BEFORE THE

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

REGULAR MEETING

VOLUME I

LOCATION: UNIVERSITY OF CALIFORNIA IRVINE

IRVINE, CALIFORNIA

DATE: TUESDAY, DECEMBER 9, 2008

4: 30 P. M.

REPORTER: BETH C. DRAIN, CSR

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1	IRVINE, CALIFORNIA; TUESDAY, DECEMBER 9, 2008
2	4: 30 P. M.
3	
4	CHAIRMAN KLEIN: OKAY. WE HAVE A FEW
5	PEOPLE WHO HAVE FLIGHTS THAT ARE LATE THAT ARE IN
6	TRANSIT, BUT WE HAVE A QUORUM, IT'S MY
7	UNDERSTANDING. WE WILL, IN ANY CASE, WHILE WE'RE
8	WAITING FOR THE OTHER INDIVIDUALS TO WALK IN THE
9	ROOM, WE'LL BEGIN WITH A CALL TO ORDER. AND IN THE
10	CALL TO ORDER, I WOULD LIKE, MELISSA, IF WE COULD DO
11	THE FLAG SALUTE. WE MAY THEN, WHEN WE DO THE ROLL
12	CALL, HAVE AN ADDITIONAL MEMBER WHO'S ENTERED, BUT
13	WE DO HAVE A QUORUM AT THIS TIME. MELISSA KING,
14	WOULD YOU PLEASE LEAD US IN THE PLEDGE OF
15	ALLEGI ANCE.
16	(THE PLEDGE OF ALLEGIANCE.)
17	CHAIRMAN KLEIN: ALL RIGHT. MELISSA, WHAT
18	WE WILL DO IS IF YOU WILL CALL THE ROLL, WE'LL KEEP
19	THE ROLL OPEN, PLEASE.
20	MS. KING: RICARDO AZZIZ. ROBERT PRICE
21	FOR ROBERT BIRGENEAU.
22	DR. PRICE: HERE.
23	MS. KING: FLOYD BLOOM. GORDON GILL FOR
24	DAVID BRENNER.
25	DR. GILL: HERE.
	4

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1	MS. KING: SUSAN BRYANT.
2	DR. BRYANT: HERE.
3	MS. KING: KIM WITMER.
4	DR. WITMER: HERE.
5	MS. KING: MARCY FEIT.
6	MS. FEIT: HERE.
7	MS. KING: MICHAEL FRIEDMAN.
8	DR. FRIEDMAN: HERE.
9	MS. KING: LEEZA GIBBONS.
10	MS. GI BBONS: HERE.
11	MS. KING: MICHAEL GOLDBERG.
12	MR. GOLDBERG: HERE.
13	MS. KING: SAM HAWGOOD. BOB KLEIN.
14	CHAIRMAN KLEIN: HERE.
15	MS. KING: SHERRY LANSING. GERALD LEVEY.
16	DR. LEVEY: HERE.
17	MS. KING: TED LOVE. ED PENHOET.
18	DR. PENHOET: HERE.
19	MS. KING: PHIL PIZZO.
20	DR. PI ZZO: HERE.
21	MS. KING: CLAIRE POMEROY.
22	DR. POMEROY: HERE.
23	MS. KING: FRANCISCO PRIETO. CARMEN
24	PULI AFI TO.
25	DR. PULI AFI TO: HERE.
	5
	5

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1	
1	MS. KING: ROBERT QUINT.
2	DR. QUINT: HERE.
3	MS. KING: JEANNIE FONTANA FOR JOHN REED.
4	DR. FONTANA: HERE.
5	MS. KING: DUANE ROTH.
6	MR. ROTH: HERE.
7	MS. KING: JOAN SAMUELSON. DAVID
8	SERRANO-SEWELL. JEFF SHEEHY.
9	MR. SHEEHY: HERE.
10	MS. KING: JONATHAN SHESTACK. AND OSWALD
11	STEWARD.
12	DR. STEWARD: HERE.
13	MS. KING: WE DO HAVE A QUORUM.
14	CHAIRMAN KLEIN: THANK YOU VERY MUCH. AND
15	WE WILL WELCOME EVERYONE TO IRVINE. WE WANT TO
16	THANK OUR HOST, DR. SUSAN BRYANT AND DR. OSWALD
17	STEWARD, OUR TWO DISTINGUISHED BOARD MEMBERS FROM UC
18	IRVINE, WHERE WE WILL BE TOMORROW. AND I WANTED TO
19	POINT OUT THAT IT WAS UC IRVINE AND THE NATIONAL
20	ACADEMY OF SCIENCES BUILDING THAT HOSTED PROPOSITION
21	71 FIVE WEEKS AFTER THE ELECTION. THE NATIONAL
22	ACADEMY BROUGHT A DISTINGUISHED TEAM FROM THROUGHOUT
23	THE NATION OF SOME OF THE BEST SCIENTISTS AND
24	ETHICISTS TO HELP GIVE US EARLY GUIDANCE ON MEDICAL
25	AND ETHICAL STANDARDS, CONFLICT OF INTEREST ISSUES,
	6

1	GRANT PROCESSES. SO WE OWE A LOT TO THE NATIONAL
2	ACADEMY. AND REALLY THE FIRST FORMAL START OF THAT
3	EDUCATION PROCESS WAS AT THE NATIONAL ACADEMY
4	BUILDING. SO THANK YOU, OS, AND THANK YOU, SUSAN,
5	AND YOUR INSTITUTION.
6	WE HAVE ANOTHER BUSY TWO-DAY MEETING
7	STARTING WITH THE CONSIDERATION OF SOME TREMENDOUS
8	GRANT APPLICATIONS FOR TOOLS AND TECHNOLOGY. WE
9	HAVE ALSO A START OF A MEETING WHERE FOR THE FIRST
10	TIME WE'RE WORKING WITH A NEW OPERATING PROCEDURE.
11	WE'RE ABLE TO BRING MEMBERS IN TELEPHONICALLY. AND
12	DURING THE COURSE OF THIS TWO DAYS, WE HAVE AT LEAST
13	TWO MEMBERS WHO WILL BE JOINING US IN THAT REGARD.
14	IT'S VERY IMPORTANT TO ALSO RECOGNIZE THAT
15	WE HAVE TWO NEW MEMBERS OF THE BOARD. ONE IS DR.
16	CARMEN PULIAFITO, DEAN OF THE KECK SCHOOL OF
17	MEDICINE AT USC, APPOINTED BY THE GOVERNOR. AND
18	THANK YOU. WE'D LIKE TO WELCOME DR. PULIAFITO TO
19	THE BOARD.
20	(APPLAUSE.)
21	CHAIRMAN KLEIN: AND WE'D LIKE TO WELCOME
22	A NEW ALTERNATE FOR DR. DAVID BRENNER, AND THAT IS
23	DR. GORDON GILL FROM UC SAN DIEGO.
24	(APPLAUSE.)
25	CHAIRMAN KLEIN: THANK YOU BOTH FOR BEING
	7

1	WITH US.
2	AND I WOULD LIKE TO SAY THAT SOME OF THE
3	MEMBERS OF THIS BOARD JOINED THE BOARD BEFORE THEY
4	REALIZED THAT BETWEEN THE BOARD AND ITS
5	SUBCOMMITTEES AND ITS TASK FORCE AND WORKING GROUPS
6	THAT WE'D HAVE 180 PUBLIC MEETINGS IN THE LAST FOUR
7	YEARS, A STAGGERING DISPLAY OF PUBLIC TRANSPARENCY.
8	AND WE'RE CONTINUING TO TRY AND ENHANCE THAT
9	TRANSPARENCY.
10	FOR THE JANUARY MEETING, IT'S MY
11	UNDERSTANDING, THAT DON GIBBONS, OUR COMMUNICATIONS
12	DIRECTOR, IS GOING TO BRING BACK A BID AND A
13	PROPOSAL FOR WEBCASTING THESE MEETINGS OR SOME
14	MEETINGS FOR THE BOARD TO CONSIDER SO THAT A GREATER
15	PROPORTION OF THE PUBLIC MIGHT PARTICIPATE, AND THE
16	MEDIA MIGHT HAVE BETTER ACCESS TO THE MEETINGS AS
17	ANOTHER WAY TO EXPAND PUBLIC TRANSPARENCY.
18	IN THE EFFORT TO WORK WITH THE LITTLE
19	HOOVER COMMISSION, WE'D ALSO HOPED THAT IN THE
20	JANUARY MEETING TO BRING BACK SOME IDEAS FOR PUBLIC
21	DISCUSSION ABOUT HOW WE MIGHT IMPROVE OUR OPERATIONS
22	AND TRANSPARENCY. AND WE HAVE THE BENEFIT OF TODAY
23	HAVING AS OUR GUEST COMMISSIONER MARILYN BREWER FROM
24	ORANGE COUNTY, WHO'S SEATED STRAIGHT BACK.
25	(APPLAUSE.)

1	CHAIRMAN KLEIN: AND THE DIRECTOR OF THE
2	LITTLE HOOVER COMMISSION, STUART DROWN, AS WELL AS
3	SENIOR STAFF MEMBER ERIC STERN.
4	(APPLAUSE.)
5	CHAIRMAN KLEIN: WE CONVENED THIS MEETING
6	IN A CONTEXT OF A NEW NATIONAL REALITY OF ADDITIONAL
7	FINANCIAL CHALLENGES, FINANCIAL CHALLENGES AT THE
8	STATE AND THE FEDERAL LEVEL. IT'S A PERIOD WHEN
9	CREATIVITY HI, JOAN CREATIVITY WILL BE AT A
10	PREMIUM, AND OUR ABILITY TO REALLY COMMUNICATE WITH
11	THE FEDERAL GOVERNMENT ABOUT THE NECESSITY TO
12	CONTINUE THEIR INVESTMENT IN INTELLECTUAL CAPITAL OF
13	THIS COUNTRY THAT DRIVES SO MUCH JOB CREATION,
14	PARTICULARLY IN CALIFORNIA WHERE THE LIFE SCIENCES
15	ARE THE SECOND LARGEST JOB CREATOR BEHIND THE HIGH
16	TECH COMPUTER INDUSTRY.
17	IT IS VERY IMPORTANT TO REALIZE THAT WE
18	CAN PROVIDE AN IMPORTANT MOMENTUM TO THE STEM CELL
19	AREA. BUT EVEN AS WE LOOK TO OUR INSTITUTES AND OUR
20	CENTERS OF EXCELLENCE, THERE ARE VERY LARGE
21	OPERATING BUDGETS HERE THAT WE'LL NEED SUPPLEMENTAL
22	FUNDING OR IN SOME CASES DOMINANT FUNDING EVENTUALLY
23	COMING FROM THE NIH BECAUSE THESE ARE EXTRAORDINARY
24	GLOBAL, WORLD-CLASS PLATFORMS FOR SCIENCE. AND THE
25	LEVEL OF SCIENTIFIC TALENT THAT IT TAKES TO DRIVE
	9
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THOSE MAJOR INSTITUTES CANNOT BE FUNDED IN LARGE
PART BY OUR GRANTS. NO MATTER HOW GOOD THESE
SCIENTISTS ARE, WE JUST WILL NOT IN REALITY HAVE THE
SCALE OF FUNDS TO COVER THIS TREMENDOUS COST.
SO THESE INSTITUTIONS ARE A NATIONAL ASSET
IN ADDITION TO BEING A GREAT STATE TREASURE. AND WE
WILL NEED TO REALLY BE ABLE TO FOCUS IN OUR JANUARY
MEETING ON WHAT IS OUR PROPER ROLE IN HELPING
EDUCATE AND ADVOCATE FOR INVESTMENT IN THE NIH
GENERALLY BECAUSE ALL FIELDS OF LIFE SCIENCES ARE
GOING TO CONTRIBUTE EVENTUALLY TO OUR STEM CELL
MISSION. BUT WE WILL DEBATE THAT IN OUR JANUARY
MEETING AS ONE TOPIC. IT IS CERTAINLY AN AREA WHERE
WE'RE GOING TO NEED TO SEE SOME ADDITIONAL NATIONAL
I NVESTMENT.
ON A NATIONAL SCALE, WE'RE TALKING ABOUT A
STIMULUS PROGRAM FOR THE PHYSICAL INFRASTRUCTURE OF
THIS COUNTRY. AND I WOULD SUGGEST THAT PART OF OUR
TOPIC IN JANUARY IS REALLY GOING TO BE ABOUT
BRINGING SOME BALANCE TO THAT AND FOCUSING THE
NATIONAL DEBATE IN PART ON INVESTING IN INTELLECTUAL
INFRASTRUCTURE FOR THIS COUNTRY, THE INTELLECTUAL
CAPITAL THAT IS REALLY GOING TO DISTINGUISH STATES
AND NATIONS AND DRIVE THE ECONOMIES OF THE 21ST
CENTURY.
10

1	A STIMULUS BILL THAT LOOKS ONLY BACK
2	HISTORICALLY TO A PHYSICAL INFRASTRUCTURE INVESTMENT
3	IS PART OF THE LAST CENTURY. THE 21ST CENTURY
4	DEMANDS THAT WE BE ABLE TO COMPETE WITH WORLD-CLASS
5	INTELLECTUAL CAPITAL, AND IT DEMANDS CONTINUED
6	INVESTMENT. WE CANNOT, BECAUSE OF THE FINANCIAL
7	CRISIS FACING THE COUNTRY, ABANDON A FIELD THAT IS A
8	HUGE JOB CREATOR AND IS THE FUTURE POTENTIAL TO HELP
9	PATIENTS AND REDUCE GOVERNMENTAL MEDICAL
10	EXPENDITURES BY INTERVENTIONIST THERAPIES.
11	KEEPING THAT IN MIND, WE HAVE TALKED IN
12	THE PAST IN PUTTING ON THE TABLE FOR THIS JANUARY
13	DISCUSSION AT LEAST TWO MORE TOPIC AREAS. ONE WHICH
14	IS A KEY POTENTIAL CHOKE POINT, AND THAT IS JUST A
15	GENERAL FUNDING INCREASE IN THE FDA. THE FDA
16	STAFFING HAS BEEN STARVED OVER THE LAST SEVERAL
17	YEARS. A LOT OF THE STAFF IS CLOSE TO RETIREMENT
18	AGE. THE SALARY LEVELS AND THE STAFFING IS GOING TO
19	BE VERY IMPORTANT BECAUSE WE KNOW THAT FOR OUR
20	DISEASE TEAMS, FOR EXAMPLE, IT'S GOING TO BE
21	CRITICAL. IF YOU ARE GOING GET TO AN INITIAL HUMAN
22	TRIAL APPROVAL, YOU'RE GOING TO NEED AT LEAST THREE
23	YEARS IN ADVANCE TO HAVE ACUTELY FOCUSED AND HIGHLY
24	COMPETENT ADVICE ON YOUR PRECLINICAL WORK TO BE ABLE
25	TO BE SUCCESSFUL IN THAT IND.

1	SO FDA STAFFING AND THE FUNDING FOR IT IS
2	GOING TO BE AN IMPORTANT SUBJECT. CERTAINLY IN A
3	PERIOD OF SCARCE RESOURCES, ADDING STAFF TO THE
4	FEDERAL GOVERNMENT IS NOT GOING TO BE UNIVERSALLY
5	POPULAR, AND WE'RE GOING TO HAVE TO DOCUMENT THE
6	CASE. WE CAN LOOK BACK AT THE LOW STUDY FROM 2006,
7	THE INSTITUTE OF MEDICINE STUDY, BUT WE'RE GOING TO
8	HAVE TO UNDERSTAND THE PROPER CASE AND THE PROPER
9	PRESENTATION OF IT. AND WE'LL CERTAINLY LEARN THE
10	PROPER EMPHASIS FROM ALL MEMBERS OF THIS BOARD WHO
11	HAVE TREMENDOUS EXPERIENCE.
12	FINALLY, IN OUR INNOVATION AREA OF
13	BRINGING A LOAN PROGRAM FORWARD WITH OUR GRANT
14	PROGRAM, POTENTIALLY THERE MAY BE AN OPPORTUNITY
15	WITH 500 BILLION OR MORE IN LOAN GUARANTEES BEING
16	GIVEN OUT AT THE FEDERAL LEVEL TO TRY AND CREATE A
17	PROGRAM THAT IS REALLY A JOB GENERATOR IN THIS AREA.
18	WE UNDERSTAND, I THINK, DR. ALAN TROUNSON'S STUDY IN
19	AUSTRALIA SHOWED THAT FOR EVERY DOLLAR SPENT IN THE
20	LIFE SCIENCES AND MEDICAL RESEARCH DOWNSTREAM OVER
21	TIME IT CREATED \$7 IN THE ECONOMY.
22	THERE ARE ECONOMIC MULTIPLIER MODELS AND
23	JOB CREATION MODELS THAT ARE IMPORTANT THAT WE'LL
24	NEED TO BRING TO THE ATTENTION OF THE FEDERAL
25	GOVERNMENT. BUT IN OUR LOAN PROGRAM, IF IT WERE A

1	\$500 MILLION PORTFOLIO, ALL INCREMENTALLY APPROVED
2	AND ACTUAL LOANS, IF WE DON'T HAVE THE BEST SCIENCE,
3	WE'RE NOT GOING TO FUND IT, BUT ON A CONCEPTUAL
4	LEVEL, IF THE LOAN PROGRAM WERE \$500 MILLION, IF WE
5	TOOK THE TOP 50 PERCENT OF RISK AND THE FEDERAL
6	GOVERNMENT GUARANTEED THE BOTTOM 50 PERCENT OF RISK,
7	A MUCH BETTER DEAL THAN THE FINANCIAL INSTITUTIONS
8	HAVE PROPOSED TO THE FEDERAL GOVERNMENT, I SUGGEST,
9	OUR \$500 BILLION PROGRAM BECOMES A BILLION DOLLAR
10	PROGRAM.
11	FIVE HUNDRED MILLION FOR OUR MISSION PUT
12	INTO LOANS THAT WILL HELP IN THIS TIME OF CREDIT
13	SCARCITY FOR THE BIOTECH SECTOR TO STRETCH THOSE
14	DOLLARS SO THAT WE CAN GET PAST PHASE I SAFETY
15	STUDIES AND DO PHASE II A AND II B EFFICACY STUDIES
16	MAY BE CRITICAL TO GETTING ANY PRIVATE CAPITAL INTO
17	THE FIELD.
18	PRIVATE CAPITAL HAS MOVED FURTHER BACK
19	CONSTANTLY OVER THE LAST TWO OR THREE YEARS, AND
20	PARTICULARLY IN THIS FINANCIAL CRISIS. SO UNLESS
21	WE'RE PREPARED OR HAVE ALTERNATE METHODS OF CARRYING
22	THESE TREMENDOUS INVESTMENTS THAT PASS PEER REVIEW,
23	ONLY THE BEST SCIENCE, DOWN FURTHER IN THIS
24	CONTINUUM, IT IS LIKELY MANY OF THESE GREAT, GREAT
25	SCIENTIFIC CONCEPTS AND EVEN PHASE I TRIALS WILL BE

1	DROPPED FOR LACK OF CAPITAL TO MOVE THEM FORWARD
2	WHERE WE CAN PROVE THAT EFFICACY AND HOPEFULLY THEN
3	GET THE MONEY TO BRING THEM TO PATIENTS.
4	SO THOSE ARE THREE OF THE TOPICS. WE
5	STAND READY AS AN AGENCY TO WELCOME OTHER SUGGESTED
6	TOPICS FOR THAT DISCUSSION, BUT PART OF OUR
7	DISCUSSION IN JANUARY WILL BE THE FEDERAL AGENDA AND
8	HOW WE INTERFACE WITH THE FEDERAL GOVERNMENT. WE
9	CERTAINLY WISH THE STATE GOVERNMENT HAD MORE FUNDS.
10	WE HOPE THE FEDERAL GOVERNMENT HAS MORE FUNDS. AND
11	WE DO REALIZE THAT THE STATE GOVERNMENT AS A
12	GOVERNMENTAL ENTITY IS ONE OF THOSE APPLICANTS FOR
13	FEDERAL FUNDING IN THE INTERIM.
14	WITH THAT INTRODUCTION, I'D LIKE TO
15	WELCOME TO THE PODIUM OUR ESTEEMED PRESIDENT, DR.
16	ALAN TROUNSON, WHOSE FAMILY HAS NOW MOVED FROM
17	AUSTRALIA TO CALIFORNIA AFTER A YEAR IN WHICH THEY
18	FINISHED UP EDUCATION WITH HIS OLDER SON, SO HE HAS
19	FINISHED HIS YEAR ALONE DEDICATED SOLELY TO OUR
20	MISSION, AND HIS FAMILY IS NOW WITH HIM. BUT THANK
21	YOU FOR THE REAL SACRIFICE YOUR FAMILY WENT THROUGH,
22	DR. TROUNSON, AND YOU WENT THROUGH WAITING FOR THEM
23	TO MOVE. DR. ALAN TROUNSON.
24	DR. TROUNSON: THANK YOU VERY MUCH, CHAIR.
25	AND AS USUAL, I WANT TO INTRODUCE THE PRESIDENT'S
	1.4

REPORT BY TALKING ABOUT SCIENCE. SO THERE ARE A
NUMBER OF DEVELOPMENTS GOING ON IN THE FIELD, AND I
BASICALLY CHOOSE FROM WHAT'S HAPPENING IN THE LAST
FOUR TO ABOUT EIGHT WEEKS.
IN THIS CASE THERE HAS BEEN A LOT OF
DISCUSSION, AS YOU KNOW, IN THE PRESS ABOUT THE
DEVELOPMENT OF INDUCED PLURIPOTENTIAL STEM CELLS.
THESE ARE CELLS WHERE YOU CAN TAKE AN ADULT CELL, A
SKIN CELL, AND BY TRANSFECTING THEM OR TRANSDUCING
THEM WITH VIRUSES, ORIGINALLY WITH RETROVIRUSES, YOU
CAN INTRODUCE WHAT ARE KNOWN AS TRANSCRIPTION
FACTORS THAT CAN CONTROL THE REPROGRAMMING OF THAT
CELL BACK TO AN APPARENT EMBRYONIC STEM CELL OR A
CELL WHICH BEHAVES SOMETHING VERY SIMILAR TO AN
EMBRYONIC STEM CELL.
ONE OF THE MAJOR ISSUES IN THIS AREA IS
THE INTRODUCTION OF THE VIRAL COMPONENTS INTO THE
GENOME AS YOU WOULD WHEN YOU USE A RETROVIRUS. AND
SO THE SCIENTISTS HAVE BEEN BUSY TRYING TO SEE IF
THEY CAN REMOVE THESE RETROVIRAL ELEMENTS AND ALSO
TAKE OUT TWO OF THE ONCOGENES, C-MYC AND KLF-4, FROM
THE TRANSCRIPTION FACTOR COCKTAIL BECAUSE OF THE
DANGERS OF BOTH THE VIRAL ELEMENT AND THE ONCOGENES
THERE.
SO IN THESE COUPLE OF PAPERS REPORTING
15

1	HERE, THE GROUP AT DOUG MELTON'S LABORATORY AT
2	HARVARD HAVE BEEN ABLE TO INDUCE THE PLURIPOTENTIAL
3	STEM CELLS IN HUMAN SKIN CELL FIBROBLASTS WITH ONLY
4	OCT-4 AND SOX-2 NONONCOGENIC GENES, AND THEY'RE
5	LIKELY TO BE MORE AT LEAST MORE FAVORABLE TO AN
6	OUTCOME THAT DOESN'T SHOW CANCER DEVELOPING.
7	SO THEY USED A CHEMICAL KNOWN AS VALPROIC
8	ACID TO HELP INDUCE THE PLURIPOTENTIALITY ALONG WITH
9	TRANSDUCTION WITH THESE TWO GENES INSTEAD OF THE
10	FOUR, THE COCKTAIL OF THE FOUR GENES. SO THEY
11	ACTUALLY REMOVED OUT THE ONCOGENE ELEMENT OR MUCH OF
12	THE ONCOGENE ELEMENT.
13	IN THE SECOND PAPER BY CONRAD
14	HOCHEDLINGER'S GROUP AT MASS GENERAL AS PUBLISHED IN
15	SCIENCE, AND THEY'RE ABLE TO SHOW THAT IF YOU USE AN
16	ADENOVIRUS, NOT A RETROVIRUS, YOU CAN ACTUALLY
17	INTRODUCE THE GENES INTO THE CELL, BUT THEY DON'T
18	ENTER THE GENOME. THEY'RE NOT INCORPORATED INTO THE
19	CELL'S CHROMOSOMES AND GENETIC MATERIALS. SO
20	THEY'RE THERE FOR A PERIOD OF TIME AND LONG ENOUGH
21	TO INDUCE A REPROGRAMMING OF THE CELLS.
22	SO THIS IS A BIG STEP FORWARD. THERE'S NO
23	EVIDENCE USING THE ADENOVIRAL VECTORS OF THESE GENES
24	BEING IN THE GENOME. SO HE WOULDN'T THEN BE
25	CONSIDERED, I DON'T THINK, IN THE LONG TERM A

1	GENETICALLY ENGINEERED CELL. SO THIS IS A FAIRLY
2	BIG ADVANCE. AND CONRAD REPORTED THIS WORK WITHOUT
3	A GREAT DEAL OF FANFARE AT OUR MEETING, OUR
4	CONFERENCE, CHAIRED IN SEPTEMBER HERE IN HIS TALK.
5	AND NOW HIS PAPER HAS BEEN PUBLISHED JUST RECENTLY
6	IN SCIENCE, NOVEMBER IN SCIENCE.
7	ALSO THE GROUP, YAMANAKA'S LABORATORY IN
8	KYOTO IN JAPAN WHO WERE THE ORIGINAL DISCOVERERS OR
9	REPORTERS OF IPS CELLS HAVE SHOWN THAT THEY CAN ALSO
10	GENERATE IPS CELLS WITHOUT ANY VIRAL VECTORS
11	INVOLVED. SO THEY'RE USING A PLASMID CONSTRUCT
12	WHICH THEY INTRODUCE INTO THE CELL, AND THIS
13	CONSTRUCT DOESN'T INCORPORATE IN THE GENOME, BUT IS
14	SUFFICIENT TO ENABLE TRANSCRIPTION PROTEINS,
15	TRANSCRIPTION EFFECT OF PROTEINS TO ACT AND CONVERT
16	THE CELLS TO AN IPS CELL.
17	SO THIS IS ALL OF THESE METHODS ARE
18	STILL QUITE RARE EVENTS IN THE CELLS, BUT WE'RE
19	WORKING OUR WAY TOWARDS A VIRAL FREE AND ONCOGENE
20	FREE CELL TYPE AS AN INDUCED PLURIPOTENTIAL CELL.
21	AND IT'S A BIG THESE ARE BIG MOVEMENTS, I THINK,
22	IN THE PLATFORM OF PLURIPOTENTIAL STEM CELLS.
23	THERE'S ALSO, I THINK, A VERY INTERESTING
24	REPORT IN THE <i>LANCET</i> IN NOVEMBER ON A CLINICAL
25	TRANSPLANT OF A TISSUE-ENGINEERED AIRWAY. AND YOU

1	MIGHT HAVE READ ABOUT THIS IN THE NEWSPAPERS BECAUSE
2	A 30-YEAR-OLD PATIENT WHO HAD SEVERE RESPIRATORY
3	AIRWAY STENOSIS, A CLOSURE OF THE TRACHEA CAUSED BY
4	TUBERCULOSIS, WAS TRANSPLANTED A TRACHEA THAT WAS
5	BASICALLY DERIVED ORIGINALLY FROM A CADAVER THAT HAD
6	BEEN TOTALLY DECELLULARIZED, HAS REMOVED ALL OF THE
7	CELLS FROM THIS TRACHEA, SO IT WAS LEFT WITH SIMPLY
8	A MATRIX.
9	AND THEN WHAT THEY DID IS THEY CULTURED
10	THIS TUBE OF TRACHEA THAT WAS DECELLULARIZED, NO
11	CELLS PRESENT, WITH THE PATIENT'S OWN CELLS. AND
12	THESE WERE MESENCHYMAL STEM CELLS FROM THE BONE
13	MARROW THAT HAD BEEN CONVERTED TO CHONDROCYTES.
14	CHONDROCYTES ARE THE CARTILAGE GENERATING CELLS THAT
15	DEVELOPED FROM MESENCHYMAL STEM CELLS.
16	THEY ALSO TOOK SAMPLES FROM THE EPITHELIUM
17	OF THE PATIENT'S OWN AIRWAY. THESE EPITHELIAL
18	CELLS, THEY ALSO TRANSPLANTED THOSE ONTO THE
19	TRACHEA, AND THEY HAD THIS IN A BIOREACTOR THAT
20	ENABLED THE CELLS TO ACTUALLY ATTACH TO AND BECOME
21	INCORPORATED IN THAT PIECE OF MATRIX. AND THEN THEY
22	INSERTED THAT MATRIX, THAT PIECE, THAT TUBE, IF YOU
23	LIKE, A NEW TRACHEA BACK IN THE PATIENT. AND THE
24	PATIENT WAS BASICALLY RECOVERED AND WENT HOME AFTER
25	TEN DAYS WITH A PATENT AIRWAY. SHE'S ABLE TO WALK

1	UPSTAIRS, SHE'S ABLE TO PLAY WITH HER CHILDREN, SOME
2	THINGS THAT SHE COULDN'T DO BEFORE.
3	THIS IS NOT REALLY STEM CELLS, BUT IT'S
4	ABOUT BIOENGINEERING TISSUES. THERE'S NO REAL STEM
5	CELLS INVOLVED HERE BECAUSE THEY DROVE THE MSC'S
6	INTO CHONDROCYTES ESSENTIALLY FOR THE PURPOSE OF
7	THIS STUDY. BUT I THOUGHT IT WAS AN INTERESTING
8	PUBLICATION, AND IT'S OBVIOUSLY ONE THAT DREW A LOT
9	OF ATTENTION IN THE MEDIA.
10	THERE'S A LOT NOW GOING ON IN TERMS OF
11	MICRORNA'S, AND I THOUGHT I SHOULD BRING THAT TO THE
12	BOARD'S ATTENTION. THESE MICRORNA ARE VERY SHORT
13	SEGMENTS OF RNA THAT ACTUALLY IMPACT ON MESSENGER
14	RNA, THE CODING THAT COMES FROM THE DNA, IN THAT
15	THESE MICRO-RNA'S CAN EITHER DEGRADE OR DISRUPT THE
16	MESSENGER RNA TRANSLATION PROCESS. AND THEY DO THAT
17	IN A SEQUENCE-DEPENDENT MANNER.
18	AND THIS STUDY THAT WAS REPORTED IN
19	SINGAPORE IN NATURE IN OCTOBER, I THOUGHT, WAS ALSO
20	AN IMPORTANT PAPER BECAUSE IT BRINGS THE WHOLE AREA
21	OF MICROARRAYS VERY FIRMLY INTO THE AREA OF
22	DIRECTING DIFFERENTIATION OR, IN FACT, CONTROLLING
23	RENEWAL OF STEM CELLS AND DIFFERENTIATION. AND IT'S
24	PRETTY IMPORTANT BECAUSE THE SCIENTISTS FROM
25	SINGAPORE LOOKED AT THE GENES NANOG, OCT-4, AND

1	SOX-2, THREE OF THE GENES THAT ARE VERY IMPORTANT IN
2	MAINTAINING PLURIPOTENTIALITY OF STEM CELLS. AND
3	THEY SHOWED THAT THEY HAD MANY AMINO ACID CODING
4	SEQUENCES THAT LOCATED FOR MESSENGER RNA FOR THESE
5	MI CRORNA' S.
6	AND IF THAT'S THE CASE, THEY'RE ABLE TO
7	SHOW THAT THESE MICRORNA'S WERE HAVING A PROFOUND
8	EFFECT ON THE MESSAGE THAT WAS COMING FROM THESE
9	GENES. SO DIFFERENTIATION IS NOT ONLY GOING TO BE
10	DRIVEN BY GROWTH FACTORS, BUT ALSO IS INHERENTLY
11	DRIVEN BY MICRORNA'S. IN FACT, THESE ARE CODING
12	SEQUENCES THAT GO BEYOND THE THREE PRIME IN, WHICH
13	IS THE NORMAL STOP IN THE GENES. AND IT'S A VERY
14	IMPORTANT DEVELOPMENT IN THE WHOLE AREA OF STEM
15	CELLS. AND I BRING IT TO YOUR ATTENTION BECAUSE I
16	THINK YOU WILL HEAR MUCH MORE ABOUT MICRORNA'S IN
17	THE PROCESS THAT WE'RE INVOLVED WITH IN THE SCIENCE
18	OF DIRECTING AND MAINTAINING STEM CELLS.
19	THERE WERE TWO PAPERS BRIEFLY ON
20	DIFFERENT ON NEW SPECIES ON HAVING INDUCED
21	PLURIPOTENTIAL STEM CELLS IN MONKEYS. AND I THINK
22	THAT'S AN INTERESTING NEW DEVELOPMENT BECAUSE THE
23	INDUCED PLURIPOTENTIAL STEM CELLS HAVE BEEN CONFINED
24	TO THE HUMAN OR MOUSE, BUT THEY'VE MOVED NOW OVER TO
25	THE MONKEY. THAT MEANS THAT THEY HAVE MODELS IN

1	THAT SPECIES, AND THERE ARE MODELS OF HUMAN DISEASE
2	IN THE MONKEY WHICH ARE CLEARLY BETTER THAN RODENTS.
3	THERE IS ALSO AN INTERESTING PUBLICATION
4	OUT OF THE GROUP IN TORONTO ON DERIVATION OF
5	EMBRYONIC STEM CELLS IN THE DOG. AND THE CANINE IS
6	ALSO A GOOD MODEL FOR A NUMBER OF HUMAN DISEASES AND
7	WILL ALSO, I THINK, NOW BE A MODEL THAT'S UTILIZED
8	USING THESE CANINE EMBRYONIC STEM CELLS. SO WE'RE
9	SPREADING OUT THE INFLUENCE OF THE PLURIPOTENTIAL
10	CELLS INTO DIFFERENT SPECIES.
11	ALSO, I THOUGHT, BECAUSE OUR PORTFOLIO IS
12	CONTAINING A LOT OF WORK ON CANCER STEM CELLS, I
13	THOUGHT IT WAS IMPORTANT TO SORT OF START TO BRING
14	YOU SOME OF THE PUBLICATIONS ARISING IN THE AREA OF
15	CANCER. THERE'S SOME REALLY INTERESTING DATA
16	HAPPENI NG.
17	AND THIS IS WORK THAT WAS DERIVED FROM
18	EMBRYONIC GERM CELLS. THESE ARE THE CELLS THAT
19	PREDATED EMBRYONIC STEM CELLS. AND IT WAS DONE IN
20	THE MOUSE. THEY HAD TAKEN EMBRYONIC GERM CELLS,
21	WHICH YOU FIND IN TESTICULAR TERATOMAS IN THE MOUSE,
22	AND THEY SHOWED IN THESE CELLS THE METASTATIC
23	BEHAVIOR, THE DANGEROUS BEHAVIOR OF A CANCER CELL OF
24	BEING ABLE TO METASTASIZE THROUGH THE BODY.
25	IT WAS DRIVEN BY TWO PRIMARY BACKGROUND
	21

1	EVENTS. ONE WAS GENETIC INSTABILITY. SO IF YOU
2	HAVE SOME GENETIC INSTABILITY IN SOME AREA, AND IN
3	THIS CASE IN THESE TERATOMAS, THEY'RE VERY UNSTABLE
4	GENETICALLY, AND THEN IF YOU ADD TO THAT THE
5	INHERENT ABILITY TO SELF-RENEW STRONGLY. AND THEY
6	SHOWED IF YOU TREATED THESE CELLS WITH RETINOIC
7	ACID, WHICH STOPS SELF-RENEWAL, YOU DON'T GET
8	METASTASES HAPPENING. BUT IF YOU DO ALLOW THEM TO
9	RENEW UNDER THIS UNSTABLE GENETIC BACKGROUND, YOU
10	WILL GET ALL OF THE CELLS BEHAVING AS METASTATIC
11	CANCER.
12	AND THIS STARTS TO TAKE INTO US INTO THE
13	AREA OF STEM CELLS IN CANCER, AN AREA WHICH I THINK
14	IS INCREDIBLY DANGEROUS FOR PEOPLE AND AN AREA WHICH
15	I THINK WE CAN HAVE A PROFOUND EFFECT ON.
16	MOVING NOW TO THE PERSONNEL IN THE AGENCY,
17	THERE ARE THREE NEW APPOINTMENTS THAT WE WELCOME TO
18	THE INSTITUTE. DR. LILA COLLINS, WHO'S A SCIENCE
19	OFFICER, WHO HAS RECENTLY BEEN AN APPOINTMENT AT
20	GERON AND SHE'S NOW MOVED TO JOIN US. AND WE
21	WELCOME HER TO CIRM. ALSO STEPHANIE TITUS IS A
22	GRANTS MANAGEMENT SPECIALIST AND STRONGLY WELCOME
23	THERE BECAUSE WE'VE BEEN STRUGGLING TO KEEP UP WITH
24	OUR WORKING GRANTS MANAGEMENT AT THE MOMENT. AND
25	HAVING HER, A VERY GOOD PERSON OUT OF UCSF JOIN US,

