYSTEMS, AND IT'S DEEP IN  
8 DEVELOPMENTAL BIOLOGY BECAUSE IT WANTS TO STUDY  
9 FISH, IT WANTS TO STUDY MICE, IT WANTS TO STUDY THE  
10 HUMAN. IT WANTS TO LOOK AT THE RELATIONSHIP BETWEEN  
11 THE DEVELOPING CELL AND THE NICHE. THE NICHE IS THE  
12 SPACE IN WHICH THESE CELLS MATURE.

13 NOW, ONE OF OUR PROBLEMS IS WE CAN'T GET  
14 THESE HEMATOPOIETIC BLOOD CELLS TO COLONIZE THE BONE  
15 MARROW. WE HAVE BASICALLY LIVER-TYPE HEMATOPOIETIC  
16 STEM CELLS. THAT'S NOT MUCH USE IF YOU'RE TRYING TO  
17 HELP A PATIENT. AND OUR HEMATOPOIETIC SYSTEMS ARE  
18 REALLY THE MOST ADVANCED IN THE WHOLE OF CELL  
19 BIOLOGY, AND WE'VE GOT ONE OF THE BIGGEST PROBLEMS.  
20 AND WE REALLY DON'T HAVE A LOT OF PROJECTS FOCUSED  
21 ON GETTING ACROSS THIS SPACE.

22 I THINK STRONGLY THIS STUDY WILL COME UP  
23 WITH INFORMATION THAT WILL HELP US UNDERSTAND WHAT'S  
24 REQUIRED TO MATURE THESE CELLS INTO BONE MARROW  
25 COLONIZING CELLS. SO I WANTED TO SORT OF AMPLIFY

## BARRISTERS' REPORTING SERVICE

1 THE PROBLEM AND SAY THIS IS A STUDY WHICH I THINK IS  
2 VERY CLEVERLY DESIGNED TO HELP US UNDERSTAND WHAT  
3 ARE THE FACTORS THAT ARE DRIVING THE MATURATION OF  
4 THESE CELLS INTO THE BONE MARROW COLONIZING CELLS.

5 MAYBE KELLY CAN GIVE YOU A LITTLE BIT MORE  
6 BACKGROUND ON THE SPECIFIC GRANT, BUT I WANTED TO  
7 GIVE YOU THAT RISE IN INTAKE. IF I HAD BEEN AT THE  
8 REVIEW, HOPEFULLY SOMEONE MIGHT HAVE ASKED ME SOME  
9 QUESTION ABOUT IT, I WOULD HAVE FELT VERY STRONGLY  
10 SUPPORTIVE MYSELF OF THIS STUDY. BUT I TALKED TO  
11 ALL THE SCIENTISTS HERE AT CIRM, AND THEY FELT THAT  
12 THIS WAS REMARKABLE IN ITS STANDOUT. AND IT'S 71,  
13 SO IT'S VERY, VERY CLOSE TO THE BORDER, AND I THINK  
14 IT DESERVES FURTHER CONSIDERATION.

15 DR. SHEPERD: ALAN ALREADY TOLD YOU A  
16 LITTLE BIT ABOUT IT, BUT THIS PROPOSAL IS TAKING A  
17 VERY BROAD AND COMPREHENSIVE APPROACH.

18 DR. STEWARD: COULD YOU JUST GIVE US A  
19 NUMBER?

20 DR. SHEPERD: 6158. IF YOU LOOK AT THAT  
21 SPREADSHEET UP THERE, THERE'S A LARGE BLOCK.

22 SO 6158. SO IF YOU LOOK AT THAT UPPER  
23 BLOCK WHERE IT'S ALL IN GREEN DOWN TO THE 73, THEN  
24 THERE'S A 71 THAT IS HIGHLIGHTED IN WHITE, THAT'S  
25 6158. AND THEN THERE'S ANOTHER GREEN ONE BELOW IT.

**BARRISTERS' REPORTING SERVICE**

1 SO THIS PROPOSAL IS TAKING A COMPREHENSIVE APPROACH  
2 TO IDENTIFYING AND CHARACTERIZE THE MOLECULAR  
3 FACTORS THAT CONTRIBUTE TO SPECIFICATION AND  
4 AMPLIFICATION OF HEMATOPOIETIC STEM CELLS.

5 SO AS YOU'RE AWARE AND AS ALAN HAS ALLUDED  
6 TO, ONE OF THE KEY BOTTLENECKS IN STEM CELL RESEARCH  
7 IN GENERAL IS OUR CURRENT INABILITY TO DERIVE  
8 ROBUSTLY EXPANDABLE AND FUNCTIONAL POPULATIONS OF  
9 HUMAN HEMATOPOIETIC STEM CELLS IN QUANTITIES THAT  
10 WOULD BE SUITABLE FOR MEDICAL PROCEDURES OR  
11 THERAPIES SUCH AS THOSE THAT WOULD ENTAIL ALLOGENIC  
12 OR AUTOLOGOUS BONE MARROW TRANSPLANT. AND ONE  
13 REASON FOR THIS BOTTLENECK IS OUR FUNDAMENTAL LACK  
14 OF KNOWLEDGE AS TO HOW TO RECREATE THE APPROPRIATE  
15 CONDITIONS FOR SPECIFYING AND AMPLIFYING THESE CELL  
16 TYPES IN THE HUMAN SYSTEM.

17 SO IN DEVELOPMENT THESE CELLS ARE ACTUALLY  
18 SPECIFIED THROUGH A COORDINATED SET OF INTERACTIONS  
19 BETWEEN THE DIFFERENTIATING CELLS AND THEIR STROMAL  
20 MICROENVIRONMENT OR NICHE. SO THE FOCUS OF THIS  
21 PROPOSAL IS TO DIRECTLY GO AFTER THOSE INTERACTIONS;  
22 THAT IS, STUDY THE CROSSTALK BETWEEN HEMATOPOIETIC  
23 STEM CELLS AND THEIR STROMAL NICHES, TO IDENTIFY  
24 WHICH INTERACTIONS AND DETERMINANTS ARE THE KEY  
25 ONES.

**BARRISTERS' REPORTING SERVICE**

1           THIS KNOWLEDGE COULD THEN BE APPLIED TO  
2           CREATE A MORE AUTHENTIC CULTURE SYSTEM FOR DERIVING  
3           AND EXPANDING OR MAINTAINING HUMAN HEMATOPOIETIC  
4           STEM CELLS WITH THE GREATEST THERAPEUTIC POTENTIAL.

5           SO THE KEY STRENGTHS OF THIS PROPOSAL THAT  
6           WERE RECOGNIZED BY THE REVIEWERS WERE THAT IT'S  
7           OBVIOUSLY ADDRESSING A HUGE FUNDAMENTAL BOTTLENECK.  
8           THEY'RE EMPLOYING A VERY POWERFUL COMPARATIVE  
9           APPROACH WHERE THEY'RE LOOKING ACROSS MULTIPLE  
10          SPECIES, SO MULTIPLE MODEL SYSTEMS WHERE YOU CAN  
11          ACTUALLY DO THE EMBRYOLOGY AND LOOK AT THE IN VIVO  
12          SITES WHERE THESE CELLS ARE BEING SPECIFIED AND  
13          AMPLIFIED, SOMETHING THAT IS NOT PRACTICEABLE IN A  
14          HUMAN SYSTEM.

15          BUT THEY'RE ALSO LOOKING IN HUMAN CELLS AS  
16          WELL. SO THEY'RE LOOKING ACROSS MULTIPLE SPECIES  
17          ACROSS DIFFERENT DEVELOPMENTAL SITES OF  
18          HEMATOPOIESIS. AND THEY'RE LOOKING ACROSS ALSO  
19          MULTIPLE TYPES OF IN VITRO SURROGATE NICHES. THE  
20          REVIEWERS WERE IMPRESSED THAT IN ADDITION TO DOING  
21          THIS MAJOR PROFILING APPROACH, THEY ALSO HAD GREAT  
22          FUNCTIONAL READOUTS FOR TESTING THEIR HITS, BOTH IN  
23          VIVO AND IN VITRO READOUTS. THEY'RE BRINGING  
24          ENORMOUS RESOURCES TO THIS PROJECT.

25          THE PRINCIPAL INVESTIGATOR IS CONSIDERED

**BARRISTERS' REPORTING SERVICE**

1 TO BE OUTSTANDING. THERE'S ALSO A PARTNER PRINCIPAL  
2 INVESTIGATOR FROM FRANCE WHO IS ALSO VIEWED AS  
3 EXTREMELY OUTSTANDING AND THE TEAM AS WELL.

4 SO WHY DID IT GET A 71? WELL, SOME  
5 WEAKNESSES WERE ACKNOWLEDGED, TWO MAJOR ONES, WHICH  
6 WERE BOTH HAD CAVEATS ASSOCIATED WITH THEM. SO ONE  
7 IS THAT SOME OF THE REVIEWERS FELT THAT THERE WAS  
8 LESS FOCUS ON HUMAN CELLS IN THIS PROPOSAL THAN IN  
9 SOME OF THE OTHERS. HOWEVER, REVIEWERS DID AGREE  
10 THAT SOME OF THE POWER AND UNIQUE ASPECTS OF THIS  
11 PROPOSAL COME FROM THE FACT THAT THEY ARE COMPARING  
12 ACROSS MULTIPLE SPECIES. IN FACT, SINCE YOU CANNOT  
13 LOOK AT EMBRYONIC DEVELOPMENT OF HEMATOPOIESIS IN A  
14 HUMAN SYSTEM, THEY FELT THAT THIS WAS A JUSTIFIED  
15 USE OF A MODEL SYSTEM. AND THEY FELT THAT COMPARING  
16 ACROSS MULTIPLE SPECIES AND INCORPORATING HUMAN  
17 STUDIES ALONG THAT WILL HELP NARROW IN ON THOSE THAT  
18 ARE RELEVANT TO THE HUMAN SYSTEM MORE QUICKLY.

19 THE OTHER WAS THERE WERE GOING TO BE SOME  
20 COMPUTATIONAL APPROACHES AND ALGORITHMS THAT ARE  
21 EMPLOYED TO BASICALLY INTEGRATE THE DATA THAT'S  
22 GOING TO COME IN FROM ALL THESE DIFFERENT LINES OF  
23 INVESTIGATION, WHICH WAS NOT WELL DESCRIBED, BUT  
24 THERE WAS A LETTER OF COLLABORATION FROM SOME  
25 MATHEMATICIANS. SO WHILE THIS APPROACH HAS NOT BEEN



## BARRISTERS' REPORTING SERVICE

1 VALIDATED IN PRACTICE, THE REVIEWERS WERE  
2 SUFFICIENTLY IMPRESSED BY THE PRELIMINARY DATA THAT  
3 THEY STILL WERE VERY POSITIVE AND ENTHUSIASTIC ABOUT  
4 THIS PROPOSAL IN GENERAL.

5 SO OVERALL THE REVIEWERS DIDN'T REALLY  
6 FIND ANY TECHNICAL FLAWS OR WEAKNESSES OF  
7 EXPERIMENTAL DESIGN. THE WEAKNESSES THEY DID  
8 IDENTIFY RELATED TO A LACK OF INFORMATION PROVIDED  
9 IN THE PROPOSAL. THEY GENERALLY THOUGHT IT WAS AN  
10 INTERESTING AND POWERFUL APPROACH, AND THEY FELT  
11 THAT IT WAS THE RIGHT PEOPLE FOR DOING THE JOB. AND  
12 IF ANYBODY WOULD LIKE TO KNOW MORE DETAILS ABOUT THE  
13 SPECIFIC EXPERIMENTAL APPROACH AND THE MODELS USED,  
14 I'D BE HAPPY TO DISCUSS THAT IN CLOSED SESSION, BUT  
15 MUCH OF IT IS UNPUBLISHED AND PROPRIETARY AND  
16 CONFIDENTIAL.

17 DR. POMEROY: SO IN THE WRITTEN SUMMARY, I  
18 BELIEVE I HAVE THE RIGHT ONE, IT TALKS ABOUT IT  
19 BEING OVERLY AMBITIOUS, NOT ADDRESSING POTENTIAL  
20 PITFALLS, NOT PROPOSING ALTERNATIVE STRATEGIES. AND  
21 I DIDN'T REALLY HEAR THAT IN YOUR SUMMARY. COULD  
22 YOU GO THROUGH THAT DISCUSSION?

23 DR. SHEPERD: WELL, THOSE WERE BROUGHT UP  
24 DURING THE DISCUSSION, BUT PROBABLY THEY WEREN'T  
25 MAJOR CONTRIBUTING FACTORS TO THE SCORE. AGREE,

**BARRISTERS' REPORTING SERVICE**

1 THEY DID AGREE AND DID COMMENT THAT THE SCOPE OF  
2 THIS IS MASSIVE. THERE ARE FOUR AIMS. THEY'RE ALL  
3 VERY AMBITIOUS. HOWEVER, SOME REVIEWERS DID COMMENT  
4 THAT THEY FELT THAT EVEN IF A PORTION OF THE  
5 PROPOSAL COULD BE SUCCESSFUL, IT WOULD STILL BE  
6 WORTHWHILE. AND I REMIND THAT THERE ARE ACTUALLY  
7 TWO TEAMS IN TWO DIFFERENT COUNTRIES WORKING ON  
8 THIS, AND MUCH OF THE WORK WILL BE DONE BY THE  
9 FRENCH INVESTIGATORS AS WELL. SO IT DID SEEM TO BE  
10 VERY AMBITIOUS IN SCOPE.

11 BUT THAT WAS A MINOR CONCERN, BUT REALLY  
12 WHAT THEY SAID WAS THE MAIN THING THAT CAUSED SOME  
13 OF THE REVIEWERS TO GIVE A LOWER SCORE IS BECAUSE OF  
14 THE SEEMINGLY MORE EMPHASIS ON SOME OF THE MODEL  
15 SYSTEM STUDIES THAN ON THE HUMAN STUDIES. HOWEVER,  
16 ALL THE INFORMATION WILL BE INTEGRATED, AND THE  
17 OVERALL GOAL OF THE PROPOSAL WAS EVENTUALLY TO APPLY  
18 THIS INFORMATION TO BE ABLE TO DERIVE EXPANDABLE AND  
19 FUNCTIONAL HEMATOPOIETIC STEM CELLS FROM HUMAN  
20 PLURIPOTENT STEM CELLS, WHICH ISN'T CURRENTLY  
21 POSSIBLE.

22 DR. POMEROY: JUST TO MAKE SURE I  
23 UNDERSTAND THIS, THE GRANTS WORKING GROUP FELT THAT  
24 THERE WAS NO PROGRAMMATIC REASON TO FUND THE  
25 APPLICATION IN THEIR DISCUSSIONS, BUT STAFF FELT

**BARRISTERS' REPORTING SERVICE**

1 DIFFERENTLY. IS THAT AN ACCURATE SUMMARY?

2 DR. TROUNSON: WELL, I THINK IT'S  
3 SCIENTIFICALLY -- THERE ARE TWO LABS, SO IT'S DOUBLE  
4 THE SIZE.

5 DR. POMEROY: I'M JUST TALKING ABOUT  
6 WHAT'S WRITTEN ON THIS PIECE OF PAPER. IT SAYS THAT  
7 THE GRANTS WORKING GROUP DID NOT IDENTIFY A  
8 PROGRAMMATIC REASON TO FUND IT. IS THAT A TRUE  
9 STATEMENT OR NOT?

10 DR. SAMBRANO: YES. SO THE POINT IS THAT  
11 THOSE THAT FELL INTO THAT INITIAL TIER II, THE  
12 GRANTS WORKING GROUP HAD THE OPPORTUNITY TO RAISE  
13 THEM UP IF THEY FOUND A PROGRAMMATIC REASON TO DO  
14 SO. AND SO FOR THOSE FOR WHICH THEY DIDN'T, THAT  
15 LANGUAGE IS PLACED IN THERE.

16 MR. ROTH: CLAIRE, MAYBE I CAN ADD A  
17 LITTLE BIT. I'VE BEEN ASKING FOR STAFF THAT SITS  
18 THROUGH THESE REVIEWS TO SPOT GRANTS THEY  
19 COLLECTIVELY FEEL WE SHOULD TAKE A HARDER LOOK AT.  
20 SO I WELCOME THIS KIND OF INPUT. WE DON'T HAVE THE  
21 OPPORTUNITY TO HEAR THE DISCUSSION AND DIALOGUE AND  
22 THINK THROUGH IT. BUT I THINK THIS IS SOMETHING  
23 THAT CERTAINLY, AS A BOARD MEMBER, HELPS ME.

24 CHAIRMAN THOMAS: DR. LEVIN, THEN DR.  
25 LUBIN.

**BARRISTERS' REPORTING SERVICE**

1 DR. LEVIN: TWO THINGS. DON'T WE HAVE A  
2 MOTION ON THE TABLE ON THE PREVIOUS GRANT STILL THAT  
3 WE HAVE TO ADDRESS?

4 CHAIRMAN THOMAS: YES.

5 MR. SHEEHY: SHOULD I ADDRESS THAT BECAUSE  
6 I HAVE A SOLUTION. SO I'M WILLING TO WITHDRAW MY  
7 MOTION BECAUSE I AGREE WITH DUANE. I FELT LIKE  
8 STAFF SEES A WINNER THAT SLIPS THROUGH, I'M  
9 SUPPORTIVE OF THAT. I HAVE A LOT OF CONFIDENCE IN  
10 DR. TROUNSON. SO I'M WILLING TO WITHDRAW MY MOTION,  
11 AND THEN PERHAPS, IF WE CAN HAVE WHATEVER DISCUSSION  
12 WE'RE GOING TO HAVE ON THIS GRANT, AND THEN I THINK  
13 WE SHOULD GO BACK AND DEAL WITH MR. JUELSGAARD'S  
14 POINT OF WHETHER WE'RE GOING TO BUST THIS BUDGET  
15 WIDE OPEN OR NOT. AND AT THAT POINT, THEN, ONCE WE  
16 MAKE THAT DECISION, THEN WHETHER OR NOT I MAKE MY  
17 MOTION AGAIN, WE CAN COME BACK TO THAT. BUT I DON'T  
18 WANT TO GET IN THE WAY OF SOMETHING THAT SEEMS TO  
19 HAVE A VERY STRONG SCIENTIFIC RATIONALE.

20 DR. LEVIN: ONE MORE COMMENT. IN ANSWER  
21 TO YOUR QUESTION, JON, IN BASIC BIOLOGY II, WE  
22 AWARDED \$22 MILLION AND IN BASIC BIOLOGY III, WE  
23 AWARDED \$37 MILLION. SO IT SEEMS THAT WE STILL HAVE  
24 ON THE ORDER OF 10 OR \$15 MILLION LESS THAN WE HAD  
25 ORIGINALLY ANTICIPATED TO AWARD IN BASIC BIOLOGY

**BARRISTERS' REPORTING SERVICE**

1        ROUNDS.  AND I JUST WANTED TO SORT OF ENCOURAGE THE  
2        BOARD TO CONSIDER THIS WAS A BOARD THAT STARTED  
3        REALLY FUNDING THE BASIC BIOLOGY OF STEM CELLS AND  
4        THE BASIC UNDERSTANDING.  AND OBVIOUSLY AS WE  
5        MATURED, WE'VE GONE FAR MORE INTO PUTTING ALL OUR  
6        WEIGHT AND ALL OF OUR ATTENTION INTO TRANSLATIONAL  
7        FOR REASONS WE ALL UNDERSTAND.  AND I WORRY THAT  
8        BASIC BIOLOGY AND THE BASIC UNDERSTANDING IS MAYBE  
9        GETTING LEFT IN THE DUST A LITTLE, AND THAT IT'S  
10       STILL THE SMALLER GRANTS AND IT'S WELL WORTH IT TO  
11       EXTEND OURSELVES A LITTLE TO FULLY BRING NEW PEOPLE  
12       INTO THE FIELD AND ADD TO OUR UNDERSTANDING OF THE  
13       BASIC BIOLOGY OF STEM CELL SCIENCE.

14                    I JUST WANTED -- IN THE CONTEXT OF THESE  
15       DISCUSSIONS, I THINK IT'S WORTHY WHEN WE SEE ANY  
16       GRANT THAT REALLY COULD MAKE A DIFFERENCE, CONSIDER  
17       MOVING IT UP EVEN IF IT COSTS A FEW EXTRA HUNDRED  
18       THOUSAND DOLLARS.

19                    CHAIRMAN THOMAS:  THANK YOU.  I THINK  
20       THOSE ARE VERY IMPORTANT POINTS.  SO, MR. SHEEHY,  
21       ARE YOU TABLING YOUR MOTION OR WHAT ARE YOU DOING  
22       HERE?

23                    MR. SHEEHY:  I'M WITHDRAWING IT.

24                    CHAIRMAN THOMAS:  OKAY.  AND THE SECOND?

25                    DR. LUBIN:  SO ALSO BEFORE I COMMENT ON

## BARRISTERS' REPORTING SERVICE

1 THIS HEMATOPOIETIC ONE, DO WE HAVE EXTRAORDINARY  
2 PETITIONS THAT WE'RE GOING TO HEAR THAT MIGHT ALSO  
3 BE UPGRADED FROM ANOTHER RANK?

4 CHAIRMAN THOMAS: I THINK THE PROCEDURE IS  
5 WE ASK IF THERE ARE MEMBERS OF THE BOARD WHO WANT TO  
6 ELEVATE ANY OTHER PROPOSALS FROM TIER III TO TIER I.  
7 IF THEY IDENTIFY A PROPOSAL THAT HAS AN  
8 EXTRAORDINARY PETITION, THAT WILL BE DEALT WITH AT  
9 THAT TIME. IF THOSE PROJECTS THAT HAVE  
10 EXTRAORDINARY PETITIONS ARE NOT THE SUBJECT OF  
11 RECOMMENDED PROJECTS, WE WILL THEN HEAR, IF THEY SO  
12 CHOOSE, IN GENERAL PUBLIC COMMENT FROM THOSE  
13 EXTRAORDINARY PETITIONERS.

14 DR. POMEROY: IS THERE A MOTION ABOUT THIS  
15 ONE WE'VE BEEN DISCUSSING?

16 CHAIRMAN THOMAS: NOT YET.

17 DR. LUBIN: I STILL WANT TO TALK ABOUT  
18 THIS ONE. SO I COMPLETELY AGREE WITH WHAT JACOB  
19 SAID. I THINK THIS IS AN EXTREMELY EXCITING  
20 APPLICATION THAT HAS ENORMOUS POTENTIAL TO BENEFIT  
21 ANYONE THAT REQUIRES A TRANSPLANTATION OF A STEM  
22 CELL, WHETHER CORD BLOOD, BONE MARROW, WHATEVER.  
23 THE TRACKING AND THE NICHE THAT ARE THERE AND THE  
24 BIOLOGY THAT IS VERY POORLY UNDERSTOOD, AND I  
25 BELIEVE THIS COMPARATIVE APPROACH IS REALLY

**BARRISTERS' REPORTING SERVICE**

1     REMARKABLE AND OUTSTANDING.  AND TO HAVE IT WITHIN  
2     OUR PORTFOLIO OF WHAT CIRM SUPPORTS, I THINK, IS A  
3     WISE INVESTMENT, AND IT'S A SMALL AMOUNT OF MONEY  
4     COMPARED TO THE OTHER THINGS WE'RE INVESTING, WHICH  
5     WILL HAVE AN ENORMOUS IMPACT, IN MY OPINION, ON THE  
6     THERAPY OF ANYONE THAT REQUIRES A STEM CELL  
7     TRANSPLANTATION.

8             CHAIRMAN THOMAS:  THANK YOU.

9             DR. PIZZO:  I WANT TO CERTAINLY UNDERSCORE  
10    THE IMPORTANCE OF JACOB'S COMMENT ABOUT CONTINUING  
11    TO FUND BASIC RESEARCH AND SMALL PROJECTS.  I THINK  
12    THIS IS CRITICAL.

13            I JUST HAVE SORT OF A PROCEDURAL QUESTION  
14    THAT COMES BACK TO STAFF.  RIGHT NOW WE'RE TALKING  
15    ABOUT WHETHER WE SHOULD GO, QUOTE, ABOVE BUDGET.  
16    THE QUESTION THAT I HAVE IS JUST PROCEDURAL.  AS YOU  
17    LOOKED AT THESE OTHER PROPOSALS THAT WENT FROM, IF  
18    YOU WILL, TIER II TO TIER I, WERE THERE ANY THAT  
19    WERE ON THE CUSP THAT MIGHT GO DOWN AS COMPARED TO  
20    GO UP?  SO COULD WE STILL KEEP THE OVERALL BUDGET,  
21    AND IS THERE SOME FLEXIBILITY IN TERMS OF ONES THAT  
22    ARE NOW ABOVE THE FUNDING LINE THAT MIGHT BE MOVED  
23    DOWN?  WAS THAT DISCUSSION PART OF YOUR DIALOGUE?

24            DR. JUELGAARD:  MR. CHAIRMAN, COULD I  
25    JUST ADD TO DR. PIZZO'S QUESTION?  BECAUSE THERE ARE

**BARRISTERS' REPORTING SERVICE**

1 TWO PROJECTS THAT ARE NOW IN TIER I THAT STARTED IN  
2 TIER III, AS I READ WHAT WAS GIVEN TO US PRIOR TO  
3 THE BOARD MEETING. AND SO I'M JUST WONDERING HOW  
4 THOSE MAKE THAT TRANSITION, MUCH LESS THE TIER II TO  
5 TIER I.

6 DR. PIZZO: FAIR ENOUGH.

7 DR. TROUNSON: I'D ASK PATRICIA OLSON. I  
8 WASN'T ACTUALLY AT THE REVIEW, SO IT'S NOT A GOOD  
9 THING FOR ME TO COMMENT SPECIFICALLY ON THAT. PAT,  
10 CAN YOU ADDRESS THESE ISSUES FOR THE BOARD?

11 DR. OLSON: LET ME MAKE SURE I UNDERSTAND  
12 THE QUESTION. COULD YOU REPEAT THE QUESTION,  
13 PLEASE?

14 DR. PIZZO: THE QUESTION THAT I WAS ASKING  
15 IS REALLY IT'S A TEXTURE QUESTION OF THE DISCUSSION  
16 OF THAT TOOK PLACE. AND THAT IS, OF THOSE THAT ARE  
17 IN LET'S CALL IT JUST IN THE APPROVED CATEGORY NOW,  
18 THE FUNDED CATEGORY, WERE THERE ANY THAT WERE AT THE  
19 CUSP THAT IF WE HAD TO GROUP, LET'S SAY, THREE TO  
20 FOUR PROPOSALS TOGETHER AND STILL ADHERE TO THE  
21 BUDGET LIMIT, WOULD WE SHIFT WHERE THEY FELL?

22 DR. OLSON: OKAY. SO MY COMMENT WOULD BE  
23 THEN ABOUT THE PROCESS IN PROGRAMMATIC. AS YOU  
24 RECALL, WE START OUT BY JUST PUTTING UP A HISTOGRAM  
25 OF ALL THE APPLICATIONS AS TO WHERE THEY FALL AS



**BARRISTERS' REPORTING SERVICE**

1 THEIR SCIENTIFIC SCORE. THE ENTIRE GRANTS WORKING  
2 GROUP THEN MAKES A MOTION AS TO WHERE TO PLACE THE  
3 GREEN LINE; I.E., THOSE APPLICATIONS ABOVE WHICH  
4 THEY FEEL ARE SUFFICIENTLY MERITORIOUS THAT THEY  
5 DON'T WARRANT FURTHER DISCUSSION.

6 THE GRANTS WORKING GROUP NEXT, THE ENTIRE  
7 GRANTS WORKING GROUP, THEN MAKES A CALL AS TO WHERE  
8 TO PLACE WHAT'S CALLED THE RED LINE. THOSE  
9 APPLICATIONS WHO HAVE A SCORE BELOW WHICH IN THIS  
10 ROUND ARE NOT SUFFICIENTLY MERITORIOUS, THAT THAT'S  
11 THE STARTING POINT, THE SO-CALLED TIER III. IN  
12 BETWEEN ARE THE SO-CALLED TIER II.

13 AT THIS POINT MR. SHEEHY, AS CHAIRMAN OF  
14 THAT GROUP, BASICALLY ASKS ARE THERE DISCUSSIONS,  
15 ARE THERE PROGRAMMATIC REASONS WHY A PARTICULAR  
16 APPLICATION IN THAT SO-CALLED TIER II CATEGORY  
17 SHOULD BE EITHER CONSIDERED FOR FUNDING, OR ARE  
18 THERE REASONS WHY YOU DON'T WANT TO CONSIDER IT FOR  
19 FUNDING AND REMOVE IT TO TIER III. SO IN SOME CASES  
20 THERE ARE ACTIVE DISCUSSIONS BOTH WAYS. BUT THE  
21 DEFAULT IS IF THERE IS NO DISCUSSION, THEN  
22 PRESUMABLY IT AUTOMATICALLY MOVES TO TIER III.

23 SO IF YOU -- OBVIOUSLY I THINK YOU CAN  
24 TELL BY LOOKING AT THAT, WHICH DISAPPEARED THE  
25 INSTANT I MENTIONED IT. IT'S THERE NOW. IF YOU

## BARRISTERS' REPORTING SERVICE

1 LOOK AT THIS, YOU CAN SEE THE APPLICATIONS THAT ARE  
2 HIGHLIGHTED IN GREEN THAT FOR PROGRAMMATIC REASONS  
3 WERE RAISED TO TIER I, WERE RECOMMENDED. AND I  
4 BELIEVE YOU ALSO HAVE IN YOUR TAB, WHATEVER TAB THIS  
5 IS, YOU HAVE A SUMMARY OF ALL THE PROGRAMMATIC  
6 DISCUSSIONS FOR EACH OF THOSE APPLICATIONS. I  
7 BELIEVE THAT SHOULD BE AT THE FRONT OF THE TAB, SORT  
8 OF MAYBE RIGHT BEFORE OR AFTER THE SUMMARY.

9 MR. SHEEHY.

10 MR. SHEEHY: I WAS GOING TO SAY THE  
11 SUMMARY OF THE PROGRAMMATIC SECTION IS RIGHT AFTER  
12 THE GREEN THAT HAS THE SCORES. I THINK THEY'RE  
13 FAIRLY DETAILED ON WHAT THE CONSIDERATIONS WERE THAT  
14 CAUSED PEOPLE TO MOVE THOSE UP.

15 DR. OLSON: THERE WERE PROGRAMMATIC  
16 REASONS IN SOME CASES WHY SPECIFIC APPLICATIONS THAT  
17 WERE IN TIER II WERE FELT TO BE MERITORIOUS FOR  
18 FUNDING AND WERE SUBSEQUENTLY RECOMMENDED BY THE  
19 ENTIRE GRANTS WORKING GROUP.

20 MR. SHEEHY: COULD I JUST MAKE A POINT  
21 ABOUT PROGRAMMATIC REVIEW? THE HISTOGRAM IS JUST A  
22 BLIND SHOT JUST BY THE NUMBERS. LET'S BE CLEAR.  
23 WHEN THINGS END UP IN THE LOWER TIERS, PEOPLE HAVE  
24 NO IDEA WHAT THEY'RE PUTTING THERE. WE DO THIS FOR  
25 THE SAME REASON WE GO THROUGH SUCH CONNIIPTIONS ON

**BARRISTERS' REPORTING SERVICE**

1 CONFLICTS. AND IN THIS PARTICULAR INSTANCE, PEOPLE  
2 CANNOT BE IN THE ROOM WHEN THERE ARE CONFLICTS. SO  
3 WE TRY TO GET THE CLEARLY MERITORIOUS GRANTS AND THE  
4 CLEARLY NOT MERITORIOUS GRANTS ROUGHLY OFF THE  
5 TABLE, WHICH IS THE POINT FOR THE HISTOGRAM, SO THAT  
6 WE DON'T HAVE PEOPLE JUMPING AND RUNNING. WE'D BE  
7 THREE DAYS DOING OUR FINAL RECOMMENDATIONS. SO  
8 THOSE ARE JUST VERY BROAD BRUSHES.

9 AND I JUST WANT TO MAKE ONE MORE POINT  
10 ABOUT THE FUNDING. I DID NOTICE IN HERE THAT A  
11 COUPLE OF THE GRANTS THAT DID MAKE IT THROUGH  
12 PROGRAMMATIC REVIEW, ONE OF THEM DID LOSE -- LOOKS  
13 LIKE IT LOST AN AIM. SO WE MAY HAVE ENOUGH TO FUND  
14 ONE MORE COMPLETE GRANT AT THE 1.2, 1.3 MILLION AND  
15 STILL FIT OUR BUDGET. BEYOND THAT, I THINK WE STILL  
16 HAVE THE PROBLEM MR. JUELSGAARD IDENTIFIED.

17 DR. JUELSGAARD: JUST ONE MORE QUESTION  
18 FOR PAT. SO, PAT, IF I'M READING WHAT WAS GIVEN TO  
19 US PRIOR TO THE BOARD MEETING CORRECTLY, THERE ARE  
20 TWO, 6244 AND 5785, THAT HAD SCORES BELOW THE RED  
21 LINE OF 66. 6244 HAD A SCORE OF 64, AND 5785 HAD A  
22 SCORE OF 65. AND SOMEHOW THEY GOT ELEVATED FROM  
23 TIER III TO TIER I.

