

BEFORE THE  
SCIENTIFIC AND MEDICAL FACILITIES WORKING GROUP OF THE  
INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE  
TO THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE  
ORGANIZED PURSUANT TO THE  
CALIFORNIA STEM CELL RESEARCH AND CURES ACT  
  
PUBLIC INFORMATIONAL MEETING REGARDING FUTURE  
FACILITIES REQUEST FOR APPLICATIONS

LOCATION: LUXE HOTEL SUNSET BOULEVARD  
11461 SUNSET BOULEVARD  
LOS ANGELES, CALIFORNIA

DATE: JUNE 4, 2007  
1 P.M.

REPORTER: BETH C. DRAIN, CSR  
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1           LOS ANGELES, CALIFORNIA; MONDAY, JUNE 4, 2007

2

3           CHAIRMAN KLEIN:   GIVEN THAT THE CHAIR AND THE  
4   VICE CHAIR HAVE OTHER COMMITMENTS, I'M GOING TO CHAIR  
5   TODAY UNDER THE ABLE DIRECTION AND GUIDANCE OF MY  
6   COLLEAGUE JEFF SHEEHY AND STUART LAFF AND JANET WRIGHT.

7           THE FORMAT TODAY WILL BE TO BEGIN WITH TWO  
8   PRESENTATIONS, ONE FROM USC AND ONE FROM UCLA, AND THEN  
9   GO INTO A DISCUSSION OF POLICIES, RULES, AND  
10  DEFINITIONS TO SEE IF WE CAN PUSH THE STATE OF THE ART  
11  DOWNSTREAM TO WHERE THERE'S GREATER CLARITY ON WHAT THE  
12  POTENTIAL POLICIES, RULES, AND DEFINITIONS WILL BE.  
13  PLEASE REMEMBER THAT THIS IS AN ADVISORY GROUP, AND WE  
14  ARE IN AN INFORMATIONAL STAGE.  SO THIS IS A DISCUSSION  
15  AT THIS POINT OF THESE POLICIES, RULES, AND  
16  DEFINITIONS.  AND WE HAVE PART OF THE COMMITTEE HERE TO  
17  MOVE THAT DISCUSSION DOWNSTREAM AND TO GET INPUT FROM  
18  THE AUDIENCE.  WE WON'T BE MAKING ANY DECISIONS ON  
19  THOSE CRITERIA UNTIL WE GET DOWN TO THE END OF THIS  
20  PROCESS AND HAVE AN OPPORTUNITY TO GET INTO IT FROM  
21  ACROSS THE STATE.  BUT YOUR INPUT IS GOING TO BE VERY  
22  IMPORTANT IN REFINING THESE IDEAS AS WELL AS THE  
23  REAL-TIME DISCUSSION OF THE MEMBERS OF THE FACILITIES  
24  GROUP THAT ARE HERE TODAY.

25           SO WITH THAT, I'D LIKE TO START.  IF DR.

1 MARTIN PERA, IF YOU AND YOUR TEAM ARE READY, I REMIND  
2 YOU THAT IT'S BASICALLY A TEN-MINUTE PRESENTATION, AND  
3 THEN THE COMMITTEE IN LIGHT OF NEW INFORMATION MIGHT  
4 EXTEND THAT TIME AT ITS DISCRETION. IN ADDITION, WE  
5 HAVE THE OPPORTUNITY FOR THE COMMITTEE MEMBERS TO ASK  
6 QUESTIONS AT THE END OF YOUR PRESENTATION.

7 DR. PERA: THANK YOU, MR. KLEIN, FOR THE  
8 OPPORTUNITY TO COME ALONG AND ADDRESS THIS GROUP TODAY.  
9 IT IS IMPORTANT THAT YOU KNOW WHAT OUR PLANS ARE AT  
10 USC. AND TO KIND OF GIVE YOU AN UPDATE ON WHERE WE  
11 ARE, WE'VE INCLUDED SOME INFORMATION AT THE BACK OF  
12 YOUR HANDOUT ON OUR SPECIFIC PROGRAM. WHAT I'D LIKE TO  
13 DO IS SPEAK MORE TO THE PHILOSOPHY OF WHAT WE'RE DOING  
14 AND WHAT WE THINK THE RFA SHOULD REFLECT. AND I'D LIKE  
15 TO MAKE A NUMBER OF POINTS.

16 THE FIRST ONE IS THAT THIS MAJOR FACILITIES  
17 PROGRAM REALLY PROVIDES A SPECIAL OPPORTUNITY TO CREATE  
18 AN INTERDISCIPLINARY WORK ENVIRONMENT FOR SCIENTISTS  
19 WHO WORK IN BASIC STEM CELL BIOLOGY, TRANSLATIONAL  
20 RESEARCH, AND BIOENGINEERING. WE THINK THAT ALL THREE  
21 OF THESE AREAS ARE REALLY ESSENTIAL TO THE REALIZATION  
22 OF THE STRATEGIC PLAN, BUT WE'RE GOING TO FAIL IF EACH  
23 ARM OF THE PROGRAM DEVELOPS IN ISOLATION. SUCH  
24 INTERDISCIPLINARY WORKING ENVIRONMENTS REALLY DON'T  
25 EXIST AT THE PRESENT, AND CLOSE COMMUNICATION AND

1 COLLABORATION BETWEEN THESE GROUPS OF RESEARCHERS IS  
2 ESSENTIAL TO REALIZE THE GOALS OF THE STRATEGIC PLAN.

3 AND WHAT I WOULD SAY IS THAT WHEN I SAY CLOSE  
4 COMMUNICATION, I REALLY MEAN PHYSICAL PROXIMITY,  
5 WORKING CLOSELY TOGETHER UNDER THE SAME ROOF. IT'S  
6 AMAZING HOW MUCH OF A BARRIER A TEN- OR TWENTY-MINUTE  
7 DRIVE CAN BE.

8 SECONDLY, I THINK A KEY GOAL OF THE MAJOR  
9 FACILITIES PROGRAM SHOULD BE TO CREATE A WORKING  
10 ENVIRONMENT THAT WILL ATTRACT NEW FACULTY AND  
11 PARTICULARLY YOUNG SCIENTISTS AND PHYSICIANS FROM  
12 OUTSIDE CALIFORNIA. SO DEVELOPMENT OF CURES FROM STEM  
13 CELLS WILL ULTIMATELY RELY NOT ONLY ON SENIOR  
14 ESTABLISHED INVESTIGATORS, BUT ALSO ON OUTSTANDING  
15 YOUNG FACULTY WHO ARE GOING TO MAKE THE DISCOVERIES  
16 THAT SHAPE THE FUTURE OF THE FIELD.

17 CAREER DEVELOPMENT FOR THESE YOUNG FACULTIES  
18 IS A KEY GOAL FOR THE CIRM STRATEGIC PLAN. AND WHILE  
19 WE SHOULD RECOGNIZE THAT WHILE CIRM'S INITIATIVE WAS  
20 THE FIRST OF ITS KIND AND REMAINS UNIQUE IN SOME  
21 RESPECTS, THERE'S NOW PLENTY OF COMPETITION AROUND THE  
22 WORLD TO ATTRACT THE MOST PROMISING RESEARCHERS.  
23 OUTSTANDING LABORATORIES ARE A REAL DRAW. SO YOUNG  
24 SCIENTISTS ALSO NEED TO FEEL THAT THERE'S SPACE AND  
25 SUPPORT TO DEVELOP THE RESEARCH PROGRAMS INTO THE

1 FUTURE.

2 NOW, FROM THIS POINT, IT FOLLOWS ON THAT THE  
3 MAJOR FACILITIES PROGRAM REALLY SHOULD SUPPORT  
4 DEVELOPMENTS NOT ONLY AT THOSE CALIFORNIA INSTITUTIONS  
5 WITH EXISTING STRENGTHS IN STEM CELL RESEARCH, BUT ALSO  
6 THOSE INSTITUTIONS WITH A DEMONSTRATED COMMITMENT TO  
7 BUILDING FUTURE STRENGTH IN REGENERATIVE MEDICINE. SO  
8 THE CIRM INITIATIVE AIMS NOT JUST TO MAINTAIN, BUT ALSO  
9 TO EXPAND CAPABILITIES IN REGENERATIVE MEDICINE ACROSS  
10 THE STATE AND PROVISION OF RESEARCH INFRASTRUCTURES  
11 IMPORTANT TO REALIZING THIS GOAL OF EXPANDED  
12 CAPABILITIES.

13 THE MAJOR FACILITIES PROGRAM FUNDING SHOULD  
14 SEEK TO LEVERAGE REGIONAL INITIATIVES AND CONSORTIA  
15 THAT EXTEND BEYOND SINGLE INSTITUTIONS. SO THIS IS  
16 VERY MUCH PART OF OUR CONCEPT. WE RECOGNIZE THAT THE  
17 AVAILABLE FUNDS DO NOT PERMIT THE DEVELOPMENT OF MAJOR  
18 FACILITIES AT EVERY INSTITUTION IN THE STATE WITH  
19 CAPABILITIES IN STEM CELL RESEARCH. A MODEL THAT COULD  
20 WORK IS THAT THE MAJOR FACILITIES PROGRAM COULD SUPPORT  
21 A HUB FOR RESEARCH WITH REGIONAL PARTICIPANTS HAVING  
22 ACCESS TO THE HUB WHILST CONTRIBUTING THE FACILITIES  
23 AND EXPERTISE INTO A CONSORTIA. THERE ARE MANY  
24 MERITORIOUS PROGRAMS THAT WILL NOT COMPETE FOR MAJOR  
25 FACILITIES THAT WOULD BENEFIT FROM ACCESS TO A FACILITY

1 IN ANOTHER INSTITUTION THROUGH ACCESS TO TRAINING, CORE  
2 LABORATORIES, INTERACTION WITH TRANSLATIONAL RESEARCH  
3 TEAMS, AND EVEN EMBEDDING OF THESE FACULTIES IN THE HUB  
4 FACILITY.

5 THE MAJOR FACILITIES PROGRAM SHOULD ALSO  
6 PROVIDE SPACE AND STRUCTURE FOR THE DEVELOPMENT OF  
7 INTERNATIONAL COLLABORATIONS IN STEM CELL RESEARCH.  
8 THE PROGRAM SHOULD PLACE A HIGH PRIORITY ON THE  
9 INTEGRATION OF BASIC AND TRANSLATIONAL RESEARCH. IT'S  
10 IMPORTANT, THEREFORE, THAT THE FACILITIES BE CLOSELY  
11 ASSOCIATED WITH CENTERS OF CLINICAL EXCELLENCE WITH  
12 ESTABLISHED TRACK RECORDS. THE FACILITIES SHOULD  
13 ENABLE RESEARCHERS WITH JOINT APPOINTMENTS IN CLINICAL  
14 AND BASIC SCIENCE DEPARTMENTS TO WORK CLOSELY TOGETHER,  
15 AND CONVERTING BASIC DISCOVERIES IN THE PLATFORM  
16 TECHNOLOGIES THAT PROVIDE THE BASIS FOR DISEASE  
17 TREATMENTS IS, OF COURSE, A MAJOR FOCUS OF CIRM'S  
18 STRATEGIC PLAN.

19 THE MAJOR FACILITIES PROGRAM SHOULD ALSO  
20 SUPPORT THE DEVELOPMENT OF RESEARCH LABORATORIES THAT  
21 WILL ACT AS A MAGNET FOR BIOTECHNOLOGY INVESTMENT AND  
22 COLLABORATION. WITHOUT PRIVATE SECTOR INVOLVEMENT, THE  
23 PATH TOWARDS APPLICATION WILL BE SLOWER AND, MOREOVER,  
24 ECONOMIC BENEFIT IS A KEY COMPONENT OF THE CIRM  
25 STRATEGIC PLAN. THE FACILITIES PROGRAM SHOULD HELP

1 FOSTER BIOTECHNOLOGY DEVELOPMENT, NOT ONLY IN REGIONS  
2 OF CALIFORNIA THAT CURRENTLY HAVE EXTENSIVE  
3 BIOTECHNOLOGY ACTIVITY, BUT ALSO IN THOSE REGIONS WHERE  
4 THE POTENTIAL FOR EXPANSION OF BIOTECHNOLOGY EXISTS.  
5 WITH CELLULAR THERAPIES IN PARTICULAR I WOULD SAY THE  
6 PROXIMITY OF BIOTECHNOLOGY TO CLINICAL RESEARCH CENTERS  
7 WILL BE PARTICULARLY CRITICAL.

8 FINALLY, THE MAJOR FACILITIES SHOULD CONTAIN  
9 CORE LABORATORIES THAT PROVIDE THE ESSENTIAL SUPPORT  
10 STEM CELL RESEARCHERS REQUIRE FOR THEIR WORK. THESE  
11 CORE LABORATORIES WOULD INCLUDE, BUT NOT NECESSARILY BE  
12 LIMITED TO, STEM CELL CULTURE CORES, FLOW CYTOMETRY  
13 CORES, CELL AND ANIMAL IMAGING, HIGH THROUGHPUT  
14 CHEMICAL SCREENING, AND VIVARIA.

15 THANK YOU. THAT CONCLUDES MY COMMENTS.

16 CHAIRMAN KLEIN: THANK YOU VERY MUCH. DO THE  
17 COMMITTEE MEMBERS HAVE QUESTIONS FOR DR. PERA? I'D  
18 LIKE TO ASK DR. PERA. IT SAYS THE MAJOR FACILITIES  
19 PROGRAM FUNDING SHOULD SEEK TO LEVERAGE REGIONAL  
20 INITIATIVES AND CONSORTIA THAT EXTEND BEYOND SINGLE  
21 INSTITUTIONS. AND IN YOUR WRITE-UP YOU REFERENCE  
22 FORMAL RELATIONSHIPS WITH USC, CHILDREN'S, AND CALTECH,  
23 AS WELL AS A NUMBER OF DIFFERENT USC CENTERS OF  
24 EXCELLENCE.

25 WITH USC, CHILDREN'S, AND CALTECH, WHAT'S THE



1 NATURE OF THE FORMAL RELATIONSHIP?

2 DR. PERA: WELL, CHILDREN'S HOSPITAL HAS LONG  
3 BEEN ASSOCIATED WITH UNIVERSITY OF SOUTHERN CALIFORNIA.  
4 MANY OF THEIR FACULTY HAVE APPOINTMENTS IN OUR SCHOOL  
5 OF MEDICINE, AND WE'VE WORKED WITH THEM BOTH IN TERMS  
6 OF DEVELOPING RESEARCH PROGRAMS, BUT ALSO IN TERMS OF  
7 OUR CIRM-FUNDED TRAINING GRANT. THE SAME IS TRUE OF  
8 CALTECH. AT CALTECH WE ALSO HAVE ONE ARM OF OUR CIRM  
9 TRAINING GRANT, AND MOST PROBABLY CALTECH ITSELF WILL  
10 NOT DEVELOP ITS OWN STEM CELL CORE, BUT WILL PROBABLY  
11 RELY ON US. I THINK A GOOD AND IMPORTANT PART OF THE  
12 CALTECH RELATIONSHIP IS THAT IT ALLOWS BASIC  
13 RESEARCHERS FROM THAT INSTITUTION TO BE INTEGRATED MORE  
14 INTO THE TRANSLATIONAL SIDE OF RESEARCH THAT WOULD GO  
15 ON IN OUR CENTER.

16 CHAIRMAN KLEIN: AND IT SAYS ON PAGE 4 OF 4  
17 OF YOUR HANDOUT THAT YOU ARE GOING TO PROVIDE  
18 LABORATORY SPACE FOR THREE TO FIVE PRINCIPAL  
19 INVESTIGATORS OF PARTNERING CONSORTIA INSTITUTIONS.  
20 NOW, THREE TO FIVE PRINCIPAL INVESTIGATORS, DOES THAT  
21 MEAN INCLUDING EIGHT TO TEN JUNIOR INVESTIGATORS THAT  
22 ARE ASSOCIATED WITH EACH OF THE PRINCIPALS, OR IS IT  
23 JUST THE PRINCIPAL INVESTIGATORS?

24 DR. PERA: NO. NO. IT WOULD BE A PLACE FOR  
25 ASSOCIATES AS WELL.

1                   CHAIRMAN KLEIN:  FOR THE ASSOCIATES AS WELL.  
2                   AND SO FOR A FIVE-YEAR TERM, THERE WILL BE A FORMAL  
3                   SPACE SET ASIDE TO INTEGRATE THESE PARTNERS?

4                   DR. PERA:  YES.  THAT'S CORRECT.  SO WE'RE  
5                   DEVELOPING A MEMORANDUM OF UNDERSTANDING OF THESE  
6                   VARIOUS GROUPS AT THE MOMENT.

7                   CHAIRMAN KLEIN:  AND WHAT IS THE CLINICAL AND  
8                   TRANSLATIONAL SCIENCE INSTITUTE AT USC GENERAL CLINICAL  
9                   RESEARCH CENTER?

10                  DR. PERA:  SO THIS IS FOCUSED ON CLINICAL  
11                  TRIALS ACROSS RANDOM SPECIALTIES THAT WILL BE APPLYING  
12                  FOR NEW NIH FUNDING FOR THAT CENTER.  WE THINK THAT  
13                  ULTIMATELY REGENERATIVE MEDICINE WILL BE A SIGNIFICANT  
14                  PART OF THEIR ACTIVITIES.

15                  CHAIRMAN KLEIN:  OKAY.  ARE THERE ANY  
16                  QUESTIONS FROM THE COMMITTEE?  EVIDENTLY NOT AT THIS  
17                  TIME.  THANK YOU VERY MUCH.

18                  DR. OWEN WITTE.

19                  DR. WITTE:  GOOD AFTERNOON.  I HOPE I CAN  
20                  COMPETE WITH THE WEDDING CEREMONY OR WHATEVER IS GOING  
21                  ON NEXT DOOR.  IN LISTENING TO MARTIN PERA'S  
22                  DESCRIPTION AND KNOWING THAT YOU'VE ALREADY HAD SOME  
23                  TESTIMONY FROM OTHER SCIENTISTS, LIKE MY GOOD FRIEND  
24                  IRV WEISSMAN, I THOUGHT I'D DO US ALL A FAVOR AND NOT  
25                  GO OVER EVERYTHING THAT'S BEEN COVERED MULTIPLE TIMES

1 ALREADY, BUT TRY TO HIT WHAT I THINK ARE THE REALLY  
2 CRUCIAL POINTS. I'LL KEEP SPEAKING LOUDER AND LOUDER  
3 TO MAKE SURE I GET OVER THIS.

4 I'VE BEEN A BIOMEDICAL RESEARCHER FOR  
5 SOMETHING OVER 30 YEARS; AND I THINK IF YOU ARE GOING  
6 TO USE THIS MONEY WISELY TO BUILD NEW FACILITIES, YOU  
7 ARE GOING TO HAVE TO REALLY COME TO GRIPS WITH THE FACT  
8 THAT MOST OF THE PARADIGMS THAT WE USE TO BUILD  
9 BUILDINGS UP UNTIL JUST ABOUT NOW SIMPLY AREN'T GOING  
10 TO WORK. WE'RE GOING TO HAVE TO RETHINK HOW WE DO  
11 BIOMEDICAL RESEARCH BECAUSE WE HAVE TO INTEGRATE THINGS  
12 THAT PREVIOUSLY WERE REALLY QUITE DISPARATE AND  
13 SEPARATE FROM EACH OTHER.

14 WE KNOW WHAT THE PROBLEMS ARE. WE KNOW WHAT  
15 WE WANT TO ACHIEVE. WE WANT TO BE ABLE TO GROW  
16 EMBRYONIC STEM CELLS AND THEIR PROGENY, GROW THEM AT A  
17 SCALE COMMENSURATE WITH USING THEM IN CLINICAL THERAPY,  
18 AND LEARN FROM THOSE CLINICAL TERMS HOW TO DO THOSE  
19 EXPERIMENTS BETTER, SO THAT MEANS FACILITIES ALL THE  
20 WAY FROM THE VERY BASIC ALL THE WAY THROUGH THE  
21 PINNACLE OF LIFE.

22 SECOND, WE WANT TO USE THESE CELLS TO MAKE  
23 MODELS OF DISEASE SO THAT WE CAN DO BETTER SCIENCE  
24 EARLIER IN THE COURSE OF THIS AND DEVISE BETTER  
25 THERAPIES. THOSE ARE THE GOALS.

1                   WHAT'S IMPORTANT TO THINK ABOUT IN TERMS OF  
2 THE BUILDING ASPECT OF IT IS THAT THE WAY WE ANSWER  
3 QUESTIONS NOW HAS TO INTEGRATE PEOPLE FROM SUCH A BROAD  
4 RANGE OF DISCIPLINES, AND SOME OF THE PROJECTS THAT  
5 I'LL ACTUALLY BE TALKING TO ABOUT TOMORROW MORNING AT  
6 THE FULL ICOC MEETING IN WHICH I'LL PRESENT WITH JUDY  
7 GASSON ON CANCER AND CANCER STEM CELLS, WE NOW HAVE  
8 CHEMISTS, ENGINEERS, PHYSICISTS, FUNDAMENTAL  
9 MATHEMATICIANS, COMPUTATIONAL SCIENTISTS, ETC., ALL  
10 INTEGRATED TOGETHER INTO THESE PROJECTS.

11                   HOW CAN YOU BUILD A FACILITY OR FACILITIES  
12 THAT CAN SPEAK TO THIS LEVEL OF ISSUE, THIS LEVEL OF  
13 PROBLEM? I THINK THE WAY TO DO IT IS TO THINK ABOUT  
14 THEM AS TECHNOLOGY CENTERS IN WHICH DIFFERENT  
15 TECHNOLOGIES MAY NEED TO BE REPLACING ONE OR ANOTHER  
16 OVER TIME. SO THE SPACE NEEDS TO BE FLEXIBLE, AND IT  
17 NEEDS TO BE THOUGHT ABOUT FROM PHYSICAL SCIENCES AS  
18 WELL AS BIOLOGICAL SCIENCES. DOESN'T MEAN THAT  
19 EVERYTHING HAS TO BE CLOSE TOGETHER, BUT A CERTAIN  
20 CRITICAL MASS, NOT JUST TO PROVIDE TECHNOLOGY, BUT TO  
21 ADVANCE TECHNOLOGY. I CAN'T MAKE THIS POINT MORE  
22 STRONGLY. I WISH I COULD MAKE IT MORE STRONGLY, WHICH  
23 IS THAT WE HAVE TO THINK ABOUT NOT JUST PROVIDING A  
24 SERVICE OF SCIENCE, BUT CREATING NEW SCIENCE WITH THESE  
25 TECHNOLOGIES IN SITU, AND THAT'S DIFFERENT THAN SIMPLY

1 A CONSUMER PURCHASE OF SERVICES. IT'S MAKING NEW  
2 SCIENCE, NOT JUST PROVIDING IT.

3 SO THERE'S LOTS OF QUESTIONS THAT WE HAVE,  
4 SUCH AS CONTROLLING HOW THE GENOME IS REMODELED, HOW TO  
5 THINK ABOUT GRAFT REJECTION, QUESTIONS ABOUT USING  
6 IMAGING SCIENCES TO FOLLOW THESE THINGS, BUT ALL OF  
7 THEM HAVE TO COME FROM THE SAME KIND OF  
8 INTERDISCIPLINARY PERSPECTIVE THAT YOU USE WHETHER IT'S  
9 IN THE BIOTECHNOLOGY INDUSTRY OR IN ANY OTHER INDUSTRY  
10 IS THAT TECHNOLOGY CHANGES.