1	IS ALSO WELCOME. AND TODD DUBINCOFF IS A PH.D.
2	SCIENCE WRITER, MULTIMEDIA EDITOR WHO WAS AT THE
3	JOURNAL OF VISUAL EXPERIMENTATION. HE'S GOING TO
4	BRING SOME OF THIS CAPACITY, EDUCATION AND
5	COMMUNICATION CAPACITY, TO THE WEBSITE AND TO THE
6	CAPACITY FOR US TO DELIVER A BETTER EDUCATION OUT
7	THERE TO THE COMMUNITY.
8	MY PRIORITIES, CHAIR, IN THESE LAST FEW
9	MONTHS SINCE WE'VE MET ON TOP HAS BEEN THE LITTLE
10	HOOVER COMMISSION. AND WE DID HAVE AN INTERESTING
11	SESSION AT THE LITTLE HOOVER COMMISSION. THOSE ARE
12	MY PRIORITIES HAVE BEEN THE LITTLE HOOVER COMMISSION
13	AND ALSO THE STRATEGIC PLAN, THE REVISION OF THE
14	2006 STRATEGIC PLAN. WELL, I'LL SPEAK BRIEFLY ABOUT
15	THAT IN A MOMENT. THE GRANTIUM COMPUTERIZED GRANTS
16	MANAGEMENT SYSTEM, WHICH I'M GOING TO ASK JOHN
17	ROBSON TO SPEAK BRIEFLY TO YOU ABOUT, IS A VERY
18	MAJOR DEVELOPMENT IN OUR PROGRAM.
19	WE'VE BEEN WORKING TOGETHER WITH DUANE AND
20	MANY MEMBERS OF THE BOARD AND OTHER INTERESTED
21	PARTIES ON THE LOAN PROGRAM IMPLEMENTATION PLAN,
22	WHICH HAS BEEN CHALLENGING. I THINK WE'RE GETTING
23	THERE. I'VE MADE NUMEROUS VISITS, AS HAS OTHER
24	STAFF, WITH CIRM-FUNDED INSTITUTIONS.
25	WE'VE BEEN UNDERGOING OUR ANNUAL STAFF
	23

1	APPRAISALS, AND WE'VE BEEN DEVELOPING MODELING FOR
2	CIRM PRODUCTIVITY, A WAY OF MEASURING OUR
3	PRODUCTIVITY GOING FORWARD.
4	I WAS JUST RECENTLY LAST WEEK, TEN DAYS
5	AGO I WAS IN JAPAN, WHICH I SIGNED AN AGREEMENT WITH
6	THE JAPANESE GOVERNMENT, THE JAPANESE SCIENCE AND
7	TECHNOLOGY DEPARTMENT SHOWN HERE WITH DR. KITAZAWA,
8	WHO IS THE PRESIDENT OF JST, AND DR. SHINYA
9	YAMANAKA, WHO HOLDS A VERY SPECIAL PLACE IN JAPANESE
10	SCIENCE AT THE PRESENT TIME.
11	AND THEN JUST LAST WEEK I HAD A VERY
12	PRODUCTIVE VISIT TO JAPAN WHERE I SIGNED AN
13	AGREEMENT WITH CRISTINA GARMENDIA, THE MINISTER FOR
14	SCIENCE AND INNOVATION.
15	CHAIRMAN KLEIN: DR. TROUNSON, I THINK YOU
16	MEAN SPAIN IN THIS CASE.
17	DR. TROUNSON: SPAIN. DID I SAY SOMETHING
18	ELSE? IT'S SPAIN. RIGHT. SO WE NOW HAVE TWO
19	AGREEMENTS FOR COLLABORATION WITH JAPAN AND SPAIN,
20	BOTH SIGNED VERY OFFICIALLY AND EFFECTIVELY. AND I
21	THANK NANCY KOCH IN PARTICULAR IN GETTING US THROUGH
22	THAT SPACE. AND, OF COURSE, MARIE CSETE WAS ALSO
23	IMPORTANT IN HELPING US GET THOSE AGREEMENTS DONE IN
24	VERY RAPID ORDER. AND WE'RE LOOKING FORWARD NOW TO
25	COLLABORATING WITH OUR COLLEAGUES IN JAPAN AND IN
	24

1	SPAIN.
2	MS. SAMUELSON: ALAN, COULD YOU BRIEFLY
3	EXPLAIN WHAT THE AGREEMENTS PROVIDE?
4	DR. TROUNSON: THESE ARE BROAD OVERVIEW
5	AGREEMENTS WHERE WE AGREE TO COLLABORATE; THAT IS,
6	IF SCIENTISTS IN, FOR EXAMPLE, JAPAN COME TOGETHER
7	WITH SCIENTISTS IN CALIFORNIA AND THEY APPLY FOR A
8	GRANT, SO THAT WOULD BE IN OUR NORMAL RFA PROGRAM,
9	AND THAT GRANT IS THEN RECOMMENDED BY THE GRANTS
10	WORKING GROUP TO BE IN THE TOP LEVEL FOR FUNDING, WE
11	WILL PAY FOR THE CALIFORNIA COMPONENT AND JAPAN
12	WOULD PAY FOR THE JAPANESE COMPONENT.
13	THIS BROADENS BOTH THE CAPACITY WE HAVE IN
14	TERMS OF FUNDING, BUT ALSO IN EXPERTISE. IN THE
15	CASE OF JAPAN, THEY'RE VERY WELL ADVANCED IN THE IPS
16	CELL AREA, AND THEY'RE LOOKING FORWARD TO LINKING
17	WITH US TO JOIN WITH THE EMBRYONIC STEM CELL AREA,
18	WHICH IS WHERE WE HAVE AN INCREDIBLE EXPERTISE,
19	JOINING THESE AREAS TOGETHER IN A COOPERATIVE
20	MOVEMENT, I THINK, GLOBALLY TO DEVELOP THIS
21	CAPACI TY.
22	IN THE CASE OF SPAIN, THERE'S SOME VERY
23	BROAD EXPERTISE HERE THAT IS SHARED IN CALIFORNIA
24	AND SPAIN. THERE ARE APPOINTMENTS WHO HAVE SENIOR
25	APPOINTMENTS BOTH IN THE INSTITUTES WITHIN
	25

1	CALIFORNIA AND IN SPAIN, AND THEY VE PUSHED VERY
2	HARD TO HAVE THESE AGREEMENTS SO THAT THEY CAN JOIN
3	FROM BOTH SPAIN AND CALIFORNIA AND COME TOGETHER.
4	AND, AGAIN, THE SPANISH COMPONENT WOULD BE PAID BY
5	THE SPANISH GOVERNMENT AND THE CALIFORNIA COMPONENT
6	BY US IF WE RECOMMENDED, IF THEY COME IN THE GRANTS
7	WORKING GROUP TO BE RECOMMENDED.
8	CHAIRMAN KLEIN: AND, JOAN, THEY DO
9	UNDERSTAND VERY CLEARLY THAT, EVEN IF THEY ARE
10	RECOMMENDED BY THE GRANTS WORKING GROUP, WHETHER
11	PROGRAMMATIC REASONS, SCIENTIFIC REASONS, OR BUDGET
12	REASONS, THEY MAY NOT GET APPROVED AT THE BOARD
13	LEVEL. SO THEY DO UNDERSTAND WE HAVE TWO LEVELS OF
14	APPROVAL HERE; AND UNTIL IT'S APPROVED AT THE BOARD,
15	THEY DON'T HAVE A COMMITMENT.
16	ALAN, COULD YOU GIVE A LITTLE ADDITIONAL
17	DEPTH QUICKLY ON, FOR EXAMPLE, IN SPAIN ON THE
18	PROVINCE'S LEVEL OF FUNDING, BOTH EUROPEAN ECONOMIC
19	COMMISSION AND FEDERAL FUNDING, JUST IN SCALE?
20	DR. TROUNSON: THE SPANISH GOVERNMENT IN
21	THE FEDERAL GOVERNMENT IS TOTALLY COMMITTED TO THIS.
22	THE MINISTER AND THE SECRETARY OF STATE, WHOM WE
23	SPENT A DAY WITH, ARE TOTALLY COMMITTED TO PROVIDING
24	A MAJOR RESOURCE IN THIS AREA. BUT IN ONE OF THE
25	REGIONS ALONE, THEY HAVE A BUDGET OF AROUND ONE

1	BILLION EUROS FOR EXPENDITURE IN THE AREA OF
2	MEDICINE THAT'S BROADLY MEDICINE, BUT QUITE A LOT OF
3	IT IS FOCUSED ON REGENERATIVE MEDICINE.
4	SO THERE IS A RATHER LARGE CAPACITY, IF
5	YOU WISH, THAT IS POTENTIAL THAT IS THERE THAT COULD
6	BE SUPPORTED, YOU KNOW, IF WE'RE ABLE TO DO JOINT
7	ACTIVITIES TOGETHER.
8	THE INTEREST HERE, JOAN, AND I THINK
9	SHOULD BE REFLECTED IN THE REVISION TO THE STRATEGIC
10	PLAN, IS TO GET THESE TO THE CLINIC, THESE
11	DEVELOPMENTS TO THE CLINIC AS SOON AS POSSIBLE. I
12	SEE THIS AS ONE WAY OF BEING ABLE TO ACCELERATE
13	THAT.
14	I THINK THERE ARE CAPACITIES FOR CLINICAL
15	TRIALS THAT EXIST IN EUROPE THAT WE DON'T HAVE HERE
16	AND OPPORTUNITIES FOR DOING WORK IN EUROPE THAT
17	WOULD BE MUCH MORE DIFFICULT HERE AS WELL. BUT THIS
18	ALL HAS TO BE DONE WITHIN THE FRAMEWORK OF THE LAW
19	UNDER WHICH WE ACT AND CIRM ACTS IN CALIFORNIA. SO
20	WE HAVE TO KEEP TO ALL OF THE ESTABLISHED
21	REGULATIONS AND LAW THAT WE CURRENTLY OPERATE UNDER.
22	MS. SAMUELSON: BUT THE INTENT OF THE LAW
23	ALSO IS TO ADVANCE CURES AS FAST AS POSSIBLE.
24	DR. TROUNSON: ABSOLUTELY. THAT'S THE
25	TOTAL INTENT. I THINK WE SEE THIS NOW AS A REAL
	27

1	GLOBAL EFFORT TO DELIVER THE TREATMENT TO THE
2	PATIENTS AS QUICKLY AS POSSIBLE.
3	THE NEXT ONE JUST GIVES YOU AN UPDATE ON
4	WHAT WE ACTUALLY HAVE SIGNED IN THE TIME THAT IN
5	THIS LAST THREE OR FOUR MONTHS. WE HAVE SIGNED WITH
6	CANADA AND THE CANCER STEM CELL CONSORTIUM. THAT'S
7	A MAJOR DEVELOPMENT IN THE ATTACK ON CANCER. IT WAS
8	SUPPORTED ALSO BY A WORKSHOP THAT WE HAD HERE IN
9	CALIFORNIA ATTENDED BY MOST OF THE PRIMARY LEADERS,
10	IF YOU LIKE, IN CANCER WORK IN CALIFORNIA, STRONGLY
11	UNANIMOUSLY SUPPORTED THAT WE SHOULD WORK WITH THE
12	CANADI ANS.
13	THE VICTORIAN GOVERNMENT, AND YOU WILL
14	HEAR MORE ABOUT THEM, THEY'RE THE FIRST GROUP OF
15	INTERNATIONAL SCIENTISTS JOINING WITH US. THE
16	UNITED KINGDOM MEDICAL RESEARCH COUNCIL, THEY'RE
17	MEETING WITH THEIR COMMITTEES THIS WEEK TO SEE
18	WHETHER THEY CAN BE READY FOR OUR DISEASE TEAM
19	PROPOSALS. SO, AGAIN, A MAJOR COMMITMENT FROM THE
20	UK IN THIS AREA.
21	THE JUNIOR DIABETES RESEARCH FOUNDATION
22	HAS INDICATED THAT THEY'RE WILLING TO COMMIT UP TO
23	\$4 MILLION IN THE DISEASE TEAM PROGRAM IF WE GET A
24	DIABETES PROGRAM UP. AND AS I SAID, WE'VE DONE THE
25	ACREEMENTS WITH IADAN AND SPAIN

1	WE'RE ALSO HAVING TALKS WITH THE ALLIANCE
2	FOR GENE THERAPY, WITH THE BINATIONAL SCIENCE
3	FOUNDATION, WHICH IS REPRESENTATIVE OF THE ISRAEL
4	GOVERNMENT, WITH GERMANY, THE NETHERLANDS, AND
5	SWEDEN. I'M SEEING THIS AS AN OPPORTUNITY TO
6	CONNECT WITH PROBABLY AROUND ABOUT TEN OF THE
7	PRIMARY RESEARCH COMMUNITIES IN THE WORLD.
8	I WOULD SUGGEST THAT WE MIGHT WE SHOULD
9	REALLY TALK TO CHINA. IT'S A VERY STRONG RESEARCH
10	PROGRAM GOING ON IN CHINA. THERE'S ALSO THE GROUP
11	IN SINGAPORE, WHICH WE'VE NOT REALLY MADE A LOT OF
12	PROGRESS WITH IN DISCUSSIONS YET, BUT I THINK WE
13	SHOULD CONTAIN IT TO, IF YOU LIKE, A CONTAINABLE
14	NUMBER TO WORK WITH.
15	BUT I THINK IF WE HAVE THIS GROUP, THEN I
16	THINK THE NATIONAL NIH AND OTHERS WILL JOIN WITH US
17	AS LINKING WITH THE LEADERSHIP THAT WE'VE PROVIDED
18	IN THIS GLOBAL ATTACK ON DEGENERATIVE MEDICINE.
19	DR. PIZZO: ALAN, I WONDER IF I COULD JUST
20	ASK YOU TO CLARIFY, MAYBE EXPAND A LITTLE BIT ON THE
21	EXAMPLE YOU CITED WITH THE UK AND THE DISEASE
22	PLANNING. HOW WOULD THAT BE ACTUALIZED?
23	DR. TROUNSON: I THINK THE ACTUALIZATION
24	OF IT IS IS THAT THE SCIENTISTS WOULD IT NEEDS TO
25	BE A BOTTOM-UP PROCESS, THAT THE SCIENTISTS IN THE
	20

1	UK, THEY FELL THAT THE TEAM IN CALIFORNIA, JOINING
2	TOGETHER, THEY WOULD HAVE A MUCH BETTER CHANCE OF
3	ACHIEVING AN IND INSIDE THE FOUR YEARS. SO IT MAY
4	BE IN CARDIOVASCULAR OR RETINAL REPAIR, THAT IF THEY
5	JOIN TOGETHER, THEY WOULD FEEL THEY'D HAVE A BETTER
6	CHANCE OF MAKING THE IND IN THE FOUR YEARS OR
7	CONVINCING THE REVIEWERS THAT THEY HAD.
8	THEN THE SCIENTISTS WOULD JOIN TOGETHER
9	AND PUT IN A COMBINED RESEARCH PROJECT. THAT
10	PROJECT WILL HAVE TO GO THROUGH THE NORMAL REVIEW
11	THAT WE HAVE. WE'VE OFFERED TO THESE COUNTRIES THE
12	OPPORTUNITIES FOR THEM TO NOMINATE REVIEWERS BECAUSE
13	WE'RE ALWAYS LOOKING FOR REALLY HIGH QUALITY
14	REVIEWERS. THEY ALSO WOULD HAVE OBSERVER STATUS AT
15	THE GRANT REVIEWS, AS WE DO. AS AN INSTITUTION,
16	WE'RE MORE OBSERVER THAN ANYTHING ELSE. AND THEN IF
17	IT'S AGREED TO BY THE ICOC, THEN THE GOVERNMENT, IN
18	THIS CASE THE MRC, WOULD AGREE TO FUND THE UK
19	COMPONENT. THEY MIGHT LIMIT THE AMOUNT OF MONEY
20	THAT THE UK GOVERNMENT GIVES TO EACH PROJECT AS
21	AUSTRALIA HAS IN THEIR PROPOSALS. THEY'VE LIMITED
22	IT TO \$1 MILLION, BUT WE DON'T REALLY KNOW THAT YET.
23	BUT THEY'RE TALKING TO THEIR PRIMARY COMMITTEES AT
24	THE MRC TO SEE IF THIS SUITS THEIR IS SUITABLE OR
25	ACCEPTABLE TO THEM.
	30

1	DR. PIZZO: SO CLEARLY THESE ARE IMPORTANT
2	OPPORTUNITIES. I THINK WE'RE ALL COGNIZANT THAT
3	THIS IS A GLOBAL EFFORT THAT ONE IS TRYING TO
4	FACILITATE. AND I KNOW I MISSED THE LAST MEETING,
5	BUT PERHAPS THIS WAS DISCUSSED IN MORE DETAIL THEN.
6	IS THAT THE CASE? BECAUSE WHAT I'M GOING TO GET AT
7	IS I THINK THAT YOU CITED, BOB, EARLIER AN INTENT TO
8	TALK ABOUT FEDERAL INTERACTIONS AT THE JANUARY
9	MEETING, WHICH I THINK DOES DESERVE A LOT OF EFFORT.
10	CLEARLY, THE WAY, ALAN, YOU'RE OUTLINING
11	THESE EFFORTS, OF WHICH THERE ARE MULTIPLE DIFFERENT
12	CONNECTIONS IN DIFFERENT COUNTRIES WITH, I'M SURE,
13	DIFFERENT EXPECTATIONS OF HOW THESE MIGHT BE
14	ESTABLISHED AND WORK, SEEMS TO ME TO BE A REALLY
15	IMPORTANT TOPIC IN ITS OWN RIGHT AND NEEDS
16	DISCUSSION. I JUST LOOK AROUND. MAYBE OTHERS ARE
17	MORE INFORMED THAN I AM ABOUT HOW THIS IS BEING
18	ORGANI ZED.
19	CHAIRMAN KLEIN: WHAT I CAN DO, DR. PIZZO,
20	IS THAT I DON'T KNOW WHICH OF THE LAST MEETINGS THIS
21	HAS BEEN ADDRESSED. IT HAS BEEN ADDRESSED
22	PREVIOUSLY. WHAT WE CAN DO IS LOOK AT THOSE
23	TRANSCRIPTS, BUT ALSO JUST SCHEDULE IT INTO JANUARY
24	SO WE CAN HAVE SIDE-BY-SIDE FEDERAL AND
25	I NTERNATI ONAL.
	21

_	DD DI 770 I MIOW WELVE HAD DI COURCE ONC
1	DR. PIZZO: I KNOW WE'VE HAD DISCUSSIONS
2	ABOUT SOME OF THE INTERNATIONAL ARRANGEMENTS. WHAT
3	I'M TALKING ABOUT IS A DEEPER STRATEGIC DISCUSSION
4	ABOUT WHAT ARE WE TRYING TO ACHIEVE? WHICH PLACES
5	ARE WE GOING TO GO TO? WHAT ARE THE GOALS AND
6	EXPECTATIONS THAT ARE BEING SET? WHAT ARE THE
7	METRICS TO DEFINE HOW WELL THEY'RE GOING? THESE
8	ARE OBVIOUSLY EACH OF US IN OUR OWN INSTITUTIONS
9	ARE CONSTANTLY VISITED BY GROUPS FROM OTHER
10	UNIVERSITIES THAT ARE LOOKING TO SET UP STRATEGIC
11	AFFI LI ATI ONS.
12	I THINK SINCE THIS IS SUCH A PUBLIC EFFORT
13	AND WE'RE USING PUBLIC SUPPORT, I THINK WE WANT TO
14	BE SURE THAT WE'RE DOING THIS AT THE HIGHEST LEVEL.
15	AND, AGAIN, I AM NOT SURE. MAYBE IT'D BE WORTH
16	HAVING A FEW COMMENTS FROM OTHERS IF EVERYONE IS
17	HAPPY WITH WHERE WE ARE. IT'S NOT THAT I'M UNHAPPY.
18	I JUST THINK WE NEED MORE DETAILED DISCUSSION ABOUT
19	IT.
20	CHAIRMAN KLEIN: DR. CSETE IS GOING TO
21	ADDRESS THIS. IN THE INTERIM MOMENTS BEFORE SHE
22	ADDRESSES US, I THINK THE STRATEGIC CONCEPT HAS BEEN
23	THAT ALL OF THE AREAS OF CHRONIC DISEASE BENEFIT IF
24	WE CAN GET SOME SIGNAL DISCOVERIES AND BREAKTHROUGHS
25	AND THERAPEUTIC APPLICATIONS THAT ARE EFFECTIVELY

1	IMPLEMENTED IN A COUPLE OF AREAS AND WILL HELP SHOW
2	US THE PATH ACROSS THE BROADER AREA. AND IF SOME OF
3	THE CRITICAL LINKS ARE IN SOME OTHER COUNTRY AND CAN
4	BE MATCHED WITH OUR SCIENTISTS IN CALIFORNIA THAT
5	WOULD FACILITATE THAT COULD HELP EVERYONE GET TO A
6	POINT OF UNDERSTANDING OF THE PATHWAYS TO SUCCESSFUL
7	THERAPI ES FASTER.
8	NOW, BUT CERTAINLY I'M PREPARED FOR THE
9	JANUARY MEETING TO SIDE BY SIDE, AFTER THE FEDERAL
10	DISCUSSION, TO HAVE A STRATEGIC DISCUSSION IN
11	GREATER DEPTH ON THIS.
12	DR. PIZZO: YOU KNOW, CLEARLY ALL OF US
13	RECOGNIZE THE IMPORTANCE OF INTERACTIONS. THESE
14	HAPPEN AT MANY, MANY DIFFERENT LEVELS. BUT AS
15	AFFILIATION AGREEMENTS OR SIGNATURES ARE BEING
16	GATHERED WHERE HIGH LEVEL INDIVIDUALS HAVE
17	EXPECTATIONS, I THINK IT IS IMPORTANT TO BETTER
18	UNDERSTAND WHAT WE'RE COMMITTING, WHAT IS BEING
19	COMMITTED, WHAT THE GROUND RULES ARE FOR SUCCESS
20	AND/OR FAILURE.
21	DR. CSETE: SO I THINK WHAT'S REALLY
22	IMPORTANT TO KNOW IS THAT THE WAY THAT THESE ARE
23	ARRANGED, OTHERWISE IT WOULD BE COMPLETELY
24	INTRACTABLE, IS THAT FROM THE CIRM PERSPECTIVE, WE
25	DO OUR BUSINESS AS IF WE HAD NO PARTNERS. WE MAKE

1	OUR PRIORITIES, WE WRITE OUR RFA'S, WE PLAN OUR
2	PROGRAMS AS IF THERE WERE NO PARTNERS INVOLVED.
3	AND OUR VARIOUS PARTNERS CAN THEN LOOK AT
4	OUR PROGRAMS AND DECIDE WHETHER THEY HAVE THE
5	SCIENTIFIC STRENGTH TO FORM TEAMS. THE TEAMS WILL
6	BE JUDGED AGAINST THE OTHER FULL CALIFORNIA TEAMS
7	AND OTHER COLLABORATIVE TEAMS IN TERMS OF THE
8	SCIENCE AS A WHOLE EXACTLY IN OUR REVIEW PROCESS
9	WITHOUT CHANGE OF OUR REVIEW PROCESS AT ALL. AND
10	THAT WAS NECESSARY, NOT ONLY BECAUSE OF THE
11	LEGISLATIVE CONSTRAINTS THAT WE HAVE, BUT ALSO
12	BECAUSE IF WE'RE GOING TO MAKE THIS WORK, WE CAN'T
13	BE DOING SEPARATE PROCESSES WITH EACH OF THESE
14	AGENCI ES.
15	THAT'S BEEN A DIFFICULT PART OF THE
16	CONVERSATION, BUT I THINK WITH EACH OF THESE, WE'VE
17	IDENTIFIED ENORMOUS SYNERGIES THAT I THINK ONLY ADD
18	TO THEIR PROGRAMS. IF THAT HELPS.
19	DR. TROUNSON: I THINK IT GOES SOME WAY TO
20	SAY THAT THE MEASURES OF OUR SUCCESS FOR THE
21	COMMUNITY WILL BE DRIVEN OFF WHETHER WE HAVE
22	TREATMENTS IN THE CLINIC WHICH ARE EFFECTIVE. THE
23	SENSE THAT WE WILL GENERATE MORE PAPERS IN
24	HIGH-VALUE JOURNALS WILL CERTAINLY COME FROM THIS
25	BECAUSE IT WILL BE EASIER TO GET THEM THERE. BUT I

1	THINK IN THE END, WE WANT TO SEE, YOU KNOW, A BETTER
2	OPPORTUNITY FOR THESE NEW DEVELOPMENTS TO GET TO THE
3	CLINIC.
4	AND THEY SHOULDN'T REALLY DIVERT US FROM
5	OUR MISSION. IT SHOULD BE ENABLING OF THAT MISSION.
6	WHAT WE HAVE DONE IN CANCER IS HAVE A WHOLE WORKSHOP
7	ON IT WITH ALL OUR CALIFORNIA COLLEAGUES. AND IN
8	THE CASE OF THE UK AND JAPAN, WE'LL BE MEETING,
9	WE'LL HAVE THE KEY SCIENTISTS FROM JAPAN AND ALSO
10	FROM CALIFORNIA MEETING TOGETHER IN A WORKSHOP TO
11	TRY AND OUTLINE WHERE THE BEST OPPORTUNITIES ARE AND
12	CARRY THAT MESSAGE BACK INTO BOTH COMMUNITIES.
13	CHAIRMAN KLEIN: DUANE, I THINK YOU HAD A
14	COMMENT.
15	MR. ROTH: I WOULD WELCOME CONVERSATION
16	ABOUT THIS IN JANUARY ALSO. AND AS PART OF THAT,
17	MAYBE, ALAN, YOU COULD INCLUDE THE RESOURCE
18	ALLOCATION TO THESE AFFILIATIONS. JUST HOW MANY
19	FTE'S OR PARTIAL FTE'S.
20	DR. TROUNSON: WE'RE NOT ALLOCATING
21	ANYTHING SPECIFICALLY TO THESE RELATIONSHIPS.
22	THEY'LL COME AS A CONTRIBUTION FROM THOSE COUNTRIES
23	TO THE PROJECT IF THEY'RE AWARDED. SO WE'RE NOT
24	ACTUALLY CONTRIBUTING.
25	CHAIRMAN KLEIN: I THINK THAT VERY
	35

1	FOCUSED, DUANE, IS, AS MARIE HAS JUST PRESENTED IT,
2	WHEN THE APPLICATION COMES IN, DOESN'T MATTER TO US
3	IF IT COMES IN FROM ONE OF OUR INSTITUTES AND
4	PARTNERS IN THE UNITED KINGDOM, FOR EXAMPLE. FROM
5	OUR VIEWPOINT, WE HAVE A CALIFORNIA APPLICANT.
6	MR. ROTH: I UNDERSTAND ALL THAT.
7	CHAIRMAN KLEIN: WE'RE NOT ALLOCATING ANY
8	MANPOWER TO SERVICE THE FOREIGN RELATIONSHIP, BUT
9	WHY DON'T WE LOOK AND SEE AT THE MARGIN IF THERE IS
10	ANY INCREMENTAL DIFFERENCES THAT WE HAVEN'T
11	IDENTIFIED AND REPORT BACK ON THAT.
12	DR. BRYANT: I WAS JUST WONDERING IF THIS
13	COULD ALSO OPEN UP TO COLLABORATIONS WITH OTHER
14	STATES.
15	DR. TROUNSON: I THINK THAT'S REALLY
16	IMPORTANT, SUSAN. AND MY OVERTURES TO SOME OF THE
17	STATES THUS FAR HAVE BEEN WELCOME WITHOUT SORT OF
18	CHANGING OVER TO GETTING AN AGREEMENT. WE'VE
19	CERTAINLY HAD SOME DISCUSSIONS WITH NEW YORK AND
20	WITH THE STATE OF MASSACHUSETTS. WE WOULD NEED TO
21	PURSUE THOSE, I THINK, MORE VIGOROUSLY IN THE COMING
22	YEAR AS WE NEED TO WITH NIH. AND I THINK THE
23	OPPORTUNITY TO PARTNER WITH NIH, CLEARLY IT IMPROVED
24	DRAMATICALLY WITH THE CHANGE IN ADMINISTRATION.
25	DR. BRYANT: SO I WOULD JUST SAY THAT I
	24

1	THINK MOST OF THE GRANTEES OUT THERE ARE NOT REALLY
2	AWARE OF THE EXTENT OF THIS BECAUSE IT REALLY WOULD
3	CHANGE YOUR STRATEGY IF YOU'RE THINKING ABOUT
4	APPLYING FOR A GRANT IN TERMS OF WHO OUT THERE WOULD
5	HELP YOUR GRANT, AND DO WE HAVE AN AFFILIATION WITH
6	THEM. SO I THINK THESE NEED TO BE SET BEFORE WE DO
7	THE RFA'S.
8	DR. TROUNSON: WELL, I THINK YOUR
9	UNIVERSITY HAS RESPONDED VERY STRONGLY IN TERMS OF
10	THE LATEST ONE. I THINK THERE ARE AT LEAST THREE OF
11	YOUR APPLICATIONS HAVE COME WITH INTERNATIONAL
12	COLLEAGUES IN IT, SO YOU'VE DONE VERY WELL.
13	CHAIRMAN KLEIN: BUT I THINK THE POINT IS
14	WELL TAKEN. AND HOPEFULLY IF WE CAN DO WEBCASTING,
15	THE INSTITUTIONAL RESEARCHERS AROUND THE STATE WILL
16	BE ABLE TO WITH MORE ACCESSIBILITY WATCH THESE
17	PROCEEDINGS IN REAL-TIME TO THE EXTENT THEY ASSIGN
18	ANYONE IN THEIR GROUP TO GET THE INFORMATION ON
19	THESE, BUT WE PUBLISH EVERYTHING. WE POST IT ALL.
20	BUT WE'RE GOING TO REACH TO GET GREATER DISTRIBUTION
21	OF THAT INFORMATION.
22	ALAN, GIVEN TIMING, AT THIS POINT COULD
23	YOU HAVE DR. ROBSON WANTS TO MAKE A PRESENTATION.
24	DR. TROUNSON: IT WON'T BE LONG, CHAIR.
25	WE'VE JUST BEEN CAUGHT UP IN THIS ANSWERING

1	QUESTI ONS.
2	JUST QUICKLY ON THE GRANT REVIEWS THAT
3	HAVE BEEN COMPLETED: TOOLS AND TECHNOLOGIES, WHICH
4	YOU WILL BE SEEING TODAY. THE TRAINING GRANTS II
5	WITH THE CIRM SCHOLARS. WE'VE DONE THAT REVIEW.
6	AND ALSO WE'VE DONE THE BRIDGES. THAT WILL COME TO
7	YOU IN JANUARY.
8	THE UPCOMING GRANT REVIEW FOR EARLY
9	TRANSLATIONAL RESEARCH, OUR FIRST INTO THE
10	TRANSLATIONAL AREA, THERE WERE 71 APPLICATIONS, 20
11	FOR FOR-PROFIT FOR THE COMMERCIAL COMPANIES, 51 FROM
12	THE NOT-FOR-PROFIT, SO A VERY HEALTHY RESPONSE FROM
13	OUR COMMERCIAL BIOTECH INTERESTS. THERE WERE 37
14	DEVELOPMENT CANDIDATES AND 34 BOTTLENECKS. WE HAD
15	SPLIT THAT RFA TO PICK UP THOSE TWO ELEMENTS. THERE
16	WERE NINE INTERNATIONAL COLLABORATIONS, WHICH I
17	THINK THREE OF THEM, SUSAN, WERE WITH YOUR
18	UNI VERSI TY. SO WELL DONE.
19	AND THE GRANTS REVIEW WILL BE DONE IN
20	FEBRUARY. AND THAT WILL GO TO ICOC APPROVAL IN
21	APRIL. I THINK YOU WILL LOOK AT INTEREST IN THOSE
22	BECAUSE THAT'S STARTING TO TRANSLATE THESE
23	DEVELOPMENTS INTO WORK WHICH WILL BE APPLICABLE FOR
24	CLINICAL DEVELOPMENTS.
25	UPCOMING RFA'S, ONE ON THE BASIC RESEARCH
	20

1	INITIATIVE AND ONE ON THE DISEASE TEAM RESEARCH
2	AWARDS, THEY'LL BE BROUGHT TO YOU IN CONCEPT AT THIS
3	MEETING. WE HAD A VERY USEFUL CELL PRODUCTION GMP
4	WORKSHOP. I JUST WANTED TO REPORT TO YOU THE
5	SPECIFIC OUTCOMES OF THAT SO THAT YOU HAD SOME IDEA
6	WHAT HAPPENED.
7	THERE WAS AN INTERACTIVE PROGRAM OF
8	ACADEMIC, INDUSTRY, AND REGULATORY EXPERTS. THE
9	RECOMMENDATION WAS TO ESTABLISH A CONSORTIUM TO
10	REALLY NAIL THE PRIORITIES IN THIS AREA; THAT IS,
11	FROM THE PEOPLE WHO ARE ACTUALLY IN THERE DELIVERING
12	THE TECHNOLOGY CURRENTLY. THE RESEARCH NEEDS FOR
13	THE GMP WERE IDENTIFIED, AND I'LL QUICKLY IDENTIFY
14	THOSE FOR YOU IN A MOMENT.
15	THEY VERY STRONGLY RECOMMENDED THAT CIRM
16	SHOULD NOT OWN OR OPERATE GMP FACILITIES, VERY
17	STRONG UNANIMOUS RECOMMENDATION TO US, AND THAT WE
18	SHOULD OPTIMIZE CIRM GRANTEE ACCESS TO GMP BY
19	IMPROVING CAPACITY, ANALYSIS LOOKING AT OPTIONS FOR
20	CONTRACT MODELS, AND GRANT BUDGET ADJUSTMENTS ARE
21	NEEDED.
22	THE KIND OF RESEARCH THAT THEY RECOMMENDED
23	WAS, IN PARTICULAR, TO HELP WITH THE UNDERGRADUATE
24	LEVEL BRIDGES-TYPE PROGRAM FOCUSED ON GMP TRAINING
25	TO BUILD A WORKFORCE. AND THAT IS ONE OF THE REAL

1	CRITICAL INFLUENCES THERE, AND WE'LL COME BACK TO
2	YOU WITH A BRIDGES-TYPE TRAINING PROGRAM. THIS WILL
3	PROBABLY INVOLVE TWO YEARS FOR THESE YOUNG PEOPLE
4	TRAINING IN THESE COMMERCIAL FACILITIES TO BUILD A
5	WORKFORCE THAT IS SUITABLE.
6	WE NEED METHODS TO EXPAND THE HUMAN
7	EMBRYONIC STEM CELLS. WE WANT QUANTIFICATION,
8	OPTIMIZATION OF CULTURE REAGENTS TO MEET SAFETY
9	REQUIREMENTS, METHODS FOR SCALE-UP, DERIVATION OF
10	THE PLURIPOTENTIAL CELL LINES UNDER GMP CONDITIONS.
11	ALL THINGS THAT WE REALLY HAVEN'T DONE YET. AND
12	METHODS FOR PRODUCT DEVELOPMENT IN THE CONTEXT OF
13	ACADEMIC LABORATORIES.
14	SO WE'LL NEED TO PROVIDE FUNDING FOR
15	SCALE-UP FROM THE LAB TO THE GMP COMPLIANT
16	PRODUCTION AND FOR GMP PRODUCTION. SO WE KNOW THAT
17	WE'VE GOT TO BE IN THIS SPACE, AND WE'VE BEEN GIVEN
18	SOME FAIRLY CLEAR RECOMMENDATIONS FROM THAT
19	WORKSHOP.
20	WE'RE HAVING OTHER PROPOSED WORKSHOPS, ONE
21	IN JANUARY WITH THE UNITED KINGDOM. THE MRC IS
22	SENDING 12 SCIENTISTS TO MEET WITH 12 OF THE
23	CALIFORNIAN SCIENTISTS, SENIOR SCIENTISTS, TO
24	DISCUSS COLLABORATION.
25	WE'RE HAVING AN IMMUNOLOGY TOOLS WORKSHOP,

1	WORK FOCUSED ON IMMUNOLOGY AND TOLERANCE IN
2	FEBRUARY. I'VE ASKED MARIE CSETE TO ORGANIZE A STEM
3	CELLS AUTISM AND MENTAL DISEASE WORKSHOP. I THINK
4	WE'VE GOT TO START TO GET TRACTION ON THAT AREA.
5	IT'S PART OF OUR PORTFOLIO, AND WE'RE NOT WELL
6	VERSED ON WHAT WE NEED TO DO IN THAT AREA. AND
7	THERE'S ALSO A PROPOSAL FOR A JAPANESE-CALIFORNIA
8	WORKSHOP TO COME UP.
9	SPEAKING BRIEFLY TO THE STRATEGIC PLAN
10	UPDATE, AND WE'VE SENT THAT OUT TO YOU. WE'VE
11	POSTED THAT, THE DRAFT. IT IS A DRAFT. IT'S A
12	REVISION OF THE 2006 STRATEGIC PLAN. WE WELCOME YOU
13	AND, PLEASE, WE WANT YOU TO READ THAT STRATEGIC
14	PLAN. IT'S NOT THAT LONG. AND I HOPE YOU WILL FIND
15	IT INTERESTING. THERE'S AN INCREASED EMPHASIS ON
16	TRANSLATION OF CLINICAL RESEARCH. WE WANT TO START
17	REPEATING BASIC TRANSLATION DISEASE TEAMS AND
18	TRAINING GRANTS AS A SORT OF CORE COMPONENT SO THE
19	SCIENTISTS AND THE TRANSLATION AND CLINICAL PEOPLE
20	CAN UNDERSTAND THE KIND OF RELEASE PROGRAM WE WILL
21	HAVE ON RFA'S. SO WE SEE THAT AS MORE OF A CORE
22	CAPACITY WITH SUPPLEMENTATION ON SPECIFIC FOCI, SUCH
23	AS IMMUNOLOGY AND TOOLS AND TECHNOLOGY.
24	WE WANT TO INCREASE LINKAGES WITH
25	BIOTECHNOLOGY AND PHARMACEUTICAL INDUSTRIES. AND

1	WE'RE DETERMINED TO GET THAT. WE THINK IT'S
2	ABSOLUTELY ESSENTIAL, THE DELIVERY TO THE CLINIC.
3	WE WANT TO INCREASE GLOBAL AND NATIONAL
4	COLLABORATIONS, AND THAT WE'VE JUST SPOKEN ABOUT.
5	AND WE WANT TO INCREASE EDUCATION AND PUBLIC
6	UNDERSTANDING OF REGENERATIVE MEDICINE BASED ON STEM
7	CELL RESEARCH. WE THINK THAT'S STILL A VERY
8	IMPORTANT PART OF OUR PROGRAM.
9	CHAIRMAN KLEIN: AND WE HAVE VERY SPECIFIC
10	PUBLIC DISCUSSION AND BOARD INPUT ON THE STRATEGIC
11	PLAN DRAFT AS ITEM 12 IN THE AGENDA FOR THIS
12	MEETING, SO THAT WILL BE ADDRESSED AGAIN.
13	DR. TROUNSON: SO NOW ALL THE STAFF, OF
14	COURSE, THAT DO ALL THIS, AND I STAND UP AND TALK TO
15	YOU AND SAY AND GET THE REWARDS FOR ALL OF THEIR
16	HARD WORK. THEY'RE A FANTASTIC GROUP OF PEOPLE. I
17	THINK THEY NOW NUMBER AROUND 34 PEOPLE AT CIRM. SO
18	WE ARE STILL WELL UNDER THE 50, BUT WE'RE BEING
19	PERSUADED TO INCREASE OUR NUMBERS IN ORDER TO
20	DELIVER OUR PROGRAM.
21	IF I CAN NOW INVITE JOHN ROBSON TO SPEAK
22	BRIEFLY TO YOU ON THE GRANTIUM PROGRAM.
23	CHAIRMAN KLEIN: FOR THE MEMBERS OF THE
24	PUBLIC, DR. ROBSON IS THE CHIEF OPERATING OFFICER AT
25	THE AGENCY.