24 I WOULD JUST LIKE TO UNDERSTAND THAT  
25 PROCESS A LITTLE BIT BETTER BECAUSE I HAD UNDERSTOOD

**BARRISTERS' REPORTING SERVICE**

1 THAT THE RED LINE WAS MORE A HARD AND FAST RED LINE,  
2 BUT APPARENTLY IT ISN'T.

3 MR. SHEEHY: NO. JUST TO BE CLEAR, THAT'S  
4 JUST A BALLPARK. WE JUST PUT THAT OUT THERE.

5 DR. OLSON: IT'S A STARTING POINT FOR  
6 DISCUSSION.

7 MR. SHEEHY: RIGHT. AND I THINK THAT THEY  
8 HAVE A REALLY GOOD DISCUSSION. REALLY, IF YOU LOOK  
9 AT THIS PAGE, IT TELLS YOU WHY. THEY THOUGHT THAT  
10 AIM 3 WAS NOT A GOOD AIM, DIDN'T HAVE THE MONEY TO  
11 DO IT. SO THIS BECAME A MUCH BETTER GRANT ONCE YOU  
12 CUT OUT AIM 3, AND THAT WAS THE RECOMMENDATION.  
13 AGAIN, MORE SO PERHAPS THAN OTHER PROGRAMMATIC  
14 REVIEWS, THIS WAS DRIVEN BY THE SCIENTISTS BECAUSE  
15 HONESTLY I'M IN THE WEEDS A LITTLE BIT ON THIS  
16 SOMETIMES. I THINK THIS IS REALLY SOME VERY  
17 FUNDAMENTAL ISSUES, AS DR. TROUNSON HAD SAID. AND  
18 THE PROGRAMMATIC CONSIDERATIONS THAT AROSE THAT LED  
19 TO THESE KINDS OF CHANGES, I THOUGHT, WERE VERY  
20 REASONABLE IN MY MIND. AND I THOUGHT THAT THE ONES  
21 THAT MADE IT UP ALL SEEM TO HAVE FAIRLY CLEAR  
22 JUSTIFICATIONS WITHIN THIS PROGRAMMATIC REVIEW  
23 SUMMARY.

24 WE EXPLICITLY DON'T WANT TO BE DOMINATED  
25 BY THE HEGEMONY OF THE SCORES THEMSELVES. AND THE

## BARRISTERS' REPORTING SERVICE

1 RESEARCHERS SEEMED TO APPRECIATE THAT OPPORTUNITY.  
2 STAFF HAS NOTED ONE THAT HAS SCIENTIFIC MERIT THAT  
3 MAY HAVE ESCAPED THE PURVIEW OF THE COMMITTEE. SO,  
4 AGAIN, WE NEED TO BE FLEXIBLE, NIMBLE. WE HAVE A  
5 SHORT TIME FRAME.

6 CHAIRMAN THOMAS: ARE THERE ANY OTHER  
7 COMMENTS BY MEMBERS OF THE BOARD ON THIS MOTION?

8 MR. HARRISON: WE ACTUALLY DON'T HAVE A  
9 MOTION.

10 CHAIRMAN THOMAS: JUST CHECKING TO SEE IF  
11 EVERYBODY WAS PAYING ATTENTION. DO WE HEAR A MOTION  
12 ON THIS?

13 DR. PRICE: SO I MOVE THAT WE MOVE GRANT  
14 APPLICATION 06158 INTO TIER I.

15 CHAIRMAN THOMAS: MOVED BY DR. PRICE.

16 DR. VUORI: I'LL SECOND IT.

17 CHAIRMAN THOMAS: ANY FURTHER DISCUSSION  
18 BY MEMBERS OF THE BOARD ON THIS MOTION? MARIA,  
19 YOU'RE SIGNALING SOMETHING.

20 MS. BONNEVILLE: WE HAVE OUR SPOTLIGHT  
21 THAT'S COMING IN AT NOON. THEY'RE HERE ALREADY, SO  
22 WE MAY HAVE TO STOP CONVERSATION AND RESTART AGAIN  
23 AFTER.

24 CHAIRMAN THOMAS: LET'S SEE HOW CLOSE WE  
25 ARE TO BEING -- IF NECESSARY, I ASSUME THEY CAN WAIT

**BARRISTERS' REPORTING SERVICE**

1 FOR A COUPLE MINUTES.

2 DR. PIZZO: SO HERE'S THE STRUGGLE THAT  
3 I'M HAVING. ON THE ONE HAND, I THINK THERE'S A  
4 MERIT, WHICH I APPRECIATE AND UNDERSTAND, OF MOVING  
5 OR RECONSIDERING A PROGRAM THAT STAFF THOUGHT WAS  
6 MERITORIOUS THAT PERHAPS WASN'T CONSIDERED. THAT  
7 MAKES A LOT OF SENSE TO ME, AND I APPLAUD DUANE'S  
8 COMMENT ABOUT THAT. SO THAT'S ONE PIECE.

9 AND THE SECOND THAT I'M STRUGGLING WITH IS  
10 YOU'VE RAISED A TECHNICALITY ABOUT WHY A YOUNG  
11 INVESTIGATOR FOR A MERITORIOUS PROJECT MIGHT NOT BE  
12 FUNDED, WHICH HAD TO DO WITH CHANGE OF INSTITUTIONS,  
13 WHICH HAS BEEN RESOLVED. SO AS FAR AS I CAN SEE,  
14 IT'S GOING TO BE A VERY HARD DECISION TO  
15 DISCRIMINATE BETWEEN THESE TWO UNLESS WE RECONSIDER  
16 THE AMOUNT OF FUNDING THAT WE'RE GOING TO APPLY FOR  
17 THIS.

18 SO I WANT TO PUT ON THE TABLE THAT WE  
19 DON'T MAKE -- WE'VE SPENT A LOT OF MONEY ON BIG  
20 GRANTS, AND I WOULD LIKE US TO AT LEAST THINK ABOUT  
21 TAKING AN EXTENSION ON THIS FOR PROJECTS THAT MAKE  
22 SENSE EITHER SCIENTIFICALLY OR PROGRAMMATICALLY.

23 CHAIRMAN THOMAS: YES. THANK YOU. I  
24 WOULD COMPLETELY AGREE WITH THAT, AND THAT'S IN  
25 KEEPING WITH DR. LEVIN'S COMMENTS, WHICH I THOUGHT

**BARRISTERS' REPORTING SERVICE**

1 WERE VERY PERCEPTIVE AND VERY IMPORTANT.

2 DR. PIZZO: I ALWAYS TRY TO DO THAT.

3 CHAIRMAN THOMAS: OKAY. SO IS THERE ANY  
4 FURTHER DISCUSSION ON THIS MOTION? ANY COMMENTS BY  
5 MEMBERS OF THE PUBLIC? HEARING NONE, WE NEED A ROLL  
6 CALL ON THIS ONE. YES, WE DO. MARIA, PLEASE CALL  
7 THE ROLL. EVERYBODY CHECK YOUR CONFLICTS CHART,  
8 PLEASE.

9 MS. BONNEVILLE: ROBERT PRICE.

10 DR. PRICE: YES.

11 MS. BONNEVILLE: JACOB LEVIN.

12 DR. LEVIN: YES.

13 MS. BONNEVILLE: ANNE-MARIE DULIEGE.

14 DR. DULIEGE: YES.

15 MS. BONNEVILLE: MARCY FEIT.

16 MS. FEIT: YES.

17 MS. BONNEVILLE: LEEZA GIBBONS.

18 MS. GIBBONS: YES.

19 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM  
20 HAWGOOD.

21 DR. HAWGOOD: YES.

22 MS. BONNEVILLE: STEPHEN JUELSGAARD.

23 DR. JUELSGAARD: YES.

24 MS. BONNEVILLE: BERT LUBIN.

25 DR. LUBIN: YES.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: MICHAEL MARLETTA. LEON  
2 FINE.  
3 DR. FINE: YES.  
4 MS. BONNEVILLE: PHIL PIZZO.  
5 DR. PIZZO: YES.  
6 MS. BONNEVILLE: CLAIRE POMEROY.  
7 DR. POMEROY: YES.  
8 MS. BONNEVILLE: FRANCISCO PRIETO.  
9 DR. PRIETO: ABSTAIN.  
10 MS. BONNEVILLE: CARMEN PULIAFITO.  
11 DR. PULIAFITO: AYE.  
12 MS. BONNEVILLE: ROBERT QUINT.  
13 DR. QUINT: YES.  
14 MS. BONNEVILLE: DUANE ROTH.  
15 MR. ROTH: YES.  
16 MS. BONNEVILLE: JOAN SAMUELSON.  
17 MS. SAMUELSON: YES.  
18 MS. BONNEVILLE: JEFF SHEEHY.  
19 MR. SHEEHY: YES.  
20 MS. BONNEVILLE: JONATHAN SHESTACK.  
21 MR. SHESTACK: YES.  
22 MS. BONNEVILLE: OSWALD STEWARD.  
23 DR. STEWARD: YES.  
24 MS. BONNEVILLE: JONATHAN THOMAS.  
25 CHAIRMAN THOMAS: YES.



**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: ART TORRES.

2 MR. TORRES: AYE.

3 MS. BONNEVILLE: KRISTINA VUORI.

4 DR. VUORI: YES.

5 MS. BONNEVILLE: JAMES ECONOMOU.

6 DR. ECONOMOU: YES.

7 MS. BONNEVILLE: TED KRONIRIS.

8 DR. KRONIRIS: YES.

9 CHAIRMAN THOMAS: MOTION PASSES.

10 NOW, DEAN PIZZO.

11 DR. PIZZO: I WOULD LIKE TO PUT ANOTHER, I  
12 GUESS IT WOULD HAVE TO BE A MOTION, ON THE TABLE  
13 THAT WE INCREASE THE AMOUNT OF FUNDING FOR THE BASIC  
14 SCIENCE GRANTS BY A NUMBER TO BE DETERMINED ABOVE  
15 THE \$35 MILLION LEVEL TO SUPPORT CONSIDERATION OF  
16 ANOTHER MERITORIOUS GRANT.

17 CHAIRMAN THOMAS: MR. HARRISON.

18 MR. HARRISON: COULD I MAKE A SUGGESTION  
19 THAT WE TAKE A BREAK TO CONSIDER THE IMPLICATIONS OF  
20 A MOTION LIKE THAT BEFORE WE PROCEED IN ORDER TO  
21 ADDRESS POTENTIAL CONFLICT ISSUES? AND PERHAPS WE  
22 COULD THEN BREAK FOR LUNCH AND THE SPOTLIGHT.

23 DR. PRICE: EXPLAIN THE COMPLICATION.

24 MR. HARRISON: THE COMPLICATION ARISES  
25 FROM THE FACT THAT THERE ARE A SERIES OF

**BARRISTERS' REPORTING SERVICE**

1 APPLICATIONS THAT COULD BENEFIT FROM THIS ADDITIONAL  
2 FUNDING. SO ALL OF THE MEMBERS THAT MIGHT HAVE AN  
3 INTEREST IN THE INSTITUTION THAT HAS SUBMITTED SUCH  
4 AN APPLICATION WOULD HAVE TO RECUSE THEMSELVES FROM  
5 PARTICIPATING IN SUCH A MOTION OR MAKING IT. SO  
6 THAT'S THE ISSUE, AND WE HAVE NOT IDENTIFIED THOSE  
7 CONFLICTS.

8 CHAIRMAN THOMAS: CAN I ASK ANOTHER  
9 QUESTION? WHILE I THINK THE MOTION IS A GREAT IDEA,  
10 DO WE ACTUALLY NEED TO MOVE --

11 DR. PIZZO: PROBABLY DON'T. COULD JUST  
12 RECOMMEND.

13 CHAIRMAN THOMAS: OKAY. SO THAT TAKES --

14 DR. PIZZO: I WITHDRAW MY MOTION. EVEN IF  
15 IT WAS A GREAT IDEA, I STILL WITHDRAW IT.

16 CHAIRMAN THOMAS: PROBLEM SOLVED.

17 MR. SHEEHY: CAN I MAKE MY ORIGINAL MOTION  
18 AGAIN? AND THEN WE CAN KIND OF -- WE'VE HAD THIS  
19 DISCUSSION ABOUT THE BUDGET, KNOWING THAT THIS WILL  
20 EXCEED OUR BUDGET. THE ISSUE, WE'VE HAD THE DEBATE  
21 BACK AND FORTH. I DON'T THINK WE NEED TO  
22 RECAPITULATE IT, AND MAYBE WE CAN GET THROUGH THIS  
23 AND BE DONE. I MAKE MY ORIGINAL MOTION IF THERE'S A  
24 SECOND.

25 DR. PIZZO: SECOND.

**BARRISTERS' REPORTING SERVICE**

1 DR. HAWGOOD: JUST BEFORE WE DO THAT,  
2 COULD WE CHECK WHETHER THERE ARE OTHER GRANTS, SO WE  
3 DON'T ITERATE THIS?

4 CHAIRMAN THOMAS: YES. VERY GOOD. MR.  
5 SHEEHY, CAN YOU HOLD OFF ON YOUR MOTION?

6 MR. SHEEHY: I WAS HOPING THAT WOULD BE  
7 PART OF IT, SO I THANK DR. HAWGOOD FOR SUGGESTING  
8 IT.

9 CHAIRMAN THOMAS: ARE THERE OTHER  
10 PROPOSALS THAT ARE RECOMMENDED TO BE FUNDED IN TIER  
11 III AND MOVED TO TIER I?

12 DR. LUBIN: CAN YOU MAKE THAT BY SAYING  
13 YOU'D LIKE TO HEAR MORE ON THE SCIENTIFIC REVIEW, OR  
14 DO YOU HAVE TO SAY YOU WANT TO MOVE IT TO TIER I?

15 CHAIRMAN THOMAS: YOU WOULD MOVE A  
16 SPECIFIC ONE, AND THEN WE WOULD HAVE A SCIENTIFIC  
17 DESCRIPTION OF THE PROJECT FOR WHATEVER WAS  
18 RECOMMENDED.

19 DR. PULIAFITO: POINT OF INFORMATION.  
20 WHERE DO THE EXTRAORDINARY PETITIONS COME IN IN THIS  
21 THING?

22 CHAIRMAN THOMAS: NORMALLY THEY WOULD BE  
23 GIVEN WITH ANY PROJECT THAT WAS RECOMMENDED TO BE  
24 MOVED FROM TIER III TO TIER I. IF NONE ARE  
25 RECOMMENDED THAT ARE THE SUBJECT OF EXTRAORDINARY

**BARRISTERS' REPORTING SERVICE**

1 PETITIONS, THEY WOULD BE PRESENTED, IF SO CHOSEN, IN  
2 PUBLIC COMMENT.

3 MR. HARRISON: DR. PULIAFITO, THE BOARD'S  
4 POLICY IS THAT IT DOES NOT AUTOMATICALLY ADDRESS  
5 EXTRAORDINARY PETITIONS. THEY'RE ONLY DISCUSSED  
6 UPON REQUEST BY A MEMBER OF THE BOARD.

7 CHAIRMAN THOMAS: BUT THEY ARE FREE TO BE  
8 DISCUSSED BY THE PETITIONER IN PUBLIC COMMENT.  
9 OKAY. SO --

10 MR. SHESTACK: ARE THERE FOR THE TOP FOUR  
11 OF THE GRANTS OF TIER II, ARE THERE ANY  
12 EXTRAORDINARY PETITIONS? I THINK I SAW ONE, BUT I  
13 HAVE SO MANY COME IN AT THE VERY END THAT I'M NOT  
14 FAMILIAR WITH ALL. THERE ARE THREE. OF 6158, 6277,  
15 6239, AND 5764, THERE ARE THREE EXTRAORDINARY  
16 PETITIONS IN THAT GROUP OF FOUR?

17 MR. TORRES: YES.

18 MR. SHESTACK: WELL, I WOULD LIKE TO KNOW  
19 MORE ABOUT 6239. DO I HAVE TO MAKE A PROPOSAL TO  
20 GET THAT INFORMATION? I'M HAPPY TO MAKE THE MOTION.

21 CHAIRMAN THOMAS: NO. YOU CAN JUST ASK  
22 FOR A STAFF PRESENTATION.

23 DR. STEWARD: JUST POINT OF ORDER  
24 ACTUALLY. WE ARE AT A POINT WHERE WE'RE SUPPOSED TO  
25 BREAK. WE DO HAVE A MOTION ON THE TABLE. WE COULD

**BARRISTERS' REPORTING SERVICE**

1 VOTE ON THAT MOTION, AND THEN CONSIDER THIS OTHER  
2 AFTER THE -- NORMALLY I WOULD SAY LET'S GO AHEAD  
3 BECAUSE OF THE TIMING ISSUE. IT'S SUPPOSED TO BE AT  
4 NOON.

5 MR. SHESTACK: I APOLOGIZE.

6 DR. STEWARD: I WOULD LIKE TO JUST MOVE  
7 THE QUESTION ON THE MOTION THAT IS ON THE FLOOR, AND  
8 THEN WE CAN COME BACK AND CONSIDER THE REST.

9 MR. SHESTACK: THAT WOULD BE FINE.

10 CHAIRMAN THOMAS: OKAY. BEFORE WE VOTE ON  
11 THAT, MARIA AND MR. HARRISON, SINCE WE'RE GETTING  
12 FAIRLY CLOSE TO WRAPPING UP BASIC BIO, IS 12 O'CLOCK  
13 LOCKED IN STONE?

14 MS. BONNEVILLE: WE COULD GO A LITTLE  
15 LONGER.

16 CHAIRMAN THOMAS: I THINK WE'VE GOT SOME  
17 MOMENTUM GOING HERE, AND I'D LIKE TO SEE IF WE CAN  
18 COMPLETE THIS AGENDA ITEM. SO THERE'S A MOTION ON  
19 THE TABLE, MR. SHEEHY, SECONDED BY MR. ROTH. ANY  
20 FURTHER DISCUSSION ON THAT MOTION? COMMENTS FROM  
21 MEMBERS OF THE PUBLIC. HEARING NONE, PLEASE TAKE  
22 THE ROLL, MARIA.

23 DR. PULIAFITO: COULD I REQUEST READING  
24 THE MOTION?

25 MR. HARRISON: THE MOTION IS TO MOVE

**BARRISTERS' REPORTING SERVICE**

1 APPLICATION RB 405764 TO TIER I.  
2 MS. BONNEVILLE: ROBERT PRICE.  
3 DR. PRICE: YES.  
4 MS. BONNEVILLE: DAVID BRENNER.  
5 DR. BRENNER: YES.  
6 MS. BONNEVILLE: JACOB LEVIN.  
7 DR. LEVIN: YES.  
8 MS. BONNEVILLE: ANNE-MARIE DULIEGE.  
9 DR. DULIEGE: YES.  
10 MS. BONNEVILLE: TED Krontiris.  
11 DR. Krontiris: YES.  
12 MS. BONNEVILLE: LEEZA GIBBONS.  
13 MS. GIBBONS: YES.  
14 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM  
15 HAWGOOD.  
16 DR. HAWGOOD: YES.  
17 MS. BONNEVILLE: STEPHEN JUELsgaard.  
18 DR. JUELsgaard: NO.  
19 MS. BONNEVILLE: BERT LUBIN.  
20 DR. LUBIN: YES.  
21 MS. BONNEVILLE: LEON FINE.  
22 DR. FINE: YES.  
23 MS. BONNEVILLE: PHIL PIZZO.  
24 DR. PIZZO: YES.  
25 MS. BONNEVILLE: CARMEN PULIAFITO.

**BARRISTERS' REPORTING SERVICE**

1 DR. PULIAFITO: YES.  
2 MS. BONNEVILLE: ROBERT QUINT.  
3 DR. QUINT: YES.  
4 MS. BONNEVILLE: DUANE ROTH.  
5 MR. ROTH: YES.  
6 MS. BONNEVILLE: JOAN SAMUELSON.  
7 MS. SAMUELSON: YES.  
8 MS. BONNEVILLE: JEFF SHEEHY.  
9 MR. SHEEHY: YES.  
10 MS. BONNEVILLE: JONATHAN SHESTACK.  
11 MR. SHESTACK: YES.  
12 MS. BONNEVILLE: OSWALD STEWARD.  
13 DR. STEWARD: YES.  
14 MS. BONNEVILLE: JONATHAN THOMAS.  
15 CHAIRMAN THOMAS: YES.  
16 MS. BONNEVILLE: ART TORRES.  
17 MR. TORRES: AYE.  
18 MS. BONNEVILLE: KRISTINA VUORI.  
19 DR. VUORI: YES.  
20 MS. BONNEVILLE: JAMES ECONOMOU.  
21 DR. ECONOMOU: YES.  
22 CHAIRMAN THOMAS: THANK YOU. CAN WE NOW  
23 GET A BRIEF SCIENTIFIC PRESENTATION ON THE PROPOSAL  
24 RAISED BY MR. SHESTACK.  
25 DR. YAFFE: THIS IS 6239. THE TITLE IS

**BARRISTERS' REPORTING SERVICE**

1 "GENERATION OF MILS SYNDROME NEURONS TO EXPLORE  
2 THERAPIES FOR MITOCHONDRIAL DNA DISEASE."

3 THE GOAL OF THE RESEARCH DESCRIBED BY THIS  
4 PROPOSAL IS TO DEVELOP A DISEASE-IN-A-DISH MODEL FOR  
5 AN INHERITED MITOCHONDRIAL DISEASE. MATERNALLY  
6 INHERITED LEIGH'S SYNDROME, MILS, CAUSES SEVERE  
7 NEUROLOGICAL DEFECTS IN CHILDREN AND, SIMILAR  
8 MITOCHONDRIAL DISORDERS AFFECT ONE IN 2,000  
9 INDIVIDUALS.

10 THE FIRST SPECIFIC AIM WILL BE TO GENERATE  
11 ADDITIONAL INDUCED PLURIPOTENT STEM CELL LINES AND  
12 APPROPRIATE CONTROLS FROM MILS PATIENTS. SECOND AIM  
13 IS TO CHARACTERIZE BIOENERGETIC PROFILES OF NEURONS  
14 UNDERGOING DIFFERENTIATION FROM PROGENITORS CARRYING  
15 MILS MUTANT MITOCHONDRIA. THIRD SPECIFIC AIM WILL  
16 BE TO TEST POTENTIAL THERAPEUTIC AGENTS AND DEVELOP  
17 NEW APPROACHES FOR DRUG DISCOVERY USING IPS  
18 CELL-DERIVED MILS NEURONS.

19 SO THIS PROJECT ADDRESSES ONE OF A LARGE  
20 FAMILY OF DISEASES KNOWN AS MITOCHONDRIAL DISEASES.  
21 THESE DISEASES AFFECT MITOCHONDRIA, THE POWER PLANTS  
22 OF EVERY CELL, AND ARE PARTICULARLY FOCUSED IN USING  
23 STEM CELLS AS A WAY TO GENERATE NEURONAL POPULATIONS  
24 THAT PRESENT THIS DISEASE.

25 STRENGTHS IDENTIFIED BY THE REVIEWERS



## BARRISTERS' REPORTING SERVICE

1 INCLUDE THE SIGNIFICANCE AND IMPORTANCE OF  
2 DEVELOPING AN EXPERIMENTAL MODEL FOR MITOCHONDRIAL  
3 DISEASE, WELL-REASONED STRATEGIES AND METHODS,  
4 SUBSTANTIAL PRELIMINARY DATA, AND AN OUTSTANDING AND  
5 PROLIFIC INVESTIGATOR.

6 WEAKNESSES INCLUDED SOME CONCERNS ABOUT  
7 ASPECTS OF THE PROJECTS'S FEASIBILITY, CERTAIN  
8 ASPECTS OF EXPERIMENTAL DESIGN, INADEQUATE  
9 DEVELOPMENT OF PART OF THIS STUDY -- THAT PART  
10 SPECIFICALLY RELATES TO AIM 3 -- AND LACK OF  
11 EXPERIENCE OF THE PI AND OTHER KEY PERSONNEL IN  
12 WORKING ON MITOCHONDRIAL DISEASE PARTICULARLY.

13 SO IN SUMMARY, THE REVIEWERS FELT THAT  
14 THIS IS QUITE SOLID SCIENCE, BUT THE PROPOSAL DID  
15 NOT GENERATE AS MUCH ENTHUSIASM AS SOME OF THE  
16 HIGHER SCORING GRANTS, THOUGH THERE WERE NO CRITICAL  
17 FLAWS IDENTIFIED. AN EXTRAORDINARY PETITION WAS  
18 ALSO FILED.

19 MR. SHESTACK: THANK YOU VERY MUCH. DO WE  
20 HAVE MUCH IN OUR PORTFOLIO IN THE BASIC BIO OR ANY  
21 OF THE OTHER GRANTS MECHANISMS ON MITOCHONDRIAL  
22 DISEASE?

23 DR. YAFFE: THERE ARE PERHAPS -- WELL,  
24 ACTUALLY ONE OF THE GRANTS YOU APPROVE SHORTLY, I  
25 EXPECT YOU WILL APPROVE, THAT'S IN TIER I, REFERS TO

**BARRISTERS' REPORTING SERVICE**

1 ENERGY METABOLISM AND MITOCHONDRIA AND AGING CELLS.  
2 WE ALSO HAVE SEVERAL GRANTS DEALING WITH  
3 MITOCHONDRIAL DISEASE THAT WERE IN EARLIER ROUNDS OF  
4 BASIC BIOLOGY.

5 MR. SHESTACK: THANK YOU.

6 DR. VUORI: SO THE EXTRAORDINARY PETITION  
7 APPEARS TO ADDRESS, ACCORDING TO THE COVER LETTER BY  
8 THE APPLICANT, SOME OF THE MAJOR CRITICISM, AND IT'S  
9 A NEW INFORMATION THAT IS PROVIDED HERE. COULD YOU  
10 COMMENT ON THAT?

11 DR. YAFFE: THERE IS NEW INFORMATION.  
12 THERE'S DATA. WE DON'T HAVE THE OPPORTUNITY TO  
13 REVIEW THAT DATA. IT'S UNPUBLISHED, NONREVIEWED  
14 DATA THAT ATTEMPTS TO ADDRESS A SPECIFIC CRITICISM  
15 ABOUT THE LACK OF BIOENERGETIC ANALYSIS AND  
16 DIFFERENCES BETWEEN THE MILS CELLS AND NORMAL CELLS.

17 THE APPLICANT ALSO ADDRESSES IN HIS OR HER  
18 WAY THE OTHER CRITICISMS, MAYBE A DIFFERENCE IN  
19 SCIENTIFIC OPINION REPRESENTED BY THE CRITICISMS OF  
20 THE REVIEWERS.

21 CHAIRMAN THOMAS: DR. LUBIN.

22 DR. LUBIN: DO THEY COMMENT ON THE  
23 FREQUENCY OR THE RARITY OF THESE CONDITIONS? AND DO  
24 THEY HAVE A BANK OF CELLS NOW THAT THEY'VE ALREADY  
25 OBTAINED FROM FAMILIES BECAUSE THESE ARE RARE?

**BARRISTERS' REPORTING SERVICE**

1 DR. YAFFE: THIS IS RARE. THEY HAVE SOME  
2 COLLABORATORS WHO ARE WORKING AT A CENTER FOR  
3 MITOCHONDRIAL DISEASE WHO HAVE INDICATED THE  
4 AVAILABILITY OF CELLS FROM PATIENTS WITH THIS  
5 DISORDER.

6 DR. TROUNSON: I DIDN'T NOTICE THIS  
7 PARTICULARLY IN THE REVIEW, BUT THERE IS A BIT OF A  
8 PROBLEM WITH THESE IPS STUDIES. WHAT HAPPENS A LOT  
9 WITH MITOCHONDRIA, IT'S INHERITED IN A HETEROPLASMIC  
10 WAY. SO UNLESS THE HETEROPLASMIA, WHICH IS THE  
11 PROBLEM, IS ACTUALLY INHERITED, THEN IT'S NOT A  
12 PROBLEM, IF YOU KNOW WHAT I MEAN. IT DOESN'T  
13 CONTINUE. IT'S NOT LIKE A GENOMICS PROBLEM. SO  
14 THERE'S LARGE NUMBERS OF MITOCHONDRIA. AND  
15 FREQUENTLY IN MAKING IPS CELLS YOU LOSE ALL OF THE  
16 ABNORMAL MITOCHONDRIA.

17 SO UNLESS THE STUDIES ACTUALLY PROVE THAT  
18 IT CONTINUES ON WHEN YOU ACTUALLY MAKE THE IPS  
19 CELLS, YOU HAVE A FLAWED STUDY. I ASKED THE  
20 SCIENTIST WHETHER THIS FLAW REALLY HAD BEEN  
21 ADDRESSED, AND IT HASN'T BEEN ADDRESSED. I THINK  
22 IT'S A FATAL FLAW. IF IT DOESN'T GO ACROSS WHEN YOU  
23 MAKE AN IPS CELL, YOU JUST HAVE A NORMAL CELL, NOT A  
24 DISEASE CELL. AND IT'S A HUGE AND IMPORTANT ISSUE  
25 TO ADDRESS. I DON'T THINK IT WAS REALLY PROPERLY

**BARRISTERS' REPORTING SERVICE**

1       ADDRESSED AS FAR AS I COULD TELL.

2                 DR. PIZZO:  THANKS FOR RAISING THAT, ALAN.  
3       ISN'T IT TRUE, THOUGH, FOR EMBRYONIC STEM CELLS AS  
4       WELL?  THIS IS AN ISSUE OF MITOCHONDRIA PASSING.

5                 DR. TROUNSON:  LESS SO.  LESS SO FROM THE  
6       DATA THAT'S BEEN DERIVED.  BASICALLY YOU'RE TAKING A  
7       SOMATIC CELL AND THEN YOU'RE GOING TO REPROGRAM  
8       THAT.  YOU'RE SELECTING A VERY FEW CELLS THAT HAVE  
9       ACTUALLY BEEN REPROGRAMMED.  THE REPROGRAMMED CELLS  
10      TEND TO CONTAIN A SET OF MITOCHONDRIA WHICH IS NOT  
11      ABNORMAL, MUCH MORE SO THAN AN EMBRYONIC STEM CELL,  
12      WHICH WOULD BE DERIVED FROM A MITOCHONDRIAL DISEASE  
13      PATIENT.

14                DR. PIZZO:  IT STILL IS AN ISSUE.

15                DR. TROUNSON:  IT IS STILL AN ISSUE, BUT  
16      THEY DO USE MITOCHONDRIAL TRANSPLANTS, OR THEY'RE  
17      TRYING TO USE MITOCHONDRIAL TRANSPLANTS TO CORRECT  
18      THIS IN EGGS AND EMBRYOS, BUT IT HASN'T WORKED AS  
19      SUCH AT THE MOMENT IN THE HUMAN.  I THINK THIS IS A  
20      REAL PROBLEM IN IPS, A REAL PROBLEM.  AND I THINK TO  
21      A LESSER EXTENT IT REMAINS A PROBLEM IN EMBRYONIC  
22      STEM CELLS.

23                CHAIRMAN THOMAS:  HAVING HEARD THIS  
24      DISCUSSION, DO I HEAR A MOTION TO APPROVE FUNDING  
25      FOR THIS APPLICATION?  HEARING NONE, THANK YOU, DR.

**BARRISTERS' REPORTING SERVICE**

1 YAFFE.

2 WE'LL MOVE ON. ARE THERE ANY OTHER  
3 APPLICATIONS THAT MEMBERS OF THE BOARD WISH TO  
4 ELEVATE FROM TIER III TO TIER I?

5 DR. VUORI: MR. CHAIRMAN, I WOULD LIKE TO  
6 HEAR SCIENCE OFFICER PRESENTATION ON APPLICATION  
7 6277.

8 DR. SCHEINER: I'M ZACH SCHEINER, SCIENCE  
9 OFFICER AT CIRM. THIS IS APPLICATION 6277, ENTITLED  
10 "MODELING ALEXANDER DISEASE USING PATIENT-SPECIFIC  
11 INDUCED PLURIPOTENT STEM CELLS."

12 SO THIS APPLICATION PROPOSES TO GENERATE A  
13 DISEASE-IN-A-DISH MODEL OF ALEXANDER'S DISEASE.  
14 ALEXANDER'S DISEASE IS A RARE GENETIC DISORDER  
15 CAUSED BY MUTATIONS IN A PROTEIN CALLED GFAP. GFAP  
16 IS ONE OF THE MAJOR STRUCTURAL PROTEINS IN  
17 ASTROCYTES, WHICH ARE ONE OF THE THREE MAJOR CELL  
18 TYPES OF THE BRAIN. MUTATIONS IN GFAP CAUSE  
19 ASTROCYTE DYSFUNCTION AND DEATH WHICH LEAD TO  
20 NEURODEGENERATION IN PATIENTS WITH ALEXANDER'S  
21 DISEASE.

22 THE APPLICANT PROPOSES TO GENERATE INDUCED  
23 PLURIPOTENT STEM CELLS FROM ALEXANDER'S DISEASE AND  
24 DIFFERENTIATE THESE CELLS INTO ASTROCYTES. THE  
25 APPLICANT WOULD THEN USE THESE ASTROCYTES TO MODEL

## BARRISTERS' REPORTING SERVICE

1 THE DISEASE, EXPLORE POTENTIAL MOLECULAR MECHANISMS,  
2 AND TEST COMPOUNDS THAT MIGHT IMPROVE DISEASE  
3 PATHOLOGY.

4 SO I'LL BRIEFLY SUMMARIZE THE STRENGTHS  
5 AND WEAKNESSES OF THE PROPOSAL AS IDENTIFIED BY THE  
6 GRANTS WORKING GROUP. THE MAIN STRENGTH IS NOVELTY  
7 AND IMPORTANCE OF STUDYING ASTROCYTES. REVIEWERS  
8 AGREED THAT ASTROCYTE BIOLOGY IS UNDERSTUDIED, AND  
9 THIS PROJECT COULD CONTRIBUTE SIGNIFICANTLY TO THAT  
10 FIELD IF SUCCESSFUL. THE PI WAS ALSO VIEWED AS A  
11 STRENGTH OF THE PROPOSAL.

