

BEFORE THE  
SCIENCE SUBCOMMITTEE OF 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: AS INDICATED ON THE AGENDA

DATE: TUESDAY, APRIL 26, 2011  
2 P.M.

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

BRS FILE NO.: 89802

## BARRISTERS' REPORTING SERVICE

### I N D E X

ITEM DESCRIPTION	PAGE NO.
CALL TO ORDER	3
ROLL CALL	6
3. CONTINUED DISCUSSION OF AND CONSIDERATION OF CHANGES TO EXTRAORDINARY PETITION AND GRANT ADMINISTRATION APPEALS PROCESSES.	NOT HEARD
4. DISCUSSION AND CONSIDERATION OF PROCESS FOR OBTAINING SUPPLEMENTAL INFORMATION FROM APPLICANTS FOR CLINICAL TRIAL AND DISEASE TEAM GRANT ROUNDS, INCLUDING AN OPPORTUNITY TO OBTAIN INFORMATION DURING PEER REVIEW, SUBJECT TO LATER STAFF CONFIRMATION, OF ADDITIONAL DATA NOT PRESENTED IN THE APPLICATION.	NOT HEARD
5. CONSIDERATION OF ADDITIONAL CYCLE OF NEW FACULTY AWARDS PROGRAM.	60
6. CONSIDERATION OF IPSC REPOSITORY.	6
7. PUBLIC COMMENT.	26

**BARRISTERS' REPORTING SERVICE**

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TUESDAY, APRIL 26, 2011

02:03 P.M.

CHAIRMAN SHEEHY: I'D LIKE TO CALL THE MEETING TO ORDER. MELISSA, WOULD YOU LIKE TO CALL THE ROLL.

MS. KING: I WILL. SUE BRYANT.

DR. BRYANT: HERE.

MS. KING: MARCY FEIT. MICHAEL FRIEDMAN.

DR. FRIEDMAN: HERE.

MS. KING: BOB KLEIN.

CHAIRMAN KLEIN: HERE.

MS. KING: FRANCISCO PRIETO. PHIL PIZZO. DUANE ROTH.

MR. ROTH: HERE.

MS. KING: JOAN SAMUELSON.

MS. SAMUELSON: HERE.

MS. KING: JEFF SHEEHY.

CHAIRMAN SHEEHY: HERE.

MS. KING: OSWALD STEWARD. AND ART TORRES.

MR. TORRES: HERE.

MS. KING: OKAY. AND, JAMES HARRISON, ARE YOU ON THE LINE?

MR. HARRISON: I AM.

**BARRISTERS' REPORTING SERVICE**

1 MS. KING: JUST TO GO OVER WHO'S HERE WITH  
2 ME IN THE ROOM IN SAN FRANCISCO, WE HAVE A MEMBER OF  
3 THE PUBLIC, JUDY ROBERSON. WHO JUST JOINED THE  
4 CALL?

5 DR. STEWARD: THIS IS OS STEWARD.

6 MS. KING: GREAT. THANK YOU SO MUCH, DR.  
7 STEWARD. I'M JUST GOING THROUGH THE ROLL. SO  
8 PERFECT TIMING. AND WHO'S WITH ME HERE IN SAN  
9 FRANCISCO AT THE CIRM. SO I HAVE JEFF SHEEHY AND  
10 ART TORRES WITH ME AS WELL AS LYNN HARWELL, GEOFF  
11 LOMAX, PATRICIA OLSON, CYNTHIA SCHAFFER, ELONA BAUM,  
12 AGAIN JUDY ROBERSON, MEMBER OF THE PUBLIC, GIL  
13 SAMBRANO, ELLEN FIEGAL, AND LAST, BUT NOT LEAST, OUR  
14 PRESIDENT, ALAN TROUNSON, I BELIEVE WEARING COWBOY  
15 BOOTS. AM I RIGHT? NO. SORRY ABOUT THAT.

16 OKAY. SO THAT'S WHO'S WITH US HERE IN SAN  
17 FRANCISCO. DO WE HAVE MEMBERS OF THE PUBLIC AT ANY  
18 OF OUR OTHER SITES?

19 MR. THOMAS: THIS IS JOHN THOMAS ON THE  
20 LINE.

21 MS. KING: THANK YOU. DO WE HAVE ANY  
22 OTHER MEMBERS OF THE PUBLIC?

23 MS. FEIT: THIS IS MARCY FEIT CHECKING IN,  
24 AND I HAVE NO ONE HERE.

25 MS. KING: GREAT. THANK YOU SO MUCH,

## BARRISTERS' REPORTING SERVICE

1 MARCY. AND AS YOU CAN PROBABLY TELL, WE'RE JUST  
2 GETTING STARTED. WE JUST WENT THROUGH A ROLL CALL,  
3 AND WITH YOU I BELIEVE WE HAVE A QUORUM. SO THANK  
4 YOU. I WILL TURN IT OVER TO OUR ILLUSTRIOUS CHAIR,  
5 MR. JEFF SHEEHY.

6 CHAIRMAN SHEEHY: SO I'M GOING TO CHANGE  
7 THE ORDER OF THE AGENDA, IF THAT'S OKAY. FIRST OF  
8 ALL, ITEM NO. 3, DISCUSSION OF EXTRAORDINARY  
9 PETITIONS PROCESS, I THINK THAT THAT'S JUST AN  
10 ARTIFACT THAT GOT CARRIED FORWARD. NO ONE HAS BEEN  
11 ABLE TO IDENTIFY WHAT ISSUES REMAIN. IT SEEMS LIKE  
12 THAT THE APPEAL FOR ADDITIONAL ANALYSIS, WE USED  
13 THAT PROCESS AT THE LAST MEETING AND THAT WORKED  
14 WELL. AND SO I DON'T THINK THAT THERE'S ANY OTHER  
15 TWEAKING WE NEED TO DO FOR RIGHT NOW.

16 ITEM NO. 4, STAFF IS STILL WORKING ON  
17 THAT. AND SO WE DECIDED TO PUT THAT FORWARD TO  
18 HOPEFULLY ANOTHER SCIENCE SUBCOMMITTEE MEETING IN  
19 JUNE WHERE WE CAN HAVE A FULL DISCUSSION OF THOSE  
20 ISSUES. IT'S A LITTLE BIT PREMATURE TO BE TALKING  
21 ABOUT THAT UNTIL WE HAVE ALL THE -- TILL STAFF IS  
22 READY FOR US TO WORK ON SOMETHING.

23 SO WHAT I'D LIKE TO DO IS GO STRAIGHT TO  
24 ITEM NO. 6, WHICH IS THE ONE THAT IS PROBABLY MOST  
25 TIMELY AND MOST IMMEDIATE, WHICH IS CONSIDERATION OF

## BARRISTERS' REPORTING SERVICE

1 THE IPSC REPOSITORY. THERE'S A DOCUMENT THAT  
2 ACCOMPANIES THIS ITEM YOU SHOULD HAVE. AND I THINK  
3 DR. FEIGAL WILL CONDUCT -- LEAD US THROUGH THIS.

4 DR. FEIGAL: OKAY. THANKS VERY MUCH. AND  
5 I HOPE YOU ALL HAD THE OPPORTUNITY TO READ THE  
6 DOCUMENT, BUT I WILL TRY AND SUMMARIZE IT REALLY  
7 BRIEFLY. SO THANKS FOR THE OPPORTUNITY TO PRESENT  
8 THIS, AND THANKS FOR THE MEMBERS OF THE PUBLIC THAT  
9 JOINED US TODAY ON THIS IMPORTANT TOPIC.

10 SO CIRM IS REALLY PROPOSING A TWO-STEP  
11 CONCEPT TO DEVELOP INDUCED PLURIPOTENT STEM CELL  
12 RESEARCH RESOURCES TO FACILITATE THE SCIENTIFIC  
13 EVALUATION OF THESE TYPES OF CELLS FOR DRUG  
14 DISCOVERY AND DISEASE MODELING PURPOSES.

15 THE FIRST STEP OF THIS CONCEPT IS TO  
16 PROVIDE FUNDING IN SUPPORT OF THE INDUCED  
17 PLURIPOTENT STEM CELL CONSORTIA THAT IS FOCUSED ON  
18 NEURODEGENERATIVE DISEASES THAT'S CONDUCTED BY THE  
19 NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND  
20 STROKE THROUGH A PUBLIC/PRIVATE PARTNERSHIP  
21 COORDINATED BY THE FOUNDATION FOR THE NATIONAL  
22 INSTITUTES OF HEALTH. AND THE FOUNDATION IS ALSO A  
23 NONPROFIT ORGANIZATION.

24 THE CIRM COMPONENT OF THE NIH FUNDING  
25 WOULD BE APPROXIMATELY A HUNDRED FIFTY THOUSAND PER

## BARRISTERS' REPORTING SERVICE

1 YEAR FOR TWO YEARS OUT OF A TOTAL OF 4.5 MILLION PER  
2 YEAR FROM NINDS, WITH THE SECOND YEAR FUNDING  
3 DEPENDING ON NINDS APPROPRIATION. AND THIS WOULD  
4 BE -- OUR PART OF THE FUNDING WOULD BE PROVIDED TO  
5 MERITORIOUSLY REVIEWED APPLICANTS FROM CALIFORNIA.

6 THE SECOND STEP OF THE CONCEPT WOULD BE  
7 FOR CIRM TO PROVIDE SIMILAR RESEARCH RESOURCES IN  
8 OTHER DISEASE AREAS POTENTIALLY IN COLLABORATION  
9 WITH OTHER PARTNERS. AND THIS SECOND STEP OF THE  
10 CONCEPT WILL BE BROUGHT TO THE SCIENCE COMMITTEE,  
11 THE GWG, AND THE ICOC SOMETIME LATER THIS YEAR OR  
12 EARLY NEXT.

13 SO LET'S GO BACK TO THE FIRST STEP OF THIS  
14 PROPOSAL, WHICH IS A PROJECT DESIGN TO DEVELOP  
15 WELL-CHARACTERIZED, PUBLICLY AVAILABLE INDUCED  
16 PLURIPOTENT STEM CELL LINES FOR SCIENTIFIC  
17 EVALUATION OF DISEASE MODELING AND DRUG DISCOVERY IN  
18 THE NEURODEGENERATIVE DISEASES OF PARKINSON'S  
19 DISEASE, HUNTINGTON'S DISEASE, AND AMYOTROPHIC  
20 LATERAL SCLEROSIS.

21 THERE ARE THREE CONSORTIA THAT WERE  
22 INITIALLY LAUNCHED AND FUNDED BY NINDS, THE NATIONAL  
23 INSTITUTE OF NEUROLOGIC DISORDERS AND STROKE BACK IN  
24 2009, AND THEY WERE FOCUSED ON DEVELOPING  
25 WELL-CHARACTERIZED, PUBLICLY AVAILABLE IPS CELL

## BARRISTERS' REPORTING SERVICE

1 LINES FOR THESE DIFFERENT FORMS OF NEURODEGENERATIVE  
2 DISEASES. THIS CONSORTIUM APPROACH ENABLED RAPID  
3 RESOURCE AND ANALYTICAL TOOL DEVELOPMENT AND THE  
4 INITIAL IDENTIFICATION OF CELLULAR PHENOTYPES THAT  
5 WERE ASSOCIATED WITH LATE ONSET NEURODEGENERATIVE  
6 DISEASE IN IPS CELL-DERIVED NEURONAL CULTURES.