1	DR. ROBSON: THANK YOU, MR. CHAIRMAN. I
2	JUST WANT TO GIVE YOU A BRIEF UPDATE ON GRANTIUM,
3	WHICH IS THE COMMERCIALLY AVAILABLE COMPREHENSIVE
4	SOFTWARE SYSTEM FOR GRANTS MANAGEMENT THAT YOU
5	AUTHORIZED US TO PURCHASE SEVERAL MONTHS AGO.
6	BUT FIRST I'D LIKE TO REMIND YOU AS TO WHY
7	IT'S IMPORTANT IF I CAN HAVE THE NEXT SLIDE. THIS
8	IS A SNAPSHOT OF OUR GRANT ACTIVITY OVER THE PAST
9	THREE YEARS. SO IN 2005-6, WHICH IS WHEN CIRM MADE
10	ITS FIRST AWARDS, WE RECEIVED 26 GRANT APPLICATIONS,
11	AWARDED 16, HAD 16 ACTIVE, FOR A GRAND TOTAL OF
12	ABOUT \$38.5 MILLION THAT WE WERE MANAGING AT THAT
13	TIME.
14	NOW, IF YOU JUMP AHEAD THREE YEARS, THESE
15	NUMBERS ARE ESTIMATES BECAUSE THEY INCLUDE RFA'S
16	THAT'S WE ANTICIPATE BRINGING TO YOU BEFORE THE END
17	OF JUNE. WE'LL HANDLE ABOUT 400 GRANTS THIS YEAR,
18	MAKE 120 AWARDS. OUR CUMULATIVE GRANT TOTAL WILL
19	RISE TO ABOUT 250, AND WE'LL BE MANAGING ABOUT \$760
20	MI LLI ON.
21	SO THINGS HAVE CHANGED A LOT OVER THE LAST
22	THREE YEARS. AND OUR STAFF HAS GROWN AS WELL. SO
23	AT THE END OF JUNE IN 2005, WE HAD ABOUT SEVEN
24	PEOPLE ON OUR SCIENCE GRANT MANAGEMENT TEAM, AND
25	WE'RE NOW UP TO ABOUT 25. BUT I SHOULD REMIND YOU
	4.2

1	THAT THE SOFTWARE MANAGEMENT OF THAT, THE
2	DEVELOPMENT, THE MAINTENANCE, AND THE OPERATION OF
3	THE SOFTWARE THAT WAS USED TO MANAGE THOSE GRANT
4	COMPETITIONS AND PROGRAMS WAS HANDLED BY ONE PERSON.
5	IT IS STILL HANDLED BY THAT SAME PERSON, AND
6	UNFORTUNATELY HE'S LEAVING AT THE END OF DECEMBER.
7	SO IN ORDER FOR US TO MANAGE THIS GROWING
8	PORTFOLIO, WE REALLY NEED TO HAVE A COMPREHENSIVE
9	SYSTEM THAT CAN PROVIDE US DATA SO WE CAN SEE HOW
10	OUR INVESTMENTS ARE BEING USED AND WHAT KIND OF
11	IMPACT THEY'RE HAVING. SO WE HAVE TO BE ABLE TO
12	TRACK DATA ACROSS RFA'S. WE HAVE TO BE ABLE TO
13	TRACK THROUGH THE LIFETIME OF A GRANT, AND WE ALSO
14	NEED TO HAVE A SYSTEM THAT CAN BE MODIFIED AS OUR
15	PROGRAMS CHANGE. AND THIS GRANTIUM PROGRAM THAT WE
16	IDENTIFIED IS GOING TO BE CAPABLE OF DOING ALL OF
17	THOSE THINGS.
18	SO LET ME JUST SHOW YOU WHERE WE ARE ON
19	THIS. NEXT SLIDE. THE CONTRACT WAS FINALIZED IN
20	APRIL OF 2008. AND SINCE THEN WE'VE BEEN MAKING
21	PROGRESS IN A NUMBER OF AREAS THAT ARE OUTLINED UP
22	THERE. WE'VE FINALIZED WORK FLOW PROCESSES. WHAT I
23	MEAN BY THAT IS THIS SYSTEM WORKS IN A STEP BY STEP
24	WORK FLOW MANNER. SO YOU REALLY HAVE TO IDENTIFY
25	EACH STEP ALONG THE WAY, AND OUR STAFF HAS, I WAS

1	TOLD THE OTHER DAY, BETWEEN A HUNDRED AND 120 STEPS
2	THAT YOU EITHER HAVE TO MAKE DECISIONS OR ENTER DATA
3	IN THE LIFETIME OF A GRANT FROM WHEN THE RFA IS
4	BEGUN UNTIL THE GRANT CLOSES OUT.
5	WE'VE BEEN MOVING OUR EXISTING DATA, THE
6	DATA THAT'S BEEN GENERATED OVER THE LAST THREE YEARS
7	ON THOSE GRANTS THAT I TOLD YOU ABOUT ONTO THE
8	GRANTIUM PLATFORM SO THAT THOSE DATA WILL ALWAYS BE
9	AVAILABLE FOR US TO USE.
10	WE'VE BEEN INSTALLING, BEGUN TO INSTALL
11	THE SOFTWARE ON OUR COMPUTERS AND OUR SERVERS
12	IN-HOUSE, AND WE'RE DOING USER ACCEPTANCE TESTING ON
13	THE PROGRAM AS IT'S BEING ROLLED OUT. ALONG THE WAY
14	WE'VE IDENTIFIED SOME PERSONNEL NEEDS THAT WE'RE
15	TAKING CARE OF IN TERMS OF INFORMATION TECHNOLOGY IN
16	GRANTIUM. WE'VE GOT FOUR POSITIONS THAT WE NEED TO
17	FILL. TWO OF THOSE ARE CONTRACT POSITIONS. THEY'LL
18	BE TEMPORARY. AND TWO ARE PERMANENT POSITIONS.
19	THE CONTRACT POSITIONS INCLUDE A PROJECT
20	MANAGER. THIS IS THE PERSON WHO IS ACTUALLY GOING
21	TO BE THE POINT PERSON TO WORK WITH GRANTIUM WHO
22	WILL BE BETWEEN OUR STAFF AND THE GRANTIUM STAFF,
23	AND WE'LL WORK WITH GRANTIUM AND WE'LL ALSO BE THE
24	ONES GUIDING OUR STAFF IN THE IMPLEMENTATION OF THIS
25	PROGRAM AS IT'S ROLLING OUT OVER THE NEXT FEW

1	MONTHS.
2	WE ALSO NEED TO REPLACE ED DORRINGTON,
3	WHO'S BEEN OUR GRANTS MANAGEMENT SOFTWARE MANAGER,
4	THE ONE WHO'S LEAVING AT THE END OF THE YEAR. WE
5	PUT AN RFP OUT FOR THAT, AND THAT POSITION HAS BEEN
6	FILLED, AND THE PERSON JUST ACTUALLY BEGAN THIS
7	WEEK, MUCH TO EVERYONE'S RELIEF. THE RFP FOR THE
8	PROJECT MANAGER IS STILL BEING DEVELOPED.
9	THE TWO PERMANENT POSITIONS WE NEED ARE
10	DIRECTOR FOR INFORMATION TECHNOLOGY. THAT'S THE
11	PERSON WHO WILL SET THE OVERALL I.T. STRATEGY FOR
12	CIRM, WHO WILL BE THE ONE WHO WILL MANAGE OUR
13	OUTSOURCE CONTRACTS WITH VARIOUS VENDORS, INCLUDING
14	GRANTIUM, AND WILL ALSO PROVIDE TECHNICAL SUPPORT
15	FOR OUR WEBSITE, WHICH WE'LL BE MOVING IN-HOUSE.
16	AND THE SECOND POSITION WE NEED IS A
17	CONFIGURATION SPECIALIST, WHO'S ACTUALLY THE PERSON
18	WHO WILL RUN THE GRANTIUM PROGRAM. THAT'S THE
19	PERSON WHO WILL DO THE DATA MINING, WHO WILL DEVELOP
20	REPORTS, WHO WILL CREATE FORMS FOR INDIVIDUAL RFA'S.
21	AND THOSE JOB DESCRIPTIONS HAVE BEEN DEVELOPED, AND
22	I THINK THEY WERE POSTED THIS WEEK.
23	SO THAT'S SORT OF WHERE WE ARE IN THE
24	PROCESS. WE'RE MOVING ALONG, AND RIGHT NOW WE PLAN
25	TO HAVE OUR FIRST FULL RFA PROGRAM RUN ON THE

1	GRANTIUM SYSTEM IN AUGUST OF NEXT YEAR. ANY
2	QUESTI ONS?
3	CHAIRMAN KLEIN: ANY QUESTIONS OF DR.
4	ROBSON? SEEING NO QUESTIONS, WE'LL MOVE FORWARD IN
5	THE AGENDA. AND WE'RE WAITING FOR A COUPLE OF
6	MEMBERS OF THE BOARD WHO HAVE COME IN. I PASSED
7	OVER THE CONSENT ITEM. COMING BACK TO THAT CONSENT
8	ITEM, ITEM NO. 4, MINUTES OF THE AUGUST 12TH AND
9	13TH AND SEPTEMBER 25, 2008, ICOC MEETING. ANY
10	COMMENTS ON THOSE MINUTES?
11	MR. HARRISON: BOB, MR. CHAIR, WE'RE GOING
12	TO HAVE TO DEFER THAT ITEM.
13	CHAIRMAN KLEIN: OKAY. GREAT. IF WE
14	WOULD AT THIS POINT GO FORWARD, DR. PENHOET, AND
15	THEN GO TO ITEM NO. 7, THE INFORMATIONAL UPDATE ON
16	THE STATUS OF INTELLECTUAL PROPERTY POLICY
17	CONSOLIDATION PROJECT.
18	DR. PENHOET: THANK YOU. THIS IS A VERY
19	QUICK UPDATE ON WHAT WE'VE BEEN DOING TO CONSOLIDATE
20	OUR INTELLECTUAL PROPERTY POLICY. WE DESCRIBED TO
21	YOU BEFORE THE INTEREST IN DOING THIS. AS YOU KNOW,
22	WE DEVELOPED FIRST THE INTELLECTUAL PROPERTY POLICY
23	FOR NOT-FOR-PROFIT INSTITUTIONS, AND THEN NEXT A
24	SIMILAR POLICY FOR THE FOR-PROFIT INSTITUTIONS.
25	AS WE CONTEMPLATE AN INCREASING NUMBER OF
	47

1	JOINT APPLICATIONS BETWEEN INDUSTRY AND ACADEMIA,
2	AND ALSO, FRANKLY, TO SIMPLIFY OUR WORK GOING
3	FORWARD, AND GIVEN THE VERY STRONG OVERLAP IN THE
4	FUNDAMENTAL POLICIES OF THE TWO, WE THOUGHT IT MADE
5	SINCE TO REVISIT THE ISSUE OF THE INTELLECTUAL
6	PROPERTY POLICIES WITH A VIEW TOWARDS ENDING UP WITH
7	A SINGLE POLICY WHICH WOULD APPLY IN ALL MEANINGFUL
8	RESPECTS TO BOTH FOR-PROFIT APPLICANTS AND
9	NOT-FOR-PROFIT APPLICANTS, WITH THE EXCEPTION THAT
10	THE PAYBACK PROVISIONS, THAT IS THE MONETARY
11	PROVISIONS, WOULD BE DIFFERENT.
12	SO MAYBE WE CAN HAVE THE NEXT SLIDE. SO
13	YOU HAVE AUTHORIZED US TO GO FORWARD TO DO THIS
14	PROJECT. AND US MEANS MYSELF, SCOTT TOCHER, AND
15	NANCY KOCH. WE HAD AN IP TASK FORCE ON THE 8TH OF
16	NOVEMBER, AND WE HOPE TO COMPLETE THIS EXERCISE IN
17	MARCH 2009.
18	WE HAVE MET WITH A NUMBER OF THE
19	CONSTITUENCIES IN THE STATE IN THE PROCESS OF DOING
20	THIS. OF COURSE, OUR OPEN MEETING WAS AN OPEN
21	MEETING AS USUAL. WE DID MEET WITH ALL OF THE
22	LICENSING OFFICERS OF THE UNIVERSITY OF CALIFORNIA
23	AT THEIR ANNUAL MEETING TO GET INPUT FROM ALL OF THE
24	VARIOUS CAMPUSES OF UC, ETC.
25	SO THIS IS A WORK IN PROGRESS, AND WHAT

1	I'M GIVING YOU TODAY IS JUST A BRIEF UPDATE OF WHERE
2	WE ARE.
3	TO REMIND EVERYONE IN THE ROOM WHAT
4	PROPOSITION 71 DOES REQUIRE IS THAT WE BALANCE
5	COMPETING INTERESTS FOR THE STATE OF CALIFORNIA, NO.
6	1, TO GENERATE INCOME FROM OUR ACTIVITIES. AND THAT
7	LEADS TO PATENTS, ROYALTIES, AND LICENSES, BUT AT
8	THE SAME TIME ASSURE THAT ESSENTIAL RESEARCH IS NOT
9	UNREASONABLY HINDERED BY THE IP AGREEMENT. SO THIS
10	REMAINS THE UNDERLYING PHILOSOPHY IN THE WORK THAT
11	WE'VE CONDUCTED.
12	THESE ARE THE MAJOR COMPONENTS OF THE
13	CONSOLIDATION PROJECT AS WE SEE THEM TODAY. ALL OF
14	THESE THINGS HERE BASICALLY ARE UNCHANGED. SO WE
15	DON'T EXPECT TO CHANGE THE TRIGGER; THAT IS, THE
16	FIRST DOLLAR OF CIRM FUNDING TRIGGERS THE
17	REQUIREMENTS ON OUR GRANTEES TO MEET OUR IP POLICY.
18	THE REVENUE SHARING RATES THAT WERE ESTABLISHED FOR
19	THE NOT-FOR-PROFITS AND FOR THE FOR-PROFIT ENTITIES
20	WILL REMAIN THE SAME. SO THEY ARE DIFFERENT AND
21	THEY WILL CONTINUE TO BE DIFFERENT, BUT THEY WON'T
22	BE DIFFERENT THAN THEY ARE IN THE CURRENT
23	REGULATI ON.
24	THE ACCESS AND PRICING PROGRAMS THAT ARE
25	IN PLACE WILL BE THE SAME FOR THESE. SIMILARLY
	40

1	CHAIRMAN KLEIN: AND, DR. PENHOET, SINCE
2	WE HAVE SOME NEW BOARD MEMBERS SINCE THOSE WERE
3	ENACTED AND WE HAVE ADDITIONAL MEMBERS OF THE
4	PUBLIC, COULD YOU GIVE THEM A LITTLE BIT ADDITIONAL
5	DEPTH IN WHAT THE ACCESS AND PRICING PROGRAMS ARE
6	AND THE CONSISTENCY BETWEEN BOTH PROGRAMS?
7	DR. PENHOET: I'D BE HAPPY TO DO THAT, MR.
8	CHAIRMAN. SO I THINK THOSE ARE TWO CRITICAL ISSUES.
9	THE ACCESS PLAN IS THE FOLLOWING. IT SAYS BASICALLY
10	THAT AT THE TIME OF COMMERCIALIZATION, ANY
11	ORGANIZATION WHICH COMMERCIALIZES A SERIES OF
12	PRODUCTS THAT HAVE RELIED UPON FUNDING FROM CIRM IN
13	ANY, WAY, SHAPE, OR FORM WILL PROVIDE THOSE PRODUCTS
14	TO UNINSURED CALIFORNIANS IN A WAY WHICH IS
15	CONSISTENT WITH SIMILAR PROGRAMS THAT EXIST IN THE
16	CURRENT ENVIRONMENT AT THE TIME OF
17	COMMERCI ALI ZATI ON.
18	SO THESE ACCESS PROGRAMS TODAY ARE VERY
19	WIDESPREAD IN INDUSTRY. ALMOST EVERY SIGNIFICANT
20	COMPANY HAS THESE KINDS OF PROGRAMS TO SUPPLY
21	PRODUCTS TO PEOPLE WHO NEITHER ARE COVERED BY NORMAL
22	INSURANCE OR ARE NOT COVERED BY MEDI-CAL OR
23	MEDICARE, OR ANOTHER FORM OF GOVERNMENTAL INSURANCE.
24	SO THEY'RE THE PEOPLE LEFT IN THE GAP WITHOUT
25	INSURANCE. SO THAT'S THE ACCESS PLAN.
	50

1	WE HAVE HAD A ROBUST DISCUSSION ABOUT
2	WHETHER THOSE PLANS SHOULD BE PRESENTED AT THE TIME
3	OF THE GRANT OR AT THE TIME OF COMMERCIALIZATION.
4	AND WE STILL BELIEVE THAT BY FAR THE PREPONDERANCE
5	OF VIEW IS THAT THE PLANS SHOULD BE PRESENTED AT THE
6	TIME OF COMMERCIALIZATION. THEY WILL BE PRESENTED
7	TO CIRM IN PUBLIC MEETINGS, AND WE WILL GET PUBLIC
8	COMMENT ON THE STRUCTURE OF THESE PLANS GOING
9	FORWARD.
10	WITH RESPECT TO PRICING, THE PRICING
11	ISSUES HAVE TO DO WITH THE PRICES CHARGED TO
12	AGENCIES IN CALIFORNIA WHO PURCHASE THE PRODUCTS
13	THAT RESULT FROM OUR FUNDING WITH PUBLIC FUNDS. AND
14	WHAT THAT SAYS IS BASICALLY THERE'S A COMPLICATED
15	FORMULA THAT'S TIED TO CALRX, ETC., BUT THE BOTTOM
16	LINE IS THAT THESE PRICES WILL BE FAVORABLE PRICES
17	AND WILL NOT BE GREATER THAN SIMILAR PRICES OFFERED
18	TO ANY OTHER AGENCIES THROUGHOUT THE COUNTRY SO THAT
19	CALIFORNIANS HAVE THE LOWEST POSSIBLE PRICES.
20	THERE'S SOME NUANCES TO THIS THAT I DON'T
21	NEED TO GO INTO HERE TODAY, BUT THAT'S THE IDEA.
22	GRANTEES CONTROL OF INTELLECTUAL PROPERTY
23	IS THAT GRANTEES THEMSELVES WILL OWN THE
24	INTELLECTUAL PROPERTY, BUT THEY'LL HAVE
25	RESPONSIBILITY FOR REPORTING TO US FOR HOW THEY
	51

1	MANAGE THAT INTELLECTUAL PROPERTY.
2	SO THE STRUCTURE IS ARTICULATED HERE. YOU
3	CAN LOOK IN THE CURRENT OAL REGULATIONS FOR THESE
4	VARIOUS PIECES AND PARTS OF THIS. THERE'S AN
5	INVENTION AND LICENSING REPORTING REQUIREMENT TO US.
6	WE WANT TO KNOW WHEN INVENTIONS ARE MADE. THERE'S A
7	PUBLICATION REQUIREMENT. THERE'S A REQUIREMENT FOR
8	SHARING PUBLICATION-RELATED BIOMEDICAL MATERIALS;
9	THAT IS, IF ANY ORGANIZATION PUBLISHES THEIR WORK,
10	THEY ARE REQUIRED TO SHARE THE BASIS OF THAT WORK
11	WITH OTHER VARIOUS INSTITUTIONS IN CALIFORNIA.
12	THERE IS A WHOLE SECTION, AGAIN, ON PATENT
13	OWNERSHIP AND PROSECUTION COST RESPONSIBILITY, THE
14	ABILITY OF GRANTEES TO LICENSE AND PREFERENCE FOR
15	NONEXCLUSIVE LICENSES, THE ACCESS PLAN, AND CAL. RX
16	PRICING, THE REVENUE SHARING MODEL, PRESS RELEASE
17	REQUIREMENTS, AND THEN, FINALLY, MARCH-IN RIGHTS FOR
18	THE STATE. THESE EXIST IN THE CIRCUMSTANCE THAT A
19	GRANTEE ACTUALLY TAKES THE INTELLECTUAL PROPERTY
20	DEVELOPED WITH CIRM FUNDING AND DOESN'T DILIGENTLY
21	PURSUE ITS COMMERCIALIZATION SO THAT IT ESSENTIALLY
22	ENDS UP IN A CUL-DE-SAC WITHOUT AN OPPORTUNITY FOR
23	THE PUBLIC TO BENEFIT FROM THAT WORK.
24	IN THAT CASE, AND IF THERE IS A SORT OF
25	PUBLIC HEALTH REQUIREMENT, THEN A STATE HAS THE

1	RIGHT TO MARCH IN UNDER SOME CIRCUMSTANCES TO MAKE
2	SURE THAT THE BENEFIT OF THE INVESTMENT IS OBTAINED.
3	THE NEXT SLIDE SHOWS THE MAIN ISSUES THAT
4	WE ADDRESSED IN THE CONSOLIDATION. IN ADDITION TO
5	CONSOLIDATION, WE HAVE UNDERTAKEN A PROJECT TO
6	UNDERSTAND WHETHER REFINEMENTS OF SOME OF THE
7	INITIAL POLICIES ARE NECESSARY OR USEFUL AT THIS
8	POINT IN TIME. SO THERE ARE SOME CHANGES THAT WILL
9	BE IN THE DOCUMENT THAT ARE IN NEITHER OF THE TWO
10	PROPOSALS TODAY.
11	AS I SAID BEFORE, THE PRIMARY EMPHASIS IS
12	TO CONSOLIDATE THESE, TO HARMONIZE, AND ELIMINATE
13	DISCREPANCIES BETWEEN THE TWO. WE HAVE A SINGLE
14	POLICY GOING FORWARD.
15	WE ARE ENDEAVORING TO DEFINE THE SCOPE OF
16	WHAT "IN WHOLE OR IN PART" MEANS BECAUSE THERE ARE A
17	NUMBER OF DEFINED TERMS IN THIS AGREEMENT THAT WERE
18	TO SOME DEGREE AMBIGUOUS IN THE PAST.
19	WE WANTED TO CLARIFY THE APPLICATION OF
20	OUR POLICIES TO COLLABORATORS AND RESEARCH PARTNERS.
21	SO HERE THERE'S A GREAT CONCERN AND HAS BEEN
22	EXPRESSED BY A NUMBER OF ORGANIZATIONS THAT, GEE, IF
23	THEY DO ANYTHING WITH A CIRM GRANTEE, THEY
24	ESSENTIALLY GET SUCKED INTO OUR ENTIRE APPARATUS.
25	AND THAT'S REALLY NOT OUR INTENT HERE.
	E 2

1	SO WE'VE BEEN CAREFUL TO DEFINE AN
2	AFFILIATE WHICH WILL HAVE TO LIVE AS IF THEY WERE
3	THE GRANTEE, BUT SEPARATE THEM FROM A COLLABORATOR,
4	WHO'S SOMEBODY THAT WORKS ON A PROJECT BUT TOTALLY
5	WITH THEIR OWN FUNDS. AND, THEREFORE, THE
6	COLLABORATOR IS NOT GOING TO BE SUBJECT TO OUR IP
7	POLICY UNLESS THAT COLLABORATION RESULTS IN A JOINT
8	INVENTION IN WHICH BOTH PARTIES OWN THE INVENTION,
9	IN WHICH CASE THEN THE COMMERCIALIZATION WOULD HAVE
10	TO FOLLOW OUR RULES, AND THE RETURNS WOULD BE
11	PROPORTIONAL TO CONTRIBUTIONS TO THE INVENTION.
12	SO THIS IS AN AREA THAT WE SPENT A FAIR
13	AMOUNT OF TIME TRYING TO DEFINE CAREFULLY WHAT A
14	COLLABORATOR IS FOR THIS PURPOSE.
15	OUR ORIGINAL DOCUMENTS REFER TO U.S.
16	PATENT LAW. IT WAS AN OVERSIGHT. WE WANT TO BE
17	SURE, BECAUSE WE BELIEVE THAT PATENTS WILL BE FILED
18	THROUGHOUT THE WORLD, THAT WE ACTUALLY GET A RETURN
19	ON INVESTMENT FOR THE PATENTED TECHNOLOGY WHEREVER
20	THAT PATENTED TECHNOLOGY IS, JAPAN, EUROPE, THE REST
21	OF THE WORLD, FAR EAST, ETC. SO FOREIGN IP IS NOW
22	COVERED. IT REALLY WAS NEVER ANYONE'S INTENT AS
23	PART OF OUR GROUP TO NOT COVER FOREIGN IP, BUT THE
24	LANGUAGE WAS NOT CLEAR ON THAT ISSUE.
25	AND THEN FINALLY, IN TERMS OF WHEN DO WE
	5.4

1	GET PAID? WE WANTED TO MAKE SURE THAT ALL FORMS OF
2	PAYMENT ASSOCIATED WITH THE INTELLECTUAL PROPERTY
3	TRANSFER RESULTED IN A SHARE BEING PAID BACK TO THE
4	STATE. SO THAT WOULD INCLUDE CASH PAYMENTS IN
5	ADDITION TO ROYALTIES. IT WOULD INCLUDE OTHER
6	ASPECTS OF VALUE THAT MIGHT BE TRANSFERRED IN ANY
7	GIVEN LICENSING AGREEMENT.
8	AND THEN FINALLY, WE WANTED TO MAKE OUR
9	POLICY AGAIN AS CONSISTENT AS POSSIBLE WITH
10	BAYH-DOLE, THE FEDERAL LEGISLATION. THIS BECOMES
11	INCREASINGLY IMPORTANT AS WE CONTEMPLATE NOW FUNDING
12	OF EMBRYONIC STEM CELL RESEARCH BY THE FEDERAL
13	GOVERNMENT. WE HAVE TO ENSURE THAT EVERYTHING WE'RE
14	DOING IS CONSISTENT WITH FEDERAL LAW AND BAYH-DOLE.
15	WE'VE BEEN CAREFUL THROUGHOUT OUR WORK TO
16	DO THAT, BUT IN THE CASE OF BAYH-DOLE, THE WORD
17	"INVENTION" MEANS MAKE, USE, OR SELL. AND WE WANTED
18	TO BE CLEAR THAT OUR OWN DEFINITIONS OF THESE TERMS
19	WERE CONSISTENT WITH BAYH-DOLE.
20	SO THOSE ARE THE ISSUES THAT YOU WILL SEE
21	THAT ARE MODESTLY DIFFERENT THAN WAS IN EITHER OF
22	THE POLICIES BEFORE. THEY'RE ESSENTIALLY MEANT TO
23	CLARIFY OUR POSITION ON MOST OF THESE ISSUES AND
24	EXPAND A FEW OF THE DEFINITIONS TO MAKE SURE THAT
25	THE INTENT THAT WE HAD GOING IN IS NOW MET BY THESE.

1	SO WITH THAT, I'D BE HAPPY TO ANSWER ANY
2	QUESTIONS FROM THE BOARD AND MEMBERS OF THE PUBLIC.
3	MS. SAMUELSON: MELISSA, COULD YOU HELP ME
4	GET THE MIC CLOSER? I'M NOT SURE WHERE TO START.
5	THE MESSAGE THAT I'M RECALLING FROM SOME
6	OF THE RESEARCH WORKSHOPS THAT WE'VE HAD IS THAT, TO
7	THE EXTENT THAT ANY OF THESE REVISIONS BECAME A PART
8	OF OUR ENTERPRISE, THAT WOULD MAKE IT HARDER FOR
9	RESEARCHERS TO GET INTO THE FIELD AND BE WILLING TO
10	REALLY AGGRESSIVELY TRY TO MAKE THERAPEUTIC
11	I NTERVENTI ONS.
12	AND SO I'M CONCERNED THAT WE'RE GOING IN
13	THIS DIRECTION. FOR EXAMPLE, IT SOUNDS LIKE WE'RE
14	TAKING ON THE JOB OF SOLVING THE PROBLEM OF ACCESS
15	TO THERAPIES IN CALIFORNIA AND ELSEWHERE. AND
16	THAT'S AN IMPORTANT PROBLEM, BUT I'M NOT SURE IT'S
17	OUR PROBLEM TO SOLVE, NOR THAT WE CAN DO THAT AND
18	ACTUALLY ACHIEVE OUR PRIMARY MISSION, WHICH IS
19	SUCCEEDING IN DEVELOPING THOSE THERAPIES, WHICH IS
20	HARD ENOUGH ON ITS OWN. AM I OVERSTATING WHAT THIS
21	DOES?
22	DR. PENHOET: WELL, WE TAKE ON A
23	SIGNIFICANT CHALLENGE IN APPROVING SOMEONE ELSE'S,
24	THE INDUSTRY'S PROPOSAL FOR ACCESS. INDUSTRY TODAY
25	GENERALLY HAS ACCESS PLANS IN PLACE. IT'S A RARE
	E.4

1	COMPANY WITH ANY SIGNIFICANT PRODUCT OFFERING WHICH
2	DOES NOT HAVE AN ACCESS PROGRAM. THERE ARE THE
3	ENTIRE PROGRAM, JOAN, HAS BEEN TRYING TO BALANCE THE
4	VARIOUS INTERESTS, AS WE SAID IN THE INTRODUCTORY
5	SLIDE, IN A WAY THAT PROVIDES SOME PREFERENTIAL
6	RETURN TO THE CITIZENS OF CALIFORNIA FOR THE
7	INVESTMENT THEY'VE MADE IN THIS FIELD, AT THE SAME
8	TIME NOT UNDULY HINDERING THE DEVELOPMENT OF THE
9	TECHNOLOGY.
10	I THINK TO SOME DEGREE THE ACCESS PROGRAMS
11	THAT HAVE BEEN DISCUSSED IN EXTENSO, I THINK, DUANE,
12	YOU MAY WANT TO COMMENT ON THIS. I THINK WE WOULD,
13	WITH FEW EXCEPTIONS, THE INDUSTRY HAS AGREED THAT
14	THIS IS THEY'D RATHER NOT HAVE IT, BUT IT'S
15	SOMETHING THEY CAN LIVE WITH, AND IT IS A VERY
16	COMMON PRACTICE. AND ALL WE'RE ASKING INDUSTRY IN
17	THIS CASE IS TO COME UP WITH PLANS WHICH ARE
18	CONSISTENT WITH WHAT THEIR COLLEAGUES ARE DOING IN
19	THE REST OF THE INDUSTRY AND CONSISTENT WITH THE
20	POSITION OF THE COMMERCIALIZING COMPANY AT THE TIME.
21	SO WE CAN'T ASK SOMEBODY TO BANKRUPT
22	THEMSELVES. WE'VE ALSO BEEN VERY CLEAR BECAUSE IN
23	STEM CELL THERAPIES, OFTENTIMES, AND WE SAW THE
24	EXAMPLE LAST TIME AT STANFORD WITH THE BATTEN'S
25	DISEASE PROPOSAL, THIS INVOLVES EXTENSIVE

1	NEUROSURGERY, LOTS OF TREATMENT AFTERWARDS. WE HAVE
2	MADE IT CLEAR THAT THE COMPANY IS ONLY RESPONSIBLE
3	FOR THE PRICE OF THE CELLS THEMSELVES, NOT FOR THE
4	ENTIRE PROCEDURE WHICH WOULD ENSUE FROM THIS.
5	I THINK WE'VE BEEN PRETTY CAREFUL IN HOW
6	WE'VE CONSTRUCTED THESE, AND WE ARE NOT CHANGING
7	ANYTHING NOW THAT WASN'T IN THE ACCESS PLANS. AS I
8	SAID, IT'S EXACTLY THE SAME AS WHAT WE'VE HAD BEFORE
9	NOW, TWO YEARS IN THE CASE OF THE NOT-FOR-PROFIT OR
10	ONE YEAR IN THE FOR-PROFIT.
11	THEN I REMIND YOU THAT WE HAVE AN
12	OBLIGATION TO REVISIT THESE IF IT TURNS OUT SOME OF
13	THESE FEATURES ARE, IN FACT, INHIBITING THE
14	SUCCESSFUL DEVELOPMENT OF THE PRODUCTS. MAYBE,
15	DUANE.
16	MR. ROTH: JOAN, I WOULD JUST COMMENT THAT
17	THROUGH ALL THESE MEETINGS, I THINK THE END PRODUCT
18	OF WHAT ED IS DESCRIBING IS ONE THAT REALLY STRIKES
19	WHAT HE BEGAN WITH, THE BALANCE. WHAT WE ENDED UP
20	WITH IS A BALANCE, WHICH ED STARTED WITH. HE SAID
21	WE TRIED TO ACHIEVE THE BALANCE BETWEEN GIVING THE
22	STATE A FAIR RETURN FOR THEIR DEVELOPMENT AND AT THE
23	SAME TIME NOT HINDERING INNOVATION FOR PRODUCT
24	DEVELOPMENT. AND I THINK WE STRUCK THAT BALANCE
25	THROUGH ALL THESE MEETINGS BY COMING UP WITH
	50

1	PROGRAMS AND REAL SUBSTANCE THAT SAID WILL YOU DO
2	THESE THINGS? WILL THEY HINDER YOU? AND THE ANSWER
3	FROM INDUSTRY IS WE CAN LIVE WITH THAT.
4	MS. SAMUELSON: THE ANSWER IS WHAT?
5	MR. ROTH: THAT INDUSTRY, WITH ONE
6	EXCEPTION, ONE COMPANY, ALL SAID, YES, THIS IS
7	SOMETHING THAT IS REASONABLE AND WOULD NOT HINDER US
8	FROM TAKING GRANTS AND LOANS FROM CIRM, WHICH IS THE
9	WHOLE IDEA BEHIND THIS.
10	MS. SAMUELSON: AND THE IDEA
11	DR. PENHOET: TO REMIND EVERYONE IN THE
12	ROOM, WE HAVE HAD MORE THAN 20 PUBLIC MEETINGS ON
13	THIS SUBJECT. AND WE HAVE AND THEY WERE ROBUST
14	PUBLIC MEETINGS, I WOULD SAY, WITH STRONG
15	PARTICIPATION BY THE VARIOUS PARTIES INVOLVED, BUT
16	ALSO IN CONSULTATION WITH THE STATE LEGISLATURE, WHO
17	HAD A VERY KEEN INTEREST IN THIS. SO YOU MAY
18	REMEMBER THAT THE KUEHL-RUNNER BILL FOCUSED STRONGLY
19	ON SOME OF THESE ASPECTS. SO WE ALSO CONSULTED THEM
20	FREQUENTLY ABOUT THIS GOING FORWARD.
21	AND SO, YOU KNOW, THOSE I THINK CLEARLY
22	MANY OF OUR CONSTITUENCIES WOULD LOVE TO SEE THIS
23	WHOLE PART OF WHAT WE DO GO AWAY, BUT I THINK THAT
24	IT'S BEEN A ROBUST CONVERSATION. IT'S BEEN
25	THOROUGHLY DEBATED, AND THE VIEWS THAT WHAT WE
	F.O.