11 SO ONE OF THE THINGS WE'RE TRYING TO DO AT  
12 UCLA IS TO TAKE ADVANTAGE OF SOME NEWLY OPENED SPACE  
13 THAT'S COMING AVAILABLE DUE TO THE MACRO CHANGES THAT  
14 ARE OCCURRING WITH THE OPENING OF A NEW HOSPITAL AND  
15 SEVERAL NEW RESEARCH BUILDINGS TO BUILD A CONCERTED  
16 CORE OF TECHNOLOGY CENTERS WHICH WILL GO FROM HUMAN ES  
17 WORK, COMPUTATIONAL SCIENCES, PHYSICAL SCIENCES SUCH AS  
18 MICROFLUIDICS AND PHYSICAL CHEMISTRY TO BUILD NEW  
19 MOLECULES WE NEED ALL WITHIN A CONCERTED SPACE. I  
20 THINK THIS WILL BE AN INTERESTING EXPERIMENT BECAUSE IT  
21 WILL DRAW PEOPLE FROM OTHER PORTIONS OF THE CAMPUS AND  
22 OTHER PORTIONS OF THE CITY. WE TOO HAVE VERY STRONG  
23 INTERACTIONS WITH CALTECH AND OTHER UNIVERSITIES IN THE  
24 AREA. WE'RE FORMING TRAINING PROGRAMS WITH CALTECH.  
25 ALTHOUGH IT IS A BIT OF A DRIVE TO GET ACROSS FROM

1 PASADENA TO WEST LOS ANGELES, PEOPLE ARE DOING IT  
2 BECAUSE THE INTEREST IS SO HIGH.

3 FINALLY, ONE OF THE THINGS THAT I THINK IS  
4 IMPORTANT HERE IS THAT WE'VE GOT ABOUT A TEN-YEAR  
5 WINDOW TO ACCOMPLISH A LOT. AND IN ORDER TO DO THAT, I  
6 THINK WE NEED TO THINK ABOUT SPACES AND PLACES THAT CAN  
7 BE RENOVATED OR BUILT QUICKLY SO THAT WE'RE NOT FIVE  
8 YEARS INTO A BUILDING PROJECT AND FIVE YEARS OF THE  
9 MONEY IS SPENT. I THINK ONE SHOULD LOOK QUICKLY AT  
10 THOSE SPACES THAT CAN BE DONE EITHER QUICKLY OR IN  
11 STAGES TO ADD VALUE TO THE SCIENCE NOW RATHER THAN  
12 VERY, VERY ELABORATE THINGS THAT MAY TAKE MANY YEARS TO  
13 COMPLETE.

14 FINALLY, THERE'S SOMETHING THAT I THINK IS  
15 REALLY HARD TO EXPLAIN. THERE'S AN INTEGRAL FUNCTION  
16 FOR TEACHING THAT HAS TO BE INCORPORATED INTO THESE  
17 TECHNOLOGY CENTERS AND JOINT INTERDISCIPLINARY  
18 LABORATORIES. IT WILL DO US NO GOOD AT ALL IF WE  
19 SIMPLY ESTABLISH A PLACE TO BUILD MACHINES AND PROVIDE  
20 TECHNOLOGY IF WE DON'T TRAIN THE NEXT GENERATION OF  
21 SCIENTISTS. I WAS ENCOURAGED THAT THE VERY FIRST  
22 GRANTS THAT CIRM GAVE OUT WERE FOR TRAINING, AND IT'S  
23 HAD A BIG IMPACT ON OUR CAMPUS, I CAN TELL YOU.

24 SO THOSE STUDENTS AND FELLOWS AND CLINICAL  
25 FELLOWS NEED TO BE A PART OF THIS NEW TECHNOLOGY

1 DEVELOPMENT RATHER THAN JUST GOING THERE AGAIN AS IF  
2 IT'S A SUPERMARKET IN WHICH YOU BUY SERVICE. YOU  
3 DEVELOP NEW TECHNOLOGY. THAT'S WHAT ADVANCES SCIENCE.

4 SO I'LL STOP HERE AND JUST LET STEVE OLSON,  
5 VICE CHANCELLOR OF CAPITAL PROGRAMS, IF WE HAVE A FEW  
6 MINUTES, JUST TO ADD A COUPLE OF POINTS ON THE CAMPUS  
7 COMMITMENT TO STEM CELLS. I CAN TAKE QUESTIONS NOW OR  
8 TAKE QUESTIONS LATER, WHATEVER YOU LIKE.

9 CHAIRMAN KLEIN: WHY WE DON'T LET STEVE MAKE  
10 HIS PRESENTATION AND DO IT TOGETHER.

11 DR. OLSON: THANK YOU. I CAN BE VERY BRIEF,  
12 JUST A FEW ADDITIONAL COMMENTS THAT HAVEN'T BEEN  
13 COVERED SO FAR. EVEN THOUGH YOU ARE GOING TO BE  
14 DEVELOPING SEPARATE GUIDELINES WITH RESPECT TO THE  
15 FACILITIES GRANT APPLICATION, I REALLY WOULD ENCOURAGE  
16 YOU TO CONSIDER ALSO BROADER MEASURES OF INSTITUTIONAL  
17 COMMITMENT FROM A PROGRAMMATIC SENSE. I THINK THAT IS  
18 IMPORTANT WITH RESPECT TO WHAT INSTITUTIONS HAVE DONE  
19 IN TERMS OF FACULTY COMMITMENT, OPERATING SUPPORT, AND  
20 OTHER PROGRAMMATIC SUPPORT FROM AN INTERDISCIPLINARY  
21 STANDPOINT. I THINK THAT'S SOMETHING YOU SHOULD TAKE  
22 INTO CONSIDERATION.

23 AS WELL, UCLA HAS AN ESTABLISHED PROGRAM THAT  
24 INVOLVES COMMITMENTS OF FACULTY AND OPERATING SUPPORT  
25 AS WELL AS CONNECTIONS WITH OTHER ORGANIZATIONS,

1 ACADEMIC UNITS ON CAMPUS THAT CONTRIBUTE TOWARD A FOCUS  
2 ON STEM CELL RESEARCH. SO I ENCOURAGE YOU TO TAKE A  
3 LOOK AT THAT.

4 ALSO WITH RESPECT TO -- I WHOLEHEARTEDLY  
5 ENDORSE THE VIEWS THAT THE PRIMARY FOCUS REALLY SHOULD  
6 BE LOOKING AT INTERDISCIPLINARY TECHNOLOGY CENTERS OR  
7 CORE LABORATORIES. I THINK THAT REALLY SHOULD BE THE  
8 PRIMARY FOCUS RATHER THAN SOMETHING THAT'S SIMPLY  
9 BUILDING THE CAPACITY FOR INDIVIDUAL INVESTIGATORS TO  
10 EXPAND INDIVIDUAL RESEARCH PORTFOLIOS.

11 A KEY PART OF THAT REALLY HAS TO BE  
12 GEOGRAPHIC PROXIMITY. OUR EXPERIENCE AT UCLA, AS  
13 VALUABLE AS THE RELATIONSHIPS WITH OTHER INSTITUTIONS  
14 WILL BE, I BELIEVE THE NATURE OF THE ACADEMIC  
15 ENTERPRISE, AT LEAST IN MY NONACADEMIC EXPERIENCE, HAS  
16 BEEN THAT A FIVE- TO TEN-MINUTE WALK IS SOMETIMES A  
17 BOUNDARY WITH RESPECT TO THE ABILITY AND WILLINGNESS TO  
18 ESTABLISH WELL-ROUNDED INTERDISCIPLINARY RELATIONSHIPS.  
19 FOR THIS REASON, AT UCLA WHEN WE HAVE MADE MAJOR  
20 INVESTMENTS IN THESE TYPES OF FACILITIES, WE HAVE  
21 ALWAYS LOOKED FOR THINGS THAT ARE LOCATED CLOSE TO THE  
22 GEOGRAPHIC CENTER OF THE SCIENCES TO THE EXTENT THAT WE  
23 CAN.

24 A RECENT EXAMPLE OF THAT IS OUR NEWLY OPENED  
25 CALIFORNIA NANOSYSTEMS RESEARCH INSTITUTE ON THE COURT



1 OF THE SCIENCES, WHICH WAS LOCATED DIRECTLY AMIDST THE  
2 PHYSICAL SCIENCES AND ENGINEERING, BIOENGINEERING, AND  
3 THE SCHOOL OF MEDICINE AND THE LIFE SCIENCES. AND THAT  
4 REALLY HAS PROVED TO BE AND I BELIEVE WILL PROVE TO BE  
5 AN IMPORTANT ASPECT OF FOSTERING INTERDISCIPLINARY  
6 RESEARCH.

7 SO I'D ENCOURAGE YOU TO TAKE A LOOK JUST AT  
8 THE LOCATION OF THE FACILITY AND SEE WHETHER IT MAKES  
9 SENSE WITHIN THE CONTEXT OF THE INSTITUTION REQUESTING  
10 A MAJOR INVESTMENT OF STATE RESOURCES.

11 ANY QUESTIONS?

12 CHAIRMAN KLEIN: DOES THE COMMITTEE HAVE  
13 QUESTIONS FOR EITHER DR. WITTE OR DR. OLSON?

14 MR. SHEEHY: THESE MEETINGS ARE KIND OF  
15 CRASHING TOGETHER. I DO THINK -- AND ACTUALLY THIS CAN  
16 PROBABLY GO TO BOTH SPEAKERS. THE FIRST TWO  
17 INSTITUTIONS WE HEARD FROM, YOU KNOW, REALLY SEEM TO  
18 SUGGEST VERY STRONGLY THAT WE PUT A LOT OF EMPHASIS ON  
19 TRACK RECORD. THEY HAD A VERY GOOD TRACK. THAT WAS  
20 UCSF AND STANFORD.

21 I'M WONDERING IF YOU HAVE THOUGHTS AS WE  
22 START TO DRAFT THIS RFA. AND I APOLOGIZE FOR NOT QUITE  
23 CLICKING YET. THESE MEETINGS START BACKING UP ONE  
24 AFTER ANOTHER. EVEN DR. PERA WANTS TO SPEAK TO THAT.  
25 YOU KNOW, HOW DO WE STRIKE THAT BALANCE BETWEEN GETTING

1 PEOPLE WHO HAVE VERY WELL-ESTABLISHED RECORDS OF  
2 EXCELLENCE AND MAKING SURE THAT WE DIVERSIFY, THAT WE,  
3 YOU KNOW, TRY TO SQUEEZE AS MUCH CAPABILITY -- CREATE  
4 AS MUCH CAPABILITY IN THE STATE OF CALIFORNIA AS  
5 POSSIBLE. ANY THOUGHTS ON THAT. THE MORE TECHNICAL  
6 AND PRAGMATIC WAYS THAT WE CAN GET TO THAT WOULD BE  
7 VERY HELPFUL BECAUSE WE REALLY ARE TRYING TO FIGURE OUT  
8 HOW TO DRAW AN RFA FOR THIS.

9 DR. WITTE: I KNOW WE FEEL VERY STRONGLY THAT  
10 YOU HAVE TO GO ON QUALITY AND TRACK RECORD AS A BIG  
11 PORTION OF THAT. THERE'S ABSOLUTELY NO DOUBT IN MY  
12 MIND THAT PEOPLE WHO HAVE DONE IMPORTANT SCIENCE ARE  
13 LIKELY TO DO MORE IMPORTANT SCIENCE WHETHER THEY WERE  
14 IN THIS PARTICULAR FIELD OR COMING FROM ANOTHER. IT'S  
15 ONE OF THE MAJOR INDICATORS THAT SHOULD BE USED TO TAKE  
16 A BET ON WHERE YOU ARE GOING TO SPEND YOUR MONEY.

17 ON THE OTHER HAND, CALIFORNIA IS A BIG PLACE,  
18 AND THERE ARE A LOT OF PEOPLE AND A LOT OF PLACES OF  
19 REAL QUALITY. IF YOU LOOK AT ANY OF THE COMPETITIONS  
20 YOU'VE HAD SO FAR, IT'S NOT ALL EQUAL. IT'S NOT ALL IN  
21 THE BAY AREA. I THINK THERE'S PLENTY OF GOOD SCIENCE  
22 SOUTH OF SAN FRANCISCO, INCLUDING HERE IN LOS ANGELES.  
23 WE'D BE HAPPY TO COMPETE ON ANY OF THE LEVELS WITH ANY  
24 OF THE INSTITUTIONS, AND SO FAR WE SEEM TO BE DOING  
25 OKAY.

1           THE ONLY OTHER THING I WOULD SAY IS THAT IF  
2           THAT METRIC ISN'T THE ONLY METRIC, THERE'S OTHER THINGS  
3           YOU SHOULD LOOK TO, WHICH IS, OF COURSE, SOME OF THE  
4           THINGS STEVE TALKED ABOUT. RESEARCH INFRASTRUCTURE  
5           BASE BECAUSE THIS MONEY IS AN INVESTMENT, AND WE  
6           USUALLY LIKE TO HAVE CO-INVESTMENT SUCH AS ANCILLARY  
7           FACILITIES, OTHER MONIES, OTHER SOURCES OF SUPPORT,  
8           WHETHER IT BE PUBLIC OR PRIVATE, TO REDOUBLE THE VALUE  
9           OF THE INVESTMENT YOU ARE GOING TO MAKE IN THESE  
10          FACILITIES. I THINK A PLACE LIKE UCLA, USC, AND OTHERS  
11          CAN STRONGLY COMPETE IN THAT ARENA AS WELL.

12                 SO I DEFINITELY DON'T THINK THERE SHOULD BE A  
13          FEW CITADELS ESTABLISHED. I THINK IT SHOULD BE SPREAD  
14          OUT A BIT MORE, AND EACH OF THE INSTITUTIONS SHOULD BE  
15          EXPECTED TO CONTRIBUTE -- I FORGET WHAT THE FORMAL  
16          NUMBER IS -- 20 PERCENT, BUT I THINK YOU'LL SEE THAT  
17          MOST OF THE STRONG INSTITUTIONS WILL BE CONTRIBUTING  
18          CONSIDERABLY MORE THAN THAT TO EACH OF THE ENDEAVORS  
19          FOR WHICH WE COMPETE.

20                 DR. PERA: I'D ENDORSE WHAT OWEN HAS JUST  
21          SAID. I'LL ALSO SAY THAT OUR EFFORT, FRANKLY, IS A NEW  
22          EFFORT AND A DEVELOPING ONE. AND WE WOULD ASK THAT YOU  
23          WOULD LOOK AT THE TRACK RECORD IN ATTRACTING NEW  
24          INVESTIGATORS, THE QUALITY OF NEW INVESTIGATORS, THE  
25          COMMITMENT OF THE INSTITUTION, ETC. TAKE THOSE THINGS

1 INTO ACCOUNT AS WELL WHEN YOU CARRY OUT THESE  
2 ASSESSMENTS.

3 MR. SHEEHY: WE KIND OF BROACHED THIS AT THE  
4 LAST MEETING. WHAT'S THAT METRIC? AND WE WANT TO DO  
5 SOMETHING THAT'S FAIR FOR BOTH THE BIG INSTITUTION AND  
6 SMALL INSTITUTION, BUT OBVIOUSLY HOW DO WE ASK FOR AND  
7 THEN HOW DO WE DETERMINE THAT THERE'S BEEN A REAL  
8 COMMITMENT TO BRING -- THIS CAME UP BEFORE FOR US. OUR  
9 RATE LIMITING FACTOR IS PROBABLY GOING TO BE AVAILABLE  
10 INVESTIGATORS IN INSTITUTIONS IN CALIFORNIA WHO ARE  
11 CAPABLE OF DOING SUPERB SCIENCE IN STEM CELL RESEARCH.  
12 AND SO THE MORE THAT THIS PROCESS CAN ADDRESS THAT  
13 LOOMING BARRIER THE BETTER.

14 BUT REALLY, HOW DO WE WRITE THAT? HOW DO WE  
15 ASK FOR THAT? HOW DO WE MEASURE THAT?

16 DR. PERA: SO I THINK IT IS POSSIBLE TO LOOK  
17 AT THE TRACK RECORD OF THE INSTITUTION IN ATTRACTING  
18 NEW INVESTIGATORS OVER A PERIOD OF TIME AND QUALITY OF  
19 NEW INVESTIGATORS, ASSESSING THEM IN THE SAME WAY YOU  
20 WOULD ASSESS ANYONE ELSE.

21 MR. SHEEHY: BUT IN SOME WAY WE COULD BE  
22 ASKING FOR FUTURE. OBVIOUSLY IN YOUR INSTANCE YOU GUYS  
23 HAVE DONE -- YOU'RE HERE, WHICH IS OBVIOUSLY A  
24 SIGNIFICANT COMMITMENT BY YOUR INSTITUTION. AND I SEE  
25 IN HERE YOU TALK ABOUT RECRUITING. SHOULD WE ASK

1 SPECIFICALLY WHAT ARE YOUR PLANS FOR THE FUTURE?

2 DR. PERA: ABSOLUTELY.

3 MR. SHEEHY: HOW MANY PRINCIPAL  
4 INVESTIGATORS? WHAT LEVEL? HOW MANY JUNIOR  
5 INVESTIGATORS?

6 DR. PERA: I'D ASK WHAT THE HARD COMMITMENTS  
7 ARE.

8 DR. WRIGHT: JUST A FOLLOW-UP ON THAT BECAUSE  
9 THIS IS SOMETHING THAT WE'VE STRUGGLED WITH. FOR  
10 SMALLER PLACES THAT MAY HAVE A NIDUS, SORT OF A SMALL  
11 BRAIN TRUST FOR SOME SPECIFIC AREA OF RESEARCH, WOULD  
12 THERE BE A BENEFIT IN CRAFTING AN RFA AROUND A MORE  
13 CONFINED TOPIC OR A SMALLER TOPIC? WE'VE BEEN TALKING  
14 ABOUT THE LARGER CENTERS HAVING WELL-INTEGRATED  
15 PROGRAMS, BRINGING IN ALL OF THE RELEVANT SCIENTISTS,  
16 PHYSICAL, CHEMICAL, ETC., BUT WOULD THERE BE SOME  
17 ADVANTAGE TO GIVING A LEG UP TO SMALLER PLACES THAT  
18 PERHAPS HAVE A FEW PEOPLE OR A SMALL GROUP?

19 DR. PERA: TO MY WAY OF THINKING, IF YOU HAVE  
20 A SMALL GROUP OF INVESTIGATORS THAT BRILLIANTLY FILL AN  
21 IMPORTANT NICHE, SURE.

22 DR. WRIGHT: WE NEED ADVICE ON HOW TO GET  
23 THAT.

24 DR. WITTE: YOU CAN'T ARGUE AGAINST  
25 BRILLIANCE. I THINK ONCE YOU CONSIDER THE FACT THAT

1 WHAT YOU'RE TALKING ABOUT HERE IS BUILDING SOMETHING,  
2 AND ONCE IT'S BUILT, IT'S GOING TO STAY THERE. SO IF  
3 YOU'RE TALKING ABOUT BRICKS AND MORTAR, I THINK IT'S  
4 VERY DIFFERENT THAN MANY OF THE OTHER RFA'S THAT MIGHT  
5 BE COMING OUT ON DIFFERENT SCIENTIFIC ISSUES, TRAINING  
6 ISSUES, IMPLEMENTATION ISSUES, ENGINEERING ISSUES, AND  
7 SO ON WHERE SOMEBODY HAS A SPECIFIC TASK TO DO. AN RFA  
8 CAN BE DEDICATED TO ONE OR ANOTHER.

9 I'M TALKING ABOUT LEAVING IN PLACE BRICKS AND  
10 MORTAR, EDIFICES, IF YOU WILL, OR RENOVATIONS, AND I  
11 THINK YOU WANT TO BET ON THE PLACES THAT HAVE  
12 DEMONSTRATED THAT THEY CAN DO THIS KIND OF  
13 INTERDISCIPLINARY WORK AND CARRY IT FORWARD TO WHAT I  
14 THINK IS THE MOST IMPORTANT THING IS CARRY IT FORWARD  
15 INTO THE CLINIC. I THINK THAT'S REALLY WHERE THE GREAT  
16 BARRIER IS HERE BECAUSE WE HAVE A LOT OF BASIC SCIENCE  
17 TO DO, BUT WE ALSO HAVE TO GET OVER THIS HUMP AND TRY  
18 TO BRING SOME OF THIS TO FRUITION TO TREAT DISEASES. I  
19 THINK THAT'S NOT ABLE TO BE DONE AT LOTS OF PLACES; BUT  
20 IF YOU HAVE A GREAT SMALL PLACE WITH A VERY DEDICATED  
21 COMMITMENT, MAYBE IT SHOULD BE DONE IN PROPORTION TO  
22 THAT.

23 CHAIRMAN KLEIN: THE BACKGROUND I STARTED  
24 WITH BEFORE GOING TO LAW SCHOOL WAS IN HISTORY. SO YOU  
25 LOOK BACK TO HISTORY OFTEN FOR SOME INDICATION OF HOW

1 WE GO IN THE FUTURE. AND IF I LOOK BACK TO 1977-78 AT  
2 THE DEVELOPMENT OF THE FIRST PRODUCT FROM RECOMBINANT  
3 DNA BEING ARTIFICIAL HUMAN INSULIN, IT'S UC SAN  
4 FRANCISCO AND CITY OF HOPE IN A COLLABORATION.

5 NOW, ON A HISTORICAL BASIS, DID THE CITY OF  
6 HOPE HAVE A SUBSTANTIAL TRACK RECORD, OR WERE THEY AN  
7 AGGREGATION OF SOME BRILLIANT YOUNG INVESTIGATORS  
8 PULLED TOGETHER IN A COLLABORATION WITH A MORE  
9 ESTABLISHED INSTITUTION?

10 IF I LOOK AT UCLA, I SEE A TRANSLATIONAL  
11 HISTORY WITH HERCEPTIN AND A DEVELOPMENT IN  
12 DR. SLAMON'S LAB REPORTED GENENTECH WOULD PICK IT UP.  
13 IT WAS A VERY EXTENDED DEVELOPMENT CYCLE BEFORE  
14 GENENTECH FELT THAT IT WAS A VIABLE PRODUCT.

15 SO THERE'S TWO PARTS TO THIS. ONE IS IS PART  
16 OF OUR RELEVANT TRACK RECORD THAT WE NEED NOT JUST  
17 PUBLISHED PAPERS, BUT A HISTORY OF WHAT'S BEEN DONE IN  
18 TRANSLATIONAL MEDICINE AND ACTUAL DELIVERY OF NEW  
19 MEDICAL THERAPIES, WHETHER AT THE CURRENT INSTITUTION  
20 OR IN PREVIOUS INSTITUTIONS THAT HAD THE LEADERSHIPS OF  
21 THESE GROUPS? AND MAYBE I SHOULD STOP THERE AND ASK  
22 THAT QUESTION.

23 DR. WITTE: YOU'RE PREACHING TO THE CHOIR IN  
24 THIS CASE BECAUSE I REALLY BELIEVE THAT'S ONE OF THE  
25 STRENGTHS THAT WE HAVE AND OTHER INSTITUTIONS AS WELL,

1 BUT IT'S NOT JUST THE INDIVIDUALS. IT'S NOT JUST AN  
2 ASSIGNMENT OR OWEN WITTE OR ANYONE ELSE. IT'S THAT THE  
3 COMMUNITY SUPPORTS IT BECAUSE THE INFRASTRUCTURE WHERE  
4 DENNIS DID HIS WORK AND THE INFRASTRUCTURE THAT WAS  
5 THERE FOR MYSELF AND CHARLES SAWYERS AND OTHERS TO DO  
6 OTHER CANCER THERAPEUTICS IN OUR TRIALS AND THROUGH THE  
7 CANCER CENTER WITH JUDY GASSON WAS A MAJOR  
8 INSTITUTIONAL COMMITMENT. IT'S NOT JUST THE STRENGTH  
9 OF AN INDIVIDUAL. IT TOOK MUCH MORE THAN THAT.

10 SO I THINK IT'S A GOOD METRIC TO USE. IT'S  
11 NOT THE ONLY METRIC. I THINK YOU COULD PICK OTHER  
12 STRATEGIES. BUT IF YOU REALLY WANT TO GET IT INTO THE  
13 CLINIC, YOU HAVE TO GO SOMETIMES BY LOOKING IN PLACES  
14 THAT HAVE BEEN SUCCESSFUL. IT'S NOT AN EASY JOB, AND  
15 SOME PLACES DO IT AT A HIGHER LEVEL THAN OTHERS.

16 CHAIRMAN KLEIN: DR. PERA, WOULD YOU LIKE TO  
17 COMMENT ON THAT?

18 DR. PERA: ONLY JUST TO AGREE WITH HIM.

19 CHAIRMAN KLEIN: AND THEN THE SECOND POINT OR  
20 PART OF THAT THAT REALLY GOES BACK TO DR. WRIGHT'S  
21 QUESTION. IN TERMS OF THE WEIGHTING OF OUR APPROACH,  
22 WHEN YOU LOOK AND IDENTIFY SPECIFIC NICHE OR CRITICAL  
23 LEAD-TIME AREAS OF SPECIALIZATION THAT MAY BE VALUABLE  
24 AND COMPLEMENTARY TO THESE MAJOR CENTERS, WOULD YOU  
25 EVALUATE THEIR SCIENTIFIC VALUE TO OUR MISSION RELATIVE



1 TO A SMALLER GRANT INCREMENT? IN OTHER WORDS, THEY'RE  
2 NOT GOING TO BE ABLE TO COMPETE WITH A COMPREHENSIVE  
3 CENTER. BUT ONE POSSIBILITY THAT'S BEEN RAISED BEFORE  
4 IS THAT IF YOU CREATE A MAXIMUM CAP FOR A COMPREHENSIVE  
5 CENTER AT A HIGHER LEVEL, AND YOU HAVE A SMALL NICHE OF  
6 EXPERT SCIENTISTS AT AN INSTITUTION THAT IS JUST  
7 STARTING IN THE FIELD OR IS A RESEARCH INSTITUTION WITH  
8 NO CLINICAL COMPONENT, FOR EXAMPLE, WOULD YOU ASSIGN  
9 THEM A LOWER CAP IN TERMS OF MAXIMUM ALLOCATION AND  
10 THEN EVALUATE THEIR SCIENCE RELATIVE TO THAT SMALLER  
11 CAP?