7 ALL THE FIBROBLAST LINES AND THE IPS CELL  
8 LINES DEVELOPED THROUGH THIS CONSORTIA WILL BE MADE  
9 AVAILABLE THROUGH THE REPOSITORY AT CORIELL.

10 IN 2010, LAST YEAR, NINDS HELD TWO  
11 WORKSHOPS FOR THE CONSORTIA, INVESTIGATORS,  
12 NONGOVERNMENT ORGANIZATIONS, AND INDUSTRY  
13 REPRESENTATIVES TO DISCUSS THE PROGRESS OF THE  
14 CONSORTIA IN DEVELOPING IPS CELL DISEASE-SPECIFIC  
15 LINES AND PROTOCOLS AND METHODOLOGIES FOR CELL TYPE  
16 SPECIFIC DIFFERENTIATION AND LINEAGE ANALYSIS.

17 THE WORKSHOPS ALSO PROVIDED INDUSTRY  
18 PERSPECTIVES REGARDING THE CHALLENGES THAT REMAIN  
19 FOR THE UTILIZATION OF THE PATIENT-DERIVED IPS CELL  
20 LINE IN THE DRUG DEVELOPMENT PROCESS. TODAY THE  
21 CONSORTIA HAS DEVELOPED MORE THAN 87 FIBROBLAST  
22 LINES IN THESE DIFFERENT NEURODEGENERATIVE DISEASES  
23 AND 25 IPS CELL LINES.

24 THIS PROPOSAL WOULD EXTEND THE LIFE OF THE  
25 IPS CONSORTIA FOR AN ADDITIONAL TWO YEARS WORKING IN



## BARRISTERS' REPORTING SERVICE

1 PARTNERSHIP WITH THE FOUNDATION FOR NIH AND OTHER  
2 PUBLIC/PRIVATE PARTNERS IN WHICH CIRM WOULD BE ONE  
3 OF THOSE PARTNERS IN ORDER TO PROMOTE THE CONTINUED  
4 DEVELOPMENT OF THIS RICH RESEARCH RESOURCE, WHICH  
5 WILL ENABLE AND ENCOURAGE COLLABORATIVE RESEARCH  
6 AMONG ACADEMIC AND INDUSTRY INVESTIGATORS AND  
7 ULTIMATELY ACCELERATE BASIC SCIENCE DISCOVERIES AND  
8 THERAPEUTIC DEVELOPMENT FOR LATE ONSET  
9 NEURODEGENERATIVE DISEASES.

10 CIRM, AS AN INSTITUTE, WE DESIRE TO  
11 SUPPORT THIS PROJECT, WHICH IS ALIGNED WITH CIRM'S  
12 MISSION AND ALSO RECOMMENDATIONS OF OUR EXTERNAL  
13 REVIEW PANEL TO MAINTAIN FOCUS ON MEANINGFUL,  
14 TARGETED SCIENTIFIC EXCELLENCE, TO ADOPT A MORE  
15 AGGRESSIVE, PROACTIVE APPROACH TO IDENTIFYING  
16 INNOVATIVE PROJECTS ACROSS THE STEM CELL THERAPEUTIC  
17 LANDSCAPE THAT SHOWS PROMISE FOR MOVING INTO  
18 TRANSLATIONAL RESEARCH, CLINICAL TRIALS, AND PRODUCT  
19 DEVELOPMENT, AND ALSO TO ENSURE SERIOUS ENGAGEMENT  
20 WITH INDUSTRY.

21 POTENTIAL BENEFITS TO CIRM OF BEING PART  
22 OF THIS PUBLIC/PRIVATE PARTNERSHIP WITH NINDS IS THE  
23 OPPORTUNITY TO PLAY A ROLE IN A NATIONAL EFFORT BY  
24 LEVERAGING RESOURCES AND EXPERTISE, ACCESS TO CIRM  
25 FUND INVESTIGATORS AS A NATIONAL RESOURCE IN IPS

## BARRISTERS' REPORTING SERVICE

1 CELL LINES, AS WELL AS THE OPPORTUNITY FOR MORE  
2 IN-DEPTH INTERACTIONS WITH INDUSTRY, TRANSLATIONAL  
3 SCIENTISTS, AND PATIENT ADVOCACY ENGAGEMENT ALL  
4 FOCUSED ON INCREASING THE KNOWLEDGE OF STRATEGIC  
5 THERAPEUTIC AREAS AND CATALYZING THE DEVELOPMENT OF  
6 MORE ACCURATE AND PREDICTIVE SCREENS FOR DRUG  
7 DISCOVERY AND DEVELOPMENT.

8 THAT'S SORT OF A *READER'S DIGEST* VERSION  
9 OF WHAT YOU HAVE AS A DOCUMENT THAT'S ON OUR PUBLIC  
10 WEBSITE. MAYBE AT THIS POINT I COULD TAKE TIME TO  
11 ANSWER SPECIFIC QUESTIONS.

12 CHAIRMAN KLEIN: JEFF, COULD I ASK A  
13 QUESTION OF ELLEN?

14 CHAIRMAN SHEEHY: SURE. PLEASE.

15 CHAIRMAN KLEIN: ELLEN, MY UNDERSTANDING  
16 OF THIS IS THAT WE GET THE ADVANTAGE OF SUBSTANTIAL  
17 LEVERAGE BECAUSE THE TOTAL AMOUNT BEING PUT UP BY  
18 THE PARTNERS IS 4.5 MILLION AND WE'RE PUTTING UP  
19 150,000?

20 DR. FEIGAL: THAT'S RIGHT.

21 CHAIRMAN KLEIN: WHAT DOES IT MEAN WHEN IT  
22 SAYS THE PROJECT FOR CIRM IS A HUNDRED FIFTY  
23 THOUSAND FOR TWO YEARS, AND THE DOLLARS, 300,000  
24 TOTAL, THE DOLLARS WOULD BE DIRECTED TO  
25 CALIFORNIA-BASED INVESTIGATORS? WHAT DOES THAT

## BARRISTERS' REPORTING SERVICE

1 MEAN?

2 DR. FEIGAL: WELL, RIGHT NOW THIS IS A  
3 COMPETITIVE SUPPLEMENT TO THE ALREADY EXISTING THREE  
4 CONSORTIA, ONE FOCUSED ON PARKINSON'S, ONE FOCUSED  
5 ON HUNTINGTON'S, ONE FOCUSED ON ALS. TWO OF THOSE  
6 THREE CONSORTIA HAVE CALIFORNIA INVESTIGATORS ON  
7 THEM. SO IF THE CURRENTLY CONFIGURED CONSORTIA WHO  
8 ARE ELIGIBLE TO APPLY DO APPLY, WE WOULD HAVE THE  
9 OPPORTUNITY TO TAKE A LOOK AT THE OPPORTUNITY TO  
10 FUND AT LEAST PART OF WHAT THEY RECEIVE FROM THE NIH  
11 FROM OUR FUNDS.

12 IN ADDITION, BY BEING A PARTNER, WE HAVE  
13 THE ABILITY TO SIT ON THE STEERING COMMITTEE AS ONE  
14 OF THE PUBLIC/PRIVATE PARTNERS TO TALK ABOUT THE  
15 RESEARCH, TO HELP THINK ABOUT WAYS TO LEAD THAT  
16 RESEARCH FORWARD. SO THE ONE PART OF IT IS THE  
17 FINANCIAL. I THINK THE MORE INTANGIBLE PART OF IT  
18 IS THE INTERACTION AND EXPOSURE TO THIS NATIONAL  
19 NETWORK AND A CHANCE TO BE ON THE LEADING EDGE OF AN  
20 IPS REPOSITORY AND HOW IT'S UTILIZED.

21 DR. BRYANT: COULD I ASK A QUESTION,  
22 PLEASE? I'M JUST A LITTLE BIT UNSURE ABOUT WHAT  
23 ACCESS WE WOULD HAVE IN CALIFORNIA WITH FUNDING OF  
24 EITHER IN NIH -- OR, WELL, I GUESS FROM CIRM  
25 FUNDING. WHAT ACCESS WOULD WE HAVE TO SUCH A

## BARRISTERS' REPORTING SERVICE

1 CONSORTIUM IF WE DIDN'T PONY UP? I MEAN IS THIS A  
2 PRIVATE KIND OF THING THAT ONLY PEOPLE THAT HAVE  
3 CONTRIBUTED TO CAN GET INTO?

4 DR. FEIGAL: THE INTENT IS THAT THIS WOULD  
5 BE A PUBLICLY AVAILABLE RESEARCH RESOURCE. AND FOR  
6 A MODEST FUNDING COMMITMENT COMPARED TO THE TOTAL  
7 FUNDING COMMITMENT, WE'D ACTUALLY BE ALLOWED TO HAVE  
8 A PART OF A LEADERSHIP ROLE ON THIS STEERING  
9 COMMITTEE OF THIS RESEARCH RESOURCE.

10 DR. BRYANT: SO WE'RE BUYING INTO THE  
11 MANAGEMENT OR THE DIRECTION AND LEADERSHIP OF THIS,  
12 NOT NECESSARILY ACCESS TO IT? I JUST WANTED TO BE  
13 CLEAR ABOUT THAT.

14 DR. FEIGAL: WELL, IT WOULD BE A PUBLICLY  
15 ACCESSIBLE RESEARCH RESOURCE, YOU'RE RIGHT,  
16 REGARDLESS OF WHETHER OR NOT WE PUT DOWN THIS  
17 RELATIVELY MODEST AMOUNT OF FUNDING. I THINK IT'S  
18 MORE THE LEADERSHIP AND THE INTERACTIONS THAT ARE  
19 OTHER ATTRACTANTS TO BE INVOLVED HERE.

20 MR. HARRISON: DR. FEIGAL, JUST TO  
21 INTERJECT FOR A MOMENT. DR. BRYANT MAY NOT KNOW  
22 THAT UCI IS INVOLVED IN ONE OF THE CONSORTIA. SO  
23 SHE SHOULD, THEREFORE, REFRAIN FROM PARTICIPATING IN  
24 THIS DISCUSSION.

25 DR. BRYANT: CAN I LISTEN THOUGH?

**BARRISTERS' REPORTING SERVICE**

1 MR. HARRISON: ABSOLUTELY.

2 DR. FEIGAL: CEDARS-SINAI IS ANOTHER  
3 INSTITUTION. I DON'T BELIEVE THERE'S ANYBODY THAT  
4 WOULD BE INVOLVED WITH THAT.

5 MR. HARRISON: NO ONE WHO'S ON THE PHONE  
6 CURRENTLY.

7 CHAIRMAN KLEIN: SO FROM A LEADERSHIP  
8 PERSPECTIVE, ARE WE GAINING INFORMATION AND  
9 KNOWLEDGE ABOUT HOW TO HAVE OUR OWN IPSC REPOSITORY  
10 IN THE FUTURE? IT'S MY UNDERSTANDING THAT'S ONE OF  
11 THE GOALS OF THIS PARTICIPATION.