12 THERE WERE THREE MAIN WEAKNESSES  
13 IDENTIFIED BY REVIEWERS, AND THESE ARE THE FIRST  
14 THREE BULLETS UNDER FEASIBILITY AND EXPERIMENTAL  
15 DESIGN IN THE REVIEW SUMMARY. THE FIRST IS THAT  
16 REVIEWERS, "DID NOT FIND THE PRELIMINARY DATA  
17 CONVINCING THAT ALL TECHNIQUES REQUIRED TO  
18 SUCCESSFULLY EXECUTE THE PROGRAM ARE ESTABLISHED IN  
19 THE PI'S LABORATORY." THE SECOND IS THAT THE  
20 INDEPENDENCE OF THE SPECIFIC AIMS COULD JEOPARDIZE  
21 THE SUCCESS OF THE PROGRAM. IN OTHER WORDS, IF AIM  
22 1 AND 2 DON'T SUCCEED, THE CRITICAL AIM 3 WOULD NOT  
23 EITHER. AND THE THIRD MAJOR WEAKNESS WAS THAT THE  
24 NARROW PATHWAY FOCUS OF THE MECHANISTIC STUDIES WAS  
25 JUDGED TO BE HIGH RISK. REVIEWERS WOULD HAVE LIKED

**BARRISTERS' REPORTING SERVICE**

1 TO SEE WORK PROPOSED ON OTHER SIGNALING PATHWAYS.

2 SO THE REVIEWERS WEIGHED THESE STRENGTHS  
3 AND WEAKNESSES, ULTIMATELY VOTED TO PLACE THIS IN  
4 TIER III, NOT RECOMMENDED FOR FUNDING. AN  
5 EXTRAORDINARY PETITION WAS FILED BY THE APPLICANT ON  
6 AUGUST 31ST. I'D BE HAPPY TO ANSWER QUESTIONS ABOUT  
7 THAT OR THE REVIEW.

8 DR. POMEROY: COULD YOU BRIEFLY SUMMARIZE  
9 THE EXTRAORDINARY PETITION FOR US?

10 DR. SCHEINER: SO THE OPINION OF CIRM --  
11 SO THE PETITION RESPONSE TO THE MAIN CRITICISMS OF  
12 THE REVIEW, CIRM SCIENTIFIC STAFF OPINION IS THAT  
13 THERE ARE NO FATAL FLAWS. THIS APPLICATION WAS  
14 JUDGED TO BE OF A LOWER QUALITY THAN THE ONES ABOVE  
15 IN SCIENTIFIC TERMS.

16 THE EXTRAORDINARY PETITION DOES NOT  
17 CONTAIN NEW INFORMATION THAT WOULD MATERIALLY AFFECT  
18 THE REVIEW, IN THE OPINION OF CIRM STAFF. THE  
19 APPLICANT DOES INDICATE THAT THEY HAVE GENERATED NEW  
20 DATA SINCE THE TIME OF THE GRANT SUBMISSION, BUT  
21 IT'S JUST A DESCRIPTION OF THE DATA, AND IT DOESN'T  
22 FULLY SATISFY THE REVIEWER CRITIQUES OF THE  
23 PRELIMINARY DATA. I COULD GO INTO MORE DETAIL, BUT  
24 THAT WOULD PROBABLY BE CONFIDENTIAL, PROPRIETARY.

25 CHAIRMAN THOMAS: DR. VUORI.

**BARRISTERS' REPORTING SERVICE**

1 DR. VUORI: I WAS STRUCK BY THE NOTION  
2 THAT THERE IS NO REAL PORTFOLIO WITHIN CIRM FOCUSING  
3 ON ASTROCYTES. COULD YOU COMMENT ON THAT A LITTLE  
4 BIT?

5 DR. SCHEINER: SO TO DATE I DON'T THINK WE  
6 HAVE ANY BASIC RESEARCH PROPOSALS IN ASTROCYTE  
7 BIOLOGY. THERE IS ONE OTHER PROPOSAL IN THIS ROUND  
8 THAT IS RECOMMENDED FOR FUNDING. SEE IF I CAN MOVE  
9 DOWN THE -- I THINK I JUST MOVED TOO FAR DOWN. BUT  
10 IT IS 6041 HERE, SCORE OF 68, RECOMMENDED FOR  
11 FUNDING. SO THERE IS ONE RECOMMENDED IN THIS ROUND,  
12 BUT BESIDES THAT ONE, WE DO NOT HAVE IT REPRESENTED  
13 IN OUR PORTFOLIO.

14 THERE'S ALSO -- I'M SORRY -- ALSO A  
15 TRANSLATIONAL GRANT THAT I WASN'T AWARE OF.

16 CHAIRMAN THOMAS: HAVING HEARD ALL THIS  
17 DISCUSSION, IS THERE A MOTION TO ELEVATE FROM TIER  
18 III TO TIER I? WE HAVE A MEMBER OF THE PUBLIC THAT  
19 WOULD LIKE TO COMMENT? MR. HARRISON, IS THIS  
20 APPROPRIATE FOR PUBLIC COMMENT AT THIS POINT? YES,  
21 PLEASE. STATE YOUR NAME. THREE MINUTES, PLEASE.

22 DR. SHI: MR. CHAIRMAN, MEMBERS OF THE  
23 BOARD, I AM YANHONG SHI, ASSOCIATE PROFESSOR FROM  
24 CITY OF HOPE. I AM HERE TO ASK YOU TO CONSIDER  
25 FUNDING MY APPLICATION RB 406277, MODELING ALEXANDER



**BARRISTERS' REPORTING SERVICE**

1 DISEASE USING PATIENT-SPECIFIC INDUCED PLURIPOTENT  
2 STEM CELLS, ALSO CALLED IPSC'S.

3 AS WE JUST HEARD, THIS PROPOSAL RECEIVED A  
4 SCORE OF 70, ONLY ONE POINT BELOW THE 71 WHICH WAS  
5 PROPOSED FOR FUNDING, AND SIX POINTS ABOVE THE  
6 LOWEST SCORE RECOMMENDED FOR FUNDING.

7 I SPEAK HERE ON BEHALF OF CHILDREN WHO  
8 SUFFER FROM ALEXANDER DISEASE, A NEUROLOGICAL  
9 DISORDER THAT DESTROYS THEIR LIVES AND CAUSES A HUGE  
10 TOLL BOTH ON THEIR FAMILIES AND ON SOCIETY. THIS  
11 DISEASE OCCURS IN MANY ETHNIC AND RACIAL GROUPS WITH  
12 ABOUT 12 PERCENT OF U.S. CASES HERE IN CALIFORNIA.  
13 IT PRIMARILY AFFECTS ASTROCYTES, THE LONG NEURONAL  
14 CELLS IN THE BRAIN THAT'S EXTREMELY UNDERSTUDIED.

15 THE MOST COMMON FORM OF THE DISEASE OCCURS  
16 IN THE FIRST TWO YEARS OF LIFE. PATIENTS USUALLY  
17 DIE BY THE AGE OF SIX. SYMPTOMS INCLUDE MENTAL  
18 RETARDATION, SEIZURES, AND SPASTICITY. TODAY THERE  
19 IS NO CURE OR EVEN A STANDARD TREATMENT FOR THESE  
20 CHILDREN.

21 WE HAVE A PROPOSAL THAT A NEW STEM CELL  
22 APPROACH CAN BE USED TO STUDY AND DEVELOP TREATMENTS  
23 FOR THIS DISEASE. WE WILL MAKE IPSC'S FROM PATIENTS  
24 TO ESTABLISH THE FIRST PATIENT-SPECIFIC CELLULAR  
25 MODEL FOR THIS DISEASE THAT WILL BE USED FOR DRUG

**BARRISTERS' REPORTING SERVICE**

1 DISCOVERY AND THERAPY DEVELOPMENT. OUR FUNDING ON  
2 ALEXANDER DISEASE WILL ALSO BENEFIT MANY OTHER  
3 NEUROLOGICAL CONDITIONS THAT INVOLVE ASTROCYTE  
4 DYSFUNCTION, INCLUDING ALZHEIMER'S, PARKINSON'S, AND  
5 HUNTINGTON'S DISEASE, MS, AND ALS.

6 MY SCIENTIFIC REBUTTAL TO THE REVIEWERS'  
7 COMMENTS IS DETAILED IN THE PETITION LETTER THAT'S  
8 IN FRONT OF YOU. I JUST WANTED TO POINT OUT THAT WE  
9 HAVE ESTABLISHED KEY TECHNIQUES REQUIRED FOR THIS  
10 PROJECT, ASSEMBLED A TEAM OF INTERNATIONALLY  
11 RENOWNED STEM CELL SCIENTIST, AND GENERATED  
12 SUFFICIENT DATA TO WARRANT SUCCESS OF THIS PROJECT.

13 IN SUPPORT OF MY PETITION, THREE LETTERS  
14 HAVE BEEN SENT TO YOU, TWO FROM PATIENT ADVOCACY  
15 GROUPS AND A THIRD LETTER FROM A PHYSICIAN WHO TAKES  
16 CARE OF THESE PATIENTS. THEY BELIEVE THAT OUR  
17 PROPOSED STUDY IS THE ONLY PRACTICAL WAY TO  
18 INVESTIGATE THE PATHOLOGY OF ALEXANDER DISEASE AND  
19 BEST CHANCE TO TREAT IT. WE HOPE THAT THROUGH OUR  
20 RESEARCH THESE CHILDREN CAN BE SAVED TO LIVE A  
21 NORMAL AND FULFILLING LIFE. THANK YOU FOR YOUR  
22 ATTENTION. ON BEHALF OF CHILDREN WITH ALEXANDER  
23 DISEASE AND OTHER RELATED DISEASES, I HOPE YOU WILL  
24 APPROVE OUR PROPOSAL FOR FUNDING.

25 CHAIRMAN THOMAS: THANK YOU, DOCTOR.

## BARRISTERS' REPORTING SERVICE

1 MS. SAMUELSON: MR. CHAIRMAN, I'VE BEEN  
2 LOOKING A LITTLE TOO LATE, I REALIZE, AT THE SUMMARY  
3 AND SEEING THAT THERE ARE IMPLICATIONS FOR OTHER  
4 DEGENERATIVE DISEASES, AS THE SPEAKER SAID, AND THAT  
5 IT'S NOT ONLY HIGH RISK, IT'S HIGH RETURN, THAT THE  
6 PROJECT COULD YIELD IMPORTANT RESULTS THAT WILL  
7 CONTRIBUTE TO THE FIELD, AND THAT WAS AGREED TO BY  
8 ALL REVIEWERS. SO IT SEEMS TO ME IT FALLS INTO THAT  
9 CATEGORY OF BASIC BIOLOGY THAT REALLY COULD BE  
10 FUELING THE TRANSLATIONAL EFFORTS AT THE SAME TIME.  
11 SO I WOULD MOVE ITS FUNDING.

12 CHAIRMAN THOMAS: MOVED BY JOAN TO FUND  
13 THIS. IS THERE A SECOND?

14 DR. VUORI: I'LL SECOND.

15 CHAIRMAN THOMAS: DR. VUORI. FURTHER  
16 DISCUSSION BY MEMBERS OF THE BOARD? JOAN, EVERYBODY  
17 DIDN'T HEAR, HER KEY POINT WAS THAT THIS IS  
18 APPLICABLE TO A VARIETY OF CONDITIONS AND COULD  
19 POTENTIALLY ADVANCE THE BALL ON MULTIPLE FRONTS, AND  
20 IT IS HIGH RISK, HIGH REWARD, I THINK WHAT YOU WERE  
21 SAYING.

22 MS. SAMUELSON: BASIC BIOLOGY IN A  
23 TRANSLATIONAL CONTEXT. THAT'S IMPORTANT.

24 DR. PIZZO: I WONDER IS IT POSSIBLE TO  
25 HAVE THE QUESTION THAT ALAN RAISED, WHICH IS WITH

**BARRISTERS' REPORTING SERVICE**

1 REGARD TO THE WHOLE -- WELL, NO. I'LL WITHDRAW.

2 CHAIRMAN THOMAS: OTHER COMMENTS BY  
3 MEMBERS OF THE BOARD?

4 DR. DULIEGE: AT THIS POINT ARE WE  
5 CONSIDERING THIS MOTION PURELY ON THE SCIENTIFIC  
6 MERIT AND IGNORING THE FINANCIAL IMPACT OF IT ON THE  
7 BUDGET?

8 CHAIRMAN THOMAS: YES.

9 DR. DULIEGE: OKAY. THANK YOU.

10 CHAIRMAN THOMAS: ANY FURTHER DISCUSSION?  
11 MARIA, WILL YOU PLEASE CALL THE ROLL.

12 MS. BONNEVILLE: ROBERT PRICE.

13 DR. PRICE: ABSTAIN.

14 MS. BONNEVILLE: DAVID BRENNER.

15 DR. BRENNER: NO.

16 MS. BONNEVILLE: JACOB LEVIN.

17 DR. LEVIN: YES.

18 MS. BONNEVILLE: ANNE-MARIE DULIEGE.

19 DR. DULIEGE: YES.

20 MS. BONNEVILLE: MARCY FEIT.

21 MS. FEIT: YES.

22 MS. BONNEVILLE: LEEZA GIBBONS.

23 MS. GIBBONS: YES.

24 MS. BONNEVILLE: SAM HAWGOOD.

25 DR. HAWGOOD: NO.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: STEPHEN JUELSGAARD.  
2 SHERRY LANSING. BERT LUBIN.  
3 DR. LUBIN: NO.  
4 MS. BONNEVILLE: LEON FINE.  
5 DR. FINE: NO.  
6 MS. BONNEVILLE: PHIL PIZZO.  
7 DR. PIZZO: YES.  
8 MS. BONNEVILLE: CLAIRE POMEROY.  
9 DR. POMEROY: ABSTAIN.  
10 MS. BONNEVILLE: FRANCISCO PRIETO.  
11 DR. PRIETO: YES.  
12 MS. BONNEVILLE: CARMEN PULIAFITO.  
13 DR. PULIAFITO: NO.  
14 MS. BONNEVILLE: ROBERT QUINT.  
15 DR. QUINT: ABSTAIN.  
16 MS. BONNEVILLE: DUANE ROTH.  
17 MR. ROTH: ABSTAIN.  
18 MS. BONNEVILLE: JOAN SAMUELSON.  
19 MS. SAMUELSON: YES.  
20 MS. BONNEVILLE: JEFF SHEEHY.  
21 MR. SHEEHY: YES.  
22 MS. BONNEVILLE: JONATHAN SHESTACK.  
23 MR. SHESTACK: YES.  
24 MS. BONNEVILLE: OSWALD STEWARD.  
25 DR. STEWARD: NO.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: JONATHAN THOMAS.

2 CHAIRMAN THOMAS: YES.

3 MS. BONNEVILLE: ART TORRES.

4 MR. TORRES: ABSTAIN.

5 MS. BONNEVILLE: KRISTINA VUORI.

6 DR. VUORI: YES.

7 MS. BONNEVILLE: JAMES ECONOMOU.

8 DR. ECONOMOU: NO.

9 CHAIRMAN THOMAS: IT WOULD APPEAR, MR.  
10 HARRISON, THAT THE MOTION PASSES. COULD BE WRONG.

11 DR. PIZZO: YOU SOUND LIKE CNN.

12 MR. HARRISON: THE MOTION CARRIES BY A  
13 VOTE OF 11 YES, SEVEN NO, AND FIVE ABSTENTIONS.

14 DR. PIZZO: NOW YOU'RE PBS.

15 CHAIRMAN THOMAS: THANK YOU. ARE THERE  
16 ANY OTHER PROPOSALS THAT ANYBODY WOULD LIKE TO RAISE  
17 FROM TIER III TO TIER I?

18 DR. LUBIN: SO I WOULD LIKE TO HEAR 06117  
19 DISCUSSED, PLEASE, SCIENTIFICALLY.

20 DR. WHITTLESEA: THANK YOU, MR. CHAIRMAN,  
21 MEMBERS OF THE BOARD. I'M KEVIN WHITTLESEA, SCIENCE  
22 OFFICER AT CIRM. HAPPY TO PRESENT YOU WITH A REVIEW  
23 OF APPLICATION 6117. THIS PROJECT IS ENTITLED "IN  
24 VITRO 3D MODEL OF VASCULAR DISEASES." THIS PROJECT  
25 PROPOSES TO DEVELOP A NEW MODEL OF VASCULAR DISEASES

**BARRISTERS' REPORTING SERVICE**

1 SUCH AS ATHEROSCLEROSIS. PROJECT BUILDS ON PREVIOUS  
2 WORK BY THE APPLICANT WHICH A NOVEL TYPE OF  
3 MULTIPOTENT VASCULAR STEM CELLS, WHICH ARE REFERRED  
4 TO AS A VSC, WAS DISCOVERED USING AN ANIMAL MODEL.

5 THE WORK PROPOSED WILL USE A 3D CULTURE  
6 SYSTEM TO MIMIC FORCES IN BLOOD CIRCULATION TO STUDY  
7 VSC ROLES -- TO STUDY THE VSC'S BIOLOGY AND THE ROLE  
8 THAT THEY MIGHT PLAY IN VASCULAR DISEASE.

9 COUPLE NOTES. BASICALLY THE KEY -- IT WAS  
10 WELL SCORED. IT WAS SCORED AS A 67, NOT RECOMMENDED  
11 FOR FUNDING. THE KEY CRITICISMS BY THE GRANTS  
12 WORKING GROUP WERE IN THE AREA OF FEASIBILITY. I'LL  
13 OUTLINE SOME OF THE POINTS IN EACH OF THE KEY  
14 CATEGORIES.

15 SIGNIFICANCE AND INNOVATION WAS VIEWED AS  
16 HIGHLY SIGNIFICANT IN THAT THEY HAVE THE POTENTIAL  
17 TO CHANGE THE WAY WE UNDERSTAND VASCULAR REMODELING.  
18 THE STUDIES WERE VIEWED AS INNOVATIVE SINCE THEY'RE  
19 STUDYING A NOVEL CELL POPULATION THAT HAVE THE  
20 POTENTIAL TO DIFFERENTIATE INTO MULTIPLE LINEAGES.

21 REGARDING FEASIBILITY AND EXPERIMENTAL  
22 DESIGN, REVIEWERS WERE NOT CONVINCED BY PRELIMINARY  
23 DATA PROVIDED TOWARD THE ABILITY TO ISOLATE THESE  
24 VSC'S FROM HUMAN CELLS. I MENTIONED THEY WERE  
25 DISCOVERED IN AN ANIMAL MODEL. IT'S WHETHER OR NOT

**BARRISTERS' REPORTING SERVICE**

1 THAT'S GOING TO TRANSLATE TO HUMAN TISSUE THAT WAS  
2 AN OUTSTANDING QUESTION.

3 AND ADDITIONAL QUESTIONS LIKE THAT MIGHT  
4 BROACH INTO CONFIDENTIAL INFORMATION, WHICH I'M  
5 PREPARED TO DISCUSS EITHER HERE OR IN CONFIDENTIAL  
6 SESSION.

7 THERE WAS NO EVIDENCE OF THE ABILITY TO  
8 ISOLATE VASCULAR STEM CELLS FROM DISEASED HUMAN  
9 TISSUE. THERE'S ONE OF THE QUESTIONS. PRELIMINARY  
10 DATA WERE PROVIDED SHOWING THE ABILITY TO ISOLATE  
11 FROM HUMAN TISSUE, BUT THERE WAS CONCERN EXPRESSED  
12 THAT ABILITY TO ISOLATE FROM DISEASE TISSUE MIGHT  
13 POSE ADDITIONAL CHALLENGES. AND THAT WAS THE  
14 ABILITY TO COMPARE BOTH NORMAL AND DISEASED TISSUE.  
15 THESE CELLS ISOLATED FROM NORMAL AND DISEASED TISSUE  
16 WAS A PART OF THE APPLICATION. SO THAT WAS  
17 CERTAINLY A CONSIDERATION.

18 AND THE PROPOSED STUDIES -- I MENTIONED  
19 THEY WERE STUDYING FORCES APPLIED RELATED TO THE  
20 VASCULAR SYSTEM AND HOW THOSE AFFECT REMODELING AND  
21 THESE VSC'S. THERE WAS A CUSTOM 3D BIOREACTOR  
22 DESCRIBED IN THE APPLICATION. THERE WAS NO EVIDENCE  
23 PROVIDED THAT THAT BIOREACTOR WAS ACTUALLY  
24 PHYSICALLY DEVELOPED AND IN PLACE, AND THERE WERE  
25 SOME QUESTIONS ABOUT FEASIBILITY IN TERMS OF HOW



**BARRISTERS' REPORTING SERVICE**

1 MUCH EFFORT MIGHT GO INTO THAT SYSTEM AND DEVELOPING  
2 AND CHARACTERIZING THAT BIOREACTOR SYSTEM.

3 THE PI AND RESEARCH TEAM WERE VIEWED AS  
4 HAVING ALL THE EXPERTISE REQUIRED TO CONDUCT THE  
5 PROPOSED STUDIES. THIS WAS VIEWED AS RESPONSIVE TO  
6 THE RFA, STUDYING A MULTIPOTENT HUMAN STEM CELL. AN  
7 EXTRAORDINARY PETITION WAS SUBMITTED REGARDING THIS  
8 APPLICATION. HAPPY TO ANSWER ANY QUESTIONS.

9 DR. LUBIN: CAN YOU COMMENT ON THE  
10 EXTRAORDINARY PETITION?

11 DR. WHITTLESEA: THE EXTRAORDINARY  
12 PETITION DIDN'T PROVIDE ANY NEW ADDITIONAL DATA.  
13 THERE WERE COMMENTS PROVIDED -- THERE WERE SOME  
14 PROGRAMMATIC ARGUMENTS MADE ABOUT A LACK OF  
15 MECHANISTIC STUDIES IN THE CIRM PORTFOLIO RELATED TO  
16 ATHEROSCLEROSIS AND RESTENOSIS. THERE WAS MENTION  
17 MADE, THE CRITICISM I MENTIONED ABOUT WHETHER OR NOT  
18 THE 3D BIOREACTOR HAD BEEN ESTABLISHED AND  
19 DEVELOPED. A CLAIM WAS MADE IN THE EXTRAORDINARY  
20 PETITION THAT IS THE CASE, THAT THE BIOREACTOR IS IN  
21 PLACE. BUT, AGAIN, NO DATA WERE PROVIDED TO  
22 DEMONSTRATE THAT.

23 AND THEN THERE WAS A POINT MADE REGARDING  
24 THE ABILITY TO ISOLATE THESE CELLS FROM HUMAN  
25 PATIENTS. THE EXTRAORDINARY PETITION CLAIMED THAT

**BARRISTERS' REPORTING SERVICE**

1 VSC'S HAD BEEN ISOLATED FROM DISEASED TISSUE -- FROM  
2 NORMAL AND DISEASED TISSUE FROM TEN PATIENTS, BUT WE  
3 DIDN'T SEE ANY DATA THERE.

4 DR. LUBIN: WERE THERE COMMENTS ABOUT THE  
5 PAPER IN *NATURE* DESCRIBING THIS AS A NEW STEM CELL  
6 THAT'S NEVER BEEN IDENTIFIED BEFORE?

7 DR. WHITTLESEA: YES. THAT WAS MENTIONED  
8 IN THE PAPER. THAT WAS REFLECTIVE OF THE ANIMAL  
9 MODEL DATA THAT I DESCRIBED. THERE WAS A  
10 PUBLICATION RECENTLY IN *NATURE COMMUNICATION*  
11 DESCRIBING THESE OBSERVATIONS IN ANIMAL STUDIES.

12 CHAIRMAN THOMAS: THANK YOU, DR.  
13 WHITTLESEA. HAVING HEARD THIS DISCUSSION, IS THERE  
14 A MOTION BY A MEMBER OF THE BOARD TO ELEVATE THIS  
15 FROM TIER III TO TIER I? HEARING NONE, WE HAVE ONE  
16 COMMENT FROM A MEMBER OF THE PUBLIC.

17 DR. LI: HI, EVERYONE. I'M SONG LI,  
18 PROFESSOR OF BIOENGINEERING AT UC BERKELEY, AND THE  
19 PI OF THIS PROPOSAL. I REALLY APPRECIATE THIS  
20 OPPORTUNITY TO SPEAK AND MAKE SOME POINTS.

21 SO, FIRST, I WANT TO SAY THIS PROJECT IS  
22 UNIQUE. IT'S GROUNDBREAKING, NOVEL, AND WILL HAVE  
23 HIGH IMPACT. WE IDENTIFIED THESE NOVEL STEM CELLS,  
24 AS PUBLISHED IN THIS RECENT PAPER, AND THESE CELLS  
25 ARE DORMANT CELLS IN THE BLOOD VESSEL WALL; AND THEN

**BARRISTERS' REPORTING SERVICE**

1 THEY'RE ACTIVATED, THEY CAN DIFFERENTIATE INTO BONE,  
2 CARTILAGE, FAT CELLS, ETC., IN ATHEROSCLEROSIS AND  
3 RESTENOSIS.

4 SO THIS COULD CAUSE HEART ATTACK AND  
5 STROKE THAT WILL AFFECT EVERY ONE OF US IN THE  
6 LIFETIME SOONER OR LATER. IN THE PAST 50 YEARS,  
7 VASCULAR DISEASE IS CONSIDERED THE RESULT FROM  
8 SMOOTH MUSCLE CELL OVERPROLIFERATION. BUT STUDY  
9 REALLY SHOWED THAT STEM CELLS RATHER THAN SMOOTH  
10 MUSCLE CELLS ACCOUNT FOR THIS DISEASE. SO THIS IS A  
11 PARADIGM SHIFT. IN A NEWS ACTUALLY PEOPLE ALSO  
12 NOTED THAT IT'S GROUNDBREAKING, AND IT WAS WIDELY  
13 COVERED BY THE NEWS MEDIA, IT WAS HIGHLIGHTED IN  
14 *NATURE*, AND IT WAS IN THE FRONT PAGE OF *SAV*  
15 *FRANCISCO CHRONICLE*, FOX NEWS, NATIONAL RADIO  
16 STATION, ETC.

17 SO IN ADDITION, WE HAVE THIS TRANSLATIONAL  
18 COMPONENT IN THE SPECIFIC AIM. WHAT WE PROPOSE TO  
19 DO IS DEVELOP HIGH THROUGHPUT SCREENING SYSTEM, THE  
20 PLATFORM WITH A MICROARRAY OF THESE MICROTISSUES FOR  
21 DRUG SCREENING. AND IT COULD LEAD TO THE  
22 IDENTIFICATION OF NEW COMPOUNDS. SO THIS RESEARCH  
23 WILL REALLY OPEN THE DOOR TO A LOT OF POSSIBILITIES  
24 FOR NEW THERAPIES. FOR EXAMPLE, YOU CAN TARGET  
25 THESE STEM CELLS, INSTEAD OF SMOOTH MUSCLE CELLS,

**BARRISTERS' REPORTING SERVICE**

1 FOR THERAPIES. THE DRUG CAN TARGET NOT  
2 PROLIFERATION, BUT ALSO THE DIFFERENTIATION OF THE  
3 CELLS INTO BONE OR CARTILAGE CELLS. THEN WE CAN  
4 PREVENT THE PROGRESSION OF DISEASE, THE HARDENING OF  
5 BLOOD VESSEL, ETC.

6 SO REGARDING THE TECHNICAL ISSUE, I WAS  
7 NOT SURE WHETHER I SHOULD BE INCLUDING ALL THE DATA,  
8 INCLUDING -- IN THIS PETITION, SO I DIDN'T. BUT  
9 ACTUALLY, FOR THE STEM CELLS, WE HAVE ISOLATED ALL  
10 THE CELLS FROM BOTH DISEASE VESSEL. IN A NORMAL  
11 VESSEL THERE'S NO TECHNICAL ISSUE.

12 REGARDING THE BIOREACTOR, WE HAVE ALL THIS  
13 BIOREACTOR THE PAST TEN YEARS IN THE LAB ALREADY.  
14 WE USED THAT AND HAVE A LOT OF PUBLICATION WITH  
15 THAT. WE PROPOSE TO INTEGRATE THIS INTO ARRAY  
16 SYSTEM WITH HUNDREDS OR EVEN THOUSANDS OF ARRAYS OF  
17 MICROTISSUES. THAT'S WHAT WE'RE GOING TO DO.

18 WE HAVE A WORLD CLASS COLLABORATOR, A  
19 CO-PI, ON THE MICROTECHNOLOGY TO MAKE THIS HAPPEN.

20 FINALLY, I WANT TO ASK FOR THE  
21 PROGRAMMATIC CONSIDERATION BECAUSE THIS IS A NEW  
22 AREA, EMERGING AREA, IT HAS NOT BEEN COVERED BY CIRM  
23 IN THE PAST, AND EVEN ATHEROSCLEROSIS, INCLUDING  
24 THIS STEM CELL CONCEPT. IT'S A NEW, EMERGING TOPIC  
25 AND SHOULD BE. HOPEFULLY YOU CAN INCLUDE THIS IN

**BARRISTERS' REPORTING SERVICE**

1 THE CONSIDERATION. THANK YOU.

2 CHAIRMAN THOMAS: THANK YOU, DOCTOR.

3 HAVING HEARD PUBLIC COMMENT, IS THERE A MOTION BY  
4 ANY MEMBER OF THE BOARD TO ELEVATE THIS FROM TIER  
5 III TO TIER I? HEARING NONE, THAT CONCLUDES  
6 DISCUSSION ON THAT TOPIC.

7 ARE THERE ANY OTHER? WE'RE RIGHT AROUND  
8 THE CLUBHOUSE TURN, HOME STRETCH, JUST ABOUT TO  
9 COMPLETE BASIC BIO. ANY OTHER TIER IIIS ANYBODY  
10 WOULD LIKE TO ELEVATE TO TIER I?

11 MR. SHESTACK: I JUST HAVE TWO THINGS I  
12 JUST WOULD ASK -- I'D ASK DR. LUBIN ONE MORE TIME.  
13 I THINK THAT YOU FELT THIS WAS VERY NOVEL,  
14 UNREPRESENTED BY CIRM, AND A CHANCE TO MAKE EXCITING  
15 HEADWAY. SO I JUST WANT TO ASK -- WHEN I ASKED YOU  
16 WHY YOU PULLED THIS OUT --

17 DR. LUBIN: I DIDN'T GET A SENSE FROM  
18 AROUND THIS TABLE THAT PEOPLE WERE GOING TO APPROVE  
19 THIS, SO I DIDN'T SAY I RECOMMEND APPROVAL. I CAN  
20 SAY THAT AND NO ONE CAN SECOND IT, AND THE SAME  
21 EVENT COULD OCCUR. I THINK IT'S HIGHLY VALUABLE AND  
22 IT'S VERY NOVEL, AND WE DON'T HAVE ANYTHING IN OUR  
23 PORTFOLIO ABOUT CORONARY DISEASES OR BLOOD VESSEL  
24 PATHOLOGY AND STEM CELLS. WE HAVE A LOT ABOUT  
25 CARDIAC MUSCLE AND NOTHING ABOUT THIS PATHOLOGY AND

**BARRISTERS' REPORTING SERVICE**

1 NOTHING ABOUT THE OPPORTUNITY TO SCREEN FOR DRUGS  
2 RELATED TO THIS. THAT'S WHY I ASKED TO HAVE THE  
3 DISCUSSION.

4 CHAIRMAN THOMAS: REPEAT THAT.

5 DR. LUBIN: I DIDN'T DO IT BECAUSE I  
6 DIDN'T GET A SENSE LOOKING AROUND MY FRIENDS HERE  
7 THAT ANYONE ELSE WAS GOING TO SAY THEY WERE  
8 INTERESTED, AND I DIDN'T WANT TO BE EMBARRASSED  
9 BEING THE ONLY ONE SAYING LET'S CONSIDER IT. THE  
10 REASON WHY I ASKED IT TO BE DISCUSSED IS I THINK  
11 IT'S HIGHLY IMPORTANT, VERY NOVEL, A GREAT  
12 PUBLICATION IN *NATURE COMMUNICATION* RELATED TO IT,  
13 AND AN AREA WE'RE NOT DOING ANY RESEARCH IN. SO  
14 WHEN WE TALK ABOUT IT AS PART OF OUR PORTFOLIO,  
15 RATHER THAN THE RARE DISEASES, CARDIOVASCULAR  
16 DISEASE IS NOT RARE. AND WE'RE LOOKING AT  
17 REGENERATING CARDIAC MUSCLE, BUT WE'RE REALLY NOT  
18 LOOKING AT THE BLOOD VESSELS THAT OCCLUDE  
19 CIRCULATION AND FLOW AND DAMAGE THE CARDIAC MUSCLE.  
20 THIS IS ONE THAT DOES. SO I WILL RECOMMEND  
21 APPROVAL, MOVING FROM III TO I.

22 MR. SHESTACK: SECOND THAT.

23 DR. TROUNSON: SORRY, CHAIR. I DON'T  
24 THINK THAT'S REALLY CORRECT, WHAT YOU'RE SAYING,  
25 BECAUSE WE HAVE A NUMBER OF STUDIES IN TRANSLATION

**BARRISTERS' REPORTING SERVICE**

1 AT THE VERY LEAST THAT ARE ADDRESSING THESE.

2 DR. LUBIN: I DIDN'T KNOW THAT.

3 DR. TROUNSON: I DON'T THINK IT'S A RARITY  
4 IN OUR PROGRAM AT ALL.

5 DR. LUBIN: THANK YOU FOR THE CORRECTION.

6 CHAIRMAN THOMAS: DID YOU STILL WANT TO  
7 HAVE YOUR MOTION?

8 DR. LUBIN: I WILL MAKE THE MOTION.

9 CHAIRMAN THOMAS: SECONDED BY MR.  
10 SHESTACK. DO YOU HAVE A COMMENT?

11 DR. FINE: HAVING HEARD THAT COMMENT, I  
12 MUST SAY THAT I CONCUR WITH THAT. I THINK IT IS  
13 WORTHY OF RECONSIDERATION.