12 DR. WITTE: WE BOTH MENTIONED CALTECH. SINCE  
13 THERE'S NO REPRESENTATIVE OF CALTECH STEPPING FORWARD,  
14 I'LL JUST SAY IT'S A PERFECT EXAMPLE OF GREAT PEOPLE,  
15 GREAT SCIENCE. WE BOTH HAVE SIGNIFICANT COLLABORATIONS  
16 WITH THEM. I'LL TALK ABOUT TWO OF THEM TOMORROW  
17 MORNING. AND I THINK IF THEY COME UP WITH AN IDEA THEY  
18 WISH TO SUPPORT THROUGH CAPITAL PROGRAMS OR THROUGH  
19 ANOTHER RFA, IT SHOULD BE VIEWED ON THE BASIS OF THE  
20 QUALITY OF THE SCIENCE AND ITS POTENTIAL IMPACT. AND A  
21 LOT OF GOOD THINGS GET DONE THERE. THEY DON'T HAVE A  
22 HOSPITAL, BUT THAT'S NOT THE ONLY COMPONENT OF MEDICAL  
23 RESEARCH THAT WE NEED TO THINK ABOUT.

24 I'M PERFECTLY FINE WITH THAT. I DON'T LIKE  
25 THE WORD "CAPS." I DON'T KNOW WHY IT BOTHERS ME TODAY,

1 BUT MAYBE SOME GENERAL GUIDELINES OR RANGES BECAUSE I  
2 THINK YOUR REVIEW COMMITTEE, WHETHER IT'S A CAPITAL  
3 PROGRAM REVIEW OR SCIENTIFIC REVIEW THAT GOES WITH IT,  
4 HOPEFULLY YOU'D BE EXCITED ABOUT THE COMBINATION OF  
5 THOSE TWO THINGS, AND MAYBE YOU WANT TO HAVE SOME  
6 RANGES RATHER THAN AN ABSOLUTE JUST IN RESPONSE TO THAT  
7 WORD.

8 DR. PERA: I'LL JUST ADD A LITTLE BIT TO  
9 THAT. IF YOU HAVE THESE EXCELLENT SMALL GROUPS WORKING  
10 IN A PARTICULAR NICHE, YOU DO HAVE THE OPPORTUNITY WITH  
11 THIS NICHE TO INTEGRATE THEM INTO LARGER CONSORTIA.  
12 THAT'S SORT OF THE APPROACH WE'RE TRYING TO TAKE.  
13 WE'RE TRYING TO IDENTIFY COLLABORATORS WHO MAY NOT HAVE  
14 THE SCOPE OF ACTIVITY THAT WOULD REALLY MAKE THEM  
15 COMPETITIVE FOR SOMETHING LIKE THAT, BUT THEIR SCIENCE  
16 MIGHT BE EXCELLENT. SO WE'RE TRYING TO BRING THEM IN  
17 AND MAYBE EVEN SEE THAT THEY GET SOME OF THE FUNDING IF  
18 THEY HAVE TO DEVELOP SOMETHING IN A SORT OF SATELLITE  
19 WAY AS PART OF THE CONSORTIUM. THAT'S THE WAY WE'RE  
20 THINKING ABOUT IT.

21 CHAIRMAN KLEIN: DR. PERA, CERTAINLY THERE'S  
22 SOME GREAT ARGUMENTS ABOUT EXTRAORDINARILY EXPENSIVE  
23 EQUIPMENT IN A CORE THAT IS SHARED BY MORE THAN ONE  
24 INSTITUTION WITH DEDICATED, SPECIALIZED STAFF THAT CAN  
25 OPERATE IT PERHAPS WITH A HIGHER DEGREE OF PRODUCTIVITY

1 AND RELIABILITY THAN IF THE EQUIPMENT IS LOCATED AT A  
2 CENTER WITHOUT THAT DEDICATED STAFF. BUT WHEN YOU HAVE  
3 A COLLABORATION, IS THERE A MINIMUM CORE THAT YOU ALSO  
4 HAVE TO FUND FOR THAT SATELLITE COLLABORATOR TO BE  
5 EFFECTIVE?

6 DR. PERA: I THINK THAT VERY MUCH DEPENDS ON  
7 THE NATURE OF THE WORK. THERE MAY BE, BUT YOU JUST  
8 HAVE TO LOOK AT THE PARTICULAR INSTANCE AND WHAT  
9 THEY'RE PROPOSING TO DO. WE ENVISION THAT SOME OF OUR  
10 COLLABORATORS WILL COME TO US TO USE CORE EQUIPMENT,  
11 BUT THERE MAY BE INSTANCES IN WHICH THERE'S A GOOD  
12 ARGUMENT FOR PUTTING IT IN ONE OF THE SATELLITES.

13 DR. WITTE: TO ADD ONE COMMENT. THAT EXACT  
14 SITUATION HAS COME UP IN A VERY FORMAL SET OF  
15 COLLABORATIONS THAT WE'VE ARRANGED WITH CALTECH IN  
16 WHICH WE HAVE A VERY EXTENSIVE IMAGING RESEARCH AT UCLA  
17 AT ALL LEVELS AND ALL TYPES OF MODALITIES, INCLUDING  
18 INTO THE CLINIC, PARTICULARLY POSITRON EMISSION  
19 TOMOGRAPHY. IT DOESN'T GET MUCH MORE EXPENSIVE THAN  
20 THAT. I THINK NMR YOU END UP WITH THE DOLLAR COST FOR  
21 ENTRANCE, BUT THERE'S SECONDARY IMAGING FACILITIES THAT  
22 ARE LIGHT BASED AND MUCH LESS EXPENSIVE. THERE YOU CAN  
23 HAVE SATELLITES. SO THERE'S ONE AT CALTECH THAT THEY  
24 ESTABLISHED. THERE'S ONE AT CHILDREN'S HOSPITAL WHICH  
25 WE'RE DOING A COLLABORATION WITH AND A VERY ADVANCED

1 ONE AT UCLA, BUT ALL OF THEM CAN INTERACT AND TRAIN AND  
2 UTILIZE COMMON KNOWLEDGE TO IMPROVE THE FUNCTION.

3 I DON'T THINK YOU'D WANT TO SET UP MULTIPLE  
4 SUPER HIGH TECH FACILITIES EVERYWHERE. ON THE OTHER  
5 HAND, SOME OF THESE SATELLITES, PARTICULARLY AT THE  
6 LOWER LEVEL OF TECHNOLOGIES IN SOME CASES, CAN BE  
7 APPLIED. I THINK THAT'S ACTUALLY RIGHT ON TARGET.

8 CHAIRMAN KLEIN: OKAY. THANK YOU VERY MUCH.  
9 ARE THERE ANY OTHER QUESTIONS FROM MEMBERS OF THE  
10 COMMITTEE?

11 MR. SHEEHY: YOU KNOW, DR. WITTE, YOU STARTED  
12 TALKING ABOUT TECHNOLOGY LABS BEING THESE TECHNOLOGY  
13 CENTERS. AND IT KIND OF BRINGS TO MIND SOMETHING THAT  
14 ONE OF THE SPEAKERS LAST WEEK MENTIONED, THAT SOME OF  
15 THE TECHNOLOGIES THAT NEED TO BE NEARBY AND  
16 INTEGRATABLE ARE NOT NECESSARILY THE TYPICAL HEALTH  
17 SCIENCE. IF YOU HAVE INFORMATION TECHNOLOGY, THERE'S  
18 CERTAIN TYPES OF ENGINEERING CAPABILITY. HOW IMPORTANT  
19 IS THAT, AND HOW SHOULD WE VALUE THAT?

20 DR. WITTE: I THINK, AGAIN, IT'S THE PREVIOUS  
21 WAY OF DOING SCIENCE IN MAJOR ACADEMIC MEDICAL CENTERS  
22 AND UNIVERSITIES WAS TO SEGREGATE BY AN ARTIFICIAL  
23 TITLE OF A DISCIPLINE. THIS IS A BIOLOGIST OR AN  
24 IMMUNOLOGIST OR A CHEMIST. WHAT WE'RE SEEING IS THAT  
25 THE WAY TO SUCCESS IS TO INTEGRATE PEOPLE WITH THOSE

1 DIFFERENT TRAINING BACKGROUNDS EVEN IF THEY'RE FROM  
2 DIFFERENT DEPARTMENTS OR EVEN FROM DIFFERENT SCHOOLS.  
3 OUR SCHOOL OF ENGINEERING, OUR SCHOOL OF PHYSICAL  
4 SCIENCES, OUR SCHOOL OF BIOLOGICAL SCIENCES ALL HAVE  
5 PEOPLE THAT CONTRIBUTE TO OUR PROJECT, SOME OF WHICH  
6 NOW CO-HABITATE IN SPACE THAT WE'VE DEVELOPED FOR THESE  
7 INTERDISCIPLINARY PROJECTS. THIS IS THE WAVE OF THE  
8 FUTURE.

9           QUITE FRANKLY, ALL THE ACADEMIC CENTERS ARE  
10 GOING TO HAVE DIFFICULTY WITH IT BECAUSE THE TEACHING  
11 AND APPOINTMENT SIDE OF LIFE IS VERY DIFFERENT THAN THE  
12 ACTUAL RESEARCH CONDUCT SIDE OF LIFE. AND WE HAVE TO  
13 CONFRONT THAT, AND I THINK THIS IS WHAT THE NEW  
14 FACILITIES WILL DO.

15           FOR TECHNOLOGY CENTERS, THE CONCEPT IS THAT  
16 YOU GO THERE TO GET SOMETHING. THAT'S NOT RIGHT. YOU  
17 GO THERE TO MAKE SOMETHING NEW, TO LEARN NEW SCIENCE,  
18 NOT JUST TO HAVE A PROVISION OF AVAILABLE TECHNOLOGY.  
19 THAT'S THE DIFFERENCE. YOU CAN, IN A SENSE, GO TO THE  
20 COSTCO OF SCIENCE TO GET TECHNOLOGY SENT TO YOU BY MAIL  
21 IN MANY CASES. BUT IF YOU WANT TO DEVELOP NEW SCIENCE,  
22 YOU NEED SMART PEOPLE FROM DIFFERENT DISCIPLINES CLOSE  
23 AT HAND. THAT'S WHAT WE'RE TRYING TO ACHIEVE, AND I  
24 THINK MARTIN HAS SPOKEN TO THE SAME THING.

25           DR. WRIGHT: I HAVE A FOLLOW-UP ON THAT ONE.

1 MY MIND IS STRUGGLING TO TRY TO CREATE SOME SIMPLICITY  
2 BECAUSE THIS SEEMS VERY COMPLEX. I'M WONDERING AS WE  
3 MOVE INTO THAT NEW WORLD THAT YOU TALK ABOUT WHERE IT'S  
4 REALLY IMPORTANT TO HAVE A SCIENTIST IN THE SAME ROOM  
5 OR A STEP AWAY OR A ROOM AWAY, IS THERE A GRADIENT OF  
6 PROXIMITY THAT WE COULD THINK ABOUT IN THAT THE MORE  
7 BASIC THE SCIENCE, THE MORE IMPORTANT IT IS TO HAVE THE  
8 VARIOUS DISCIPLINES REPRESENTED IN NEAREST PROXIMITY?  
9 BUT AS WE GET DOWN TO THE DERIVATIVES, TO THE PRODUCTS  
10 OF THE SCIENCE, WE CAN CONNECT THOSE THROUGH  
11 INFORMATION SYSTEMS. I'M A PRACTICING -- NO. NO.

12 DR. WITTE: I WISH IT WAS LIKE THAT. AS WE  
13 MOVE TOWARDS THINGS, PUTTING THINGS INTO CLINICAL  
14 TRIALS, IT TURNS OUT YOU NEED MORE CONTACT AND MORE  
15 CONVERSATION BECAUSE THE PROBLEMS DON'T HAVE OBVIOUS  
16 SCIENTIFIC SOLUTIONS ONLY. THEY HAVE SOMETIMES  
17 REGULATORY CONSTRAINTS. THEY HAVE PHYSICAL AND  
18 MONETARY CONSTRAINTS. THEY HAVE HUMAN CONSTRAINTS OF  
19 WHERE ARE THE PATIENTS. SO I DON'T THINK THE PROBLEM  
20 IS GOING TO LESSEN AS WE GO DOWNSTREAM. I THINK, IF  
21 ANYTHING, THEY BECOME MORE COMPLEX WITH THINGS THAT  
22 SCIENTISTS CAN'T CONTROL. I THINK YOU SHOULDN'T JUST  
23 THINK ABOUT PUT ALL THE BASIC SCIENTISTS OVER HERE AND  
24 THEY'LL TALK AND SOMETHING WILL POP OUT WONDERFULLY.  
25 IT NEEDS THIS CONTINUITY AND CONNECTIVITY.

1                   CHAIRMAN KLEIN: DR. PERA, WOULD YOU LIKE TO  
2 ADDRESS THAT AS WELL?

3                   DR. PERA: I CAN'T EMPHASIZE THIS ENOUGH.  
4 I'LL GIVE -- WE HAD EXPERIENCE ALONG THESE LINES ON A  
5 MUCH SMALLER SCALE IN THE AUSTRALIAN STEM CELL CENTER,  
6 AND WE REALLY FAILED TO INTEGRATE THE ENGINEERING  
7 CAPACITY WITH THE BASIC RESEARCH. DEVELOPMENTAL  
8 BIOLOGISTS ARE NOW GETTING PRETTY GOOD AT TURNING HUMAN  
9 EMBRYONIC STEM CELLS INTO SPECIFIC CELL TYPES. THEY  
10 HAVEN'T GOT A CLUE HOW TO SCALE THESE SYSTEMS UP OR HOW  
11 TO GET THEM TO RIGOROUS MANUFACTURING PROCESS AND WHAT  
12 HAVE YOU. WE'VE GOT A LONG WAY TO GO IN THAT RESPECT.

13                   BELIEVE ME, WE'VE HAD WORKSHOP AFTER WORKSHOP  
14 WHERE WE SIT DOWN AND TALK TO THE ENGINEERS, AND WE  
15 BOTH GO OFF AND NOTHING WOULD HAPPEN. THERE'S NO  
16 SUBSTITUTE FOR VERY CLOSELY WORKING TOGETHER UNDER THE  
17 SAME ROOF. SAME APPLIES TO THE TRANSLATIONAL SIDE.  
18 AGAIN, THE DEVELOPMENTAL BIOLOGIST MAY HAVE A BRIGHT  
19 IDEA ABOUT TURNING THE EMBRYONIC STEM CELL INTO A  
20 DOPAMINERGIC NEURON. HE MAY BE CLUELESS ABOUT THE  
21 PATHOGENESIS OF PARKINSON'S DISEASE AND WHAT CAN BE  
22 DONE WITH THE SAFETY ISSUES, ETC. AND THE ONLY WAY TO  
23 GET THOSE THINGS TO CONNECT IS PUT THESE PEOPLE UNDER  
24 THE SAME ROOF.

25                   DR. WRIGHT: THE ROOF IS GETTING BIGGER.

1 DR. PERA: THESE ARE COMPLEX PROBLEMS.

2 CHAIRMAN KLEIN: OKAY. THANK YOU VERY MUCH.  
3 AND WE'RE GOING TO GO INTO THE SECOND PART OF TODAY,  
4 WHICH IS WE'RE GOING TO LOOK AT SOME POLICIES, RULES,  
5 AND DEFINITIONS. REMEMBER, AGAIN, THIS IS FOR  
6 DISCUSSION TO BUILD INFORMATION ON POSSIBLE MODELS.

7 BASED UPON THE PRIOR DISCUSSIONS, I'D LIKE TO  
8 START WITH THE ISSUE FROM PROPOSITION 71, SECTION  
9 125290.65. IT'S THE PRIORITY FOR FACILITIES THAT CAN  
10 BE BUILT WITHIN TWO YEARS AFTER THE GRANT AWARD.

11 NOW, ONE OF THE KEY ISSUES SO THAT WE CAN  
12 COMPARE EVERYONE ON A LIKE KIND BASIS IS WHAT DO WE  
13 MEAN IF WE SAY COMPLETED WITHIN TWO YEARS? WHAT IS  
14 COMPLETE? AND CERTAINLY WE DON'T WANT TO CREATE A  
15 SITUATION WHERE WE DISCOURAGE SOMEONE FROM PROPOSING A  
16 FACILITY THAT WILL HAVE SOME TENANT IMPROVEMENTS THAT  
17 ARE EXTRAORDINARILY COMPLICATED AND SOPHISTICATED SO  
18 THAT THEIR TIME PERIOD IS HANDICAPPED BY TRYING TO  
19 REACH FOR THE LEADING EDGE OF TECHNOLOGY IN THE SPACE.

20 AND JUST TO PUT OUT A PROPOSED BENCHMARK THAT  
21 WE MIGHT DISCUSS, I WOULD SUGGEST THAT WE WOULD CREATE  
22 A LIKE KIND BASIS FOR THE CRITICAL PATHS SUBMITTED BY  
23 ALL THE APPLICANTS THAT WOULD REQUIRE THAT IT WOULD BE  
24 COMPLETED TO A TEMPORARY CERTIFICATE OF OCCUPANCY; THAT  
25 IS, IT'S NOT FINALLED OUT. SO THERE CAN BE A LOT OF



1 INCONSISTENCY IN THAT LAST STAGE OF GETTING THE FINAL  
2 SIGN-OFF FROM BUILDING OFFICIALS AND OTHERS. AND  
3 SECONDLY, THAT WE WOULD HAVE A BUILDING SHELL AND  
4 OPERATING SYSTEMS IN PLACE BUILT TO A BASIC SCIENTIFIC  
5 LAB STANDARD; BUT, IN FACT, IF THERE'S COMPLICATED  
6 FIXTURIZATION THAT GOES ON AFTER THAT POINT, IT'S NOT  
7 PART OF THIS TEST OF WHETHER WE DELIVERED WITHIN TWO  
8 YEARS.

9 WHAT'S THE COMMITTEE'S THOUGHTS ON THIS IN  
10 ORDER TO GIVE SOME CERTAINTY OR SOME BENCHMARK TO THE  
11 COMMUNITY OF WHAT IT MEANS TO HAVE IT BE COMPLETED?  
12 ANYONE WANT TO ADDRESS THAT?

13 MR. LAFF: I GUESS I'M THE ONLY FACILITIES  
14 PERSON HERE. I HAD A QUESTION BEFORE THAT QUESTION  
15 ACTUALLY, WHICH IS, WHEN YOU PLAN THESE BUILDINGS, THE  
16 PLANNING OF THEM PROBABLY TAKES THE LONGEST TIME AND IS  
17 THE MOST IMPORTANT CRITICAL NATURE OF THAT BUILDING  
18 BECAUSE EVERYTHING FOLLOWS ONTO IT. AND SO I  
19 UNDERSTAND THE LAW HAS TWO YEARS, AND WE HAVE TO FIGURE  
20 OUT HOW TO ACHIEVE THAT. AND MY QUESTION ISN'T AS MUCH  
21 OF A TEMPORARY OCCUPANCY AS HOW MUCH TIME IS REALLY  
22 NEEDED TO PLAN, LET'S SAY, THE TWO KINDS OF FACILITIES  
23 THAT WE'RE LOOKING AT, EITHER NEW OR RENOVATED? AND  
24 THEN HOW MUCH TIME ARE WE GOING TO HAVE TO TAKE THOSE  
25 PLANS AND MAKE THEM REALITIES, AND DOES THAT REALLY

1 WORK?

2 CHAIRMAN KLEIN: STUART, I THINK THAT WHAT'S  
3 HAPPENED IS THAT EVEN BEFORE PROPOSITION 71 WAS PASSED,  
4 AS IT GOT CLOSE TO THE ELECTION, SOME OF THE  
5 INSTITUTIONS STARTED DOWN THE PLANNING PROCESS, AND  
6 MOST OF THE INSTITUTIONS, IF NOT ALL THE INSTITUTIONS  
7 THAT PUT IN SERIOUS PROPOSALS, ARE AT WORKING DRAWINGS  
8 OR AT LEAST IN CONCEPT DRAWINGS AT THIS POINT. AND  
9 JUST SO WE CAN TALK ABOUT THIS TIMEFRAME, THE  
10 DEFINITION IS TWO YEARS AFTER GRANT AWARD. AND GRANT  
11 AWARD, AS TAMAR PACHTER POINTED OUT IN HER  
12 PRESENTATION, IS EFFECTIVELY THE DATE AT WHICH THE  
13 PRESIDENT SIGNS THE CERTIFICATION OF GRANT AWARD. AT  
14 LEAST THAT'S THE BRIGHT LINE THAT WE CAN USE IN THAT  
15 PROCESS.

16 THAT'S ANOTHER ISSUE IN THIS TIMELINE THAT WE  
17 NEED TO DEFINE SO EVERYONE IS ON THE SAME PLANE BECAUSE  
18 WE PROBABLY ARE GOING TO HAVE TO HAVE A DEEMED PERIOD  
19 BETWEEN SUBMITTING THE APPLICATION AND GRANT AWARD.  
20 BECAUSE OTHERWISE HOW WILL PEOPLE KNOW TO SET UP THEIR  
21 CRITICAL PATH HOW MANY MONTHS TO FIGURE IN THAT  
22 PROCESS? BUT IF, FOR EXAMPLE, PEOPLE WERE TO SUBMIT  
23 APPLICATIONS ON SEPTEMBER 15TH, HYPOTHETICALLY, AND THE  
24 GRANT AWARDS OCCUR ABOUT TWO MONTHS AFTER THE APPROVAL  
25 AND THEY OCCURRED, FOR EXAMPLE, ON MARCH 15TH, YOU

1 WOULD ASSUME THAT YOU HAVE SEVEN MONTHS EFFECTIVELY IN  
2 THAT PERIOD SO THAT THE CRITICAL PATHS PEOPLE  
3 PRESENTED, IF WE WERE TO ADOPT A RULE THAT EVERYONE HAD  
4 A STANDARD BASIS TO WORK WITH, WOULD SAY IN YOUR  
5 CRITICAL PATH ASSUME THAT YOU HAVE SEVEN MONTHS TO THE  
6 DATE OF THE GRANT AWARD.

7 AND SO IN ADDITION TO THE TIME THEY'VE  
8 ALREADY HAD IN THE LAST TWO YEARS, THERE IS ADDITIONAL  
9 TIME TO GET TO CONSTRUCTION BECAUSE EFFECTIVELY TO BE  
10 BUILT IN TWO YEARS, THEY'LL NEED TO GO INTO  
11 CONSTRUCTION AT OR BEFORE OR AT OR ABOUT THE DATE THAT  
12 THE GRANT AWARD IS ISSUED, AND THE GRANT AWARD BEING  
13 ABOUT TWO MONTHS AFTER THE DATE WHEN THE BOARD APPROVES  
14 THE PROJECT.

15 MR. LAFF: MY CONCERN ISN'T SO MUCH FOR THE  
16 LARGER INSTITUTIONS WHO HAVE TAKEN IT UPON THEMSELVES  
17 TO GO AHEAD WITH SOME OF THESE PROGRAMS, BUT THE  
18 SMALLER INSTITUTIONS WHO MAYBE DON'T HAVE THE RESOURCES  
19 TO HAVE TAKEN ADVANTAGE. THAT'S ONE OF MY CONCERNS.