1	ENDED UP WITH IN THE LANGUAGE IS A SYNTHESIS OF
2	MANY, MANY DIFFERENT DISCUSSIONS. AND INDUSTRY HAS
3	INDICATED, ALTHOUGH THEY'RE NOT THRILLED BY THIS,
4	THEY WILL LIVE WITH IT. AND I THINK THERE'S A
5	MARKET TEST, JOAN, WHICH IS WE HAD HOW MANY
6	APPLICATIONS FROM INDUSTRY FOR THE LAST ROUND, ALAN?
7	DR. TROUNSON: TWENTY OUT OF 71.
8	DR. PENHOET: TWENTY APPLICATIONS FROM
9	INDUSTRY IN THE BOOK THAT YOU SEE.
10	DR. CSETE: MORE THAN THAT IN TOOLS AND
11	TECHNOLOGY.
12	CHAIRMAN KLEIN: IN TOOLS AND TECHNOLOGY,
13	DR. CSETE IS INDICATING THERE WAS ACTUALLY A GREATER
14	NUMBER. SO WE'VE HAD TWO DIFFERENT ROUNDS WHERE
15	WE'VE HAD SIGNIFICANT APPLICATIONS PROVIDING
16	VALIDATION OF THE WILLINGNESS OF INDUSTRY TO ACCEPT
17	THE ACCESS AND PRICING.
18	MS. SAMUELSON: THEY'RE HAPPY TO TAKE OUR
19	MONEY WHETHER THEY'RE ENTHUSED ENOUGH TO HAVE ENOUGH
20	INCENTIVES TO DERIVE THEIR THEORETICAL IDEAS TO
21	PRACTICAL APPLICATION THROUGH ALL THE DIFFICULTIES
22	THEY'LL FACE IS ANOTHER MATTER, AND WE BETTER BE
23	AWFULLY SURE, I THINK. I DON'T SAY THIS TO QUESTION
24	YOUR PROCESS. YOU'RE UNDER ENORMOUS PRESSURE FROM
25	ALL SORTS OF CAMPS TO SOLVE LOTS OF OTHER PROBLEMS

1	THAT RELATE TO TP AND TO OUR MISSION.
2	BUT THERE HAVE BEEN PEOPLE AT SOME OF OUR
3	WORKSHOPS WHO HAVE JUST SAID UNEQUIVOCALLY THERE
4	AREN'T ENOUGH INCENTIVES WITH THESE KINDS OF
5	PROVISIONS FOR SOMEONE TO GET INTO THIS FIELD AND
6	ACTUALLY REALLY INVEST HIS BUSINESS ENTERPRISE IN
7	DEVELOPING A CURE.
8	AND IF THAT'S THE CASE, LET ME JUST SAY
9	ONE MORE THING, I'M CLEAR AND I GUESS I WOULD ASK
10	JAMES WHETHER THE LAW IS. MY UNDERSTANDING IS THAT
11	PROP 71 PROVIDES THAT IDEALLY ALL OF THESE
12	PROVISIONS WOULD BE TAKEN INTO ACCOUNT, BUT THEY'RE
13	NOT AN EQUAL BALANCE BY ANY STRETCH. THE PRIMARY
14	MISSION OF THAT LEGISLATION IS TO DEVELOP CURES.
15	AND IF ANY OF THESE OTHER PROVISIONS INTERFERE WITH
16	THAT IN ANY WAY, THEY SHOULDN'T BE GIVEN THEY
17	SHOULDN'T BE INCORPORATED. I THINK WE'VE GOT TO BE
18	RELIGIOUS ABOUT THAT.
19	CHAIRMAN KLEIN: WELL, AND CERTAINLY,
20	JOAN, WE TAKE YOUR COMMENTS IN THE CONTEXT OF
21	DECADES OF PATIENT ADVOCACY IN THE PARKINSON'S
22	ACTION NETWORK, WHICH HAS A TREMENDOUS RECORD IN
23	HELPING PATIENTS. SO WE KNOW YOU'RE PUSHING FOR
24	THERAPIES, AND YOU'RE CONCERNED ABOUT WHAT THE BREAK
25	POINT IS OF HOW FAR WE CAN

1	MS. SAMUELSON: YOU'RE SAYING IT BETTER
2	THAN I'M SAYING IT TONIGHT, BOB.
3	CHAIRMAN KLEIN: LET ME GET JEFF SHEEHY
4	WHO WANTED TO MAKE A COMMENT.
5	MR. SHEEHY: JUST TWO THINGS, JOAN. ONE
6	IS THAT I SAT THROUGH ALL THOSE HEARINGS, AND THE
7	COMPANIES, AS DUANE HAS NOTED, ARE WILLING TO LIVE
8	WITH THIS COMPROMISE. AND I'VE HEARD A LOT FROM
9	COMPANIES OVER THE LAST FOUR OR FIVE MONTHS. AND
10	IT'S NOT THAT OUR IP RULES ARE ONEROUS, BUT THEY
11	HAVE OTHER BEEFS WITH US RELATED TO BEING ABLE TO
12	GET OUR GRANTS. SO THEY WANT OUR GRANTS. IT'S NOT
13	LIKE THAT THEY'RE NOT LINING UP TO GET OUR GRANTS.
14	I DON'T BELIEVE THAT THESE IP POLICIES PRESENT A
15	BARRI ER.
16	AND I ALSO WANT TO JUST REMARK ON A
17	CONVERSATION I HAD WITH JOHN WAGNER, WHO CAME TO OUR
18	MEDICAL AND ETHICAL STANDARDS WORKING GROUP, WHO'S
19	DEVELOPED A TREATMENT FOR A DISEASE WHERE CHILDREN
20	ARE BORN WITHOUT COLLAGEN. THEIR SKIN SLOUGHS OFF,
21	VERY TERRIBLE DISEASE. AND HE HAS DEVELOPED A
22	THERAPY FOR THAT DISEASE, YET HE TALKED ABOUT IT AT
23	THE WORLD STEM CELL CONGRESS THE VERY NEED FOR THIS
24	FIELD TO START TALKING ABOUT ACCESS NOW BECAUSE HE
25	HAS A HUNDRED PATIENTS THAT HE CAN'T GET THIS
	4.0

1	THERAPY TO.
2	HE'S GOT SOMETHING THAT CAN SAVE LITTLE
3	CHILDREN FROM A DISEASE THAT HAS THEIR SKIN JUST
4	FALL OFF THEIR BONES. IT'S A HORRIBLE, DEBILITATING
5	DISEASE, YET NO ONE WILL PAY FOR IT.
6	SO, JOAN, WE HAVE BEING A PATIENT
7	ADVOCATE, YOU HAVE TO WEAR A COUPLE OF HATS AT
8	TIMES. AND I THINK SOMETIMES
9	MS. SAMUELSON: NO, I DON'T THINK SO.
10	MR. SHEEHY: YOU HAVE TO STRIKE A
11	BALANCE. AND I THINK IN THIS PARTICULAR COMPROMISE,
12	ALL THE DIFFERENT STAKEHOLDERS CAME TOGETHER AND WE
13	STRUCK A COMPROMISE. AND I THINK THAT WE HAVE TO
14	SEE HOW IT WORKS OUT, BUT RIGHT NOW COMPANIES ARE
15	ASKING FOR OUR GRANTS. THEY WANT TO GET OUR
16	GRANTS. THEY'RE COMPETING SUCCESSFULLY. AND I
17	THINK IT HASN'T TURNED OUT TO BE A BARRIER TO
18	RESEARCH GOING FORWARD.
19	CHAIRMAN KLEIN: SO IF WE COULD, JOAN, I
20	THINK WE CAN TAKE SOME PUBLIC COMMENT; AND THEN IF
21	THERE'S ENDING BOARD COMMENTS, WE CAN COME BACK TO
22	THAT. ARE THERE PUBLIC COMMENTS?
23	JOHN SIMPSON.
24	CHAIRMAN KLEIN: ED, ARE YOU AT A POINT
25	WHERE WE CAN TAKE PUBLIC COMMENT?

1	DR. PENHOET: YES, MR. CHAIRMAN. YOU'RE
2	THE BOSS.
3	MR. SIMPSON: JOHN SIMPSON FROM CONSUMER
4	WATCHDOG. I WAS PART OF THIS WHOLE PROCESS OF THE
5	IP POLICY AND WORKING ON IT. AND I THINK IT WOULD
6	BE FAIR TO DESCRIBE IT AS A VERY ROBUST AND USEFUL
7	DISCUSSION THAT INCLUDED ALL STAKEHOLDERS. AND MY
8	IMPRESSION WAS THAT AT THE END OF THE DAY, THE TWO
9	POLICIES THAT EMERGED WERE SOMETHING THAT EVERYONE
10	COULD LIVE WITH AND FELT PROTECTED THE THINGS THAT
11	WERE OF MOST IMPORTANCE TO THEM WHILE THERAPIES
12	WOULD CONTINUE TO GO FORWARD.
13	AND I CONTINUE TO CITE THE IP POLICY AND
14	THE CHAIRMAN OF THE TASK FORCE WHO LED IT AS EXACTLY
15	THE WAY POLICY SHOULD BE MADE PUBLICLY. SO I THINK
16	IT WAS A VERY GOOD THING. AND THIS PARTICULAR
17	CONSOLIDATION PROJECT, AS I UNDERSTAND IT, AND
18	HAVING READ THROUGH IT, IS SIMPLY THAT. IT'S
19	CONSOLIDATING THE POLICIES THAT HAVE BEEN BEFORE YOU
20	BEFORE AND APPROVED AND IS A SENSIBLE SORT OF THING
21	TO BE DOING. THERE'S NO REALLY NEW ELEMENTS THAT
22	ARE GOING IN HERE. EVERYTHING HAS BEEN DEBATED AND
23	DISCUSSED. SO I THINK THIS IS A VERY GOOD THING
24	THAT'S HAPPENING.
25	AND I DO REALLY TRULY BELIEVE THAT PATIENT
	4.4

1	ADVOCATES LIKE JOAN ARE GOING TO KEEP THINGS MOVING
2	IN THE RIGHT WAY TO MAKE SURE WE'RE GOING FOR CURES,
3	AND THAT THIS POLICY DOES NOT GET IN THE WAY OF
4	THAT, THAT THE COMPANIES RIGHT NOW HAVE SOME VERY
5	LEGITIMATE COMPLAINTS ABOUT WHAT THEY PERCEIVE TO BE
6	AN ACADEMIC BLAS AMONGST THE MEMBERS OF THE BOARD.
7	NOW, THERE MAY BE STEPS BEING TAKEN TO DEAL WITH IT,
8	BUT I BELIEVE THAT'S THE COMPANIES' CONCERN, NOT THE
9	IP POLICY. THANK YOU.
10	CHAIRMAN KLEIN: I WOULD
11	DR. PENHOET: THANK YOU FOR YOUR
12	COMPLIMENTS, JOHN.
13	CHAIRMAN KLEIN: THANK YOU VERY MUCH FOR
14	YOUR COMPLIMENTS. AND I'D ALSO SUGGEST THAT IN
15	TONIGHT'S SESSION AND THE SESSIONS THAT ARE COMING
16	UP ON TRANSLATIONAL, WE HAVE A PIVOTAL CHANGE PERIOD
17	THAT WE'RE IN. WE EMPHASIZE A GREAT DEAL OF BASIC
18	RESEARCH WHERE CLEARLY THE ACADEMIC INSTITUTIONS,
19	RESEARCH INSTITUTES, AND THE RESEARCH HOSPITALS
20	WOULD NATURALLY BE STRONGER. WE'RE NOW IN A PERIOD
21	WHERE YOU'RE GOING TO SEE SUBSTANTIAL PRIVATE SECTOR
22	INVOLVEMENT BECAUSE THE TRANSLATIONAL SECTOR IS, IN
23	FACT, AND THE TOOLS AND TECHNOLOGIES SECTOR IS WHERE
24	THEY EXCEL.
25	SO IT WAS A NATURAL FACT THAT IN THE BASIC

1	RESEARCH, YOU WOULD SEE YOU WOULD NOT SEE A
2	SIGNIFICANT PRIVATE SECTOR INVOLVEMENT. IT'S ALSO
3	TRUE THAT THE NONPROFIT IP REGS WERE DEVELOPED
4	FIRST, FOLLOWED WITH THE FOR-PROFIT IP REGS. AND SO
5	THOSE ARE NOW ALL IN PLACE AS WE MOVE INTO THE
6	TRANSLATIONAL FIELD WHERE WE CAN EXPECT SUBSTANTIAL
7	PRIVATE SECTOR INVOLVEMENT BECAUSE WE ALL RECOGNIZE
8	THEY ARE A CRITICAL PART OF THE DELIVERY PATHWAY TO
9	THE PATIENT.
10	I THINK WE SHOULD GIVE DR. PENHOET AND THE
11	STAFF WHO WORKED ON THIS A HAND.
12	(APPLAUSE.)
13	DR. PENHOET: I DON'T KNOW WHETHER IT WILL
14	COME UP ELSEWHERE, BUT IN OUR BOOKS TODAY WE HAVE A
15	PROPOSAL TO ADD THREE MEMBERS TO OUR GRANTS WORKING
16	GROUP. I NOTE THAT TWO OF THE THREE ARE FROM
17	INDUSTRY, AND I DO BELIEVE THAT ALAN AND HIS
18	COLLEAGUES ARE WORKING HARD TO GET MORE INDUSTRY
19	INPUT INTO THE REVIEW PROCESS.
20	MS. SAMUELSON: I JUST WANT TO SAY I
21	APPRECIATE THIS DISCUSSION. AND I THINK IT WILL BE
22	AN INTEGRAL PART OF THE DISCUSSION NEXT MONTH AND
23	THAT THE DISCUSSION OF THE STRATEGIC PLAN WILL BE AS
24	WELL. AND I'M SAYING THAT BECAUSE I HAVE TO WALK
25	OUT BECAUSE MY PARENTS' HEALTH CALLS ME TO SAN DIEGO

1	RIGHT NOW. SO I'M AFRAID I CAN'T JOIN IN THAT
2	DISCUSSION AS MUCH AS I'D LIKE TO, BUT I'M ASSUMING
3	IT WILL CONTINUE NEXT MONTH.
4	CHAIRMAN KLEIN: THANK YOU. YOUR
5	COMMITMENT TO THE FIELD IS LEGENDARY, SO WE'RE GOING
6	TO SAVE THAT SEAT. THANK YOU.
7	ALL RIGHT. SO ARE THERE OTHER PUBLIC
8	COMMENTS? SEEING NO OTHER PUBLIC COMMENTS, I'D LIKE
9	TO MOVE TO ITEM 8. AND WITH ITEM 8, WE'RE GOING TO
10	HAVE CONSIDERATION OF THE RECOMMENDATIONS FROM THE
11	GRANT WORKING GROUP ON TOOLS AND TECHNOLOGY AWARD
12	APPLICATIONS. YOU HAVE PUBLIC SUMMARIES OF THESE
13	APPLI CATI ONS.
14	I'D LIKE TO BEGIN THIS ITEM BY HAVING DR.
15	TALIB WALK US THROUGH THE TOOLS AND TECHNOLOGY
16	PROGRAM. DR. TALIB.
17	DR. TALIB: THANK YOU, MR. CHAIRMAN. MR.
18	CHAIRMAN, MEMBERS OF THE BOARD, I WOULD LIKE TO
19	PRESENT TO YOU FOR YOUR CONSIDERATION
20	RECOMMENDATIONS FROM THE GRANTS WORKING GROUP ON THE
21	TOOLS AND TECHNOLOGY AWARD APPLICATIONS. IT'S
22	ACTION ITEM NUMBER AGENDA ITEM NO. 8 IN YOUR
23	FOLDER.
24	SO JUST TO REMIND YOU, THE PURPOSE OF THE
25	TOOLS AND TECHNOLOGY AWARD IS TO DEVELOP AND

1	MAINTAIN EVALUATION OF NOVEL TOOLS AND TECHNOLOGIES
2	TO OVERCOME THE CURRENT ROADBLOCKS IN BASIC
3	TRANSLATION AND CLINICAL STEM CELL RESEARCH.
4	SPECIFICALLY THIS AWARD WILL SUPPORT TWO KINDS OF
5	TECHNOLOGY DEVELOPMENT. THERE'S A DISCOVERY AND
6	EVALUATION OF NOVEL TOOLS AND TECHNOLOGIES AND
7	FURTHER OPTIMIZATION, SCALE-UP, AND APPLICATION OF
8	TOOLS AND TECHNOLOGY FOR WHICH THE PROOF OF CONCEPT
9	HAS BEEN ACHIEVED.
10	TO FURTHER ELABORATE ON THE SCOPE OF THIS
11	RFA, FIVE SUBJECT AREAS IN TECHNOLOGY DEVELOPMENT
12	WERE IDENTIFIED. THERE'S A NEED TO OVERCOME THE
13	ROADBLOCKS. AND THESE FIVE AREAS OF TECHNOLOGY
14	DEVELOPMENT INCLUDE DISCOVERY OF NOVEL BIOMARKERS;
15	THAT IS, THE DEVELOPMENT OF MONOCLONAL ANTIBODIES
16	FOR ISOLATION AND CHARACTERIZATIONS OF THE STEM
17	CELLS AND THEIR DERIVATIVES; DEVELOPMENT AND
18	UTILIZATION OF EFFICIENT GENE MANIPULATION
19	TECHNIQUES; FOR EXAMPLE, GENE TARGETING BY
20	HOMOLOGOUS RECOMBINATION; DEVELOPMENT OF NEW AND
21	SENSITIVE BIOASSAYS; FOR EXAMPLE, FOR PLURIPOTENCY
22	AND FOR TUMOROGENICITY ASSAYS; DEVELOPMENT OF
23	MATERIALS FOR EFFICIENT STEM CELL DIFFERENTIATION
24	AND MATURATION; FOR EXAMPLE, HEPATOCYTES AND
25	CARDIOMYOCYTES USED FOR DRUG SCREENING; AND FURTHER

1	OPTIMIZATION OF PRIOR PROCESSING AND PRODUCT
2	DEVELOPMENT TECHNOLOGIES.
3	COMMERCIAL SCALE-UP FOR CLINICAL TESTING
4	ARE BEYOND THE SCOPE OF THIS RFA.
5	SO THE PROGRAM FEATURES FOR THESE AWARDS
6	WHICH YOU APPROVED EARLIER THIS YEAR INCLUDES
7	FUNDING UP TO TWO YEARS AND DIRECT PROJECT COST UP
8	TO 300,000 PER YEAR AND FUNDING OF 20 AWARDS WITH A
9	TOTAL BUDGET OF \$20 MILLION.
10	SO IN TERMS OF THE REVIEW CRITERIA WHICH
11	WAS USED, THE REVIEWERS WERE ASKED TO PAY ATTENTION
12	TO THE FACT THAT THE MAIN PURPOSE OF THIS RFA IS TO
13	REMOVE THE ROADBLOCKS SO THAT THE STEM CELL FIELD
14	CAN MOVE CLOSER TO THE CLINIC. UNLIKE PREVIOUS
15	RFA'S IN WHICH INNOVATION WAS A KEY ELEMENT FOR
16	EVALUATION CRITERIA, WE ASKED REVIEWERS TO REMEMBER
17	THAT FOR THIS RFA INNOVATION IS IMPORTANT, BUT
18	PREFERENCE SHOULD BE GIVEN TO THOSE PROPOSALS THAT
19	HAVE HIGHEST LIKELIHOOD OF DELIVERING A TOOL OR A
20	TECHNOLOGY SO THAT THE STEM CELL THERAPY CAN MOVE
21	CLOSER TO THE CLINIC.
22	ACCORDINGLY, WHEN THEY EVALUATE THE DESIGN
23	AND FEASIBILITY OF THE RESEARCH PLAN, THEY SHOULD
24	PAY ATTENTION TO THE MILESTONES. AS USUAL, THE
25	SCIENTIFIC RATIONALE, CAREFULLY DESIGNED
	69

1	EXPERIMENTAL PLAN, COMPELLING PRELIMINARY DATA, AND
2	ACHIEVEMENT OF GOALS WITHIN TIMEFRAMES ARE ALL
3	IMPORTANT EVALUATION CRITERIA. FOR THIS RFA, IN
4	ADDITION, WE ASK APPLICANTS TO PROVIDE A
5	QUANTITATIVE ASSESSMENT OF THE OUTCOME. WE BELIEVE
6	FOR THIS RFA OUTCOME IS THE KEY.
7	SO THE REVIEWERS WERE ASKED TO EVALUATE IF
8	THE PI'S HAVE THE TRAINING AND EXPERIENCE TO CONDUCT
9	THE PROPOSED WORK. THE REVIEWERS WERE ALSO ASKED TO
10	ASSESS WHETHER THE PI IS COMMITTING PERCENT EFFORT
11	THAT MAXIMIZE THE LIKELIHOOD OF ACHIEVING THE
12	PROJECT GOALS AND MILESTONES.
13	WE RECEIVED APPLICATIONS FROM THE PI, FROM
14	THE INDUSTRY, AS WELL AS FROM THE NONPROFIT
15	ORGANIZATIONS. SO WE REMINDED THE REVIEWERS THAT
16	WHEN THEY REVIEW THE PI, THEY SHOULD REMEMBER THAT
17	LACK OF PUBLICATION MAY NOT BE A DISQUALIFICATION
18	FOR THE PI WHO IS APPLYING FROM THE INDUSTRY.
19	THE NEXT SLIDE SHOWS THAT IN THIS RESPONSE
20	TO THE RFA, I SHOULD REMIND, MR. CHAIRMAN, WE
21	RECEIVED 118 APPLICATIONS. SINCE OUR GRANT WORKING
22	GROUP CAN ONLY REASONABLY HANDLE UP TO 50 OR 60
23	APPLICATIONS IN ONE SESSION, WE HAD TO SPLIT THE
24	REVIEW SESSION INTO TWO. TWO SEPARATE SESSIONS WERE
25	CARRIED OUT. THIS HISTOGRAM SHOWS THE SCORE
	70

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1	DISTRIBUTION IN SESSION ONE.
2	SO THE APPLICATIONS WERE SCORED ON A SCALE
3	OF ONE TO HUNDRED, HUNDRED BEING THE HIGHEST SCORE
4	AND ONE BEING THE LOWEST SCORE. APPLICANTS WITH A
5	SCORE OF MORE THAN 80 WERE PLACED IN TIER 1. THAT'S
6	THE TOP CATEGORY. APPLICANTS WITH A SCORE BETWEEN
7	70 AND 80 SHOWN HERE WITHIN RED AND GREEN LINE WERE
8	PLACED IN TIER 2, AND THOSE APPLICANTS WHO RECEIVED
9	A SCORE OF LESS THAN 70 WERE PLACED IN TIER 3.
10	THE NEXT SLIDE SHOWS SIMILARLY THE SCORE
11	DISTRIBUTION IN SESSION TWO. AGAIN, HERE THE
12	APPLICANTS WHO RECEIVED A SCORE 80 AND ABOVE WERE
13	PLACED IN TIER 1. THAT IS AFTER THE GREEN LINE.
14	AND THOSE BETWEEN RED AND GREEN LINE, THAT IS TIER
15	2, THAT'S BETWEEN 69 AND 70 SCORE, AND LESS THAN 70S
16	WERE PLACED IN TIER 3.
17	I SHOULD POINT OUT THAT THIS DISTRIBUTION
18	OF APPLICATIONS IN TIER 1, 2, OR 3 SHOWN IN HERE IN
19	THIS HISTOGRAM AND THE PREVIOUS HISTOGRAM IS THE
20	DISTRIBUTION BEFORE THE PROGRAMMATIC REVIEW. AFTER
21	THE PROGRAMMATIC REVIEW, SOME OF THE APPLICATIONS
22	WERE MOVED FROM SESSION 1 TO SESSION 2 OR OTHER
23	TIERS ON THE BASIS OF PROGRAMMATIC NEEDS.
24	AND THE NEXT SLIDE BASICALLY SUMMARIZES

THE FINAL RECOMMENDATION BY THE GRANT WORKING GROUP.

25

1	AGAIN, JUST TO REMIND YOU THAT TIER 1 IS
2	APPLICATIONS RECOMMENDED FOR FUNDING, TIER 2 IS
3	RECOMMENDED FOR FUNDING IF THE FUNDS ARE AVAILABLE,
4	AND TIER 3 IS NOT RECOMMENDED FOR FUNDING AT THIS
5	TIME.
6	SO IF YOU LOOK AT THE TIER 1 IN PREVIOUS
7	SESSION 1, 14 APPLICATIONS WERE RECOMMENDED BY THE
8	GRANT WORKING GROUP, 11 APPLICATIONS WERE
9	RECOMMENDED FOR FUNDING IN SESSION 2. SO THE TOTAL
10	OF 25 APPLICATIONS WERE RECOMMENDED BY GRANT WORKING
11	GROUP FOR FUNDING.
12	THAT COMES OUT TO A TOTAL BUDGET OF \$21.8
13	MILLION. NOW, THE THIRD TARGET BUDGET WHICH YOU
14	APPROVED EARLIER THIS YEAR IS \$20 MILLION, AND A
15	TOTAL NUMBER OF APPLICATIONS IS 20. SO WE ARE ABOUT
16	\$1.8 MILLION ABOVE THE APPROVED BUDGET BY THE ICOC
17	EARLIER THIS YEAR.
18	TIER 2, THAT IS THE CATEGORY RECOMMENDED
19	FOR FUNDING IF THE FUNDS ARE AVAILABLE, ADDITIONAL
20	15 APPLICATIONS WERE PROPOSED, AND THAT WILL BE
21	ADDITIONAL \$13.7 MILLION.
22	MY FINAL SLIDE SHOWS THE DISTRIBUTION OF
23	THE APPLICATIONS WITH RESPECT TO THE FIVE SUBJECT
24	AREAS OR TECHNOLOGIES WHICH WERE CONSIDERED
25	IMPORTANT. SO ALL THE SUBJECT AREA APPEARS TO BE

1	EQUALLY REPRESENTED IN TIER 1. THAT IS, ALL THESE
2	FIVE BIOMARKERS, GENE MANIPULATION TECHNIQUES AND
3	OTHER FIVE CATEGORIES OF SUBJECT AREA, APPEARS TO BE
4	WELL REPRESENTED OR EQUALLY REPRESENTED IN TIER 1.
5	MR. CHAIRMAN, THIS CONCLUDES MY
6	PRESENTATION, AND I'LL BE HAPPY TO ANSWER ANY
7	QUESTIONS WHICH YOU HAVE.
8	CHAIRMAN KLEIN: THANK YOU VERY MUCH. I'D
9	LIKE TO SEE IF WE CAN HAVE THE VICE CHAIR OF THE
10	GRANTS WORKING GROUP PROVIDE SOME COMMENTS BEFORE WE
11	GO INTO GENERAL DISCUSSION.
12	MR. SHEEHY: FIRST OF ALL, I WANT TO NOTE
13	THE WORK OF STAFF AND DR. TALIB BECAUSE THIS REALLY
14	WAS IN MANY WAYS A VERY CHALLENGING GRANT FOR US IN
15	THAT IT'S THE FIRST APPLIED RESEARCH WE'VE DONE,
16	WHICH IS EXCITING BECAUSE WE'RE ACTUALLY GOING TO BE
17	MAKING SOMETHING AS OPPOSED TO MAKING DISCOVERIES.
18	BUT ALSO, WE HAD TO LOOK AT THIS THROUGH A DIFFERENT
19	LENS. AND HE PROVIDED A VALUABLE SERVICE ESPECIALLY
20	IN TERMS OF BREAKING THIS DOWN INTO THESE FIVE AREAS
21	OF FOCUS.
22	DR. TALIB DID A GREAT JOB HELPING PEOPLE
23	LIKE ME TO REALLY UNDERSTAND THIS AND BE ABLE TO
24	MEANINGFULLY PARTICIPATE BOTH WITHIN THE WORKING
25	GROUP AND NOW WITH THE DISCUSSIONS OF THE BOARD, AND

1	THAT ALSO GAVE US A PROGRAMMATIC OVERLAY IN THAT, AS
2	YOU SAW FROM HIS PIE CHART, WE WERE FAIRLY WELL
3	DISBURSED ACROSS THOSE FIVE AREAS, MEANING THAT WE
4	WERE ATTEMPTING TO OVERCOME ROADBLOCKS IN ALL FIVE
5	OF THOSE AREAS WHICH WOULD IMPACT OUR ABILITY TO
6	MOVE INTO THERAPIES USING THESE TOOLS.
7	SO I THINK STAFF DESERVES REAL KUDOS FOR
8	THIS. ANY TIME WE HAVE A THREE-DAY SESSION, STAFF
9	IS REALLY WORKING OVERTIME BECAUSE A LOT OF
10	REVIEWERS COME, LOT OF REVIEWERS LEAVE, BUT THE
11	STAFF IS THERE BEGINNING EARLY IN THE MORNING AND ON
12	THROUGH THE NIGHT. AND THIS WILL PROBABLY BE THE
13	LAST TIME WE SEE THEM FOR THIS YEAR, BUT HOW MANY
14	GRANT CYCLES WE HAVE BEEN THROUGH? SIX. I WAS JUST
15	FINISHING THE LAST GRANTS WORKING GROUP MEETING.
16	AND THIS STAFF'S PRODUCTIVITY I KNOW ALAN IS
17	TRYING TO MEASURE THAT, BUT I'M IMPRESSED. IT'S
18	JUST BEEN STUNNING. YOU JUST HAVE TO SIT IN THOSE
19	MEETINGS, SEE THE AMOUNT OF INFORMATION THAT'S
20	ASSEMBLED, DIGESTED, REVIEWED, BROUGHT TO US, AND
21	THEN ALLOWING US TO GET THESE GRANTS OUT TO REALLY
22	MOVE THE SCIENCE FORWARD. IT'S REALLY NOTHING SHORT
23	OF EXTRAORDINARY. SO WE'VE GOT GREAT LEADERSHIP AND
24	A GREAT TEAM.
25	(APPLAUSE.)
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1	MR. SHEEHY: SO I DON'T KNOW AT WHAT POINT
2	WE WANT TO PULL UP THE HISTOGRAM. I WOULD LIKE TO
3	MAKE SOME GENERAL POINTS. THIS WAS A VERY GOOD
4	ROUND. INDUSTRY WAS VERY WELL REPRESENTED, WHICH I
5	THINK IS IMPORTANT. OUR FUNDING LINE IS ACTUALLY A
6	LITTLE BIT LOWER THAN IT'S BEEN IN OTHER GRANT
7	ROUNDS. I DON'T KNOW IF WE'VE ALLOCATED ENOUGH
8	MONEY OR NOT. WE'RE GOING TO HAVE TO DECIDE THAT AS
9	A BOARD, DECIDE WHETHER OR NOT WE WANT TO LOOK INTO
10	SOME OF THE OTHER CATEGORIES AND MAYBE MOVE SOME
11	STUFF UP.
12	AS YOU SEE, WE KIND OF WENT A LITTLE BIT
13	OVER BOTH IN TERMS OF NUMBER OF GRANTS AND THE
14	NUMBER OF AND THE AMOUNT OF MONEY THAT WE SPENT,
15	BUT I DO THINK THIS WAS AN IMPRESSIVE SESSION.
16	SO I THINK IF WE ARE READY TO GO INTO IT.
17	DO WE HAVE A HISTOGRAM? DO WE WANT TO START WITH
18	THE HI STOGRAM?
19	MS. KING: WE NEED ABOUT THREE MINUTES.
20	FILL WITH SOMETHING INTERESTING.
21	MR. SHEEHY: ACTUALLY I'M GOING TO GIVE
22	MORE KUDOS TO STAFF. I WANT TO ALSO NOTE THAT WE
23	DID HAVE SOME REVIEWERS WITH SPECIFIC KNOWLEDGE OF
24	BOTH INDUSTRY AND OF CLINICAL PRACTICE. AND IT WAS
25	VERY INTRIGUING TO ME TO SEE THE CLINICIANS VERSUS

1	THE BASIC SCIENTISTS ON SOME OF THESE GRANTS AND
2	REALLY SEE THEM MIX IT UP. SO I THINK AND MANY
3	OF YOU ARE VERY KNOWLEDGEABLE IN SCIENCE AND
4	EVERYTHI NG.
5	AS YOU LOOK AT THESE GRANTS, THINK ABOUT
6	HOW SOME OF THESE CAN MAKE A DIFFERENCE IN HELPING
7	PEOPLE WHO ARE DOING CLINICAL RESEARCH AS OPPOSED TO
8	BASIC RESEARCH BECAUSE THAT WAS A POINT OF
9	DISCUSSION BETWEEN THESE REVIEWERS. AND THOSE WHO
10	WERE CLINICALLY FOCUSED DEFINITELY HAD STRONGER
11	OPINIONS ABOUT SOME GRANTS THAN SOME OF THE BASIC
12	PEOPLE DID. SO THAT'S A NICE FEATURE.
13	WE HAVEN'T REALLY HAD THEM MIXED IN QUITE
14	AS DRAMATICALLY AS IN THIS PARTICULAR ROUND. ARE MY
15	THREE MINUTES UP? THIRTY MORE SECONDS.
16	CHAIRMAN KLEIN: JEFF, AFTER THE
17	HISTOGRAM, YOU MIGHT WANT TO JUST HAVE THE PUBLIC
18	AND THE MEMBERS JUST LOOK AT THE SCORE DISTRIBUTION
19	BETWEEN THE FOR RECOMMENDED AND IF AVAILABLE
20	CATEGORY BETWEEN THE TWO ROUNDS BECAUSE THERE'S SOME
21	VERY HIGH SCORES EVEN BELOW THE RECOMMENDED FUNDING
22	LI NE.
23	MR. SHEEHY: YOU'RE REMINDING ME OF A
24	POINT I WAS GOING TO MAKE. GENERALLY A NUMBER
25	THAT'S BEEN CONSIDERED APPROXIMATELY FUNDABLE HAS
	7.