14 CHAIRMAN THOMAS: OKAY. ANY OTHER  
15 COMMENTS BY MEMBERS OF THE BOARD?

16 MS. FEIT: COULD WE REPEAT THE MOTION IN  
17 FULL, PLEASE?

18 MR. HARRISON: THE MOTION IS TO MOVE  
19 APPLICATION RB 46117 TO TIER I.

20 CHAIRMAN THOMAS: MARCY, DID YOU HAVE A  
21 COMMENT?

22 MS. FEIT: NO. I JUST WANTED TO HAVE A  
23 RESTATEMENT OF THE MOTION.

24 DR. STEWARD: JUST TO SAY THIS IS A REALLY  
25 INTERESTING ROUND. I JUST SAY THAT THERE WERE 64

**BARRISTERS' REPORTING SERVICE**

1 APPLICATIONS REVIEWED, ACTUALLY 357 PREAPPLICATIONS.  
2 THERE WERE A VERY LARGE NUMBER OF MERITORIOUS GRANTS  
3 THAT WE SEE RIGHT AT THE BORDER AND NINE IN THE SAME  
4 RANGE AS THIS ONE. I THINK THAT WHAT THE REVIEWERS  
5 FACED HERE WAS TRYING TO SELECT A GROUP OF GRANTS  
6 THAT WERE THE BEST OF THE BUNCH. AND THEY RANKED  
7 THEM ACCORDINGLY. AND I'M GOING TO VOTE NO ON THIS  
8 BECAUSE REALLY I'M JUST HAVING DIFFICULTY IN NOT  
9 RESPECTING THE RANKINGS THAT THE REVIEWERS PROVIDED  
10 OF THIS VERY EXCELLENT ROUND OF GRANTS.

11 CHAIRMAN THOMAS: THANK YOU, DR. STEWARD.  
12 ANY OTHER COMMENTS BY MEMBERS OF THE BOARD?

13 DR. PIZZO: BUT I THINK, JUST AGAIN, TO  
14 COME BACK TO IT, THAT POINT BEGS THE QUESTION AS TO  
15 WHETHER THE THRESHOLD LEVEL THAT WE'VE SET FOR  
16 FUNDING FOR THIS IS ONE WE WANT TO STAY WITH. THAT  
17 IS -- ULTIMATELY WE'RE FITTING THIS INTO A  
18 SELF-IMPOSED ALLOCATION. I UNDERSTAND HOW IT GOT  
19 THERE, BUT THIS IS AN IMPORTANT AREA, AND WE ARE  
20 GOING TO HAVE CONSEQUENCES FROM THAT.

21 CHAIRMAN THOMAS: ANY OTHER COMMENTS FROM  
22 MEMBERS OF THE BOARD? OKAY. MARIA, PLEASE TAKE THE  
23 ROLL.

24 MS. BONNEVILLE: DAVID BRENNER.

25 DR. BRENNER: NO.



**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: JACOB LEVIN.  
2 DR. LEVIN: NO.  
3 MS. BONNEVILLE: ANNE-MARIE DULIEGE.  
4 DR. DULIEGE: NO.  
5 MS. BONNEVILLE: MARCY FEIT.  
6 MS. FEIT: NO.  
7 MS. BONNEVILLE: TED KRONIRIS.  
8 DR. KRONIRIS: NO.  
9 MS. BONNEVILLE: LEEZA GIBBONS.  
10 MS. GIBBONS: NO.  
11 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM  
12 HAWGOOD.  
13 DR. HAWGOOD: NO.  
14 MS. BONNEVILLE: STEPHEN JUELSGAARD. BERT  
15 LUBIN.  
16 DR. LUBIN: YES.  
17 MS. BONNEVILLE: MICHAEL MARLETTA. LEON  
18 FINE.  
19 DR. FINE: YES.  
20 MS. BONNEVILLE: PHIL PIZZO.  
21 DR. PIZZO: NO.  
22 MS. BONNEVILLE: CLAIRE POMEROY.  
23 DR. POMEROY: NO.  
24 MS. BONNEVILLE: FRANCISCO PRIETO.  
25 DR. PRIETO: YES.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: CARMEN PULIAFITO.  
2 DR. PULIAFITO: NO.  
3 MS. BONNEVILLE: ROBERT QUINT.  
4 DR. QUINT: YES.  
5 MS. BONNEVILLE: DUANE ROTH.  
6 MR. ROTH: NO.  
7 MS. BONNEVILLE: JOAN SAMUELSON.  
8 MS. SAMUELSON: YES.  
9 MS. BONNEVILLE: JEFF SHEEHY.  
10 MR. SHEEHY: YES.  
11 MS. BONNEVILLE: JONATHAN SHESTACK.  
12 MR. SHESTACK: YES.  
13 MS. BONNEVILLE: OSWALD STEWARD.  
14 DR. STEWARD: NO.  
15 MS. BONNEVILLE: JONATHAN THOMAS.  
16 CHAIRMAN THOMAS: NO.  
17 MS. BONNEVILLE: ART TORRES.  
18 MR. TORRES: AYE.  
19 MS. BONNEVILLE: KRISTINA VUORI.  
20 DR. VUORI: NO.  
21 MS. BONNEVILLE: JAMES ECONOMOU.  
22 DR. ECONOMOU: NO.  
23 CHAIRMAN THOMAS: MR. HARRISON, I BELIEVE  
24 THE MOTION FAILED.  
25 MR. HARRISON: YES, THE MOTION FAILS BY A

**BARRISTERS' REPORTING SERVICE**

1 VOTE OF 8 TO 15.

2 CHAIRMAN THOMAS: THANK YOU. ANY OTHER  
3 PROJECTS ANY MEMBER OF THE BOARD WOULD LIKE TO  
4 ELEVATE FROM TIER III TO TIER I? HEARING NONE, DO  
5 WE HAVE ANY REMAINING PUBLIC COMMENT? OKAY.

6 SO HERE'S MY QUESTION. WE HAVE THREE  
7 PUBLIC COMMENTS BETWEEN FINISHING THE ROUND, BUT WE  
8 HAVE THE SPOTLIGHT TO GO. WOULD THE BOARD LIKE TO  
9 FINISH THE PUBLIC COMMENTS SO WE CAN ROUND OUT THIS  
10 BEFORE WE GET -- YES. OKAY. PLEASE PROCEED IN SOME  
11 ORDER OUT THERE. STATE YOUR NAME, THREE MINUTES,  
12 PLEASE.

13 DR. LU: MY NAME IS WANGE LU. I'M  
14 ASSOCIATE PROFESSOR AT THE BROAD CENTER FOR STEM  
15 CELL RESEARCH AT USC, AND I'M A PRINCIPAL  
16 INVESTIGATOR FOR BASIC BIOLOGY GRANT. THE GRANT  
17 NUMBER IS RB 05816.

18 THIS GRANT PROPOSAL AIMED TO ADDRESS THE  
19 ROLES OF A HIGHER ORDER NUCLEAR ARCHITECTURE IN  
20 PLURIPOTENCY AND REPROGRAMMING. AND WE HAVE -- THE  
21 REVIEWERS RAISE SEVERAL QUESTIONS, AND WE HAVE  
22 RESPONSE TO THOSE CRITIQUES. AND IT IS IN THE  
23 EXTRAORDINARY PETITION LETTER IN FRONT OF YOU.

24 I THINK ONE OF THE MAJOR CONCERN IS THE  
25 REVIEWER FELT THAT THE STUDIES OF HIGH ORDER NUCLEAR

**BARRISTERS' REPORTING SERVICE**

1 ARCHITECTURE IS NOT SIGNIFICANT. AND WE BELIEVE  
2 THAT THE REVIEWERS UNDERVALUE THE SIGNIFICANCE OF  
3 THIS STUDIES BECAUSE THE NUCLEAR ARCHITECTURE IS  
4 VERY IMPORTANT FOR PLURIPOTENT STEM CELLS.

5 SO EVEN THOUGH A LOT OF YOU ARE NOT  
6 SCIENTISTS, BUT YOU PROBABLY HAVE HEARD A LOT OF  
7 STUDIES ON EPIGENETICS BECAUSE EPIGENETICS IS VERY  
8 IMPORTANT IN THE STEM CELL RESEARCH BETWEEN -- THE  
9 MAJOR DIFFERENCES BETWEEN PLURIPOTENT STEM CELLS AND  
10 SOMATIC CELLS LIES IN THE DIFFERENCES IN EPIGENOME.  
11 AND YOU HAVE HEARD A LOT OF GRANT FUNDED DNA  
12 METHYLATION OR HISTOMODIFICATION, BUT VERY LITTLE  
13 HAS BEEN DONE TO STUDY THE NUCLEAR ARCHITECTURE.  
14 AND THE NUCLEAR ARCHITECTURE HAS NOT BEEN STUDIED A  
15 LOT BECAUSE OF THE TECHNICAL DIFFICULTY.

16 BUT NOW TECHNOLOGY CALLED CHROMOSOME  
17 CONFIRMATION CAPTURE, IT MADE IT POSSIBLE TO STUDY  
18 THE NUCLEAR ARCHITECTURE IN PLURIPOTENT STEM CELLS.  
19 SO OUR PROPOSAL UTILIZE THE CUTTING-EDGE 3C, 4C  
20 APPROACH TO ADDRESS THE ROLE OF NUCLEAR ARCHITECTURE  
21 IN PLURIPOTENT STEM CELLS AS WELL AS SOMATIC CELL  
22 REPROGRAMMING IPS CELL INDUCTION. SUCH STUDIES ARE  
23 CREATIVE AND INNOVATIVE.

24 SO WE ALL KNOW THAT SOMATIC CELLS AND  
25 PLURIPOTENT STEM CELLS, THEY ARE DIFFERENCE IN THE

**BARRISTERS' REPORTING SERVICE**

1 NUCLEAR ARCHITECTURE. STUDIES HAS BEEN DONE IN  
2 SOMATIC AND NUCLEAR TRANSFER, SUGGESTING THAT THE  
3 NUCLEAR ARCHITECTURE CHANGES SIGNIFICANTLY DURING  
4 VERY SHORT PERIOD OF TIME OF SOMATIC CELL  
5 REPROGRAMMING. SO IN THE PLURIPOTENT STEM CELL,  
6 THERE MUST BE A PLURIPOTENCY-SPECIFIC HIGH ORDER  
7 STRUCTURE, AND SUCH A STRUCTURE MUST BE IMPORTANT  
8 FOR PLURIPOTENT GENE EXPRESSION.

9 SO I THINK IT'S EASY TO UNDERSTAND THAT  
10 NOT ONLY THE 2D STRUCTURE, BUT ALSO 3D STRUCTURE IS  
11 VERY IMPORTANT AS WELL. WHEN YOU FLY INTO SAN  
12 FRANCISCO AND FROM THE AIRPLANE YOU CAN SEE THE  
13 HIGHWAY CONNECT DIFFERENT ISLANDS; BUT IF YOU LOOK  
14 CLOSER, YOU CAN SEE THE HIGHWAY INTERACT WITH THE  
15 LOCAL STREETS AND THE BUILDINGS, TRAFFICS. AND  
16 UNDERSTANDING OF A 3D STRUCTURE WILL BE VERY  
17 IMPORTANT FOR US TO DESIGN A BETTER HIGHWAY TO  
18 IMPROVE THE TRAFFIC AND THE FUNCTION OF THE CITIES.

19 SO IN THE END, I WANT TO SAY THAT OUR  
20 PROPOSAL STUDY IS A PIONEERING EFFORT AND REPRESENT  
21 FUTURE DIRECTION OF STEM CELL BIOLOGY FIELD. AND  
22 SUCH A STUDY WILL SIGNIFICANTLY IMPACT OUR  
23 UNDERSTANDING OF PLURIPOTENT STEM CELLS AS WELL AS  
24 APPLICATION IN THE CELL REPLACEMENT THERAPY.

25 THE CURRENT PORTFOLIO OF FUNDED CIRM

**BARRISTERS' REPORTING SERVICE**

1 GRANTS HAVE NOT COVERED THIS EMERGING RESEARCH AREA,  
2 AND I HOPE THE BOARD WILL CONSIDER OUR APPEAL AND  
3 AWARD FUNDING FOR OUR GRANT PROPOSAL. THANK YOU.

4 CHAIRMAN THOMAS: THANK YOU, DOCTOR.  
5 NEXT, PLEASE.

6 DR. MIKKOLA: I AM HANNA MIKKOLA. I'M THE  
7 PI OF THE GRANT, "MECHANISMS PROTECTING THE  
8 SELF-RENEWAL OF HUMAN HEMATOPOIETIC STEM CELLS." I  
9 BELIEVE THE NUMBER IS 6256.

10 SO MY LONG-STANDING GOAL SINCE MED SCHOOL  
11 STUDENT IN FINLAND HAS BEEN TO IMPROVE THE TREATMENT  
12 FOR LEUKEMIA. A MAJOR CLINICAL ROADBLOCK FOR THIS  
13 IS THE LACK OF SUITABLE BONE MARROW DONORS AND THE  
14 VERY LOW YIELD OF HSC'S IN CORD BLOOD. THE EFFORT  
15 TO EXPAND HEMATOPOIETIC STEM CELLS OR GENERATE THEM  
16 FROM PLURIPOTENT STEM CELLS HAVE ALL FAILED BECAUSE  
17 WE LACK THE UNDERSTANDING OF THE CRITICAL  
18 SELF-RENEWAL MECHANISMS IN HUMAN HEMATOPOIETIC STEM  
19 CELLS.

20 CHALLENGING -- IT'S VERY CHALLENGING TO  
21 STUDY SELF-RENEWAL IN HEMATOPOIETIC STEM CELLS  
22 BECAUSE WE DON'T HAVE GOOD MARKERS FOR HUMAN HSC'S.  
23 WE DON'T HAVE GOOD MODEL SYSTEMS. HOW DO YOU MAKE A  
24 KNOCKOUT FOR HUMAN HEMATOPOIETIC STEM CELL? AND,  
25 THEREFORE, THESE STUDIES HAVE REALLY BEEN LAGGING

## BARRISTERS' REPORTING SERVICE

1 BEHIND.

2 WITH THE HELP OF THE CIRM NEW FACULTY  
3 AWARD THAT WE GOT FOUR AND A HALF YEARS AGO, WE'VE  
4 BEEN ABLE TO EXTEND OUR PREVIOUS MOUSE HEMATOPOIETIC  
5 STEM CELL STUDIES TO HUMAN. WE TOOK THIS TASK. WE  
6 WANT TO WORK ON HUMAN EVEN IF IT'S CHALLENGING  
7 BECAUSE WE BELIEVE THIS IS CRITICAL TO TAKE THIS  
8 TOWARDS THERAPEUTIC APPLICATIONS. FOR EXAMPLE,  
9 WE'VE NOW DEVELOPED A CULTURE SYSTEM WITH A  
10 NICHE-BASED SYSTEM WHERE WE CAN MAINTAIN  
11 HEMATOPOIETIC STEM CELLS IN THE UNDIFFERENTIATED  
12 STATE FOR SEVERAL WEEKS. AND WE ARE ALREADY USING  
13 THIS TECHNOLOGY IN A COLLABORATION IN A CIRM  
14 LEUKEMIA DISEASE TEAM GRANT TO SCREEN FOR NOVEL  
15 LEUKEMIA STEM CELL DRUGS AND THEIR TOXICITY.

16 MOREOVER, WE HAVE NOW IDENTIFIED NEW  
17 SURFACE MARKER WHERE WE CAN VERY SPECIFICALLY  
18 IDENTIFY THE HUMAN HEMATOPOIETIC STEM CELL  
19 THROUGHOUT DEVELOPMENT, ALL NICHES, PLACENTA, FETAL  
20 LIVER, BONE MARROW, SO WE IDENTIFY THE REAL  
21 SELF-RENEWING HSC FROM THE VERY CLOSELY RELATED  
22 DOWNSTREAM PROGENITORS THAT CAN'T SELF-RENEW.

23 MOREOVER, WE'VE SHOWN NOW THAT THIS  
24 MARKER, GPI 80, IS ALSO FUNCTIONALLY REQUIRED FOR  
25 HEMATOPOIETIC STEM CELL SELF-RENEWAL. WITH THESE

## BARRISTERS' REPORTING SERVICE

1 TOOLS WE ARE NOW PROPOSING OUR NEXT PROPOSAL TO  
2 REALLY STUDY THE MECHANISMS, HOW HUMAN HEMATOPOIETIC  
3 STEM CELLS SELF-RENEW. AND WE BELIEVE THAT WE CAN  
4 DIRECTLY APPLY THIS RESEARCH, IT'S ON HUMAN CELLS,  
5 TO TAKE THESE APPROACHES TO TRANSLATIONAL APPROACHES  
6 THAT WE CAN USE TO EXPAND HEMATOPOIETIC STEM CELLS  
7 OR GENERATE THEM FROM PATIENT-SPECIFIC PLURIPOTENT  
8 STEM CELLS.

9 THE REVIEWERS PRAISED THE NOVELTY OF GMI  
10 80 AS A MARKER AND A MOLECULE FOR SELF-RENEWAL, VERY  
11 COMPELLING PRELIMINARY DATA, THE FEASIBLE  
12 EXPERIMENTAL PLAN, AND THE EXPERTISE OF THE PI AND  
13 TEAM. HOWEVER, THERE WERE CONCERNS RAISED. ONE  
14 REVIEWER SUGGESTED THAT THE NEED FOR EXPANSION OF  
15 AUTOLOGOUS HSC'S IS LIMITED, ALTHOUGH ANOTHER  
16 REVIEWER CONSIDERED THIS HSC A KEY CLINICAL PROBLEM.  
17 IF MAJORITY OF PATIENTS ARE STILL WAITING FOR  
18 GRAFTS, HOW CAN THIS NOT BE IMPORTANT?

19 REVIEWERS ALSO EXPRESSED DOUBTS THAT THE  
20 RESULTS OF FETAL LIVER ARE NOT APPLICABLE TO HSC'S.  
21 WE SPECIFICALLY USED FETAL LIVER. THEY'RE THE MOST  
22 HIGHLY SELF-RENEWING HSC'S. THEY EFFICIENTLY GRAFT  
23 BONE MARROW. THEY ARE SUPPORTED BY BONE MARROW  
24 STROMA, SO WE BELIEVE THAT THEY ARE, THEREFORE,  
25 REALLY THE IDEAL CELL TO STUDY SELF-RENEWAL AND THE



**BARRISTERS' REPORTING SERVICE**

1     PROTOTYPE TO BE USED FOR REGENERATIVE MEDICINE  
2     BECAUSE THIS IS THE CELL, THE DEVELOPMENTAL, VERY  
3     CLOSELY RELATED CELL WE WOULD WANT TO GENERATE FROM  
4     PLURIPOTENT STEM CELLS.

5             SO I THANK YOU VERY MUCH FOR YOUR  
6     ATTENTION. SORRY TO KEEP YOU FROM LUNCH. AND I  
7     REALLY HOPE THAT CIRM RECOGNIZE THE VALUE OF  
8     SUPPORTING THE MOMENTUM THAT WE HAVE CREATED SO THAT  
9     WE CAN TAKE THIS BASIC RESEARCH TOWARD CLINICAL  
10    APPLICATION. THANK YOU VERY MUCH.

11            MR. TORRES: I WAS UNCLEAR. DOES THIS  
12    APPLICANT HAVE ANOTHER GRANT IN THE PAST?

13            MS. GIBBONS: FOUR YEARS AGO.

14            DR. OLSON: IT HAS ABOUT SIX MORE MONTHS  
15    TO GO WITHOUT A NO COST EXTENSION, BUT IT WOULD --  
16    SHE CURRENTLY HAS A NEW FACULTY AWARD, YES.

17            MR. TORRES: THANK YOU, DOCTOR.

18            DR. TEITELL: MR. CHAIRMAN, MEMBERS OF THE  
19    BOARD, THANK YOU VERY MUCH FOR ALLOWING ME TO  
20    ADDRESS YOU TODAY. MY NAME IS MIKE TEITELL. I'M A  
21    PATHOLOGIST, A PHYSICIAN, AND A SCIENTIST AT UCLA,  
22    AND THIS BOARD HAS FUNDED ME TWICE BEFORE, FOR WHICH  
23    I THANK YOU.

24            MITOCHONDRIA ARE IMPLICATED IN  
25    PATHOLOGICAL PROCESSES IN NEURODEGENERATIVE

## BARRISTERS' REPORTING SERVICE

1 DISEASES, INCLUDING PARKINSON'S DISEASE, ALZHEIMER'S  
2 DISEASE, AND NEURODEFICIENCY SYNDROMES, MYOPATHIES,  
3 CARDIAC TOXICITY, TO CHEMOTHERAPY. A PATH FORWARD  
4 IN THESE DISEASES REQUIRES A DEEPER UNDERSTANDING OF  
5 THE ROLE OF METABOLISM IN STEM CELL DIFFERENTIATION  
6 AND FUNCTION.

7 WITH PRIOR CIRM FUNDING, BASIC BIOLOGY AND  
8 SEED GRANT FUNDING, OUR LAB HELPED TO PIONEER  
9 STUDIES OF METABOLISM IN PLURIPOTENT STEM CELLS,  
10 ESPECIALLY FOCUSED ON APPLICABLE MITOCHONDRIA. WE  
11 PUBLISHED THAT A SWITCH IN METABOLISM REGULATES THE  
12 DIFFERENTIATION POTENTIAL OF PLURIPOTENT STEM CELLS.  
13 OUR WORK WAS THE SUBJECT OF A COMMENTARY BY DR.  
14 LEWIS CANTLEY OF HARVARD UNIVERSITY, A LEADER IN  
15 METABOLISM IN STEM CELL FIELD. WE WERE INVITED BY  
16 THE EDITOR AT *CELL STEM CELL* TO PROVIDE A REVIEW FOR  
17 THE FIELD THAT IS CURRENTLY PENDING PROCESSING FOR  
18 THE NOVEMBER ISSUE, AND A COMPANION ARTICLE FROM THE  
19 LEADER OF A STEM CELL INSTITUTE IN THE MIDWEST AS A  
20 PERSPECTIVE FOR AN UPCOMING MEETING SUPPORTED BY  
21 CELL AT THE SALK INSTITUTE IN NOVEMBER OF THIS YEAR.

22 OUR CURRENT PROPOSAL IS TO EXPAND UPON  
23 WHAT WE HAVE DONE SO FAR AND TO STUDY HOW  
24 METABOLITES IMPACT THE EXPRESSION OF GENES THAT  
25 CONTROL PLURIPOTENT STEM CELL DIFFERENTIATION.

## BARRISTERS' REPORTING SERVICE

1 CONCERNS RAISED IN THE REVIEW INCLUDED THE  
2 IMPORTANCE OF THE STUDY, WHICH WE RESPECTFULLY  
3 DISAGREE WITH THE REVIEWERS BECAUSE THESE  
4 METABOLITES ARE CO-FACTORS, SUBSTRATES, AND  
5 INHIBITORS FOR ENZYMES THAT REGULATE GENE STRUCTURE  
6 AND EXPRESSION, WHICH CONTROLS DIFFERENTIATION AND  
7 FUNCTION. MANY OF THOSE GRANTS WERE FUNDED BY THIS  
8 BOARD. HOW CAN THIS NOT BE IMPORTANT?

9 IT'S ESPECIALLY IMPORTANT SINCE THERE ARE  
10 DRUGS AND COMPOUNDS THAT EXIST AND THAT WE ARE  
11 DEVELOPING THAT COULD HAVE IMPACT IN DISEASES SUCH  
12 AS ALZHEIMER'S DISEASE AND PARKINSON'S SYNDROME.

13 THERE WAS A CONCERN FOR LACK OF PARALLELS  
14 TO PRIOR STUDIES IN CANCER; BUT IF THERE WERE NO  
15 PARALLELS, THEN THIS KIND OF BIOLOGY WOULD HAVE TO  
16 EXIST UNIQUELY FOR STEM CELLS WITH DIFFERENT ENZYME  
17 FUNCTIONS AND COFACTORS FOR WHICH THERE IS  
18 ABSOLUTELY NO EVIDENCE IN THE LITERATURE AT ANY  
19 LEVEL, AND WE WOULD CONSIDER IT EXTREMELY UNLIKELY.

20 THE CONCERN ALSO EXTENDED TO APPROACH AND  
21 OFF-TARGET EFFECTS, BUT I WOULD COMMENT THAT WITH  
22 CIRM FUNDING, WE HAVE MANAGED TO PUBLISH 18  
23 MANUSCRIPTS, WE HAVE A TRACK RECORD OF CAREFUL  
24 CONTROLS AND VALIDATION AND PROTOCOLS, AND OUR STUDY  
25 DESIGNS DIRECTLY TARGET THE GENES THAT ARE AFFECTED

## BARRISTERS' REPORTING SERVICE

1 TO KNOW HOW METABOLISM CONTROLS THEM.

2 IN SUMMARY, I THANK YOU FOR ALLOWING ME TO  
3 ADDRESS YOU AND ADDRESS THESE ISSUES. AGENTS  
4 ALREADY EXIST AND ARE BEING DEVELOPED BY US AND BY  
5 OTHERS IN CHEMICAL BIOLOGY APPROACHES. WE HAVE A  
6 MANUSCRIPT THAT'S ALMOST ACCEPTED IN PRESS AT  
7 *DEVELOPMENTAL CELL* TO CONTROL MITOCHONDRIA,  
8 METABOLITES, AND THEIR METABOLISM TO IMPROVE STEM  
9 CELL DIFFERENTIATION AND FUNCTION. TO MOVE AHEAD  
10 AGAINST SIGNIFICANT DISEASES SUCH AS PARKINSON'S  
11 DISEASE AND ALZHEIMER'S DISEASE, THE BASIC  
12 UNDERSTANDING OF THE ROLE OF MITOCHONDRIA AND ITS  
13 EFFECTS ON THE GENOME WHICH CONTROLS THE EXPRESSION  
14 OF SURVIVAL GENES MUST BE INCREASED. METABOLITES  
15 ARE DRUGABLE, AND THE WORK HAS CLINICAL SIGNIFICANCE  
16 AND IMPLICATIONS. PLEASE ALLOW OUR WORK TO CONTINUE  
17 TO MOVE AHEAD IN THIS CRITICAL AREA.

18 FINALLY, I'D LIKE TO SAY THAT THE CONCERNS  
19 THAT WERE RAISED BY DR. TROUNSON IN THE OTHER  
20 APPLICATION ARE NOT ISSUES RELATED TO OUR  
21 APPLICATION SINCE WE DON'T LOOK AT HETEROPLASMIA IN  
22 OUR SYSTEM. THANK YOU VERY MUCH.

23 CHAIRMAN THOMAS: WHAT NUMBER APPLICATION  
24 WERE YOU?

25 DR. TITEL: 5746.

**BARRISTERS' REPORTING SERVICE**

1           CHAIRMAN THOMAS: 5746. ALL RIGHT. THAT  
2 CONCLUDES OUR PUBLIC COMMENT. HAVING HEARD THESE  
3 COMMENTS, DO ANY MEMBERS OF THE BOARD WISH TO MAKE A  
4 MOTION TO ELEVATE ANY OF THE DISCUSSED OR ANY OTHER  
5 PROPOSALS FROM TIER III TO TIER I? HEARING NO SUCH  
6 MOTION, THAT CONCLUDES OUR DISCUSSION ON BASIC  
7 BIOLOGY. MR. HARRISON, WHAT IS OUR PROCEDURE AT  
8 THIS POINT?

9           MR. HARRISON: IF I COULD MAKE A  
10 SUGGESTION, GIVEN THE FACT THAT MOST OF THE MEMBERS  
11 WHO WOULD HAVE CONFLICTS WITH RESPECT TO  
12 APPLICATIONS IN TIER I ARE LIKELY ALSO TO HAVE THEM  
13 WITH RESPECT TO APPLICATIONS IN TIER III, IF WE  
14 COULD PROCEED WITH ONE OMNIBUS MOTION TO FUND THOSE  
15 APPLICATIONS IN TIER I AND TO CLOSE FUNDING FOR  
16 THOSE APPLICATIONS IN TIER III, THEN WE COULD HANDLE  
17 IT WITH A SIMPLE, SINGLE MOTION.

18           MR. TORRES: SO MOVED.

19           CHAIRMAN THOMAS: MOVED BY SENATOR TORRES.

20           MS. GIBBONS: SECOND.

21           CHAIRMAN THOMAS: SECONDED BY MS. GIBBONS.  
22 ANY DISCUSSION ON THE MOTION? PLEASE CALL THE ROLL.

23           MR. HARRISON: JUST A REMINDER FOR MEMBERS  
24 TO INDICATE IF THEY HAVE A CONFLICT.

25           MS. BONNEVILLE: ROBERT PRICE.

**BARRISTERS' REPORTING SERVICE**

1 DR. PRICE: YES, EXCEPT FOR THOSE WITH  
2 WHICH I HAVE A CONFLICT.

3 MS. BONNEVILLE: DAVID BRENNER.

4 DR. BRENNER: YES, EXCEPT FOR THOSE WITH  
5 WHICH I HAVE A CONFLICT.

6 MS. BONNEVILLE: JACOB LEVIN.

7 DR. LEVIN: YES, EXCEPT FOR THOSE WITH  
8 WHICH I HAVE A CONFLICT.

9 MS. BONNEVILLE: ANNE-MARIE DULIEGE.

10 DR. DULIEGE: YES.

11 MS. BONNEVILLE: MARCY FEIT.

12 MS. FEIT: YES, EXCEPT FOR THOSE WITH  
13 WHICH I HAVE A CONFLICT.

14 MS. BONNEVILLE: TED Krontiris.

15 DR. Krontiris: YES, EXCEPT FOR THOSE WITH  
16 WHICH I HAVE A CONFLICT.

17 MS. BONNEVILLE: LEEZA GIBBONS.

18 MS. GIBBONS: YES.

19 MS. BONNEVILLE: MICHAEL GOLDBERG. SAM  
20 HAWGOOD.

21 DR. HAWGOOD: YES, EXCEPT FOR THOSE WITH  
22 WHICH I HAVE A CONFLICT.

23 MS. BONNEVILLE: STEPHEN JUELsgaard.

24 SHERRY LANSING. BERT LUBIN.

25 DR. LUBIN: YES.

**BARRISTERS' REPORTING SERVICE**

1 MS. BONNEVILLE: MICHAEL MARLETTA. LEON  
2 FINE.

3 DR. FINE: YES, EXCEPT FOR THOSE WITH  
4 WHICH I HAVE A CONFLICT.

5 MS. BONNEVILLE: PHIL PIZZO.

6 DR. PIZZO: YES, EXCEPT FOR THOSE WITH  
7 WHICH I HAVE A CONFLICT.

8 MS. BONNEVILLE: CLAIRE POMEROY.

9 DR. POMEROY: YES, EXCEPT FOR THOSE WITH  
10 WHICH I HAVE A CONFLICT.

11 MS. BONNEVILLE: FRANCISCO PRIETO.

12 DR. PRIETO: YES, EXCEPT FOR THOSE WITH  
13 WHICH I HAVE A CONFLICT.

14 MS. BONNEVILLE: CARMEN PULIAFITO.

15 DR. PULIAFITO: YES, EXCEPT FOR THOSE WITH  
16 WHICH I HAVE A CONFLICT.

17 MS. BONNEVILLE: ROBERT QUINT.

18 DR. QUINT: YES.

19 MS. BONNEVILLE: DUANE ROTH.

20 MR. ROTH: YES, EXCEPT FOR THOSE WITH  
21 WHICH I HAVE A CONFLICT.

22 MS. BONNEVILLE: JOAN SAMUELSON.

23 MS. SAMUELSON: YES.

24 MS. BONNEVILLE: JEFF SHEEHY.

25 MR. SHEEHY: YES, EXCEPT FOR THOSE WITH

**BARRISTERS' REPORTING SERVICE**

1 WHICH I HAVE A CONFLICT.

2 MS. BONNEVILLE: JONATHAN SHESTACK.

3 MR. SHESTACK: YES.

4 MS. BONNEVILLE: OSWALD STEWARD.

5 DR. STEWARD: YES, EXCEPT FOR THOSE WITH  
6 WHICH I HAVE A CONFLICT.

7 MS. BONNEVILLE: JONATHAN THOMAS.

8 CHAIRMAN THOMAS: YES.

9 MS. BONNEVILLE: ART TORRES.

10 MR. TORRES: AYE.

11 MS. BONNEVILLE: KRISTINA VUORI.

12 DR. VUORI: YES, EXCEPT FOR THOSE WITH  
13 WHICH I HAVE A CONFLICT.

14 MS. BONNEVILLE: JAMES ECONOMOU.

15 DR. ECONOMOU: YES, EXCEPT FOR THOSE WITH  
16 WHICH I HAVE A CONFLICT.

17 CHAIRMAN THOMAS: OKAY. THE OMNIBUS  
18 MOTION PASSES. THAT CONCLUDES OUR DISCUSSION OF  
19 BASIC BIOLOGY. THANK YOU AGAIN TO DR. YAFFE AND ALL  
20 THAT WERE SO INSTRUMENTAL IN WADING THROUGH AN  
21 ENORMOUS NUMBER OF APPLICATIONS, WHITTILING DOWN.  
22 WE'VE PRODUCED, I THINK, A VERY HIGH QUALITY ROUND  
23 OF APPROVED PROJECTS HERE. AND SO TO ALL STAFF  
24 THANK YOU VERY MUCH AGAIN.

25 (APPLAUSE.)



**BARRISTERS' REPORTING SERVICE**

1 DR. YAFFE: I'D LIKE TO DRAW PARTICULAR  
2 ATTENTION TO DR. VESSAL WHO HEADED BASIC BIO IV  
3 ASSISTED BY DR. KELLY SHEPERD.