20 THE OTHER CONCERN THAT I'VE HEARD BOTH TODAY  
21 AND LAST THURSDAY IS THAT OVER THE LIFE CYCLE OF THESE  
22 BUILDINGS, SCIENCE IS GOING TO CHANGE. AND HOW ARE WE  
23 GOING TO ADAPT THESE BUILDINGS TO THE CHANGING SCIENCES  
24 THAT ARE GOING TO OCCUR OVER THE LIFE OF THIS BUILDING?  
25 I'M SORT OF WRESTLING WITH THAT TOO. THE PROBLEM IS IF

1 YOU START EARLY, HAVE YOU REALLY THOUGHT THAT THROUGH?  
2 CHAIRMAN KLEIN: WELL, TWO THOUGHTS. ONE IS  
3 THAT IT'S QUITE POSSIBLE THAT SOME OF THE SMALLER  
4 INSTITUTIONS THAT HAVEN'T HAD THE OPPORTUNITY TO DO  
5 EARLY PLANNING WILL JUST HAVE TO COMPETE IN A SMALLER  
6 CATEGORY AS A RESOURCE CENTER OR SOME OTHER SMALL GRANT  
7 CATEGORY WHERE ALMOST NO ONE IN THE CATEGORY HAS THE  
8 PRIORITY OF TWO YEARS BEING MET. BUT IT'S APT TO BE,  
9 AS YOU IMPLY, A SELF-CATEGORIZING SYSTEM BECAUSE THE  
10 LARGER INSTITUTIONS HAVE ALL KIND OF TAKEN THE EFFORT  
11 OF TRYING TO MOVE THEIR PLANS DOWNSTREAM.  
12 IF I COULD GET THE COMMITTEE'S AND, STUART,  
13 YOUR FEEDBACK, HOW DO YOU FEEL -- THERE'S REALLY TWO  
14 KIND OF POLICY QUESTIONS THAT REQUIRE SOME CLARITY IN  
15 TERMS OF DEFINITIONS. THE INITIATIVE DOES SAY TWO  
16 YEARS AFTER GRANT AWARD. AND THE BRIGHT LINE FOR GRANT  
17 AWARD DOES APPEAR TO BE THE CERTIFICATE OF AWARD ISSUED  
18 BY THE PRESIDENT.  
19 HOW DO YOU FEEL ABOUT GIVING THE INSTITUTIONS  
20 SOME CERTAINTY OF WHAT TO PUT IN THEIR CRITICAL PATHS  
21 WHEN THEY SUBMIT TO US THEIR APPLICATIONS SO THAT THEY  
22 CAN SHOW US A TIMELINE THAT THEY ARE MEETING THE  
23 TWO-YEAR HORIZON BY HAVING AN ASSUMED OR A DEEMED  
24 PERIOD THAT WILL EXPIRE BETWEEN THE APPLICATION BEING  
25 SUBMITTED AND THE GRANT AWARD?

1                   MR. LAFF: YOU WANT ME TO TAKE THAT? I  
2                   ACTUALLY LIKE THAT BECAUSE THEN THOSE PEOPLE THAT HAVE  
3                   STARTED THEIR BUILDINGS AND EVERYTHING WILL BE ABLE TO  
4                   HAVE A CONSISTENT STARTING POINT AND NOT BE ALL OVER  
5                   THE BOARD. THEY WILL HAVE THAT SEVEN-MONTH PERIOD OR  
6                   WHATEVER IT IS TO DO THAT AND ALSO PROGRAMMED IN THEIR  
7                   SCHEDULES. SO I REALLY LIKE THAT. I SEE A LOT OF  
8                   CONSISTENCY.

9                   DR. WRIGHT: SO THE NEXT QUESTION IS WHAT'S  
10                  THE APPROPRIATE PERIOD OF TIME? YOU PULLED SEVEN  
11                  MONTHS OUT.

12                  CHAIRMAN KLEIN: I THINK WE COULD ASK THE  
13                  STAFF MAYBE TO PROVIDE SOME COMMENT AND COME BACK AT  
14                  THE NEXT MEETING WITH A SUGGESTION WHEN THEY HAVE A  
15                  CHANCE TO KIND OF LAY OUT THEIR TIMELINE.

16                  MS. HOFFMAN: SO CERTAINLY WE WOULD DO THAT  
17                  AND THEN PRESENT IT TO THE FACILITIES WORKING GROUP FOR  
18                  FINAL APPROVAL AT YOUR JULY 12TH MEETING.

19                  SO I UNDERSTAND THE CLARIFICATION IS IS THAT  
20                  IN THE RFA WE WOULD NOTICE A MONTH, FOR EXAMPLE, THAT  
21                  WOULD BE THE NOTICE OF GRANT AWARD PROJECTED DATE --

22                  CHAIRMAN KLEIN: RIGHT.

23                  MS. HOFFMAN: -- AND ASK THE INSTITUTIONS TO  
24                  PROJECT FOR THE NEXT TWO YEARS TO A TEMPORARY NOTICE OF  
25                  COMPLETION.

1                   WHAT I'D LIKE TO ALSO SUGGEST THAT WE THINK  
2                   ABOUT HERE, MAYBE NOT TODAY, BUT CERTAINLY IN THE  
3                   COMING MEETINGS IS THAT THE PROVISION THAT YOU CITED IN  
4                   PROPOSITION 71 IS TO GIVE PRIORITY FOR APPLICATIONS  
5                   THAT PROVIDE FOR FACILITIES THAT WILL BE AVAILABLE FOR  
6                   RESEARCH NO MORE THAN TWO YEARS AFTER THE GRANT AWARD.  
7                   SO WHAT WE CAN ASK FOR, AND I THINK WE ALSO LEARNED  
8                   THIS DURING THE REVIEW OF THE SHARED RESEARCH LABS, IS  
9                   A TIMELINE AND WHAT WOULD BE DONE WITHIN THOSE 24  
10                  MONTHS BECAUSE IN MANY CASES, OF COURSE, YOU WOULDN'T  
11                  WANT AN INSTITUTION TO SAY THEY WILL TAKE TEMPORARY  
12                  OCCUPANCY, PERHAPS THEY WON'T, AND IT COULD JUST BE  
13                  PART OF THE SCORING UNDER URGENCY RATHER THAN A  
14                  MANDATORY CRITERIA.

15                  CHAIRMAN KLEIN: I THINK IT'S -- PART OF THE  
16                  SCORING IS NOT A MANDATORY -- IT'S NOT WRITTEN AND  
17                  INTENDED TO BE A MANDATORY CRITERIA. IN TERMS OF A  
18                  CRITICAL PATH, THOUGH, I THINK IT WOULD HELP US A LOT  
19                  IN UNDERSTANDING INSTITUTIONAL COMMITMENT IF THE  
20                  TIMELINE DIDN'T BEGIN AT THE GRANT AWARD EXPECTED DATE,  
21                  BUT THE TIMELINE GAVE US THE PERIOD PRIOR TO THEIR  
22                  APPLICATION BEING FILED, WHAT HAVE THEY COMMITTED, AND  
23                  FROM THE DATE THEY FILE THE APPLICATION THROUGH THE  
24                  EXPECTED DATE, WHAT ARE THEY GOING TO GET DONE?  
25                  BECAUSE THEN IT TELLS HOW DEEPLY COMMITTED THESE

1 INSTITUTIONS ARE. HOW MANY THINGS HAVE THEY  
2 ACCOMPLISHED? AND ALSO LET'S US KNOW WHETHER THEY'VE  
3 SET THE RIGHT LEAD-TIME IN THERE FOR ACCOMPLISHING SOME  
4 OF THE MORE DIFFICULT ITEMS.

5 MS. HOFFMAN: I THINK THAT THAT'S AN  
6 EXCELLENT SUGGESTION. AND IT WOULD REQUIRE SOME KIND  
7 OF GRANTS MANAGEMENT FOR STAFF BETWEEN THE TIME OF  
8 APPROVAL AND THEN AWARD SO THAT WE WOULD BE ABLE TO  
9 MONITOR INSTITUTIONS, THAT THEY WERE MEETING WHAT THEY  
10 SAID THEY WERE GOING TO MEET IN TERMS OF THEIR  
11 TIMEFRAME. SO, IN FACT, THE NGA WOULDN'T BE SIGNED  
12 UNTIL THEY MET THOSE CRITICAL PIECES ON THE PATH.

13 CHAIRMAN KLEIN: I THINK THAT'S A SEPARATE  
14 ISSUE. IT MIGHT GIVE A LITTLE FLEXIBILITY BECAUSE IT  
15 IS A PLANNING TOOL, BUT BY SEEING HOW MANY STEPS  
16 THEY'VE ALREADY MET.

17 MS. HOFFMAN: RIGHT. ALTHOUGH THE PROBLEM IS  
18 IF YOU PUT IT AS PART OF THE SCORING FOR URGENCY AND  
19 THEN THEY DON'T MEET IT, I THINK THAT CERTAINLY, AT  
20 LEAST FOR THAT TIMEFRAME, WE WOULD WANT SOMETHING VERY  
21 REALISTIC. OF COURSE, THE GRANTS WORKING GROUP WOULD  
22 WANT TO HAVE SOME ASSURANCE THAT THEY HAVE MET THOSE  
23 TIMELINES, AND THEN WE COULD, OF COURSE, MONITOR AS WE  
24 WOULD BE OVER THE COURSE OF CONSTRUCTION WHETHER OR NOT  
25 THE INSTITUTIONS HAD MET THOSE PARTICULAR CRITICAL

1 PATHS OR MILESTONES.

2 MR. SHEEHY: IT SEEMS TO ME THAT ONE THING  
3 THAT CAME UP WAS IN THE CONTEXT OF MULTI-INSTITUTION  
4 COLLABORATIONS ABOUT PERHAPS RELAXING THAT TIMELINE OR  
5 SOMEHOW MITIGATING THE URGENCY FACTOR IN SOME WAY WITH  
6 THE OBVIOUS BENEFIT THAT WE GET FROM INSTITUTIONS  
7 SHARING AND COLLABORATING AS OPPOSED TO EACH ASKING FOR  
8 THEIR INDIVIDUAL FACILITY. AND THE POINT WAS MADE THAT  
9 FOR THOSE WHO ARE COLLABORATING TO BUILD A SINGLE  
10 FACILITY AMONG MANY DIFFERENT INSTITUTIONS, IT WILL  
11 PROBABLY TAKE THEM LONGER.

12 IS THAT SOMETHING WE WANT TO FACTOR INTO  
13 THIS? AND IS THERE A WAY -- I DON'T KNOW WHETHER,  
14 AGAIN, THE NOTICE OF GRANT AWARD MAY BLEED OUT A LITTLE  
15 BIT FURTHER INTO THE FUTURE FOR MULTI-INSTITUTION  
16 COLLABORATION BECAUSE WE WOULD INDEED BE MUCH MORE  
17 COMPLEX. SO YOUR DUE DILIGENCE TO ASCERTAIN THAT ALL  
18 THESE DIFFERENT PIECES WERE WORKING, THAT MIGHT BE A  
19 WAY TO -- THIS IS SOMETHING THAT WE'VE SPOKEN ABOUT  
20 SEVERAL TIMES WITHIN THE ICOC AS AN IMPORTANT VALUE FOR  
21 TRYING TO DO GOING FORWARD.

22 CHAIRMAN KLEIN: ONE WAY WE WOULD HAVE TO  
23 ADDRESS THAT, JEFF, IS TO PROVIDE SOME TYPE OF SCORING  
24 FOR COLLABORATION WHERE THEY GET POINTS FOR  
25 COLLABORATION THAT WOULD OFFSET POINTS THAT THEY MIGHT



1 LOSE ON THE TIMELINE SIDE. BECAUSE WE CAN'T GIVE  
2 THEM -- ON THE OTHER HAND, WE COULD TRY AND BUILD IN  
3 THE SYSTEM THAT YOU DISCUSSED, KNOWING THERE'S A MORE  
4 COMPLEX EVALUATION PROCESS TO ASSUME IT TAKES A COUPLE  
5 MORE MONTHS OR SOMETHING TO GET THROUGH THAT DUE  
6 DILIGENCE TO ISSUE OF GRANT AWARD.

7 BUT I THINK THAT WHAT YOU'VE SURFACED HERE IS  
8 A VERY FUNDAMENTAL PRIORITY THAT'S BEEN BUILT INTO OUR  
9 STRATEGIC VALUES IN OUR STRATEGIC PLAN FOR  
10 COLLABORATION. AND SO WHAT WE'RE TALKING ABOUT IS  
11 PUTTING ON THE TABLE AN EXPLICIT POLICY TO HAVE  
12 COLLABORATION BE GRADED WITH A POINT SYSTEM. DOES THAT  
13 MAKE SENSE?

14 MR. SHEEHY: THAT'S ONE WAY TO DO IT, YEAH.  
15 AGAIN, WE ALWAYS COME UP WITH THESE APPLES AND ORANGES.  
16 SO COLLABORATION SOUNDS GREAT, ALL THINGS BEING EQUAL,  
17 FOR A BIG CORE CENTER OF EXCELLENCE, BUT DOES THAT  
18 REALLY GET TO WHAT DR. WRIGHT WAS TALKING ABOUT, WHICH  
19 WAS A REALLY SMALLER, MAYBE LESS SOMEWHAT  
20 GEOGRAPHICALLY OFF-THE-BEATEN-PATH PLACE THAT HAS REAL  
21 EXCELLENCE AND A REAL NICHE? HOW DO WE RATE ALL THESE  
22 DIFFERENT PIECES BECAUSE THEY PROBABLY WOULD BE SLOWER,  
23 AND THEY PROBABLY WOULD NOT HAVE COLLABORATION, BUT  
24 CERTAINLY WE WOULD WANT -- THEY WOULD PROBABLY -- ONE  
25 CAN IMAGINE THAT THEY COULD BE -- AND THOSE TYPES OF

1 INSTITUTIONS ACTUALLY MIGHT NEED OUR SUPPORT MORE THAN  
2 OTHERS.

3 DR. WRIGHT: WE CERTAINLY DON'T WANT TO SET  
4 UP A POLICY THAT MAKES THEM AT A DISADVANTAGE FROM THE  
5 GET-GO.

6 CHAIRMAN KLEIN: WELL, POTENTIALLY WE REALLY  
7 HAVE BEEN DISCUSSING, I THINK, POSSIBLY FOUR DIFFERENT  
8 LEVELS HERE: MAJOR CENTERS FOR SCIENTIFIC CLINICAL AND  
9 TRANSLATIONAL RESEARCH; MAJOR CENTERS FOR SCIENTIFIC  
10 AND TRANSLATIONAL RESEARCH THAT MAY NOT HAVE A CLINICAL  
11 COMPONENT, BUT INTERFACE WITH BIOTECH; SPECIAL RESEARCH  
12 RESOURCE FACILITIES THAT MAY HAVE THIS NICHE OF  
13 EXPERTISE OF GREAT VALUE THAT'S A RESOURCE TO THE WHOLE  
14 STATE OR TO THE INSTITUTIONS WITHIN THEIR REGION; AND  
15 RESEARCH PROGRAM DEVELOPMENT CENTERS WHERE THEY'RE  
16 SMALL START-UPS ESSENTIALLY THAT ARE DEVELOPING  
17 EXPERTISE AND, FOR CAPACITY PURPOSES, MAYBE THEY NEED A  
18 VERY SMALL GRANT.

19 BUT ONE OF THE THINGS THAT COULD OCCUR IS  
20 WHEN THESE APPLICATIONS COME IN IS ASK THAT THE  
21 SCIENTIFIC WORKING GROUP EVALUATE THEM FOR SCIENTIFIC  
22 EXCELLENCE AND GIVE THEM A CATEGORY THAT THEY'RE REALLY  
23 EFFECTIVELY COMPETING IN.

24 DR. WRIGHT: GETS RID OF THE APPLES AND  
25 ORANGES PROBLEM.

1           CHAIRMAN KLEIN:  RIGHT.  IT GETS RID OF THAT  
2  PROBLEM.  AND THE SCIENTIFIC WORKING GROUP OR THIS  
3  GROUP MIGHT ALSO SAY THAT BASED UPON WHICH AREA YOU'RE  
4  COMPETING IN AND YOUR SCIENTIFIC SCORE ASSIGN A  
5  DIFFERENT MAXIMUM CAP OR RANGE.  IT'S NOT A CAP BECAUSE  
6  IT'S ONLY A RECOMMENDATION IN THE FIRST PLACE, BUT AN  
7  ALLOCATION GUIDELINE FOR WHAT MIGHT BE AN APPROPRIATE  
8  ALLOCATION FOR SOMETHING THAT QUALIFIES IN THE TOP  
9  CATEGORY OR IN THE SMALLEST CATEGORY.

10           DR. WRIGHT:  TO FOLLOW THAT, YOUR TIMELINE  
11  THAT YOU SUGGESTED WOULD BE DIFFERENT FOR EACH OF THOSE  
12  CATEGORIES OR CLUSTERS OF THOSE CATEGORIES.

13           CHAIRMAN KLEIN:  WELL, THE --

14           MR. SHEEHY:  YOU MIGHT WEIGHT URGENCY  
15  DIFFERENTLY FOR EACH OF THOSE.

16           CHAIRMAN KLEIN:  I THINK THAT THE EASIEST WAY  
17  JUST TO KEEP THE TIMELINES ISSUES CLEAN IS TO PROVIDE  
18  COLLABORATION VALUE AS A SEPARATE RATE OF THE POINT  
19  SYSTEM.  BUT, FOR EXAMPLE, THE LEVEL OF COLLABORATION  
20  THAT WOULD REALLY SLOW SOMETHING DOWN, BUT PROVIDE SOME  
21  TREMENDOUS SCIENTIFIC SYNERGY -- WITH A CENTER OF  
22  EXCELLENCE, IT'S PRETTY CLEAR.  YOU'RE TRYING TO MERGE  
23  FOUR DIFFERENT INSTITUTIONS IN SAN DIEGO.  THEY  
24  PUBLICLY ANNOUNCED THAT'S WHAT THEY'RE TRYING TO DO,  
25  THERE IS A COLLABORATIVE VALUE THERE.  THERE'S ALSO

1 SOME OF THOSE THAT WOULD FALL IN THE CATEGORY OF MAJOR  
2 CENTERS FOR SCIENTIFIC AND TRANSLATIONAL RESEARCH THAT  
3 ARE COLLABORATING WITH TWO OR THREE INSTITUTIONS. WE  
4 JUST HEARD TWO PRESENTATIONS OF INSTITUTIONS THAT COULD  
5 BE, BASED ON THEIR APPLICATION, EITHER IN LEVEL ONE OR  
6 LEVEL TWO EASILY. IN FACT, SINCE THEY BOTH HAVE  
7 CLINICAL, THEY'RE PROBABLY BOTH IN LEVEL ONE.

8 BUT THE KEY HERE IS COLLABORATIONS AT THOSE  
9 LEVELS TO THE EXTENT IT PUSHES THEM OUT OF THE TWO-YEAR  
10 WINDOW. AS JEFF SAYS, I THINK WE WANT TO REWARD  
11 COLLABORATION, BUT I THINK THE WAY TO DO THAT IS TO  
12 HAVE A REWARD SYSTEM OF POINTS FOR COLLABORATION  
13 SEPARATELY. THEN IT KEEPS THE TIMELINES CLEAN. WHAT  
14 DO YOU THINK?

15 MR. LAFF: I THINK THAT'S RIGHT.

16 DR. WRIGHT: I'M JUST TRYING TO THINK THROUGH  
17 YOUR INITIAL SUGGESTION ABOUT THE TIMELINE AND WHAT  
18 THAT WOULD DO TO A SMALLER INSTITUTION WITH THE NICHE  
19 PROGRAM THAT WE'RE TALKING ABOUT.

20 CHAIRMAN KLEIN: WELL, IF IT'S A SMALL  
21 INSTITUTION WITH A NICHE PROGRAM, IT CAN PROBABLY  
22 OPERATE IN THIS WHAT IS EFFECTIVELY TWO YEARS AND SEVEN  
23 MONTHS. THE REAL TIMELINE ISSUES ARE WITH THE BIG TWO  
24 TOP TIERS.

25 DR. WRIGHT: RIGHT.

1                   CHAIRMAN KLEIN: WELL, FOR DISCUSSION, AT  
2 LEAST, WE'VE PUT THOSE ISSUES ON THE TABLE.

3                   ANOTHER ISSUE THAT AROSE IN THE LAST SESSION  
4 IS THE QUESTION OF LEVERAGE. AND IT MAY BE RELATED TO  
5 WHAT WE'RE TALKING ABOUT HERE BECAUSE THERE'S A  
6 PRIORITY UNDER PROPOSITION 71, AGAIN, IT'S SECTION  
7 125290.65, FOR HIGHER MATCHING FUND AMOUNTS TO THE  
8 EXTENT THAT THERE IS EQUIVALENT MERIT.

9                   AND ONE OF THE QUESTIONS HERE IS EQUIVALENT  
10 MERIT. AND, AGAIN, I THINK EQUIVALENT MERIT SHOULD BE  
11 SCIENTIFICALLY JUDGED IN THE CATEGORY SO YOU'RE BEING  
12 JUDGED AGAINST LIKE COMPETITORS. IT'S VERY DIFFICULT  
13 TO COMPARE A NICHE CATEGORY ON BREADTH AGAINST AN  
14 INSTITUTION THAT HAS BASIC SCIENCE, APPLIED SCIENCE,  
15 CLINICAL, TRANSLATIONAL ALL JUDGED FOR EXCELLENCE. AND  
16 I THINK DR. CHIU WANTS TO COMMENT.

17                  DR. CHIU: I JUST WANTED A LITTLE  
18 CLARIFICATION ABOUT WHAT WAS JUST DISCUSSED. IS IT ON  
19 THE TABLE THE SUGGESTION THAT THE GRANTS WORKING GROUP  
20 WOULD DECIDE AMONGST MANY APPLICATIONS WHICH ONES  
21 QUALIFIED TO BE TYPE 1, TYPE 2, TYPE 3, OR TYPE 4, OR  
22 DOES THE APPLICANT THEMSELVES SELF-SELECT AND DECIDE  
23 WHAT THEY THINK THEY ARE, OR DOES THE ICOC THEN MAKE A  
24 FINAL DECISION OF WHAT EACH APPLICATION SHOULD BE? I'M  
25 A LITTLE CONFUSED.

1                   CHAIRMAN KLEIN: WELL, I WELCOME OBVIOUSLY  
2 ANY OF THE COMMITTEE MEMBERS, BUT THEORETICALLY THE  
3 APPLICANT IS GOING TO SELF-SELECT AND GOING TO SUBMIT  
4 IF WE LAY OUT THESE CATEGORIES.

5                   BUT SECONDLY, THE GRANTS WORKING GROUP MAY  
6 LOOK AT THE APPLICATION AND SAY, YOU KNOW, I THINK WE  
7 NEED TO ADJUST THEM. THEY'RE REALLY COMPETITIVE IN THE  
8 TOP CATEGORY OR THEY NEED TO MOVE DOWN A CATEGORY. SO  
9 THEY'RE GOING TO A MAKE RECOMMENDATION, BUT THE ICOC  
10 WILL FINALLY DECIDE WHETHER THAT ADJUSTMENT IS CORRECT  
11 OR WHETHER THE ICOC HAS A DIFFERENT VIEWPOINT.

12                   JEFF, DO YOU SEE IT THAT WAY?

13                   MR. SHEEHY: I JUST WAS GOING TO ASK DR.  
14 CHIU. WHAT DO YOU THINK? DO YOU THINK THAT THAT MIGHT  
15 BE SOMETHING THAT WOULD BE FEASIBLE WITHIN THE  
16 PROGRAMMATIC REVIEW AT THE GRANTS WORKING GROUP?

17                   DR. CHIU: I THINK WE HAVE TO GIVE VERY CLEAR  
18 DIRECTIONS TO THE GRANTS WORKING GROUP BECAUSE THEIR  
19 RECOMMENDATIONS WILL BE TAKEN VERY SERIOUSLY BY THE  
20 ICOC. AND THEY NEED TO HAVE -- THE APPLICATION HAS TO  
21 BE CRAFTED IN SUCH A WAY THAT THEY HAVE THE INFORMATION  
22 WITH WHICH THEY CAN MAKE THESE RECOMMENDATIONS.  
23 BECAUSE IF THE APPLICANT FAILS TO UNDERSTAND THAT THEY  
24 COULD BE ADJUSTED ACCORDINGLY, THEN THEY DID NOT  
25 PROVIDE INFORMATION WITHIN THE APPLICATION THAT IS

1 SUITABLE, THEN IT WOULD BE SOMEWHAT DIFFICULT TO MAKE  
2 THESE LONG-TERM INVESTMENTS IN THE BEST WAY POSSIBLE.

3 MR. SHEEHY: I THINK THAT A HYBRID WOULD  
4 WORK, SELF-SELECT. BECAUSE THE SELF-SELECT AT LEAST  
5 WOULD GIVE US A FRAMEWORK FROM WHICH TO OPERATE. SO  
6 YOU WOULD HAVE SOME FAIRLY DEFINITE CRITERIA, AND THEN  
7 THE GRANTS WORKING GROUP, THE SCIENTISTS WILL LOOK AT  
8 IT AND SAY, "WELL, THEY'RE NOT GOOD -- THE  
9 TRANSLATIONAL BIT HERE IS REALLY THIN, IT'S A VERY  
10 AMBITIOUS PROPOSAL." THEY WOULD BE IN THE TOP FIVE OR  
11 THE TOP TWO IF THEY WERE IN THE SECOND TIER AND THEN BE  
12 ABLE TO MAKE THAT RECOMMENDATION TO THE ICOC.