12 DR. FEIGAL: BOB, I THINK YOU'RE  
13 ABSOLUTELY CORRECT, AND THAT'S WHY I PRESENTED AS A  
14 TWO-STEP CONCEPT. SO THIS WOULD BE PART OF WHOLE.  
15 WE'D HAVE THE OPPORTUNITY TO WORK ON THIS IN  
16 NEURODEGENERATIVE DISEASES, HAVE LESSONS LEARNED IN  
17 TERMS OF HOW THIS COULD BE DEVELOPED, HOW IT COULD  
18 BE UTILIZED, THE INTERACTIONS WITH OTHER  
19 TRANSLATIONAL SCIENTISTS AND INDUSTRY, AND THEN TAKE  
20 SOME OF THESE LESSONS LEARNED TO APPLY IT.

21 NOW, CIRM, AS YOU KNOW, HAS HAD OUR OWN  
22 WORKSHOP ON IPS ISSUES AND HOW TO DEVELOP A ROBUST  
23 REPOSITORY AND A FRAMEWORK OF ORGANIZATION.

24 SO, YEAH, I WOULD VIEW IT AS WE WOULD BE  
25 ABLE TO UTILIZE SOME LESSONS LEARNED FROM THIS FIRST

## BARRISTERS' REPORTING SERVICE

1 STEP.

2 DR. TROUNSON: I THINK IT'S VERY IMPORTANT  
3 TO RECOGNIZE THAT THERE'S NOT A LOT KNOWN ABOUT THE  
4 CAUSES, THE BASIC CAUSES, OF SOME OF THESE  
5 NEURODEGENERATIVE DISEASES. I THINK THAT THEY'RE  
6 PRETTY COMPLEX AND PROBABLY INVOLVE A RAFT OF GENES  
7 AND A RAFT OF SITUATIONS, ENVIRONMENTAL EFFECTS. SO  
8 TO BE ABLE TO BE INVOLVED IN A VERY MAJOR SCREEN  
9 WOULD BE VERY INFORMATIVE, I THINK, AND WOULD HELP  
10 US TO BE ABLE TO FEED BACK TO OUR SCIENTISTS SORT OF  
11 THE FRONT LINE OF WHAT'S MOVING IN THIS AREA.

12 AND PARTICULARLY BECAUSE THIS IS ONE OF  
13 THE -- THIS IS ONE OF THE DIFFICULT AREAS FOR ALL OF  
14 US TO HAVE AN IMPACT. SO WHATEVER WE CAN DO IN  
15 THESE AREAS, AND THIS I THINK IS A GREAT  
16 OPPORTUNITY, WHATEVER WE CAN DO IN THESE AREAS,  
17 WE'LL ACTUALLY MOVE OUR PROGRAM FORWARD.

18 CHAIRMAN SHEEHY: IS THIS OUR FIRST FORMAL  
19 COLLABORATION WITH THE NIH?

20 DR. TROUNSON: THERE'S ONE ON THE TABLE,  
21 JEFF, WHICH IS STILL HAVING SOME ISSUES ABOUT  
22 GETTING SOLVED. WE HAVE AN AGREEMENT THAT HASN'T  
23 ACTUALLY YET BEEN SIGNED WITH THE CLINICAL INSTITUTE  
24 AT NIH. SO THEY ARE WAITING BECAUSE THE TRANSLATION  
25 CENTER IS JUST BEING FORMED, AND THEY WANT THAT TO

## BARRISTERS' REPORTING SERVICE

1 BE PART OF THE ARRANGEMENT.

2 DR. FEIGAL: THAT'S IN THE WORKS. THIS  
3 WOULD ACTUALLY BE THE FIRST.

4 CHAIRMAN SHEEHY: BOB, DID YOU HAVE A  
5 QUESTION?

6 CHAIRMAN KLEIN: I CAN WAIT ON MY  
7 QUESTIONS IF ANOTHER BOARD MEMBER WOULD LIKE TO ASK  
8 A QUESTION FIRST.

9 MS. SAMUELSON: I HAVE A QUESTION. THIS  
10 IS JOAN. THANK YOU, ALAN, FOR MENTIONING THE  
11 ENVIRONMENTAL CONNECTION. THERE'S A FAIR AMOUNT,  
12 ALTHOUGH NOT NEARLY ENOUGH, KNOWN ABOUT THE CAUSE OF  
13 PARKINSON'S AS FAR AS THE ENVIRONMENT PLAYS A ROLE.  
14 AND I'M WONDERING IF YOU KNOW, ALAN, IF OTHER  
15 INSTITUTES AT THE NIH THAT ARE INVOLVED IN SOME OF  
16 THESE ISSUES ARE GOING TO BE COLLABORATING OR  
17 WHETHER --

18 DR. FEIGAL: JOAN, FOR THIS PARTICULAR ONE  
19 THAT'S FOCUSED ON NEURODEGENERATIVE DISEASES, THE  
20 LEAD INSTITUTE AND I THINK THE ONLY INSTITUTE AT NIH  
21 WILL BE THE NINDS, BUT THERE WILL BE OTHER PARTNERS  
22 FROM PATIENT FOUNDATIONS AND FROM INDUSTRY THAT WILL  
23 WANT TO BE A PART OF THIS PUBLIC/PRIVATE  
24 PARTICIPATION.

25 MS. SAMUELSON: WELL, LET ME JUST LET YOU

## BARRISTERS' REPORTING SERVICE

1 KNOW THAT THE NATIONAL INSTITUTE FOR ENVIRONMENTAL  
2 HEALTH SCIENCES HAS PLAYED A VERY IMPORTANT ROLE IN  
3 FUNDING SOME OF THE KEY DEVELOPMENTS IN UNCOVERING  
4 ENVIRONMENTAL CAUSES AND TYING THEM TO GENETIC  
5 PREDISPOSITIONS AND SO ON. AND SO IT WOULD BE  
6 IMPORTANT THAT ALL OF THAT DATA IS SOMEHOW PART OF  
7 THIS.

8 DR. FEIGAL: THAT'S A GOOD POINT. I  
9 THOUGHT YOU WERE ASKING ABOUT NIH, BUT THERE MAY BE  
10 OTHER AGENCIES.

11 MS. SAMUELSON: WELL, NIEHS IS AT NIH.  
12 IT'S ONE OF THE NIH INSTITUTES, ENVIRONMENTAL HEALTH  
13 SCIENCES, AND THEY PLAYED A KEY ROLE.

14 YOU MENTIONED LATE ONSET. I WONDERED WHAT  
15 THAT MEANT.

16 DR. FEIGAL: JOAN, I THINK THERE WILL BE  
17 DIFFERENT STAGES OF DISEASE THAT WILL BE LOOKED AT  
18 IN PARKINSON'S. AND SO I THINK THEY'LL WANT TO GET  
19 A DIVERSITY. SO AT THIS POINT IN TIME, I CAN'T  
20 REALLY COMMENT ON THE EXACT CLINICAL PARAMETERS OR  
21 HOW THEY'RE ASSESSING THE LATENESS OF THE DISEASE IN  
22 PARKINSON'S. BUT ALL THOSE PARAMETERS IN TERMS OF  
23 CLINICAL, GENETIC, LABORATORY WORK THAT WILL BE DONE  
24 TO ASSESS THAT, I THINK THEY'LL WANT A DIVERSITY OF  
25 THE MATURATION OF THE DISEASE.



**BARRISTERS' REPORTING SERVICE**

1 MS. SAMUELSON: OKAY.

2 DR. FEIGAL: I DON'T HAVE ANY MORE  
3 SPECIFICS THAN THAT RIGHT NOW.

4 MS. SAMUELSON: OKAY. GREAT. THANKS.

5 MR. ROTH: ELLEN, I WONDER IF I CAN JUST  
6 TALK A LITTLE BIT ABOUT THE BUDGET. THIS INSTITUTE  
7 WAS CREATED WITH ARRA FUNDS. AND I SEE THAT THEIR  
8 BUDGET NOW HAS TO COME OUT OF APPROPRIATIONS FROM  
9 THE NINDS.

10 DR. FEIGAL: CAN I JUST CORRECT THAT?  
11 NINDS ALWAYS RECEIVES AN APPROPRIATION FROM THE  
12 FEDERAL GOVERNMENT. WHAT THEY GOT WAS STIMULUS  
13 FUNDS CALLED ARRA THAT WAS USED IN 2009 TO HELP  
14 BASICALLY STIMULATE THE ECONOMY. AND AS PART OF  
15 THAT, THIS INITIATIVE WAS PUT FORWARD.

16 MR. ROTH: I UNDERSTAND THAT. BUT I WAS  
17 ASKING REALLY ABOUT THE CONFIDENCE THAT THAT  
18 CONTINUING BUDGET WILL BE THERE FOR THE OPERATION OF  
19 THIS, THAT 4.5 MILLION.

20 DR. FEIGAL: NINDS WILL GET AN  
21 APPROPRIATION. I CAN'T FORESEE THE FEDERAL  
22 GOVERNMENT NOT PROVIDING FUNDING TO A MAJOR  
23 INSTITUTE AT NIH. WHAT THEY CAN'T COMMIT TO IS THE  
24 EXACT DOLLAR AMOUNT. SO THAT WILL DEPEND ON WHAT  
25 THE FUTURE APPROPRIATION IS IN FISCAL YEAR 2012. SO

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1 WHAT THEY'RE COMMITTING TO IS 4.5 MILLION IN FISCAL  
2 YEAR 2011 WITH THE SUBSEQUENT YEAR TO BE DETERMINED  
3 BY THEIR APPROPRIATION.

4 MR. ROTH: SO THAT WILL BE AN ONGOING  
5 BUDGET ITEM THAT THEY'LL HAVE TO MAKE A PRIORITY  
6 EACH YEAR, HOPEFULLY. ANYWAY, I'M SUPPORTIVE OF  
7 THIS INITIATIVE. I THINK IT WILL GET MORE THAN THE  
8 AMOUNT OF MONEY WE'RE PUTTING IN BY ORDERS OF  
9 MAGNITUDE BACK IN EXPERIENCE, KNOWLEDGE. I THINK  
10 IT'S A GOOD IDEA TO TIE INTO NIH WHEREVER WE CAN  
11 LEGALLY TO GET THOSE RELATIONSHIPS GOING.

12 AND, ART, YOU WOULD PROBABLY TELL  
13 EVERYBODY THAT WE'RE GOING TO TAKE -- MY SIDE OF THE  
14 AISLE IS GOING TO TAKE BACK ALL THE MONEY ANYWAY.  
15 SO YOU MIGHT AS WELL SPEND IT WHILE YOU'VE GOT IT.

16 MR. TORRES: RIGHT. AND WE'LL BE BACK IN  
17 2012.

18 MS. FEIT: I HAVE A QUICK QUESTION. YOU  
19 MENTIONED THAT WE WOULD GET A SEAT ON THE BOARD.  
20 HAVE YOU SAID WHO WOULD BE TAKING THAT SEAT, AND HOW  
21 WE ARE GOING TO BE MONITORING THE PROCESS IN THIS?