4 CHAIRMAN THOMAS: THANK YOU.

5 (APPLAUSE.)

6 CHAIRMAN THOMAS: OKAY. HERE'S WHAT WE'RE  
7 GOING TO DO. WE HAVE A SPOTLIGHT THAT HAS SAT HERE  
8 PATIENTLY WAITING FOR US TO FINISH THIS ROUND. IF  
9 EVERYBODY COULD PLEASE GO GRAB YOUR LUNCH AND/OR  
10 VISIT THE RESTROOM. YOU HAVE A CHOICE. PLEASE COME  
11 BACK. WE'D LIKE TO START THE SPOTLIGHT PROMPTLY.  
12 THANK YOU.

13 (A RECESS WAS TAKEN.)

14 CHAIRMAN THOMAS: NOW PROCEEDING TO ITEM  
15 16, CONSIDERATION OF MODIFICATION TO THE  
16 EXTRAORDINARY PETITION POLICY AND ADOPTION OF AN  
17 ADDITIONAL INFORMATION POLICY. MR. HARRISON.

18 MR. HARRISON: THIS IS AGENDA ITEM 16 IN  
19 YOUR BINDERS. YOU HAVE A SUMMARY OF THE PROPOSED  
20 AMENDMENTS TO THE EXTRAORDINARY PETITION POLICY AND  
21 A PROPOSAL RELATING TO THE ADDITIONAL ANALYSIS  
22 OPTION. THERE'S ALSO A FLOWCHART AT THE BACK OF THE  
23 DOCUMENT THAT ATTEMPTS TO DEPICT DUANE ROTH'S  
24 SUGGESTION, THE VARIOUS WAYS IN WHICH CIRM CONSIDERS  
25 INFORMATION SUBMITTED BY APPLICANTS AFTER THE

**BARRISTERS' REPORTING SERVICE**

1 APPLICATION HAS BEEN SUBMITTED.

2 THE BOARD OVER THE YEARS HAS ADOPTED  
3 SEVERAL POLICIES TO ADDRESS CIRCUMSTANCES WHERE THE  
4 APPLICANTS HAVE INFORMATION THAT THEY WISH TO BRING  
5 TO CIRM'S ATTENTION AFTER THEY'VE SUBMITTED THEIR  
6 APPLICATION. WE HAVE WHAT WE CALL A SUPPLEMENTAL  
7 INFORMATION PROCESS WHICH OCCURS DURING THE PEER  
8 REVIEW. WE HAVE OUR EXTRAORDINARY PETITION POLICY,  
9 WHICH, OF COURSE, YOU'RE ALL FAMILIAR WITH, AND WE  
10 HAVE AN ADDITIONAL ANALYSIS OPTION, WHICH WAS A  
11 FORMER POLICY THAT EXPIRED AND WHICH WE'RE BRINGING  
12 BACK TO YOU TODAY FOR PROPOSED ADOPTION.

13 THE PURPOSE OF THE DISCUSSION TODAY IS TO  
14 TRY TO ENSURE THAT THESE THREE DIFFERENT MECHANISMS  
15 ARE INTEGRATED AND EFFECTIVE AND ALSO TO PROVIDE  
16 SOME GUIDELINES BOTH TO APPLICANTS AND TO YOU AS A  
17 BOARD IN CONSIDERING INFORMATION THAT'S SUBMITTED BY  
18 APPLICANTS AFTER THEIR APPLICATION IS SUBMITTED.

19 SO LET ME JUST BRIEFLY DESCRIBE THE  
20 VARIOUS MECHANISMS. THE FIRST, AS I SAID, IS THE  
21 SUPPLEMENTAL INFORMATION PROCESS. AND THIS PROCESS  
22 PROVIDES FOR TWO MECHANISMS TO OBTAIN ADDITIONAL  
23 INFORMATION FROM APPLICANTS BEFORE THE GRANTS  
24 WORKING GROUP MEETS.

25 FIRST, CIRM STAFF AND GWG REVIEWERS ARE

**BARRISTERS' REPORTING SERVICE**

1 ASKED TO IDENTIFY QUESTIONS OR AMBIGUITIES IN  
2 CONNECTION WITH AN APPLICATION PRIOR TO THE PEER  
3 REVIEW MEETING. STAFF THEN SUBMITS THE QUESTIONS TO  
4 THE APPLICANTS, AND THEY PROVIDE RESPONSES SO THAT  
5 THE INFORMATION IS AVAILABLE TO THE PEER REVIEWERS  
6 BEFORE THEY CONSIDER THE APPLICATIONS AT THE GRANTS  
7 WORKING GROUP MEETING.

8 THE SECOND MECHANISM IS TO ADDRESS  
9 QUESTIONS THAT ARISE DURING THE REVIEW. AND WHEN  
10 QUESTIONS ARISE THAT ARE MATERIAL TO THE GRANTS  
11 WORKING GROUP'S CONSIDERATION OF AN APPLICATION,  
12 STAFF, BEFORE THE MEETING, ASKS APPLICANTS TO BE  
13 AVAILABLE BY TELEPHONE IN ORDER TO RESPOND TO  
14 IMPORTANT QUESTIONS. IF THOSE QUESTIONS ARISE,  
15 STAFF CONTACTS THE APPLICANTS AND IN REAL-TIME GETS  
16 A RESPONSE TO THE QUESTIONS THEY HAVE.

17 WHEN THERE IS A QUESTION THAT WOULD  
18 REQUIRE THE SUBMISSION OF ADDITIONAL INFORMATION,  
19 THE GRANTS WORKING GROUP DOES HAVE THE AUTHORITY TO  
20 DEFER CONSIDERATION OF THAT APPLICATION UNTIL THE  
21 APPLICANT HAS HAD AN OPPORTUNITY TO SUBMIT THE  
22 INFORMATION AND THEY, THE GRANTS WORKING GROUP, HAVE  
23 HAD AN OPPORTUNITY TO REVIEW IT.

24 WE ALSO EARLY ON ADOPTED WHAT WE'VE CALLED  
25 AN EXTRAORDINARY PETITION POLICY. AS YOU ALL KNOW,

**BARRISTERS' REPORTING SERVICE**

1 YOU ARE A PUBLIC BOARD, AND ANY MEMBER OF THE  
2 PUBLIC, INCLUDING APPLICANTS, IS FREE TO COMMUNICATE  
3 WITH YOU EITHER ORALLY OR IN WRITING. TO TRY TO  
4 PROVIDE SOME GUIDANCE TO APPLICANTS AND SOME  
5 PARAMETERS TO MAKE THE PROCESS MORE EFFECTIVE, THE  
6 BOARD ADOPTED A FORMAL POLICY ASKING APPLICANTS TO  
7 SUBMIT ANY WRITTEN COMMENTS THEY HAVE WITH RESPECT  
8 TO AN APPLICATION FIVE BUSINESS DAYS PRIOR TO THE  
9 MEETING AT WHICH THE APPLICATION IS CONSIDERED AND  
10 TO LIMIT THEIR WRITTEN COMMENTS TO THREE PAGES.

11 WHEN STAFF RECEIVES A TIMELY FILED  
12 EXTRAORDINARY PETITION, IT GIVES THEM THE  
13 OPPORTUNITY, THEN, TO REVIEW THE INFORMATION AND TO  
14 BE PREPARED TO OFFER YOU A RECOMMENDATION AS TO  
15 WHETHER THE EXTRAORDINARY PETITION RAISES QUESTIONS  
16 THAT WOULD WARRANT ADDITIONAL CONSIDERATION OF THE  
17 APPLICATION.

18 IT'S IMPORTANT TO NOTE, AS I SAID EARLIER,  
19 THAT THE POLICY IS ONLY TO DISCUSS EXTRAORDINARY  
20 PETITIONS IF A BOARD MEMBER WISHES TO RAISE IT. IN  
21 OTHER WORDS, IT DOESN'T AUTOMATICALLY GUARANTEE AN  
22 APPLICANT AN OPPORTUNITY TO HAVE SPECIAL  
23 CONSIDERATION BY THE BOARD. OF COURSE, THE  
24 APPLICANTS ARE FREE TO COME HERE AND MAKE PUBLIC  
25 COMMENT, BUT THERE'S NO SPECIAL PREFERENCE GIVEN TO

**BARRISTERS' REPORTING SERVICE**

1 APPLICANTS WHO SUBMIT AN EXTRAORDINARY PETITION.

2 IT'S ALSO IMPORTANT TO BE CLEAR THAT  
3 EXTRAORDINARY PETITIONS ARE DISTINCT FROM APPEALS.  
4 CIRM HAS A FORMAL APPEALS PROCESS IN THE GRANTS  
5 ADMINISTRATION POLICY, BUT THAT PROCESS IS LIMITED  
6 TO APPEALS ALLEGING A CONFLICT OF INTEREST. SO  
7 EXTRAORDINARY PETITIONS ARE SEPARATE AND DISTINCT  
8 FROM THAT APPEALS PROCESS.

9 THE PROPOSED MODIFICATIONS TO THE  
10 EXTRAORDINARY PETITION POLICY ARE RELATIVELY MODEST,  
11 BUT WE FELT IT WAS IMPORTANT TO MAKE CLEAR BOTH TO  
12 YOU AS A BOARD AS WELL AS TO THE APPLICANTS THAT IF  
13 AN APPLICANT DOES NOT SUBMIT AN EXTRAORDINARY  
14 PETITION WITHIN FIVE BUSINESS DAYS AS THE POLICY  
15 REQUIRES, WE'RE NOT GOING TO LABEL IT AN  
16 EXTRAORDINARY PETITION. WE WILL IDENTIFY IT AS  
17 OTHER CORRESPONDENCE. WE WILL, OF COURSE, PROVIDE  
18 IT TO YOU. AND YOU, OF COURSE, AS MEMBERS OF THE  
19 BOARD, ARE FREE TO RAISE QUESTIONS ABOUT IT.

20 BUT THE IMPLICATION, THE MESSAGE WE HOPE  
21 TO SEND IS THAT IF APPLICANTS DON'T SUBMIT THEIR  
22 COMMENTS IN A TIMELY MANNER, THEN STAFF DOESN'T HAVE  
23 THE OPPORTUNITY TO THOROUGHLY REVIEW THE INFORMATION  
24 AND BE IN A POSITION TO ADVISE YOU AS A BOARD  
25 WHETHER THE INFORMATION PRESENTED WARRANTS ANY

**BARRISTERS' REPORTING SERVICE**

1 SPECIAL CONSIDERATION.

2 SO WE WOULD PROPOSE TO LABEL ANY WRITTEN  
3 COMMENT SUBMITTED BY APPLICANTS AFTER THE FIVE-DAY  
4 DEADLINE AS OTHER CORRESPONDENCE.

5 THE OTHER THING WE WANTED TO MAKE CLEAR TO  
6 APPLICANTS IS THAT THEY SHOULD REFRAIN FROM  
7 PRESENTING NEW INFORMATION IN PUBLIC COMMENTS THAT  
8 THEY HAVE NOT INCLUDED IN THE EXTRAORDINARY PETITION  
9 BECAUSE THAT TOO DEPRIVES STAFF OF AN OPPORTUNITY TO  
10 HAVE THE TIME TO IN ANY WAY ASSESS OR ANALYZE THOSE  
11 COMMENTS.

12 I'D ALSO LIKE TO TALK BRIEFLY ABOUT THE  
13 ADDITIONAL ANALYSIS OPTION. AS I MENTIONED EARLIER,  
14 THE BOARD HAD ADOPTED AN ADDITIONAL ANALYSIS POLICY  
15 ABOUT 24 MONTHS AGO. THE PURPOSE OF THE POLICY WAS  
16 TO PROVIDE A MECHANISM BY WHICH THE BOARD COULD  
17 DEFER CONSIDERATION OF AN APPLICATION WHERE THERE  
18 WAS A MATERIAL DISPUTE OF FACT THAT COULD NOT BE  
19 RESOLVED AT THE BOARD MEETING AT WHICH THE  
20 APPLICATION WAS CONSIDERED. AND THIS AROSE OUT OF A  
21 COUPLE OF INSTANCES IN WHICH THERE WAS A QUESTION  
22 ABOUT THE USE OF A CELL LINE OR THE NUMBER OF CELL  
23 LINES AVAILABLE WHERE THE ANSWER COULD BE OBTAINED,  
24 BUT SIMPLY NOT IN THE TIME AVAILABLE TO THE BOARD.

25 SO RATHER THAN RUSHING TO A DECISION, THE

**BARRISTERS' REPORTING SERVICE**

1 BOARD DECIDED TO ADOPT THIS POLICY TO PROVIDE A  
2 MECHANISM TO CONDITIONALLY DENY AN APPLICATION, BUT  
3 TO REFER IT BACK TO THE CHAIR OF THE GRANTS WORKING  
4 GROUP AND THE REVIEW CHAIR TO ASK THEM WHETHER THE  
5 RESOLUTION OF THAT DISPUTE OF FACT WOULD CHANGE THE  
6 RECOMMENDATION.

7 THAT POLICY EXPIRED BECAUSE THERE WAS A  
8 SUNSET CLAUSE INSERTED IN IT. AT THE LAST MEETING,  
9 AS YOU ALL KNOW, THE BOARD RELIED ON ITS INHERENT  
10 AUTHORITY TO DEFER CONSIDERATION OF AN APPLICATION  
11 AND TO OBTAIN ADDITIONAL ANALYSIS BY REFERRING FIVE  
12 OF THE DISEASE TEAM II APPLICATIONS FOR ADDITIONAL  
13 ANALYSIS.

14 WHAT WE'D LIKE TO DO TODAY IS TO OFFER YOU  
15 A POLICY FOR CONSIDERATION THAT WE HOPE WOULD  
16 PROVIDE GUIDELINES BOTH TO APPLICANTS AS WELL AS TO  
17 YOU AS A BOARD WITH RESPECT TO THE CIRCUMSTANCES  
18 UNDER WHICH IT WOULD BE APPROPRIATE TO UTILIZE THIS  
19 MECHANISM.

20 SO THE PROPOSED POLICY WOULD BE AS  
21 FOLLOWS: FIRST, THE ADDITIONAL ANALYSIS OPTION  
22 SHOULD BE LIMITED TO TWO SETS OF CIRCUMSTANCES.  
23 ONE, WHERE THERE IS A MATERIAL DISPUTE OF FACT OR,  
24 TWO, WHERE THERE IS MATERIAL NEW INFORMATION. AND  
25 WE WOULD SUGGEST THAT A MATERIAL DISPUTE OF FACT

**BARRISTERS' REPORTING SERVICE**

1 WOULD HAVE TO OR SHOULD MEET THE FOLLOWING CRITERIA.  
2 THAT WOULD BE NO. 1, THAT THE APPLICANT DISPUTES THE  
3 ACCURACY OF A STATEMENT IN THE REVIEW SUMMARY, THAT  
4 THE DISPUTED FACT WAS SIGNIFICANT IN THE GRANTS  
5 WORKING GROUP'S SCORING OR RECOMMENDATION; THIRD,  
6 THAT THE DISPUTE RELATES TO AN OBJECTIVELY  
7 VERIFIABLE FACT RATHER THAN A DIFFERENCE OF  
8 SCIENTIFIC OPINION. FOURTH, THAT THE DISCREPANCY  
9 WAS NOT RESOLVED THROUGH THE SUPPLEMENTAL  
10 INFORMATION PROCESS. IN OTHER WORDS, IF THE GRANTS  
11 WORKING GROUP HAD AN OPPORTUNITY TO WEIGH IN ON IT,  
12 WE DON'T WANT THE APPLICANT TO COME BACK TO YOU AND  
13 TAKE A SECOND BITE AT THE APPLE. AND THEN, FINALLY,  
14 THAT THE RESOLUTION OF DISPUTE IS MATERIAL TO YOUR  
15 DETERMINATION ABOUT WHETHER THE APPLICATION SHOULD  
16 BE FUNDED.

17 SO THOSE ARE THE CRITERIA WE WOULD SUGGEST  
18 FOR MATERIAL DISPUTE OF FACT.

19 WITH RESPECT TO MATERIAL NEW INFORMATION,  
20 WE WOULD SUGGEST THE FOLLOWING GUIDELINES: ONE,  
21 THAT THE INFORMATION BE VERIFIABLE THROUGH EXTERNAL  
22 SOURCES; TWO, THAT THE NEW INFORMATION ACTUALLY CAME  
23 ABOUT AFTER THE GRANTS WORKING GROUP'S CONSIDERATION  
24 OF THE APPLICATION; THIRD, THAT THE INFORMATION  
25 RESPONDS DIRECTLY TO A SPECIFIC CRITICISM OR



**BARRISTERS' REPORTING SERVICE**

1 QUESTION IN THE GRANTS WORKING GROUP REVIEW; AND,  
2 FIVE, IN ORDER TO PROVIDE AN OPPORTUNITY FOR STAFF  
3 TO EVALUATE THE INFORMATION, THAT IT BE INCLUDED IN  
4 AN EXTRAORDINARY PETITION THAT'S TIMELY SUBMITTED.  
5 THAT IS, THAT IS SUBMITTED FIVE DAYS BEFORE THE  
6 DEADLINE.

7 SO WHAT DO WE MEAN BY EXTERNALLY  
8 VERIFIABLE INFORMATION? SOME EXAMPLES MIGHT BE  
9 APPROVAL BY THE FDA TO INITIATE A CLINICAL TRIAL, A  
10 DOCUMENTED AND ENFORCEABLE AGREEMENT BETWEEN THE  
11 APPLICANT AND A COMMERCIAL PARTNER, A FINAL COURT  
12 DECISION OR ADMINISTRATIVE ACTION OR A DOCUMENTATION  
13 CONFIRMING THAT A MANUSCRIPT HAS BEEN ACCEPTED FOR  
14 PUBLICATION IN FINAL FORM. INFORMATION SUBMITTED AS  
15 PART OF THE SUPPLEMENTAL INFORMATION PROCESS WOULD  
16 NOT BE CONSIDERED NEW INFORMATION. AND FINALLY, NEW  
17 SCIENTIFIC DATA WOULD NOT BE CONSIDERED NEW  
18 INFORMATION UNLESS IT HAS BEEN PEER REVIEWED AND  
19 PUBLISHED.

20 WITH RESPECT TO THE PROCESS FOR THE  
21 ADDITIONAL ANALYSIS, SIMILAR TO THE WAY THE  
22 ADDITIONAL ANALYSIS WAS HANDLED WITH RESPECT TO THE  
23 DISEASE TEAM II APPLICATIONS, WE RECOMMEND THAT IT  
24 BE CONDUCTED BY THE GRANTS WORKING GROUP REVIEW  
25 CHAIR, A PATIENT ADVOCATE MEMBER OF THE GRANTS

## BARRISTERS' REPORTING SERVICE

1 WORKING GROUP, AND A SCIENTIFIC MEMBER OF THE PEER  
2 REVIEW PANEL THAT EXAMINED THE APPLICATION. THE  
3 REVIEW SHOULD BE LIMITED SPECIFICALLY TO THE  
4 MATERIAL DISPUTE OF FACT OR THE MATERIAL NEW  
5 INFORMATION IDENTIFIED BY THE BOARD. AND THE CHARGE  
6 OF THIS SUBSET OF THE GRANTS WORKING GROUP WOULD BE  
7 TO RECOMMEND WHETHER RESOLUTION OF THE FACTUAL  
8 DISPUTE OR CONSIDERATION OF THE NEW INFORMATION IN  
9 THEIR VIEW WARRANTS A CHANGE IN THE GRANTS WORKING  
10 GROUP'S FUNDING RECOMMENDATION. WE WOULD NOT ASK  
11 THEM TO RESCORE THE APPLICATION.

12 SO OUR REQUEST TODAY IS TO ASK FOR A  
13 MOTION TO APPROVE THE MODIFICATIONS TO THE  
14 EXTRAORDINARY PETITION POLICY AND TO ADOPT THE  
15 ADDITIONAL ANALYSIS OPTION AS SET FORTH IN THE  
16 DOCUMENTS WE SUBMITTED TO YOU.

17 DR. PULIAFITO: QUESTION. THE APPLICANTS,  
18 AT WHAT TIME ARE THEY COMMUNICATED WITH ABOUT THE  
19 RESULTS OF THE GRANTS WORKING GROUP REVIEW? AND ARE  
20 THEY TOLD THAT THE GROUP OF RECOMMENDED FUNDING OR  
21 NOT FUNDING?

22 MR. HARRISON: I'LL DEFER TO GIL SAMBRANO  
23 TO ANSWER THAT.

24 DR. SAMBRANO: SO IT'S APPROXIMATELY TWO  
25 WEEKS BEFORE THE SCHEDULED BOARD MEETING THAT

## BARRISTERS' REPORTING SERVICE

1 APPLICANTS RECEIVE BY E-MAIL THE REVIEW SUMMARY AND  
2 THEN INSTRUCTIONS AND GUIDELINES ON HOW TO APPEAL OR  
3 SUBMIT.

4 DR. PULIAFITO: BUT DOES THE REVIEW  
5 SUMMARY SAY YOU'RE IN THE FIRST TIER. THE GRANTS  
6 WORKING GROUP RECOMMENDED FUNDING, OR YOU'RE --

7 DR. SAMBRANO: YES. IT PROVIDES THE SCORE  
8 AND IT PROVIDES THE RECOMMENDATION.

9 MR. HARRISON: BY THE WAY, AS GIL  
10 MENTIONED YESTERDAY, I BELIEVE, APPLICANTS ARE ALSO  
11 ADVISED OF THE OPPORTUNITY TO FILE AN EXTRAORDINARY  
12 PETITION AS WELL AS INFORMATION WITH RESPECT TO THE  
13 APPEALS PROCESS IN THE GRANTS ADMINISTRATION POLICY.  
14 SO ALL OF THAT INFORMATION IS PROVIDED TO APPLICANTS  
15 WHEN THEY RECEIVE THE RECOMMENDATION FROM THE GRANTS  
16 WORKING GROUP.

17 DR. PRICE: COULD YOU GO BACK TO THE  
18 PREVIOUS SLIDE? SO I HAVE A QUESTION ABOUT BULLET  
19 2. I DON'T SEE THE RELEVANCE TO THIS CONSIDERATION  
20 OF THE NECESSITY THAT THE DATA BE PEER REVIEWED AND  
21 PUBLISHED. IT SEEMS TO ME THE SIGNIFICANT THING IS  
22 WHETHER THERE IS DATA WHICH SUPPORTS THE ARGUMENT  
23 THAT THE GRANTS WORKING GROUP SAID DIDN'T EXIST. WE  
24 HAVE SCIENTIFIC CAPABILITIES HERE. THE GRANTS  
25 WORKING GROUP HAS THE ABILITY TO EVALUATE THE DATA.

## BARRISTERS' REPORTING SERVICE

1 WHAT IS THE SIGNIFICANCE OF HAVING EXTERNAL PEER  
2 REVIEW AND THE FACT THAT SOMETHING HAS ACTUALLY BEEN  
3 PUBLISHED? THIS IS NOT A TENURE REVIEW. AND SO  
4 WHAT'S IMPORTANT IS WHETHER OR NOT THE DATA EXISTS.

5 AND I THINK WE HAVE THE CAPABILITIES  
6 IN-HOUSE TO MAKE OUR OWN EVALUATION, NOT IN THE  
7 BOARD HERE NECESSARILY, BUT IN THE SCIENTIFIC STAFF  
8 AND IN THE GRANTS WORKING GROUP.

9 MR. HARRISON: I'LL DEFER TO DR. STEWARD  
10 TO ANSWER THAT ONE.

11 DR. STEWARD: FIRST OF ALL, THIS APPLIES  
12 TO INFORMATION THAT COMES IN AFTER THE GRANTS  
13 WORKING GROUP HAS SEEN THE DOCUMENT. SO THIS IS NEW  
14 INFORMATION. AND THE REASON FOR THE PEER REVIEW  
15 PART IS THAT WE GENERALLY DON'T HAVE THE TIME AS A  
16 BOARD TO DRILL DOWN INTO THE SPECIFICS OF THE DATA  
17 IN THE WAY THAT A REAL EXPERT PEER COULD DO. THE  
18 SCIENTIFIC STAFF MAY NOT HAVE THE OPPORTUNITY TO DO  
19 THAT EITHER. AND SO, REALLY, THIS IS JUST A WAY OF  
20 SAYING, YES, THIS HAS BEEN PEER REVIEWED, AND IT IS  
21 CONFIRMED TO BE REASONABLY SOLID SCIENTIFIC DATA.

22 DR. PRICE: BUT THESE EXTRAORDINARY  
23 PETITIONS ARE BEING ANALYZED BY THE STAFF WHEN THEY  
24 MAKE THEIR RECOMMENDATIONS TO US.

25 DR. STEWARD: YES, BUT JUST TO SAY, NOT

**BARRISTERS' REPORTING SERVICE**

1 ALL OF THE SCIENCE THAT WE SUPPORT IS REPRESENTED BY  
2 THE EXPERTISE OF SCIENTIFIC STAFF.

3 DR. TROUNSON: IT'S FREQUENTLY NOT  
4 SUFFICIENT INFORMATION TO MAKE A JUDGMENT ON IT.  
5 YOU REALLY DO NEED THE WHOLE SET OF SEQUENCES,  
6 INCLUDING THE METHODOLOGIES AND THE CONTROLS AND  
7 EVERYTHING ELSE. IT'S RARE THAT YOU DO GET THAT IN  
8 UNPUBLISHED DATA. SO THE PROBLEM IS YOU CAN SAY  
9 THAT PIECE OF DATA EXISTS, BUT IT'S INCREDIBLY  
10 DIFFICULT TO MAKE A JUDGMENT ON THE VALIDITY OF THAT  
11 DATA UNLESS YOU'VE GOT THE WHOLE SET, REALLY THE  
12 WHOLE SET.

13 AND IT BECOMES REALLY A PROBLEM FOR US TO  
14 GUESSTIMATE THE REAL VALUE OF IT; WHEREAS, IF IT'S  
15 BEEN PUBLISHED AND HAS BEEN PEER REVIEWED, YOU MAY  
16 NOT NECESSARILY AGREE WITH THE PEER REVIEW, BUT IT'S  
17 BEEN REVIEWED. AND SO SOMEONE HAS BEEN THROUGH THE  
18 WHOLE DATA SET. SO I THINK YOU COULD FEEL A LITTLE  
19 BIT MORE CONFIDENCE ABOUT THAT DATA THAN IF YOU JUST  
20 RECEIVED A TABLE OR A FIGURE, WHICH IS REALLY  
21 FREQUENTLY WHAT YOU DO GET. AND PUTTING THAT IN  
22 CONTEXT OF THAT IS THIS REAL INFORMATION, OR IS THIS  
23 INFORMATION THAT YOU WOULD MAKE A JUDGMENT ON FOR A  
24 10 OR \$20 MILLION PROJECT. I THINK YOU REALLY NEED  
25 MORE INFORMATION THAN THAT.

**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: MR. SHESTACK. MR. ROTH.

2 MR. SHESTACK: I THINK OUR GRANT REVIEW  
3 PROCESS IS NOT PERFECT, BUT IT IS ALWAYS GETTING  
4 MORE PERFECT AND GETTING REFINED AND GETTING BETTER.  
5 AND I THINK THAT EVEN THOUGH THE EXTRAORDINARY  
6 PETITION PROCESS AND THE ADDITIONAL REVIEW AND  
7 SUPPLEMENTAL DATA PROCESS MIGHT SEEM CHAOTIC, IT  
8 ARRIVED AT A CLOSER, BETTER VERSION OF THE TRUTH  
9 THAN WE HAD BEFORE WE DID IT. SO I APPLAUD  
10 EVERYBODY FOR HAVING SOME FLEXIBILITY ON THAT.

11 I WOULD SUGGEST THAT THIS LANGUAGE WHERE  
12 IT SAYS NEW INFORMATION SHOULD BE VERIFIABLE THROUGH  
13 EXTERNAL SOURCES IS SUFFICIENT. AND I WOULD  
14 CONSIDER STRIKING UNLESS IT HAS BEEN PEER REVIEWED  
15 AND PUBLISHED BECAUSE, FOR INSTANCE, THE AMOUNT OF  
16 TIME BETWEEN WHEN SOMEBODY PUTS IN A GRANT, THE  
17 GRANT IS REVIEWED, AND THEN IT'S DECIDED ON IS OFTEN  
18 STILL LESS THAN THE EIGHT-MONTH PERIOD IT MIGHT TAKE  
19 FOR AN ARTICLE TO GET THROUGH PUBLICATION, TO GET  
20 THROUGH THE PUBLICATION PROCESS.

21 IF YOU'RE DEALING WITH A COMPANY, FOR  
22 INSTANCE, THAT'S DOING DISCOVERY SCIENCE ON A DRUG  
23 OR A COMPOUND, THEY MAY NEVER PUT THAT STUFF THROUGH  
24 A PEER REVIEW JOURNAL. THEY MAY SHARE THAT DATA  
25 WITH YOU, BUT THEY MAY NOT PUT IT THROUGH. AS AN

**BARRISTERS' REPORTING SERVICE**

1 EXAMPLE, THE DECISION ON THE DMD GRANT, IF THIS --  
2 AND I UNDERSTAND PEOPLE HAD SOME OBJECTIONS, BUT  
3 THAT WAS DATA THAT WAS REGULARLY SCHEDULED TO COME  
4 OUT. THERE WAS GOING TO BE A MUSCLE BIOPSY 12  
5 WEEKS, 36 WEEKS, 48 WEEKS, WHATEVER THE THING WAS,  
6 AND NEW DATA WAS COMING OUT. WASN'T GOING TO BE  
7 PEER REVIEWED AND PUBLISHED, BUT IT WAS, IT TURNS  
8 OUT, GERMANE.

9 SO I THINK THAT WE WILL MISS THINGS. IT  
10 IS NOT THAT MANY PEOPLE. I WOULD HOPE THAT PEOPLE,  
11 AFTER THIS ROUND WEREN'T SO GRABBY ABOUT SAYING THEY  
12 HAD REAL SUBSTANTIAL NEW INFORMATION, AND THEY MIGHT  
13 NOT BE. BUT I THINK WE CAN TRUST THE DISCERNMENT OF  
14 THE ADDITIONAL REVIEW GROUP TO FIGURE OUT IF THAT IS  
15 REAL DATA. AND IF WE PUT THIS RESEARCH WERE PEER  
16 REVIEWED AND PUBLISHED, YOU WILL BY DEFINITION MISS  
17 SOME IMPORTANT NEW DATA ONCE IN A WHILE.

18 MR. ROTH: SO I AM THANKFUL TO HAVE THIS  
19 CHART. SO I APPRECIATE THE WORK THAT WENT INTO IT  
20 BECAUSE IT HELPS KEEP IN FRONT OF US OUR PROCESS,  
21 AND IT'S SOMETIMES DIFFICULT TO REMEMBER ALL THE  
22 LITTLE NUANCES WE PUT IN. I AGREE WITH THE LAST  
23 STATEMENT THAT WE HAVE GOTTEN BETTER AND BETTER AT  
24 IT. BUT I BELIEVE, BASED ON THE LAST TWO MEETINGS,  
25 THERE'S A LONG WAY TO GO TO TRY TO BRING WHAT I

**BARRISTERS' REPORTING SERVICE**

1 BELIEVE SHOULD BE A FAIR, UNIVERSALLY FAIR PROCESS  
2 AND A TRANSPARENCY AS MUCH AS WE CAN TO THIS REVIEW  
3 PROCEDURE.

4 AND I'M TALKING ABOUT A COMPREHENSIVE  
5 REVIEW OF WHAT WE'RE DOING AND SEE IF THERE ARE  
6 OTHER WAYS WE COULD, IN FACT, IMPROVE THIS PROCESS  
7 FOR THE BENEFIT OF ALL US, INCLUDING THE PATIENT  
8 GROUPS THAT COME BEFORE US, INCLUDING THE SCIENTISTS  
9 WHO COME BEFORE US, AND OUR DIFFICULT DECISIONS THAT  
10 WE HAVE TO REACH OFTEN IN AN EMOTIONALLY CHARGED  
11 SETTING ABOUT WHAT TO DO.

12 SO MY RECOMMENDATION WOULD BE THAT WE  
13 APPROVE THIS WITH SOME MODIFICATIONS, IF YOU WANT TO  
14 MAKE THOSE, BUT THAT WE ASSIGN A GROUP TO REALLY  
15 TAKE A DEEP DIVE INTO THIS. AND I WOULD EVEN MAKE  
16 SOME SUGGESTIONS OF WHAT THAT GROUP MIGHT LOOK LIKE.  
17 AND COME BACK TO US ALONG WITH THE INSTITUTE OF  
18 MEDICINE REVIEW, WHICH I THINK IS GOING TO BE DONE  
19 BY THE END OF THE YEAR, SO THAT WE CAN THEN HAVE A  
20 MEANINGFUL CONVERSATION ABOUT THIS.

21 SO IF I WERE LOOKING, I'D SAY IT'S TIME  
22 THAT WE REALLY REEVALUATE EVERYTHING WE CAN. SO I'D  
23 LOVE TO SEE SOME LEGAL REPRESENTATION SO WE MAKE  
24 SURE WE'RE FULFILLING THE OBLIGATIONS, AND JAMES  
25 DOES THAT, JEFF AND OS HAVE DONE A GREAT JOB AND



## BARRISTERS' REPORTING SERVICE

1 HAVE SOME EXPERIENCE. I THINK PEOPLE LIKE  
2 ANNE-MARIE WOULD BE GREAT WITH FRESH EYES, NEW EYES  
3 TO COME ON. I THINK BERT AND KRISTINA AND SOME  
4 PEOPLE WHO HAVE HAD SOME EXPERIENCE AND HAVE SOME  
5 GOOD THOUGHTS ON THIS AND AREN'T NECESSARILY THE  
6 PEOPLE THAT WROTE THE PROCESS OR DEVELOPED IT WOULD  
7 BE GOOD TO GET THEM TOGETHER AND MAYBE ONE OR TWO  
8 OUTSIDE PEOPLE, LIKE SOMEBODY FROM JDRF THAT REVIEWS  
9 GRANTS, SO WE GET THEM INVOLVED, AND MAYBE A COMPANY  
10 THAT HAS HAD SOME EXPERIENCE SUBMITTING GRANTS TO US  
11 IN THE FEEDBACK.