13 DR. CHIU: I THINK THIS IS A VERY INTERESTING  
14 MODEL. I DEFINITELY THINK THE APPLICANTS NEED TO  
15 SELF-DETERMINE WHERE THEY BEST FIT IN. AGAIN, THEY  
16 DON'T KNOW THE COMPETITION OR WHAT THE OTHERS ARE  
17 PROPOSING. SO I THINK WITH THE RIGHT CRITERIA OR THE  
18 RIGHT GUIDANCE, THE GRANTS WORKING GROUP WOULD BE IN A  
19 GOOD POSITION TO MAKE SUCH A RECOMMENDATION TO THE  
20 BOARD. THE ICOC WILL EVENTUALLY SEE EVERYTHING, AND  
21 THEY MAY NOT ACCEPT THE RECOMMENDATIONS. I JUST WANTED  
22 TO MAKE SURE THAT THERE'S ENOUGH FLUIDITY SO THAT ALL  
23 ISSUES ARE CAPTURED WHERE POSSIBLE.

24 MR. SHEEHY: DO YOU THINK THAT THIS RFA  
25 SHOULD HAVE A SECOND ROUND BUILT INTO IT BECAUSE ONE

1 CAN IMAGINE A SCENARIO WHERE SOMEONE MOVES, SAYS I  
2 THINK THIS WOULD BE -- DIDN'T MAKE TIER 1. I THINK  
3 THIS COULD BE A GREAT TIER 2 APPLICATION; BUT AS YOU  
4 NOTED, THEY MAY HAVE SHOT FOR THE MOON AND FALLEN A  
5 LITTLE BIT SHORT, AND THE APPLICATION MAY NOT PROVIDE  
6 THAT INFORMATION TO THE SCIENTISTS, AND THEY MAY WANT  
7 TO SEND THAT COMMENT BACK AND RE-REVIEW IN LIGHT OF THE  
8 SUGGESTION THAT THEY APPLY FOR A LOWER TIER.

9 DR. CHIU: I THINK THAT'S A GREAT SUGGESTION.  
10 I ALSO THINK THE WORD "COLLABORATION" MEANS VERY  
11 DIFFERENT THINGS TO DIFFERENT PEOPLE. SINCE WE'VE HELD  
12 IT AS A HIGH GOAL, EVERYBODY WILL BE THINKING OF  
13 COLLABORATION, BUT THERE ARE SOME THAT ARE OBVIOUSLY  
14 MUCH MORE MATURE OR HAVE A DEMONSTRATED TRACK RECORD OF  
15 FEASIBILITY THAN OTHERS THAT ARE BEGINNING OR STILL  
16 OTHERS THAT ARE FOR DECORATIVE PURPOSES, AND I THINK  
17 THOSE NEED TO BE EXPLORED.

18 DR. WRIGHT: AND A COUPLE THAT HAVE SHOWN TO  
19 USE TWO OVERUSED WORDS IN ONE SENTENCE, INNOVATION IN  
20 COLLABORATION. SOME REALLY UNUSUAL TYPES OF  
21 PARTNERSHIPS WE WANT TO ENCOURAGE.

22 CHAIRMAN KLEIN: SO IT MIGHT BE VALUABLE BOTH  
23 FOR THE NEXT MEETING IF, DR. CHIU, YOU COULD SUGGEST  
24 SOME STANDARDS FOR LOOKING AT COLLABORATION IN TERMS OF  
25 THE SERIOUSNESS OF IT. YOU MENTIONED A TRACK RECORD OF



1 COLLABORATION. WHAT WOULD THE INDEXES BE THAT YOU  
2 WOULD VIEW TO BE A SERIOUS AND FORMAL COMMITMENT TO  
3 COLLABORATION?

4 DR. CHIU: MR. CHAIRMAN, I THINK THE  
5 SCIENTISTS THEMSELVES KNOW BETTER THAN ANYONE WHAT A  
6 TRULY PRODUCTIVE COLLABORATION SHOULD LOOK LIKE AND  
7 WOULD BE, AND THERE ARE MANY IN THE AUDIENCE TODAY.  
8 AND IF THEY HAVE ANY THOUGHTS, I'D CERTAINLY ENCOURAGE  
9 THEM TO SUGGEST TO US WHAT WOULD BE BENCHMARKS FOR  
10 STRONG COLLABORATION.

11 CHAIRMAN KLEIN: WOULD ANY MEMBER OF THE  
12 AUDIENCE LIKE TO MAKE A COMMENT?

13 DR. WITTE: THERE ARE SOME VERY PRAGMATIC  
14 BENCHMARKS FOR COLLABORATION. SOME OF THEM DEPEND ON  
15 SOME PRIOR TRACK RECORD OF HAVING ALREADY BEEN INVOLVED  
16 IN THE COLLABORATION, RATHER THAN THE FUTURE PROMISE TO  
17 DO IT. ONE IS JOINT FUNDING MECHANISMS.

18 SECOND VERY SIMPLE ONE ARE JOINT TRAINEES.  
19 BY JOINT TRAINEES, I DON'T MEAN YOU JUST ASSIGN A  
20 SECOND HUMAN BEING TO TACK YOUR NAME ONTO THE PH.D. OR  
21 POSTDOCTORAL TRAINING, BUT YOU SEE AN ELEMENT OF CLEAR  
22 TRAINING IN MORE THAN ONE ENVIRONMENT. I THINK THAT'S  
23 HOW YOU GET INTERDISCIPLINARY SCIENTISTS TO BE TRAINED.

24 AND THE THIRD AND MAYBE THE ONE THAT TAKES  
25 THE LONGEST, THE SCIENCE DOESN'T PROCEED AT A DEFINED

1 PACE ALL THE TIME, IS JOINT PUBLICATIONS. WHEN YOU SEE  
2 EVIDENCE THAT PEOPLE ARE PUBLISHING TOGETHER, GETTING  
3 MONEY TOGETHER, AND TRAINING TOGETHER, THERE'S REALLY  
4 NOT MUCH LEFT BESIDES THAT. IN SCIENCE THAT'S WHAT WE  
5 DO.

6 I THINK NOW -- BUT YOU RAISE A REALLY GOOD  
7 POINT. WHAT ABOUT PEOPLE WHO WANT TO COLLABORATE?  
8 THAT'S A TOUGH ONE. THEN YOU HAVE TO TELL FROM THE  
9 EARNESTNESS AND LOGIC FOR WHAT WAS BEING PROPOSED. I  
10 HOPE THAT'S HELPFUL.

11 DR. KEIRSTEAD: I WOULD SUGGEST SIMILAR  
12 GUIDELINES, PUBLICATIONS, JOINT GRANT APPLICATIONS, OR  
13 AWARDED GRANTS. THERE'S ANOTHER CATEGORY OF SHARED USE  
14 OF EQUIPMENT. OFTEN COLLABORATORS WILL BE WORKING  
15 CLOSE TOGETHER, AND YOU CAN DEMONSTRATE SHARED USE OF  
16 EQUIPMENT WITHIN ONE FACILITY OR ANOTHER.

17 THERE'S A MORE DIFFICULT ZONE. EXCELLENT  
18 COLLABORATION CAN HAPPEN, FOR EXAMPLE, WITH INDUSTRY  
19 WHERE WE'RE NOT CO-PUBLISHING. THERE MAY BE OTHER  
20 SERIES OF PRODUCTIVITY. SO I WOULD SUGGEST SOME  
21 EVIDENCE OF REGULARLY SCHEDULED MEETINGS BETWEEN  
22 COLLABORATORS. FOR INSTANCE, WITH MYSELF AND GERON, WE  
23 MEET EVERY TWO WEEKS FOR TWO HOURS, LIKE IT OR NOT.  
24 THE WHOLE TEAM COMES TOGETHER, AND IT'S A HUGE  
25 COMMITMENT OF TIME. THERE'S NOTHING I CAN POINT TO,

1 THERE'S NO DOCUMENTS I CAN POINT TO TO EVIDENCE THAT,  
2 BUT IT'S A REAL EVIDENCE OF COLLABORATION. PERHAPS A  
3 LETTER FROM THE COLLABORATORS INDICATING THE FREQUENCY  
4 OF COMMUNICATIONS.

5 CHAIRMAN KLEIN: IN THAT REGARD, DR.  
6 KEIRSTEAD, IF YOU WOULD WAIT FOR ONE MOMENT, I'D LIKE  
7 TO RAISE WITH JEFF THE POINT THAT HE RAISED IN THE LAST  
8 MEETING, WHICH IS IT MAY BE A SEPARATE SUBCATEGORY OF  
9 COLLABORATION. COLLABORATION WITH INDUSTRY, KIND OF A  
10 TRANSLATIONAL RESEARCH EFFORT IN COLLABORATION THAT'S  
11 GOT SOME DOCUMENTATION WITH INDUSTRY COLLABORATION,  
12 WOULD BE VALUABLE? AND BESIDES THE MEETING EVIDENCE,  
13 WHAT OTHER EVIDENCE OF TRANSLATIONAL COLLABORATION?  
14 JEFF, WOULD IT MAKE SENSE TO YOU OR TO DR. KEIRSTEAD?

15 DR. KEIRSTEAD: I HAVE SOME THOUGHTS. IN  
16 EVERY INSTANCE WHERE THERE IS A TRUE COLLABORATION WITH  
17 REGARDS TO TRANSLATION, THERE'S GOING TO BE  
18 CONFIDENTIALITY AGREEMENTS, WHICH IS GOING TO BE  
19 SOMETHING BOTH TO POINT TO, BUT ALSO TO GET OVER. AND  
20 THEN MEMORANDUM OF UNDERSTANDING, MATERIAL TRANSFER  
21 AGREEMENTS, AND COLLABORATIVE RESEARCH AGREEMENTS.  
22 THOSE ARE VERY HARD DOCUMENTS THAT WE'RE GOING TO  
23 PRODUCE AS EVIDENCE OF INDUSTRY COLLABORATION.

24 DR. CHIU: MAY I JUST ASK A QUESTION?  
25 COLLABORATION, AGAIN, IS REALLY DEEMED IMPORTANT. HOW

1 DO WE KNOW WHEN A COLLABORATION HAS BEEN PRODUCTIVE OR  
2 A REALLY SYNERGISTIC COLLABORATION RATHER THAN ONE ON  
3 PAPER? EVEN WHEN PEOPLE GET GRANTS TOGETHER, LIKE  
4 PROGRAM PROJECT GRANTS, THEY TAKE THEIR PIECE AND THEY  
5 RUN OFF AND THERE IS NO SYNERGY.

6 DR. KEIRSTEAD: VERY GOOD QUESTION. I THINK  
7 THAT IT BEHOVES THE COLLABORATORS TO INDICATE WHAT  
8 PRODUCTIVITY HAS COME AS A RESULT OF THE COLLABORATION.  
9 SO A PAPER, A DISCOVERY PERHAPS IF IT'S PREPUBLICATION.  
10 THEN FROM THE POINT THAT THE COLLABORATION WAS DRAWN  
11 AND PENNED, WHAT PROGRESS HAS BEEN MADE? I THINK THAT  
12 SCIENTIFIC DISCOVERIES CAN BE -- TO OUTLINE THE  
13 SCIENTIFIC DISCOVERIES THAT HAVE TAKEN PLACE, AND THAT  
14 ALSO FALLS INTO THE INDUSTRY QUESTION. IN EVERY CASE  
15 WITH INDUSTRY, IT'S NOT A RESEARCH ON ONE SIDE AND  
16 DEVELOPMENT ON THE OTHER. THEY'RE SO INTERTWINED, THAT  
17 ONE CAN POINT TO PRODUCTIVE RESULTS FROM NEW  
18 EXPERIMENTS THAT HAVE BEEN DONE THAT HAVE BEEN SHARED,  
19 THE COST BURDEN AND THE RESOURCE BURDEN, PERSONNEL, AND  
20 GEAR ON BOTH SIDES THAT'S RESULTED IN SOME  
21 MANIFESTATION. IF THERE'S A SAFETY STUDY THAT'S BEEN  
22 COMPLETED, AN EFFICACY STUDY THAT'S BEEN COMPLETED, AN  
23 FDA DOCUMENT THAT'S BEEN DONE THAT BOTH PARTIES HAVE  
24 WORKED ON, THERE SHOULD BE SOMETHING THAT YOU CAN POINT  
25 TO THAT'S MANIFESTED SINCE THE INITIATION OF THE

1 COLLABORATION.

2 DR. WRIGHT: SO YOU'RE ENCOURAGING US TO  
3 THINK LIKE SHAREHOLDERS?

4 DR. KEIRSTEAD: ABSOLUTELY. THANK YOU.

5 MR. SHEEHY: I WONDER IF WE COULD MAYBE  
6 ADDRESS THE ISSUE THAT DR. WITTE IDENTIFIED. THIS IS  
7 ALL RETROSPECTIVE, BUT, YOU KNOW, HOW DO WE CAPTURE THE  
8 PROSPECTIVE, ESPECIALLY IN TERMS OF INDUSTRY? HOW DO  
9 WE CAPTURE, AND I KNOW THAT IT MAY BE AN IMPOSSIBLE  
10 QUESTION TO ANSWER.

11 DR. KEIRSTEAD: I THINK THAT TWO ACADEMIC  
12 RESEARCHERS OFFERING A LETTER SAYING WE COLLABORATE IS  
13 QUITE MEANINGLESS UNLESS THERE'S SOMETHING TO POINT TO.  
14 IT MAY BE MEANINGLESS. IT MAY BE MEANINGFUL AND IT MAY  
15 NOT BE MEANINGFUL, AND I DON'T THINK THAT YOUR  
16 COMMITTEES ARE GOING TO BE ABLE TO REALLY DISCERN THAT  
17 UNLESS THERE'S SOME PAPER THAT THEY CAN WEIGH IN.

18 WITH INDUSTRY IT'S A DIFFERENT STORY. IF YOU  
19 HAVE A LETTER FROM AN INDUSTRIAL PARTNER SAYING, YES,  
20 WE ARE COLLABORATING, I THINK THAT CAN BE TAKEN AS  
21 DOGMA BECAUSE THAT LETTER CAN'T BE PRODUCED WITHOUT  
22 BOARD APPROVALS, AT LEAST SENIOR MANAGEMENT APPROVALS,  
23 ETC. THERE'S A COMMITMENT OF RESOURCES.

24 EVERY TIME A COMPANY STARTS WORKING WITH AN  
25 INDIVIDUAL, THE COLLABORATION IS DISCUSSED, AND THEN IT

1 GETS TAKEN TO SOME SENIOR MANAGEMENT GROUP, IF NOT THE  
2 BOARD, AND AN ALLOCATION OF FUNDS GETS PUT TOWARDS  
3 THAT. ONLY THEN, AFTER THOSE FUNDS HAVE BEEN ALLOCATED  
4 OR PERSONNEL ALLOCATED, CAN THAT OFFER OF COLLABORATION  
5 BE PUT OUT. YOU CAN'T PUT OUT AN EMPTY LETTER IN  
6 INDUSTRY. I DON'T THINK THAT THAT'S REALLY POSSIBLE.  
7 I THINK THAT GREATER WEIGHT CAN BE PUT ON JUST A SIMPLE  
8 LETTER OF COLLABORATION FROM AN INDUSTRY PARTNER.

9 MR. SHEEHY: AND WE PROBABLY REALLY ARE  
10 LOOKING AT TRACK RECORD. WE'RE NOT GOING TO BE ABLE TO  
11 IDENTIFY. PEOPLE MAY SAY OUR INTENT IS TO WORK WITH  
12 INDUSTRY TO BRING THESE.

13 DR. KEIRSTEAD: RIGHT.

14 MR. SHEEHY: THIS MAY BE ONE WHERE THE TRACK  
15 RECORD MAY NEED TO BE AT LEAST IN THIS PARTICULAR  
16 INSTANCE.

17 DR. KEIRSTEAD: I WOULD ABSOLUTELY AGREE. I  
18 THINK PARTICULARLY WITH REGARDS TO THE TRANSLATIONAL  
19 WORK, THE ROAD IS A LOT LONGER THAN ANYONE WOULD HAVE  
20 IMAGINED AND MUCH MORE DIFFICULT. AND IF THERE'S NOT A  
21 TRACK RECORD ALREADY, THEN IT'S GOING TO BE A LONG TIME  
22 COMING.

23 CHAIRMAN KLEIN: THANK YOU FOR YOUR COMMENTS.  
24 VERY HELPFUL.

25 THE NEXT AREA I'D LIKE TO REVISIT AND GET

1 SOME CLARITY ON HAS ALSO BEEN DISCUSSED PREVIOUSLY.  
2 PARTICULARLY IN THE SHARED LAB GRANTS, THE POINT WAS TO  
3 AWARD FACILITIES DEVELOPMENT FUNDING WHEN THE COST  
4 PROVIDES A HIGH FUNCTIONAL VALUE TO THE RESEARCH  
5 MISSION. THERE'S TREMENDOUS DISPARITY BETWEEN THE COST  
6 PER SQUARE FOOT TO PRODUCE FACILITIES. SINCE THIS IS  
7 SUCH A WEIGHTY QUESTION, WE'RE GOING TO GIVE EVERYONE A  
8 FIVE-MINUTE BREAK BEFORE WE GO INTO IT. WE'LL ADJOURN  
9 FOR FIVE MINUTES.

10 (A RECESS WAS TAKEN.)

11 CHAIRMAN KLEIN: IF WE CAN RECONVENE. SO ONE  
12 OF THE -- WHY DON'T WE BEGIN THE DISCUSSION. I'M SURE  
13 THIS WON'T BE A 60-SECOND ADVENTURE.

14 AN HISTORICAL ISSUE HAS BEEN THAT THERE'S  
15 VERY HIGH COST AREAS IN THE STATE. AS SHOWN IN THE  
16 SHARED LABS, THERE'S A TREMENDOUS DISCREPANCY BETWEEN  
17 PRODUCTION COST PER SQUARE FOOT ACROSS THE STATE AND  
18 ACROSS INSTITUTIONS. EVEN AFTER HIGH COST AREA  
19 ADJUSTMENTS, BECAUSE OF THE CHARACTERISTICS OF THE  
20 BUILDING SITE, WHERE IN SOME LOCATIONS THEY CAN BUILD  
21 TWO-STORY TILT-UP, IN SOME LOCATIONS IT'S FOUR STORIES  
22 WITH A VIVARIUM IN THE BASEMENT, THERE ARE MAJOR  
23 DIFFERENCES IN THE DELIVERABLE COST PER SQUARE FOOT AND  
24 DELIVERABLE COST PER PI.

25 SO ONE OF THE POINTS THAT WAS BROUGHT UP IN

1 THE SHARED LAB DISCUSSION IS THAT PERHAPS INSTITUTIONS  
2 THAT HAVE THE HIGHEST COST RANGE NEED TO SERIOUSLY LOOK  
3 AT HIGHER MATCHING GRANTS, GREATER LEVERAGE.

4 WE'RE STILL IN THE INTRODUCTION, JEFF, JUST  
5 60 SECONDS. SO, JEFF, WHAT I WAS JUST PUTTING ON THE  
6 TABLE IS THAT IN THE SHARED LAB COMPETITION, ONE OF THE  
7 CONCEPTS THAT WAS PUT ON THE TABLE WAS THAT PERHAPS  
8 INSTITUTIONS THAT ARE IN THE HIGHEST COST RANGE IN THE  
9 STATE NEED TO HAVE GREATER MATCHING FUNDS TO PUT UP SO  
10 THAT THE STATE GETS A VALUE, A GREATER VALUE IN THE  
11 SQUARE FOOTAGE AND THE SPACE THAT CAN BE DELIVERED FOR  
12 RESEARCH, ASSUMING, OF COURSE, WE'RE TALKING ABOUT  
13 EQUIVALENT SCIENTIFIC MERIT ON A COMPARABLE BASIS  
14 BETWEEN INSTITUTIONS.

15 BUT THE QUESTION HAS A COUPLE OF DIFFERENT  
16 LEVELS, BUT THE FIRST LEVEL FOR DISCUSSION IS WHAT DOES  
17 THE COMMITTEE THINK ABOUT THIS ISSUE OF LEVERAGED FUNDS  
18 OFFSETTING EXTREMELY HIGH COST? I'M NOT TALKING ABOUT  
19 20 PERCENT. I'M TALKING ABOUT THE FACT THAT, FOR  
20 EXAMPLE, I THINK MEMBER KASHIAN HAD A POINT ABOUT UCSF  
21 BEING A VERY HIGH COST IN THE SHARED LABS. AND I MADE  
22 THE POINT IN THAT DISCUSSION THAT THEY HAD OVER A  
23 HUNDRED PERCENT MATCHING FUNDS. AND IF YOU LOOKED AT  
24 THEIR MATCHING FUNDS, IT BROUGHT THEIR COST DOWN TO A  
25 LEVEL, DEPENDING ON HOW YOU COMPARED IT, THAT WAS VERY



1 COMPARABLE TO SOME OTHER AREAS IN THE STATE WHERE THEY  
2 HAD MUCH LOWER LEVERAGE.

3 BUT HOW DOES THIS COMMITTEE INTEND TO ADDRESS  
4 THIS ISSUE OF MAJOR DIFFERENCES IN COST AROUND THE  
5 STATE, ASSUMING EQUIVALENT SCIENTIFIC MERIT?

6 MR. SHEEHY: YOU HAVE DIFFERENT COSTS, AND  
7 THEN YOU HAVE -- I MEAN YOU ALSO HAVE DIFFERENT  
8 LEVERAGE. SO WILL THESE THINGS COME UP? IT SEEMS LIKE  
9 THAT THERE'S ONE THAT YOU CAN VISUALIZE AS KIND OF  
10 COMING OUT IN THE WASH. I THINK YOU KIND OF ALMOST  
11 ALLUDED TO THAT AT THE LAST MEETING. UCSF WILL HAVE  
12 HIGHER COST THAN PERHAPS SOME OTHER FOLKS, AND THE BAY  
13 AREA MAY HAVE HIGH COSTS AND MAYBE HERE, BUT THEY ALSO  
14 HAVE A BIGGER DONOR BASE. SO WHAT YOU ARE TALKING  
15 ABOUT IS A REALLY PRETTY DIRECT MATCH.

16 SO IN THAT INSTANCE, BECAUSE WHAT HAPPENED  
17 WITH THE SHARED LABS IS THAT THE WAY IN WHICH WE WROTE  
18 THE RFA, THE MINIMUM REQUIREMENT WAS EQUAL TO A  
19 SUPER -- AS LONG AS YOU MADE THE 20 PERCENT, IT DIDN'T  
20 MATTER IF YOU MADE 40 OR 60 OR 80 OR A HUNDRED PERCENT.  
21 WE WEREN'T ABLE TO TAKE THE RELATIVE DEGREE OF  
22 LEVERAGING, WHICH WAS ONE CONCEPT WE TALKED ABOUT IN  
23 THIS PARTICULAR ROUND, SAYING IF YOU HAD HIGHER -- IF  
24 YOU WERE PROVIDING MORE AS AN INSTITUTION, WE SHOULD  
25 TAKE THAT INTO ACCOUNT. I THINK THAT'S EVEN IN PROP

1 71.

2 CHAIRMAN KLEIN: IT IS.

3 MR. SHEEHY: BUT THIS IS ANOTHER LAYER WHICH  
4 WOULD BOTH MAYBE TAKE SOME OF THE STEAM OUT OF THAT  
5 BECAUSE IF YOU HAVE HIGHER COST, WE COULDN'T REALLY  
6 TAKE YOUR HIGHER LEVERAGING BECAUSE YOUR HIGHER  
7 LEVERAGING IS GOING TOWARDS THOSE HIGHER COSTS. WHAT  
8 YOU'RE TALKING ABOUT IS REALLY ALMOST A FORMULA THAT  
9 WOULD BE LEVERAGE MINUS COSTS GREATER THAN 20 PERCENT.  
10 I DON'T KNOW. I'M NOT A MATHEMATICIAN. THAT SEEMS TO  
11 BE WHERE YOU ARE GOING WITH THIS. I THINK WE CAN  
12 FIGURE OUT A WAY TO DO THIS IN A TRANSPARENT WAY THAT  
13 MAKES SENSE. THE LOGIC IS THERE. I THINK THERE'S A  
14 RELATIONSHIP THERE. THERE'S ALSO THE QUALITY OF  
15 LEVERAGE WHICH IS ANOTHER ISSUE, WHETHER CERTAIN TYPES  
16 OF LEVERAGE IS MORE DESIRABLE THAN OTHER TYPES OF  
17 LEVERAGE.