1	BEEN ROUGHLY, ALAN AND MARIE, ROUGHLY AROUND 75. IF
2	YOU'RE IN THE TOP QUARTILE, YOU'RE MORE LIKELY TO
3	GET FUNDED THAN NOT TO BE IN THE FUNDABLE CATEGORY.
4	AND WE ACTUALLY HAVE, AS YOU CAN SEE, SOME THAT ARE
5	ABOVE THAT LEVEL THAT HAVE FALLEN INTO FUND IF FUNDS
6	ARE AVAI LABLE.
7	SO I DO THINK AS A BOARD WE NEED TO THINK
8	ABOUT WHAT WE'RE TRYING TO ACCOMPLISH AND
9	CONSIDER AND DEFINITELY PUT SOME CONSIDERATION
10	INTO WHETHER OR NOT WE WANT TO GO BEYOND OR NOT WHAT
11	THE WORKING GROUP HAS SUGGESTED FOR US.
12	CHAIRMAN KLEIN: JEFF, I THINK DR.
13	SAMBRANO HAS A POINT.
14	DR. SAMBRANO: I JUST WANT TO POINT OUT
15	WHAT WE'RE SHOWING HERE. SO WE ACTUALLY HAD
16	BECAUSE WE HAD TWO SESSIONS, WE'RE GOING TO SHOW TWO
17	LISTS. SO WHAT YOU'RE SEEING HERE IS THE LIST IN
18	RANK ORDER FOR SESSION 1, AND THEN I CAN TOGGLE
19	BETWEEN SESSION 1 AND SESSION 2, SHOWING THE SAME
20	INFORMATION. AND SO FOR EACH LIST YOU CAN SEE THOSE
21	APPLICATIONS IN TIERS 1, 2, AND 3.
22	AND SO WHAT IS VISIBLE RIGHT NOW IS IN
23	GREEN ALL OF TIER 1 AND PART OF TIER 2. AND SO WE
24	CAN MOVE ON AS YOU'D LIKE.
25	MR. SHEEHY: AND YOU WANT TO LOOK IN YOUR

1	BOOKS WHERE YOU HAVE ROUGHLY THE TYPE OF
2	INFORMATION. YOU WILL NOTICE THAT YOU CAN SEE
3	HOW THE WORKING GROUP KIND OF BROKE OUT. WE HAVE A
4	LOT OF BIOASSAYS, BIOMARKERS IN THIS FIRST GROUP.
5	THE SECOND GROUP YOU'LL SEE A LOT OF GENE
6	MANIPULATION IN THAT GROUP. SO JUST NOTING THAT
7	ACTUALLY THERE WAS SOME SIGNIFICANT DIFFERENCE IN
8	THE COMPOSITION OF THE WORKING GROUP BETWEEN THOSE
9	TWO SESSIONS, DIFFERENT AREAS OF FOCUS.
10	KUDOS FOR STAFF FOR GETTING ALL THESE
11	PEOPLE IN THE ROOM OVER THOSE THREE DAYS.
12	MR. ROTH: A QUESTION ON THE CHART THAT'S
13	UP THERE. IT'S BIT DIFFERENT THAN THE ONE THAT'S IN
14	THE BOOK. GRANT 108 SHOWS ON HERE AS NOT
15	RECOMMENDED, AND IT SHOWS AS RECOMMENDED ON OUR
16	CHART.
17	DR. SAMBRANO: YOU'RE CORRECT. THAT ONE
18	ACTUALLY IS IN TIER 1. THE SYSTEM DIDN'T RECORD
19	THAT ORIGINALLY. SO THAT WAS ONE APPLICATION THAT
20	WE HAD TO NOTE THAT FOR. THANKS FOR POINTING THAT
21	OUT.
22	MR. SHEEHY: 1108 AND 1050, RIGHT, THOSE
23	WERE MOVED UP IN PROGRAMMATIC; AM I CORRECT?
24	MR. ROTH: 1050 MADE IT UP.
25	MR. SHEEHY: I REMEMBERED THAT ONE. I WAS
	78
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1	SURPRISED. I'M GLAD YOU CAUGHT THAT.
2	MR. ROTH: BUT IT IS RECOMMENDED.
3	MR. SHEEHY: IT SHOULD BE RECOMMENDED FOR
4	FUNDI NG. GREAT.
5	MR. ROTH: IS IT APPROPRIATE FOR QUESTIONS
6	ON THESE?
7	CHAIRMAN KLEIN: IT IS APPROPRIATE FOR
8	QUESTIONS AT THIS TIME. I'D LIKE TO ASK DR.
9	SAMBRANO. DO YOU HAVE ANY POINTS YOU'D LIKE TO
10	MAKE?
11	DR. SAMBRANO: DO YOU WANT TO SEE SESSION
12	2? I CAN SHOW THAT AS WELL.
13	CHAIRMAN KLEIN: SESSION 2, LOOK AT BOTH
14	OF THOSE FOR THE PUBLIC. THE PUBLIC HAS COPIES.
15	THEY PUT UP SESSION 2 FOR A SECOND AND THEN THEY GO
16	BACK TO SESSION 1.
17	DR. SAMBRANO: SO THIS IS SESSION 2.
18	CHAIRMAN KLEIN: ALL RIGHT. UNLESS
19	THERE'S QUESTIONS ON THIS, LET'S RETURN TO SESSION
20	1. AND, DUANE, YOU HAVE THE FLOOR.
21	MR. ROTH: SO, AGAIN, THE OBVIOUS ONE IS
22	GRANT 050 AND WHY IT WAS MOVED UP AND SOME
23	EXPLANATION PERHAPS ON WHY THAT WAS FELT GIVEN ITS
24	LOWER SCORE.
25	CHAIRMAN KLEIN: SO I THINK DR. CSETE HAS
	79
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1	COMMENTS ON PROGRAMMATIC CONSIDERATIONS FOR IT TO BE
2	MOVED UP.
3	DR. CSETE: SO ONE OF THE THINGS THAT JEFF
4	DIDN'T MENTION IN HIS CONGRATULATIONS FOR THE KINDS
5	OF PEOPLE WE HAD IN THE ROOM IS THAT WE HAD A NUMBER
6	OF THE MOST OUTSTANDING ENGINEERS IN THE COUNTRY IN
7	THE ROOM. AND THE PROGRAMMATIC DISCUSSION REALLY
8	FOCUSED ON THE UNIQUENESS OF THIS GRANT IN BRINGING
9	A MATHEMATICAL SYSTEMS BIOLOGY APPROACH. IT'S THE
10	FIRST TIME THAT WE'VE REALLY SEEN A SYSTEMS BIOLOGY
11	APPROACH TO CATEGORIZING STEM CELLS IN AN OPEN WEB
12	PLATFORM. AND IT WAS THE UNIQUENESS OF THIS GRANT
13	IN RETROSPECT. THE ENGINEERS BROUGHT IT UP FOR
14	PROGRAMMATIC CONSIDERATION THAT MADE THE WORKING
15	GROUP AS A WHOLE RECOMMEND THAT IT BE MOVED FROM
16	TIER 2 TO TIER 1.
17	MR. ROTH: JUST A COUPLE OTHER QUESTIONS.
18	DR. CSETE: I WAS TALKING ABOUT 1108.
19	1050 WAS ALSO AN ENGINEERING CONSIDERATION. AND
20	VERY SIMILAR KINDS OF PROGRAMMATIC DISCUSSION WHERE
21	THIS WAS A MULTISCALE ENGINEERING APPROACH TO STEM
22	CELL DIFFERENTIATION BY A VERY SENIOR ENGINEER. AND
23	IN RETROSPECT, AFTER ALL THE GRANTS HAVE BEEN GONE
24	THROUGH, THE ENGINEERS FELT THAT THIS WAS A UNIQUE
25	APPLI CATI ON.
	90

1	MR. ROTH: CAN YOU TELL ME THE PERCENT OF
2	TIME THE PI'S DEDICATED TO THAT ONE?
3	DR. CSETE: I'D HAVE TO LOOK.
4	MR. ROTH: I'D LIKE TO KNOW.
5	CHAIRMAN KLEIN: SO, DUANE, WHY DON'T WE
6	CONTINUE WITH THE QUESTIONS WHILE WE LOOK THAT UP.
7	ALSO, MR. HARRISON, WOULD YOU LIKE TO HAVE A
8	COMMENT? WHAT WE'LL DO HERE IS THAT WE HAVE NO
9	CONFLICTS IN THIS DISCUSSION. BEFORE THERE ARE
10	OTHER INDIVIDUAL GRANTS THAT ARE ADDRESSED, I'D LIKE
11	TO INFORM THE AUDIENCE THAT THE BOARD MEMBERS HAVE A
12	LIST OF GRANTS WITH WHICH THEY ARE NOT PARTICIPATING
13	IN DISCUSSION OR VOTE ON. AND, COUNSEL, IN
14	ADDITION, MAKE SURE THAT THEY MONITOR THIS LIST SO
15	THAT IF ANYONE INADVERTENTLY STARTS TO MAKE A
16	COMMENT, WE TERMINATE THAT DISCUSSION. SO WE HAVE A
17	DOUBLE SAFE SYSTEM OPERATING SO THAT SOMEONE DOESN'T
18	COMMENT ON THE INSTITUTION THEY'RE FROM.
19	DUANE ROTH IS NOT FROM AN INSTITUTION THAT
20	HAS ANY GRANTS. AND SO HE CAN TALK ABOUT THESE.
21	OTHER INDIVIDUAL MEMBERS WILL CONSULT THE LIST
22	BEFORE RAISING A QUESTION.
23	MR. ROTH: SO I'M JUST INFORMED THAT THE
24	PI'S EFFORT ON THIS IS 10 PERCENT. THE REASON I
25	RAISED THAT IS I WANT TO ALSO ASK THE QUESTION ON A
	Ω1

1	GRANT THAT'S COMING UP, BUT IT'S 10 PERCENT OF THE
2	PI. A LOT OF THIS GRANT WAS AWARDED ON THE STRENGTH
3	OF THE TEAM, THE PI. AND THERE WERE A LOT OF
4	DISCUSSIONS ABOUT THE REASON THAT SCORED LOW IS AIM
5	2 WAS NOT THERE. SO WHAT I'M REALLY SORT OF TRYING
6	TO UNDERSTAND WAS IS THAT CONSISTENT, WHEN THERE WAS
7	A LOW PERCENTAGE OF PI TIME DEDICATED, WAS THAT
8	CARRIED ACROSS? OR, YOU KNOW, IS IT
9	DR. PIZZO: CAN I MODIFY YOUR QUESTION A
10	BIT, DUANE, TO ALSO EXPAND ON, I THINK, WHAT YOU ARE
11	GETTING AT, WHICH IS THE APPARENT DISCORDANCE
12	BETWEEN AIM 1 AND AIM 2. IF YOU COULD ADD A LITTLE
13	GRANULARITY TO WHY THAT WAS FELT TO BE. WAS IT THE
14	PERCENTAGE OF TIME, OR WAS IT THE QUALITY OF THE
15	TEAM AND FEASIBILITY?
16	DR. CSETE: VERY OFTEN, JUST AS A GENERAL
17	PRINCIPLE, WHEN WE SEE REVIEWERS WILL COMMENT
18	THAT ONE AIM WAS CONSIDERABLY WEAKER THAN THE OTHER
19	TWO THAT WERE VERY STRONG. AND USUALLY THE
20	CONSENSUS IS, WHEN THE REVIEWERS ARE RECOMMENDING
21	SOMETHING FOR FUNDING, THAT AS A TOTALITY THEY THINK
22	THE GRANT IS STRONG, AND THEY HOPE THAT THE
23	REVIEWER'S COMMENTS TO STRENGTH ON THE WEAKER OF THE
24	AIM WILL BE TAKEN INTO ACCOUNT AS THE APPLICANT
25	PROCEEDS WITH HIS WORKS. AND THAT'S ALMOST ALWAYS

1	THE KIND OF DISCUSSION THAT HAPPENS WHEN THERE'S ONE
2	OF THOSE SITUATIONS.
3	I CAN'T RECALL THAT PARTICULAR ONE.
4	DR. PIZZO: I MEAN I THINK WE KNOW THAT
5	PART. I JUST WONDERED WHETHER THERE WAS ANYTHING
6	MORE SPECIFIC ABOUT THIS. I CAN APPRECIATE THAT
7	THAT WOULD BE TOO DETAILED.
8	CHAIRMAN KLEIN: SO FOR THE AUDIENCE,
9	SOHIL WAS THE PRIMARY SCIENTIFIC OFFICER ON THIS
10	GRANT, AND HE'S GOING TO GIVE US THE DEPTH.
11	DR. TALIB: SO I THINK IN TERMS OF THE
12	WEAKNESS WHICH WAS POINTED IN TWO, THAT REPRESENTED
13	A SIGNIFICANT DISTRACTION FROM THE OVERALL PROPOSAL
14	BECAUSE AIM 1 WAS VERY STRONG. EVEN IN THE
15	PROGRAMMATIC DISCUSSION, WHAT WAS POINTED OUT, THAT
16	DESPITE THE WEAKNESS OF THE SECOND AIM, THE STRENGTH
17	AND THE SIMPLICITY OF AIM 1 COMBINED WITH THE PROVEN
18	TRACK RECORD OF THE INVESTIGATOR TEAM WARRANTED
19	ADDITIONAL CONSIDERATION. SO THAT ACTUALLY WAS THE
20	REASON THAT OVERWHELMINGLY THIS APPLICATION WAS
21	MOVED TO TIER 1.
22	SO ALTHOUGH AIM 2, WHICH IS A LITTLE BIT
23	BROAD IN TERMS OF THE TECHNOLOGY, WAS CONSIDERED AS
24	A DISTRACTION, BUT THE AIM BY ITSELF WAS CONSIDERED
25	VERY IMPORTANT, AND THAT BY ITSELF WOULD BRING OUT
	83

SOMETHING WHICH IS LACKING; THAT IS, A PLATFORM
TECHNOLOGY FOR DIFFERENTIATION OF THE HUMAN
EMBRYONIC STEM CELL AND THEIR GROWTH.
SO PARTICULAR TECHNOLOGY OF PLATFORM WHICH
IS BEING DEVELOPED BY THIS PARTICULAR INVESTIGATOR
IS VERY UNIQUE. SO MOST OF THE REVIEWERS WERE VERY
HAPPY ABOUT IT. ONLY THING WHICH THEY THOUGHT WAS
ABOUT AIM 2, BUT OVERALL THEY CONSIDERED THE
APPLICATION BY ITSELF AS VERY STRONG.
CHAIRMAN KLEIN: OKAY. THANK YOU.
ADDITIONAL QUESTIONS FROM THE BOARD? I'D LIKE TO
ASK THE STAFF, AMONG THE MIDDLE CATEGORY, ARE THERE
ANY PARTICULAR PROGRAMMATIC CONSIDERATIONS FROM THE
STAFF'S PERSPECTIVE OF UNIQUE CONTRIBUTING GRANTS
THAT IN RETROSPECT MAY NOT BE FULLY REPRESENTED? I
THINK ANTIBODIES IS SOMETHING THAT'S BEEN DISCUSSED
PREVIOUSLY. DR. TROUNSON, WOULD YOU LIKE TO ADDRESS
THAT, OR WOULD YOU LIKE ANY OF YOUR OFFICERS TO
ADDRESS THAT?
DR. TROUNSON: WELL, LET ME JUST MAKE A
QUICK COMMENT ON IT. THERE IS A NEED IDENTIFIED
ACROSS THE WHOLE SPECTRUM OF STEM CELL RESEARCH THAT
WE NEED MORE ANTIBODIES OR MORE WAYS OF RECOGNIZING
SPECIFIC CELL TYPES. FOR EXAMPLE, IN CANCER STEM
CELLS, IT'S VERY IMPORTANT THAT WE RECOGNIZE WHAT
9.4

1	ACTUALLY IS THE STEM CELL. AND LIKEWISE, WHEN
2	YOU'RE INVOLVED IN DIFFERENTIATING OR CHANGING CELL
3	POPULATIONS, CHARACTERIZING THE CELL THAT YOU'VE GOT
4	IS VERY IMPORTANT.
5	SO YOU CAN DO THIS REALLY BY THE USE OF
6	ANTIBODIES OR BY RECOGNIZING SPECIFIC PROTEINS, A
7	PROTEOMIC APPROACH. THEY WEREN'T STRONGLY
8	REPRESENTED IN THE UPPER TIER. SO THERE WERE AT
9	LEAST TWO PROJECTS THAT ARE IN THE GRAY AREA, IF YOU
10	LIKE, THAT REPRESENT APPROACHES THAT ARE ANTIBODIES
11	THAT MAY BE WORTH CONSIDERING BECAUSE THEY'RE NOT
12	WELL REPRESENTED IN WHAT WE'VE GOT AT THE MOMENT.
13	THERE WAS ALSO ONE ON PROTEOMICS, THE
14	IDENTIFICATION OF SPECIFIC PROTEINS. AND SO IF YOU
15	WOULD LIKE FURTHER DISCUSSION SPECIFICALLY ON THOSE,
16	WE'RE HAPPY TO PROVIDE THAT.
17	CHAIRMAN KLEIN: I THINK IT MIGHT BE
18	HELPFUL PRIOR TO OUR EXECUTIVE SESSION WHERE WE CAN
19	LOOK AT PROPRIETARY INFORMATION TO BE ABLE TO
20	IDENTIFY THE TWO ANTIBODY APPLICATIONS YOU'VE CALLED
21	OUR ATTENTION TO AND THE PROTEOMICS APPLICATION, IF
22	THE SCIENTIFIC OFFICERS, IF YOU COULD HAVE THEM
23	ADDRESS THOSE.
24	DR. TROUNSON: I'LL ASK SOHIL TO COME UP
25	TO THE MICROPHONE AND GIVE YOU A SUMMARY OF THAT.

YOU CAN SEE IT IN YOUR PROGRAM. THE 1073-1, SO IT
WAS RANKED AT 77 AS ONE OF THESE ANTIBODY MARKERS.
CHAIRMAN KLEIN: AND WHICH OF THE ROUNDS
WAS THAT IN?
DR. TROUNSON: THAT'S IN ROUND ONE.
MR. SHEEHY: SHALL WE GET THE CONFLICTS,
BOB, AS HE BRINGS THESE UP?
CHAIRMAN KLEIN: YES. THAT WOULD BE A
VERY GOOD IDEA. JAMES HARRISON, COULD YOU IDENTIFY
THE CONFLICTS ON 1073?
MR. HARRISON: YES. FOR APPLICATION 1073,
THE CONFLICTS ARE FEIT, HAWGOOD, LANSING, AND
SHEEHY.
CHAIRMAN KLEIN: OKAY.
DR. TROUNSON: THE SECOND ONE IN THE FIRST
PROGRAM, WHICH IS ON PROTEOMICS, IS LISTED AS
1144-1. AND THAT WAS WORK ON PROTEOMIC ANALYSIS,
ANALYSIS OF PROTEINS SPECIFICALLY AS BIOMARKERS. SO
1144.
CHAIRMAN KLEIN: OKAY.
MR. HARRISON: MR. CHAIR, THE CONFLICTS ON
APPLICATION NO. 1144 ARE FONTANA AND WITMER.
CHAIRMAN KLEIN: OKAY. AND THE THIRD ONE.
DR. TROUNSON: THIRD ONE WAS IN THE SECOND
PROGRAM, AND IT'S 1049, WHICH HAD A MARK AT 71. SO
9.6

1	A LITTLE LOWER THAN THE OTHER TWO, BUT IT, AGAIN, IS
2	AN ANTIBODY PROGRAM IDENTIFYING ANTIGENS ON THE
3	SURFACE OF THE CELL. SO THOSE THREE, IF YOU WISH
4	THE FURTHER DISCUSSION, WE WOULD ASK SOHIL OR MARIE
5	TO GIVE YOU MORE INFORMATION.
6	CHAIRMAN KLEIN: AND WHO ARE THE CONFLICTS
7	ON THE THIRD ONE?
8	MR. HARRISON: APPLICATION NO. 1049, THE
9	CONFLICTS ARE BLOOM, GILL, LANSING, AND WITMER.
10	CHAIRMAN KLEIN: SO WHAT I'M GOING TO ASK
11	IS THAT, FOR THE BENEFIT OF THE BOARD, IF WE COULD
12	SEQUENTIALLY GO THROUGH THOSE. AND AFTER EACH ONE,
13	I'LL ASK FOR QUESTIONS OF THE BOARD. WE'LL REPEAT
14	THE CONFLICTS JUST TO RENEW EVERYONE'S ATTENTION,
15	AND THEN WE'LL GO TO THE NEXT REPORT. SO, DR.
16	OLSON, ARE YOU GOING TO LEAD OR IS
17	DR. OLSON: I WILL DO 1073, FOLLOWED BY
18	MARIE DOING, I BELIEVE, 1144, AND DR. TALIB DOING
19	1049.
20	OKAY. SO AS YOU HAVE HEARD, 1073 IS AN
21	APPLICATION TO DEVELOP ANTIBODIES. AND IN
22	PARTICULAR, THE GOAL OF THIS APPLICATION IS DEVELOP
23	A TOOL KIT OF ANTIBODIES THAT SPECIFICALLY RECOGNIZE
24	ANTIGENS WHOSE EXPRESSION IS RESTRICTED TO
25	PLURIPOTENT HUMAN EMBRYONIC STEM CELLS OR TO THEIR

1	DIFFERENTIATED DERIVATIVES, INCLUDING PANCREATIC
2	BETA CELLS, CARDIOMYOCYTES, AND NEURONS.
3	ONE OF THE THINGS ABOUT THIS APPLICATION
4	IS THAT THE PI PROPOSES SEVERAL APPROACHES TO
5	GENERATE THESE ANTIBODIES, INCLUDING SYSTEMATIC
6	SCREENING OF A COLLECTION OF COMMERCIAL ANTIBODIES
7	THAT ARE ALREADY AVAILABLE. SO THIS HAS THE ADDED
8	BENEFIT OF NOT TAKING THE TIME THAT IT TAKES TO
9	ACTUALLY GENERATE ANTIBODIES AND TAKING THESE
10	ANTIBODIES THAT HAVEN'T BEEN SCREENED ON ESSENTIALLY
11	THESE CELL REAGENTS THAT MOST PEOPLE DON'T HAVE AND
12	BEING ABLE TO DETERMINE IF, IN FACT, ANY OF THE
13	KNOWN ANTIBODIES RECOGNIZE THESE PARTICULAR
14	ANTI GENS.
15	THE OTHER TWO STRATEGIES ARE ESSENTIALLY
16	GENERATING MONOCLONAL ANTIBODIES BY CLASSIC IN VIVO
17	AND IN VITRO APPROACHES. SO THAT IS USING THE
18	DIFFERENT METHODS ARE EXPECTED TO INCREASE THE
19	LIKELIHOOD OF GENERATING ANTIBODIES WITH DIFFERENT
20	SPECIFICITY. AS YOU KNOW, IN VIVO IMMUNIZATION
21	USUALLY ASSUMES A LACK OF CROSS REACTIVITY IN ORDER
22	TO GET NOVEL ANTIBODIES. IN VITRO METHODS BASICALLY
23	ARE NOT LIMITED TO THAT KIND OF THING. SO IT'S A
24	POTENTIAL FOR GETTING MORE RARE MOLECULES.
25	REVIEWERS LIKED IT. THEY THOUGHT IT WAS
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1	SIGNIFICANT IN THE SENSE THAT SUCCESSFUL EXECUTION
2	WOULD GREATLY ENHANCE EXPERIMENTS, NOT ONLY FOR
3	BASIC BIOLOGY, BUT THESE CAN POTENTIALLY HAVE
4	DIAGNOSTIC APPLICATIONS, BE THERAPEUTIC, OR BE USED
5	IN SEPARATION AND PURIFICATION OF CELL TYPES FOR
6	ESSENTIALLY THERAPEUTIC USE.
7	SO ANTIBODIES ARE A VERY USEFUL REAGENT.
8	THE REVIEWERS CONSIDERED THE PROPOSED RESEARCH TO BE
9	A NEAR OPTIMAL CONGREGATION OF EXPERTISE AND WELL
10	THOUGHT OUT APPROACHES LIKELY TO ACTUALLY YIELD THE
11	DESIRED AIM.
12	THEIR BIGGEST CONCERN WAS THE COMMITMENT
13	OF THE PI. THE PI'S, IN FACT, QUITE HIGHLY
14	COMMITTED, AND THERE IS A LOW PERCENT EFFORT BY MANY
15	OF THE KEY PERSONNEL. SO THAT WAS A QUESTION AS TO
16	HOW CALLING INTO QUESTION THE POTENTIAL FOR
17	SUCCESS OF THIS.
18	SO, AGAIN, THE TEAM, THE STRENGTHS WERE
19	THE STRONG TEAM WITH SIGNIFICANT EXPERTISE AS SHOWN
20	ESSENTIALLY BY THE PRELIMINARY DATA. I MEAN THE
21	TEAM ASSEMBLED REALLY IS QUITE PHENOMENAL. THEY
22	HAVE EXPERTISE IN IN VIVO GENERATION OF ANTIBODY AND
23	SCREENING TECHNOLOGIES. AND IN VITRO GENERATION OF
24	ANTIBODIES, THEY'VE CALLED UPON EXPERTS TO GENERATE
25	THE CARDIOMYOCYTES, THE NEURONAL ONES. SO THEY HAVE
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1	EXPERTS IN ALL CASES THAT ARE PLAYING IN THIS.
2	AS I ALSO NOTED, THE COLLABORATION WITH
3	THE COMPANY IS CONSIDERED A STRENGTH AND, IN FACT,
4	WAS SUPPORTED BY A STRONG LETTER OF SUPPORT FROM THE
5	COMPANY. SO THAT SEEMS TO BE A REAL THING.
6	STRATEGIES, THEY HAD SOME, I THINK,
7	CONCERNS THAT IN SOME CASES WHEN YOU DO
8	IMMUNIZATION, THERE ARE WAYS TO DO IMMUNIZATION SO
9	YOU DO NOT GET IMMUNODOMINANT EPITOPES, ONES THAT
10	ARE ALREADY RECOGNIZED, ANTIBODIES THAT ARE ALREADY
11	AVAILABLE AGAINST ANTIGENS. SO THERE WAS SOME
12	CONCERN THAT THEY WEREN'T EMPLOYING A LOT OF THE
13	TRICKS THAT CAN BE USED TO MINIMIZE THAT KIND OF
14	APPROACH.
15	ALSO THEY CONSIDERED THE PROBABILITY OF
16	THE IN VITRO APPROACH FOR GENERATING ANTIBODIES TO
17	BE GOOD BECAUSE, IN FACT, THEY'VE DONE IT. THEY'VE
18	DONE IT AGAINST RARE POPULATIONS SUCH AS CANCER STEM
19	CELLS AND BEEN ABLE TO GET ANTIBODIES THAT THEY
20	SHOWED.
21	SO THEY WERE CONCERNED ABOUT LOW AFFINITY
22	BY THAT APPROACH, BUT THAT CAN BE HANDLED BY
23	TECHNICAL REASONS. AGAIN, AS I NOTE, THEY
24	CONSIDERED IT A STRONG RESEARCH TEAM, MANY
25	EXPERIENCED SCIENTISTS, LOW LEVELS OF COMMITMENT,
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1	AND POTENTIAL OVERCOMMITMENT ON THE PART OF THE PI.
2	SO OVERALL THEY CONSIDERED IT A STRONG
3	PROPOSAL, BUT THEY WERE CONCERNED ABOUT ESSENTIALLY
4	THE ABILITY OF THE PI TO COMMIT AS MUCH AS STATED
5	AND THE LOW LEVELS OF COMMITMENT OF OTHER MEMBERS OF
6	THE TEAM.
7	MR. ROTH: SO PAT.
8	CHAIRMAN KLEIN: YES. AGAIN, BEFORE THE
9	DISCUSSION, JAMES HARRISON, REPEAT THE CONFLICTS,
10	PLEASE.
11	MR. HARRISON: THE MEMBERS WHO HAVE A
12	CONFLICT WITH RESPECT TO APPLICATION 1073 ARE
13	MEMBERS FEIT, HAWGOOD, LANSING, AND SHEEHY.
14	CHAIRMAN KLEIN: THANK YOU.
15	MR. ROTH: THIS REVIEW WAS VERY STRONG,
16	BUT THE CONSTANT THING WITH THE PI'S PERCENT OF
17	TIME. SO TWO QUESTIONS. WHAT WAS THE PERCENT OF
18	THE PI'S TIME? AND NO. 2, HOW MANY PEOPLE ARE ON
19	THIS VERY STRONG TEAM?
20	DR. OLSON: PI'S PERCENT OF TIME WAS IN
21	THE CONTEXT OF IT'S THE OTHER COMMITMENTS OF THE PI.
22	IT'S NOT SO MUCH THE PI'S PERCENT OF TIME. IN POINT
23	OF FACT, WE ASKED FOR 10-PERCENT COMMITMENT. THAT
24	WAS THE REQUIREMENT. SO THAT'S ALL THAT WAS
25	REQUI RED.
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1	MR. ROTH: I GUESS SOMEBODY DIDN'T BELIEVE
2	HIM? IT MUST BE THAT SOMEBODY DIDN'T BELIEVE THE
3	PI.
4	DR. OLSON: NO. THE ISSUE IS THAT IT IS
5	ACTUALLY THE REVIEWERS HAVE REASON PEOPLE SUBMIT
6	WHEN THEY PUT IN AN APPLICATION. THE PI SUBMITS THE
7	PERCENT EFFORT COMMITMENT ON CURRENT ACTIVE GRANTS
8	AS WELL AS THE PERCENT EFFORT COMMITMENT ALLOCATED
9	TO PENDING AWARDS. THOSE NUMBERS, WHEN THEY'RE IN
10	EXCESS OF A HUNDRED, ARE JUST CAUSE FOR PAUSE, BUT
11	THEY'RE ACTUALLY THE SUBJECT OF ADMINISTRATIVE
12	REVI EW.
13	CHAIRMAN KLEIN: I THINK IT'S IMPORTANT,
14	DR. OLSON, TO ELUCIDATE THE ADMINISTRATIVE REVIEW
15	BECAUSE OBVIOUSLY IF SOMEONE HAS A 30-PERCENT
16	COMMITMENT TO A GRANT AND THAT GRANT IS EXPIRING, IN
17	THE ADMINISTRATIVE REVIEW YOU WOULD FIND THAT OUT
18	AND BE ABLE TO SEE THAT ESSENTIALLY THEY'RE
19	FEATHERING THIS END AS THE OTHER GRANT EXPIRES.
20	SO WE DON'T PERMIT IN ADMINISTRATIVE
21	REVIEW PEOPLE TO OVERCOMMIT THEIR TIME. THIS IS AN
22	ADDITIONAL LAYER OF PROTECTION IN THE SYSTEM THAT
23	EVERYONE NEEDS TO UNDERSTAND. SO DR. PIZZO.
24	DR. PIZZO: I'VE SPOKEN PREVIOUSLY ABOUT
25	CONCERNS REGARDING PERCENT EFFORT, AND MY CONCERNS
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1	ARE NOT GETTING TOO RIGID IN TERMS OF PERCENT EFFORT
2	BECAUSE I THINK SOME OF THE VERY BEST WORK IS DONE
3	BY PEOPLE WHO ARE OVERCOMMITTED, IF YOU WILL.
4	AND I WOULD JUST ADD TO THAT THAT THE WAY
5	YOU PRESENTED THE GRANT IN TERMS OF THE QUALITY OF
6	THE PRELIMINARY DATA, THE DEGREES OF COLLABORATIONS,
7	THE SORT OF ACCOLADES THAT I HEARD YOU GIVING, TO
8	ME, WERE QUITE IMPORTANT ATTRIBUTES OF THE GRANT.
9	I THINK WE SHOULD FOCUS ON THAT AND A LITTLE LESS SO
10	ON THE CONCERN OF PERCENT EFFORT.
11	DR. OLSON: I WAS REALLY REFLECTING THE
12	REVIEWER'S CONCERNS.
13	DR. PIZZO: YES, OF COURSE. I'M NOT
14	MINIMIZING OR TRIVIALIZING THEM. I'M EXPRESSING MY
15	VI EWS.
16	DR. OLSON: MAY I EXPRESS ONE PERSONAL
17	COMMENT, THOUGH, WITH RESPECT TO THE PERCENT EFFORT.
18	I DO THINK WE DO HAVE TO KEEP REMEMBERING THE
19	URGENCY OF OUR MISSION, THE FACT THAT WE WOULD LIKE
20	PEOPLE TO BE THINKING ABOUT THE RESEARCH AND MOVING
21	IT FORWARD. SO I THINK THE POINTS ABOUT PERCENT
22	EFFORT, I RESPECT YOUR POSITIONS, BUT I DO THINK WE
23	NEED TO KEEP IN MIND.
24	DR. PIZZO: I JUST WANT TO RESPECTFULLY
25	DISAGREE ONLY TO SAY THAT I THINK IF YOU'VE GOT AN
	02

1	OUISTANDING TEAM AND GROUP, I WOULD RATHER HAVE A
2	LOWER PERCENT EFFORT AND HAVE FANTASTIC RESULTS THAN
3	A HIGH PERCENT EFFORT AND HAVE MEDIOCRE RESULTS.
4	CHAIRMAN KLEIN: THANK YOU. WE HAVE DR.
5	OS STEWARD HAS A COMMENT, AND THEN AFTER DR.
6	STEWARD, LEEZA GIBBONS.
7	DR. STEWARD: SO THIS IS A QUESTION
8	ACTUALLY THAT MIGHT I'M NOT SURE WHETHER I'M IN
9	CONFLICT ON ANY OF THE OTHERS, BUT IT MIGHT APPLY TO
10	THE OTHERS. I'LL ASK IT NOW. THEY SAY THAT THEY
11	WILL ALSO BANK REAGENTS FOR DISTRIBUTION TO
12	INVESTIGATORS IN THE STATE. THIS MIGHT ACTUALLY BE
13	A QUESTION THAT IS MORE APPROPRIATE FOR THE
14	CONFIDENTIAL AND PROPRIETARY PART OF THE DISCUSSION,
15	BUT IS THERE AN ACTUAL EXPLICIT PLAN FOR MAKING
16	THESE SUCCESSFULLY GENERATED ANTIBODIES AVAILABLE?
17	AND IF NOT, WHAT DOES THIS WHAT DOES THIS BANK
18	ACTUALLY MEAN?
19	DR. OLSON: WELL, CERTAINLY THE COMMERCIAL
20	ANTIBODIES ARE ALREADY AVAILABLE. THE OTHER
21	ANTIBODIES, I AM TRYING TO REMEMBER IF THERE'S I
22	THINK, YOU KNOW, IT'S PROBABLY THE INFORMAL REQUEST.
23	I DO NOT BELIEVE THERE'S AS A MATTER OF FACT, I'M
24	QUITE CERTAIN THERE'S NOT A BANK PER SE, BUT I CAN
25	CHECK THAT OUT.
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1	I WANTED TO MAKE ONE OTHER COMMENT ABOUT
2	THE PERCENT EFFORT. YOU KNOW, THE COMPLAINT WAS NOT
3	JUST THAT THE INVESTIGATOR WAS OVERCOMMITTED. THE
4	COMPLAINT WAS ALSO THAT THERE WERE LOW PERCENT
5	EFFORT COMMITMENT BY MULTIPLE INVESTIGATORS. OUR
6	TEAM HAS BASICALLY CONFIRMED THAT WE HAVE 14 PEOPLE
7	ON THIS PROGRAM. SO I JUST WANTED TO HIGHLIGHT THAT
8	THOSE WERE THE REVIEWERS' KEY ISSUES.
9	DR. STEWARD: SO I THINK THAT THIS KIND
10	OF ANTIBODIES, IN PARTICULAR, AS DR. TROUNSON HAS
11	SAID, ARE POSSIBLY AN IMMENSELY IMPORTANT RESOURCE.
12	AND I THINK IT'S VERY IMPORTANT TO THINK ABOUT HOW
13	THEY WOULD BE MADE AVAILABLE. HOPEFULLY THEY WOULD
14	BE SOMETHING THAT COULD BE SHARED, NOT JUST WITH
15	CALIFORNIANS, BUT WITH THE ENTIRE COMMUNITY OF STEM
16	CELL SCIENTISTS WORKING THROUGHOUT THE WORLD. MAYBE
17	YOU HAVE A COMMENT ON THIS.
18	DR. TROUNSON: WELL, I THINK IT IS THEY
19	WILL BE SHARED IN CALIFORNIA. YOU KNOW, I DON'T
20	THINK THERE'S A REQUIREMENT AT THIS POINT IN TERMS
21	OF WE'VE MADE IT A REQUIREMENT TO THE INVESTIGATORS
22	TO MAKE IT AVAILABLE TO THE REST OF THE WORLD, OS.
23	BUT I THINK IT'S AN ISSUE THAT WE SHOULD TAKE UP
24	WITH THE RESEARCHERS TO CONFIRM THAT THEY WOULD MAKE
25	IT AVAILABLE.

1	CLEARLY IN ONE SENSE THEY'RE GOING TO TEST
2	OUT A COMPANY'S ANTIBODY PROGRAM. SO IN SOME WAYS
3	IT WILL BE THAT COMPANY'S VIEW, OF COURSE, ABOUT THE
4	DISPOSITION BEYOND CALIFORNIA THAT WE MAY NEED TO
5	EXPLORE RATHER THAN SPECIFICALLY THE NEW ANTIBODIES.
6	DR. STEWARD: JUST TO MAKE IT CLEAR,
7	THERE'S AN IMPORTANT REACH-THROUGH PROVISION HERE
8	THAT COULD ACTUALLY MAKE IT A REQUIREMENT TO THESE
9	PEOPLE TO PROVIDE ANTIBODIES TO CALIFORNIANS FOREVER
10	POTENTIALLY. AND SO THAT'S GOOD, BUT WE JUST NEED
11	TO THINK ABOUT WHAT WE'RE ASKING THEM TO DO, AND
12	THERE IS A COST ASSOCIATED WITH DOING THIS.
13	CHAIRMAN KLEIN: SO WE HAVE DR. OLSON AND
14	LEEZA GIBBONS, THEN WE'RE GOING TO GO TO DR.
15	PENHOET. AND THEN ON THIS SIDE, DO WE HAVE ANYONE
16	WHO WANTS TO COMMENT? I WANT TO MAKE SURE I DON'T
17	MISS ANYONE.
18	DR. OLSON: MY COLLEAGUES HAVE HELPFULLY
19	HELPED ME OUT HERE. THEY HAVE INDICATED THAT THEY
20	WILL MAKE THE ANTIBODIES AVAILABLE THROUGH ATCC, SO
21	THEY WILL BE DEPOSITED IN THE AMERICAN TYPE CULTURE
22	COLLECTION. THEY WILL ALSO PERHAPS IN SOME
23	INSTANCES, IF THEY HAVE VERY INTERESTING ANTIBODIES,
24	THROUGH THE TECH TRANSFER OFFICER WHERE THEY MIGHT
25	LICENSE THEM TO OTHERS OR TO A COMPANY FOR
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1	COMMERCI ALI ZATI ON.
2	SO THAT IS THE STRATEGY THAT THEY HAVE
3	OUTLINED TO MAKE THE ANTIBODIES AVAILABLE.
4	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
5	MS. GIBBONS: DR. OLSON, IF I MAY, JUST A
6	QUICK QUESTION BY WAY OF EDUCATION ON THIS PERCENT
7	EFFORT DEAL. HOW DO YOU REALLY VET THE 10 PERCENT?
8	IS IT JUST BASED ON DISCLOSURE, OR DOES THE
9	COMMITTEE HAVE AWARENESS OF THESE OTHER GRANTS THAT
10	ARE ALREADY LISTED?
11	DR. OLSON: WHAT DO YOU MEAN AWARENESS OF
12	THESE OTHER GRANTS?
13	MS. GIBBONS: WELL, I MEAN IS IT JUST
14	BASED ON, LIKE DUANE SAID, DO WE BELIEVE THEM OR NOT
15	WHEN THEY LIST ALL OF THEIR OTHER COMMITMENTS? IS
16	THERE ANY WAY OF VETTING THAT?
17	DR. OLSON: THERE ACTUALLY IS A WAY. IF
18	THEY LIST NIH GRANTS, THERE IS A DATABASE THAT YOU
19	COULD VET TO SEE, IN FACT, DO THEY HAVE THAT NIH
20	GRANT. SO YOU CAN DO THOSE KINDS OF THINGS. IF
21	THEY HAVE CIRM GRANTS, OBVIOUSLY WE'RE IN A POSITION
22	TO KNOW THAT. SO THERE IS SOME DEGREE OF VETTING
23	THAT WE CAN DO.
24	CHAIRMAN KLEIN: AND, AGAIN, FOR
25	EVERYONE'S BENEFIT, DR. OLSON, IN THE ADMINISTRATIVE

1	REVIEW PROCESS, EXPLAIN TO THE PUBLIC THAT THIS IS
2	AN OVERSIGHT ISSUE AND YOU CONFIRM THE
3	DR. OLSON: NOT ONLY IN THE ADMINISTRATIVE
4	REVIEW BEFORE WE PAY OUT ANY MONEY ON THE ISSUANCE
5	OF THE NGA, BUT ALSO ANNUALLY AT PROGRESS REPORT
6	TIME, THEY ARE REQUIRED TO SUBMIT THE PERCENT
7	SUBMIT OTHER ACTIVE GRANTS AND A BRIEF DESCRIPTION
8	OF WHAT THAT GRANT IS SO WE CAN VERIFY PERCENT
9	EFFORT COMMITMENT AS WELL AS SCIENTIFIC OVERLAP. SO
10	THAT HAPPENS PRIOR TO ISSUANCE OF THE NGA AND
11	ANNUALLY AT PROGRESS REPORT TIME.
12	CHAIRMAN KLEIN: I THINK IT'S A VERY
13	IMPORTANT POINT FOR THE RECORD IN TERMS OF THE
14	CONTINUING ADMINISTRATIVE OVERSIGHT, AND
15	ADMINISTRATIVE OVERSIGHT IS A PRECONDITION TO ANY
16	PAYOUT. SO IT'S IMPORTANT FOR THE RECORD FOR
17	EVERYONE TO UNDERSTAND.
18	WITH THAT, DR. PENHOET.
19	DR. PENHOET: JUST TO REMIND EVERYONE,
20	PART OF OUR IP POLICY, WHICH THEY MUST FOLLOW, CALLS
21	FOR THEM TO SHARE BIOMEDICAL MATERIALS.
22	DR. OLSON: UPON PUBLICATION.
23	DR. TROUNSON: MR. CHAIR, I WONDER IF I
24	COULD MAKE A COMMENT ON THE TIME COMMITMENT. IN
25	THIS PARTICULAR INSTANCE, THE PI HAS A NUMBER OF OUR
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1	GRANTS. AND I DO GET CONCERNED AS A PRESIDENT IF
2	THERE'S ONE PERSON HOLDING A VERY YOU KNOW, AN
3	EXCESSIVE NUMBER OF GRANTS WITH A RELATIVELY SMALL
4	TIME COMMITMENT TO SOME OF THEM.
5	ONE OF THE ISSUES THAT WE HAVE TO DEAL
6	WITH IS OUR ABILITY TO MAKE THESE THINGS HAPPEN IN
7	AN APPROPRIATE TIMEFRAME. AND IT HAS BEEN SAID TO
8	ME THAT, YOU KNOW, SOME OTHER STATES ARE DOING WELL
9	WITH A LOT LESS MONEY WITH MUCH MORE COMMITMENT.
10	AND I ACTUALLY THINK WE HAVE TO BE THOUGHTFUL OF
11	THIS BECAUSE SHOULD A PI HAVE FOUR GRANTS OR FIVE
12	GRANTS FROM CIRM? I ACTUALLY DON'T PERSONALLY THINK
13	THAT THAT'S A VERY GOOD IDEA IF WE EXPECT THEM TO
14	DELIVER ON IT.
15	SO THERE IS A SORT OF UNDERLYING CONCERN
16	HERE. BUT I MUST SAY THAT IN THIS PARTICULAR
17	SITUATION, THE REVIEWERS HAVE RECOMMENDED TO THE
18	BOARD TO FUND IT IF THERE'S FUNDS AVAILABLE, AND IT
19	IS IN THE TOP SECTOR. BUT I WOULD BE VERY
20	THOUGHTFUL ABOUT A VERY LARGE NUMBER OF GRANTS HELD
21	BY ONE PI AND ONE INSTITUTION FROM CIRM ON THE BASIS
22	OF WHAT WE'RE GOING TO EXPECT THEM TO DELIVER IN
23	TERMS OF OUR MISSION. SO I THINK IT IS AN ISSUE
24	THAT WE NEED TO KEEP IN MIND, BUT I THINK YOU OUGHT
25	TO REFLECT ON THE FACT THAT THIS IS RECOMMENDED FOR