22 DR. FEIGAL: WELL, NINDS, THE INSTITUTE  
23 WOULD NOMINATE THE REPRESENTATIVE FROM THE -- WHOM  
24 WE SELECT TO REPRESENT THE INSTITUTE, AND THAT  
25 PERSON WOULD HAVE A SEAT AT THE TABLE. IS THAT WHAT

## BARRISTERS' REPORTING SERVICE

1 YOU'RE ASKING?

2 MS. FEIT: YES. BUT SO WE WOULD PUT  
3 FORWARD A LIST OF NAMES?

4 DR. FEIGAL: NO. WE WOULD PRESUMABLY PUT  
5 FORWARD THE NAME THAT WE WOULD WANT TO SIT ON THAT  
6 ONE SLOT. AND THEN THEY WOULD -- I SUPPOSE IF THERE  
7 WAS A -- I CAN'T IMAGINE IF WE RECOMMENDED A SPOT  
8 UNLESS THERE WAS SOMETHING INAPPROPRIATE OR  
9 SOMETHING ABOUT THE RECOMMENDATION, THAT THEY WOULD  
10 PROBABLY HONOR THAT RECOMMENDATION.

11 CHAIRMAN KLEIN: ELLEN, MY UNDERSTANDING  
12 IS WE WOULD NOMINATE ONE OF OUR SCIENCE OFFICERS OR  
13 SCIENCE LEADERSHIP PERSONNEL TO BE ON THAT SPOT.

14 DR. FEIGAL: YEAH. I MEAN WE CAN DISCUSS  
15 THAT, BUT IT'S A SCIENTIFIC PROJECT. AND THERE WILL  
16 ALREADY BE OTHER PATIENT ADVOCACY FOUNDATION GROUPS  
17 REPRESENTED. SO I THINK THE SCIENTIFIC  
18 REPRESENTATION WOULD PROBABLY BE A GOOD  
19 RECOMMENDATION TO COME FROM US.

20 CHAIRMAN KLEIN: AND SO WHEN WE DO OUR OWN  
21 IPSC REPOSITORY, WOULD WE BE FOLLOWING THE SAME  
22 MODEL WITH HAVING SOME PATIENT ADVOCATE  
23 REPRESENTATIVES ON THAT BOARD?

24 DR. TROUNSON: I THINK IT'S A LITTLE BIT  
25 EARLY TO DECIDE ABOUT THAT AT THIS STAGE. I WOULD

## BARRISTERS' REPORTING SERVICE

1 HAVE THOUGHT THAT THAT WOULD BE IDEAL. SO WE  
2 HAVEN'T TRIED TO FRAME THAT UP AT THIS POINT IN  
3 TIME. I WOULD HAVE THOUGHT THAT WOULD BE IDEAL. I  
4 THINK THE MORE WE HAVE ADVOCACY IN THIS SPACE THE  
5 BETTER.

6 CHAIRMAN KLEIN: IN ANY CASE THIS IS A  
7 SCIENTIFIC SPOT BECAUSE WE'RE TRYING TO GLEAN  
8 SCIENTIFIC KNOWLEDGE TO BE ABLE TO SET UP OUR OWN  
9 REPOSITORY.

10 DR. TROUNSON: I THINK IT WOULD BE GOOD  
11 FOR US IF WE HAVE A SENIOR PERSON WHO IS IN THE  
12 NEURODEGENERATION AREA IF WE HAVE THE TIME. SO WE  
13 WOULD BE -- I WOULD BE HOPEFULLY PUTTING FORWARD A  
14 NAME THAT WOULD -- THAT THE BOARD WOULD RECOGNIZE AS  
15 IMPORTANT FOR US.

16 CHAIRMAN KLEIN: THAT WAS MY  
17 UNDERSTANDING. I WAS JUST TRYING TO CLARIFY IT FOR  
18 EVERYONE.

19 SO LET ME ASK, IF I COULD, IN THE LAST SIX  
20 WEEKS, THERE WAS A MAJOR PUBLICATION COMING OUT OF  
21 STANFORD OF AN IPSC-DERIVED MODEL FOR PARKINSON'S IN  
22 A DISH. WHAT IS THE PROCESS FOR THAT KIND OF  
23 IPSC-DERIVED MODEL? WOULD THAT MODEL THEN BE  
24 CONTRIBUTED TO THIS REPOSITORY OR HOW --

25 DR. TROUNSON: WELL, IT MIGHT BE, BOB. IT

## BARRISTERS' REPORTING SERVICE

1 DEPENDS WHETHER THEY'RE PART OF THE ORGANIZATION.  
2 AND, OF COURSE, IF WE BECOME PART OF IT, THEN WE  
3 WOULD -- I THINK WE WOULD STRONGLY SUGGEST THAT THAT  
4 INFORMATION IS TAKEN ON BOARD BY ALL THE TEAMS. I  
5 THINK THAT WAS A VERY GOOD PUBLICATION. I ACTUALLY  
6 THINK IT'S REALLY GOOD WORK; BUT, OF COURSE, WE'LL  
7 HAVE TO SIT DOWN WITH THE LEADERSHIP OF THE WHOLE  
8 EXERCISE TO TRY AND DETERMINE WHAT METHODS THAT THEY  
9 WILL USE.

10 IT'S CLEAR TO ME AT THE MOMENT, MAYBE ONE  
11 OF THE SLIGHT DEFICIENCIES HERE IS THAT THESE CELLS  
12 WILL BE DERIVED BY A VARIETY OF METHODS. AND SO  
13 THAT INTRODUCES ONE ELEMENT OF VARIATION, WHICH I  
14 THINK IS UNFORTUNATE, BUT IT MAY NOT HAVE A LOT OF  
15 EFFECT. BUT I JUST THINK OF IT'S A SOURCE OF  
16 VARIATION.

17 AGAIN, THE DIFFERENTIATION PATHWAYS TO  
18 CREATE, IF YOU LIKE, DISEASE-IN-A-DISH MODELS IS  
19 PRETTY IMPORTANT. SO I THINK WE WOULD BE POINTING  
20 THAT OUT TO THE COMMITTEE AND GETTING THEM TO  
21 RECOMMEND THAT IF THAT WAS APPROPRIATE.

22 CHAIRMAN KLEIN: AT LEAST HAVING A --  
23 STRATEGICALLY HAVING A POSITION ON THIS BOARD PUTS  
24 US IN A POSITION THAT WE CAN ADVOCATE FOR WORK THAT  
25 WE'RE AWARE OF THROUGH OUR FUNDING ON THE WEST COAST

## BARRISTERS' REPORTING SERVICE

1 THAT MIGHT CONTRIBUTE TO THE RICHNESS OF THIS  
2 REPOSITORY.

3 DR. TROUNSON: THAT'S CORRECT. THAT GOES  
4 ALSO FOR THE HUNTINGTON'S DISEASE BECAUSE THERE'S A  
5 SLIGHTLY DIFFERENT PROGRAM INVOLVED THERE FOR THE  
6 DIFFERENTIATION, AND SOME OF THE GRANTEES HERE IN  
7 CALIFORNIA HAVE DONE A REALLY GOOD JOB ON THOSE  
8 CELLS AS WELL. SO, YOU KNOW, FOR THAT AND FOR  
9 ALZHEIMER'S, WE WOULD CERTAINLY BE MAKING THAT  
10 INFORMATION AVAILABLE AND MAKING THE ARGUMENT THAT  
11 THERE ARE AT LEAST VERY SOUND METHODOLOGIES THAT  
12 OUGHT TO BE CONSIDERED OR INCORPORATED AS A PRIORITY  
13 IN THE PROGRAM.

14 DR. FEIGAL: I THINK THE OTHER INTERESTING  
15 ASPECT, SINCE IT'S A PARTNERSHIP THAT COULD ALSO BE  
16 OPEN TO INDUSTRY, IS THAT ANOTHER DESIRED FUNCTION  
17 WOULD BE DEVELOPMENT OF CELL-BASED PLATFORMS THAT  
18 MEET THE REQUIREMENTS FOR INDUSTRY FOR TARGETED  
19 VALIDATION AND SECONDARY SCREENING. THEY'RE VERY  
20 INTERESTED IN USING THIS AS A TOOL. SO I THINK  
21 THEIR INPUT AND THE REGULATORY NEEDS FOR WHAT MIGHT  
22 BE USEFUL TO THEM WILL ALSO BE PART OF THE  
23 CONSIDERATION.

24 SO I THINK THE SCIENCE AND RESEARCH WILL  
25 BE GREATLY BENEFITED, BUT ALSO AT THE END OF THE

## BARRISTERS' REPORTING SERVICE

1 DAY, WE'RE INTERESTED IN MOVING US TOWARDS CLINICAL  
2 APPLICATION.

3 DR. TROUNSON: AS YOU KNOW, THE GENOMICS  
4 AREA IS SOMETHING THAT WE HAVE SOME CONCERN ABOUT,  
5 GENOMICS AND EPIGENOMICS, SO WE WILL BE PRESSING FOR  
6 SOME SEQUENCING WHERE APPROPRIATE TO ENSURE THAT  
7 WE'RE NOT DEALING WITH VARIATION REALLY JUST CAUSED  
8 BY MAKING THESE CELLS AND DIFFERENTIATING THEM.

9 CHAIRMAN KLEIN: ALAN, YOU AND ELLEN HAVE  
10 BROUGHT UP A NUMBER OF VERY GOOD POINTS ABOUT WHY  
11 THE STRATEGIC LEADERSHIP ROLE IS VALUABLE. AND  
12 MAYBE AT THE BOARD WE COULD HAVE MORE OF A BULLET  
13 POINT SUMMARY OF ALL THOSE STRATEGIC ADVANTAGES,  
14 BOTH IN KNOWLEDGE POSITION, ADVOCACY, WORK FROM THE  
15 WEST COAST, AND OTHER BENEFITS BECAUSE CERTAINLY THE  
16 CONCEPTS ARE ALL LAID OUT WELL HERE, BUT I THINK THE  
17 DISCUSSION HAS BROUGHT OUT SOME MORE ARTICULATION OF  
18 THIS THAT WOULD BE VALUABLE TO PUT INTO THE BOARD  
19 RECORD.

20 DR. FEIGAL: WE CAN DO THAT.

21 CHAIRMAN SHEEHY: ARE THERE ADDITIONAL  
22 BOARD QUESTIONS OR COMMENTS?

23 MR. ROTH: JEFF, WOULD YOU LIKE A MOTION  
24 TO APPROVE?

25 CHAIRMAN SHEEHY: I THINK SO. I DON'T

## BARRISTERS' REPORTING SERVICE

1 THINK WE HAVE TO DO IT, BUT I THINK IT'S USEFUL FOR  
2 THE BOARD TO HAVE A STRONG RECOMMENDATION FROM THE  
3 COMMITTEE. AND THEN PERHAPS IT WILL MAKE IT GO A  
4 LITTLE BIT MORE SMOOTHLY AT THE BOARD.