18 JUST ON THIS FIRST POINT, GREATER LEVERAGE  
19 MITIGATING FOR HIGHER COST IS FINE IF THAT GREATER  
20 LEVERAGE DOESN'T THEN HAPPEN TO BENEFIT THE INSTITUTION  
21 ON THE OTHER END. RIGHT? IF IT'S NOT FORMULIZED SO  
22 THAT, YES, I GAVE GREATER LEVERAGE BECAUSE I HAD THE  
23 HIGHEST COST IN THE STATE, BUT I ALSO GET THE BENEFIT  
24 OF HAVING GIVEN THE GREATEST LEVERAGE EVEN THOUGH OTHER  
25 INSTITUTIONS WITH LOWER COST HAVE LESS LEVERAGE. DO

1 YOU SEE WHAT I MEAN?

2 CHAIRMAN KLEIN: YEAH. THERE'S A SIMPLER  
3 APPROACH RATHER THAN THIS ALGEBRAIC FORMULA, WHICH IS  
4 JUST TO POSSIBLY TAKE YOUR COST, DEDUCT YOUR MATCHING  
5 FUNDS, AND THEN LOOK AT YOUR COST, YOUR NET COST, ON A  
6 COST-PER-SQUARE-FOOT BASIS. THAT MIGHT GIVE YOU A VERY  
7 CLEAN KIND OF SIMPLE --

8 MR. SHEEHY: HOW DO YOU EVALUATE THE  
9 LEVERAGING? BECAUSE WE REALLY SHOULD PROBABLY CONSIDER  
10 GIVING -- WE SHOULDN'T SAY JUST THE RICHEST ARE GOING  
11 TO GET, BUT WE SHOULD REWARD INSTITUTIONS IN SOME WAY  
12 THAT HAVE REALLY GONE -- SOME INSTITUTIONS ARE DOING A  
13 LOT OF SERIOUS WORK IN TERMS OF GETTING RESOURCES  
14 TOGETHER TO SUPPORT THIS. WE HAVE TO RECOGNIZE THOSE  
15 WHO HAVE DONE A LOT OF WORK IN THAT AREA ABOVE AND  
16 BEYOND THE 20 PERCENT. DO YOU SEE WHAT I MEAN?

17 CHAIRMAN KLEIN: ON A PRAGMATIC BASIS, UNLESS  
18 WE HAVE VERY EFFECTIVE LEVERAGE, WE'RE NOT GOING TO BE  
19 ABLE TO ADDRESS ALL THE OPPORTUNITIES IN THE STATE THAT  
20 ARE VERY HIGH QUALITY. SO WE NEED TO REALLY AWARD  
21 MATCHING FUNDS PRETTY SIGNIFICANTLY. AND I EXPECT THAT  
22 THERE WILL BE A NUMBER OF INSTITUTIONS THAT WILL  
23 ACTUALLY EXCEED A HUNDRED PERCENT LEVERAGE.

24 YOU COULD, A, AWARD LEVERAGE AND, B, ALSO  
25 SUBTRACT OUT THE LEVERAGE AND LOOK AT THE NET COSTS AND

1 THEN NOT PENALIZE PEOPLE ON COST IF THE NET COST THAT  
2 WE HAVE TO BEAR AS THE STATE IS WITHIN THE NORMAL  
3 RANGE.

4 MR. SHEEHY: SO MAYBE NET COST AND NET  
5 LEVERAGE.

6 CHAIRMAN KLEIN: THAT'S A GOOD CONCEPT. LOOK  
7 AT NET COST AND NET LEVERAGE TO SEE WHAT THE BENEFIT IS  
8 TO THE STATE.

9 MR. SHEEHY: IF YOU APPLY SOME OF YOUR  
10 LEVERAGE TO BRINGING DOWN YOUR COST PER SQUARE FOOT,  
11 THAT COMES OFF YOUR LEVERAGE SIDE.

12 CHAIRMAN KLEIN: RIGHT. SO YOU MAY HAVE  
13 ENOUGH LEVERAGE TO BOTH GET POINTS FOR LEVERAGE AND FOR  
14 REDUCING YOUR COSTS TO A REASONABLE RANGE.

15 DR. WRIGHT: COST REDUCTION.

16 MR. SHEEHY: TO MAKE YOUR COSTS COMPETITIVE.

17 CHAIRMAN KLEIN: OKAY. THAT'S A --

18 MS. HOFFMAN: I WOULD JUST LIKE TO ADD ONE  
19 THING. WHEN THE FACILITIES WORKING GROUP CONTINUES TO  
20 DISCUSS THIS PARTICULAR TOPIC, YOU ALSO WOULDN'T WANT  
21 TO EXCLUDE OR PENALIZE THOSE INSTITUTIONS THAT, FOR  
22 WHATEVER REASON, ARE BRINGING IN THEIR BUILDINGS AT A  
23 LOWER COST AND, THEREFORE, DON'T NEED ANY MORE  
24 LEVERAGE. SO I THINK THAT MEMBER SHEEHY ACTUALLY GETS  
25 TO A WORKABLE SOLUTION. WE'LL TEST IT OUT.

1           CHAIRMAN KLEIN: I THINK JEFF'S APPROACH IS  
2           GOOD BECAUSE IF YOU HAVE A LOW COST, YOU'RE GOING TO  
3           GET BONUS POINTS ANYWAY. IF YOU LOOK AT NET COST AND  
4           NET LEVERAGE, THAT MIGHT BE A GOOD APPROACH.

5           MR. LAFF: ONE OF THE QUESTIONS I HAVE IN MY  
6           MIND IS ARE ALL OF THESE FACILITIES BEING BUILT TO THE  
7           SAME STANDARDS? DO THEY HAVE LOWER COSTS BECAUSE  
8           THEY'RE BUILT TO DIFFERENT STANDARDS, OR DO THEY HAVE  
9           LOWER COSTS CONSISTENT WITH THE SAME STANDARD?

10          MS. HOFFMAN: WELL, CERTAINLY THEY ALL HAVE  
11          TO MEET A CERTAIN LEVEL AND STANDARD IN REGARDS TO FIRE  
12          MARSHAL AND ETC., BUT, NO, THERE WILL BE SOME  
13          INSTITUTIONS THAT I IMAGINE WILL HIRE WORLD FAMOUS  
14          ARCHITECTS, AND THE STANDARD WOULD BE QUITE DIFFERENT  
15          THAN ANOTHER INSTITUTION THAT WAS REALLY TRYING TO  
16          MAXIMIZE FUNCTIONALITY.

17          MR. LAFF: I WASN'T PART OF THE SHARED, SO  
18          THAT'S WHERE THAT CAME FROM.

19          CHAIRMAN KLEIN: NO, I THINK IT'S A GOOD  
20          QUESTION. THERE MIGHT BE SOME ADJUSTMENTS IN LINE WITH  
21          WHAT STUART IS RAISING IS THAT, YOU KNOW, IF WE HAVE  
22          COSTS THAT ARE ATTRIBUTABLE TO STATE BUILDING CODES  
23          THAT ONLY AFFECT EDUCATIONAL INSTITUTIONS, SHOULD WE  
24          TRY AND IDENTIFY THOSE COSTS AND SAY, LOOK, ON A  
25          COMPARABLE BASIS, THESE INSTITUTIONS ARE BURDENED WITH

1 THESE COSTS COMPLETELY OUTSIDE OF THEIR CONTROL? AND  
2 SHOULD WE -- COULD WE DEDUCT THOSE OUT AND LOOK AT  
3 TOTAL COST?

4 MS. HOFFMAN: I DO THINK THOSE ARE BASELINE  
5 COSTS. I THINK THAT ALSO WHAT'S GOING TO DRIVE THE  
6 COST IS THE PROGRAM. WHAT'S IN THE BUILDING? IS THERE  
7 A CLEAN ROOM IN THE BUILDING? HOW MANY BENCHES AND  
8 FUME HOODS ARE THERE? AND I'M NOT SURE HOW TO  
9 NORMALIZE THAT.

10 CHAIRMAN KLEIN: LET'S GO DOWN THAT ROAD, IF  
11 WE CAN, LORI, FOR A MOMENT BECAUSE DEFINITIONALLY I'M  
12 NOT SURE THAT IT'S BEEN EXPLORED, AND I'D LIKE THE  
13 COMMITTEE TO HAVE A CONSENSUS ON THIS, IS THAT WE'RE  
14 REALLY FUNDING OUT OF THE FACILITIES SET-ASIDE MONEY.  
15 AND DEFINITIONALLY WE'RE NOT FUNDING MOVABLE EQUIPMENT  
16 BECAUSE IT'S NOT A FIXTURE. SOMETHING THAT IS AIR  
17 HANDLING EQUIPMENT FOR A GLP LAB IS A FIXTURE OR IT'S A  
18 PART OF A BUILDING SYSTEM, IT'S FIXTURIZED. THAT'S  
19 EQUIPMENT WE CAN FUND.

20 HOWEVER, IT SEEMS THAT WHEN LOOKING AT TOTAL  
21 COSTS IN TERMS OF LEVERAGE, WE SHOULD ALLOW PEOPLE TO  
22 SUBMIT AND SHOW THEIR TOTAL COSTS, INCLUDING THEIR  
23 MOVABLE EQUIPMENT. THEY STILL HAVE TO DOCUMENT IN  
24 AUDITS AT THE END BECAUSE THEY'RE GOING TO HAVE TO PAY  
25 FOR THAT TO MAKE THIS REALLY OPERATIONAL.

1                   BUT WHEN THEY'RE REPORTING THEIR COST ON A  
2                   COMPARABLE BASIS, IT PROBABLY SHOULDN'T INCLUDE THEIR  
3                   MOVABLE EQUIPMENT. IS THAT CORRECT?

4                   MS. HOFFMAN: YOU MEAN PER SQUARE FOOT, PER  
5                   SQUARE FOOT. THE COST PER SQUARE FOOT DOES NOT INCLUDE  
6                   GROUP TWO AND THREE EQUIPMENT.

7                   CHAIRMAN KLEIN: OKAY. THAT'S AN IMPORTANT  
8                   CLARITY.

9                   MR. KELLER: BUT LEVERAGE WOULD LIKELY, VERY  
10                  LIKELY, INCLUDE GROUP TWO BECAUSE ALL OF THESE  
11                  LABORATORIES ARE GOING TO REQUIRE SUBSTANTIAL  
12                  INVESTMENT BY THE APPLICANTS TO BRING THEM UP TO  
13                  FUNCTIONALITY BY INVESTING IN THE GROUP TWO MOVABLE  
14                  EQUIPMENT.

15                 CHAIRMAN KLEIN: RIGHT. SO WE NEED A VERY  
16                  EXPLICIT DIRECTION THAT FOR PURPOSES OF LEVERAGE,  
17                  YOU'RE USING YOUR TOTAL COST, INCLUDING GROUP TWO AND  
18                  THREE EQUIPMENT; BUT FOR PURPOSES OF COST PER SQUARE  
19                  FOOT, YOU'RE JUST USING GROUP ONE EQUIPMENT.

20                 MR. KELLER: RIGHT.

21                 MR. SHEEHY: SO IF WE'RE TALKING ABOUT OUR  
22                  FORMULA WHERE WE SUBTRACT LEVERAGE, WHAT LEVERAGE ARE  
23                  WE SUBTRACTING OUT? ARE WE GOING TO SUBTRACT OUT  
24                  LEVERAGE FOR EQUIPMENT, OR ARE WE GOING TO SUBTRACT OUT  
25                  LEVERAGE THAT WENT SPECIFICALLY TO REDUCE, OR IS IT ALL

1 THE SAME?

2 MR. KELLER: I THINK THERE'S A ONE-TO-ONE --  
3 IF I UNDERSTAND YOUR ALGORITHM CORRECTLY WITH THE NET  
4 COST AND NET LEVERAGE, I THINK A DOLLAR EXPENDED FOR  
5 GROUP TWO EQUIPMENT BY THE APPLICANT IS A DOLLAR OF  
6 LEVERAGE.

7 IF YOU'RE FOCUSING ON BUILDING COSTS, YOU  
8 WOULD NOT ADD COST FOR THAT DOLLAR BEING INVESTED FOR  
9 GROUP TWO. YOU TRY TO KEEP APPLES TO APPLES FOR THE  
10 BUILDING COSTS, AND THEN APPLES PLUS EQUIPMENT, IF YOU  
11 WILL.

12 MR. SHEEHY: JUST TO RAISE ANOTHER QUESTION  
13 SINCE YOU BROUGHT IT UP THAT I'VE BEEN THINKING ABOUT  
14 THIS, SOME OF THESE THINGS AT THE UC SYSTEM IS BURDENED  
15 WITH MIGHT OUGHT TO BE PART OF WHAT WE ASK FOR FOR  
16 APPLICANTS, PREVAILING WAGE, CERTAIN GREEN BUILDING  
17 CODES.

18 CHAIRMAN KLEIN: PREVAILING WAGE IS PART OF  
19 THE INITIATIVE.

20 MR. SHEEHY: BUT ARE THERE NOT OTHER THINGS  
21 THAT UC IS BURDENED WITH BY THE STATE THAT I THINK ARE  
22 SPECIFIC TO ENVIRONMENTAL CONCERNS THAT WE MAY WANT  
23 TO --

24 MR. KELLER: I THINK IN JUST ABOUT EVERY CASE  
25 THERE'S GENERALLY A COROLLARY THAT EXISTS WITHIN THE



1 COMMUNITY. IT MAY OR MAY NOT BE AS WELL-KNOWN. BUT,  
2 FOR INSTANCE, ALL OF THE ENVIRONMENTAL IMPACT REPORT  
3 REQUIREMENTS THAT FALL ON UC, THERE IS A PARALLEL  
4 PROCESS ON THE PRIVATE SIDE IN TERMS OF GOVERNMENTAL  
5 ENTITIES REQUIRING THOSE.

6 IT'S JUST THAT THE UNIVERSITY, BY VIRTUE OF  
7 THE FACT THAT THEY'RE THEIR OWN LEAD AGENCY, AND WE  
8 HAVE MORE -- WE MAY OR MAY NOT HAVE HIGHER STANDARDS IN  
9 SOME CASES IN TERMS OF WHAT KIND OF MITIGATIONS ARE  
10 ADOPTED. BUT IT WOULD BE INTERESTING TO HEAR FROM  
11 PEOPLE WHO ARE HERE IF THEY THINK THAT THERE'S A  
12 MATERIAL DIFFERENCE BETWEEN KIND OF THE BASELINE  
13 REQUIREMENTS RELATIVE TO AN ACADEMIC BUILDING, SCIENCE  
14 INTENSIVE ACADEMIC BUILDING BUILT UNDER THE UNIFORM  
15 BUILDING CODE AND TITLE 24, ALL OF THE THINGS IN  
16 CALIFORNIA THAT APPLY TO THE UNIVERSITY OF CALIFORNIA  
17 VERSUS ONE THAT WOULD BE BUILT AT USC OR STANFORD UNDER  
18 A COMMUNITY STANDARD, UNDERSTANDING THAT THE OTHER  
19 VARIABLE THERE IS, AS WAS MENTIONED, IT'S ABOUT THE  
20 FUNCTIONS WITHIN THE BUILDING IN TERMS IF THERE'S  
21 VIVARIA, THAT IS GOING TO DRIVE COST SIGNIFICANTLY. IF  
22 YOU ARE INVESTING IN DURABILITY BY VIRTUE OF THE FACT  
23 THAT YOU SEE THE LONGEVITY OF THE PROGRAM RATHER THAN  
24 BUYING THINGS THAT ARE GOING TO BREAK IN 10 OR 20  
25 YEARS, YOU FIND THINGS THAT YOU NEED TO INVEST.

1                   SO I THINK WE LOOK AT IT AS A BASELINE  
2 STANDARD, AND I THINK IT'S PRETTY CONSISTENT.

3                   MR. SHEEHY: THERE WAS ONE APPLICANT WHOSE  
4 APPLICATION WAS SCORED HIGHER BY THE REVIEWER BECAUSE  
5 THEY HAD ELABORATED ALL OF THESE DIFFERENT THINGS. AND  
6 IT WAS SUGGESTED THAT ALL OF THIS THAT THEY HAD  
7 ELABORATED, GREEN BUILDING AND ENVIRONMENTAL FRIENDLY  
8 DESIGN, WERE REALLY PART OF WHAT MOST OF THE UC SYSTEMS  
9 WERE ADOPTING PER THE KINDS OF REQUIREMENTS THAT THEY  
10 HAVE TO LIVE UNDER, AND THAT DID NOT NECESSARILY SEEM  
11 TO BE TRUE FOR OTHER APPLICATIONS.

12                  MS. HEINECKE: TRUDI HEINECKE FROM THE  
13 UNIVERSITY OF CALIFORNIA. THE REGENTS HAVE ADOPTED A  
14 GREEN BUILDING POLICY, IT'S NOT A STATE REQUIREMENT,  
15 AND A CLEAN ENERGY POLICY AND OTHER THINGS THAT CAN  
16 SOMETIMES AFFECT THE COST OF THE BUILDING. IT REALLY  
17 DEPENDS. IT'S NOT ALWAYS MORE COSTLY.

18                  IF YOU ARE -- FOR EXAMPLE, IF YOU HAVE  
19 OPERABLE WINDOWS, WHICH MAY NOT BE THE CASE IN THESE  
20 KINDS OF FACILITIES, YOU CAN DOWNSIZE THE MECHANICAL  
21 SYSTEM. SO IT'S A TRADE-OFF BACK AND FORTH.

22                  THE REGENTS ALSO HAVE SOME REQUIREMENTS THAT  
23 AFFECT PLANNING COSTS RELATED TO INDEPENDENT SEISMIC  
24 REVIEW, SOME DESIGN REVIEW, AND SO ON. OTHERWISE, I  
25 THINK RICK IS CORRECT. WE FOLLOW THE SAME BUILDING

1 CODES AND HAVE THE SAME ENVIRONMENTAL REQUIREMENTS, BUT  
2 THERE IS A SIGNIFICANT GREEN BUILDING POLICY. AND I  
3 THINK YOU COULD JUST ASK THE APPLICANT IF THERE ARE  
4 INSTITUTIONAL REQUIREMENTS THAT ARE DIFFERENT THAN  
5 STATE BUILDING CODES OR SOMETHING LIKE THAT.

6 MR. SHEEHY: WHY WOULD WE NOT WANT TO PUT  
7 THOSE SAME REQUIREMENTS INTO OUR RFA, ESPECIALLY SINCE  
8 IT'S NOT CLEAR THAT THEY'RE NOT COST NEUTRAL? CLEARLY,  
9 ENERGY EFFICIENCY, WHY WOULD WE NOT? IF THE REGENTS  
10 SAW FIT, I DON'T SEE THAT AS THE BOARD OF GREENPEACE.  
11 IF THEY CAN SUPPORT, ESPECIALLY SINCE WE HAVE  
12 REPUBLICAN GOVERNORS FOR THE MOST PART, IF THEY CAN  
13 SUPPORT GREEN BUILDING AND ENERGY EFFICIENCY, SHOULD WE  
14 NOT, JUST AS A MATTER OF GOOD CITIZENSHIP, AND ALL THE  
15 CURES IN THE WORLD WON'T HELP US IF WE'RE UNDERWATER  
16 WHERE WE ARE RIGHT NOW.

17 MS. HEINECKE: I WOULD JUST SAY THERE MIGHT  
18 BE A DIFFERENCE BETWEEN A REQUIREMENT AND SOME KIND OF  
19 EXTRA POINTS BECAUSE IF INSTITUTIONS ARE FAIRLY WELL  
20 ALONG IN THEIR DESIGN, IT'S A LITTLE BIT TOO LATE TO  
21 REQUIRE CERTAIN KINDS OF GREEN BUILDING POLICIES.

22 MR. SHEEHY: I THINK ON THE FACILITIES SIDE  
23 OF IT, I WOULD HOPE THAT WE WOULD AT LEAST DEBATE  
24 WITHIN THIS GROUP AND STRONGLY CONSIDER AWARDED SOME  
25 SORT OF BONUS FOR BEING MORE ENVIRONMENTALLY FRIENDLY

1 IN OUR BUILDING DESIGNS.

2 MR. WILLIAMS: CURT WILLIAMS FROM USC. AND  
3 JUST TO ANSWER THE QUESTION ABOUT WHETHER THE PRIVATE  
4 INSTITUTIONS FACE EQUAL CHALLENGES RELATIVE TO GETTING  
5 BUILDINGS BUILT, THAT'S TO SAY ABSOLUTELY. WE HAVE TO  
6 DO ENVIRONMENTAL IMPACT REPORTS ON BUILDINGS, AND SO WE  
7 HAVE ALREADY DONE ONE THAT WILL ALLOW US TO BUILD OUR  
8 FACILITY. AND WE ARE WITHIN THE CITY OF L.A., AND THE  
9 CITY REQUIREMENTS, I WOULD GUESS, ARE EQUALLY STRINGENT  
10 TO THE STATE REQUIREMENTS AS FAR AS BUILDING A  
11 BUILDING. SO THERE'S EXTREME CHALLENGES ALL THE  
12 INSTITUTIONS ARE GOING TO FACE.

13 I THINK MOST OF THE MAJOR INSTITUTIONS ARE  
14 ALSO VERY CHALLENGED AS FAR AS SPACE GOES. AND SO THE  
15 OPTIONS TO BUILD A TWO-STORY TILT-UP OR SOMETHING LIKE  
16 THAT FOR MOST OF US IS ALMOST A NONISSUE, THAT WE  
17 CANNOT -- WE'RE BUILDING BUILDINGS, AND I WOULD HOPE  
18 THE CIRM WOULD LOOK AT THESE BUILDINGS AS LONG-TERM  
19 INSTITUTIONAL INVESTMENTS. AND SO THESE ARE 50-YEAR  
20 BUILDINGS FOR THE MOST PART, AND THEY NEED TO BE  
21 FLEXIBLE SO THEY CAN CHANGE FOR THE RESEARCH THAT'S  
22 GOING TO TAKE PLACE OVER THE NEXT 50 YEARS, BUT THEY  
23 NEED TO BE BUILT AS GOOD BUILDINGS, AND THEY'RE ENERGY  
24 EFFICIENT AND SUSTAINABLE. AND ALL THOSE KIND OF  
25 THINGS NEED TO BE FACTORED IN BECAUSE THE OPERATING

1 COST OF THESE BUILDINGS IS ALSO SUBSTANTIAL. SO WE  
2 WANT THEM TO BE AS EFFICIENT AS WE CAN.

3 BUT CERTAINLY FROM THE PRIVATE STANDPOINT, WE  
4 FACE DIFFERENT BUT EQUAL CHALLENGES AS THE STATE SYSTEM  
5 DOES IN BUILDING BUILDINGS.

6 CHAIRMAN KLEIN: WHILE YOU'RE THERE, WHAT  
7 KIND OF PREMIUM IS THERE FOR PUTTING A VIVARIUM IN A  
8 BUILDING? REASON I ASK THAT QUESTION SPECIFICALLY IS  
9 BECAUSE WE DON'T WANT TO CREATE A COST DISINCENTIVE,  
10 LEAVE OUT A CRITICAL ELEMENT OF A COMPLETE PROGRAM.

11 MR. WILLIAMS: VIVARIA ARE VERY EXPENSIVE,  
12 PROBABLY IF NOT THE MOST, ONE OF THE MOST EXPENSIVE  
13 COMPONENTS THAT WILL BE IN ONE OF THESE BUILDINGS. AND  
14 SO THEY'RE GOING TO ADD SUBSTANTIALLY TO THE COST IF  
15 YOU HAVE A VIVARIA AS PART OF YOUR BUILDING.

16 CHAIRMAN KLEIN: IN TERMS OF THAT SPECIFIC  
17 FEATURE, AND GIVEN ITS IMPORTANCE, WHAT WOULD YOU THINK  
18 OF TRYING TO EQUALIZE BY, IF THERE'S A VIVARIUM,  
19 ADJUSTING THAT FOOTAGE DEDICATED TO A VIVARIUM BASED  
20 UPON A BENCHMARK NORMALIZED LAB COST FOR THAT SPACE?