1	FUNDING IF YOU HAVE FUNDS, AND IT'S AT THE TOP OF
2	THE TIER.
3	CHAIRMAN KLEIN: SO GIVE ME SOME
4	PERSPECTIVE HERE. IF YOU HAVE 14 MEMBERS ON THE
5	TEAM, THAT SOUNDS LIKE A RELATIVELY LARGE TEAM. AND
6	AS YOU GET MORE MEMBERS ON THE TEAM AND YOU HAVE TO
7	FUND ALL THAT EXPERTISE, DOES THAT EFFECTIVELY ACT
8	TO FORCE DOWN PERCENTAGES BECAUSE YOU NEED ALL OF
9	THESE INDIVIDUAL SPECIALTY AREAS TO BRING YOUR WHOLE
10	TEAM TOGETHER; BUT AS YOU BROADEN YOUR TEAM TO
11	INCORPORATE THOSE SPECIALTY AREAS, ISN'T IT GOING TO
12	FORCE DOWN YOUR PERCENTAGES?
13	DR. TROUNSON: WELL, I MEAN IT TAKES A LOT
14	MORE WORK, IF YOU'VE GOT A BIGGER TEAM, TO KEEP THEM
15	WELL ORGANIZED. IT'S LIKE A LARGE HERD OF WHATEVER.
16	IT DOES TAKE MORE EFFORT TO DO IT. AND SO I STILL
17	WOULDN'T UNDERESTIMATE THE NEED TO HAVE YOUR MIND
18	STRONGLY ON THE JOB OF DELIVERING. AND SO I THINK
19	IT IS AN ISSUE. I DON'T THINK WE OUGHT TO SORT OF
20	JUST TURN OUR BACK ON IT. IT IS BEING RAISED BY THE
21	REVIEWERS, I THINK RIGHTFULLY IN THIS PARTICULAR
22	CASE, BUT THEY DIDN'T DROP THE RECOMMENDATION INTO
23	THE THIRD TIER AT ALL. THEY KEPT IT RIGHT AT THE
24	TOP OF THE SECOND TIER. SO I THINK YOU OUGHT TO
25	FEEL COMFORTABLE IF YOU WANT TO RAISE IT, BUT ON THE
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1	OTHER HAND I THINK WE OUGHT TO RESPECTIVELY THINK
2	ABOUT HOW TO ENSURE THAT WE GET THE BEST OUT OF OUR
3	APPLI CANTS.
4	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
5	WE'RE GOING TO WE'RE GOING TO, OF COURSE, GO
6	THROUGH THESE, COME BACK, GO TO EXECUTIVE SESSION,
7	TALK ABOUT PROPRIETARY INFORMATION, AND COME BACK
8	FOR MORE GENERAL DISCUSSION ON THE SAME GRANTS.
9	DUANE, CAN WE HOLD YOUR COMMENT TO THE
10	NEXT DISCUSSION ON THIS GRANT? THAT'S ACCEPTABLE.
11	THANK YOU VERY MUCH.
12	AND SO IF WE CAN GO TO THE SECOND GRANT,
13	DR. CSETE.
14	DR. CSETE: I THINK I CAN MAKE THIS HIGHLY
15	TECHNI CAL GRANT
16	CHAIRMAN KLEIN: YES. WE'LL COVER THE
17	CONFLICTS RIGHT AFTER HER PRESENTATION BEFORE THE
18	DI SCUSSI ON.
19	DR. CSETE: PRETTY CLEAR. SO THIS IS A
20	GRANT THAT LAYS OUT THE CELL PARTS, BUT THE CELL
21	PARTS IN TERMS OF PROTEINS OF EMBRYONIC STEM CELLS.
22	AND I'M SURE ALL OF YOU ARE AWARE THAT THERE'S VERY,
23	VERY EASY, HIGH THROUGHPUT WAYS TO LIST ALL OF THE
24	GENES THAT ARE EXPRESSED AT THE RNA LEVEL IN CELLS,
25	BUT PROTEIN TECHNOLOGIES HAVE LAGGED FAR BEHIND IN
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1	TERMS OF THE SENSITIVITY. AND THAT'S ESPECIALLY AN
2	I SSUE.
3	DR. BRYANT: WHICH NUMBER?
4	DR. CSETE: 1144. THE PROTEIN
5	TECHNOLOGIES HAVE LAGGED FAR BEHIND BECAUSE YOU NEED
6	A FAIR AMOUNT OF MATERIAL, AND GETTING A FAIR AMOUNT
7	OF CELLS IN UNDIFFERENTIATED HUMAN EMBRYONIC STEM
8	CELLS IN PURE FORM IS NOT AN EASY FEAT. THE REASON
9	THAT THIS WAS CONSIDERED WELL BY THE REVIEWERS IS
10	THAT IT'S NOT ONLY A PART OF LISTING ALL THE
11	PROTEINS THAT ARE EXPRESSED IN THIS CELL, BUT IT'S
12	THE SPECIALIZED PROTEINS THAT ARE PHOSPHORYLATED.
13	SO IN MANY SIGNALING CASCADES IN THE CELL
14	THAT TELL THE CELL HOW TO BEHAVE, THE PROTEINS ARE
15	MODIFIED BY BEING PHOSPHORYLATED, AND THIS IS A
16	RELATIVELY NEW TECHNOLOGY TO QUANTIFY THE TOTAL
17	PROTEINS AND THE PHOSPHORYLATED STATES OF THE
18	PROTEI N.
19	AND PEOPLE WERE INCREDIBLY ENTHUSIASTIC
20	ABOUT THE TECHNOLOGY AND ABOUT THE PROTEOMICS
21	EXPERTISE OF THE APPLICANT. THEY HAD CONCERNS THAT
22	THERE WAS ENORMOUS TECHNOLOGICAL MERIT TO THE
23	PROPOSAL, BUT THAT THE BIOLOGY WAS NOT AS WELL
24	THOUGHT OUT. SO, FOR EXAMPLE, THE PURITY OF THE
25	CELLS IN THESE KINDS OF ASSAYS IS INCREDIBLY
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1	IMPORTANT BECAUSE YOU CAN HAVE ONE PROTEIN EXPRESSED
2	BY A FEW CELLS IN GREAT ABUNDANCE THAT WOULD GIVE
3	YOU A MISREAD ON THE AVERAGE CELL EXPRESSING VERY
4	LOW LEVELS OF PROTEINS.
5	SO PURITY OF THE END PRODUCT IS IMPORTANT,
6	AND THAT WAS NOT ADDRESSED BY THE APPLICANT, AS WELL
7	AS SOME VALIDATION EXPERIMENTS THAT THEY WERE
8	CONCERNED ABOUT. AND IN THE END, THEY WERE ALSO
9	CONCERNED AS BIOLOGISTS THAT THIS LIST WOULD BE MADE
10	AND THERE WOULD BE NO THERE WAS NO WAY THAT THE
11	APPLICANT EXPRESSED TO THEM HOW THEY'D GO AFTER THE
12	PRIORITY OF WHICH OF THESE PROTEINS WAS IMPORTANT.
13	SO THERE WAS GREAT ENTHUSIASM FOR THE
14	TECHNOLOGY AND FOR THE ABILITY OF THE TEAM TO GET US
15	THIS PARTS LIST, WHICH WE DON'T HAVE YET IN
16	UNDIFFERENTIATED STEM CELLS, BUT SOME CONCERN THAT
17	THE TECHNOLOGY AND BIOLOGY WERE NOT EQUALLY STRONG.
18	CHAIRMAN KLEIN: THANK YOU VERY MUCH. ARE
19	THERE QUESTIONS AT THIS TIME? AGAIN, THIS IS GOING
20	TO COME BACK AGAIN, BUT ARE THERE QUESTIONS AT THIS
21	TIME ON THIS GRANT? OKAY. NOT SEEING ANY, THANK
22	YOU, DR. CSETE. CAN WE GO TO THE THIRD?
23	MR. SIMPSON: PUBLIC COMMENT ON THESE?
24	CHAIRMAN KLEIN: JOHN, IN FACT, LET'S DO
25	THIS. BECAUSE OF THE COMPLEXITY OF THESE, WHY DON'T
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1	YOU GIVE YOUR PUBLIC COMMENT AT THIS TIME.
2	MR. SIMPSON: THANK YOU VERY MUCH.
3	CHAIRMAN KLEIN: IT'S JUST A QUESTION OF
4	WHETHER WE'RE GOING TO HAVE ALL THREE AND THEN THE
5	COMMENTS, BUT GO AHEAD.
6	MR. SIMPSON: JOHN SIMPSON FROM CONSUMER
7	WATCHDOG. MY ONLY POINT WAS THAT YOU ALREADY ARE
8	1.5 MILLION OVER BUDGET OR SOMETHING LIKE THAT, AND
9	YOU'RE TALKING GOING DOWN IN TO RAISE MORE UP. IT
10	WOULD SEEM TO ME IT WOULD BE MORE PRODUCTIVE FOR YOU
11	TO SET THE AMOUNT OF MONEY THAT YOU CAN HAND OUT
12	BEFORE YOU START TO EXAMINE EACH OF THESE. YOU
13	MIGHT SAVE YOURSELVES A LOT OF TIME IF YOU, IN FACT,
14	AGREE THAT YOU CAN'T GO ABOVE \$20 MILLION. YOU
15	SHOULD BE CUTTING.
16	CHAIRMAN KLEIN: THE VALUE, JOHN, IS THAT
17	THE BOARD MAY FIND THAT SOME OF THESE GRANTS ARE
18	MORE IMPORTANT TO THEM THAN SOME THAT ARE
19	RECOMMENDED. SO THEY NEED THE INFORMATION TO BE
20	ABLE TO MAKE AN INFORMED JUDGMENT.
21	COULD WE HAVE THE THIRD STAFF REPORT,
22	PLEASE.
23	DR. TALIB: THIS IS AN APPLICATION ON THE
24	DEVELOPMENT OF MONOCLONAL ANTIBODIES. AND THIS
25	PARTICULAR APPLICATION IS DEALING WITH THE PROTEOMIC
	104

1	APPROACH FOR DEVELOPING MONOCLONAL ANTIBODIES
2	AGAINST THE CELLS OF THIS. AND THE TWO TYPES OF THE
3	CELLS WHICH THEY'RE USING IS THE MESENCHYMAL STEM
4	CELL, WHICH IS AN ADULT STEM CELL, AS WELL AS HUMAN
5	EMBRYONIC STEM CELL.
6	NOW, THE REVIEWER AGREED THAT THIS
7	PROPOSAL ADDRESSES A SIGNIFICANT ROADBLOCK TO STEM
8	CELL RESEARCH. AND THEIR STRATEGY APPEARS TO BE
9	LITTLE BIT HIGH RISK BECAUSE THERE WAS SOME CONCERN
10	FROM THE REVIEW IN TERMS OF THE PRELIMINARY WORK
11	WHICH WAS PRESENTED IN THIS PARTICULAR APPLICATION.
12	SO IT SEEMS THAT IT WILL REQUIRE SOME MORE WORK,
13	SIGNIFICANT MORE WORK TO ACCOMPLISH THE PROJECT.
14	BUT IN TERMS OF ITS SIGNIFICANCE, IT WAS
15	CONSIDERED IT'S IMPORTANT BECAUSE MONOCLONAL
16	ANTIBODIES AGAINST THESE TWO TYPES OF CELL TYPES,
17	THAT IS MESENCHYMAL STEM CELL AS WELL AS HUMAN
18	EMBRYONIC STEM CELLS, ARE VERY FEW. SO HAVING A
19	TOOL BOX WITH MORE MONOCLONAL ANTIBODIES WOULD BE A
20	SIGNIFICANT ADVANCEMENT AND WOULD REMOVE A ROADBLOCK
21	FROM THIS FIELD.
22	NOW, IN TERMS OF THE WEAKNESS, AGAIN, AS I
23	POINTED OUT, THAT PRELIMINARY DATA WAS NOT VERY
24	STRONG. AND IT SEEMS TO SUGGEST THAT SUBSTANTIAL
25	FURTHER OPTIMIZATION OF THE PROTOCOL WILL BE

1	REQUIRED. SO THAT WAS THE ONLY COMMENT OR NEGATIVE
2	COMMENT ABOUT THIS APPLICATION.
3	WHAT WAS APPRECIATED WAS THAT IT SEEMS
4	LIKE THE PI HAS A VERY STRONG BACKGROUND IN STEM
5	CELL BIOLOGY AND BIOMARKERS, AND CO-INVESTIGATORS
6	ALSO HAD COMPLEMENTARY TECHNOLOGIES AND EXPERTISE IN
7	PROTEOMICS, SO THIS CAN BE ACCOMPLISHED. THEY ALSO
8	APPRECIATED THAT THE REVIEWER ALSO APPRECIATED
9	THAT THE PI IS COMMITTING AN EFFORT TO THIS PROJECT,
10	ABOUT 30 PERCENT OF THEIR TIME, PI IS COMMITTING
11	THIS PROJECT WHICH THE REVIEWERS WERE APPRECIATIVE
12	OF.
13	SO OVERALL REVIEWERS FELT THAT THIS IS A
14	STRONG PROPOSAL WITH AN EXCELLENT TEAM THAT COULD
15	HAVE A BROAD IMPACT ON THE STEM CELL RESEARCH. ONLY
16	NEGATIVE PART WAS THAT THIS SEEMS TO BE A LITTLE BIT
17	HIGH RISK BECAUSE OF THE WORK WHICH WILL BE REQUIRED
18	TO ACCOMPLISH SUCCESSFULLY THIS PARTICULAR PROJECT.
19	CHAIRMAN KLEIN: COULD YOU REPEAT THAT
20	LAST POINT, PLEASE? WHAT IS THE CONCERN?
21	DR. TALIB: THE CONCERN WAS THAT MORE WORK
22	WOULD BE REQUIRED, SIGNIFICANTLY MORE WORK WOULD BE
23	REQUIRED TO ACCOMPLISH IT BECAUSE THE PRELIMINARY
24	WORK WHICH WAS SUBMITTED SHOWS THAT THERE IS MORE
25	WORK, THERE IS MORE TECHNOLOGY DEVELOPMENT TO BE
	106

1	REQUIRED, WHETHER THAT CAN BE ACCOMPLISHED BETWEEN
2	THE TWO-YEAR TIME PERIOD. SO THAT WAS THE ONLY
3	CONCERN.
4	CHAIRMAN KLEIN: IT WAS OVERLY AMBITIOUS
5	FOR THE TWO-YEAR PERIOD.
6	DR. TALIB: EXACTLY. THAT APPEARS TO BE
7	BECAUSE IT WILL REQUIRE LITTLE BIT MORE DEVELOPMENT
8	WORK TO ACCOMPLISH THIS PROJECT, BUT CLEARLY THERE'S
9	A NEED FOR THESE MONOCLONAL ANTIBODIES SPECIFICALLY
10	FOR MESENCHYMAL STEM CELL FOR WHICH OTHER
11	APPLICATIONS WHICH WE JUST REVIEWED ARE NOT
12	PROPOSING TO DEVELOP MONOCLONAL ANTIBODIES FOR.
13	CHAIRMAN KLEIN: THANK YOU. SO WHAT ARE
14	THE CONFLICTS ON THIS, PLEASE?
15	MR. HARRISON: CONFLICTS OF INTEREST ON
16	APPLICATION 1049 ARE MEMBERS BLOOM, GILL, LANSING,
17	AND WITMER.
18	CHAIRMAN KLEIN: THANK YOU. JEFF SHEEHY,
19	YOU HAVE A COMMENT.
20	MR. SHEEHY: YEAH. I REMEMBER THIS
21	CRITICISM. AND I'M JUST GOING TO GO TO THE THING.
22	THIS IS A KNOWN CALIFORNIA-BASED REAGENT PROVIDER.
23	SO, YOU KNOW, THIS IS A HIGH RISK ENTERPRISE, BUT IT
24	WILL PRODUCE ROYALTIES IF IT'S DONE. AND I THINK IF
25	IT TURNS OUT TO BE FEASIBLE, GIVEN THAT AT THE END
	107

1	OF THE DAY, THIS IS CLEARLY A FOR-PROFIT IF YOU LOOK
2	AND READ YOUR STATEMENT OF BENEFIT. IF THEY THINK
3	THEY'RE GOING TO GET A PRODUCT OUT OF THIS, THEY'RE
4	GOING TO GO AHEAD AND DO THIS.
5	SO THIS IS A HIGH RISK THIS IS A VERY
6	RISKY ENTERPRISE; BUT IF WE FUND THIS, THOSE KINDS
7	OF QUESTION ABOUT BEING ABLE TO DO THIS IN THE
8	TIMEFRAME OR THE FEASIBILITY KIND OF, TO MY MIND,
9	DROP OFF BECAUSE YOU ARE GOING TO HAVE A PRODUCT
10	THAT CLEARLY EVERYBODY'S DYING TO GET THEIR HANDS
11	ON.
12	THERE'S AN ENORMOUS NEED FOR THIS. IT'S
13	ALMOST LIKE WE'RE PERFORMING WE'RE GIVING SEED
14	MONEY IN A WAY. TO MY MIND, AS I LOOK AT THIS,
15	MAYBE THIS IS A WAY IN WHICH I MIGHT LOOK AT A
16	COMMERCIAL IT'S VERY HARD WHEN YOU'RE READING
17	THROUGH THIS SOMETIMES TO DETERMINE WHICH IS
18	COMMERCIAL, BUT THEY VERY CLEARLY STATE IN THE
19	PUBLIC BENEFIT OF THIS COMMERCIAL ENTERPRISE. I
20	THINK THEY GET DOWN THE ROAD, THEY SEE SOMETHING
21	HAPPENING, IF THEY HAVE TO PUT IN THE REST OF IT,
22	THEY'RE GOING TO DO THAT BECAUSE THEY'RE GOING TO
23	HAVE SOMETHING THEY CAN TURN AROUND AND SELL, WHICH,
24	BY THE WAY, WOULD PROVIDE ROYALTIES TO THE STATE OF
25	CALIFORNIA, WHICH WOULDN'T HURT AT A TIME WHEN WE'RE

IN A BUDGET CRISIS. BUT HEAVEN FORBID WE START
PRODUCING ROYALTIES. SO I REALLY LIKED THIS A LOT.
CHAIRMAN KLEIN: OKAY. THANK YOU.
ADDITIONAL COMMENTS ON THIS GRANT? SEEING NO
ADDITIONAL COMMENTS AT THIS TIME FROM THE BOARD, ARE
THERE ADDITIONAL PUBLIC COMMENTS AT THIS TIME?
MR. BASHAM: MY NAME IS DARYL BASHAM. I'M
WITH DNA-MICROARRAY. I'M VICE PRESIDENT THERE. IS
IT OKAY TO TALK ABOUT THE PETITIONS NOW?
CHAIRMAN KLEIN: NO. THE PETITIONS ARE
SEPARATELY AGENDIZED SO THAT RIGHT NOW WE'RE
ADDRESSING THESE PARTICULAR APPLICATIONS. WE'RE NOT
IN THAT PHASE YET.
MR. BASHAM: I'LL COME BACK THEN.
CHAIRMAN KLEIN: THANK YOU. AT THIS TIME
WE ARE, I THINK, IN A POSITION THAT WE NEED TO
ADJOURN TO OUR EXECUTIVE SESSION. AND, MR.
HARRISON, COULD YOU READ THE PROPER CODE SECTIONS TO
PREFACE THIS EXECUTIVE SESSION FOR REVIEW OF
PROPRIETARY INFORMATION RELATED TO THIS GRANT CYCLE?
MR. HARRISON: YES. THE BOARD WILL BE
CONVENING A CLOSED SESSION FOR A DISCUSSION OF
CONFIDENTIAL INTELLECTUAL PROPERTY OR WORK PRODUCT
OR PREPUBLICATION CONFIDENTIAL SCIENTIFIC RESEARCH
OR DATA RELATING TO THE TOOLS AND TECHNOLOGIES
109

1	APPLICATION AND THE NEW CELL LINES APPLICATION
2	PURSUANT TO HEALTH AND SAFETY CODE SECTION
3	125290.30(D)(3)(B) AND (C).
4	CHAIRMAN KLEIN: THANK YOU VERY MUCH, MR.
5	HARRISON. AND, MELISSA KING, WOULD YOU INDICATE TO
6	THE BOARD WHERE WE ARE ADJOURNING BECAUSE WE'RE
7	GOING TO DO DINNER CONCURRENT WITH THIS PROPRIETARY
8	MATERIAL REVIEW? WHERE WILL THAT BE?
9	MS. KING: IT'S DOWN THE HALL IN THE SAN
10	CLEMENTE ROOM, SO IF YOU COULD ACTUALLY FOLLOW ME
11	THERE. IT'S ON THIS FLOOR ALL THE WAY AT THE OTHER
12	END, BUT I'LL TAKE YOU THERE. I THINK, BOARD
13	MEMBERS, YOU NEED TO TAKE YOUR BINDERS WITH YOU,
14	PLEASE.
15	CHAIRMAN KLEIN: SO WE WILL ATTEMPT TO BE
16	BACK HERE BY 8 O'CLOCK, HOPEFULLY A FEW MINUTES
17	BEFORE THAT, BUT APPROXIMATELY 8 O'CLOCK. THANK YOU
18	VERY MUCH.
19	(A RECESS AND CLOSED SESSION WERE
20	THEN HAD.)
21	CHAIRMAN KLEIN: ALL RIGHT. IF WE COULD
22	RECONVENE, PLEASE. GREATLY APPRECIATE THE PATIENCE
23	OF THE AUDIENCE. BEFORE ADDRESSING THE ISSUE OF
24	FUNDING ON INDIVIDUAL GRANTS, WE HAVE SOME
25	EXTRAORDINARY PETITIONS THAT WE NEED TO DEAL WITH.
	110

1	IN TERMS OF EXTRAORDINARY PETITIONS, WE
2	HAVE TWO CATEGORIES OF EXTRAORDINARY PETITIONS. ONE
3	CATEGORY OF EXTRAORDINARY PETITIONS ARE THOSE THAT
4	WERE FILED ACCORDING TO THE PROCESS THAT THIS BOARD
5	SET OUT. JAMES HARRISON, COULD YOU OUTLINE THAT
6	PROCESS FOR THE AUDIENCE AND THE BOARD, PLEASE?
7	MR. HARRISON: SURE. AS YOU WILL RECALL,
8	AT THE LAST MEETING THE BOARD ADOPTED A POLICY
9	GOVERNING EXTRAORDINARY PETITIONS AND REQUIRED THAT
10	THE PETITIONS BE SUBMITTED AT LEAST FIVE WORKING
11	DAYS PRIOR TO THE ICOC MEETING IF THEY WERE TO HAVE
12	THE BENEFIT OF STAFF REVIEW AND ANALYSIS. THOSE
13	SUBMITTED LESS THAN FIVE WORKING DAYS PRIOR TO THE
14	MEETING, BECAUSE OF THE TIMING, SIMPLY YOU WILL NOT
15	HAVE THE BENEFIT OF STAFF ANALYSIS AND REVIEW.
16	AND WE HAVE POSTED THE PETITIONS THAT CAME
17	IN AT LEAST FIVE DAYS BEFORE ON THE WEBSITE AND ALSO
18	MADE THEM AVAILABLE TO THE PUBLIC. AND I WOULD
19	REMIND THE BOARD THAT UNDER THE POLICY, YOU DON'T
20	HAVE TO TAKE ANY ACTION ON THE PETITIONS. IF A
21	MEMBER WOULD LIKE TO DISCUSS A PETITION OR REQUEST
22	INFORMATION FROM STAFF FOR ITS ANALYSIS, YOU ARE, OF
23	COURSE, FREE TO DO SO.
24	CHAIRMAN KLEIN: ALL RIGHT. AND SO FOR
25	THE AUDIENCE, EXTRAORDINARY PETITION REFERS TO A

1	PROCESS WHEREBY IF AN APPLICANT DISAGREES WITH THE
2	RECOMMENDATION OF THE PUBLIC SUMMARY, THAT THEY CAN
3	MAKE A PETITION TO THIS GROUP, TO THIS ORGANIZATION.
4	AS STATED BY MR. HARRISON, THE FIVE DAYS IS TO
5	PERMIT US TIME TO HAVE THE STAFF TO PRESENT AN
6	INFORMED SCIENTIFIC OPINION ON THE EXTRAORDINARY
7	PETI TI ON.
8	WITH THAT SAID, THERE IS A SECOND GROUP OF
9	EXTRAORDINARY PETITIONS. THAT IS, MY UNDERSTANDING
10	IS THAT THERE ARE SOME PETITIONS THAT WERE DE NOVO
11	SUBMITTED THIS EVENING THAT WE DO NOT HAVE YET
12	BECAUSE THEY'VE JUST BEEN SUBMITTED THIS EVENING.
13	AND DR. GIL SAMBRANO, COULD YOU PLEASE ADVISE US ON
14	WHICH APPLICATIONS THOSE ADDRESS SO THAT THE BOARD
15	MEMBERS CAN DECIDE WHETHER THEY THEMSELVES WOULD
16	LIKE TO ADDRESS THIS.
17	AND AFTER WE FIND OUT WHICH BOARD MEMBERS
18	WANT TO ADDRESS EITHER CLASS OF EXTRAORDINARY
19	PETITIONS, WE WILL THEN GO TO PUBLIC COMMENT ON
20	THOSE EXTRAORDINARY PETITIONS. DR. SAMBRANO.
21	DR. SAMBRANO: SO IN ADDITION TO THE THREE
22	THAT WERE NOTED BEFORE, THOSE ARE 1084, 1067, 1137,
23	WE HAD THREE ADDITIONAL COMMUNICATIONS TO THE BOARD
24	THAT DID NOT COME IN WITHIN FIVE WORKING DAYS.
25	THOSE INCLUDE APPLICATIONS 1101, 1064, AND 1039.

1	1039, SPECIFICALLY IN THE PROCESS OF
2	OBTAINING THAT COMMUNICATION, WE LEARNED THAT THE
3	APPLICANT WAS ACTUALLY NOT ELIGIBLE TO APPLY AS A
4	PI. WE COMMUNICATED WITH THE AUTHORIZED
5	ORGANIZATIONAL OFFICIAL WHO CONFIRMED THIS. SO
6	APPLICATION 1039, WE LEARNED, IS BY A PI THAT'S NOT
7	ELIGIBLE. THIS IS SOMETHING THAT WE WOULD HAVE
8	CHECKED INTO REGARDLESS DURING ADMINISTRATIVE
9	REVIEW, BUT WE ENDED UP LEARNING ABOUT IT MUCH
10	EARLI ER.
11	CHAIRMAN KLEIN: FINE. THANK YOU. GIVEN
12	THAT THE INDIVIDUAL IS NOT ELIGIBLE ON 1039, THE
13	CHAIR WILL TAKE THE POSITION, UNLESS THE BOARD WOULD
14	LIKE TO TAKE A DIFFERENT POSITION, THAT WE WILL NOT
15	ADDRESS THAT APPLICATION GIVEN OUR TIME. WE NEED TO
16	FOCUS ON ONES WE CAN ACTUALLY FUND UNDER OUR RULES.
17	SO WITH THAT SAID, WOULD THE BOARD LIKE TO
18	ADDRESS ANY OF THE EXTRAORDINARY PETITIONS STARTING
19	FIRST WITH THOSE THAT WERE SUBMITTED WITHIN THE
20	APPROPRIATE TIMEFRAMES? I DON'T SEE ANY COMMENT
21	FROM THE BOARD. ARE THERE REPRESENTATIVES PRESENT
22	RELATED TO THOSE EXTRAORDINARY PETITIONS WHO WOULD
23	LIKE THEIR NORMAL THREE-MINUTE PUBLIC PRESENTATION
24	IN ADDITION TO THE FACT THEY VE ALREADY SUBMITTED
25	EXTENSIVE WRITTEN COMMENTS? YES. OKAY. WE HAVE
	110

1	TWO INDIVIDUALS WHO WOULD LIKE TO ADDRESS THE BOARD.
2	AND PLEASE, WHEN YOU BEGIN, GIVE US A MOMENT AFTER
3	STATING THE APPLICATION NUMBER SO THE BOARD MEMBERS
4	CAN LOOK AT THAT APPLICATION NUMBER.
5	MR. BASHAM: AGAIN, MY NAME IS DARYL
6	BASHAM, VICE PRESIDENT OF DNA-MICROARRAY. THE
7	APPLICATION NO. IS RT1-01067.
8	CHAIRMAN KLEIN: IF YOU WILL WAIT JUST A
9	MOMENT SO THAT THE MEMBERS CAN IDENTIFY THAT
10	APPLICATION. GIVE US ANOTHER MOMENT, PLEASE.
11	01067.
12	MR. BASHAM: THAT'S CORRECT. ALL RIGHT.
13	CHAIRMAN KLEIN: ALL RIGHT. COMMENCE YOUR
14	REMARKS.
15	MR. BASHAM: BASICALLY WE OUR BIGGEST
16	CONCERN AT THIS POINT IS THE PROCESS. AS WE LOOKED
17	AT THE THINGS AVAILABLE TO US AFTER WE RECEIVED OUR
18	REVIEW, ONE OF THE THINGS WAS FOR CONFLICT OF
19	INTEREST ON AN APPEAL. THE PROBLEM WE SEE IS THAT
20	WE CAN'T MAKE AN APPEAL IF WE DON'T KNOW WHO, IN
21	FACT, WOULD READ OUR PROPOSAL.
22	WHEN WE HAD ASKED FOR INFORMATION ABOUT
23	WHO MIGHT BE ON THE ROSTER OF 15, I BELIEVE, THAT
24	REVIEWED THE PROPOSAL, WE WEREN'T GIVEN ANY
25	INFORMATION BACK. WHILE WE CAN DETERMINE WHO WASN'T
	11.4

1	ON IT, I MEAN THERE ARE TWO NAMES THAT ARE AT THE
2	BOTTOM THAT DESCRIBE A SELF-IMPOSED KIND OF WAY TO
3	RECUSE THEMSELVES FROM THAT PARTICULAR GROUP, AGAIN,
4	WE HAVE NO WAY OF DETERMINING IF ANY OF THE
5	REMAINING PEOPLE ON THE PROPOSAL WHO REVIEWED THE
6	PROPOSAL WERE ACTUALLY IN CONFLICT WITH US.
7	AND SO WE WOULD ASK THAT EITHER THAT RULE
8	BE CLARIFIED AND WE BE GIVEN THAT INFORMATION OR,
9	AGAIN, FIND SOME WAY FOR US TO GO AHEAD AND
10	APPEAL FOLLOW THROUGH ON AN APPEAL.
11	CHAIRMAN KLEIN: THANK YOU. WOULD THE
12	STAFF LIKE TO RESPOND TO THAT POINT? DR. OLSON.
13	DR. OLSON: I WAS JUST GOING TO INDICATE
14	THAT WE HAD NO REQUEST FOR THE ROSTER OF THE MEMBERS
15	OF THE GRANTS WORKING GROUP WHO PARTICIPATED IN THAT
16	REVIEW. WE DO MAKE THAT INFORMATION AVAILABLE UPON
17	REQUEST.
18	CHAIRMAN KLEIN: SO DR. OLSON'S STATEMENT
19	IS THAT UPON REQUEST THAT INFORMATION IS MADE
20	AVAILABLE, I GUESS, CONFIDENTIALLY TO THE APPLICANT,
21	BUT THEY DON'T HAVE A
22	DR. SAMBRANO: THE ROSTER IS PUBLIC
23	INFORMATION. SO THAT IS SOMETHING USUALLY WE
24	HAVE A PUBLIC MEETING, AND SO WE ACTUALLY GO THROUGH
25	A ROLL CALL EVEN OF THE PARTICIPATING MEMBERS. SO
	445

1	IT'S AVAILABLE THROUGH THE TRANSCRIPT. AND
2	BASICALLY IF ANYBODY CALLS ME AND ASKS FOR THE
3	ROSTER, IT'S AVAILABLE.
4	CHAIRMAN KLEIN: RIGHT. IT IS PUBLISHED,
5	AND IT'S A PUBLIC MEETING PRIOR TO THE PEER REVIEW,
6	CLEAR WHO'S GOING TO PARTICIPATE. BUT WHAT I HAD
7	UNDERSTOOD IS THERE WAS NO SPECIFIC REQUEST TO SEND
8	ANYONE THE ROSTER.
9	DR. SAMBRANO: THAT'S RIGHT.
10	MR. BASHAM: SO WHO DO WE CONTACT?
11	CHAIRMAN KLEIN: SO THAT INFORMATION IS
12	PUBLICLY AVAILABLE.
13	MR. BASHAM: WE'LL MAKE THE REQUEST.
14	THANK YOU.
15	CHAIRMAN KLEIN: THANK YOU.
16	MR. ROTH: BOB, I THINK IT MIGHT BE
17	IMPORTANT TO ADDRESS THE TIMING OF WHEN IT'S
18	AVAI LABLE.
19	CHAIRMAN KLEIN: YES. SO, DR. SAMBRANO,
20	YOU WANT TO ADDRESS THAT ISSUE? OBVIOUSLY THOSE
21	ATTENDING THE PUBLIC SESSION BEFORE A PEER REVIEW,
22	IT'S CLEAR WHO'S IN THE PEER REVIEW. BUT FOR THOSE
23	NOT ATTENDING, THE QUESTION OF DUANE ROTH IS IN
24	TERMS OF TIMING, IF THEY MAKE A REQUEST IN A TIMELY
25	MANNER FOR THAT ROSTER, CAN THEY GET THAT ROSTER IN

116

1	A TIMELY MANNER?
2	DR. SAMBRANO: YES.
3	MR. BASHAM: ONE MORE QUESTION. IS IT A
4	ROSTER OF EVERY SINGLE MEMBER OR JUST THE MEMBERS
5	THAT REVIEWED OUR PROPOSAL?
6	DR. SAMBRANO: NO. THE NAMES OF
7	INDIVIDUALS WHO REVIEWED A SPECIFIC PROPOSAL ARE NOT
8	REVEALED. IT IS THE ROSTER OF THE GRANTS WORKING
9	GROUP MEMBERS WHO PARTICIPATED IN THAT REVIEW. SO
10	IT WOULD BE THE 15 SCIENTIFIC MEMBERS PLUS THE SEVEN
11	PATIENT ADVOCATE MEMBERS.
12	CHAIRMAN KLEIN: BUT UNLESS THERE IS
13	SOMEONE WHO IS CONFLICTED OUT OF THAT REVIEW, ALL OF
14	THOSE MEMBERS WILL PARTICIPATE IN AND ALL VOTE IN
15	THE REVIEW. SO YOU NEED TO KNOW THE ENTIRE ROSTER.
16	MR. BASHAM: THANK YOU.
17	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
18	COULD WE HAVE THE NEXT COMMENT, PLEASE?
19	MR. ADAMS: WILLIAM ADAMS. I'M CO-FOUNDER
20	AND CFO OF THE INTERNATIONAL STEM CELL CORPORATION.
21	I WANT TO THANK YOU FOR THIS OPPORTUNITY.
22	CHAIRMAN KLEIN: BEFORE YOU START THE
23	PRESENTATION, IF YOU COULD IDENTIFY THE NUMBER AND
24	GIVE US A MOMENT, PLEASE.
25	MR. ADAMS: RT1-01137-1. 1137-1.
	117

11/

1	CHAIRMAN KLEIN: OH, THANK YOU.
2	MR. ADAMS: THE REVIEWERS COMMENTED THAT
3	IN THEIR BELIEF THAT THE OBJECTIVE WELL, TO START
4	WITH, WHAT WE HAVE DEVELOPED AT INTERNATIONAL STEM
5	CELL IS BASICALLY A FULL CORNEA FROM OUR STEM CELL
6	LINES. AND THE USE FOR THAT IN TOXICITY TESTING IS
7	ENORMOUS.
8	THE REVIEWERS SAID THAT WE'RE VERY
9	UNLIKELY TO SUCCEED AS REALIZED; HOWEVER, MAYBE WE
10	WEREN'T CLEAR IN SAYING TO THEM THAT WE'VE NOT ONLY
11	DEVELOPED A FULL CORNEA, WE'VE DONE IT MANY TIMES
12	OVER. WE KNOW HOW TO SCALE UP. WE ACTUALLY HAVE A
13	COLLABORATION RIGHT NOW WITH A COMPANY THAT WILL
14	HELP US IN TAKING THIS PRODUCT TO REPLACE THE DRAIZE
15	TEST. THE DRAIZE TEST, FOR YOU THAT ARE NOT
16	FAMILIAR, IS THE ONE WHERE WE BASICALLY BLIND
17	THOUSANDS OF RABBITS EVERY YEAR IN TESTING
18	COSMETICS, PESTICIDES, AND DRUGS IN THE EYE.
19	WE HAVE THE MEANS AND CAPACITY TO PRODUCE
20	THIS CORNEAL TISSUE WHICH WE'VE DONE. WE ACTUALLY
21	WILL HAVE OUR GMP FACILITIES FINISHED JANUARY 1.
22	AND THE OTHER KIND OF NEAT THING ABOUT THIS
23	PARTICULAR PROJECT IS THAT YOU NEED, WE NEED, NO FDA
24	APPROVAL BECAUSE WE'RE NOT GOING INTO HUMANS. WE'RE
25	STRICTLY REPLACING THE TEST.
	110

1	IF CIRM REMAINS FOCUSED ON SUPPORTING
2	PROGRAMS THAT NOT ONLY ADVANCE BASIC SCIENCE, BUT
3	TECHNOLOGY, I SUBMIT THAT THIS PROJECT, AGAIN, WILL
4	NOT REQUIRE FDA APPROVAL, AND GETTING TO MARKET
5	WOULD BE VERY, VERY QUICK. AND HOPEFULLY GETTING A
6	REPAYMENT FOR ME AND YOU WOULD BE EVEN FASTER.
7	WE HAVE A FUNDAMENTAL PROBLEM IN MY VIEW
8	BETWEEN DEALING WITH ACADEMIC APPLICATIONS AND
9	INDUSTRY APPLICATIONS. FIRST OF ALL, THE CHOICE OF
10	PI AT THIS TIME FOR INDUSTRY HAS TO BE A FULL-TIME
11	EMPLOYEE OF OUR COMPANY. WE HAVE PH.D.'S ON OUR
12	STAFF, AND THEIR ENTIRE EMPHASIS IN THEIR CAREER IS
13	SCALE-UP, FDA, GET TO THE CLINIC, PRODUCE A PRODUCT.
14	I MADE A NOTE TO MYSELF THAT IN ACADEMIA, IT'S
15	PUBLISH OR PERISH. IN INDUSTRY IT'S PUBLISH AND
16	PERISH BECAUSE IF WE DON'T GET OUR IP FILED FIRST,
17	WE GET THE CART AND THE HORSE BACKWARDS, AND YOU'RE
18	IP GOES OUT THE WINDOW.
19	DR. ROGER STEINERT IS PROBABLY THE
20	PREEMINENT CORNEAL EXPERT IN THE UNITED STATES, ONE
21	OF THEM CERTAINLY. HE HAPPENS TO BE RIGHT HERE AT
22	UCI. HE IS MENTIONED IN OUR GRANT APPLICATION. I
23	TALKED TO DR. STEINERT THIS MORNING, AND I ASKED HIM
24	IF HE WOULD HAVE BEEN ABLE, WILLING, AND READY TO BE
25	A CO-PI ON THIS PROJECT. AND HE SAID ABSOLUTELY.