5 MR. ROTH: SO I WOULD BE HAPPY TO MAKE  
6 THAT MOTION TO APPROVE THE CONCEPT AS PRESENTED.

7 MS. SAMUELSON: THIS IS JOAN. I'LL SECOND  
8 IT.

9 I GUESS I HAVE ONE QUESTION. DO WE HAVE  
10 ANY KIND OF CERTAINTY, THAT PROBABLY REALLY SOUNDS  
11 LIKE AN OVERSTATEMENT, THAT 150,000 IS THE  
12 COMMITMENT JUST BECAUSE WE'RE BASING IT ON THAT, AND  
13 YET THE FUTURE FUNDING FOR THE INSTITUTE IS OF  
14 CONCERN. I'M WONDERING IF THEY'RE GOING TO COME  
15 BACK FOR MORE.

16 DR. FEIGAL: NO. NO. WE'VE ALREADY HAD A  
17 DISCUSSION ABOUT WHAT WE WOULD BE WILLING TO  
18 PROVIDE, AND WE WILL DOCUMENT THAT IN A MEMORANDUM  
19 OF UNDERSTANDING WITH THE FOUNDATION FOR NIH. SO  
20 THAT IS WHAT WE SAID WOULD BE AN ACCEPTABLE  
21 COMMITMENT.

22 MS. SAMUELSON: AND THEY'VE COMMITTED TO  
23 US PLAYING THE ROLE DECIDED UPON FOR AD INFINITUM.

24 DR. FEIGAL: THEY ARE VERY INTERESTED IN  
25 HAVING US AS A PARTNER. SO I THINK THEY ALSO SEE IT



**BARRISTERS' REPORTING SERVICE**

1 BEYOND THE MONETARY AMOUNT.

2 CHAIRMAN KLEIN: JOAN, I DON'T THINK WE  
3 CAN REASONABLY BELIEVE THAT'S AN INDEFINITE  
4 COMMITMENT GIVEN THE VOLATILITY IN THE NEAR TERM,  
5 BUT IT IS CERTAINLY A COMMITMENT OF INTENT.

6 MS. SAMUELSON: OKAY. I THINK IT'S  
7 IMPORTANT WE BE CLEAR WITH OUR VARIOUS  
8 CONSTITUENCIES BECAUSE WE WOULDN'T WANT TO BE  
9 CRITICIZED OURSELVES.

10 DR. FEIGAL: THE 4.5 MILLION IS ACTUALLY  
11 PUBLICLY OUT THERE. THEY'VE MADE THAT COMMITMENT.

12 CHAIRMAN KLEIN: ELLEN, SHE'S TALKING  
13 ABOUT YEAR THREE, YEAR FOUR WHAT HAPPENS.

14 DR. FEIGAL: WELL, IT'S ONLY YEAR TWO.  
15 OKAY.

16 CHAIRMAN KLEIN: THE POINT IS THAT THE NIH  
17 HAS MADE A STRONG COMMITMENT HERE. THEY'VE ALREADY  
18 INVESTED A GREAT DEAL OF FUNDS. THEY'VE COMMITTED  
19 THE 4.5 THEY HAVE CONTROL OVER, BUT --

20 MS. SAMUELSON: IS THAT FISCAL 12 OR  
21 SOMETHING?

22 DR. FEIGAL: THAT'S FISCAL YEAR 2011. THE  
23 PLAN IS TO FUND THIS BEFORE -- SOMETIME LATER IN THE  
24 SPRING.

25 MS. SAMUELSON: I SEE. GREAT.

## BARRISTERS' REPORTING SERVICE

1 CHAIRMAN SHEEHY: SO I THINK WE'RE READY  
2 FOR PUBLIC COMMENT. AND I THINK, JUDY ROBERSON.

3 MS. ROBERSON: I'M JUDY ROBERSON,  
4 PRESIDENT OF THE HDSA NORTHERN CALIFORNIA CHAPTER.  
5 THE HUNTINGTON'S DISEASE COMMUNITY ENTHUSIASTICALLY  
6 SUPPORTS CIRM'S IPS CELL REPOSITORY PROPOSAL. OUR  
7 COMMUNITY IS ORGANIZED AND EAGER TO PARTICIPATE IN  
8 STEM CELL RESEARCH. BECAUSE ALTHOUGH THE GENE FOR  
9 HUNTINGTON'S DISEASE WAS FOUND 18 YEARS AGO, A  
10 TREATMENT OR CURE FOR HD HAS REMAINED ILLUSIVE. OUR  
11 BIG HOPE LIES IN STEM CELL RESEARCH. THANK YOU SO  
12 MUCH.

13 CHAIRMAN SHEEHY: THANK YOU, JUDY. SO I  
14 THINK WE'RE READY FOR A ROLL CALL VOTE. AND SO,  
15 JAMES, COULD YOU REPEAT THE MOTION? AND I THINK  
16 WHAT WE'RE TALKING ABOUT IS APPROVAL FOR STEP ONE AS  
17 PROPOSED IN THE DOCUMENT WE HAVE.

18 MR. HARRISON: RIGHT, JEFF. AS I  
19 UNDERSTAND IT, THE MOTION IS TO RECOMMEND TO THE  
20 BOARD APPROVAL OF STEP ONE AS OUTLINED IN THE IPSC  
21 REPOSITORY CONCEPT PLAN.

22 CHAIRMAN SHEEHY: GREAT.

23 MS. KING: SUSAN BRYANT.

24 DR. BRYANT: ABSTAIN.

25 MS. KING: AND THE SAME IS TRUE FOR DR.

**BARRISTERS' REPORTING SERVICE**

1 STEWARD; IS THAT CORRECT?  
2 MR. HARRISON: CORRECT.  
3 MS. KING: MARCY FEIT.  
4 MS. FEIT: YES.  
5 MS. KING: MICHAEL FRIEDMAN.  
6 DR. FRIEDMAN: YES.  
7 MS. KING: BOB KLEIN.  
8 CHAIRMAN KLEIN: YES.  
9 MS. KING: DUANE ROTH.  
10 MR. ROTH: YES.  
11 MS. KING: JOAN SAMUELSON.  
12 MS. SAMUELSON: YES.  
13 MS. KING: JEFF SHEEHY.  
14 CHAIRMAN SHEEHY: YES.  
15 MS. KING: AND ART TORRES.  
16 MR. TORRES: AYE.  
17 MS. KING: AND FOR THE RECORD, THE MOTION  
18 CARRIES. THANK YOU.  
19 MS. SAMUELSON: CAN I ASK ONE FINAL  
20 QUESTION? AND IT'S PROBABLY VERY MINOR, BUT JUST IN  
21 TERMS OF CLARITY FOR THE PUBLIC. WHEN IT'S CALLED A  
22 PUBLIC/PRIVATE PARTNERSHIP, I'M NOT SURE QUITE WHO  
23 THAT'S REFERRING TO. AND I THINK OF US AND NINDS,  
24 IT SEEMS LIKE WE'RE PUBLIC PUBLIC.  
25 DR. FEIGAL: JOAN, I TOO NOODLED ON THAT.

## BARRISTERS' REPORTING SERVICE

1 I TOO WOULD CONSIDER US PUBLIC, BUT THERE ARE  
2 PRIVATE PEOPLE. IT'S SORT OF LIKE THE PATIENT  
3 FOUNDATIONS ARE --

4 MS. SAMUELSON: IT'S THE LARGER GROUPING.

5 DR. FEIGAL: I THINK THE OTHER -- I  
6 THOUGHT THE OTHER THING YOU WERE GOING TO ASK IS  
7 GOVERNMENT VERSUS NONGOVERNMENT. AT ANY RATE, I  
8 THINK WE CONSIDER OURSELVES IN THE PUBLIC, AND THE  
9 INDUSTRY WOULD BE THE PRIVATE SECTOR.

10 MS. SAMUELSON: GOT IT. OKAY. THANK YOU.

11 CHAIRMAN KLEIN: AND, ELLEN, IS THERE A  
12 LIST OF THE TOTAL NUMBER OF PARTICIPANTS?

13 DR. FEIGAL: YOU KNOW, I CAN'T SHARE THAT  
14 RIGHT NOW BECAUSE I DON'T THINK IT'S PUBLICLY  
15 AVAILABLE. I DIDN'T SEE IT ON THE WEBSITE. SO  
16 THAT'S WHY I'M NOT SHARING IT.

17 CHAIRMAN KLEIN: IF YOU COULD JUST CONFIRM  
18 BEFORE THE BOARD MEETING WHAT THE POLICY IS AS TO  
19 THE MEMBERSHIP.

20 DR. FEIGAL: I CAN CONFIRM HOW THE  
21 FOUNDATION FOR NIH WORKS TO GET PARTNERS, IF YOU  
22 JUST MEANT THE POLICY.

23 CHAIRMAN KLEIN: THE QUESTION IS WHAT IS  
24 THE POLICY ON PUBLIC INFORMATION ON THE PARTICIPANTS  
25 IN THIS PROGRAM?

## BARRISTERS' REPORTING SERVICE

1 DR. FEIGAL: OH, IT WILL BE -- I CAN TELL  
2 YOU THAT NOW. ANY PARTNERS WILL BE PUBLICLY -- THEY  
3 HAVE TO BE PUBLIC. SO IF THERE IS A PARTNER THAT'S  
4 CONTRIBUTING FUNDING THROUGH THE FOUNDATION FOR NIH,  
5 THAT WILL BECOME PUBLIC INFORMATION.

6 CHAIRMAN KLEIN: OKAY. SO THAT WOULD BE  
7 GOOD TO RECOUNT AT THE BOARD.

8 DR. FEIGAL: I WILL DO THAT.

9 CHAIRMAN KLEIN: THANK YOU VERY MUCH.

10 MS. SAMUELSON: IS THE WEBSITE AT THE  
11 FOUNDATION FOR NIH?

12 DR. FEIGAL: THE WEBSITE -- WELL, THERE'S  
13 A COUPLE WAYS THINGS CAN BE MADE PUBLICLY AVAILABLE.  
14 GENERALLY THEY WON'T BE MADE PUBLICLY AVAILABLE  
15 UNTIL MOU'S HAVE BEEN EXECUTED. SO I CAN'T PROMISE  
16 THAT THAT'S GOING TO HAPPEN BEFORE THE BOARD, AND  
17 MOST LIKELY IT WON'T. BUT WHEN IT IS PUBLICLY  
18 AVAILABLE, IT WILL BE AVAILABLE ON THE FOUNDATION  
19 FOR NIH WEBSITE, AND THEN NINDS IS ALSO WILLING TO  
20 ACKNOWLEDGE THE PARTNERS IN ANY PUBLIC ANNOUNCEMENTS  
21 THEY MAKE ABOUT THE CONSORTIA.