21 MR. WILLIAMS: I'M NOT SURE --

22 THE COURT: SO IF IT COST \$550 A SQUARE FOOT  
23 OR \$650 FOR A LAB COST AND 850 FOR VIVARIUM, WE DO A  
24 COST ADJUSTMENT.

25 MR. WILLIAMS: WE LOOK AT AN AVERAGE.

1                   CHAIRMAN KLEIN: WE LOOK AT COST ADJUSTMENT  
2 TO BRING DOWN THE COST OF THE BUILDING BY THE VIVARIUM  
3 FOOTAGE BY THE DIFFERENTIAL PREMIUM YOU'RE PAYING FOR  
4 THAT SO THAT WE DON'T DISINCENTIVIZE PEOPLE FROM HAVING  
5 VIVARIA IN BUILDINGS.

6                   MR. LAFF: ALSO, I BELIEVE YOU HAVE TO HAVE  
7 TWO FLOORS FOR THE VIVARIUM. YOU HAVE TO HAVE THE  
8 ACTUAL FLOOR, AND THEN ALL THE MECHANICAL GOES ON  
9 ANOTHER FLOOR RIGHT ABOVE IT. SO YOU ESSENTIALLY HAVE  
10 A WHOLE EXTRA FLOOR.

11                  MR. KELLER: SOMETIMES THERE'S AN  
12 INTERSTITIAL SPACE.

13                  MR. WILLIAMS: THEY CAN BE DESIGNED IN  
14 DIFFERENT WAYS, BUT THEY'RE VERY MECHANICAL INTENSIVE.  
15 AND HOW YOU SOLVE THAT MECHANICAL PROBLEM IS ONE OF THE  
16 CHALLENGES. BUT BECAUSE SOME OF THE INVESTMENTS  
17 INSTITUTIONS PUT IN, LIKE WE'VE INVESTED SUBSTANTIALLY  
18 IN THE EIR ALREADY, THERE IS MITIGATIONS. WE HAVE TO  
19 UPGRADE INTERSECTION IMPROVEMENTS AND THOSE KIND OF  
20 THINGS BECAUSE WE'RE ADDING, AS A PART OF THIS, HOW DO  
21 THOSE FACTORS GET FACTORED IN AS FAR AS AN  
22 INSTITUTIONAL COMMITMENT TO A PROJECT AND AN OVERALL  
23 INITIATIVE. SO --

24                  MR. KELLER: WELL, MR. WILLIAMS, HERE THE ONE  
25 AREA OF VARIANCE BETWEEN PUBLIC AND PRIVATE THAT LORI

1 REMINDS ME OF IS THAT THE STATE, BY VIRTUE OF THE FACT  
2 THAT WE ARE UNDER A COMPETITIVE BIDDING CIRCUMSTANCE,  
3 WHICH DOES NOT APPLY TO THE PRIVATE SECTOR, THEN  
4 OFTENTIMES OUR PROJECTS GO OUT INTO A MARKET AT A  
5 PARTICULAR TIME, MAYBE AT A DISADVANTAGEOUS PERIOD OF  
6 TIME; WHEREAS, PRIVATE SECTOR HAS MORE OPPORTUNITY TO  
7 DO NEGOTIATED BIDS WHERE CONTRACTORS AND SUBCONTRACTORS  
8 MAY, BY VIRTUE OF THE FACT THAT THE CLIENT IS MORE  
9 FLEXIBLE, MAY BE ABLE TO COME UP WITH A BETTER PRICE.

10 I WAS JUST CURIOUS IF YOU HAVE AN OPINION  
11 ABOUT COMPETITIVE BIDDING VERSUS NEGOTIATED CONTRACTING  
12 AT UC IN YOUR EXPERIENCE? HAS IT MADE A DIFFERENCE?

13 MR. WILLIAMS: WELL, IN ANSWER TO YOUR  
14 SPECIFIC QUESTION, YOU'RE STILL GOING OUT TO A MARKET  
15 FOR THE SUBCONTRACTORS WHO ARE DOING THE BULK OF THE  
16 BID AT THE SAME TIME. IF WE'RE ALL BUILDING THESE  
17 BUILDINGS EARLY NEXT YEAR, STARTING CONSTRUCTION, WE'RE  
18 ALL HITTING THE SUBCONTRACTING COMMUNITY AT THE SAME  
19 TIME. SO THE MARKET CONDITIONS ARE GOING TO BE THE  
20 SAME, I THINK, FROM THAT.

21 THERE ARE DIFFERENCES BETWEEN COMPETITIVE BID  
22 AND NEGOTIATED, BUT STILL I THINK THAT YOU ARE HITTING  
23 THAT MARKET ABOUT THE SAME TIME, SO WE'RE ALL GOING TO  
24 SUFFER OR BENEFIT. AND THE STATE SUFFERED, I THINK  
25 BOTH NORTHERN AND SOUTHERN CALIFORNIA, WE'RE MORE

1 FAMILIAR WITH SOUTHERN CALIFORNIA, EXTREME COST RISES  
2 OVER THE LAST THREE OR FOUR YEARS. SO THERE'S NO  
3 SIGNS, AT LEAST FOR THE COMMERCIAL AND INSTITUTIONAL  
4 SECTOR, THAT THAT'S SOFTENING ANY TIME SOON. WE ALL  
5 HOPE IT WILL.

6 MR. TANGORIAN: GOOD AFTERNOON. MY NAME IS  
7 NEILICH TANGORIAN (PHONETIC). I'M WITH THE STANFORD  
8 SCHOOL OF MEDICINE. WHEREAS I'M FAIRLY NEW AT  
9 STANFORD, I HAVE A REASONABLE AMOUNT OF EXPERIENCE IN  
10 THE CAL STATE SYSTEM WHERE I WAS EMPLOYED UNTIL COUPLE  
11 OF MONTHS AGO. SO I'VE HAD AN OPPORTUNITY TO LOOK AT  
12 THIS FROM BOTH SIDES, AND I THINK THERE ARE NO BLACK  
13 AND WHITES. THERE ARE CHALLENGES ON EITHER SIDE.

14 WHEN YOU ARE IN A PRIVATE INSTITUTION, YOU'RE  
15 DEALING WITH LOCAL ZONING, WHICH WHEN YOU'RE ON THE  
16 STATE SIDE, YOU DON'T HAVE TO DEAL WITH. THE  
17 ENTITLEMENT ISSUE IS MUCH MORE COMPLEX THAN ON THE  
18 STATE SIDE. BY THE SAME TOKEN, YOU HAVE SOME POSITIVES  
19 THERE. WHERE CONTRACTING IS CONCERNED, YOU HAVE SOME  
20 OPPORTUNITIES THAT YOU MAY OR MAY NOT HAVE ON THE STATE  
21 SIDE.

22 I THINK THERE WHAT YOU ARE REALLY LOOKING FOR  
23 IS DIFFICULT TO DISCERN BECAUSE THERE ARE NO  
24 BLACK-AND-WHITE ANSWERS. IN TERMS OF COST, THE COST  
25 PER SQUARE FEET IS VERY MUCH DRIVEN BY PROGRAM. AS WAS



1 JUST STATED, WE ARE ALL IN THE SAME MARKETPLACE. WE  
2 ARE GETTING THE MATERIALS FROM THE SAME PLACES. YES,  
3 THE PRIVATES HAVE A LITTLE BIT MORE FLEXIBILITY IN  
4 CONTRACTING, BUT NOT TO THE POINT WHERE IT HAS HUGE  
5 COST BENEFITS.

6 I WOULD URGE YOU TO TAKE A LOOK AT LIFE CYCLE  
7 COSTS RATHER THAN JUST THE COST OF CONSTRUCTION SIMPLY  
8 BECAUSE THE COST OF CONSTRUCTION IS MAYBE 30 PERCENT OR  
9 35 PERCENT OF WHAT YOU WILL SPEND ON THE ENTIRE LIFE OF  
10 THE BUILDING. AND WHEN LOOKED AT IT FROM THAT  
11 PERSPECTIVE, THE COST PER SQUARE FEET, THE IMMEDIATE  
12 COST PER SQUARE FEET MAYBE HAS A DIFFERENT METRIC THAN  
13 WHEN LOOKED AT FROM THE 50-YEAR LIFE CYCLE COST OF THE  
14 BUILDING.

15 CHAIRMAN KLEIN: THANK YOU VERY MUCH. WELL,  
16 I THINK WE GOT THOSE ISSUES OUT ON THE TABLE. I'D LIKE  
17 TO, IN THE REMAINING SHORT TIME, GO TO A COUPLE OF  
18 ITEMS RELATED TO WHAT WE'VE ALREADY RAISED. ONE OF THE  
19 ITEMS WE'VE ALREADY RAISED IS THIS ISSUE THAT  
20 APPLICANTS WILL SELF-SELECT AND SUBMIT THEIR  
21 APPLICATIONS. AND THE GRANTS WORKING GROUP WILL NEED  
22 TO LOOK AT POTENTIALLY WHAT CLASSIFICATION THEY FALL  
23 INTO AND POSSIBLY HAVE A GUIDELINE OF WHAT DOLLAR  
24 ALLOCATION WOULD BE APPROPRIATE FOR VARIOUS RANGES. IT  
25 COULD BE THAT THERE'S INPUT FROM THIS GROUP AS TO

1 DOLLAR ALLOCATIONS TO THE RANGES THAT ARE SET BY THE  
2 GRANTS WORKING GROUP IN THEIR RECOMMENDATIONS.

3 BUT A RELATED QUESTION IS IF AN ENTITY  
4 APPLIES FOR A MAJOR FACILITY AND IT IS COLLABORATING  
5 WITH OTHER INSTITUTIONS, CAN THOSE INSTITUTIONS USE  
6 PART OF THEIR ALLOCATION TO GO INTO THIS MAJOR FACILITY  
7 AND PART OF THEIR ALLOCATION TO EXPAND THEIR CAPACITY  
8 AS A NICHE SPECIAL EXPERTISE PROVIDER TO ENHANCE THEIR  
9 PRIMARY SITE; IN OTHER WORDS, KIND OF A HYBRID  
10 APPROACH?

11 SO WHAT'S THE SENSE OF THE COMMITTEE THAT IF,  
12 FOR EXAMPLE, AN ENTITY HAD A \$10 MILLION ALLOCATION  
13 BASED ON ITS SCIENTIFIC CAPACITY, AND IT WANTED TO  
14 ALLOCATE FIVE MILLION OF THAT TO A SHARED FACILITY AND  
15 RETAIN FIVE MILLION TO EXPAND ITS PRIMARY SITE BECAUSE  
16 IT THOUGHT IT COULD OPTIMIZE ITS COST-EFFECTIVE  
17 PRODUCTIVITY AT ITS PRIMARY SITE GIVEN THE PRESENCE OF  
18 SPECIALIZED EQUIPMENT, IMAGING EQUIPMENT, FOR EXAMPLE,  
19 THAT MAY ALREADY BE ON THAT SITE, AND MAYBE THEIR NICHE  
20 IS IN IMAGING, FOR EXAMPLE. SO THEY WANT TO EXPAND  
21 THEIR PRIMARY SITE WHERE THEY HAVE A FULL COMPLEMENT OF  
22 SPECIALISTS IN THE IMAGING AREA.

23 SHOULD APPLICANTS BE ABLE TO ALLOCATE PART OF  
24 THEIR APPLICATION TO A SHARED FACILITY AND PART TO  
25 THEIR PRIMARY SITE? ANYONE WANT TO TAKE THAT ON?

1                   MR. SHEEHY: IT'S HARD FOR ME TO SEE HOW THAT  
2 WORKS AS A GRANTS ADMINISTRATION POLICY WITH GRANTEEES  
3 DECIDING HOW THEY'RE GOING TO SPEND THE MONEY TO THAT  
4 DEGREE. I TRY TO VISUALIZE WHAT THAT WOULD LOOK LIKE  
5 IN A REVIEW PROCESS AND HOW YOU WOULD REVIEW THAT. IT  
6 JUST SEEMS VERY MESSY TO ME. I DON'T THINK THAT I  
7 WOULD PROBABLY SUPPORT THAT MYSELF.

8                   DR. WRIGHT: IT ALMOST SEEMS AS THOUGH THAT'S  
9 TWO SEPARATE --

10                  MR. SHEEHY: TWO SEPARATE THINGS. BUT IT'S  
11 ALMOST LIKE YOU GET ONE APPLICATION FROM, LET'S SAY,  
12 THE CONSORTIA AND A SEPARATE APPLICATION FROM THE  
13 INDIVIDUAL INSTITUTION, BUT IT WOULD BE INCUMBENT ON  
14 BOTH THE CONSORTIA AND THE INDIVIDUAL INSTITUTION TO  
15 CLEARLY DELINEATE THE SEPARATIONS SO THAT THE  
16 REVIEWERS, ESPECIALLY THE SCIENTIFIC REVIEWERS, CAN SEE  
17 HOW THE SCIENTIFIC VALUE IS BEING ALLOCATED SO THEY CAN  
18 EVALUATE IT AND NOT KIND OF GET STUCK IN THE MIDDLE  
19 BETWEEN THE TWO.

20                  CHAIRMAN KLEIN: I THINK YOU VERY MUCH HAVE  
21 TO HAVE TWO SEPARATE APPLICATIONS AND THEY'RE EACH  
22 JUDGED SEPARATELY. BUT THEN THE QUESTION IS, THOUGH,  
23 THIS PARTICULAR INSTITUTION, IF THEY'RE TRYING TO  
24 AGGREGATE THEIR ALLOCATION, THEY'RE TRYING TO AGGREGATE  
25 IT WITH THIS OTHER INSTITUTION THEY'RE COLLABORATING

1 WITH, WE'RE GOING TO HAVE A SYSTEM WHERE WE SAY IF THE  
2 SCIENTIFIC MERIT ATTACHED TO THIS GROUP WOULD PUT THEM  
3 IN THE POSITION WHERE THEY COULD GET A MAXIMUM GRANT OF  
4 10 MILLION, THEY THEORETICALLY COULD SAY HALF OF THAT  
5 WOULD GO TOWARDS THE OTHER APPLICATION, AND THEY WANT  
6 TO RETAIN HALF OF THEIR MAXIMUM ALLOCATION.

7 MR. SHEEHY: WELL, I GUESS ANOTHER WAY TO  
8 LOOK AT IT TOO IS IF YOU'RE TALKING ABOUT A NICHE  
9 SPECIALTY, AND I THINK THIS CAME UP IN THE SHARED LABS,  
10 IF SOMEONE REALLY DID HAVE A PARTICULAR AREA IN WHICH  
11 THEY HAVE DEVELOPED EXCELLENCE, I WOULD NOT BE AVERSE  
12 TO FUNDING A CENTER OF EXCELLENCE PROVIDED IT WAS  
13 AVAILABLE TO ALL RESEARCHERS IN CALIFORNIA. I WOULDN'T  
14 MIND AN IMAGING CENTER THAT WAS A SHARED LAB IMAGING  
15 CENTER AND FUNDING THAT IF THAT'S WHAT YOU ARE TALKING  
16 ABOUT. AND THEY MAY WANT TO FOR OTHER PROGRAMMATIC  
17 PURPOSES BE A COLLABORATOR WITH ANOTHER INSTITUTION  
18 WITHIN A LARGER STRUCTURE.

19 BUT THEY WOULD BE BUILDING SOMETHING  
20 SEPARATE, BUT THAT'S HOW -- THAT WOULD BE A -- FROM  
21 SOMEBODY THINKING ABOUT WHAT WE'RE TRYING TO ACCOMPLISH  
22 AS AN ENTITY, THAT WOULD MAKE SENSE IF IT WAS A  
23 RESOURCE THAT ACTUALLY HAD A GREATER DEGREE OF SHARING  
24 THAN WHAT THEY WERE DOING WITH THE CONSORTIA. THEY'RE  
25 BUILDING SOMETHING FOR EVERYBODY AND THAT WAS THE

1 REASON.

2 CHAIRMAN KLEIN: ANY OTHER COMMENTS ON THAT  
3 POINT? OKAY. I THINK THAT PROBABLY WILL GET SOME  
4 DISCUSSION AS WE GO FORWARD. MAYBE AT ONE OF THE  
5 FUTURE MEETINGS WE CAN ASK DR. CHIU TO THINK ABOUT HOW  
6 WE WORK WITH THIS AS WELL AS LORI HOFFMAN AND RICK  
7 KELLER.

8 MR. SHEEHY: YOU KNOW WHAT WOULD BE HELPFUL  
9 ON THIS POINT IS IF THERE WAS AN APPLICANT THAT WAS  
10 CONSIDERING SOMETHING ALONG THESE LINES, IF THEY WOULD  
11 ACTUALLY PRESENT, LIKE OTHER FOLKS HAVE DONE. BECAUSE  
12 THIS IS AN ABSTRACTION, IT SOUNDS LIKE. THERE'S  
13 NOTHING LIKE REALITY. SINCE FOLKS FROM USC AND UCLA  
14 AND INSTITUTIONS THAT CAME TO SAN FRANCISCO PRESENTED  
15 THEIR -- GAVE US AN IDEA OF WHAT THEY WERE TRYING TO DO  
16 AND ACTUALLY HAVE SOME NICE BACKDROP OF INFORMATION.  
17 IF THERE WAS A SPECIFIC INSTITUTION OR ONE OR TWO  
18 INSTITUTIONS OR THREE OR FOUR THAT WERE THINKING ALONG  
19 THESE LINES, IT WOULD BE VERY HELPFUL TO REALLY HAVE  
20 THIS LAID OUT RATHER THAN HAVE TO DEAL WITH IT  
21 THEORETICALLY.

22 DR. PERA: JUST TO TRY AND MAKE IT A LITTLE  
23 BIT MORE CONCRETE FOR YOU, WITHIN OUR CONSORTIUM WE  
24 ENVISION A CENTRAL FACILITY WHICH WILL BE THE MAIN  
25 FACILITY, BUT THERE'S A SATELLITE GROUP -- I DON'T WANT

1 TO GO INTO WHO THEY ARE BECAUSE WE'RE STILL WORKING ON  
2 THE NEGOTIATIONS -- WHO WOULD HAVE A PARTICULAR SET OF  
3 TECHNOLOGIES ON THEIR SITE THAT WOULD BE AVAILABLE TO  
4 THE ENTIRE CONSORTIUM BUT WOULD REQUIRE A CERTAIN  
5 AMOUNT OF MONEY TO BUILD AND TO OPERATE. AND THAT'S  
6 THE SORT OF THING. HOW DO WE PACKAGE SUCH AN  
7 APPLICATION BECAUSE WE SEE THERE'S VALUE AND SYNERGY,  
8 AND HOW DO WE ADDRESS THAT IN OUR APPLICATION?

9 IT'S REALLY IN A SENSE HAVING IT AS A JOINT  
10 APPLICATION HAS SOME MERIT BECAUSE OF THE SCIENTIFIC  
11 SENSE TO IT AND WHAT HAVE YOU. BUT WE NEED SOME  
12 GUIDANCE ON HOW WE WOULD FORMAT.

13 CHAIRMAN KLEIN: I THINK THIS IS SIMILAR TO  
14 IN THE SAN DIEGO AREA, THEY'VE GOT THIS CONSORTIUM, BUT  
15 SOME OF THEM CLAIM SOME SPECIFIC EXPERTISE WHERE THEY  
16 THINK THEY CAN ENHANCE THAT EXPERTISE ON THEIR PRIMARY  
17 SITE AND ON A COST-EFFECTIVE BASIS DELIVER MORE VALUE.  
18 SO IT'S A SIMILAR SITUATION TO WHAT DR. PERA IS  
19 DESCRIBING.

20 MR. SHEEHY: ARE YOU TALKING ABOUT NEW  
21 FACILITIES, NEW BUILDINGS? ARE YOU TALKING ABOUT A  
22 SHARED LAB, EXISTING COUPLE OF FLOORS HERE OR A FLOOR?

23 DR. PERA: WE'RE PROBABLY TALKING ABOUT  
24 SOMETHING IN BETWEEN THOSE TWO, NOT ENTIRELY A NEW  
25 BUILDING, BUT SIGNIFICANT UPGRADES.

1                   CHAIRMAN KLEIN:  AT THE SATELLITE SPACE?

2                   MR. SHEEHY:  MAYBE PART OF THIS IS A  
3 SEPARATE -- AS WE LOOK AT OUR TIERS,  MAYBE THIS WOULD  
4 BE BUILT IN AS A SHARED LAB SPACE MAYBE ON A STAIRWELL  
5 BIGGER THAN WHAT WE'VE DONE.  AND, AGAIN, WE CAN HEAR  
6 FROM OTHER INSTITUTIONS THAT THIS WOULD BE SOMETHING  
7 THAT WOULD BE USEFUL.  SHARED LAB SPACE ALWAYS SEEMS TO  
8 BE A BIT MORE COST EFFICIENT.  BUT AS WE'RE THINKING  
9 ABOUT OUR DIFFERENT LEVELS,  MAYBE WE CAN DESIGNATE THAT  
10 IF YOU WERE TO SEPARATELY APPLY FOR A SHARED LAB FROM  
11 THE SHARED LAB CATEGORY,  THAT WOULD NOT PREJUDICE YOUR  
12 PARTICIPATION IN A CONSORTIA.  DOES THAT MAKE SENSE?

13                  CHAIRMAN KLEIN:  WE NEED TO CALL ON DR. CHIU  
14 BECAUSE SHE RAISED HER HAND AND SOMEONE THREW SOMETHING  
15 OFF THE BUILDING.

16                  DR. CHIU:  MAYBE THAT'S A SIGN THAT I  
17 SHOULDN'T RAISE THIS QUESTION.  BUT JUST FOR  
18 CLARIFICATION,  ARE YOU TALKING ABOUT ON THE ONE HAND A  
19 LARGE FACILITY,  WHATEVER,  AND THEN ON THE OTHER HAND  
20 THE SATELLITE BEING LIKE ONE CORE FACILITY THAT IS  
21 ANOTHER LOCATION BECAUSE IN THE STRATEGIC PLAN WE DO  
22 TALK ABOUT CORES?  AND SO THIS OTHER PART OF  
23 CONCENTRATION IN ONE PARTICULAR AREA OF EXPERTISE,  AS  
24 JEFF SAID,  MADE AVAILABLE TO A BROAD AUDIENCE MIGHT BE  
25 A CORE RATHER THAN,  YOU KNOW,  PART OF THIS BIG

1 COLLABORATION. AM I READING IT RIGHT?

2 DR. PERA: I THINK WE SEE IT SCIENTIFICALLY  
3 AS SOMETHING THAT WOULD BE EMBEDDED IN THE  
4 COLLABORATION, AND WE'D PROBABLY WANT TO HAVE IT  
5 REVIEWED AS SUCH. BUT YOU CAN CALL IT A CORE IF YOU  
6 LIKE.

7 DR. CHIU: BUT IT'S ON A DIFFERENT LOCATION.

8 DR. PERA: IT'S ON A DIFFERENT SITE, YES.

9 CHAIRMAN KLEIN: OKAY. THE FINAL QUESTION  
10 I'D LIKE TO PUT ON THE TABLE IS A MAJOR QUESTION HERE  
11 JUST AS TO POLICY. THE INITIAL IMPETUS, PRIMARY  
12 IMPETUS TO THIS FACILITIES PROGRAM WAS TO MAKE SURE  
13 THAT THERE WAS FEDERAL FUNDS FREE SPACE FOR EMBRYONIC  
14 STEM CELL RESEARCH. NOW, HOWEVER, WE KNOW AS WE  
15 DISCUSSED AND I PARTICULARLY OFFERED IN THE LAST  
16 MEETING THERE'S A GREAT DEAL OF SYNERGY BETWEEN  
17 EMBRYONIC STEM CELL RESEARCH, ADULT, FETAL, AMNIOTIC,  
18 AND YOU HAVE TO FOLLOW THE BEST SCIENCE, BUT A LOT OF  
19 THE SCIENTISTS INVOLVED ARE NOT GOING TO BE SOLELY IN  
20 ONE AREA OR THE OTHER.