12 BUT I THINK IF WE DID THAT AND BROUGHT  
13 THAT BACK, THEN WE COULD HAVE A MEANINGFUL  
14 CONVERSATION ABOUT WHAT PROCEDURES AND POLICIES WE  
15 WANT TO ENACT.

16 DR. PULIAFITO: MY CONCERN IS ABOUT THE  
17 INTEGRITY OF THE PROCESS IN GENERAL. AND I AGREE  
18 WITH DUANE. I THINK THERE NEEDS TO BE REVIEW. I  
19 UNDERSTAND THAT WE ARE THE FINAL AUTHORITY ON MAKING  
20 THESE DECISIONS, BUT I AM QUITE CONCERNED TO SEE AN  
21 INCONSISTENT APPROACH TO THE WAY WE HANDLE  
22 RECOMMENDATIONS THAT DEVIATE FROM THE GRANTS WORKING  
23 GROUP. AND MANY TIMES IT'S ON HOW TIRED THE BOARD  
24 IS, THE ORDER IN WHICH THEY'RE PRESENTED, AND, QUITE  
25 FRANKLY, CLEARLY IN SOME INSTANCES I WOULD AGREE

## BARRISTERS' REPORTING SERVICE

1 WITH SENATOR TORRES, YES, WE'RE NOT A POLITICAL  
2 ORGANIZATION, BUT THERE WAS OBVIOUSLY LOTS OF  
3 LOBBYING BEING DONE BY CERTAIN INDIVIDUALS LOBBYING  
4 THE BOARD DIRECTLY ON THINGS. SO THAT'S NOT THE WAY  
5 WE SHOULD BE DOING THINGS.

6 AND I'M CONCERNED THAT THERE'S GOING TO BE  
7 AN ESCALATION. THERE IS NO REASON -- PEOPLE --  
8 THERE WILL BE MORE LOBBYING, MORE POLITICKING; AND  
9 ON BIG MONEY GRANTS, VIRTUALLY EVERYBODY IS GOING TO  
10 CALL UP THEIR FRIENDS AND TRY TO REOPEN THINGS. AND  
11 WHEN WE REOPEN THINGS, FREQUENTLY WE'RE NOT MAKING  
12 THE RIGHT DECISION. SO I HAVE CONCERNS, AND I SEE  
13 THE OTHER DEANS SHAKING THEIR HEADS ABOUT THIS.

14 MR. SHEEHY: WELL, I ACTUALLY SUPPORT BOTH  
15 WHAT DUANE ROTH HAS SAID AND DR. PULIAFITO. BUT I  
16 REALLY THINK WHAT WE NEED TO DO IS GO BACK AND LOOK  
17 AT THE PROCESS. I THINK THIS IS GOING TO BE AN  
18 INEVITABLE OUTCOME OF OUR BIG MONEY GRANTS IF WE  
19 DON'T -- I TALKED OFFLINE TO A COUPLE OF FOLKS -- DO  
20 SOMETHING LIKE A REVERSE SITE VISIT. WE DON'T HAVE  
21 MORE DIRECT CONTACT. THESE BIG GRANTS ARE TOO  
22 COMPLEX. AND WHEN THE GRANTEES RAISE OBJECTIONS AND  
23 THEY CAN'T GET A REAL-TIME ANSWER FROM THE  
24 REVIEWERS, I THINK THAT SETS US UP FOR THE KINDS OF  
25 MEETINGS WE'VE BEEN HAVING.

**BARRISTERS' REPORTING SERVICE**

1 I THINK IF THOSE CORE SCIENTIFIC ISSUES  
2 THAT PEOPLE ARE DISPUTING CAN BE DEALT WITH IN  
3 REAL-TIME AT THE REVIEW, I THINK THAT WOULD ADDRESS  
4 A LOT OF THAT. I KNOW THAT THAT'S WHAT THE NIH USED  
5 TO DO WITH THEIR BIG GRANTS, AND I THINK IF WE COULD  
6 PERHAPS PULL TOGETHER THE GROUP THAT DUANE ROTH WAS  
7 TALKING ABOUT AND REALLY FIGURE OUT HOW TO DO THIS,  
8 THAT THIS WOULD TAKE CARE OF IT. I WOULD FEEL MORE  
9 CONFIDENT SAYING NO EVEN TO A VERY EMOTIONAL APPEAL,  
10 EVEN TO CERTAIN ARM TWISTING BY CERTAIN INDIVIDUALS,  
11 IF I HAD SAT THERE AND HEARD THE VERY SAME ISSUE  
12 ADDRESSED TO THE REVIEW GROUP AND THE REVIEW GROUP  
13 EXPLAINED WHY THEY DON'T AGREE AND HAVE THE MATTER  
14 SETTLED THERE DEFINITELY RATHER THAN HAVING THE  
15 REVIEW GROUP MAKE THEIR ANALYSIS, YOU GET THE  
16 REBUTTAL FROM THE GRANTEE, AND THEN WE'RE HERE WITH  
17 BOTH THE REVIEWER AND THE REBUTTAL AND THE TWAIN  
18 HAVEN'T MET IN A REALLY TRUE PEER REVIEW FASHION TO  
19 REALLY GET TO THE BOTTOM OF IT.

20 AND I THINK THAT THESE BIG MONEY GRANTS,  
21 YOU HAVE TO. THESE ARE INCREDIBLY COMPLEX GRANTS.

22 MR. TORRES: IT'S MY RECOLLECTION WE'VE  
23 HAD GRANTEES ON THE PHONE, BUT THEY WERE NEVER ASKED  
24 QUESTIONS IN THE WORKING GROUPS.

25 MR. SHEEHY: WE HAVEN'T HAD THEM ON THE

## BARRISTERS' REPORTING SERVICE

1 PHONE, AND I THINK WE'VE HAD THE ABILITY, BUT I  
2 THINK WE SHOULD FORMALIZE THE PROCESS.

3 MR. TORRES: THEN WE SHOULD BEGIN TO ASK  
4 THE REVIEWERS TO CALL THE GRANTEES IF THEY HAVE  
5 PROBLEMS.

6 MR. SHEEHY: I THINK WE SHOULD JUST  
7 PLAN -- I THINK WE SHOULD SAVE THIS FOR THE PROCESS  
8 THAT DUANE HAD RECOMMENDED, BUT I ACTUALLY THINK  
9 THAT THEY SHOULD JUST EXPECT TO DO THIS. WE DO THIS  
10 IN THE CDAP PROCESS. I THINK THAT PEOPLE COME OUT  
11 OF THAT, MAYBE THEY DON'T AGREE, BUT THEY FEEL LIKE  
12 THEY HAD THEIR SAY. I FEEL LIKE THE ISSUES ARE  
13 REALLY PRETTY CHEWED UP BY THE TIME THEY GET THROUGH  
14 HAVING GONE BACK AND FORTH WITH EACH OTHER.

15 DR. SAMBRANO: WELL, SORT OF. I WANT TO  
16 JUST EXPLAIN THAT WE HAVE TO SOME EXTENT FORMALIZED  
17 A PROCESS BY WHICH WE ALLOW REVIEWERS TO ASK  
18 QUESTIONS OF THE APPLICANTS AND THEN PROVIDE AN  
19 OPPORTUNITY FOR THE APPLICANT TO PROVIDE A RESPONSE  
20 THAT WE FORWARD TO REVIEWERS. AND SO THIS HAPPENS A  
21 COUPLE OF WEEKS BEFORE THE REVIEW. AND SO THAT  
22 CERTAINLY ALLOWS TIME FOR ANY KEY ISSUES OR  
23 UNADDRESSED QUESTIONS TO BE ADDRESSED.

24 AND THEN WE ALSO HAVE IMPLEMENTED A  
25 MECHANISM BY WHICH IF A CRITICAL QUESTION ARISES

## BARRISTERS' REPORTING SERVICE

1 DURING THE REVIEW, WE CONTACT THE APPLICANT. BUT,  
2 YOU KNOW, IN ORDER TO DO THAT REAL-TIME QUESTION, IT  
3 HAS TO BE OF A PARTICULAR TYPE. IT HAS TO BE  
4 SOMETHING THAT CAN BE ANSWERED IMMEDIATELY,  
5 BASICALLY A YES-OR-NO ANSWER. THEY CANNOT PROVIDE  
6 DATA IN REAL-TIME TO A QUESTION FROM A REVIEWER THAT  
7 IS ASKING FOR MORE DATA. SO I THINK THERE IS A  
8 PARTICULAR TYPE OF QUESTION THAT CAN BE ADDRESSED  
9 THERE.

10 I THINK THE OTHER THING THAT'S IMPORTANT  
11 TO NOTE IS THAT THE RESPONSES FROM APPLICANTS IN  
12 MOST CASES IN TERMS OF A PETITION IS BECAUSE THEIR  
13 RECOMMENDATION IS NOT TO FUND. SO ONCE THEY GET  
14 THAT RECOMMENDATION, THAT'S REALLY WHAT DRIVES THE  
15 PETITION AND APPEALS. AND IN THE ABSENCE OF THAT,  
16 THEY WON'T DO THAT. SO IF ALL OF THIS HAPPENS  
17 BEFORE A RECOMMENDATION IS REACHED, I DON'T KNOW  
18 THAT THAT'S NECESSARILY GOING TO SOLVE THE ISSUE.

19 DR. POMEROY: I'D FIRST LIKE TO  
20 ACKNOWLEDGE THAT STAFF PUT A LOT OF THOUGHT INTO  
21 THIS AND REACHED OUT TO A LOT OF PEOPLE IN TRYING TO  
22 PERFECT THIS. AND I THINK THAT THE REAL ANXIETY  
23 THAT WE'RE ALL EXPRESSING IS ALL THE WAYS THAT THE  
24 PEER REVIEW PROCESS CAN BE CIRCUMVENTED. BUT I'D  
25 ALSO LIKE TO POINT OUT THAT THE CONSTANTLY SHIFTING

**BARRISTERS' REPORTING SERVICE**

1 SET OF RULES IS ALSO VERY, VERY HARD AND UNFAIR TO  
2 OUR INVESTIGATORS.

3 AND SO IT SEEMS LIKE WHAT WE DO IS WE  
4 TWEAK THIS EACH TIME WE DISCOVER A NEW PROBLEM. AND  
5 SO IF WE ARE GOING TO ASSEMBLE THIS GROUP, IT SHOULD  
6 BE A DEFINITIVE THING THAT WE STICK TO. THERE  
7 PROBABLY ISN'T A PERFECT SOLUTION. I THINK THE MAIN  
8 MESSAGE I TOOK AWAY FROM THIS ONE IS THIS SHOULD NOT  
9 BE USED TO HAVE A SCIENTIFIC DISCOURSE, A DIFFERENCE  
10 OF SCIENTIFIC OPINION. AND THE MAIN MESSAGE OF THIS  
11 WAS DO NOT USE THESE PROCESSES UNLESS YOU HAVE A  
12 MATERIAL FACT THAT YOU CAN PROVE, NOT AN OPINION,  
13 AND GENUINELY NEW DATA.

14 AND I PERSONALLY SUPPORT THAT EMPHASIS,  
15 THAT TAKING TIME TO HAVE A BACK AND FORTH ABOUT  
16 DIFFERENCES OF SCIENTIFIC OPINION IS NOT -- WE'RE  
17 NEVER GOING TO RESOLVE THOSE. SO LET'S AT LEAST  
18 LIMIT THE CONVERSATIONS.

19 CHAIRMAN THOMAS: VERY WELL SPOKEN.

20 DR. TROUNSON: I THINK ONE OF THE REALLY  
21 CRITICAL THINGS IS ARE YOU ACTUALLY PUTTING MONEY  
22 INTO THINGS WHICH ARE REALLY NOT GOING TO BE  
23 EFFECTIVE? IS THAT -- BECAUSE IF YOU'RE PUTTING  
24 MONEY INTO RESEARCH THAT ACTUALLY IS EFFECTIVE, THEN  
25 IT WILL MAKE -- THEN IT'S A GOOD DECISION-MAKING.

**BARRISTERS' REPORTING SERVICE**

1 SO SOME OF THIS YOU CAN'T DECIDE, BUT WE'VE GOT  
2 CAPABILITY OF ANALYZING SOME OF THE DECISIONS THAT  
3 HAVE BEEN MADE, AND WE CAN SEE WHETHER IT FALLS IN  
4 THE AREA THAT WE'D EXPECT.

5 BUT IT IS SOME CONCERN TO ME, AND I'M  
6 EXPRESSING MY VIEW BECAUSE WHEN I HEAR THAT  
7 SOMETIMES THE BOARD SAY THEY DON'T REALLY CARE TOO  
8 MUCH ABOUT WHETHER THAT'S AN IMPORTANT FACT OR  
9 THAT'S IMPORTANT INFORMATION OF SCIENTIFIC  
10 INFORMATION, THAT IS A CONCERN BECAUSE I THINK YOU  
11 MIGHT BE MAKING DECISIONS ON OTHER ASPECTS THAT  
12 MIGHT BE EVEN EMOTIONAL.

13 SO I THINK REALLY PART OF THIS IS TO MAKE  
14 SURE YOU FEEL CONFIDENT THAT WHAT YOU'RE MAKING A  
15 DECISION ON IS REALLY IN THE BEST INTERESTS OF THE  
16 AGENCY GOING FORWARD AND THE DELIVERY OF AN  
17 EMPHATICALLY GOOD PROGRAM. I THINK ON BALANCE IT  
18 PROBABLY IS. SO THERE WOULD BE POSSIBLY AREAS WHERE  
19 IT BECOMES A LITTLE SHAKY. AND WE OUGHT TO HAVE  
20 SOME -- IF YOU'RE GOING TO GO THROUGH THIS REVISION  
21 OF A DISCUSSION OF IT, WE SHOULD HAVE SOME ANALYSIS  
22 OF HOW THE DECISIONS ARE MADE AND WHETHER THE  
23 DECISIONS WERE FORMULATED IN A DIFFERENT WAY, AND IS  
24 THAT OUR EXPERIENCE THAT IT DIDN'T WORK VERY WELL  
25 BECAUSE I THINK YOU NEED SOME FACTS AS WELL.

**BARRISTERS' REPORTING SERVICE**

1 IF YOU ARE GOING TO MAKE DECISIONS ABOUT  
2 SETTING UP A BETTER REVIEW, DO IT ON FACTS OR AS  
3 MANY FACTS AS WE CAN PUT TOGETHER FOR YOU. AND IF  
4 YOU DO THAT, THEN I THINK YOU CAN FEEL, WELL, YOU'RE  
5 PROBABLY DOING AS BEST YOU CAN.

6 I THINK THE PROBLEM ABOUT -- I'VE ACTUALLY  
7 BEEN IN A SITUATION WHERE YOU GET CONFRONTED WITH  
8 THE REVIEWERS AND THE RESEARCH TEAM. AND I'VE SEEN  
9 THE GOOD AND THE BAD OF THAT AS WELL BECAUSE  
10 SOMETIMES THAT DOESN'T WORK OUT VERY WELL AT ALL  
11 EITHER. SO IT DEPENDS ON WHAT SET OF FACTS THAT  
12 YOU'RE SEEKING OUT.

13 I WOULD JUST SAY IF YOU'RE GOING TO  
14 FORMULATE A GROUP TO LOOK AT THIS, LET'S TRY AND  
15 GATHER SOME FACTS FOR YOU THAT WOULD HELP YOU MAKE A  
16 SET OF DECISIONS THAT ARE WORTHWHILE RATHER THAN  
17 JUST GUESSING WHAT MIGHT BE BEST.

18 CHAIRMAN THOMAS: THANK YOU, DR. TROUNSON.  
19 OTHER COMMENTS?

20 DR. STEWARD: SO JUST TO ADD HOPEFULLY ONE  
21 LAST POINT BEFORE WE BRING THIS TO A VOTE. ONE OF  
22 THE OTHER ISSUES, I THINK, THAT WE NEED TO BE  
23 SENSITIVE TO IS THE AMOUNT OF TIME THAT THE  
24 INVESTIGATORS ACTUALLY SPEND PUTTING THESE THINGS  
25 TOGETHER. I THINK THAT MOST OF THE INVESTIGATORS



## BARRISTERS' REPORTING SERVICE

1 DON'T REALLY HAVE ANY CLUE ABOUT WHAT WE CONSIDER TO  
2 BE USEFUL INFORMATION AND NOT. HAVING A BIT OF  
3 GUIDANCE HERE WOULD, I THINK, BE EVEN MORE FAIR TO  
4 THEM. IT WOULD HELP TO GUIDE WHATEVER THEY'RE GOING  
5 TO PUT TOGETHER AND AT LEAST INDICATE THAT WE WOULD  
6 BE WILLING OR NOT WILLING TO CONSIDER THAT  
7 INFORMATION.

8 AT THE END OF THE DAY, THEY'RE STILL FREE  
9 TO SEND IN WHATEVER THEY WANT AND STAND UP HERE AND  
10 SAY WHATEVER THEY WANT AS LONG AS IT'S IN A  
11 THREE-MINUTE AND THREE-PAGE TIME POINT, BUT  
12 GUIDANCE, I THINK, WOULD HELP THEM AS WELL.

13 DR. LEVIN: I CERTAINLY WANT TO STRONGLY  
14 SUPPORT DUANE'S AD HOC COMMITTEE TO LOOK AT THIS  
15 BECAUSE I THINK THIS WHOLE PROCESS IS GETTING  
16 UNWIELDY AND IT'S GROWING OUT OF CONTROL. EACH  
17 ROUND WE HAVE MORE EXTRAORDINARY PETITIONS. AND AS  
18 OS SAID, THE RULES OF THE GAME ARE NOT CLEAR. SOME  
19 PEOPLE ARE EXPERTS AT WRITING EXTRAORDINARY  
20 PETITIONS. SOME PEOPLE STATE THAT THEY DIDN'T EVEN  
21 KNOW IT WAS POSSIBLE UNTIL AFTER HOWEVER LONG. SO  
22 IT'S A VERY UNFAIR PLAYING FIELD IN THAT REGARD.  
23 WHILE IT'S IMPORTANT TO GET A LOT OF INFORMATION,  
24 YOU'RE NEVER GOING TO GET ALL THE INFORMATION THAT  
25 YOU NEED TO MAKE A DECISION, AND WE NEED TO GO BY

## BARRISTERS' REPORTING SERVICE

1 WHAT'S A FAIR WAY TO MAKE DECISIONS.

2 WE'VE, AGAIN, STRAYED TO A PLACE WHERE NO  
3 OTHER MAJOR GRANTING INSTITUTION THAT I KNOW OF  
4 ACCEPTS SCIENTIFIC INFORMATION AFTER THE GRANT  
5 SUBMISSION DEADLINE. SO THIS IS NEW JUST FOR US,  
6 AND WE DO IT AS A MATTER OF COURSE NOW THAT THAT'S  
7 OUT THERE. WE SHOULD PROBABLY REINVESTIGATE ALL OF  
8 THESE ASPECTS OF WHAT WE CONSIDER, AND DO WE TAKE  
9 NEW INFORMATION, HOW ARE WE SWAYED BY THINGS. BUT  
10 UNTIL THAT POINT, I ALSO WOULD LIKE TO JUST SUGGEST  
11 TWO VERY MINOR MODIFICATIONS TO THE WORDING FOR THE  
12 EXTRAORDINARY PETITION.

13 ONE IS I THINK THAT IF WE'RE GOING TO  
14 REQUIRE THAT YOU CAN ONLY HAVE AN EXTRAORDINARY  
15 PETITION LABELED AS SO IF IT COMES IN WITHIN FIVE  
16 DAYS. WE HAVE TO BE VERY CLEAR ABOUT HOW MUCH TIME  
17 THEY'RE GOING TO HAVE TO GET THAT INFORMATION. SO  
18 AT LEAST SAY YOU WILL GET YOUR RESULTS WITHIN FIVE  
19 OR SEVEN BUSINESS DAYS FROM CIRM. YOU WILL GET  
20 REVIEWERS' FEEDBACK AND YOUR FUNDING CATEGORY. I  
21 DON'T THINK THAT THAT'S STATED ANYWHERE, WHEN  
22 THEY'RE GOING TO BE INFORMED. I KNOW GIL SAID THAT  
23 IT'S USUALLY TWO WEEKS BEFOREHAND, BUT WE SHOULD BE  
24 VERY CLEAR ABOUT THAT. IF WE DON'T AT LEAST GIVE  
25 THEM THAT BIG A WINDOW, IT'S NOT FAIR TO ASK THEM TO

**BARRISTERS' REPORTING SERVICE**

1 TURN IT AROUND IN THAT MUCH TIME.

2 AND THE SECOND MODIFICATION I WOULD  
3 SUGGEST IS THAT OTHER CORRESPONDENCE ALSO BE LIMITED  
4 TO THREE PAGES. IT DIDN'T SAY THAT ANYWHERE, AND  
5 THAT WILL SAVE EVERYBODY SOME HEARTACHE.

6 CHAIRMAN THOMAS: THANK YOU. THOSE ARE  
7 BOTH GOOD SUGGESTIONS. I WILL SAY I BELIEVE WHEN  
8 YOU SAY IT'S NOT A LEVEL PLAYING FIELD WITH RESPECT  
9 TO EXTRAORDINARY PETITIONS, THAT AT THE TIME THEY'RE  
10 NOTIFIED OF THE RESULTS OF THE REVIEW, ALL  
11 APPLICANTS ARE GIVEN THE FULL MENU OF WAYS TO  
12 APPEAL, WHICH INCLUDES THE EXTRAORDINARY PETITION  
13 OPTION. AND THE FACT THAT SOME EXERCISE THAT AND  
14 SOME DIDN'T ISN'T A MATTER OF UNFAIRNESS. IT'S JUST  
15 THAT SOME CHOSE TO ACT AND SOME DIDN'T.

16 DR. LEVIN: I WAS MAINLY REFERRING TO THE  
17 FACT THAT SOME PEOPLE ARE MORE AWARE OF WHAT THIS  
18 BOARD GOING TO BE RESPONSIVE TO IN TERMS OF WHAT  
19 GOES INTO AN EXTRAORDINARY PETITION OR WHETHER IT  
20 WILL HAVE AN IMPACT OR WHAT IS ALLOWED AND OTHERS  
21 AREN'T.

22 CHAIRMAN THOMAS: OKAY. SO FAIR POINT.  
23 JOAN.

24 MS. SAMUELSON: QUICKLY. I THINK I'M  
25 PROBABLY GOING TO VOTE AGAINST ANY CHANGES RIGHT

**BARRISTERS' REPORTING SERVICE**

1 NOW, NOT THAT I THINK WE DON'T NEED THEM, BUT I  
2 THINK THE CLOSER LOOK SHOULD HAPPEN FIRST. AND I  
3 ALSO THINK THAT MOST LIKELY ALL OF THIS IS  
4 SELF-POLICING TO SOME EXTENT. IF AN EXTRAORDINARY  
5 PETITION COMES IN SOONER RATHER THAN LATER, IT'S  
6 MORE LIKELY TO GET UP TO THE TOP OF THE STACK THAT I  
7 CAN REVIEW BEFORE THE MEETING. SO IT BEHOOVES THEM  
8 TO GET IN AT THE BEGINNING OF THOSE WINDOWS, AND  
9 THEY'LL BE PREJUDICED IF THEY DON'T. SO THAT WILL  
10 BE AN INCENTIVE.

11 AND I CRINGE TO THINK OF WHAT HAPPENS, WHO  
12 DECIDES IF SOMETHING IS MATERIAL OR NOT OR PEER  
13 REVIEWED OR NOT, AND THEN DOES THE INFORMATION NOT  
14 COME TO US. AND I KNOW I DON'T WANT TO SIT HERE AND  
15 HAVE TO COME UP WITH A BUNCH OF PROCEDURES ABOUT  
16 THAT. SO, IN GENERAL, I THINK MORE INFORMATION THE  
17 BETTER, AND THE MORE TRANSPARENT WE ARE THE BETTER.  
18 AND THAT'S WHAT I'LL BE ENCOURAGING WHEN WE COME UP  
19 WITH OUR NEXT LOOK AT HOW WE OPERATE.

20 CHAIRMAN THOMAS: THANK YOU. DEAN  
21 PULIAFITO.

22 DR. PULIAFITO: I THINK THE RESOLUTION IS  
23 A GREAT THING. BUT DO YOU ANTICIPATE -- RIGHT NOW  
24 PEOPLE CAN BRING IN AN EXTRAORDINARY PETITION AND  
25 THE BOARD MAY DECIDE, HEY, SOUNDS GOOD. WE'RE GOING

**BARRISTERS' REPORTING SERVICE**

1 VOTE TO FUND YOU. DO YOU THINK UNDER THE NEW  
2 SITUATION THAT WILL BE UNUSUAL? AND BEFORE ANYTHING  
3 IS FUNDED BY BOARD VOTE, THEY WILL REFER IT FOR  
4 REVIEW. IS THAT, YOU THINK, WHAT'S GOING TO HAPPEN  
5 OR NOT?

6 MR. HARRISON: I THINK IT ULTIMATELY  
7 DEPENDS UPON HOW THE BOARD RESPONDS TO THIS. BUT  
8 THE NOTION IS TO GIVE YOU SOME TOOLS TO MAKE THOSE  
9 DECISIONS. SO IN OTHER WORDS, IF SOMEONE SUBMITS  
10 SOMETHING TWO DAYS BEFORE THE BOARD MEETING AND YOU  
11 HAVEN'T HAD TIME TO ASSESS IT AND THEY HAD, TO DR.  
12 LEVIN'S POINT, SUFFICIENT TIME TO SUBMIT, THEN YOU  
13 CAN DECIDE NOT TO CONSIDER IT. AND THAT'S HOW  
14 APPLICANTS, I THINK, WILL GET THE MESSAGE THAT THEY  
15 EITHER HAVE TO ABIDE BY THESE RULES OR IT'S NOT  
16 GOING TO WORK.

17 MR. ROTH: CAN I ASK A QUICK QUESTION?  
18 WHEN DO WE HAVE OUR NEXT REVIEW OF GRANTS?

19 MR. HARRISON: NEXT WEEK.

20 MR. ROTH: NEXT WEEK IS THE GRANTS WORKING  
21 GROUP. I'M TALKING ABOUT BOARD.

22 MR. HARRISON: OCTOBER.

23 MR. ROTH: SO THE REASON I ASK THE  
24 QUESTION IS I WOULD LIKE REALLY TO APPROVE SOMETHING  
25 TODAY, IF WE CAN, EVEN IF IT'S NOT PERFECT SO THAT

**BARRISTERS' REPORTING SERVICE**

1 WE HAVE SOMETHING THAT WE CAN USE. AT LEAST THIS IS  
2 A GUIDELINE. AND I'M WILLING ON THAT ONE ISSUE  
3 ABOUT PEER REVIEW TO TRY TO FIND SOME WORDS THAT  
4 WORK THERE, BUT I THINK WE SHOULD APPROVE SOMETHING  
5 SO THAT THIS, AT LEAST, WOULD STAND AS A GUIDANCE  
6 FOR US FOR THAT MEETING.

7 CHAIRMAN THOMAS: I THINK, DUANE, THAT'S A  
8 VERY GOOD SUGGESTION, SPECIFICALLY WHY WE WANTED  
9 THIS PARTICULAR TOPIC ON TODAY'S AGENDA SO IT COULD  
10 ACT AS GUIDANCE FOR THE OCTOBER BOARD MEETING.

11 DR. KRONTIRIS: I PROBABLY WILL ABSTAIN ON  
12 THIS. I'M NOT REALLY HAPPY WITH THIS EXTRA LEVEL OF  
13 REVIEW. I WAS IN ON THE DISCUSSION OF THIS LAST  
14 MEETING. I REALLY SUSPECT THIS IS GOING TO LEAD A  
15 LOT OF INVESTIGATORS, CERTAINLY NOT ALL, TO MAKE  
16 THESE EXTRAORDINARY PETITIONS THE NEXT PART OF THEIR  
17 REVIEW. SO IF WE DO AGREE TO GO AHEAD WITH THIS, AS  
18 I SUSPECT WE WILL FROM THE SOUNDS OF THE DISCUSSION,  
19 I WONDER IF WE COULD AGREE THAT IF THIS REALLY  
20 BEGINS TO PUT AN EXTRAORDINARY BURDEN ON THE STAFF  
21 AS WE PROCEED TO THIS FURTHER COMPLICATION OF  
22 REVIEW, THAT WE'RE OPEN TO RETHINKING HAVING DONE  
23 THIS. THAT'S ALL.

24 CHAIRMAN THOMAS: THANKS, TED. DR.  
25 TROUNSON.

**BARRISTERS' REPORTING SERVICE**

1 DR. TROUNSON: I'D MAKE ONE OBSERVATION TO  
2 YOU, THAT IF YOU LOOK AT THIS MEETING, WE REALLY  
3 CONCENTRATED ALL THE DISCUSSION ON THE EXTERNAL  
4 PETITIONS. WE DIDN'T USED TO DO THAT BECAUSE WE  
5 DIDN'T REALLY HAVE A LOT OF THEM. AND OFTEN IF THEY  
6 CAME IN LATE, THE BOARD DIDN'T RAISE THEM. THEY  
7 DIDN'T CONSIDER THEM IMPORTANT. NOW THE WHOLE FOCUS  
8 IS ON THE EXTERNAL PETITIONS. SO WHY WOULDN'T ALL  
9 THE SCIENTISTS PUT IN AN EXTERNAL PETITION? WE'RE  
10 DRIVING THEM IN THAT DIRECTION.

11 DR. KRONIRIS: EXACTLY.

12 DR. TROUNSON: WE DID BRING ONE TO YOU  
13 THROUGH STAFF, WHICH WAS NOT ON THAT LIST AND I  
14 THINK DESERVEDLY WORTHWHILE HAVING THAT DISCUSSION.  
15 BUT YOU DO DISCUSS THE EXTERNAL PETITIONS AND NONE  
16 OF THE OTHERS. SO WHY WOULDN'T YOU PUT IN ONE? YOU  
17 HAVE TO BE NUTS. SO I THINK WE'VE GOT IT GOING THE  
18 WRONG WAY, TO BE HONEST. UNLESS YOU REALLY WANT  
19 THEM ALL TO DO IT, WHICH IS REALLY, I THINK, WHAT'S  
20 GOING TO HAPPEN UNLESS YOU MAKE SOME CHANGE.

21 MS. GIBBONS: I JUST WANT TO BE CLEAR THAT  
22 WHATEVER CHOICES AND DECISIONS WE MAKE ON THIS WHOLE  
23 PROCESS, WHAT IS ACCEPTABLE AND ALLOWABLE UNDER OUR  
24 STATUS AS A STATE AGENCY, AS A PUBLIC AGENCY? LIKE  
25 IS IT ALWAYS APPROPRIATE AND ACCEPTABLE TO BE

**BARRISTERS' REPORTING SERVICE**

1 COMMUNICATED WITH DIRECTLY FROM OUTSIDE FORCES? AND  
2 CAN WE DO ANYTHING, SHOULD WE, I'M NOT SAYING ONE  
3 WAY OR THE OTHER, NO MATTER WHAT WE VOTE ON, THAT'S  
4 ALWAYS A PIPELINE THAT'S OPEN. AM I CORRECT?

5 MR. HARRISON: MEMBERS OF THE PUBLIC ARE  
6 ALWAYS FREE TO CONTACT ANY OF YOU. BUT YOU AS A  
7 BOARD COULD DETERMINE THAT IT'S NOT APPROPRIATE FOR  
8 BOARD MEMBERS TO TAKE SUCH CALLS. THAT DOESN'T MEAN  
9 THAT APPLICANTS AND INDIVIDUALS IN THE PUBLIC  
10 COULDN'T MAKE THEM, BUT THAT WOULD BE A POLICY  
11 CHOICE YOU COULD MAKE.

12 MS. GIBBONS: SO WE HAVE AUTONOMY OVER  
13 THAT.

14 MR. HARRISON: CORRECT, OVER YOURSELVES.

15 MS. GIBBONS: WITH REGARD TO IF WE ARE  
16 APPROACHED OR IF WE DO TAKE INFORMATION FROM A  
17 MEMBER OF THE PUBLIC, WHAT GOVERNS OUR ABILITY TO  
18 SPEAK WITH OTHER BOARD MEMBERS? IS IT SOMETHING TO  
19 DO WITH NOTIFICATION? AND CAN YOU JUST REFRESH ME  
20 ON THAT, PLEASE?

21 MR. HARRISON: YES. YOU ARE PROHIBITED AS  
22 A GROUP, AT LEAST A MAJORITY OF YOU ARE PROHIBITED  
23 EITHER ALL AT ONE TIME OR SERIALLY FROM DISCUSSING  
24 AN ITEM THAT'S ON THE AGENDA, INCLUDING AN  
25 APPLICATION.