22 MS. SAMUELSON: OKAY. AND THE WEBSITE  
23 THAT WAS REFERRED TO, THAT'S AT THE FOUNDATION FOR  
24 NIH?

25 DR. FEIGAL: YEAH. THE ABBREVIATION IS

## BARRISTERS' REPORTING SERVICE

1 FNIH.

2 MS. SAMUELSON: OKAY. THANK YOU.

3 DR. FEIGAL: IF YOU CAN'T FIND IT, I'LL  
4 SEND IT TO YOU, JOAN.

5 MS. SAMUELSON: GREAT. THANKS.

6 CHAIRMAN SHEEHY: ANY OTHER QUESTIONS?  
7 OKAY.

8 AND THEN THE OTHER ITEM, WHICH I DON'T  
9 THINK IS QUITE READY FOR PRIME TIME, BUT I DON'T  
10 KNOW. YOU MAY HAVE SOME DISCUSSION ON IT, BOB,  
11 MAYBE STAFF. BUT ONE OF THE THINGS THAT WE HEARD AT  
12 THE LAST GRANTS WORKING GROUP MEETING FROM SEVERAL  
13 OF THE SCIENTISTS INVOLVED WAS JUST KIND OF NOODLING  
14 AROUND HOW VALUABLE THEY THOUGHT OUR NEW FACULTY  
15 AWARDS WERE AND HOW THAT MIGHT BE AN INTERESTING  
16 GRANT ROUND FOR US TO REPEAT.

17 SO I THINK WE'RE STILL IN THE EARLY PHASES  
18 OF HAVING CONVERSATIONS ABOUT THIS, BUT I KNOW ONE  
19 OF THE THINGS WE'RE TALKING ABOUT IS THE SCIENTIFIC  
20 STAFF COMING FORWARD WITH SOME SORT OF PRODUCTIVITY  
21 FROM THOSE GRANTEES. I KNOW JUST FROM WHAT I'VE  
22 SEEN IN TERMS OF FOLLOW-ON GRANTS AND PUBLICATIONS  
23 AND IN THE MEDIA, SEVERAL OF THOSE INVESTIGATORS  
24 HAVE BEEN EXTRAORDINARILY PRODUCTIVE. AND CERTAINLY  
25 IT'S ONE OF THE FEW WAYS WE CAN ACTUALLY CREATE

## BARRISTERS' REPORTING SERVICE

1 ADDITIONAL CAPACITY IN CLINICAL SPACE, ESPECIALLY  
2 WITH THOSE CLINICIAN-SCIENTISTS.

3 I DON'T KNOW IF OTHER MEMBERS OF THE  
4 COMMITTEE WOULD LIKE TO OPINE ON THIS. OBVIOUSLY  
5 THIS ISN'T SOMETHING WE WOULD DO IN THE NEAR TERM.  
6 THERE'S CONSIDERABLE LEAD-TIME THAT WOULD BE  
7 REQUIRED, FIRST OF ALL, BECAUSE THESE ARE NOT PREAP  
8 PROCESS SCREENED APPLICATIONS. INSTITUTIONS HAVE TO  
9 PUT FORTH THE NOMINATIONS. THAT'S HOW WE LIMIT  
10 THEM. PLUS INSTITUTION SUPPORT IS A BIG COMPONENT  
11 OF THE EVALUATION OF THESE GRANTS. SO THE  
12 INSTITUTIONS HAVE TO BE PREPARED TO SUPPORT SOME OF  
13 THEIR RISING STARS. I DON'T KNOW, BOB, OR ANYONE  
14 ELSE.

15 CHAIRMAN KLEIN: JEFF --

16 CHAIRMAN SHEEHY: ALAN HAS A COMMENT.

17 MS. SAMUELSON: I DO TOO.

18 CHAIRMAN KLEIN: I'D LIKE TO -- ALAN, JUST  
19 BRIEFLY, I THINK YOU DESCRIBED TO ME A COUPLE OF  
20 OPTIONS. AND MAYBE YOU COULD SUMMARIZE THOSE. AND  
21 COULD YOU ALSO COMMENT IN TERMS OF FOCUSED SUPPORT  
22 FOR CLINICAL FACULTY IN TERMS OF YOUR APPRAISAL OF  
23 WHERE WE ARE AND HAVING SUFFICIENT CLINICAL FACULTY  
24 TO REALLY MAKE THE TRANSITION TO THE PATIENTS?

25 DR. TROUNSON: THANKS, BOB. I'M VERY

## BARRISTERS' REPORTING SERVICE

1 SUPPORTIVE OF THIS IN AT LEAST PART. AS YOU KNOW,  
2 WE'RE REALLY TRYING TO GET FOCUSED ON THE  
3 TRANSLATION AND MOVING OUR OPPORTUNITY TO THE CLINIC  
4 BECAUSE THIS IS REALLY THE PRIMARY GOAL OF THE  
5 THINGS THAT WE NEED TO DEMONSTRATE TO CALIFORNIA,  
6 THAT THE DISCOVERIES ARE CAPABLE OF ACTUALLY GETTING  
7 INTO THE CLINIC. SO ONE OF THE -- WELL, THERE ARE  
8 SEVERAL ISSUES.

9 WITH THE STRAIGHT ACADEMIC FACULTY AWARDS,  
10 THERE IS A BIT OF LEAKAGE, IF YOU LIKE. 40 PERCENT  
11 OF THE FACULTY DON'T ACTUALLY GET FOCUSED DIRECTLY  
12 ON THE THINGS THAT WE'RE SPECIFICALLY INTERESTED IN  
13 BECAUSE THEY HAVE FACULTY AWARDS, AND THEY CAN  
14 BASICALLY DO PRETTY MUCH WHAT THEY LIKE WITHIN THE  
15 GENERAL AREA.

16 BUT IF WE WERE ABLE TO FOCUS SOME OF THIS  
17 CAPACITY ON WHERE WE'RE GOING, PARTICULARLY BRINGING  
18 M.D./PH.D.S THROUGH TO THE TRANSLATIONAL CLINICAL  
19 PART OF THE PROGRAMS, I THINK WE WOULD BE MUCH --  
20 OUR PROGRAM WOULD BE MUCH MORE EFFECTIVE OR AT LEAST  
21 WOULD GIVE US STRONGER DEPTH.

22 ONE OF THE THINGS THAT PAT OLSON HAD  
23 SUGGESTED TO US, THAT WE MIGHT BE ABLE TO  
24 INCORPORATE THIS PROJECT OR THESE AWARDS WITHIN THE  
25 TRANSLATIONAL PROGRAM, FOR EXAMPLE. YOU COULD IF



## BARRISTERS' REPORTING SERVICE

1 YOU REALLY WANTED TO DO IT IN THE BASIC SCIENCE  
2 PROGRAM, IF YOU WISHED AS WELL, BUT I LIKE THE IDEA  
3 OF CREATING MORE OF SOME OF THESE YOUNG SCIENTISTS  
4 WHO ARE REALLY MAKING THE PACE, WHO ARE REALLY  
5 HAVING A BIG IMPACT. YOU CAN LOOK AT REALLY QUITE A  
6 NUMBER OF THEM THROUGH CALIFORNIA. AND JUST TO  
7 MENTION ONE, CATRIONA JAMIESON, CAME THROUGH ON ONE  
8 OF THESE PROGRAMS. IF WE COULD FIND PEOPLE LIKE HER  
9 AND OTHERS THAT ARE REALLY VERY PRODUCTIVE AT THAT  
10 SPACE, WE'RE LIKELY TO HAVE EVEN MORE IMPACT ON THE  
11 DIRECT OPPORTUNITIES FOR CLINICAL DEVELOPMENTS. AND  
12 ALSO THOSE PEOPLE CARRY ON TO THE CLINIC, OF COURSE.

13 SO THIS IS THE SPACE IN WHICH WE'RE TRYING  
14 TO BE AS ACTIVE AS POSSIBLE. THAT'S WHY WE GOT  
15 ELLEN FEIGAL ON THE TEAM HERE. WE'RE ACTUALLY  
16 PUSHING HARD IN THIS DIRECTION. SO I LIKE THE IDEA  
17 OF THE FOCUS OF THOSE TRANSLATION AWARDS DRAWING THE  
18 CAPACITY OF SOME OF THESE YOUNG M.D./PH.D. PEOPLE  
19 THROUGH INTO THE PROGRAM.

20 IF YOU LOOK WORLDWIDE AT THE M.D./PH.D.  
21 PROGRAMS, THEY'RE THE ONES THAT ARE KIND OF  
22 SUFFERING UNFORTUNATELY IN THE FUNDING SHORTFALLS  
23 BECAUSE BASIC SCIENCE TENDS TO GET CONTINUED  
24 FUNDING, BUT THERE'S NOT NECESSARILY A FOCUS ON  
25 HELPING THESE M.D./PH.D. PEOPLE SORT OF DRIVE

## BARRISTERS' REPORTING SERVICE

1 THROUGH THAT SPACE.

2 SO I THINK WE WOULD OURSELVES END UP BEING  
3 MORE COMPETITIVE IN THE SPACE AS WELL, BUT I THINK  
4 OUR RESOURCES WOULD BE STRONGER FOR THAT. AND I  
5 DON'T THINK WE WOULD HAVE THE SORT OF LEAKAGE OUT  
6 INTO STEM CELL AREAS THAT THESE PEOPLE WORK ON, BUT  
7 NOT NECESSARILY THE ONES THAT WE'RE REALLY KEEN  
8 ABOUT.

9 CHAIRMAN KLEIN: THANK YOU. I APPRECIATE  
10 THAT.

11 MS. SAMUELSON: I'D LIKE TO UNDERSTAND  
12 THAT JUST A LITTLE BIT BETTER. I DON'T WANT TO TAKE  
13 A LOT OF TIME WITH IT. SO THAT MEANS THAT 40  
14 PERCENT OF THE FTE, LET'S SAY, OF NEW FACULTY THAT  
15 WE'RE FUNDING, CAN YOU GIVE AN EXAMPLE OF WHAT IT IS  
16 THEY SPEND THEIR TIME ON THAT WE'RE PAYING FOR?

17 DR. OLSON: LET ME ELABORATE A LITTLE BIT.  
18 AS YOU MAY OR MAY NOT RECALL, THE NEW FACULTY  
19 AWARDS, THE IDEA WAS ESSENTIALLY THE FOCUS WAS ON  
20 CAREER DEVELOPMENT. AND WE DID NOT SPECIFY AT ALL,  
21 AS WE DO IN ALMOST, NOT ALMOST, IN EVERY OTHER RFA,  
22 THAT THE FOCUS BE HUMAN STEM CELL WORK. SO AS A  
23 CONSEQUENCE OF THAT, AND WE HAD BOTH THE  
24 PHYSICIAN/SCIENTISTS AND THE SCIENTISTS, BUT WE  
25 HAD -- THE IDEA WAS BRING IN THE PEOPLE AT THE START

## BARRISTERS' REPORTING SERVICE

1 OF THEIR CAREERS WITHIN THE FIRST FEW YEARS OF  
2 INDEPENDENT -- OF THEIR FIRST INDEPENDENT  
3 APPOINTMENTS TO JUST GET THEM ENGAGED IN STEM CELLS.  
4 WE DID NOT ASK THAT THEY FOCUS ON HUMAN.