21 AND SO WHAT ARE WE ASKING IN TERMS OF THESE  
22 APPLICATIONS? ARE WE ASKING THAT THESE FACILITIES  
23 PRIMARILY SERVE EMBRYONIC STEM CELL RESEARCH, BUT THEY  
24 CAN HAVE A SECONDARY PURPOSE OF SERVING ADULT AND FETAL  
25 AND OTHER TYPES OF STEM CELL RESEARCH? WHAT IS OUR



1 POSITION ON THE PRIMARY CHARACTER OF THIS SPACE AND  
2 WHAT IT SERVES IN THE CONTEXT OF THE PROPOSITION?

3 MR. SHEEHY: WELL, IT SEEMS TO ME THAT IF  
4 YOU'RE TALKING -- IT DOES SEEM THAT WE DO HAVE THIS  
5 CONCEPT ON THE TABLE OF A MAJOR TRANSLATIONAL CENTER OF  
6 EXCELLENCE. AND I THINK CLEARLY THERE YOU WANT SOUP TO  
7 NUTS. I THINK WHEN YOU START TALKING ABOUT SMALLER,  
8 MORE TARGETED THINGS, THEN I THINK THAT THOSE, BY THEIR  
9 VERY NATURE, WOULD HAVE TO BE PRIMARILY FOCUSED ON  
10 EMBRYONIC STEM CELL RESEARCH, IT SEEMS TO ME.

11 MR. LAFF: OKAY. I'LL TAKE A WHACK AT IT.  
12 IT SEEMS TO ME THAT IN THE LARGER CONTEXT WE DON'T  
13 REALLY KNOW WHAT IS GOING TO BE THE PRIMARY USE OF THIS  
14 FACILITY FOUR YEARS OR FIVE YEARS OUT. WE DON'T KNOW  
15 THAT IT'S GOING TO BE EMBRYONIC OR WHATEVER ELSE. SO I  
16 THINK TO TRY AND PREJUDGE THAT WOULD BE PRETTY  
17 DIFFICULT.

18 I THINK WITH THESE CENTERS OF EXCELLENCE, I  
19 THINK IT'S A LOT EASIER. BUT AS I HAVE NOW HAD ALL OF  
20 TWO MEETINGS ON THIS, I HEAR COLLABORATION,  
21 FLEXIBILITY, CHANGE. I THINK IT WOULD BE REALLY  
22 DIFFICULT TO JUST JUDGE IT ON EMBRYONIC.

23 CHAIRMAN KLEIN: WELL, THERE'S TWO DIFFERENT  
24 ISSUES HERE. ONE IS HOW WE EVALUATE THE SCIENCE, BUT  
25 THE SEPARATE ISSUE IS MAYBE ONE OF THE THINGS WE'RE

1 ASKING IS A COMMITMENT TO HOUSE EMBRYONIC STEM CELL  
2 RESEARCH ON A PRIORITY BASIS. IN OTHER WORDS, THAT AT  
3 LEAST THE EMBRYONIC STEM CELL RESEARCH HAS A PLACE IN  
4 THIS FEDERAL FUNDS FREE SPACE. OTHERWISE IT'S NOT  
5 GOING TO BE ABLE TO OPERATE FREELY UNENCUMBERED BY A  
6 TREMENDOUS AMOUNT OF ACCOUNTING REGULATIONS AND  
7 LIMITATIONS ON USE. IT'S GOING TO BE VERY COMPROMISED  
8 BY THE TRANSACTIONAL COST OF JUST CONDUCTING THE  
9 SCIENCE IN COMPLIANCE WITH FEDERAL REGULATIONS THAT ARE  
10 AMBIGUOUS, IF NOT ABSOLUTELY SUPPRESSIVE.

11 SO THE OTHER QUESTION IS SINCE THERE IS  
12 SUPPOSEDLY A PRIORITY FOR EMBRYONIC STEM CELL RESEARCH,  
13 IF WE HAVE A MAJOR CENTER AND IT IS SAYING THAT 70  
14 PERCENT OF ITS RESEARCH IS GOING TO BE EMBRYONIC, AND  
15 THERE'S EQUIVALENT SCIENTIFIC VALUE WITH ANOTHER MAJOR  
16 CENTER, AND 30 PERCENT IS GOING TO BE EMBRYONIC, DO WE  
17 HAVE A POLICY TO GIVE A PRIORITY TO THAT ONE THAT WILL  
18 PROVIDE MORE SPACE THAT IS SPECIFICALLY FEDERAL FUNDS  
19 FREE AND CREATES IN CALIFORNIA A UNIQUE ENVIRONMENT TO  
20 CONDUCT THAT RESEARCH?

21 MR. SHEEHY: I GUESS I GET WHAT YOU'RE  
22 SAYING. I AGREE WITH WHAT STUART SAID. TO SAY THAT A  
23 PRIORI THAT THAT'S WHAT ALL THIS BUILDING IS GOING TO  
24 BE USED FOR, AND IF WE ARE TALKING ABOUT TRANSLATIONAL  
25 RESEARCH, THE MORE SUCCESSFUL TRANSLATIONAL RESEARCHERS

1 ARE GOING TO BE WORKING FAIRLY QUICKLY ON EMBRYONIC  
2 STEM CELLS INTO HANDLING ADULT STEM CELLS BECAUSE  
3 THAT'S WHERE THEY'RE GOING TO BE PUTTING INTO PEOPLE.  
4 SO A PLACE THAT MAY BE 70 PERCENT EMBRYONIC STEM CELLS,  
5 IT SEEMS TO ME MAY NOT BE DOING AS MUCH TRANSLATIONAL  
6 WORK AS THE PLACES THAT MAY BE DOING 30 PERCENT.

7 I DON'T KNOW HOW WE COULD AT THIS STAGE IN  
8 THE RESEARCH AND DEVELOPMENT -- IT REALLY TO ME IS MORE  
9 OF A QUESTION OF SIZE. I THINK IF WE ARE GOING TO GO  
10 DOWN THE ROAD WHERE WE'RE GOING TO SUPPORT SOME MAJOR  
11 CENTERS, THEN I THINK IT'S PRETTY CLEAR THAT A LOT OF  
12 EMBRYONIC STEM CELL RESEARCH IS GOING TO TAKE PLACE  
13 THERE. THAT'S THE WHOLE BUSINESS OF WHAT THIS IS ALL  
14 ABOUT. AND TRYING TO ASK THEM WHAT PERCENTAGE IS  
15 EMBRYONIC STEM CELL, WHAT PERCENTAGE IS THAT GOING IN,  
16 I'D BE MORE INTERESTED IN THE FACULTY THAT THEY WANT TO  
17 BRING ON SPECIFIC TO STEM CELL RESEARCH. AND LIKE USC  
18 HAS DONE, THESE HARD COMMITMENTS TO NEW FACULTY  
19 SPECIFICALLY TO WORK IN EMBRYONIC STEM CELL OR TRAINING  
20 PROGRAMS FOR NEW FACULTY TO WORK IN EMBRYONIC STEM  
21 CELLS. IT SEEMS TO ME THE SPACE WILL FOLLOW THE  
22 FACULTY, I WOULD SUSPECT, MORE THAN -- IF YOU DON'T  
23 HAVE THE FACULTY, THE SPACE ISN'T GOING TO BE USED.

24 AND THEN WHEN WE TALK ABOUT THE SMALLER ONES,  
25 I THINK THAT'S WHERE WE MAY BE ASKING THAT THEY DO SET

1 ASIDE SOME PORTION. I THINK THAT'S THEIR COMMITMENT TO  
2 US, WHY THEY'RE COMING TO US. THEY DON'T HAVE THE  
3 RESOURCES TO DO THIS ON THEIR OWN. THEY HAVE THE  
4 FEDERAL BURDEN ON TOP TO TRY TO WORK THROUGH IN ORDER  
5 TO DO THIS RESEARCH. DEFINITELY THE MOTIVATION FOR THE  
6 SHARED LABS WAS TO CREATE SOME SPACE THAT WAS FREE AND  
7 CLEAR FOR PEOPLE TO BE ABLE TO DO THIS RESEARCH THAT  
8 WE'RE FUNDING.

9 BECAUSE THAT'S THE OTHER PIECE OF THIS. A  
10 LOT OF THIS RESEARCH WE'RE GOING TO BE FUNDING. SO IF  
11 WE'RE FUNDING -- IT MAY BE THAT WE GIVE FUNDS TO AN  
12 INSTITUTION THAT IS NOT VERY COMPETITIVE END OF THE DAY  
13 FOR OUR FUNDING AND, THEREFORE, NOT ABLE TO DO VERY  
14 MUCH EMBRYONIC STEM CELL RESEARCH. HOWEVER, IF WE FUND  
15 SOMEONE WHO'S VERY COMPETITIVE IN COMPETING FOR GRANTS  
16 FROM US, I CAN SEE THEM DOING A LOT OF EMBRYONIC STEM  
17 CELL RESEARCH. THERE'S THAT FACTOR TOO BECAUSE I DO  
18 THINK WE'RE PROBABLY GOING TO BE THE MAJOR FUNDER FOR  
19 AT LEAST THE NEAR TERM FOR EMBRYONIC STEM CELL  
20 RESEARCH.

21 DR. WRIGHT: I COMPLETELY AGREE. I THINK OUR  
22 JOB IS TO KICK-START THE EMBRYONIC STEM CELL RESEARCH  
23 IN THE STATE BECAUSE THAT IS A DEFICIT IN THE COUNTRY.  
24 BUT THEN AFTER THAT STEP AWAY BECAUSE THE SCIENCE  
25 SHOULD LEAD AND THE BUILDINGS SHOULD FOLLOW THE

1 SCIENCE.

2 MR. SHEEHY: I WONDER IF INSTITUTIONAL  
3 PEOPLE, IF ANY OF THE SCIENTISTS HAVE ANY THOUGHTS ON  
4 THAT.

5 CHAIRMAN KLEIN: LET'S SEE IF THE SCIENTISTS  
6 HAVE SOMETHING TO SAY ON THIS. I WOULD LIKE TO ECHO  
7 WHAT JANET JUST SAID. I CERTAINLY BELIEVE IT'S GOING  
8 TO BE AN ORGANIC AND DYNAMIC ENVIRONMENT. EVEN IF YOU  
9 START OFF WITH A PREFERENCE FOR MAKING SURE YOU HOUSE  
10 THE EMBRYONIC STEM CELL RESEARCH, IF THE SCIENCE  
11 EVOLVED WHERE AMNIOTIC CELLS OR FETAL CELLS ARE  
12 BREAKING THROUGH IN A NUMBER OF AREAS, YOU ARE GOING TO  
13 CONSTANTLY BE REAPPORTIONING IT. SO YOU CAN ONLY HAVE  
14 A STARTING POINT THAT YOU'RE LOOKING AT AS A SNAPSHOT.  
15 IN FACT, WE ARE DEDICATED TO THE PATIENT OUTCOME. AND  
16 SO WE DO WANT THIS SCIENCE IN THE BUILDING TO FOLLOW  
17 THE BEST SOLUTION WHERE THE GREATEST PROBABILITIES ARE.

18 SO WHAT I'M ADDRESSING HERE IS THE INITIAL  
19 SNAPSHOT. ANY OF THE SCIENTISTS HERE WANT TO ADDRESS  
20 THIS ISSUE?

21 DR. PERA: ACTUALLY I THINK IT WOULD BE A  
22 REAL MISTAKE TO HAVE A SET FORMULA FOR THE AMOUNT OF  
23 STEM CELL RESEARCH EMBRYONIC THAT GOES ON WITHIN THESE  
24 STRUCTURES. WE REALLY ARE NOT AT A STAGE OF THE  
25 SCIENCE WHERE WE CAN PREDICT WHERE THE PATIENT OUTCOMES

1 WILL COME FROM. WHAT IS MORE, THESE BUILDINGS WON'T BE  
2 AVAILABLE FOR AT LEAST A COUPLE YEARS. HOPEFULLY BY  
3 THAT TIME THE FEDERAL PICTURE WILL HAVE CHANGED SOME.

4 CHAIRMAN KLEIN: AND IN TERMS OF THAT  
5 CONTEXT, ONE OF THE GOALS OF PROPOSITION 71 IS TO  
6 PROVIDE LONG-TERM STABILITY. AS WE KNOW FROM LOOKING  
7 BACK HISTORICALLY, THE HOUSE OF REPRESENTATIVES CAN  
8 CHANGE ITS POLITICAL DIMENSIONS PRETTY QUICKLY, AND IT  
9 COULD ROLL OVER TWO YEARS FROM NOW TO BE FOR EMBRYONIC  
10 STEM CELL RESEARCH AND TWO YEARS AFTER THAT TO BE  
11 AGAINST IT.

12 SO HOW WOULD YOU FEEL ABOUT HAVING A  
13 PREFERENCE TO MAKE CERTAIN THAT YOU HOUSED EMBRYONIC  
14 STEM CELL RESEARCH AT YOUR INSTITUTION IN THIS BUILDING  
15 IN FEDERALLY FREE SPACE TO THE EXTENT THAT THAT  
16 RESEARCH WAS ONGOING AND CERTAIN BIASES WERE  
17 REDEVELOPED IN THE ADMINISTRATION?

18 DR. PERA: YOUR POINT ABOUT POLITICAL  
19 INSTABILITY IS A GOOD ONE, AND I THINK IT WOULD BE VERY  
20 VALUABLE FOR US TO HAVE SOME GUARANTEE OVER THE LONG  
21 TERM THAT THERE WOULD BE A SAFE HAVEN FOR THIS  
22 RESEARCH.

23 DR. WITTE: I DON'T KNOW HOW YOU PREDICT  
24 PERCENTAGE. IT GETS VERY DIFFICULT TO DECIDE ON X  
25 PERCENT FOR EMBRYONIC WORK BECAUSE IT'S CONTINUITY AND

1 ONE THING SHOULD LEAD TO THE NEXT.

2 BUT THERE'S SOMETHING ELSE, I THINK, IS  
3 IMPORTANT. YOU'RE TALKING ABOUT AN APPLICATION FOR  
4 SOMETHING. IN EACH DIFFERENT PLACE AROUND THE STATE,  
5 IT'S GOING TO BE DIFFERENT DEPENDING WHERE THEY ARE IN  
6 THEIR OTHER BUILDING PROGRAMS, THEIR OTHER INTELLECTUAL  
7 DEVELOPMENT OF THOSE DIFFERENT PROGRAM AREAS.

8 SO TO USE MY OWN INSTITUTION AS AN EXAMPLE,  
9 WE'VE ALREADY COMMITTED VERY LARGE AMOUNTS OF SPACE IN  
10 TWO BRAND-NEW RESEARCH BUILDINGS TO MANY OF OUR NEW  
11 RECRUITS. WE WON'T BE ASKING FOR THAT IN OUR NEXT  
12 APPLICATION. WE'LL BE ASKING FOR THINGS THAT WOULD  
13 COMPLEMENT AND EXTEND THE VALUE WE'VE ALREADY PLACED IN  
14 OTHER FACILITIES; WHEREAS, ANOTHER INSTITUTION MIGHT  
15 SAY THEY REALLY NEED PRIMARY WET BEDS, LABORATORY SPACE  
16 IN A MORE TRADITIONAL BIOLOGICAL LAB STYLE.

17 SO I THINK YOU NEED TO BE CAREFUL ABOUT  
18 SETTING THESE FORMULAS AND LET THE INSTITUTIONS TELL  
19 YOU WHAT WILL MAKE A DIFFERENCE IN THEIR PLACES OF WORK  
20 AND THEN JUDGE THAT BASED ON THE OVERALL SCIENCE AND  
21 THE LEVEL OF COMMITMENT OF THE INSTITUTION IN THE PAST  
22 AS WELL AS WHAT SAY THEY'RE GOING TO DO IN PARALLEL.

23 WE HAVE PLANS, FOR EXAMPLE, FOR SOME THINGS  
24 THAT WE'RE NOT GOING TO APPLY FOR, WE HOPE TO HAVE  
25 PRIVATE MONEY, THAT WOULD BE, AGAIN, BENEFICIAL TO THE

1 COMMUNITY OF STEM CELL RESEARCHERS, BUT NOT DEPENDENT  
2 ON THIS GRANT MECHANISM. SO I WOULDN'T WANT TO SEE A  
3 FORMULA THAT YOU HAVE ABC. PEOPLE MENTIONED VIVARIA.  
4 BELIEVE ME IT WOULD LEAD UP TO \$295 MILLION VERY  
5 QUICKLY IF EVERYBODY ASKS FOR NEW VIVARIA SPACE. I  
6 HOPE THAT DOESN'T HAPPEN.

7 ONE ISSUE THAT WASN'T BROUGHT UP IS IF YOU'RE  
8 RENOVATING ANYTHING IN A HOSPITAL, THERE'S A CERTAIN  
9 SET OF REGULATORY AGGREGATIONS BEYOND COMPREHENSION  
10 ALMOST THAT YOU'LL HAVE TO DEAL WITH. I HOPE FEW  
11 PEOPLE ASK FOR THAT. AND OTHER THINGS SUCH AS THE  
12 TYPES OF CHEMISTRY, MICROFLUIDICS FACILITIES THAT WE'LL  
13 BE LOOKING FORWARD TO RECEIVING FUNDS FOR, ARE ALSO  
14 VERY EXPENSIVE IN TERMS OF AIR HANDLING, SAFETY  
15 PRECAUTIONS, ETC. EACH ONE IS GOING TO BE DIFFERENT  
16 AND SHOULD BE JUDGED ON THE SCIENCE OF THE APPLICANT AS  
17 WELL AS THE PARALLEL SOURCES OF SUPPORT. I WOULD WATCH  
18 OUT FOR THE 70 PERCENT KIND OF FORMULA. IT'S NOT GOING  
19 TO WORK OUT.

20 CHAIRMAN KLEIN: MAKING IT CLEAR, I WOULDN'T  
21 SUPPORT ANY FORMULAS ON PERCENTAGE. THE QUESTION IS A  
22 DIFFERENT QUESTION, WHICH IS IF SOMEONE COMES IN AND  
23 SAYS THE MAJORITY OF OUR SPACE IS COMMITTED TO  
24 EMBRYONIC BECAUSE THERE ARE FEDERAL RESTRICTIONS, WE  
25 DON'T REALLY HAVE THESE OTHER OPTIONS, AND SOMEBODY



1 ELSE COMES IN AND SAYS OUR SPACE IS COMMITTED TO  
2 VARIOUS TYPES OF ADULT OR FETAL STEM CELL RESEARCH, AND  
3 WE JUST HAVE A VERY BEGINNING EMBRYONIC STEM CELL  
4 EFFORT, WHICH IS GOING TO TAKE A SMALL PORTION OF IT, I  
5 WAS ASKING THE STRUCTURAL QUESTION OF WHETHER WE HAVE  
6 ANY OBLIGATION TO HAVE A PREFERENCE WITH SCIENTIFIC  
7 MERIT OTHERWISE BEING EQUAL, TO MAKE SURE WE HOUSE  
8 EMBRYONIC STEM CELL RESEARCH IN THE STATE?

9 DR. WITTE: I THINK IT'S THAT LAST QUALIFIER,  
10 WITH EVERYTHING ELSE BEING EQUAL. TO MY MIND IT'S A  
11 CONTINUITY, AND I THINK THE PLACE THAT'S GOING TO BE  
12 ABLE TO PUT FORWARD THE STRONG SCIENCE IS THE ONE THAT  
13 HAS THAT BALANCE BECAUSE EACH OF THESE DISCIPLINES  
14 EDUCATES EACH OF THE OTHERS. I THINK THAT'S GOING TO  
15 BE THE TOUGH PART. I JUST CAN'T IN MY OWN MIND IMAGINE  
16 THAT IF YOU WERE SUPER HEAVILY WEIGHTED IN ONE AREA,  
17 IT'S GOING TO WORK OUT BECAUSE YOU HAVE TO TURN  
18 EMBRYONIC STEM CELL INTO SOMATIC OR ADULT-TYPE CELLS  
19 FOR THE REGENERATIVE MEDICINE TRANSPLANTATION ISSUES  
20 WE'RE TALKING ABOUT EITHER IN VITRO OR SOMEHOW IN VIVO.  
21 IT'S A CONTINUITY.

22 CHAIRMAN KLEIN: SO WE'RE JUST NOT GOING TO  
23 SEE THAT EXTREME PARADIGM.

24 DR. WITTE: I CAN'T PREDICT WHAT YOU'LL SEE,  
25 BUT WE NECESSARILY THINK IT WOULD BE THE BEST WAY TO

1 GO.

2 MR. SHEEHY: THE OTHER POINT IS IS THAT  
3 PEOPLE WHO HAVE ESTABLISHED EXPERTISE IN WORKING,  
4 ESPECIALLY IN A CLINICAL SENSE, WITH ADULT STEM CELLS,  
5 EVEN IF THEY WERE ONLY GOING TO USE 20 PERCENT OF THEIR  
6 SPACE FOR EMBRYONIC STEM CELL RESEARCH, YOU CAN IMAGINE  
7 THE SPEED WITH WHICH THEY WOULD TRANSLATE THAT RESEARCH  
8 IF THEY HAD A DISCOVERY. YOU COULD HAVE SOMEPLACE  
9 THAT'S DOING A HUNDRED PERCENT EMBRYONIC STEM CELL  
10 RESEARCH, BUT THEY HAVE NO EXPERIENCE EITHER USING BONE  
11 MARROW, HEMATOPOETIC STEM CELLS FOR TREATMENT OF CANCER  
12 SURVIVORS OR USING UMBILICAL CORD STEM CELLS FOR  
13 CHILDREN WITH SICKLE CELL ANEMIA.

14 IF THERE'S NOT THAT EXPERTISE IN ACTUALLY  
15 DOING THOSE KINDS OF PROCEDURES, TRANSPLANTING CELLS  
16 INTO INDIVIDUALS AND THEN CLINICAL EXPERTISE, WHY WOULD  
17 WE PENALIZE THAT EXPERTISE, I GUESS, AND THAT THEY WANT  
18 TO ACTUALLY BUILD OUT THE EMBRYONIC STEM CELL PIECE  
19 THAT WOULD ENABLE THEM TO BE ABLE TO EXPLOIT THEIR  
20 EXISTING EXPERTISE WITH A MUCH LARGER GROUP OF  
21 PATIENTS?

22 CHAIRMAN KLEIN: AS YOU KNOW, I SPOKE ON THE  
23 OTHER SIDE OF THIS IS THAT WE HAVE TO RECOGNIZE THAT  
24 ALL TYPES OF THIS RESEARCH ARE BEING CONDUCTED IN THE  
25 SAME FACILITY BECAUSE IT'S ORGANIC FLOW. BUT GIVEN THE

1 PREFERENCES I WROTE INTO THE INITIATIVE, I THINK IT'S  
2 IMPORTANT TO HAVE A GOOD PUBLIC DISCUSSION OF WHY WE'RE  
3 DOING WHAT WE ARE DOING, AND SO THAT THE PUBLIC IN A  
4 TRANSPARENT WAY CAN SEE THAT THERE IS PROPER  
5 JUSTIFICATION FOR THE DECISIONS THAT ARE BEING MADE,  
6 AND THAT IT REALLY DOES FOCUS ON THE PATIENT.

7 I THINK WE'VE HAD A VERY HELPFUL DISCUSSION.  
8 IF ANY OF THE COMMITTEE MEMBERS WANT TO MAKE ANY  
9 ADDITIONAL POINTS? SEEING NONE, I'D LIKE TO THANK THE  
10 AUDIENCE AND THE PRESENTERS. THIS IS HOPEFULLY A  
11 HELPFUL EXERCISE FOR US AND FOR YOU IN DEVELOPING A  
12 BETTER UNDERSTANDING OF WHERE WE'RE GOING, WHY WE'RE  
13 GOING THERE, AND WHAT THE POTENTIAL TRADE-OFFS ARE IN  
14 POLICIES, IN RULES, AND IN DEFINITIONS. SO THANK YOU  
15 AND WE STAND ADJOURNED.

16 (THE MEETING WAS THEN ADJOURNED AT 03:25  
17 P.M.)

18  
19  
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21  
22  
23  
24  
25

REPORTER'S CERTIFICATE

I, BETH C. DRAIN, A CERTIFIED SHORTHAND REPORTER IN AND FOR THE STATE OF CALIFORNIA, HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT OF THE PROCEEDINGS BEFORE THE SCIENTIFIC AND MEDICAL FACILITIES WORKING GROUP OF THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS PUBLIC INFORMATINAL MEETING REGARDING FUTURE FACILITIES REQUEST WAS HELD AT THE LOCATION INDICATED BELOW

LUXE HOTEL SUNSET BOULEVARD  
11461 SUNSET BOULEVARD  
LOS ANGELES, CALIFORNIA  
ON  
MONDAY, JUNE 4, 2007

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

BETH C. DRAIN, CSR 7152  
BARRISTER'S REPORTING SERVICE  
1072 S.E. BRISTOL STREET  
SUITE 100  
SANTA ANA HEIGHTS, CALIFORNIA  
(714) 444-4100