1	I THINK THIS PROJECT IS VERY IMPORTANT, NOT JUST
2	FROM THE STANDPOINT OF THE TOX TESTING SIDE, BUT IN
3	TERMS OF DEVELOPING ALL THE LAYERS OF A CORNEA FOR
4	PARTIAL AND FULL CORNEAL TRANSPLANT, WHICH IS A
5	MAJOR PROBLEM WORLDWIDE AND A PROBLEM HERE,
6	ESPECIALLY WHEN YOU DEAL WITH WHAT WE BRING TO THE
7	TABLE WITH OUR PARTHENOGENESIS HOMOZYGOUS LINES THAT
8	COULD ELIMINATE OR CERTAINLY REDUCE IMMUNE REJECTION
9	PROBLEMS.
10	I WOULD THEN ASK THAT THE COMMITTEE TAKE A
11	LOOK AT THIS. I THINK IT'S COMMERCIALLY VIABLE
12	ALMOST IMMEDIATELY. THERE WAS A COMMENT THAT TWO
13	YEARS WAS WAY TOO SHORT, BUT I DON'T THINK THAT THE
14	REVIEWERS REALIZED OR READ IN-DEPTH THAT WE ALREADY
15	HAVE DEVELOPED THESE CORNEAS. AND NOW IT'S JUST THE
16	MONEY NEEDED TO SCALE UP AND MOVE AHEAD AND GIVE
17	CIRM WHAT I THINK WOULD BE A REAL EARLY ENTREE INTO
18	THE MARKET AND SOME GOOD PR FOR YOU, AND OBVIOUSLY
19	WE WANT TO DO BUSINESS. THANK YOU.
20	CHAIRMAN KLEIN: THANK YOU VERY MUCH. AND
21	I THINK THERE'S TWO PARTS TO WHAT YOU'VE STATED
22	HERE. ONE PART IS AN ISSUE OF THE REVIEW OF THE
23	TECHNOLOGY YOU'RE PROVIDING. THE SECOND PART IS THE
24	REQUEST FOR A POLICY THAT WOULD PERMIT CO-PI'S
25	BECAUSE IT WOULD STRENGTHEN INDUSTRY APPLICATIONS TO
	100

1	MARRY THE BEST OF THE ACADEMIC RESEARCH INSTITUTIONS
2	WITH THE FOR-PROFIT; IS THAT CORRECT?
3	MR. ADAMS: THAT'S CORRECT.
4	CHAIRMAN KLEIN: SO I'D LIKE TO TAKE THE
5	SECOND PART OF THE QUESTION FIRST BECAUSE WE HAVE
6	BEEN LISTENING. AND WITH THE GRANTS LATER TODAY
7	WE'RE GOING TO DISCUSS THE CO-PI'S. AND PERHAPS FOR
8	CONTINUITY, DR. CSETE OR DR. OLSON OR DR. TROUNSON,
9	COULD YOU JUST GIVE US A PRECIS OF THAT POLICY AND
10	TELL US UNDER WHICH ITEM THAT'S GOING TO BE
11	DISCUSSED TONIGHT SO THAT IT'S UNDERSTOOD THAT, IN
12	FACT, WE'RE GOING TO ADOPT A CO-PI POLICY HERE TO
13	TRY AND BE RESPONSIVE TO THIS POINT AND TO BRING
14	STRONGER TEAMS TOGETHER.
15	DR. CSETE, WE'RE NOT GOING TO GO THROUGH A
16	FULL DISCUSSION. WE'RE GOING TO POINT THEM TO THE
17	ITEM ON THE AGENDA WHERE WE'RE GOING TO DISCUSS THE
18	FACT THAT WE'RE INTRODUCING IN A NEW RFA A CO-PI
19	POLI CY.
20	DR. CSETE: IN THE CONCEPT PROPOSALS.
21	CHAIRMAN KLEIN: YOU WANT TO INDICATE
22	WHICH ITEM THAT IS?
23	DR. CSETE: DI SEASE TEAMS.
24	CHAIRMAN KLEIN: THANK YOU. SO IN THE
25	DISEASE TEAM CONCEPT PROPOSALS, YOU ARE GOING TO
	121
	121

1	HAVE A FULL CO-PI DISCUSSION TOMORROW ACTUALLY, BUT
2	I WANT TO MAKE SURE THAT IT'S UNDERSTOOD THAT THAT
3	IS SUBSTANTIVELY BEING IMPLEMENTED IMMEDIATELY IN
4	THE PROPOSAL COMING TO THIS BOARD FOR APPROVAL.
5	WOULD ANYONE LIKE TO ANY MEMBER LIKE TO
6	ADDRESS OR RAISE A SCIENTIFIC DISCUSSION?
7	DR. PULIAFITO: I APPRECIATE THE
8	SIGNIFICANCE OF THE WORK. I THINK IT'S AN IMPORTANT
9	PROJECT. I THINK THE SCIENTIFIC REVIEWERS BROUGHT
10	UP SOME IMPORTANT CRITICISMS THAT YOU SHOULD
11	CONSIDER WHEN YOU RESUBMIT. AND I THINK THAT IF IT
12	WOULD BE POSSIBLE TO HAVE A CO-INVESTIGATOR, THAT
13	MIGHT HELP.
14	CHAIRMAN KLEIN: DEAN PULIAFITO FOR THE
15	RECORD. OKAY.
16	ANY ADDITIONAL COMMENTS FROM THE BOARD?
17	THAT'S CATEGORY ONE OF THE EXTRAORDINARY PETITIONS.
18	CATEGORY TWO OF EXTRAORDINARY PETITIONS
19	DEALS WITH THOSE THAT WERE JUST SUBMITTED. ARE
20	THERE ANY PUBLIC COMMENTS RELATED TO THOSE THAT WERE
21	JUST SUBMITTED? I DON'T SEE ANY PUBLIC COMMENTS
22	RELATED TO THOSE THAT WERE JUST SUBMITTED. IS THERE
23	ANY BOARD MEMBER WHO WOULD LIKE TO HAVE ADDITIONAL
24	INFORMATION ON ANY OF THOSE APPLICATIONS THAT RELATE
25	TO EXTRAORDINARY PETITIONS THAT WERE JUST SUBMITTED?

1	DR. STEWARD: I'D JUST LIKE TO ASK IF ANY
2	OF THOSE CLAIMED A VERIFIABLE CONFLICT OF INTEREST
3	AS DESCRIBED IN THE GRANTS POLICY?
4	DR. SAMBRANO: NO. THERE IS A FORMAL
5	APPEALS PROCESS FOR DECLARING A POTENTIAL CONFLICT
6	OF INTEREST. AND SO NONE OF THESE WOULD REPRESENT
7	ANY OF THAT.
8	CHAIRMAN KLEIN: OKAY. DUANE ROTH.
9	MR. ROTH: I DON'T HAVE A SPECIFIC
10	QUESTION ON IT. BUT I DO WANT TO MAKE JUST A
11	GENERAL COMMENT THAT I THINK THIS PROCESS IS ONE
12	THAT IS VERY HEALTHY AND ONE THAT WE SHOULD
13	ENCOURAGE PEOPLE TO DO. AND I WOULD HATE FOR THEM
14	TO THINK BECAUSE WE DIDN'T JUMP ON THIS AND ASK
15	QUESTIONS THAT WE DON'T CARE, THAT WE WANT TO
16	CONSTANTLY MAKE OUR REVIEW PROCESS BETTER.
17	SO THE SUGGESTIONS ARE ALWAYS HELPFUL, I
18	THINK, FOR THE BOARD MEMBERS AND STAFF. WE HAVE ONE
19	GOAL, AND THAT'S TO MAKE SURE WE DO THE BEST JOB WE
20	CAN IN FINDING THE BEST APPLICATIONS AND FUNDING
21	THEM. AND IF THERE ARE WAYS TO MAKE THE PROCESS
22	BETTER, MORE TRANSPARENT, THEN WE WILL AND SHOULD
23	PURSUE THIS.
24	DR. PENHOET: I JUST WANTED TO MAKE A
25	POINT ABOUT LANGUAGE IN THIS CONTEXT. CONFLICT OF
	123
	120

1	INTEREST HAS A SPECIFIC MEANING IN CALIFORNIA LAW.
2	IT REFERS TO FINANCIAL CONFLICTS OF INTEREST. AND A
3	NUMBER OF THESE DISCUSSIONS HAVE REALLY REFERRED TO
4	POTENTIAL PERSONAL CONFLICTS OF INTEREST, WHICH ARE
5	IN A DIFFERENT CATEGORY. I JUST THINK WE SHOULD BE
6	CAREFUL IN OUR LANGUAGE HOW WE DESCRIBE THESE TWO
7	DIFFERENT CATEGORIES OF POTENTIAL CONFLICTS.
8	CHAIRMAN KLEIN: SO PROFESSIONAL CONFLICTS
9	IS SOMETIMES A BETTER TERMINOLOGY BECAUSE IT
10	CAPTURES THE SENSE THAT INDIVIDUALS HAVE A VERY
11	SPECIFIC HEATED PROFESSIONAL CONFLICT THAT'S IN
12	PUBLISHED DOCUMENTS AND MATERIALS WHERE THEY'RE
13	DUELING OVER A POINT OF VIEW IN A VERY PERSONALIZED
14	MANNER.
15	DR. PIZZO: COULD YOU MODIFY THAT TO
16	MAYBE, RATHER THAN CALLING IT PROFESSIONAL, CALL IT
17	SCIENTIFIC CONFLICT OF INTEREST. I THINK THAT'S
18	CHAIRMAN KLEIN: SCIENTIFIC CONFLICT.
19	DR. PIZZO: I AGREE WITH THAT. I THINK WE
20	HAVE TO BE I WAS THINKING ABOUT THAT SAME ISSUE.
21	CONFLICT OF INTEREST IS SWIRLING ALL AROUND US. AND
22	IF WE USE THIS TO DEMONSTRATE THAT, WE'RE GOING TO
23	GET CONFUSED PEOPLE AND GET CONFUSED.
24	CHAIRMAN KLEIN: THE CHAIR WILL ADOPT,
25	UNLESS OTHERWISE DESCRIBED. COULD JAMES HARRISON

1	COMMENT ON THIS ITEM?
2	MR. HARRISON: I JUST WANTED TO BE CLEAR.
3	DR. PENHOET IS ABSOLUTELY CORRECT THAT CALIFORNIA
4	LAW RELATES ONLY TO FINANCIAL CONFLICTS OF INTEREST;
5	HOWEVER, THE BOARD HAS ADOPTED A CONFLICT OF
6	INTEREST POLICY FOR THE GRANTS WORKING GROUP THAT
7	COVERS WHAT WE'VE DESCRIBED AS PROFESSIONAL
8	CONFLICTS OF INTEREST, PERSONAL CONFLICTS OF
9	INTEREST, AS WELL AS FINANCIAL.
10	DR. PIZZO: I'LL STAND CORRECTED, BUT I
11	STILL WOULD SUGGEST THAT WE CALL IT SCIENTIFIC.
12	MR. HARRISON: WE CAN TAKE THAT INTO
13	CONSI DERATI ON.
14	CHAIRMAN KLEIN: THAT'S FINE. THANK YOU
15	VERY MUCH.
16	AND I WOULD NOTE THAT IN THE RECENT AUDIT
17	OF OUR ACTIVITIES BY THE CONTROLLER'S OFFICE, THEY
18	CALLED ATTENTION TO THE FACT THAT OUR CONFLICTS
19	POLICIES EXCEEDED THOSE OF THE NATIONAL INSTITUTES
20	OF HEALTH AND WERE MORE THOROUGH. THANK YOU.
21	MR. BASHAM: JUST FOR A QUICK
22	CLARIFICATION. SO ALL THREE OF THOSE TYPES OF
23	CONFLICT OF INTERESTS ARE THINGS THAT CAN BE PURSUED
24	IN AN APPEAL?
25	CHAIRMAN KLEIN: COULD YOU PLEASE ADDRESS
	125

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1	THAT, DR. SAMBRANO.
2	DR. SAMBRANO: YES. SO THE POLICY IS
3	AVAILABLE ON THE WEBSITE UNDER POLICIES THAT
4	SPECIFICALLY DESCRIBES THE CONFLICTS THAT GRANTS
5	WORKING GROUP MEMBERS MUST DECLARE AND UNDER WHICH
6	AN APPEAL CAN BE PURSUED.
7	MR. BASHAM: THANK YOU.
8	CHAIRMAN KLEIN: THANK YOU. SO WITH THE
9	BENEFIT OF WORKING THROUGH THOSE TWO GROUPS, WE'D
10	LIKE TO NOW GO INTO THE TOOLS AND TECHNOLOGY
11	RECOMMENDATIONS AS BEFORE US. AND, JEFF, WOULD YOU
12	LIKE TO ADDRESS THE ISSUE HERE STARTING WITH WHETHER
13	OR NOT ANYONE WANTS TO MOVE ANYTHING OUT OF THE
14	RECOMMENDED FOR APPROVAL CATEGORY.
15	MR. SHEEHY: MAYBE WE SHOULD FIGURE OUT
16	MAYBE WE SHOULD FIRST SEE IF ANYBODY WANTS TO MOVE
17	ANYTHING OUT OF THE GREEN AREA, AND I THINK WE
18	SHOULD TAKE EACH APPLICATION IN THE GRAY AREA
19	SEPARATELY.
20	SHOULD WE DO EACH BECAUSE WE ALSO HAVE
21	THIS BIFURCATED THING, YOU WANT TO DO GREEN SESSION
22	1, GREEN SESSION 2?
23	CHAIRMAN KLEIN: I THINK FOR CONTINUITY
24	FOR THE PUBLIC, IF WE GO THROUGH ALL THREE WELL,
25	ALL THE CATEGORIES FOR ONE SESSION, GO THROUGH ALL

1	OF THEM FOR THE SECOND SESSION, AND THEN COME BACK
2	TO LOOK AT OUR OVERALL OUTCOME, IT MIGHT PROVIDE
3	SOMEONE WITH A SEQUENCE THEY COULD FOLLOW. BUT, DR.
4	POMEROY, DO YOU HAVE A SUGGESTION?
5	DR. POMEROY: NO. I HAVE A QUESTION. CAN
6	YOU FOR CONTEXT REMIND US OF HOW MUCH MONEY WE HAVE
7	AVAILABLE TO US?
8	CHAIRMAN KLEIN: YES. THE BUDGET IS 20
9	MILLION. NOW, WE HAVE 21.8 MILLION OR \$21.9 MILLION
10	IN RECOMMENDED. THE ADDITIONAL GRANTS IN THE IF
11	AVAILABLE FOR FUNDING ARE SUBSTANTIAL IN THE FIRST
12	ROUND. I BELIEVE THAT IT'S, IF I CAN READ THE
13	NUMBER, IT'S ABOUT 8.9 MILLION AND SECOND ROUND IT'S
14	IN THE SAME RANGE.
15	NOW, THE ISSUE HERE AS WELL IS WE HAVE A
16	CONTEXT THAT FROM A BUDGETARY PERSPECTIVE, WHILE WE
17	HAVE ACCRUED AUTHORITY, IF YOU FIND A PARTICULAR
18	RESEARCH APPLICATION OF EXTRAORDINARY IMPORTANCE, WE
19	HAVE THE AUTHORITY TO DO ADDITIONAL APPROVALS. WE
20	HAVE THE AUTHORITY TO DO 21.8 OR 21.9 MILLION AND
21	SOME ADDITIONAL; BUT ON A PRACTICAL PERSPECTIVE,
22	REMEMBER THAT BETWEEN NOW AND JUNE, WE HAVE SOME
23	UNCERTAINTY OF SIGNIFICANCE AT THE STATE LEVEL IN
24	WHEN THE BOND MARKET WILL OPEN UP. SO IF WE WORK
25	WITH GREAT DISCIPLINE, WE CAN WORK STRAIGHT THROUGH

THAT PERIOD WITH OUR PROGRAMMED AND BUDGETED DOLLARS
ON THE SCIENTIFIC PATH THAT HAS BEEN PREVIOUSLY
DESCRIBED BY THE PRESIDENT.
TO THE EXTENT THAT WE HAVE DEVIATIONS FROM
OUR BUDGET, THEY NEED TO BE EXTREMELY COMPELLING IN
THIS TIME PERIOD. NOW, I WILL SAY THAT CERTAINLY
THIS BOARD MIGHT FIND THAT THERE ARE SOME
APPLICATIONS AFTER IT GOES THROUGH THE PROCESS THAT
IT WOULD LIKE TO FUND, AND WE COULD PUT THOSE OVER
TO THE JANUARY MEETING RATHER THAN ELIMINATING THEM
UNTIL WE HAVE A CLEARER PICTURE OF WHERE THE BOND
AUTHORITY IS GOING TO BE AND WHAT ITS ACCESSIBILITY
IS GOING TO BE IN THIS NEXT SIX-MONTH PERIOD.
SO THOSE ARE GENERAL COMMENTS THAT RELATE
TO MANAGEMENT OF FUNDS.
DR. PENHOET: WELL, IF I COULD FOLLOW UP
ON JOHN SIMPSON'S SUGGESTION, WHAT I'M CONCERNED
ABOUT IS IF WE FUND MORE THAN 50 PERCENT OR WHATEVER
THE NUMBER IS TONIGHT IN CATEGORY 1 AND THEN WE
DECIDE TOMORROW WE ONLY CAN FUND 20 MILLION, WE
DON'T WANT TO TAKE THE EXCESS 10 PERCENT, WHICH IS
THE DIFFERENCE BETWEEN 20 AND 22 MILLION, ALL OUT OF
THE SECOND GROUP. SO WE HAVE TO MAKE SURE THAT IF
WE ARE GOING TO NOT FUND THE ENTIRE 22 MILLION, THAT
WHETHER YOU FELL IN THE GROUP ONE OR GROUP TWO
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1	DOESN'T DETERMINE WHETHER YOU GET A GRANT OR NOT.
2	SOMEHOW WE HAVE TO DEAL WITH THE ISSUE BEFORE WE
3	VOTE ON FUNDING ANY OF THESE.
4	CHAIRMAN KLEIN: THERE IS NO INTENT TO
5	HAVE A FINAL VOTE ON FUNDING. WE JUST GO THROUGH
6	THE PROCESS OF ORDERING. THEN WE'LL GO TO THE
7	SECOND GROUP. AFTER WE ORDER THE SECOND GROUP,
8	WE'LL COME BACK AND TAKE AN OVERVIEW OF THE TWO
9	GROUPS BEFORE VOTE ON FUNDING. OKAY.
10	SO IT GIVES YOU THE WHOLE PICTURE BEFORE
11	YOU MAKE A DECISION. DOES IT SOUND LIKE THAT WORKS?
12	ALL RIGHT. SO WITH THAT, JEFF SHEEHY, WOULD YOU
13	LIKE TO ADDRESS THE FIRST SESSION?
14	MR. SHEEHY: SURE. THOUGH I'M LITTLE
15	CONFUSED NOW, BUT I'LL GO AHEAD. BECAUSE THERE IS
16	THIS ADDED ELEMENT, IT'S NOT CLEAR TO ME WHAT OUR
17	AVAILABLE FUNDS ARE. THAT SEEMS TO HAVE BECOME A
18	MOVING TARGET THAT I WASN'T AWARE OF WHEN I STARTED
19	THIS PROCESS. ACTUALLY I HAVE TO HAVE SOME
20	CLARIFICATION ON THIS BECAUSE I JUST I GENERALLY
21	HAVE BEEN OPERATING ON A PRINCIPLE THAT, YOU KNOW,
22	THERE'S SOME LEEWAY WITHIN EACH GRANT CYCLE.
23	YOU SEEM TO SUGGEST THAT ACTUALLY THAT
24	WITHIN THIS PARTICULAR GRANT CYCLE AND THE UPCOMING
25	GRANT CYCLE THAT THERE'S A FINITE AMOUNT OF MONEY

	BARRISTERS REPORTING SERVICE
1	THAT WE CAN FUND. SO IF THAT'S SO, WE SHOULD HAVE
2	THAT INFORMATION IN FRONT OF US BEFORE WE START TO
3	GO THROUGH THE GRANTS. IF WE HAVE YOU KNOW,
4	WHETHER IT'S 18 OR 22 OR A HUNDRED MILLION, WE NEED
5	TO KNOW WHAT IS AVAILABLE BECAUSE I TRY TO LOOK AT
6	THIS STRATEGICALLY. I'VE UNDERFUNDED AND VOTED TO
7	UNDERFUND SOME GRANTS BECAUSE I DIDN'T THINK THE
8	SCIENCE WAS THERE AND IT DIDN'T SEEM TO ACHIEVE OUR
9	MI SSI ON.
10	I MIGHT BE INTERESTED IN PUTTING MORE
11	MONEY INTO THIS CYCLE. THIS IS A ONE-OFF. WE'RE
12	NOT PROBABLY GOING TO DO THIS AGAIN, BUT IF THE
13	MONEY IS NOT THERE, I KIND OF NEED THAT INFORMATION
14	BEFORE I GO AHEAD.
15	CHAIRMAN KLEIN: SO TO PROVIDE MORE DETAIL
16	TO THIS, WHAT I'M SUGGESTING IS THAT, BASED UPON OUR
17	BUDGETED APPLICATIONS THAT LOOK THROUGH THE END OF
18	THIS FISCAL YEAR, WE ARE PREPARED WITH OUR FUNDING
19	IN THAT PERIOD. YOU WILL HAVE A NUMBER OF GRANTS
20	COME BEFORE YOU IN THAT TIME PERIOD. IF YOU GO
21	THROUGH BOTH OF THESE AND COME DOWN TO A DECISION ON
22	YOUR PRIORITIES, YOU MIGHT, AS AN EXAMPLE, DECIDE
23	THAT YOU JUST WANTED TO FUND THE BUDGETED AMOUNT OR
24	VERY CLOSE TO THE BUDGETED AMOUNT IMMEDIATELY AND

CARRY OVER THE OTHERS UNTIL THE END OF JANUARY, OUR

25

NEXT MEETING, BECAUSE WE'LL HAVE MORE INFORMATION ON
THE LEVEL OF FLEXIBILITY AND THE ACCESSIBILITY OF
ADDITIONAL BOND PROCEEDS AND THE TIMING OF THOSE AT
THAT POINT.
THEN YOU CAN MAKE A STRATEGIC DECISION
ABOUT HOW MUCH OF THE ADDITIONAL FLEXIBLE FUNDS WE
HAVE YOU WANT TO PUT IN THIS CYCLE, IN THIS RFA, AS
VERSUS COMPETING RFA'S WHICH ARE ON OUR TIMELINE,
BUT WE ARE NOT YET WE DON'T YET HAVE BEFORE US.
MS. LANSING: I JUST WANT TO BE SURE THAT
I'M UNDERSTANDING THIS. WHAT YOU'RE SAYING I
WANT TO REPEAT IT BACK IS AS OF TODAY, WE ONLY
HAVE ENOUGH TO FUND NOT EVEN THE WHOLE GREEN AMOUNT.
CHAIRMAN KLEIN: WE HAVE ENOUGH TO FUND
THE WHOLE GREEN AMOUNT. WE HAVE THE AMOUNT TO FUND,
BUT WHAT I'M SAYING IS THAT BETWEEN NOW AND JUNE,
WHICH IS THE END OF THIS FISCAL YEAR FOR WHICH WE'RE
ON CURRENT FINANCIAL CYCLE ON, WE DON'T HAVE A LARGE
MARGIN FOR FLEXIBILITY FOR ADDITIONAL APPROVALS.
AND WE WILL IT'S NOT BECAUSE WE DON'T HAVE THE
AUTHORITY. IT'S BECAUSE OF THE STATE'S POSITION.
WE NEED TO MANAGE OUR CURRENT FUNDS AND NOT MAKE AN
EXPECTATION OF ADDITIONAL FUNDS UNTIL WE HAVE BETTER
I NFORMATI ON.
WE HAVE THE AUTHORITY TO GO OUT AND DO
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1	MORE BONDS, BUT WE DON'T HAVE A CURRENT ABILITY TO
2	GO OUT AND DO MORE BONDS UNTIL THE STATE'S FINANCIAL
3	POSITION UNTIL WE HAVE MORE INFORMATION ON THAT
4	AND FEDERAL RESPONSE TO CERTAIN REQUESTS THAT HAVE
5	BEEN MADE.
6	MS. LANSING: WHAT I GUESS I'M SAYING IS
7	UNTIL YOU KNOW THAT AT LEAST I DON'T THINK WE
8	SHOULD SPEND MONEY WE DON'T HAVE. SO I GUESS IN A
9	SIMPLE WAY THAT'S WHAT I'M SAYING. SO WHAT I'M
10	ASKING IS LITERALLY HOW MUCH MONEY WE HAVE NOW,
11	WHICH DOESN'T MEAN THAT WHEN WE GET MORE MONEY, WE
12	CAN'T COME BACK AND READJUST IT. WE HAVE THAT
13	ABI LI TY.
14	CHAIRMAN KLEIN: SURE. BY THE END OF THE
15	FISCAL YEAR, WE CAN FUND BASED UPON ALL THE RFA'S
16	THAT ARE ON A TIMELINE WITH BUDGETS.
17	MS. LANSING: YOU'RE SAYING RIGHT NOW WE
18	HAVE ENOUGH FOR THE BUDGET.
19	CHAIRMAN KLEIN: FOR THE BUDGET AND WE
20	HAVE APPROXIMATELY AN ADDITIONAL \$30 MILLION AFTER
21	SOME ADDITIONAL RESERVES FOR CONSERVATISM.
22	MS. LANSING: OKAY.
23	CHAIRMAN KLEIN: AND SO
24	MS. LANSING: YOU KNOW, EXCEPT FOR
25	EXTRAORDINARY CIRCUMSTANCES, WE SHOULD STAY ON

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1	BUDGET. AT LEAST THIS IS WHAT I FEEL. EXCEPT FOR
2	EXTRAORDINARY CIRCUMSTANCES, IT SEEMS WE SHOULD NOT
3	SPEND MONEY WE DON'T HAVE. WE SHOULD STAY ON
4	BUDGET, AND THEN WE CAN ALWAYS, WHEN WE KNOW WHAT
5	HAPPENS IN THE FUTURE BONDS, WE CAN ALWAYS GO BACK
6	AND REVISIT SOMETHING OR IT CAN BE REAPPLIED.
7	CHAIRMAN KLEIN: I THINK I INTERPRETED
8	THAT AS WE SHOULD NEVER SPEND MONEY WE DON'T HAVE,
9	BUT WE SHOULD BE CAREFUL ON SPENDING WHAT WE DO HAVE
10	TO MAKE SURE WE DO RETAIN CERTAIN CONTINGENCY UNTIL
11	WE FIND OUT IF WE CAN ACCESS ADDITIONAL FUNDS WHICH
12	WE'RE AUTHORIZED FOR, BUT HAVEN'T BEEN RAISED IN THE
13	MARKET YET.
14	MS. LANSING: YES.
15	DR. TROUNSON: MR. CHAIR, I AGREE WITH YOU
16	AND I AGREE WITH SHERRY LANSING STRONGLY. I THINK
17	IN THE CURRENT SITUATION, WE NEED TO BE CAREFUL.
18	AND I THINK WE NEED TO SHOW SOME RESTRAINT. I THINK
19	WHAT YOU'VE GOT IN FRONT OF YOU IN TERMS OF
20	RECOMMENDATIONS IS A GOOD PANEL OF PROJECTS. YOU
21	MAY WANT TO LOOK AT ONE OR OTHER IF YOU REALLY ARE
22	DETERMINED ABOUT IT TO GET SOME PROJECTS UP WHICH
23	COULD BE ADDITIONALLY USEFUL. BUT IN THE SENSE
24	YOU'VE GOT A GOOD PANEL OF PROJECTS THERE, AND WE'RE
25	GOING TO PUSH HARD ON THE TRANSLATION AND ONTO THE

1	CLINIC NEXT YEAR. AND I THINK WE WANT TO BE CAREFUL
2	THAT WE DON'T GET OURSELVES TOO CLOSE TO THE MARGINS
3	IN DOING THIS.
4	SO I'M VERY STRONGLY IN SUPPORT OF BOTH OF
5	YOU IN BEING CAREFUL AT THIS POINT IN TIME.
6	CHAIRMAN KLEIN: SO THE ONLY ADDENDA I
7	WOULD ADD TO THAT IS, AS JEFF SHEEHY INDICATED,
8	THERE ARE SOME EXTREMELY GOOD APPLICATIONS HERE THAT
9	ARE IN THE GRAY AREA THAT WE COULD CARRY OVER TO
10	JANUARY AND CONSIDER AT THAT TIME BASED UPON THE
11	INFORMATION WE HAVE BECAUSE WE DO HAVE AN
12	AUTHORIZATION FOR SUBSTANTIALLY GREATER FUNDS. IF
13	WE HAVE EVIDENCE AT THAT TIME THAT WE CAN ACCESS
14	THEM, WE WILL HAVE NOT SACRIFICED THIS WORK PRODUCT
15	IF WE CARRY THOSE OVER AND MAINTAIN THAT OPTION AT
16	THAT TIME.
17	DR. PENHOET: IN ORDER TO DECIDE WHAT TO
18	DO NEXT, WE HAVE TO DECIDE DO WE NEED TO TAKE 10
19	PERCENT OUT OF THE GREEN AREA TO GET US TO 20
20	MILLION, OR DO WE FUND 22 MILLION, IN WHICH CASE WE
21	WILL SWAP SOME WE MIGHT WANT TO SWAP SOME GRAY
22	FOR GREEN OR GREEN FOR GRAY, HOWEVER YOU SAY IT; BUT
23	IN ORDER TO GET TO 20, WE HAVE TO TAKE 10 PERCENT
24	OUT OF THE GREEN. I THINK WE NEED TO KNOW WHAT OUR
25	JOB IS NOW. WHAT ARE WE TRYING TO ACHIEVE HERE IN
	124

1	THIS DISCUSSION? AND MAYBE A MOTION TO FUND 22
2	MILLION INSTEAD OF 20 WOULD BE A WAY TO CLARIFY
3	THI S.
4	CHAIRMAN KLEIN: SO WE HAVE OUR NEW MEMBER
5	WHO IS AT THE FAR END. I'D LIKE TO RECOGNIZE
6	GORDON. YOUR COMMENTS, PLEASE.
7	DR. GILL: THIS IS A QUESTION FROM THE NEW
8	BOY. THE NIH WILL MAKE 10-PERCENT CUTS IN BUDGETS.
9	IS THAT A CONSIDERATION TO FUND THE GREEN SINCE
10	WE'RE 10 PERCENT OVER AND MAKE ACROSS-THE-BOARD
11	10-PERCENT CUTS?
12	CHAIRMAN KLEIN: WE HAVE THE AUTHORITY.
13	I'D LIKE TO ASK THE SCIENTIFIC STAFF ON THE
14	RECOMMENDATION.
15	DR. POMEROY: CAN YOU CLARIFY THE TOTAL
16	AMOUNT IN THE GREEN AREA? IT LOOKS ON THE SLIDE
17	LIKE IT'S 20.8. IS IT 21.8.
18	DR. TROUNSON: MR. CHAIR.
19	CHAIRMAN KLEIN: SO, DR. POMEROY, YOU'RE
20	LOOKING AT ONE SESSION, AND SO IT'S A CUMULATIVE OF
21	BOTH SESSIONS. DR. SAMBRANO, WOULD YOU PLEASE
22	I NDI CATE.
23	DR. SAMBRANO: SO YOU HAVE 14 APPLICATIONS
24	HERE THAT TOTAL JUST OVER 12 MILLION.
25	CHAIRMAN KLEIN: AND THE SECOND SESSION
	405

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1	THE TOTAL IS?
2	DR. SAMBRANO: NOW I TOGGLE. SESSION 2
3	HAS 11 APPLICATIONS AT 9.7 OR 9.8 MILLION.
4	DR. TROUNSON: MR. CHAIR, CAN I ANSWER THE
5	QUESTION OF
6	CHAIRMAN KLEIN: IF YOU CAN ADDRESS THAT
7	QUESTION, AND THEN I'M GOING TO COME THIS WAY, JEFF,
8	AND I'VE GOT LEEZA GIBBONS AND THEN JEFF SHEEHY.
9	DR. TROUNSON: I WOULD STRONGLY RECOMMEND
10	AGAINST CUTTING INTO THE BUDGETS ON A 10-PERCENT
11	BASIS. I THINK WE'VE ASKED THE APPLICANTS TO BE
12	VERY CAREFUL ABOUT THEIR BUDGETING. THEY HAVE BEEN
13	THROUGH A REVIEW WITH THE REVIEWERS WHO HAVE TAKEN A
14	LOOK AT THESE BUDGETS. WE BELIEVE THAT THEY ARE
15	GOOD FOR THE JOB.
16	I SENSE THAT IT'S NOT ALWAYS A VERY SMART
17	THING TO DO IS TO CUT INTO BUDGETS WHICH HAVE BEEN
18	WORKED OUT TO DO A JOB ONLY TO MAKE IT MORE
19	DIFFICULT TO DO THAT. AND WE WOULD I WOULD
20	STRONGLY RECOMMEND AGAINST MAKING A 10-PERCENT CUT
21	ACROSS ALL OF THE PROJECTS IN ORDER TO FUND MORE.
22	CHAIRMAN KLEIN: OKAY. LEEZA, DID YOU
23	HAVE A POINT? NO. SO JEFF SHEEHY.
24	MR. SHEEHY: I GUESS I'M NOT UNDERSTANDING
25	THE ASSUMPTIONS WE'RE MAKING. FIRST OF ALL, I DON'T
	124
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1	ACCEPT THAT WE NEED TO TIGHTEN OUR BELT. I FLEW ON
2	A PLANE TODAY WHERE A THIRD OF THE PEOPLE ON IT WORK
3	FOR CIRM. NOW, THAT'S GOOD FOR THE STATE'S ECONOMY.
4	I'M NOT KIDDING. WE'RE TALKING ABOUT FISCAL
5	STIMULUS. SOMEBODY NEEDS TO BE ON THOSE PLANES.
6	WE'RE FUNDING COMPANIES HERE, SO THESE ARE JOBS.
7	THIS IS THESE ARE PEOPLE WHO HAVE SUCCESSFULLY
8	COMPETED.
9	I DON'T KNOW WHAT THIS PARTICULAR TRANCHE
10	OF MONEY IS COMPETING WITH. HOW MUCH MONEY DO WE
11	HAVE TO WHAT POINT? WHAT ARE THE OTHER CALLS ON
12	THAT MONEY? SO THAT WE CAN MAKE A LEGITIMATE KIND
13	OF TRIAGE SITUATION AND THINK WHERE WE WANT TO SPEND
14	OUR MONEY IN THE TIMEFRAME THAT WE HAVE WHERE WE'LL
15	GET THE BIGGEST SCIENTIFIC IMPACT. THE FEDERAL
16	GOVERNMENT'S GOING TO BE IN THIS SPACE WITHIN A
17	YEAR. WE'VE GOT PEOPLE THAT ARE MAKING REAL THINGS
18	NOW THAT THEY'RE GOING TO SELL THAT ARE GOING TO
19	MAKE A RETURN TO THE STATE.
20	SO I'M NOT FEELING LIKE I NEED TO TIGHTEN
21	MY BELT ON THIS PARTICULAR ROUND WHERE THERE ARE
22	OTHER ROUNDS WHERE I MIGHT DECIDE TO TIGHTEN MY BELT
23	BECAUSE I CAN'T SEE THE IMMEDIATE RETURN IN EITHER
24	JOBS NOR IN PRODUCTS. BUT THAT'S A POLICY DECISION
25	AND A POLICY DISCUSSION THAT WE NEED TO HAVE BECAUSE