5 SO 15 PERCENT OF OUR AWARDS ARE, STRICTLY  
6 SPEAKING, STEM CELL MODEL SYSTEMS. THERE'S NO HUMAN  
7 WORK AT ALL. OVER 50 PERCENT OF THE AWARDS ARE A  
8 COMBINATION OF HUMAN AND MODEL SYSTEMS, BUT OF THOSE  
9 TO DATE, HALFWAY THROUGH THE AWARDS, HALF OF THOSE  
10 PEOPLE ARE ONLY FOCUSED ON MODEL SYSTEMS.

11 NOW, THIS WAS PART OF THIS. THIS WAS  
12 CONTRIBUTING BASICALLY TO FUNDAMENTAL KNOWLEDGE  
13 WITHIN THE STEM CELL FIELD. I THINK THE STRATEGIC  
14 QUESTION THAT THIS GROUP NEEDS TO ADDRESS AS WE MOVE  
15 FROM ESSENTIALLY OUR PHASE I BUILDING THIS KIND OF  
16 INTELLECTUAL INFRASTRUCTURE IS MORE -- WE'RE MOVING  
17 MORE TO A STAGE 2 FOCUS ON MOVING THINGS TO THE  
18 CLINIC AND TO THERAPY DEVELOPMENT. AND SO, WHEREAS,  
19 I THINK WE ALL APPRECIATE THE IDEA OF ESSENTIALLY  
20 PROVIDING AN OPPORTUNITY FOR PEOPLE WHO, BECAUSE OF  
21 THEIR TRACK RECORD, THEY HAVEN'T BEEN DOING THIS FOR  
22 20 YEARS, WE WANT TO PROVIDE AN OPPORTUNITY TO STILL  
23 ACKNOWLEDGE A CHANCE FOR SOME OF THE BEST TO  
24 PARTICIPATE IN OUR PROGRAM, IN OUR PROJECT-FOCUSED  
25 PROGRAMS THAT ARE ON THE TRACK TO, SAY, THERAPY

## BARRISTERS' REPORTING SERVICE

1 DEVELOPMENT.

2 SO THIS IS WHERE WE PICK UP THE CONCEPT  
3 THAT ALAN INTRODUCED OF THE NOTION OF IN THE CONCEPT  
4 IN THE CONTEXT OF, SAY, A BASIC BIOLOGY AWARD, IN  
5 THE CONTEXT OF AN EARLY TRANSLATIONAL AWARD, DO WE  
6 SPECIFICALLY STATE THAT WE WANT TO ENCOURAGE SOME  
7 NEW FACULTY HERE? WE ALLOW FOR CHECK BOXES ON THE  
8 APPLICATION THAT STATE THEY'RE WITHIN THIS YEAR. WE  
9 ASKED FOR A LETTER FOR THOSE. WE ALLOW -- PERHAPS  
10 IN PROGRAMMATIC DISCUSSION, WE SAY WE WOULD LIKE TO,  
11 IF THERE'S SOME GOOD ONES, TO HAVE A PERCENTAGE OF  
12 PEOPLE. I THINK WE'VE ALL SAT IN REVIEWS WHERE  
13 WE'VE HEARD THIS IS AN INTERESTING IDEA, BUT THIS  
14 PERSON IS A LITTLE BIT JUNIOR OR SOMETHING. SO WE'D  
15 LIKE TO GIVE THESE PEOPLE A CHANCE, BUT WE'D LIKE TO  
16 DO IT IN THE CONTEXT OF OUR FOCUSED PROGRAMS.

17 AND SO THAT'S WHAT I WOULD SUGGEST WE  
18 CAN -- YOU KNOW, I'D BE CURIOUS TO HEAR SOME  
19 DISCUSSION ON THIS BECAUSE I THINK IT'S A QUESTION  
20 OF CAREER DEVELOPMENT OR THERAPY DEVELOPMENT, OR IS  
21 THERE A WAY TO SORT OF MERGE THE CONCEPTS?

22 CHAIRMAN KLEIN: SO, JOAN, THIS IS BOB.  
23 YOU MIGHT REMEMBER THAT NICHOLAS WADE CRITICIZED US  
24 FOR NOT HAVING THE FORESIGHT TO INVEST SOME IN MODEL  
25 SYSTEMS LIKE ZEBRAFISH SPECIFICALLY. HE DIDN'T

## BARRISTERS' REPORTING SERVICE

1 ACTUALLY REALIZE THAT WE'D ACTUALLY FUNDED STUDIES  
2 OF REGENERATIVE NATURE OF ZEBRAFISH AS PART OF THE  
3 WORK THAT HAD ALREADY BEEN APPROVED. BUT IN TERMS  
4 OF CRITICAL ALLOCATION OF FUNDS, I THINK AT THIS  
5 STAGE WE'RE LOOKING AT THE FACT THAT TO MOVE  
6 DOWNSTREAM TOWARDS PATIENTS, THAT POTENTIALLY WE  
7 HAVE MORE OF A SHORTFALL WHERE WE CAN PLAY A  
8 CRITICAL ROLE IN THE M.D./PH.D. PROGRAMS AND THE  
9 CLINICAL FELLOWS PROGRAM; WHEREAS, DR. OLSON SAYS  
10 PROVIDING AN INCENTIVE WITHIN OTHER GRANT PROGRAMS  
11 TO ADVANCE PEOPLE WITH THAT TYPE OF A BACKGROUND  
12 COMING UP THROUGH THE RANKS, THEN WE CAN IN ADDING  
13 TO WORK THAT THE NIH OR OTHERS CAN ALREADY FUND.

14 CHAIRMAN SHEEHY: DR. OLSON.

15 DR. OLSON: I JUST WANT TO ELABORATE ON  
16 THE STATEMENT THAT BOB JUST MADE. I DID LOOK UP THE  
17 NIH FUNDING ALLOCATION FOR 2010 TO DIFFERENT AREAS  
18 OF STEM CELL RESEARCH. AND I JUST WANT TO JUST LET  
19 THE COMMITTEE KNOW AND THE PUBLIC WHO IS INTERESTED  
20 THAT IN NONEMBRYONIC, NONHUMAN STEM CELL RESEARCH,  
21 THAT THE NIH ACTUALLY SPENT LAST YEAR, THIS IS NOT  
22 ALLOCATED, THIS IS THEIR BUDGET FOR 2010, THEY SPENT  
23 \$570 MILLION ON THAT PARTICULAR CLASS OF STEM CELL  
24 RESEARCH AS THE REGULAR APPROPRIATION.

25 IN ADDITION, THE STIMULUS FUNDS PROVIDED

## BARRISTERS' REPORTING SERVICE

1 ANOTHER \$74 MILLION. SO ESSENTIALLY THERE WAS \$640  
2 MILLION SPENT ON NONEMBRYONIC, NONHUMAN.

3 BOB, I TAKE YOUR POINT, THERE'S ALWAYS  
4 GOING TO BE GREAT RESEARCH DONE IN ALL SORTS OF  
5 AREAS AND ZEBRAFISH. AND THE QUESTION IS WHERE DO  
6 WE FOCUS OUR PRIORITIES? WELL, THE FUNDING IS ALL I  
7 WOULD SAY. AND SO THESE ARE AREAS THAT DO HAVE SOME  
8 FUNDING. NIH SPENDS ACTUALLY QUITE A LOT OF MONEY  
9 ON STEM CELL RESEARCH. THAT'S PROBABLY  
10 PREDOMINANTLY INVESTIGATOR-INITIATED RESEARCH.

11 DR. BRYANT: COULD I JUST SAY SOMETHING?  
12 AM I ALLOWED TO TALK? AS A REGENERATION BIOLOGIST,  
13 I WOULD JUST SAY THAT NIH MAY CLASSIFY THE GRANTS  
14 THAT THEY HAVE FUNDED IN A WAY THAT MAKES IT SOUND  
15 LIKE THEY PUT A LOT OF MONEY INTO THIS, BUT I HAVE  
16 TO TELL YOU WORKING ON ONE OF THE ONLY MODEL SYSTEMS  
17 THAT REGENERATES PERFECTLY, THEY ARE VERY DERELICT  
18 IN FUNDING IN THAT AREA. AND IT'S BECAUSE IT'S A  
19 DIFFICULT SYSTEM, AND IT'S NOT AS EASY AS SOMETHING  
20 LIKE ZEBRAFISH, WHICH REALLY DOES NOT HAVE THE  
21 POWERS THAT SALAMANDERS DO.

22 SO I'M JUST SAYING THAT BECAUSE NIH SAYS  
23 IT FUNDS REGENERATION, AND REALLY THE WAY TO  
24 UNDERSTAND IT IS TO TAKE A SYSTEM THAT REALLY DOES  
25 REGENERATE AND FIGURE IT OUT. AND EVERYTHING ELSE

## BARRISTERS' REPORTING SERVICE

1 IS BASICALLY DESTROYING -- YOU'RE JUST THROWING  
2 DARTS AT THE PROBLEM BECAUSE IF IT DOESN'T HAPPEN  
3 NATURALLY, MAKING IT HAPPEN IS GOING TO BE VERY  
4 DIFFICULT. I'M SORRY TO RAMBLE, BUT I JUST FEEL --  
5 I'VE ACTUALLY FELT THAT CIRM HAS MISSED THE BOAT A  
6 LITTLE BIT BY NOT INCLUDING SOME OF THOSE SYSTEMS  
7 THAT REALLY COULD SHOW THE WAY TO HOW TO PROCEED  
8 WITH HUMANS RATHER THAN JUST FUMBLING IN THE DARK.  
9 AND WHICH FUMBLING IN THE DARK MAY GET US THERE, BUT  
10 I THINK UNDERSTANDING SOMETHING DEEPLY IS ALSO A WAY  
11 TO GO.

12 MS. SAMUELSON: I'D LIKE TO GO ON RECORD  
13 AGAINST FUMBLING IN THE DARK. I'M SO GLAD YOU  
14 SPOKE. I THINK MAYBE WE NEED TO ADDRESS THIS AT A  
15 BOARD MEETING SO THAT WE HAVE A POLICY ON IT BECAUSE  
16 IT SEEMS TO ME IF WE'RE GOING TO TRY TO GET  
17 THERAPEUTIC BREAKTHROUGHS AS SOON AS HUMANLY  
18 POSSIBLE, WE SHOULD BE USING THE BEST MECHANISMS TO  
19 DO IT. IF IT'S ZEBRAFISH, LET'S DO IT.