**BARRISTERS' REPORTING SERVICE**

1 MS. GIBBONS: I'M LOOKING ON THE WEBSITE,  
2 AND I KNOW THAT'S WHAT THIS GRAPH IS FOR. WE HAVE A  
3 FANTASTIC WEBSITE. MAYBE I'M JUST NOT FINDING IT,  
4 BUT WHERE IT TALKS ABOUT GRANTS. IS THE GOAL TO  
5 HAVE A SPECIFIC SECTION FOR GRANTEES BECAUSE I'VE  
6 HEARD SO MANY OF THEM SAY, AND MAYBE IT'S JUST A  
7 DEFAULT POSITION THAT THEY GO TO, OF, WELL, I DIDN'T  
8 KNOW I COULD DO AN EXTRAORDINARY PETITION. I DIDN'T  
9 KNOW THIS. AND I DIDN'T KNOW THE TIMELINE. ARE WE  
10 JUST GOING TO HAVE IT POSTED SOMEWHERE AND JUST SAY  
11 LOOK AT THE WEBSITE. YES, YOU DID KNOW.

12 MR. HARRISON: WE HAVEN'T DISCUSSED THIS,  
13 BUT MY GOAL WOULD BE TO TAKE ALL THESE THREE  
14 POLICIES AND PUT ALL THE INFORMATION THAT PERTAINS  
15 TO EACH OF THEM, SINCE THEY'RE RELATED, IN ONE PLACE  
16 SO THAT IT IS CLEAR TO APPLICANTS WHAT MECHANISMS  
17 CIRM HAS IN PLACE TO THE EXTENT THAT THEY WANT TO  
18 COMMUNICATE WITH YOU OR TO PROVIDE SOME ADDITIONAL  
19 INFORMATION.

20 MS. GIBBONS: I THINK THAT WOULD BE GREAT.  
21 I THINK IT WOULD TAKE A LOT OFF OF US TOO JUST TO BE  
22 ABLE TO REFER PEOPLE TO SOMETHING ON THE OFFICIAL  
23 POSTING. THANK YOU.

24 DR. SAMBRANO: I JUST WANT TO REITERATE  
25 THAT, AGAIN, EVERY APPLICANT RECEIVES AN E-MAIL FROM

**BARRISTERS' REPORTING SERVICE**

1 ME THAT EXPLAINS THESE OPTIONS ALONG WITH THEIR  
2 SCORE, RECOMMENDATION, AND SUMMARY.

3 MS. GIBBONS: I KNOW THEY KNOW. I'M JUST  
4 SAYING THAT THEY NEED TO KNOW THAT WE KNOW THEY  
5 KNOW. DO YOU KNOW WHAT I MEAN? THAT WE KNOW THEY  
6 KNOW, AND WE ALL --

7 CHAIRMAN THOMAS: I KNOW THAT DR. PRICE IS  
8 NEXT.

9 DR. PRICE: JUST I'D LIKE TO SORT OF  
10 RESPOND OR ASK SOME QUESTIONS OF ALAN IN REGARD TO  
11 HIS LAST INTERVENTION. FIRST, EVEN IF WE ELIMINATED  
12 WHAT WE'RE CALLING EXTRAORDINARY PETITIONS, WE HAVE  
13 THE PUBLIC COMMENT PERIOD, AND WE END UP GETTING THE  
14 EXTRAORDINARY PETITIONS IN ANOTHER FORM. AND THIS  
15 TIME WE HAVE TO IN SOME WAY RESPOND, AND WE WOULDN'T  
16 HAVE ANY INFORMATION WITH WHICH TO RESPOND. SO THE  
17 VIRTUE -- AT LEAST ONE VIRTUE OF THE EXTRAORDINARY  
18 PETITION PROCEDURE IS THAT WE HAVE SOMETHING TO GO  
19 ON OTHER THAN THE EMOTIONAL STORIES THAT WE HEAR  
20 FROM THE AUDIENCE.

21 THE SECOND QUESTION I HAVE IS IF THE BOARD  
22 IS SERIOUS ABOUT ENFORCING THE TWO CRITERIA FOR  
23 EXTRAORDINARY PETITIONS JAMES PUT UP THERE, WOULDN'T  
24 THAT ELIMINATE, NOT ELIMINATE, OR LIMIT TO A GREAT  
25 EXTENT THE NUMBER OF EXTRAORDINARY PETITIONS? AFTER

**BARRISTERS' REPORTING SERVICE**

1 ALL, HOW MANY PEOPLE CAN PRESENT GENUINELY NEW  
2 INFORMATION TO US?

3 DR. TROUNSON: CAN I RESPOND TO THE FIRST  
4 ONE? I THINK YOU GET ALL OF THIS DATA IN A BOOK,  
5 AND YET NONE OF YOU ASK ANY QUESTIONS ABOUT THE  
6 GRANTS THAT WERE NOT EXTRAORDINARY PETITIONS. NOW,  
7 I THINK YOU'RE A LOT SMARTER THAN THAT. IF YOU  
8 ACTUALLY DRILLED DOWN INTO THOSE, YOU WOULD HAVE  
9 QUESTIONS ON THEM, BUT THEY WEREN'T RAISED.

10 I THINK KIND OF YOU MIGHT BE TAKING THE  
11 EASY WAY OUT GOING TO THE EXTRAORDINARY PETITIONS.  
12 I DON'T KNOW IF THAT'S A FAIR THING TO SAY, BUT IT'S  
13 JUST GOT A FEEL ABOUT IT THAT BECAUSE THERE'S AN  
14 EXTRAORDINARY PETITION IN THERE, YOU ARE GOING TO  
15 THAT AND YOU'RE NOT GOING ANYWHERE ELSE. SO WHY  
16 WOULDN'T EVERYBODY GO DOWN THAT TRACK?

17 IF YOU WERE ASKING MORE BROADLY, THERE MAY  
18 NOT BE A PREFERENCE TO HAVE AN EXTRAORDINARY  
19 PETITION. THEY MAY NOT. I'M NOT SUGGESTING IT  
20 WOULDN'T HELP OR NOT HELP, BUT YOU'RE DRIVING ALL OF  
21 THOSE PEOPLE INTO THAT DIRECTION. SO THEY WILL DO,  
22 THEY CLEARLY WILL TO IT.

23 DR. PRICE: I DON'T WANT TO GET INTO A  
24 DEBATE. I HAVE A RESPONSE. LET OTHERS TALK.

25 MS. FEIT: I'D LIKE TO MAKE A COMMENT. I

**BARRISTERS' REPORTING SERVICE**

1 SIT ON A LOT OF THE GRANT REVIEWS, AND I THINK THE  
2 DIFFICULT PART FOR THE MAJORITY OF THE BOARD IS MANY  
3 OF YOU DON'T SIT IN ON THOSE REVIEWS. I CAN TELL  
4 YOU THEY'RE EXTENSIVE, AND THERE'S A LOT OF THOUGHT  
5 GONE INTO THE REVIEW OF EACH APPLICATION. AND IN  
6 THE PAST WE REALLY TRUSTED THAT THERE WAS REALLY  
7 NOTABLE SCIENTISTS IN THE ROOM DISCUSSING THE  
8 SCIENCE. AND I CAN TELL YOU THEY TAKE IT VERY  
9 SERIOUSLY.

10 I THINK THAT WE SHOULD NOT ENTERTAIN -- IT  
11 SHOULD BE RARE THAT WE ENTERTAIN AN EXTRAORDINARY  
12 PETITION, AND THAT IT SHOULD NOT COME FORWARD TO THE  
13 BOARD UNLESS IT HAS HAD EXTRAORDINARY VETTING BY OUR  
14 STAFF. AND I CAN TELL YOU OUR SCIENCE STAFF WORK  
15 VERY HARD TO SURFACE ALL THE INFORMATION NECESSARY  
16 BEFORE THE GRANT REVIEWS EVEN START AND DO A LOT OF  
17 THE LEGWORK. AND SO THERE'S AN EXTENSIVE REVIEW TO  
18 BEGIN WITH. I FEEL LIKE EVERYBODY ELSE, THAT WE'RE  
19 STARTING TO PICK APART A REVIEW PROCESS THAT I  
20 THOUGHT WAS WORKING VERY WELL.

21 AND I AGREE WITH ALAN, THAT WE'RE GOING TO  
22 END UP SPENDING OUR ENTIRE BOARD MEETING  
23 RE-REVIEWING PETITIONS AND GRANTS AND NOT REALLY  
24 BEING SUPPORTIVE OF THE PROCESS WE ORIGINALLY PUT IN  
25 PLACE. I THINK AN EXTRAORDINARY PETITION SHOULD BE

## BARRISTERS' REPORTING SERVICE

1 VERY RARE. IT WILL REQUIRE EXTRAORDINARY VETTING BY  
2 OUR SCIENCE STAFF AGAIN AND BY OUR PRESIDENT, ALAN  
3 TROUNSON, AND I THINK IT SHOULD NOT COME TO THE  
4 BOARD UNLESS IT HAS GONE THROUGH THAT PROCESS AND  
5 THERE'S ACTUAL FACT OR REASON TO RAISE IT TO THE  
6 BOARD.

7 I THINK WHAT SHOULD COME TO THE BOARD IS  
8 WHAT WE ORIGINALLY STARTED OUT WITH IS RECOMMENDED  
9 FOR FUNDING, RECOMMENDED FOR FUNDING IN TIER II IF  
10 FUNDING WAS AVAILABLE, AND NOT RECOMMENDED FOR  
11 FUNDING. AND IT SHOULD BE VERY CLEAR AFTER ALL OF  
12 THAT REVIEW AND ALL OF THAT WORK HAS BEEN DONE SO  
13 THAT THE BOARD DOESN'T GET CAUGHT UP IN THE  
14 POLITICKING OF A SPECIFIC DISEASE OR THE POLITICKING  
15 OF A SPECIFIC GRANT.

16 CHAIRMAN THOMAS: I THINK JOAN WAS NEXT.

17 MS. SAMUELSON: I AGREE WITH EVERYTHING  
18 MARCY JUST HAD TO SAY. ON THE OTHER HAND, AT THE  
19 SAME TIME, I'VE BEEN SITTING HERE THINKING THAT  
20 WE'VE DONE GREAT WORK AS A BOARD TODAY AND  
21 YESTERDAY, THAT THERE'S BEEN REALLY EXTRAORDINARY  
22 CONTRIBUTIONS FROM EVERYBODY ON THE BOARD PERTAINING  
23 TO -- FAR BEYOND THE DECISION-MAKING THAT WAS RIGHT  
24 IN FRONT OF OUR FACES BECAUSE IT GAVE US GOOD IDEAS  
25 ABOUT FUTURE POLICIES AND ASSESSMENT OF OUR PROGRAM

**BARRISTERS' REPORTING SERVICE**

1 AND WHERE WE SHOULD GO FROM HERE AND ALL OF THAT,  
2 WHICH IS OUR OBLIGATION.

3 SO THESE CONCRETE SITUATIONS HELP US TO DO  
4 THE OTHER JOBS THAT WE HAVE AT THE SAME TIME. AND I  
5 DON'T THINK WE WOULD DO AS QUALITY A JOB IF WE'RE  
6 JUST LOOKING AT SHEETS OF POLICY.

7 MS. FEIT: I DON'T AGREE. I THINK THAT  
8 THERE WERE -- IT SOUNDED TO ME LIKE THERE ARE BOARD  
9 MEMBERS WHO HAVE BEEN UNCOMFORTABLE TODAY WITH WHAT  
10 HAS GONE ON, AND THAT'S WHY WE'RE HAVING THIS  
11 DISCUSSION. WELL, SOME OF YOU MAYBE FEEL VERY GOOD  
12 ABOUT WHAT WENT ON. I DON'T THINK THAT EVERYBODY  
13 FEELS THAT WAY.

14 DR. HAWGOOD: I THINK SEVERAL OF THE LAST  
15 COMMENTS SUGGEST THAT WE'RE LOOKING FOR A POLICY  
16 THAT WILL ALMOST PROTECT OURSELVES FROM OURSELVES.  
17 I THINK THERE IS NO OPTION BUT TO HAVE AN APPEALS  
18 PROCESS OF SOME SORT. THERE IS NOTHING STOPPING  
19 ANYONE WRITING TO THE NIH COUNCIL AN APPEAL LETTER.  
20 BUT WE HAVE TO HAVE THE SELF-DISCIPLINE TO FOCUS ON  
21 THOSE THINGS THAT ARE TRULY APPEALABLE AND NOT GET  
22 DRAWN INTO THINGS THAT SHOULD NOT BE CONSIDERED  
23 APPEALABLE.

24 AND I THINK I AGREE WITH DUANE'S  
25 RECOMMENDATION, BUT I WOULD HOPE THE GROUP CAN FOCUS

**BARRISTERS' REPORTING SERVICE**

1 ON THAT ISSUE AND NOT TRY TO FIND A POLICY THAT WILL  
2 PROTECT OURSELVES FROM OURSELVES BECAUSE I THINK  
3 THAT POLICY IS NOT FINDABLE. AND WE HAVE TO JUST  
4 EXERT GOOD BOARD DISCIPLINE AROUND WHAT'S APPEALABLE  
5 AND WHAT'S NOT TO KEEP IT FAIR AND TRANSPARENT TO  
6 EVERYONE.

7 CHAIRMAN THOMAS: THANK YOU. JUST WANT TO  
8 MAKE A POINT ON THIS. THE SORT OF TENOR OF THIS  
9 DISCUSSION IS THAT WE ENDED UP LAST COUPLE DAYS WITH  
10 RESULTS THAT WEREN'T GOOD. IF YOU LISTEN TO THIS,  
11 IT'S LIKE THINGS GOT WAY OUT OF HAND. SO I JUST  
12 WANT TO REMIND EVERYBODY THAT WITH RESPECT TO THE  
13 EXTRAORDINARY PETITIONS, STAFF ORIGINALLY CAME BACK  
14 RECOMMENDING THAT TWO OF THOSE HAD MERIT. BOTH OF  
15 THOSE ENDED UP GETTING FUNDED ALBEIT ONE MODIFIED.  
16 A THIRD WHICH WAS NOT RECOMMENDED BY STAFF KEYED ON  
17 A SPECIFIC FACT, AN ISSUE THAT WAS UP IN THE AIR  
18 WHICH REGARDED MANUFACTURING ISSUES. THAT WAS TAKEN  
19 BACK TO THE GRANTS WORKING GROUP WHICH VETTED IT IN  
20 THE RE-REVIEW PROCESS, AND IT WAS APPROVED. AND  
21 ONLY ONE THAT WAS NOT RECOMMENDED BY THE GRANTS  
22 WORKING GROUP THROUGH THE RE-REVIEW PRACTICE WAS  
23 APPROVED FOR FUNDING FOR OTHER REASONS, WHICH ISN'T  
24 ATYPICAL FOR THIS BOARD, AND WITH SIGNIFICANT  
25 CONDITIONS.

**BARRISTERS' REPORTING SERVICE**

1           SO THE RESULT THAT WE REACHED WAS NOT ONE  
2           THAT INVOLVED A RUNAWAY PROCESS. I WOULD ARGUE THAT  
3           IF YOU HAVE A CHOICE BETWEEN HEARING SOMEBODY  
4           SPEAKING HERE AND HAVING TO MAKE AN INSTANTANEOUS  
5           DECISION THAT, IN MY OPINION, CANNOT BE WELL  
6           INFORMED, PARTICULARLY WITH THE EMOTION OF THE  
7           MOMENT, ETC., OR HAVING THE GRANTS WORKING GROUP IN  
8           A DISTANT SETTING AWAY FROM THE EMOTION EVALUATING  
9           THE SPECIFIC QUESTIONS THAT ARE PUT TO THEM TO  
10          ARRIVE AT A MORE INFORMED, OBJECTIVE CONCLUSION, I  
11          ARGUE THAT THAT WAS A GOOD THING TO DO.

12                 NOW, PER FORCE THE RESULT OF THAT IS, IF  
13          WE WERE TO CONTINUE ALONG AS IS, MORE PEOPLE WILL  
14          PUT IN THE EXTRAORDINARY PETITIONS. THIS IS WHERE I  
15          THINK DEAN HAWGOOD'S COMMENT IS PARTICULARLY ON  
16          POINT, WHICH IS WE HAVE TO HAVE THE DISCIPLINE,  
17          NOTWITHSTANDING THE TESTIMONY, TO DETERMINE WHAT  
18          REALLY SHOULD, IF ANYTHING, GO FOR RE-REVIEW. I DO  
19          THINK THE RE-REVIEW WAS VERY VALUABLE. I THINK  
20          ANYBODY WHO SAT IN AND LISTENED TO THAT THOUGHT THAT  
21          THAT WAS A GOOD THING.

22                 SO THE DISCIPLINE DOES REST WITH US, BUT I  
23          DON'T THINK WE SHOULD DISCOUNT THE PROCESS OR THINK  
24          THAT IT DIDN'T WORK BECAUSE IN MY OPINION I THOUGHT  
25          IT WORKED VERY WELL.



## BARRISTERS' REPORTING SERVICE

1 I'M NOT SPEAKING TO THE BASIC BIO  
2 EXTRAORDINARY PETITIONS HERE BECAUSE THEY DIDN'T  
3 HAVE THE SAME PROCESS, JUST TO THE DISEASE TEAM.

4 OTHER COMMENTS?

5 DR. ECONOMOU: SO I THINK THE CONCERN THAT  
6 MANY OF US HAVE HAD IS TO TRY TO GIVE AN OPINION  
7 ABOUT SCIENTIFIC MERIT WHEN WE HAVEN'T READ THE  
8 APPLICATION, WE'RE NOT FAMILIAR WITH THE SCIENCE,  
9 AND A REAL CONCERN ABOUT SECOND-GUESSING A  
10 DISTINGUISHED PEER REVIEWED COMMITTEE THAT REVIEWS  
11 THE APPLICATION.

12 NOW, THE NIH HAS A SOLUTION FOR THAT.  
13 THAT'S CALLED A REVISED APPLICATION. SO YOU GET  
14 YOUR PINK SHEET, YOU LOOK THROUGH IT, YOU REWRITE  
15 THE APPLICATION, YOU SEND A RESPONSE SAYING YOU GOT  
16 THESE THINGS WRONG, YOU GOT THESE RIGHT, AND I FIXED  
17 IT, AND THIS IS A BETTER APPLICATION. WE DON'T HAVE  
18 THAT MULTIPLE CYCLE MECHANISM.

19 BUT WHAT I HAVE ARGUED IN FAVOR OF, WHICH  
20 I THINK IS EMBEDDED IN THIS, IS A MECHANISM BY WHICH  
21 APPLICANTS CAN LOOK AT THE REVIEW AND THEY CAN SAY I  
22 THINK YOU GOT THESE THINGS WRONG. HERE'S SOME DATA  
23 THAT JUST CAME OUT YESTERDAY, AND THEN HERE ARE SOME  
24 FACTS THAT SOMEHOW SLIPPED PAST YOU. AND THEN IF  
25 THIS COMES TO US AS AN EXTRAORDINARY PETITION, THAT

**BARRISTERS' REPORTING SERVICE**

1 QUICK TURNAROUND RESPONSE ON MATTERS OF SCIENTIFIC  
2 MERIT HAVE BEEN RE-REVIEWED BY THE SAME GROUP AND  
3 THEY SAY THESE COMMENTS ARE VALID OR THESE COMMENTS  
4 ARE NOT VALID.

5 AND THEN I HAVE A FEELING THAT THE TRIAGE  
6 PROCESS OF BRINGING THIS UP FOR EXTRAORDINARY  
7 PETITION WOULD NOT REST ON THESE UNCERTAIN ISSUES OF  
8 SCIENTIFIC MERIT.

9 CHAIRMAN THOMAS: DR. PRICE.

10 DR. PRICE: I THINK WE HAVE A CERTAIN  
11 PROBLEM WHICH IS DIFFERENT THAN, ALTHOUGH IT'S  
12 SOMEWHAT RELATED TO, THE EXTRAORDINARY PETITION  
13 PROCESS WE HAVE SORT OF BACKED INTO. AND IT RELATES  
14 TO SOMETHING THAT MARCY FEIT SAID. AND I WOULD LIKE  
15 TO REITERATE AND PUT ON THE TABLE SOMETHING THAT I  
16 HOPE THIS COMMITTEE WILL CONSIDER.

17 AT ONE TIME A YEAR AGO, YEAR AND A HALF  
18 AGO, I DON'T EXACTLY KNOW WHEN WE STOPPED DOING IT,  
19 THE GRANTS WORKING GROUP PRESENTED US THE  
20 APPLICATIONS IN THREE CATEGORIES: RECOMMENDED FOR  
21 FUNDING, THE SECOND CATEGORY WAS RECOMMENDED FOR  
22 FUNDING IF FUNDS ARE AVAILABLE, THE THIRD CATEGORY  
23 WAS DO NOT FUND OR NOT RECOMMENDED FOR FUNDING.  
24 SOMEHOW THAT MIDDLE CATEGORY DROPPED OUT.

25 AND LET ME DESCRIBE FOR THOSE OF YOU WHO

**BARRISTERS' REPORTING SERVICE**

1 ARE NEW HERE WHAT WAS LOST BY DOING THAT. WHEN WE  
2 HAD THAT CATEGORY, THE BOARD WOULD DISCUSS ALL OF  
3 THE -- IN ORDER ALL OF THE APPLICATIONS IN THE  
4 RECOMMENDED FOR FUNDING IF FUNDS WERE AVAILABLE.  
5 AFTER THAT DISCUSSION, THEN MEMBERS COULD DECIDE,  
6 COULD MAKE A MOTION TO PULL ONE OR ANOTHER OF THOSE  
7 APPLICATION UP INTO TIER I. IN THAT WAY ALL OF THAT  
8 MIDDLE CATEGORY HAD AN EQUAL CHANCE OF BEING PULLED  
9 UP RATHER THAN THE SITUATION WHERE IN AN AD HOC WAY  
10 APPLICATIONS ARE PULLED UP. AND IF YOU ARE LUCKY  
11 ENOUGH TO BE IN THE EARLY ONE, YOU HAVE A MUCH  
12 BETTER SHOT BECAUSE THE EARLY ONES USE UP OUR  
13 FUNDING BEFORE WE EVER GET TO THE ONES THAT BY JUST  
14 LUCK HAVEN'T BEEN DISCUSSED.

15 SO I WOULD HOPE THAT WHATEVER THIS  
16 COMMITTEE IS WOULD SERIOUSLY CONSIDER GOING BACK TO  
17 A PROCEDURE WHICH I THINK WORKED SOMEWHAT BETTER  
18 THAN WHAT WE'RE DOING NOW.

19 DR. TROUNSON: WHAT HAPPENS, OF COURSE, WE  
20 HAD THOSE THREE CATEGORIES WHEN WE OVERSPENT THE  
21 ALLOWANCE. WHEN WE HAD MORE -- WHEN YOU UNDERSPEND,  
22 THAT CATEGORY DIDN'T EXIST BECAUSE THE GRANTS  
23 WORKING GROUP HADN'T SPENT OUT THE WHOLE DOLLAR  
24 ALLOCATED BY THE BOARD. SO THAT WAS THE REASON WHY  
25 IT GOT DROPPED BECAUSE THERE WAS NO REASON FOR THE

**BARRISTERS' REPORTING SERVICE**

1 CATEGORY. SO IT WAS EITHER FUND OR NOT FUND, AND  
2 THEY WERE CLEAR ON WHERE TO PUT THAT.

3 DR. PRICE: DOING THAT WE LOST SOMETHING.

4 DR. TROUNSON: WHAT YOU ARE ASKING FOR IS  
5 THOSE GRAY CATS BACK IN, SO THOSE GRAY ONES BACK IN  
6 THERE. AND TO SOME EXTENT THAT MIGHT HELP IF YOU  
7 WERE PREPARED TO DISCUSS ALL OF THIS.

8 DR. PRICE: WE DID AT ONE TIME.

9 DR. TROUNSON: MAYBE THAT MIGHT HELP  
10 BECAUSE THAT'S WHAT'S BEEN LOST BECAUSE YOU'RE NOT  
11 DISCUSSING ANY OF THOSE GRAY CATS IN THAT.

12 DR. PRICE: UNLESS SOMEBODY IS HERE  
13 SHOUTING AT US.

14 DR. TROUNSON: IT'S ONLY THE EXTRAORDINARY  
15 PETITIONS.

16 CHAIRMAN THOMAS: LET'S HAVE A LITTLE  
17 SEQUENCE HERE. MR. ROTH, MR. SHESTACK, DR. STEWARD,  
18 AND THEN OTHERS.

19 MR. ROTH: SO IT'S TOUGH FIGHTING THE  
20 MICROPHONE HERE WITH THE CHAIR. THE REASON I MADE  
21 THE RECOMMENDATION I DID IS I BELIEVED THERE IS AN  
22 AWFUL LOT TO BE DISCUSSED. AND I THINK A LOT OF  
23 GOOD COMMENTS HAVE COME OUT, AND WE CAN PROBABLY  
24 STAY HERE ANOTHER HOUR, BUT I THINK WE NEED TO MOVE  
25 ON AND GET DOWN TO GETTING THE GROUP TOGETHER AND

**BARRISTERS' REPORTING SERVICE**

1 TAKE THE TIME AFTER THEY COME BACK TO US AND REALLY  
2 HAVE THIS WORKED OUT SO WE'RE ALL VERY COMFORTABLE  
3 WITH IT.

4 WHILE I KNOW THERE'S MANY OTHER THINGS  
5 THAT COULD BE SAID, I DON'T THINK WE'RE GOING TO GET  
6 TO CONSENSUS ON WHAT WE'RE GOING TO DO TODAY FOR THE  
7 OCTOBER MEETING. WE LIVE WITH THE PROCESS. IT'S  
8 GENERALLY THIS PROCESS. SO LET'S TABLE IT. AND THE  
9 RECOMMENDATION I'D MAKE IS TO FORM THE COMMITTEE AND  
10 HAVE THEM COME BACK BY THE END OF THE YEAR.

11 CHAIRMAN THOMAS: DO WE HAVE A MOTION ON  
12 THE TABLE? WE DON'T. DO YOU WANT --

13 MR. ROTH: I WILL MAKE THAT AS A MOTION.

14 CHAIRMAN THOMAS: DOES THAT INCLUDE  
15 ADOPTING THE RECOMMENDATIONS HERE?

16 MR. ROTH: THE ONES THAT ALREADY EXIST.  
17 YOU WANT TO ADD THE OTHERS, JAMES?

18 MR. HARRISON: THE ADDITIONAL ANALYSIS  
19 OPTION DOES NOT CURRENTLY EXIST, JUST TO BE CLEAR.

20 MR. ROTH: I WOULD ADD THAT BACK IN AND  
21 MAKE A MOTION THAT WE ADOPT THIS WITH THE ADDITIONAL  
22 ANALYSIS FOR THE NEXT MEETING, THAT WE FORM THE  
23 COMMITTEE, AND THE COMMITTEE REPORT BACK BY THE END  
24 OF THE CALENDAR YEAR.

25 MR. TORRES: SECOND.

**BARRISTERS' REPORTING SERVICE**

1 CHAIRMAN THOMAS: SECONDED BY SENATOR  
2 TORRES. DISCUSSION?

3 MR. SHESTACK: GOING BACK A POINT, I'D SAY  
4 THAT SECOND -- THAT GRAY TIER, THE TIER II, IS, IN  
5 FACT, WHAT HAPPENED ON THE LAST BOARD MEETING WITH  
6 THE LAST TWO GRANTS, WITH THE ALS AND THE SCID  
7 GRANT. PEOPLE SORT OF -- MAYBE IT WAS IN RESPONSE  
8 TO AN EXTRAORDINARY PETITION, BUT IT SEEMED MORE  
9 THAT THE SPIRIT OF THE GROUP SAID LET'S EXPAND OUR  
10 PAYLINE. LET'S MAKE THE CUTOFF A LITTLE BIT  
11 DIFFERENT. SO IT DOES DE FACTO EXIST. IT JUST WAS  
12 NOT AS SYSTEMATIC.

13 BUT I WANTED TO POINT OUT THAT IT DID  
14 EXIST. IF YOU'RE GOING TO DO THIS, I REALLY DO  
15 URGE, EVEN FOR THE SAKE OF THE SHORT PERIOD OF TIME  
16 UNTIL IT'S REEXAMINED, THAT YOU CHANGE SOME PART OF  
17 THAT LANGUAGE AND LEAVE IT MORE AT THE DISCRETION OF  
18 THE RE-REVIEW PANEL AND STAFF AS TO WHAT IS  
19 VERIFIABLE NEW DATA RATHER THAN DEFINE IT AS  
20 PUBLISHED AND PEER REVIEWED BECAUSE IT REALLY DOES  
21 MAKE THE WHOLE POINT OF ADDITIONAL DATA MOOT. IT'S  
22 REALLY JUST SAYING THAT IT'S A HURDLE THAT CAN NEVER  
23 BE HURDLED, SO IT'S INSINCERE.

24 CHAIRMAN THOMAS: WOULD YOU ACCEPT THAT AS  
25 A FRIENDLY?

**BARRISTERS' REPORTING SERVICE**

1 MR. ROTH: I'LL ACCEPT THAT. THE ONE  
2 ARGUMENT I WOULD GIVE BACK TO THAT IS IT CAN BE  
3 THIRD-PARTY DATA THAT VALIDATES YOUR POINT, AND THAT  
4 CAN BE PUBLISHED AND PEER REVIEWED. WE'RE ARGUING A  
5 POINT, AND SOMEBODY ELSE PUBLISHES DATA THAT PROVES  
6 THAT TRUE.

7 CHAIRMAN THOMAS: THAT WOULD BE A SUBSET  
8 OF THE LARGER CATEGORY.

9 MR. SHESTACK: I ONLY USED THE EXAMPLE  
10 THAT WE HAD.

11 MR. ROTH: I'LL ACCEPT THAT AMENDMENT.

12 CHAIRMAN THOMAS: SENATOR TORRES, DO YOU  
13 TAKE THE FRIENDLY SECOND?

14 MR. TORRES: YES.

15 CHAIRMAN THOMAS: THANK YOU.

16 DR. STEWARD: NOT TO PROLONG, BUT I REALLY  
17 DO ENCOURAGE US TO ADOPT SOMETHING GOING FORWARD  
18 BECAUSE, FIRST OF ALL, THE HORSE IS OUT OF THE BARN  
19 ON THIS. PEOPLE ARE JUST GOING TO INCREASE THE  
20 NUMBER OF EXTRAORDINARY PETITIONS. I ABSOLUTELY  
21 AGREE WITH DEAN HAWGOOD, THAT WE HAVE TO IMPOSE  
22 DISCIPLINE ON OURSELVES. I THINK WE NEED A LITTLE  
23 GUIDANCE ON THAT BECAUSE MEMBERS OF THE BOARD  
24 CHANGE, NEW PEOPLE COME ON AND SAY, SHOULD I  
25 CONSIDER THIS OR NOT?

**BARRISTERS' REPORTING SERVICE**

1           AND JUST ONE MORE POINT THAT IS MAYBE -- I  
2           HOPE THIS ISN'T CUTTING THE PIPE TOO FINELY, BUT  
3           JAMES AND OTHERS WORKED VERY HARD ON THIS DOCUMENT.  
4           IT DOES NOT SAY HERE WHAT CAN BE INCLUDED IN THE  
5           EXTRAORDINARY PETITION. IT SAYS WHAT WE DEFINE AS  
6           NEW INFORMATION. THE INVESTIGATORS ARE STILL FREE  
7           TO INCLUDE WHATEVER THEY WANT, ARGUE WITH THE  
8           REVIEWERS, WHATEVER THEY WANT. IT'S JUST WHAT WE'RE  
9           DEFINING AS NEW DATA.

10           MR. SHESTACK: WE HAVE GIVEN A CATEGORY  
11           THAT IS -- WE HAVE CREATED A PROCESS WHERE GRANTS GO  
12           BACK TO A WORK GROUP FOR ADDITIONAL REVIEW, AND THAT  
13           ONLY HAPPENS IF THERE IS ADDITIONAL DATA.

14           MR. ROTH: CALL THE QUESTION.

15           CHAIRMAN THOMAS: QUESTION IS CALLED.

16           DR. LEVIN: I'M SORRY. I JUST WANTED TO  
17           ADD AS AN AMENDMENT OR EVEN SMALLER AMENDMENT JUST  
18           THE TWO POINTS I RAISED, THAT WE PROMISE TO PROVIDE  
19           THEM THEIR FEEDBACK WITHIN SEVEN BUSINESS DAYS, AND  
20           THAT WE LIMIT EVEN OTHER CORRESPONDENCE TO THREE  
21           PAGES AS WELL IN THOSE DOCUMENTS. CAN WE ADD THAT?

22           MR. ROTH: THE THREE PAGES. WHAT ABOUT  
23           THE SEVEN BUSINESS DAYS?

24           DR. PRICE: DON'T PUT MORE BURDEN ON OUR  
25           STAFF THAN THEY ALREADY HAVE.



**BARRISTERS' REPORTING SERVICE**

1 MR. ROTH: I'M FINE WITH THREE PAGES, BUT  
2 I DON'T KNOW IF YOU WANT TO PUT BURDEN ON THE STAFF  
3 IN THAT SHORT WINDOW.

4 CHAIRMAN THOMAS: EVERYBODY, ONE AT A TIME  
5 HERE.

6 DR. TROUNSON: WE ALREADY DO THAT. SO  
7 THEY ALWAYS GET IT AT LEAST SEVEN DAYS, EIGHT DAYS,  
8 NINE DAYS, TEN DAYS.

9 CHAIRMAN THOMAS: OKAY.

10 MR. ROTH: I ACCEPT.

11 CHAIRMAN THOMAS: OKAY. WE'RE FINE.  
12 YOU'RE DOING IT CORRECTLY WITHIN THE SPIRIT OF DR.  
13 LEVIN. SO, MR. HARRISON, WILL YOU PLEASE RESTATE  
14 THE MOTION WITH VARIOUS AMENDMENTS?

15 MR. HARRISON: YES. THE MOTION IS TO  
16 APPROVE THE PROPOSED AMENDMENTS TO THE EXTRAORDINARY  
17 PETITION POLICY AND ADOPT THE ADDITIONAL ANALYSIS  
18 OPTION WITH DIRECTION TO STAFF TO INCORPORATE THE  
19 COMMENTS MADE BY DR. LEVIN AND MR. SHESTACK AND  
20 LEEZA GIBBONS WITH RESPECT TO THE POSTING ON THE  
21 WEBSITE, AND TO ESTABLISH A COMMITTEE TO REVIEW THE  
22 PROCESS AND TO REPORT BACK TO THE BOARD.

23 CHAIRMAN THOMAS: VERY WELL SAID, MR.  
24 HARRISON. OKAY. THIS IS A VOICE VOTE. ALL THOSE  
25 IN FAVOR PLEASE SAY AYE. OPPOSED? ABSTENTIONS?

**BARRISTERS' REPORTING SERVICE**

1 MARCY.

2 MS. FEIT: YES.

3 CHAIRMAN THOMAS: THANK YOU. VERY GOOD.  
4 THANK YOU.

5 ALL RIGHT. I WAS HANDED A NOTE WHICH I  
6 THINK PEOPLE, GETTING BACK TO OUR SPOTLIGHT, WHICH  
7 WAS A VERY HEARTWARMING, ADDITIONAL NOTE WHICH IS  
8 PEOPLE WITHOUT THE GENETIC DEFECT THAT VANESSA HAS  
9 CAN ACCEPT A LIVER DONATED BY SOMEONE WITH HER  
10 DISEASE. SO HER LIVER SAVED THE LIFE OF ANOTHER  
11 CHILD THROUGH THE TRANSPLANT PROCESS.

12 SO WE NOW COME TO A BITTERSWEET PART OF  
13 OUR AGENDA. WE HAVE TWO EXTREMELY SARTORIAL  
14 GENTLEMEN SITTING IN THE AUDIENCE, WAITING FOR  
15 HOURS, WHO HAVE COME TO BE RECOGNIZED FOR THEIR  
16 EXCEPTIONAL SERVICE AS MEMBERS OF THE CIRM BOARD.  
17 SO, TED AND DAVID, IF YOU WILL COME FORWARD, PLEASE,  
18 TO THE PODIUM.

19 (APPLAUSE.)

20 CHAIRMAN THOMAS: HOLD ON. NOT YET. SO  
21 I'M GOING TO SAY A FEW WORDS HERE ABOUT TED AS  
22 REFERENCED IN THE RESOLUTION. SENATOR TORRES HAS  
23 THE HONORS FOR MR. SERRANO-SEWELL. OKAY.

24 SO, TED, WHEREAS, TED LOVE IS AN  
25 EXPERIENCED LIFE SCIENCES EXECUTIVE AND BOARD

**BARRISTERS' REPORTING SERVICE**

1 MEMBER, HAVING SERVED AS AN EXECUTIVE AT NUMEROUS  
2 COMPANIES, INCLUDING ONYX PHARMACEUTICALS -- EXCUSE  
3 ME. MARIA TOLD ME TO READ IT, BUT YOU'RE RIGHT.

4 MS. BONNEVILLE: I SAID TALK ABOUT IT.

5 CHAIRMAN THOMAS: NO. YOU SAID TO READ  
6 IT. OKAY. TED, THROUGHOUT HIS TENURE, BROUGHT  
7 TREMENDOUS EXPERTISE FROM THE STANDPOINT OF THE  
8 BIOTECH INDUSTRY. AS A MAJOR CONSTITUENT GROUP  
9 REPRESENTED BY THE BOARD, TED SERVED IN A VARIETY OF  
10 CAPACITIES, BOTH ACTING IN-HOUSE, BOTH AS A MEMBER  
11 OF THE BOARD, AS A MEMBER OF MANY SUBCOMMITTEES, AND  
12 ALWAYS PROVIDING SAGE COUNSEL THAT REFLECTED A  
13 LONG-TIME TENURE IN THE BIOTECH INDUSTRY AND A  
14 PERSPECTIVE FOR INDUSTRY THAT WAS GREATLY  
15 APPRECIATED BY THE BOARD, WAS GREATLY NEEDED AS A  
16 VOICE ON THE BOARD, AND WAS A LEADER TO THOSE IN THE  
17 BIOTECH COMMUNITY THAT DEPENDED UPON HIM TO  
18 REPRESENT THEM ON THE BOARD.

19 WE WERE VERY, VERY LUCKY TO HAVE HIM HERE.  
20 WE ARE VERY SORRY TO SEE HIM GO, BUT THESE THINGS DO  
21 HAPPEN. AND WE APPRECIATE NOT ONLY HIS MANY YEARS  
22 OF DISTINGUISHED SERVICE; BUT IN THE CIRCLE OF LIFE  
23 APPROACH, HE BROUGHT TO THE CONTROLLER'S ATTENTION  
24 ANNE-MARIE WHO NOW SUCCEEDS HIM AS A MEMBER OF THE  
25 BOARD AND WILL CARRY ON IN THE FINEST TRADITION OF

## BARRISTERS' REPORTING SERVICE

1 THE FIRST CLASS REPRESENTATIVE FROM THE BIOTECH  
2 INDUSTRY.

3 SO, TED, THANK YOU SO MUCH FOR YOUR MANY  
4 YEARS OF GREAT SERVICE, AND WE APPRECIATE AND NOTE  
5 THAT BY THE RESOLUTION WHICH YOU HAVE, WHICH YOU CAN  
6 PUT UP ON WHICHEVER OFFICE WALL YOU WOULD LIKE,  
7 THANK YOU. AND IF YOU'D LIKE TO SAY A FEW WORDS,  
8 PLEASE DO AT THIS TIME.

9 MR. TORRES: JUST A FEW.

10 DR. LOVE: THANK YOU, ART. I KNOW YOU  
11 GUYS ARE VERY BUSY, BUT I DO WANT TO THANK THREE  
12 CONSTITUENCIES. FIRST, STEVE WESTLEY AND JOHN  
13 CHIANG, WHO GAVE ME THE HONOR OF SERVING ON THIS  
14 BOARD SO I COULD DO SOMETHING FOR CALIFORNIA BESIDES  
15 PAY SIZABLE QUARTERLY TAXES.

16 THE SECOND GROUP I'D LIKE TO THANK IS THE  
17 BOARD ITSELF. IT HAS REALLY BEEN AN HONOR TO SERVE  
18 WITH ALL OF YOU, A PLEASURE TO SERVE WITH ALL OF  
19 YOU. I HAVE SO MUCH RESPECT FOR EACH OF YOU AS  
20 INDIVIDUALS, AND I HAVE TREMENDOUS RESPECT FOR WHAT  
21 WE WERE ABLE TO ACCOMPLISH COLLECTIVELY.

22 FINALLY, THE STAFF OF CIRM, BOTH THE  
23 SCIENTIFIC STAFF AND THE ADMINISTRATIVE STAFF, DO  
24 SUCH A WONDERFUL JOB. AND, AGAIN, I COUNT THESE  
25 PEOPLE AS PEOPLE THAT I GREATLY ADMIRE, GREATLY

**BARRISTERS' REPORTING SERVICE**

1 RESPECT, AND I'M HAPPY TO COUNT AMONG MY LIFELONG  
2 FRIENDS. SO THANK YOU ALL AGAIN.

3 (APPLAUSE.)

4 CHAIRMAN THOMAS: ANY COMMENTS BY MEMBERS  
5 OF THE BOARD? TOUGH ACT TO FOLLOW.

6 MS. SAMUELSON: I'D LIKE TO NOTE THAT HIS  
7 SAGE COUNSEL ACCOMPANIES HIS SAGE JACKET.

8 CHAIRMAN THOMAS: YES, ALWAYS NATTILY  
9 CLAD.

10 MR. SENATOR.

11 MR. TORRES: I CAN'T GO ON WITHOUT SAYING  
12 SOMETHING ABOUT TED. YOU HAVE BEEN AN INCREDIBLE  
13 FRIEND TO ME AND A WONDERFUL ADVISOR. AND GETTING  
14 TO KNOW YOU AND JOYCE HAS BEEN A PLEASURE FOR ME.  
15 BUT I MUST SAY EVEN THOUGH I LOVE YOU A LOT AND  
16 JOYCE, I THINK I'M BEGINNING TO LOVE ANNE-MARIE A  
17 LOT TOO. SO THANK YOU FOR BRINGING HER TO US AS  
18 WELL. TED, THANK YOU FOR YOUR SERVICE, NOT ONLY IN  
19 THE PUBLIC SECTOR, BUT CLEARLY WHEN YOU SERVED  
20 WITHIN CIRM AS WELL AND BROUGHT A LOT OF GRAVITAS TO  
21 THE OPERATION.

22 DAVID SERRANO-SEWELL'S FAMILY AND I HAVE  
23 KNOWN EACH OTHER FOR 38 YEARS. AND I KNEW HIM WHEN  
24 HE WAS A BABY BOY, AND I WAS HONORED TO OFFICIATE AT  
25 HIS WEDDING. AND SO THE SERRANO-SEWELL FAMILY AND

**BARRISTERS' REPORTING SERVICE**

1 TORRES FAMILIES GO BACK MANY YEARS.

2 AND I AM SO PROUD OF HIS SERVICE TO THE  
3 CITY AS A DEPUTY CITY ATTORNEY FOR THE CITY AND  
4 COUNTY OF SAN FRANCISCO, HIS SERVICE ON THIS BOARD,  
5 HAVING CO-CHAired THE FACILITIES COMMITTEE, WHICH  
6 REALLY BROUGHT FRUITION TO 12 FACILITIES ACROSS THE  
7 STATE. IT TOOK DAVID'S LEADERSHIP TO DO THAT. AND  
8 SECONDLY, ALONG WITH MARCY FEIT, ANOTHER GREAT BOARD  
9 MEMBER, TO PUSH FOR THE BRIDGES PROGRAM. I DON'T  
10 THINK THERE IS A PROGRAM, AND I KNOW WE HAVE FUNDED  
11 SO MANY INCREDIBLE GRANTS, BUT THIS PROGRAM FUNDS  
12 THE FUTURE STEM CELL SCIENTISTS.

13 AND I CAN GUARANTEE YOU THAT THE RESPONSE  
14 FROM THE LEGISLATURE, FROM THE GOVERNOR, LIEUTENANT  
15 GOVERNOR, THE CONTROLLER, THE TREASURER, THE  
16 ATTORNEY GENERAL AS WELL ALL SPEAK HIGHLY OF THIS  
17 PROGRAM BECAUSE THEY KNOW WHAT IT MEANS FOR  
18 CALIFORNIA.

19 SO, DAVID, THANK YOU FOR THAT SERVICE.  
20 THANK YOU FOR WORKING WITH MARCY TO MAKE SURE THAT  
21 IT HAPPENED. AND I THINK THAT WE OWE YOU A DEBT OF  
22 GRATITUDE FOR YOUR SACRIFICE, AND WE WISH YOU WELL  
23 NOW AS THE NEWEST MEMBER OF THE CALIFORNIA MEDICAL  
24 QUALITY ASSURANCE BOARD TO MAKE SURE THAT PATIENTS  
25 ARE SAFE IN A DIFFERENT WAY IN THAT RESPECT. SO I

## BARRISTERS' REPORTING SERVICE

1 APPLAUD YOUR EFFORTS AND YOUR EXPERIENCE AND YOUR  
2 KNOWLEDGE AND YOUR SERVICE ON THIS BOARD. AND I  
3 KNOW BOTH YOU AND TED, AFTER SITTING THROUGH HERE  
4 FOR THE LAST HOUR, ARE GRATEFUL THAT YOU ARE LEAVING  
5 THIS BOARD. CONGRATULATIONS, DAVID SERRANO-SEWELL.

6 (APPLAUSE.)

7 MR. SERRANO-SEWELL: I WAS TEASING TED I  
8 WAS GOING TO VOLUNTEER HIM FOR THIS SPECIAL  
9 COMMITTEE THAT MEMBER ROTH HAD SUGGESTED. AS TED  
10 HAS SAID, FOR EACH ONE OF US IT'S SUCH A GREAT HONOR  
11 AND A PRIVILEGE TO BE ON THIS BOARD. AND I  
12 PARTICULARLY WANT TO RECOGNIZE AND EXPRESS MY DEEP  
13 GRATITUDE TO MY COLLEAGUES, ESPECIALLY THE FOUNDING  
14 MEMBERS, BUT ALL OF YOU. EIGHT YEARS IS A GOOD  
15 CHUNK OF TIME BY ANY MEASURE. AND I HOPE YOU'VE  
16 SEEN ME MATURE AND DEVELOP. BUT I WANT TO THANK YOU  
17 FOR LETTING ME LEARN FROM YOU AND, MOST OF ALL,  
18 BEING PATIENT WITH ME. THERE'S A LOT OF PASSIONATE,  
19 PRODUCTIVE DISCUSSIONS THAT HAPPEN ON THIS BOARD,  
20 AND I THINK THE RESULTS ARE WHAT WE'VE DONE.

21 I TOO WANT TO RECOGNIZE STAFF. IT'S BEEN  
22 AN HONOR TO WORK WITH THEM, BOTH THE PRESIDENT'S  
23 STAFF AND THE CHAIRMAN'S STAFF. AND ONE OTHER  
24 MEMBER OF THE TEAM WHO'S SORT OF LIKE THE 30TH  
25 MEMBER OF THE BOARD AND THAT IS JAMES. AS SOMEONE

**BARRISTERS' REPORTING SERVICE**

1 WHO PRACTICES LAW EVERY DAY, AND I TRY TO GIVE  
2 ADVICE, THE BEST ADVICE I POSSIBLY CAN TO MY CLIENT,  
3 I'VE OFTEN LOOKED AT YOUR SORT OF LEADERSHIP AND  
4 EXAMPLE, JAMES, BECAUSE WE'VE GIVEN A LOT OF  
5 PROBLEMS TO OUR LEGAL TEAM, AND THEY'VE DONE A  
6 FANTASTIC JOB.

7 I'M EXCITED ABOUT THIS NEW APPOINTMENT. I  
8 THINK IT'S GOING TO BE A LOT OF FUN, BUT BEING A  
9 PATIENT ADVOCATE IS PROBABLY THE GREATEST TITLE I'LL  
10 EVER HAVE. SO THANKS.

11 (APPLAUSE.)

12 CHAIRMAN THOMAS: THANK YOU VERY MUCH,  
13 BOTH OF YOU.

14 I'M GOING TO EXERCISE CHAIRMAN'S  
15 PREROGATIVE HERE. THE MILKIN GROUP'S FASTER CURES  
16 HAS A CONFERENCE STARTING FIRST THING IN THE MORNING  
17 IN WASHINGTON, D.C., TO WHICH I'VE BEEN INVITED TO  
18 REPRESENT CIRM AND STEM CELL INTERESTS. I NEED TO  
19 GET TO THE AIRPORT. WE HAVE ONE REMAINING ITEM.  
20 I'M GOING TO CEDE THE CHAIR. DEAN PULIAFITO IS  
21 GOING THERE TOO. ARE YOU ON THE SAME PLANE? LITTLE  
22 LATER. OKAY. SEE YOU THERE. CEDE THE MICROPHONE.

23 MS. BONNEVILLE: YOU NEED TO VOTE ON THE  
24 RESOLUTIONS.

25 CHAIRMAN THOMAS: WE NEED TO VOTE ON THE



**BARRISTERS' REPORTING SERVICE**

1 RESOLUTION? YOU MEAN THERE'S A CHANCE IT'S NOT  
2 UNANIMOUS? I AM LUMPING BOTH OF THESE TOGETHER.

3 MR. HARRISON: YOU ACTUALLY CAN'T. DAVID  
4 SERRANO-SEWELL WILL APPRECIATE THIS. BUT BECAUSE --

5 CHAIRMAN THOMAS: ALWAYS COUNT ON MR.  
6 HARRISON. HE'S LIKE THE ACCOUNTANT.

7 MR. HARRISON: BECAUSE HIS NOMINATION AND  
8 RESIGNATION OCCURRED AFTER THE BOARD AGENDA WAS  
9 POSTED, WE HAD TO ADD THIS ITEM, WHICH REQUIRES A  
10 SEPARATE VOTE AND A DETERMINATION BY YOU ALL THAT  
11 THE MATTER CAME TO YOUR ATTENTION AFTER THE AGENDA  
12 WAS POSTED, AND THAT IT'S NECESSARY TO TAKE ACTION  
13 NOW. IF THERE WOULD BE A MOTION TO THAT EFFECT,  
14 THAT WOULD BE GREAT.

15 DR. STEWARD: SO MOVED.

16 MS. GIBBONS: SECOND.

17 CHAIRMAN THOMAS: WE'RE VOTING SEPARATELY  
18 OR ONLY ON ONE?

19 MR. HARRISON: JUST THIS MOTION FIRST,  
20 THEN YOU CAN VOTE ON BOTH.

21 CHAIRMAN THOMAS: ALL THOSE IN FAVOR  
22 PLEASE SAY AYE. OPPOSED? THANK YOU. MARCY, ON THE  
23 PHONE.

24 MS. FEIT: YES.

25 CHAIRMAN THOMAS: THANK YOU, MARCY. ALL

**BARRISTERS' REPORTING SERVICE**

1 THOSE IN FAVOR OF THE TWO RESOLUTIONS BEING PASSED  
2 TOGETHER PLEASE SAY AYE. OPPOSED? ABSTENTIONS?  
3 MARCY.

4 MS. FEIT: YES.

5 CHAIRMAN THOMAS: GENTLEMEN,  
6 CONGRATULATIONS.

7 (APPLAUSE.)

8 CHAIRMAN THOMAS: SENATOR TORRES, PLEASE,  
9 WE HAVE ONE ITEM. IT'S KEVIN DOING A COMMUNICATIONS  
10 UPDATE. I APOLOGIZE, BUT I DO NEED TO RUN OR I'M  
11 GOING TO MISS THE SHUTTLE AND PLANE. THANK YOU,  
12 EVERYBODY, FOR A TERRIFIC TWO-DAY MEETING, A LOT OF  
13 HARD WORK, MANY HOURS. I THINK WE GOT GREAT  
14 RESULTS. THANK YOU.

15 MR. TORRES: ELONA, YOU NEED TO GET ON THE  
16 MIKE.

17 MS. BAUM: I THINK THERE'S ACTUALLY TWO  
18 ITEMS BECAUSE WE HAVEN'T HEARD SCOTT PRESENT A  
19 COUPLE MINOR CHANGES TO THE -- NEVER MIND. I STAND  
20 CORRECTED.

21 MR. TORRES: MR. KEVIN MCCORMACK,  
22 COMMUNICATIONS PLAN.

23 MR. MC CORMACK: MR. CHAIR, MEMBERS OF THE  
24 BOARD, THANK YOU VERY MUCH. MY NAME IS KEVIN  
25 MCCORMACK. I'M THE DIRECTOR OF COMMUNICATIONS AND

## BARRISTERS' REPORTING SERVICE

1 PATIENT ADVOCATE OUTREACH. BECAUSE THIS IS MY FIRST  
2 APPEARANCE BEFORE YOU, I THOUGHT I'D TAKE THE  
3 OPPORTUNITY TO GO OVER A LITTLE BIT ABOUT THE KIND  
4 OF COVERAGE WE'VE BEEN GETTING IN THE MEDIA, HOW  
5 WE'RE TRYING TO GET MORE, BUT ALSO SOME OF THE  
6 CHALLENGES WE FACE AS WE GO FORWARD.

7 I KNOW IT'S A HARD ACT TO FOLLOW EVEN IN  
8 THAT JACKET. I KNOW A LOT OF PEOPLE HAVE TALKED  
9 ABOUT THE STRUGGLES THAT TRADITIONAL MEDIA ARE  
10 HAVING, AND THERE ARE CERTAINLY SOME, BUT THERE ARE  
11 STILL, I THINK AS THIS SLIDE SHOWS, SOME ADVANTAGES  
12 TO THE TRADITIONAL MEDIA. AS SOMEONE WHO'S FALLEN  
13 ASLEEP MANY TIMES WITH AN IPAD, A NEWSPAPER IS A  
14 MUCH SOFTER THING TO LAND ON YOU.

15 IN RECENT MONTHS WE'VE HAD SOME  
16 CONSIDERABLE SUCCESS IN GETTING STORIES IN THE  
17 MEDIA. THE *SAN FRANCISCO CHRONICLE* HAS RUN A NUMBER  
18 OF STORIES SPECIFICALLY ABOUT FUNDING AND ALSO MORE  
19 RECENTLY ABOUT OUR WORK WITH MACULAR DEGENERATION.  
20 WE'VE HAD GOOD COVERAGE IN BOTH THE *SACRAMENTO BEE*,  
21 *SACRAMENTO BUSINESS JOURNAL*, ON KQED AND NPR, AND ON  
22 KIND OF LOCAL NEWSPAPERS SUCH AS KTSF, WHICH IS,  
23 SORRY, A LOCAL CHINESE LANGUAGE NEWS CHANNEL. AND  
24 EVEN WHEN OUR PRESIDENT, DR. TROUNSON, WENT TO  
25 AUSTRALIA, HE PRODUCED A ONE-MAN MEDIA BLITZ.

## BARRISTERS' REPORTING SERVICE

1 SO WE ARE HAVING SOME SUCCESS, BUT THERE  
2 ARE A LOT OF PROBLEMS AS WELL BECAUSE THE MEDIA, AS  
3 I'M SURE YOU'VE ALL NOTICED, IS SHRINKING, IT'S  
4 CHANGING. YOU ONLY HAVE TO PICK UP A LOCAL  
5 NEWSPAPER AND SEE HOW THIN IT IS THESE DAYS. ONCE  
6 YOU GET PAST THE FIRST COUPLE OF NEWS PAGES, YOU'RE  
7 INTO MOSTLY WIRE COPY AND STORIES FROM SYNDICATED  
8 NEWSPAPERS.

9 AND THERE'S A REASON WHY. THIS IS  
10 AFFECTING, NOT JUST THE QUALITY OF THE NEWS WE ALL  
11 GET, BUT ALSO THE QUALITY OF HEALTH JOURNALISM AND  
12 THE DIFFICULTY OF GETTING THE WORD OUT THERE. THE  
13 NUMBER OF SPECIALIST HEALTH JOURNALISTS, FOR  
14 INSTANCE, HAS DECLINED DRAMATICALLY IN THE LAST  
15 DECADE. MANY NEWSPAPERS AND RADIO STATIONS AND TV  
16 STATIONS HAVE NO HEALTH REPORTER, BUT IN FACT ASSIGN  
17 STORIES TO A GENERAL ASSIGNMENT REPORTER. NOW, IT'S  
18 HARD FOR A GENERAL ASSIGNMENT REPORTER TO BE ABLE TO  
19 KIND OF DIG DEEPLY INTO THE NUANCES OF HEALTH  
20 REPORTING. ONE DAY THEY'RE REPORTING ON A TRAFFIC  
21 ACCIDENT, THE NEXT ON CITY HALL, AND THE NEXT ON A  
22 NEW STUDY THAT'S COME OUT LOCALLY. IT'S VERY HARD  
23 FOR THEM TO DO THAT. NEWSPAPERS ARE TYPICALLY OFTEN  
24 KIND OF DELEGATING THAT TO SOMEONE ELSE, TAKING IT  
25 FROM THE ASSOCIATED PRESS OR THE *NEW YORK TIMES*, FOR

**BARRISTERS' REPORTING SERVICE**

1 INSTANCE.

2 THE *SAN JOSE MERCURY NEWS* IS ONE OF THE  
3 LARGEST LOCAL NEWSPAPERS THAT DOESN'T HAVE ITS OWN  
4 HEALTH REPORTER. IN FACT, THE BAY AREA NEWS GROUP  
5 WHICH COVERS MOST OF THE NEWSPAPERS IN THE BAY AREA  
6 HAS ONE SPECIALIST HEALTHCARE REPORTER. SO THAT  
7 MAKES IT DIFFICULT FOR US TO GET OUR MESSAGE OUT  
8 LOCALLY, AND THOSE PATTERNS ARE BEING REPEATED  
9 THROUGHOUT THE COUNTRY.

10 THAT HAS IMPACTS ON THE KINDS OF QUALITY  
11 OF COVERAGE YOU GET AS WELL. THE KAISER FAMILY  
12 FOUNDATION STUDY FOUND THAT 94 PERCENT OF HEALTH  
13 JOURNALISTS FELT THAT BUDGET CUTS WERE SERIOUSLY  
14 HURTING THE QUALITY OF HEALTHCARE NEWS COVERAGE.  
15 AND THERE WAS ONE RECENT EXAMPLE. THE CBC NEWS  
16 WEBSITE POSTED RESULTS FROM A STUDY SAYING THAT, AND  
17 THIS IS THE OPENING LINE, THERE MAY BE HOPE FOR  
18 PEOPLE WHO ARE UNABLE TO SMELL, BUT THE STUDY WAS  
19 DONE IN MICE. AND NO PEOPLE WERE INTERVIEWED. THEY  
20 JUST QUOTED A COUPLE OF PARAGRAPHS FROM THE NEWS  
21 RELEASE ITSELF.

22 NOW, THAT DOESN'T NECESSARILY MEAN THAT  
23 WHAT THEY REPORTED WAS WRONG, BUT IT SHOWS THAT THE  
24 KIND OF DEPTH OF REPORTING THAT WE'RE LOOKING FOR,  
25 THE KIND OF QUALITY OF REPORTING THAT WE'RE LOOKING

**BARRISTERS' REPORTING SERVICE**

1 FOR, AND TRADITIONALLY HAD COME TO EXPECT FROM THE  
2 MEDIA JUST ISN'T THERE ANYMORE.

3 SO MORE AND MORE WE'RE TURNING ON ONLINE.  
4 BUT EVEN THOUGH THERE'S A PROLIFERATION OF HEALTH  
5 SITES ONLINE, MOST OF THOSE ARE BLOGS OR  
6 INFORMATIONAL, NOT NEWS. EVEN ON THE SITES THAT ARE  
7 NEWS, REPORTERS ARE UNDER PRESSURE TO TURN AROUND  
8 STORIES FASTER AND TO POST STORIES MORE OFTEN. SO  
9 THERE'S LESS OVERALL CONTENT AND LESS OVERALL  
10 ORIGINAL CONTENT. IN FACT, IF YOU LOOK AT  
11 NEWSPAPER, ABOUT 6 PERCENT OF THE CONTENT OF A  
12 NEWSPAPER IS HEALTH COVERAGE. IF YOU GO TO THE  
13 EQUIVALENT SITE OF A NEWSPAPER ONLINE, IT'S ONLY  
14 ABOUT 2 PERCENT.

15 WHAT WE'RE DOING INCREASINGLY AND WHAT  
16 EVERYONE IS DOING INCREASINGLY IS TURNING TO THE  
17 SOCIAL MEDIA TO TRY AND GET THE MESSAGE OUT. THERE  
18 ARE A NUMBER OF ADVANTAGES ABOUT THAT OBVIOUSLY. IT  
19 ALLOWS YOU TO CREATE YOUR OWN MESSAGE, TO CONTROL  
20 YOUR OWN MESSAGE, AND TO BYPASS THE MORE TRADITIONAL  
21 MEDIA FILTERS. SO WE'RE USING BLOGS, FACEBOOK,  
22 YOUTUBE, TWITTER. GIVES YOU AN OPPORTUNITY TO GET  
23 YOUR MESSAGE OUT THERE AND TO BE VERY MUCH MORE  
24 TARGETED IN TERMS OF THE GROUPS YOU SHARE.

25 FOR INSTANCE, AT CIRM WE'VE BEEN USING A

**BARRISTERS' REPORTING SERVICE**

1 LOT OF -- WORKING WITH OUR PATIENT ADVOCATE FRIENDS.  
2 AND LEEZA IS A PERFECT EXAMPLE OF SOMEONE WE'VE BEEN  
3 USING TO TRY AND GET THE MESSAGE OUT TO VERY  
4 SPECIFIC GROUPS. SO IT MEANS YOU CAN BE MORE  
5 TARGETED IN THE AUDIENCE YOU GET THE MESSAGE OUT TO.  
6 OF COURSE, IT'S GOING TO BE A SMALLER AUDIENCE.

7 SO HERE'S HOW THE STEM CELL AGENCY HAS  
8 BEEN USING THE WEB. WE USE YOUTUBE, FACEBOOK,  
9 TWITTER, LINKED-IN, E-MAILS, THE PRESIDENT'S BLOG,  
10 ALL SORTS OF DIFFERENT OPPORTUNITIES, ANYTHING THAT  
11 WE CAN THINK OF TO DIRECT PEOPLE MOSTLY BACK TO OUR  
12 WEBSITE BECAUSE THAT'S WHERE WE CAN GIVE THEM THE  
13 INFORMATION THAT WE REALLY CONTROL, THE INFORMATION  
14 WHERE THEY CAN GET KNOWLEDGE ABOUT NOT JUST WHAT WE  
15 DO, BUT HOW WE DO IT AND WHO WE DO IT WITH. SO FOR  
16 US IT'S THE MOST EFFECTIVE WAY OF KIND OF DRIVING  
17 PEOPLE TOWARDS OUR SITE. SO WE'RE USING THE SOCIAL  
18 MEDIA IN AS MANY DIFFERENT WAYS AS WE CAN.

19 RIGHT NOW WE'RE GETTING ABOUT, WITH ALL  
20 OUR DIFFERENT SOCIAL MEDIA OUTLETS, WE'RE GETTING  
21 ABOUT 70,000 VIEWS TO OUR WEBSITE. OVER THE NEXT  
22 YEAR, WE HOPE TO INCREASE THAT TO ABOUT 100,000, AND  
23 THEN OVER THE NEXT FEW YEARS TO ABOUT 250,000.  
24 OBVIOUSLY THERE'S A NUMBER OF CHALLENGES IN THIS.

25 I THINK ONE OF THE BIGGEST IS THAT NO ONE

**BARRISTERS' REPORTING SERVICE**

1 REALLY KNOWS HOW SOCIAL MEDIA IS GOING TO EVOLVE.  
2 IT CHANGES FAIRLY RAPIDLY. ALL WE KNOW IS THAT WE  
3 HAVE TO KEEP ON TOP OF IT, THAT IT'S VERY USEFUL.  
4 IT'S A WAY OF GETTING YOUR MESSAGE OUT AND BEING  
5 PART OF A CONVERSATION, A GENERAL CONVERSATION, THAT  
6 YOU CAN'T DO WITH THE TRADITIONAL MEDIA.  
7 TRADITIONAL MEDIA IS STILL VERY IMPORTANT. IT'S THE  
8 BEST WAY OF REACHING A LARGE NUMBER OF PEOPLE WITH A  
9 SINGLE MESSAGE. BUT WE HAVE TO KIND OF REPLICATE  
10 THAT, THE PIECES WE GET IN THE TRADITIONAL MEDIA AND  
11 TV AND RADIO, AND WORK WITH THOSE AND GET THEM OUT  
12 ONLINE AS WELL SO THAT WE HIT AS MANY DIFFERENT  
13 PEOPLE AS POSSIBLE.

14 WITH THAT.

15 MR. TORRES: WE ALSO WANT TO THANK DON  
16 GIBBONS AND AMY AND TODD, OUR VIDEOGRAPHER, WHO  
17 ALMOST WON AN AWARD UNTIL SOMEBODY SKEWED THE  
18 RESULTS, I THINK, AN INCREDIBLE VIDEO ON DIABETES.  
19 I WANT TO THANK YOU, KEVIN, FOR THE WORK YOU'VE BEEN  
20 DOING TO BRING US INTO THE FUTURE AND TO MOVE OUR  
21 AGENDA AND OUR MESSAGE OUT TO THE WORLD. AND,  
22 AGAIN, TO THE TEAM THAT'S PART OF THE COMMUNICATION  
23 TEAM AT CIRM, I PERSONALLY WANT TO THANK EACH AND  
24 EVERY ONE OF YOU AS WELL.

25 MR. MC CORMACK: GREAT TEAM. I'D LIKE TO



**BARRISTERS' REPORTING SERVICE**

1 CONGRATULATE TODD IN ADVANCE WHO'S ACTUALLY WAITING.  
2 HE CAME HERE TODAY LEAVING BEHIND HIS HEAVILY  
3 PREGNANT WIFE, AND WE'RE EXPECTING GOOD NEWS FAIRLY  
4 SOON, WE HOPE.

5 MR. TORRES: GOOD FOR YOU. A FUTURE  
6 VOTER.

7 ANY OTHER COMMENTS?

8 MR. MC CORMACK: I'VE JUST BEEN ADVISED BY  
9 LEGAL COUNSEL NOT TO CALL HER HEAVILY PREGNANT.

10 MR. TORRES: THANK YOU. LET THE RECORD  
11 SHOW THAT WILL BE STRICKEN FROM THE RECORD. THANK  
12 YOU.

13 ANY OTHER COMMENTS FROM MEMBERS OF THE  
14 BOARD? WE WANT TO THANK YOU ALL VERY MUCH. MOTION  
15 TO ADJOURN WILL BE ENTERTAINED.

16 (MULTIPLE MOTIONS AND MULTIPLE  
17 SECONDS.)

18 MR. TORRES: ALL IN FAVOR SIGNIFY BY  
19 SAYING AYE. OPPOSED? WE ARE ADJOURNED.

20 (THE MEETING WAS THEN CONCLUDED AT  
21 03:14 P.M.)

22  
23  
24  
25

**BARRISTERS' REPORTING SERVICE**

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

CROWNE PLAZA HOTEL  
1177 AIRPORT BOULEVARD  
BURLINGAME, CALIFORNIA  
ON  
SEPTEMBER 6, 2012

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

BETH C. DRAIN, CSR 7152  
BARRISTER'S REPORTING SERVICE  
160 S. OLD SPRINGS ROAD  
SUITE 270  
ANAHEIM, CALIFORNIA  
(714) 444-4100