20 CHAIRMAN KLEIN: I THINK WHAT SHE'S SAYING  
21 IS THERE'S ACTUALLY BETTER MODEL SYSTEMS THAN  
22 ZEBRAFISH. THE ISSUE IS DO WE MAINTAIN ADEQUATE  
23 BASIC SCIENCE RESEARCH THAT COVERS MODEL SYSTEMS AT  
24 THE SAME TIME WE'RE PROVIDING SUFFICIENT ALLOCATION  
25 TO THE TRANSLATIONAL CRITICAL SHORTAGES, WHICH MAY

## BARRISTERS' REPORTING SERVICE

1 BE M.D./PH.D. TRAINED SCIENTISTS WHO ARE GOING TO  
2 MOVE TRANSLATION TO PATIENTS. THIS IS A FUNDAMENTAL  
3 STRATEGIC DISCUSSION THAT I THINK WE'RE GOING TO  
4 NEED ANOTHER SCIENCE SUBCOMMITTEE AS WELL AS THEN A  
5 BOARD DISCUSSION ON. JEFF, WHAT'S YOUR --

6 MS. SAMUELSON: I THINK WE DO NEED THAT.

7 CHAIRMAN SHEEHY: I ACTUALLY -- THANKS,  
8 BOB. THAT'S WHERE I WAS HEADED. I THINK STAFF AT A  
9 LATER DATE, WE'VE GOT A LOT GOING ON BEFORE THE NEXT  
10 MEETING, IS GOING TO COME TO US WITH AN ANALYSIS OF  
11 THE PRODUCTIVITY FOR THIS ROUND. I DO THINK THAT  
12 THERE'S SOME EMERGING CONSENSUS THAT THERE'S  
13 ENORMOUS UTILITY IN GETTING SOME M.D./PH.D. MAYBE  
14 TRYING TO HAVE THAT REPEAT IN SOME FASHION IN THAT I  
15 KNOW, AT LEAST IN THE HIV FIELD, THERE'S A CONSTANT  
16 SHORTAGE OF CLINICIAN/SCIENTISTS. WE TALKED ABOUT  
17 THIS. IT'S KIND OF REPEATING WHAT WE SAID WHEN WE  
18 DID THIS ORIGINALLY. CLINICIANS, THERE'S  
19 COMPETITION FOR THEIR TIME WITH THEIR CLINICAL WORK.  
20 IF YOU CAN'T CREATE SPACE AND CREATE SOME  
21 ATTRACTIVENESS FOR THEM TO GET INTO RESEARCH SPACE,  
22 A LOT OF REALLY TALENTED PEOPLE REALLY EITHER DON'T  
23 GET INTO IT OR DON'T STAY WITH IT.

24 AND CREATING THAT CAPACITY, ESPECIALLY IN  
25 THIS EMERGING CLINICAL FIELD, IS OF VALUE TO US. I



## BARRISTERS' REPORTING SERVICE

1 THINK THERE'S SOME SENSE THAT THAT'S A GOOD IDEA.  
2 AND THE MECHANICS FOR DOING THAT CAN EMERGE AS WE  
3 HAVE THIS LARGER DISCUSSION ABOUT WHAT'S HAPPENED IN  
4 THE FIRST TWO ROUNDS AND HOW WE DO IT, IT CAN ALL  
5 KIND OF COME TOGETHER.

6 BUT I THINK IT'S GOOD THAT THIS HAS COME  
7 UP BECAUSE I DON'T THINK WE REALLY TALKED ABOUT  
8 DOING THIS ROUND AGAIN, AND IT'S KIND OF FALLEN OFF  
9 THE RADAR. AND I THINK THAT THAT'S A VALUE FROM THE  
10 GRANTS WORKING GROUP THAT THESE REVIEWERS HAVE PUT  
11 THIS FORWARD FOR US.

12 ARE THERE ANY OTHER FURTHER COMMENTS FROM  
13 BOARD MEMBERS?

14 MS. SAMUELSON: YEAH. THIS IS JOAN. AND  
15 MAYBE I'M JUST BEATING A DEAD HORSE. BUT IT SEEMS  
16 TO ME THAT IT'S IMPORTANT THAT WE DEVOTE TIME, NOT  
17 SO MUCH JUST TO GRANT ROUNDS, BUT TO A STRATEGIC  
18 DIRECTION AND THE ELEMENTS OF IT SO THAT WE'RE  
19 CONFIDENT AND WE CAN SAY THIS, THAT WE'RE FUNDING  
20 WHAT THE SCIENTISTS TELL US ARE THE MECHANISMS THAT  
21 ARE GOING TO MOST EFFECTIVELY, MOST SPEEDILY DEVELOP  
22 THERAPIES. AND THAT MIGHT NOT NECESSARILY BE MORE  
23 MONEY FOR THIS OR THAT KIND OF FUNDING MECHANISM.  
24 THOSE ARE TWO DIFFERENT THINGS AS I'M THINKING ABOUT  
25 IT.

## BARRISTERS' REPORTING SERVICE

1 CHAIRMAN SHEEHY: OKAY.

2 CHAIRMAN KLEIN: I'D LIKE TO THANK DR.  
3 BRYANT FOR HER COMMENTS. AND I'D LOVE TO GET SOME  
4 REFERENCES ON SOME PAPERS ON MODEL SYSTEMS, DR.  
5 BRYANT, AS TO WHICH ARE WHERE THE GREATEST PROMISE  
6 MIGHT BE AND WHICH MODEL SYSTEMS.

7 DR. BRYANT: BE HAPPY TO DO THAT. I THINK  
8 WHAT I'M TRYING TO SAY IS THAT THE APPROACHES THAT  
9 ARE GOING STRAIGHT FOR THE DISEASE MODELS DIRECTLY  
10 ARE -- WE MAY GET SOME LOW HANGING FRUIT THERE. BUT  
11 IF WE REALLY WANT TO UNDERSTAND HOW TO CREATE  
12 REGENERATIVE MEDICINE IN HUMANS, WE HAVE TO BE ABLE  
13 TO UNDERSTAND HOW IT'S DONE IN A SIMILAR ORGANISM.  
14 SO EVEN ZEBRAFISH DON'T COME AS CLOSE AS THEY SHOULD  
15 IN TERMS OF THEIR ABILITIES. SO, YES, I'D BE HAPPY  
16 TO. SHALL I JUST SEND THEM TO YOU, BOB, OR WHAT?

17 CHAIRMAN KLEIN: SURE. JEFF, WOULD YOU  
18 LIKE TO SEE IT AS WELL?

19 CHAIRMAN SHEEHY: SURE. THAT'D BE GREAT.  
20 THANK YOU, DR. BRYANT.

21 MS. SAMUELSON: SO WOULD I.

22 CHAIRMAN SHEEHY: IS THERE ANY OTHER --

23 MR. TORRES: I JUST WANT TO MAKE SURE. I  
24 KNOW DR. BRYANT DIDN'T MEAN TO SAY THAT, BUT WE ARE  
25 NOT FUMBLING IN THE DARK HERE. I DO THINK THAT

## BARRISTERS' REPORTING SERVICE

1 WE'RE HEADED IN THE RIGHT DIRECTION. HOW WE REFINE  
2 THAT DIRECTION, I THINK, IS WHAT DR. BRYANT WAS  
3 SAYING. THERE'S NO QUESTION THAT YOU DO NEED  
4 CONSISTENT REDIRECTION AND REFINEMENT OF WHERE WE'RE  
5 GOING. BUT FROM MY EXPERIENCE, I'VE ONLY BEEN HERE  
6 TWO YEARS, I JUST DON'T SEE THAT WE'RE FUMBLING IN  
7 THE DARK.

8 DR. BRYANT: NO. WE'RE APPROACHING A  
9 PROBLEM IN A WAY THAT IS LET'S SEE IF THIS WORKS  
10 RATHER THAN LET'S UNDERSTAND IT AND THEN FIGURE OUT  
11 HOW TO FIX IT. I TAKE BACK THE FUMBLING IN THE DARK  
12 BECAUSE OBVIOUSLY WE'RE NOT. IT'S JUST DIFFERENT  
13 PHILOSOPHIES ABOUT HOW TO APPROACH THINGS. I THINK  
14 A COMBINATION OF BOTH IS VERY APPROPRIATE, BUT I  
15 SEE -- MAYBE IT'S APPROPRIATE THAT WE LEAVE BEHIND  
16 THE UNDERSTANDING PART BECAUSE WE ONLY HAVE A  
17 LIMITED AMOUNT OF TIME AND MONEY, BUT I DO THINK  
18 THAT WE CAN GET A LITTLE BIT TOO FAR OUT ON ONE  
19 PARTICULAR MODE. OF THE STUDIES THAT HAVE BEEN DONE  
20 SO FAR ON ADDING CELLS BACK TO BRAINS AND SO FORTH,  
21 ALTHOUGH THEY HAVE A BENEFICIAL EFFECT, IT'S NOT AS  
22 IF THEY INTEGRATE INTO THE SYSTEM AND CREATE.

23 SO THERE ARE SOME EFFECTS WE DON'T  
24 REALLY -- CAN'T REALLY ANTICIPATE WHAT THE RESULTS  
25 ARE GOING TO BE IS WHAT I'M TRYING TO SAY. AND IF

## BARRISTERS' REPORTING SERVICE

1 IT'S POSITIVE, THAT'S GREAT. BUT IT'S NOT  
2 NECESSARILY WHAT YOU THINK IF YOU DON'T HAVE A  
3 DEEPER UNDERSTANDING OF THE SITUATION.

4 CHAIRMAN KLEIN: SO, DR. BRYANT, THIS IS  
5 BOB. I THINK, IN FACT, WE HAVE FUNDED BOTH, AND THE  
6 ISSUE HERE STRATEGICALLY TO THINK ABOUT IS WHAT  
7 ALLOCATION WE KEEP TO THESE MODEL SYSTEMS WHILE  
8 WE'RE ALSO TRYING TO FILL CRITICAL SHORTFALLS IN THE  
9 CLINICAL POSITIONS THAT WE NEED TO GO FORWARD. AND  
10 SO THE STRATEGIC PAPERS THAT YOU CAN GIVE TO US  
11 WOULD BE VERY HELPFUL TO INFORM US.

12 MS. SAMUELSON: I THINK THAT'S RIGHT.  
13 BECAUSE WE HAVE THE EXTERNAL ADVISORY PANEL TELLING  
14 US WE'RE SUPPOSED TO BE MUCH MORE PROACTIVE IN THIS  
15 NEXT PHASE, AND I'M NOT SURE WHAT THAT MEANS IN THIS  
16 CONTEXT.

17 CHAIRMAN SHEEHY: SO I THINK WE'VE HAD A  
18 NICE DISCUSSION ON THIS. AND UNLESS THERE'S  
19 REALLY -- WE ARE GOING TO TALK ABOUT THIS AGAIN.  
20 AND UNLESS THERE'S ANYTHING ADDITIONAL, I THINK WE  
21 HAVE PRETTY MUCH COVERED OUR AGENDA.

22 MR. ROTH: THANK YOU, JEFF.

23 CHAIRMAN SHEEHY: I THINK WE'RE ADJOURNED.

24 (THE MEETING WAS THEN CONCLUDED AT  
25 02:59 P.M.)

**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 TELEPHONIC PROCEEDINGS BEFORE THE SCIENCE SUBCOMMITTEE TO THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD ON APRIL 26, 2011, WAS HELD AS HEREIN APPEARS AND THAT THIS IS THE ORIGINAL TRANSCRIPT THEREOF AND THAT THE STATEMENTS THAT APPEAR IN THIS TRANSCRIPT WERE REPORTED STENOGRAPHICALLY BY ME AND TRANSCRIBED BY ME. I ALSO CERTIFY THAT THIS TRANSCRIPT IS A TRUE AND ACCURATE RECORD OF THE PROCEEDING.

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