1	WHEN YOU SAY TO THE FISCAL YEAR, YOU'RE TALKING
2	NOT WE'RE NOT TALKING ABOUT THROUGH DECEMBER
3	31ST. YOU'RE TALKING THROUGH JUNE 30TH.
4	CHAIRMAN KLEIN: JUNE 30TH.
5	MR. SHEEHY: SO BETWEEN JUNE 30TH, FOR
6	INSTANCE, WE HAVE THE BRIDGES. DO WE WANT TO SPEND
7	MORE? WE HAVE TRANSLATION, EARLY TRANSLATION, WE
8	HAVE BRIDGES, AND WE HAVE THIS. SO WE HAVE TO THINK
9	ABOUT, YOU KNOW, WHERE WE WANT TO PUT OUR MONEY. WE
10	HAVE THE TRAINING, WE HAVE THE BRIDGES. SO THOSE
11	ARE BOTH ARE WE TRAINING PEOPLE FOR JOBS THAT
12	DON'T EXIST AT THIS TIME WHEN WE COULD BE FUNDING
13	THE JOBS? WE'RE GOING TO FUND PEOPLE TO GET THOSE
14	JOBS, BUT THE JOBS AREN'T GOING TO BE THERE BECAUSE
15	WE DIDN'T FUND THE COMPANIES TO BUILD THE PRODUCTS
16	THAT WOULD HAVE HIRED THOSE PEOPLE.
17	CHAIRMAN KLEIN: SO, JEFF, I IDENTIFY WITH
18	THE TREMENDOUS VALUE YOU SEE IN THIS ROUND. SO
19	THAT'S IN THE SPIRIT OF WHAT I WAS SUGGESTING OF
20	CARRYING OVER THOSE THAT WERE ABOVE BUDGETS TO
21	JANUARY SO WE HAVE BETTER INFORMATION. BUT OS
22	STEWARD AND THEN DR. PIZZO.
23	MR. ROTH: SHERRY.
24	CHAIRMAN KLEIN: SHERRY IS NEXT. I'M
25	SORRY, SHERRY.
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1	MS. LANSING: YOU KNOW, I GUESS I'M A
2	SIMPLE PERSON. I THINK THAT IN EACH OF THE ROUNDS
3	OF GRANTS THAT WE'VE HAD, THERE'S BEEN EXTRAORDINARY
4	THINGS. AND WE'VE ALWAYS BEEN THRILLED WITH THE
5	GRANTS, THRILLED WITH WHAT WE FUNDED. AND THIS TO
6	ME IS EXTRAORDINARILY EXCITING. AND I SHARE, JEFF,
7	YOUR EXCITEMENT. BUT I DO BELIEVE THAT WE HAVE A
8	BUDGET THAT IS A REAL BUDGET IN THESE DIFFICULT
9	TIMES. WE DON'T KNOW THE FUTURE. WE CAN'T PREDICT
10	IT QUITE AS WELL. AND I WOULD LIKE TO MAKE A HUMBLE
11	SUGGESTION WHICH YOU CAN ALL LEAP ON, THAT IF YOU
12	LOOK, THERE'S TO ME A REAL CLEAN CUTOFF. THERE'S 81
13	AND ABOVE. YOU LOOK AT THAT. THEN IT GOES TO 77,
14	71, WHATEVER.
15	AND I WOULD LIKE TO SUGGEST THAT WE FUND
16	81 AND ABOVE. AND I THINK THAT BRINGS US INTO OUR
17	BUDGET LINE.
18	CHAIRMAN KLEIN: LET ME ASK THIS QUESTION.
19	HOW DO YOU FEEL ABOUT CARRYING OVER THE OTHERS UNTIL
20	JANUARY TO SEE WHAT WE HAVE?
21	MS. LANSING: VERY, VERY HAPPY ABOUT THAT.
22	MR. SHEEHY: YOU HAVE TO LOOK AT THE OTHER
23	SIDE. SO I WOULD YOU KNOW, WE FUNDED 72 ON THE
24	OTHER SIDE. AND, YOU KNOW, THAT'S 1.1 MILLION
25	50,000. WE COULD WHACK THAT ONE. IT'S A 72 AND
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WE'D BE ALMOST THERE. I'D BE MORE COMFORTABLE
YOU KNOW, THIS IS THE PROBLEM WITH LOOKING AT JUST
ONE-HALF OF THE PAGE. WE COULD DO THIS WE CAN
REMOVE THIS OTHER ONE.
YOU KNOW, I HAPPEN TO PARTICULARLY LIKE
I REMEMBER THE DISCUSSION ON 1108. I AM NOT AT ALL
COMFORTABLE NOT MOVING FORWARD WITH 1108.
CHAIRMAN KLEIN: JEFF, OUR ORIGINAL
PROCESS WAS TO GO THROUGH THESE, ORDER THIS SESSION,
ORDER THE NEXT SESSION, AND THEN HAVE ABILITY TO
LOOK AT BOTH SESSIONS AND MAKE A FULLY INFORMED
DECISION RATHER THAN TRYING TO PIECE THIS OFF. SO
WITH THE BENEFIT OF THE COMMITTEE IN KNOWING ON AN
OVERALL BASIS WHAT JUDGMENT WE SHOULD MAKE, I WOULD
ASK THAT WE START THROUGH THAT PROCESS. I THINK
WE'VE HAD A HEALTHY AND INFORMED DISCUSSION THAT'S
GIVEN US A CONTEXT. IS THAT ACCEPTABLE?
DR. STEWARD: I WAS JUST GOING TO SAY THE
SAME THING, THAT WE ACTUALLY DO HAVE A BUDGET THAT
WE SHOULD GO AHEAD AND GO THROUGH THE PROCESS AS WE
HAVE AND CONSIDER EXTRAORDINARY EXCEPTIONS THAT
CHAIRMAN KLEIN: JEFF, WOULD YOU LEAD US
THROUGH THE PROCESS. AND REMEMBER THE CONTEXT HERE
IS IN THE ORDERING OF THESE, REMEMBER THE POTENTIAL
TO CARRY THESE OVER TO THE JANUARY 29TH MEETING
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1	WHERE WE WILL HAVE BETTER INFORMATION BECAUSE WE DO
2	HAVE ADDITIONAL AUTHORITY. THE ISSUE IS, IN FACT,
3	ACCESSING THE CASH FUNDING OF THEM THROUGH
4	ADDITIONAL BONDS OR ADDITIONAL PMI FUNDING. THAT
5	CAN ONLY BE ACCOMPLISHED IN THE CONTEXT OF GREATER
6	INFORMATION. JEFF.
7	MR. SHEEHY: IF ANYBODY CAN EXPLAIN TO ME
8	WHAT WE JUST HEARD, THAT LAST SENTENCE, I'LL BUY YOU
9	A DRINK. BUT OKAY. SO WHAT WE NEED RIGHT NOW IS IF
10	THERE IS A MOTION TO MOVE ANY SPECIFIC GRANT OUT OF
11	THE GREEN AREA INTO THE GRAY AREA. ARE THERE SUCH
12	MOTIONS?
13	MS. LANSING: I GUESS I DID. I'M
14	CONFLICTED, RIGHT?
15	MR. HARRISON: I JUST WANT TO REMIND
16	MEMBERS THAT WE SHOULD ADDRESS THESE ONE APPLICATION
17	AT A TIME SO THAT WE CAN ENSURE THAT WE DON'T HAVE
18	ANY CONFLICTS.
19	CHAIRMAN KLEIN: SO IF YOU WILL INDICATE
20	THE APPLICATION NUMBER, WE WILL THEN STATE THE
21	CONFLICTS, AND THEN WE WILL DECIDE WHETHER A MOTION
22	IS IN ORDER. DR. STEWARD, DO YOU HAVE AN
23	APPLICATION YOU WANT TO SPECIFICALLY ADDRESS?
24	DR. STEWARD: YES. AND THAT IS NO. 105
25	THE LAST ONE IN THE GREEN TIER.

1	CHAIRMAN KLEIN: WHO ARE THE CONFLICTS,
2	PLEASE?
3	MR. HARRISON: ON APPLICATION 1050, THE
4	CONFLICTS ARE MEMBERS BLOOM, FONTANA, GILL, LANSING,
5	AND WITMER.
6	CHAIRMAN KLEIN: OKAY. THANK YOU.
7	DR. STEWARD: AND SO I WOULD LIKE TO MOVE
8	THAT WE MOVE THAT GRANT OUT OF TIER 1 ON THE BASIS
9	OF ITS SCIENTIFIC REVIEW. IF YOU LOOK AT THIS, THE
10	REVIEWS ARE ACTUALLY RATHER NEGATIVE. AIM 1 WAS
11	CONSIDERED TO BE REASONABLE, AIM 2 WAS CONSIDERED TO
12	BE WEAK, AND IT IS CERTAINLY NOT AS HIGHLY REVIEWED
13	AS SOME OF THE ONES IN THE LOWER TIER, FRANKLY.
14	CHAIRMAN KLEIN: OKAY. STATEMENT'S BEEN
15	MADE. IS THERE A SECOND TO THE MOTION?
16	DR. PULI AFI TO: SECOND.
17	CHAIRMAN KLEIN: SO IS THERE ADDITIONAL
18	DISCUSSION ON THE MOTION? IS THERE PUBLIC COMMENT
19	ON THIS SPECIFIC MOTION? SEEING NONE YES. DR.
20	FRANCISCO PRIETO.
21	DR. PRIETO: COULD I REQUEST A LITTLE MORE
22	DISCUSSION ABOUT THE POTENTIAL PROGRAMMATIC
23	IMPORTANCE OF THIS ONE? I THINK JEFF MAY HAVE
24	ALLUDED TO THAT A LITTLE. MAYBE WE COULD HAVE
25	SCIENTIFIC STAFF COMMENT ON THAT.
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1	CHAIRMAN KLEIN: WHO IS THE PROGRAMMATIC
-	
2	OFFICER, DR. CSETE. DR. OLSON, WHO IS THE
3	PROGRAMMATIC OFFICER? SOHIL.
4	DR. TALIB: MR. CHAIRMAN, I DISCUSSED THIS
5	APPLICATION EARLIER. THIS IS AN APPLICATION ABOUT
6	DEVELOPMENT OF A HIGH THROUGHPUT PLATFORM FOR THE
7	MEMBRANE AT THE HESC CELL WALL FOR MONOCLONAL
8	ANTI BODI ES.
9	IN THE PROGRAMMATIC DISCUSSION, I CAN
10	DESCRIBE TO YOU THE RECOMMENDATIONS FOR FUNDING WAS
11	THAT DESPITE THE WEAKNESS OF THE SECOND AIM,
12	REVIEWERS FELT THAT THE STRENGTH AND THE SIMPLICITY
13	OF THE FIRST AIM COMBINED WITH THE PROVEN TRACK
14	RECORD OF THE INVESTIGATOR TEAM WARRANTED ADDITIONAL
15	CONSIDERATION, AND THE REVIEWERS DISCUSSED AND CAME
16	TO THE CONCLUSION THAT, ON THE BASIS OF THIS
17	DISCUSSION, THAT IT SHOULD BE MOVED TO TIER 1.
18	CHAIRMAN KLEIN: AND CAN WE ASK WHAT THE
19	PROGRAMMATIC GOAL IS OF THIS PARTICULAR GRANT?
20	DR. TALIB: TO MAKE IT POSSIBLE THAT THIS
21	PARTICULAR AREA IS REPRESENTED IN THE OVERALL
22	CRI TERI A.
23	CHAIRMAN KLEIN: AND THE GOAL OF THIS
24	PARTICULAR GRANT IS?
25	DR. TALIB: IS TO DEVELOP MONOCLONAL
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1	ANTIBODIES FOR IDENTIFICATION, CHARACTERIZATION, AND
2	THE DIFFERENTIATION OF THE EMBRYONIC STEM CELL. SO
3	ON THAT BASIS, IT WAS CONSIDERED THAT IT MIGHT ADD
4	VALUE TO THE OVERALL CATEGORY OF THE AREAS WHICH ARE
5	COVERED.
6	CHAIRMAN KLEIN: THANK YOU. ALL RIGHT.
7	SO YOU'VE HEARD THE SCIENTIFIC PRESENTATION. IS
8	THERE ANY ADDITIONAL COMMENT FROM THE BOARD? IF
9	NOT, COULD WE HAVE A ROLL CALL VOTE? MR. HARRISON.
10	DR. PRICE: COULD YOU REPEAT THE MOTION?
11	CHAIRMAN KLEIN: YES, I WILL. MR.
12	HARRISON, COULD YOU, A, REPEAT THE MOTION AND, B,
13	THEN REMIND US OF THE CONFLICTS AND, C, MELISSA, YOU
14	WILL BE CALLING THE ROLL ON THIS IMMEDIATELY AFTER
15	MR. HARRISON RESTATES THIS MOTION. THANK YOU. MR.
16	HARRISON, COULD YOU RESTATE THE MOTION?
17	MR. HARRISON: YES. THE MOTION IS TO MOVE
18	APPLICATION 1050 OUT OF TIER 1. AND THE CONFLICTS
19	AS TO THIS MOTION ARE MEMBERS BLOOM, FONTANA, GILL,
20	LANSING, AND WITMER.
21	CHAIRMAN KLEIN: ALL RIGHT. AND FOR THE
22	BENEFIT OF THE GROUP, MR. HARRISON, YOU WANT TO
23	INSTRUCT THEM ON, SINCE WE HAVE A NEW ALTERNATE AND
24	A NEW MEMBER, ON THE VOTING PROCEDURE.
25	MR. HARRISON: YES. ON MOTIONS FOR
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1	INDIVIDUAL APPLICATIONS, IF YOU HAVE A CONFLICT, WE
2	WILL NOT CALL YOUR NAME. IF WE DO INADVERTENTLY,
3	WE'LL TRY TO STRIKE YOU BEFORE YOU ACTUALLY VOTE.
4	WHEN WE VOTE ON THE FINAL ARRANGEMENT OF
5	APPLICATIONS AFTER WE'VE EXHAUSTED ALL OF THE
6	INDIVIDUAL MOTIONS, WE VOTE ON THE APPLICATIONS IN A
7	PARTICULAR TIER, TIER 1, FOR EXAMPLE, EN BLOC. AND
8	WE ASK THAT YOU VOTE EITHER FOR OR AGAINST THE
9	MOTION AND SPECIFICALLY STATE THAT IT'S WITH THE
10	EXCEPTION OF ANY APPLICATIONS IN WHICH YOU HAVE AN
11	INTEREST. WE THEN TABULATE THE VOTES BASED ON THE
12	QUORUM REQUIREMENT AND THE CONFLICTS.
13	CHAIRMAN KLEIN: SO THIS IS AN INDIVIDUAL
14	APPLICATION VOTE, SO YOU WILL EITHER VOTE IF YOU
15	ARE CALLED, YOU WILL NOT HAVE A CONFLICT. IF YOU
16	BELIEVE YOU HAVE A CONFLICT, DO NOT VOTE, BUT THE
17	ATTORNEYS WILL ATTEMPT TO DIRECT THE ROLL CALL TO
18	MAKE CERTAIN THAT THAT DOES NOT OCCUR. MELISSA
19	KING, WITH THAT, COULD YOU CALL THE ROLL.
20	MS. KING: ROBERT PRICE.
21	DR. PRICE: YES.
22	MS. KING: SUSAN BRYANT.
23	DR. BRYANT: YES.
24	MS. KING: MARCY FEIT. MICHAEL FRIEDMAN.
25	LEEZA GI BBONS.
	4.45

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	BINNISTERS REPORTING SERVICE
1	MS. GIBBONS: NO.
2	MS. KING: MICHAEL GOLDBERG.
3	MR. GOLDBERG: YES.
4	MS. KING: BOB KLEIN.
5	CHAIRMAN KLEIN: YES.
6	MS. KING: GERALD LEVY.
7	DR. LEVY: YES.
8	MS. KING: ED PENHOET.
9	DR. PENHOET: YES.
10	MS. KING: PHIL PIZZO.
11	DR. PI ZZO: YES.
12	MS. KING: CLAIRE POMEROY.
13	DR. POMEROY: YES.
14	MS. KING: FRANCISCO PRIETO.
15	DR. PRI ETO: NO.
16	MS. KING: CARMEN PULIAFITO.
17	DR. PULI AFI TO: YES.
18	MS. KING: ROBERT QUINT.
19	DR. QUINT: YES.
20	MS. KING: DUANE ROTH.
21	MR. ROTH: YES.
22	MS. KING: JEFF SHEEHY.
23	MR. SHEEHY: YES.
24	MS. KING: OSWALD STEWARD.
25	DR. STEWARD: YES.
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1	CHAIRMAN KLEIN: THE MOTION CARRIES. SO,
2	JEFF SHEEHY, IF YOU HAVE A POINT.
3	MR. SHEEHY: BOB, WHY DON'T WE FLIP OVER
4	TO THE SECOND ROUND BECAUSE WE'VE I THINK IT
5	WOULD BE MORE APPROPRIATE. AND I ACTUALLY WOULD
6	LIKE TO MAKE A MOTION TO MOVE 1062 INTO THE FUND IF
7	FUNDS ARE AVAILABLE AREA AND MOVE IT OUT OF
8	DR. PIZZO: SECOND THAT MOTION.
9	CHAIRMAN KLEIN: SO COULD WE HAVE
10	CONFLICTS, PLEASE.
11	MR. HARRISON: YES. FOR APPLICATION NO.
12	1062, THE MEMBERS WHO HAVE AN INTEREST ARE MEMBERS
13	BLOOM, GILL, LANSING, PRICE, AND WITMER.
14	CHAIRMAN KLEIN: THANK YOU. DISCUSSION ON
15	THE MOTION IS IN ORDER.
16	DR. PIZZO: I THINK THAT THE REVIEW, WHILE
17	IT EXPRESSES THE IMPORTANCE OF THIS PARTICULAR
18	CHEMIST AS SOMEONE OF SIGNIFICANCE, ALSO NOTES, AS
19	ONE CAN READ, THAT THIS PROJECT MAY BE SOMEWHAT
20	OVERLY AMBITIOUS. THE PERSON IS SOMEWHAT JUNIOR,
21	RELATIVELY OVERCOMMITTED. I THINK FOR THE REASONS
22	OF THAT AND OTHERS, I THINK AND IT WAS LOWLY
23	SCORED, I THINK THAT THIS IS AN APPROPRIATE
24	CONCLUSI ON.
25	CHAIRMAN KLEIN: OKAY. THANK YOU. AND
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1	COULD I ASK AS A CLARIFICATION OF THE MOTION, WHEN
2	YOU'RE MOVING OUT OF TIER 1, ARE YOU MOVING IT INTO
3	THE TOP OF TIER 2 OR SOME OTHER LOCATION?
4	MR. SHEEHY: I'M MOVING IT INTO TIER 2.
5	DR. PIZZO: JUST INTO TIER 2.
6	CHAIRMAN KLEIN: IT HAS TO BE ORDERED
7	SOMEWHERE IN THE LIST. SO ARE YOU MOVING IT TO THE
8	TOP OF TIER 2 OR MIDDLE OF TIER 2?
9	DR. PIZZO: RANKED NUMERICALLY IN TIER 2.
10	MR. SHEEHY: DID WE DO THAT ON THE LAST
11	ONE?
12	CHAIRMAN KLEIN: WE DID NOT DO THAT ON THE
13	LAST ONE.
14	MR. SHEEHY: I THINK YOU CAN JUST GO BACK
15	INTO TIER 2, BOB. WE CAN REEXAMINE THIS. WE CAN
16	PUT IT IF WE GET ANOTHER OPPORTUNITY TO LOOK AT
17	THESE GRANTS
18	CHAIRMAN KLEIN: THAT'S FINE. SO THIS IS
19	JUST TO MOVE IT IN TIER 2. WE ACCEPT THAT AND WE'LL
20	MOVE FORWARD. THANK YOU.
21	SO WITH THAT, IS THERE ADDITIONAL BOARD
22	COMMENT?
23	DR. PENHOET: ONLY TO POINT OUT THAT BOTH
24	OF THESE WERE MOVED IN PROGRAMMATIC REVIEW BECAUSE
25	THEY ADDRESSED SIMILAR TECHNOLOGIES, SMALL MOLECULES
	1/18

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1	FOR DEFINED MEDIA. SO WE'VE MOVED THEM BOTH OUT OF
2	TIER 1 NOW TO TIER 2. I JUST WANT US TO UNDERSTAND
3	THAT THE EFFECT OF WHAT WE'VE DONE IS TAKE THE SMALL
4	MOLECULE PROGRAMS OUT, SO IT MAY CHANGE THE MIX OF
5	WHAT WE ARE FUNDING IN TERMS OF TOOLS AND
6	TECHNOLOGI ES.
7	DR. PIZZO: WE'RE DOING THAT AT THIS
8	MOMENT. THEY COULD COME BACK.
9	CHAIRMAN KLEIN: OKAY.
10	DR. LEVEY: WHAT ARE WE DOING NOW BECAUSE,
11	YOU KNOW, WE DROPPED ONE GRANT OUT OF TIER 1. WE
12	HAD DROPPED ONE GRANT OUT OF TIER 1. SO WE'RE DOWN
13	TO 13 GRANTS. I DON'T UNDERSTAND GOING BACK TO THE
14	ISSUES THAT WERE RAISED BEFORE THAT GORDON GILL
15	ARTICULATED SO WELL. WE NOW HAVE DROPPED ONE THAT
16	WAS WORTH ALMOST \$900,000. WHY DON'T WE JUST ASSIGN
17	THE APPROPRIATE PERCENTAGE DECREASE ACROSS THE BOARD
18	TO THOSE? I DON'T UNDERSTAND THAT. THAT'S PART OF
19	OUR LIFE EVERY DAY. SO I DON'T UNDERSTAND.
20	DR. PIZZO: I THINK WE HEARD AN ARGUMENT,
21	IN ALL FAIRNESS, GERRY, FROM ALAN AGAINST DOING
22	THAT, THAT THE BUDGETS WERE SCRUTINIZED AND THAT
23	THIS WOULD BE PREFERABLE. I THINK WE SHOULD USE OUR
24	DISCRETION RATHER THAN AN ACROSS-THE-BOARD
25	METHODOLOGY.
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1	DR. LEVEY: IF THAT'S REALLY THE SENSE OF
2	THE BOARD, THEN I THINK SHERRY LANSING'S IDEA IS A
3	PERFECT CLEAVAGE LINE ON THESE GRANTS. AND WHY
4	DON'T WE JUST DROP EVERYTHING BELOW 81?
5	DR. PIZZO: I THINK THE OTHER CLEAVAGE
6	LINE THAT WE'RE MAKING IS WE'RE TAKING OUT TWO
7	GRANTS THAT WERE RELATIVELY LOW FUNDED IN COMPARISON
8	TO THE OTHERS. SO I THINK IT'S ANOTHER CLEAVAGE
9	LINE AS WELL.
10	CHAIRMAN KLEIN: OKAY. DR. PULIAFITO HAD
11	A POINT.
12	DR. PULIAFITO: THE QUESTION IS, THOUGH,
13	THE BUDGETS, NONE OF THE BUDGETS WERE REDUCED BY THE
14	INSTITUTE STAFF, CORRECT, OR WERE THEY? YOU
15	ACCEPTED THE BUDGETS AS REQUESTED, CORRECT?
16	DR. TROUNSON: THAT'S CORRECT.
17	DR. PULIAFITO: BUT I AM SKEPTICAL REALLY
18	THAT EVERY REQUEST WAS REASONABLE. AND I IN SOME
19	SENSE REALLY CONCUR WITH DRS. GILL AND DR. LEVEY
20	THAT AN ACROSS-THE-BOARD CUT ACTUALLY PROVIDES MORE
21	OPPORTUNITIES FOR PEOPLE TO DO THIS. AND I THINK,
22	IN THE CURRENT FUNDING ENVIRONMENT, EVERYONE IS
23	REALLY PEOPLE IN ACADEMIA CERTAINLY ARE USED TO
24	WORKING IN THAT ENVIRONMENT. BUT ONCE AGAIN, YOU
25	DIDN'T SCRUTINIZE EVERY ONE OF THESE REQUESTS TO SAY
	150

1	THIS IS TOO MUCH. I NEED TO REQUEST THIS.
2	DR. TROUNSON: WE DID ASK THE REVIEWERS TO
3	COMMENT ON IT. BUT WE DIDN'T REDUCE ANY OF THE
4	BUDGETS IN THESE. IT'S A VERY IT'S A VERY
5	NEGATIVE VIEW, IN MY OWN FEELING, THAT IF YOU
6	ACTUALLY PUT IN A BUDGET AND YOU BELIEVE THAT THAT'S
7	APPROPRIATE FOR THE WORK TO BE DONE, TO CUT THEIR
8	BUDGET MEANS THAT YOU CUT THE OPPORTUNITY TO
9	COMPLETE THE WORK.
10	CHAIRMAN KLEIN: IF WE COULD PUT THIS IN
11	CONTEXT, DR. TROUNSON. BECAUSE IN OUR NORMAL
12	PROCESS, BETWEEN THIS APPROVAL AND THE SIGNING OF
13	THE GRANT AWARD, THE STAFF EXAMINES THE VERY
14	SPECIFIC DETAILS OF EACH BUDGET AND CAN, IN FACT
15	DOES, CUT THOSE BUDGETS IF THEY DON'T FIND ADEQUATE
16	JUSTIFICATION. SO THERE IS, EVEN THOUGH THEY
17	HAVEN'T BEEN ADJUSTED TO DATE, IN THE PROCESS BEFORE
18	GRANT AWARD, THEY WILL BE ADJUSTED.
19	NOW, DR. PULIAFITO, YOU'VE RAISED ACTUALLY
20	ANOTHER OPPORTUNITY, WHICH IS BETWEEN NOW AND
21	JANUARY 29TH, THE STAFF WILL HAVE AN OPPORTUNITY TO
22	LOOK AT THE BUDGETS OF THOSE APPROVED, RECONCILE IT,
23	AS THEY WOULD NORMALLY IN THE GRANT AWARDS PROCESS,
24	AND SEE IF THERE'S FUND SAVINGS IN THERE SO THAT
25	WHEN WE COME BACK WITH THE CARRY-OVERS, WE MAY HAVE
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1	THE ABILITY TO FUND SOME ADDITIONAL GRANTS. BUT
2	THAT IS A PROCESS THAT WILL HAPPEN.
3	CAN I GO TO DR. PRIETO AND THEN, OS, TO
4	YOU.
5	DR. PRIETO: COUPLE THINGS. IN LIGHT OF
6	THE FACT THAT WE'RE NOW ONLY 5 PERCENT AND NOT 10
7	PERCENT OVER THE 20 MILLION, IF WE FUNDED EVERYTHING
8	IN THE GREEN SECTION AS OF NOW, I WONDER IF WE HAVE
9	EVER CUT ANYONE'S BUDGET BEFORE. IF NOT, PERHAPS
10	THIS IS THE TIME TO DO THAT.
11	AND THE OTHER CONCERN I HAVE IS THE POINT
12	THAT ED JUST RAISED, WHICH IS THAT IF WE DROP THIS,
13	WE ARE DROPPING THE TWO APPLICATIONS THAT WERE
14	SPECIFICALLY BROUGHT UP FOR PROGRAMMATIC REASONS
15	THAT I THINK ARE IMPORTANT. AND I WONDER IF PERHAPS
16	KEEPING AT LEAST ONE OF THEM OR KEEPING BOTH OF THEM
17	BY CUTTING ACROSS THE BOARD MIGHT NOT BE MORE
18	IMPORTANT THAN, FOR EXAMPLE, JUST PULLING THIS OUT
19	OF MY HAT, THE TWO IMAGING APPLICATIONS THAT ARE
20	IMMEDIATELY ABOVE IT IN SESSION 2.
21	CHAIRMAN KLEIN: OKAY. THANK YOU. DR.
22	STEWARD.
23	DR. STEWARD: JUST TO SAY WE DO HAVE A
24	MOTION ON THE FLOOR HERE, AND WE'RE ACTUALLY TALKING
25	ABOUT TWO SEPARATE THINGS, TRYING TO HIT A
	150

1	PARTICULAR MARK IN THE BUDGET AND TRYING TO
2	DETERMINE THE RELATIVE RANK OF THESE GRANTS. WHEN
3	WE FINISH WHAT WE'RE GOING TO DO WITH THE TOP TIER,
4	WE'RE GOING TO GO BACK TO THE GRAY AREA AND CONSIDER
5	WHETHER THERE MIGHT BE GRANTS THERE THAT NEED TO BE
6	MOVED UP. I THINK THERE MIGHT BE AT LEAST ONE THAT
7	I WILL RAISE AT THAT TIME.
8	SO I WOULD RATHER GO THROUGH THE PROCESS
9	THAT WE'RE GOING THROUGH RIGHT NOW, AT LEAST
10	COMPLETE THIS MOTION, SORT THE GRANTS OUT, AND THEN
11	IF WE NEED TO HAVE A DISCUSSION ABOUT THE WHOLE
12	ISSUE OF CUTTING GRANTS WHATEVER PERCENT, THAT'S A
13	SEPARATE ISSUE.
14	CHAIRMAN KLEIN: DR. STEWARD IS CORRECT.
15	WE HAVE A MOTION PENDING. IT'S GOOD DISCUSSION. I
16	THINK WE NEED TO COMPLETE THIS MOTION. SO IF WE'VE
17	ADEQUATE DISCUSSION OF THIS MOTION, I WOULD LIKE TO
18	ASK FOR THE CONFLICTS, PLEASE. AND PLEASE RESTATE
19	THE MOTION AND DO THE CONFLICTS.
20	MR. HARRISON: THE MOTION IS TO MOVE
21	APPLICATION NO. 1062 FROM TIER 1 TO TIER 2. THE
22	CONFLICTS WITH RESPECT TO APPLICATION 1062 ARE
23	MEMBERS PRICE, BLOOM, GILL, WITMER, AND LANSING.
24	CHAIRMAN KLEIN: OKAY. THANK YOU.
25	MR. HARRISON: MR. CHAIR, DO YOU WANT TO

	DARRISTERS REPORTING SERVICE
1	ASK FOR PUBLIC COMMENT ON THIS MOTION?
2	CHAIRMAN KLEIN: YES. IS THERE ANY PUBLIC
3	COMMENT ON THIS SPECIFIC APPLICATION AND ONLY THIS
4	APPLICATION? I SEE NO PUBLIC COMMENT. CAN WE CALL
5	THE ROLL ON THIS, PLEASE?
6	MS. KING: SUSAN BRYANT.
7	DR. BRYANT: YES.
8	MS. KING: MARCY FEIT.
9	MS. FEIT: YES.
10	MS. KING: LEEZA GIBBONS.
11	MS. GIBBONS: NO.
12	MS. KING: MICHAEL GOLDBERG.
13	MR. GOLDBERG: YES.
14	MS. KING: BOB KLEIN.
15	CHAIRMAN KLEIN: YES.
16	MS. KING: GERALD LEVY.
17	DR. LEVY: YES.
18	MS. KING: ED PENHOET.
19	DR. PENHOET: YES.
20	MS. KING: PHIL PIZZO.
21	DR. PI ZZO: YES.
22	MS. KING: CLAIRE POMEROY.
23	DR. POMEROY: YES.
24	MS. KING: FRANCISCO PRIETO.
25	DR. PRI ETO: NO.
	1 = 1
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-	
1	MS. KING: CARMEN PULIAFITO.
2	DR. PULI AFI TO: NO.
3	MS. KING: ROBERT QUINT.
4	DR. QUINT: YES.
5	MS. KING: JEANNIE FONTANA.
6	DR. FONTANA: NO.
7	MS. KING: DUANE ROTH.
8	MR. ROTH: YES.
9	MS. KING: JEFF SHEEHY.
10	MR. SHEEHY: YES.
11	MS. KING: OSWALD STEWARD.
12	DR. STEWARD: YES.
13	CHAIRMAN KLEIN: COULD THE COUNSEL PLEASE
14	ADVISE US OF THE OUTCOME?
15	MR. HARRISON: THE MOTION CARRIES.
16	CHAIRMAN KLEIN: ALL RIGHT. SO, MR.
17	SHEEHY, ARE THERE YOU WANT TO SEE IF YOU WOULD
18	LIKE TO ENTERTAIN ADDITIONAL MOTIONS TO MOVE
19	ANYTHING ELSE OUT OF EITHER SESSION GREEN AREA
20	BEFORE GOING TO THE NEXT CATEGORY?
21	MR. SHEEHY: YES. DOES ANYONE HAVE ANY
22	DESIRE TO MOVE ANY APPLICATION OUT OF THE GREEN AREA
23	IN EITHER SESSION 1 OR SESSION 2? I SEE NO TAKERS.
24	SO I THINK THE NEXT THING THAT WE WOULD
25	LOOK AT IS IN EITHER SESSION 1 OR IN SESSION 2 IN
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1	THE GRAY AREA, IS THERE A DESIRE TO MOVE ANY OF
2	THOSE INTO THE GREEN AREA?
3	CAN I GET IS IT POSSIBLE TO GET A I
4	APOLOGIZE. CAN WE FIGURE OUT WHERE WE ARE?
5	DR. OLSON: BASED ON THE TWO THAT YOU HAVE
6	JUST MOVED, THE TOTAL THAT YOU HAVE THAT THE
7	BOARD WOULD COMMIT IF THEY APPROVED THOSE IN TIER 1
8	WOULD BE 19.8 MILLION.
9	MR. SHEEHY: SO WE'RE AT 19.8, SO WE ARE
10	RIGHT WITHIN 200,000 OF OUR BUDGET.
11	DR. PIZZO: THERE MAY BE A DESIRE TO
12	CONSIDER MOVING GRANTS UP. I HEARD OSSIE EXPRESS
13	THAT. I WOULD SUGGEST THAT WE FOLLOW THE GUIDANCE
14	THAT WE HAD EARLIER, AND THAT IS DELAY THAT UNTIL A
15	SUBSEQUENT MEETING. I THINK THAT THIS ALLOWS US TO
16	STAY WITHIN BUDGET AT THIS TIME, GATHER MORE DATA.
17	IT DOESN'T PRECLUDE THAT WE WON'T LOOK OR ADDRESS
18	THESE OR EVEN THE ONES THAT WE MOVED DOWN AND GIVES
19	US THAT FLEXIBILITY.
20	MR. ROTH: SO, I WOULD LIKE, BOB, IF I
21	COULD, TO ADD TO THAT WE HAVE THE 20 MILLION WHICH
22	WE CAN VOTE ON, BUT I'D SUGGEST THAT WE IDENTIFY 5
23	MILLION IN ORDER OF PREFERENCE TO TAKE INTO JANUARY.
24	CHAIRMAN KLEIN: ONLY 5 MILLION?
25	MR. ROTH: UP TO 5 MILLION, WHICH I THINK
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IS REASONABLE, BUT IN ORDER OF PREFERENCE. WE HAVE
TWO MILLION, WE'LL KNOW WHAT TO DO. IF WE HAVE 3
MILLION, 4 MILLION, 5 MILLION.
CHAIRMAN KLEIN: IS THAT A MOTION?
MR. ROTH: THAT WOULD BE A MOTION.
DR. PIZZO: TAKE THAT 5 MILLION FROM
WHERE, DUANE?
MR. ROTH: IT WILL BE HELD OVER. WE'LL
IDENTIFY 5 MILLION OF THE GRAY AREA GRANTS IN ORDER
TONIGHT AND HOLD THOSE OVER AND SEE HOW MUCH MONEY
WE HAVE THE END OF JANUARY, AND THEN WE DON'T HAVE
TO REVIEW AGAIN AND AGAIN. WE JUST SAY IF THERE'S 3
MILLION AVAILABLE, THEN THESE GRANTS, THESE TOP
THREE. THEY'RE EACH ABOUT A MILLION.
CHAIRMAN KLEIN: AND STRUCTURALLY, DUANE,
UNDERSTANDING THE INTENT, IT WOULD BE BETTER FOR
CONFLICTS PURPOSES IF WE INDIVIDUALLY WENT THROUGH
SEVERAL.
MR. ROTH: THAT'S CORRECT. I'M JUST
SUGGESTING THAT WE IDENTIFY UP TO 5 MILLION. WE'LL
HAVE THAT DISCUSSION.
CHAIRMAN KLEIN: I'M GOING TO DO THAT
WITHOUT A MOTION BECAUSE ON A CONFLICTS BASIS, IT'S
BETTER TO LET THE BOARD STOP AT FOUR OR SIX, BUT TO
DO IT INCREMENTALLY BECAUSE THEN WE MAXIMIZE THE
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1	VOTING PERCENTAGES.
2	MR. ROTH: THAT'S FINE.
3	CHAIRMAN KLEIN: MR. SHEEHY.
4	MR. SHEEHY: I ACTUALLY DON'T WITH ALL
5	DUE RESPECT, I REALLY WOULD LIKE US TO LEAVE THIS AT
6	THE BUDGET THAT WE HAVE, CALL IT A NIGHT. I'M A
7	LITTLE WORN OUT. AND I WOULD LIKE US TO COME BACK
8	SOMETIME TOMORROW AND FIGURE OUT WHAT OUR AVAILABLE
9	FUNDS FOR THE REST OF THE FISCAL YEAR, AND THEN SIT
10	DOWN AND SEE WHAT WE WANT TO ALLOCATE WHERE. AND IF
11	WE HAVE ANY EXCESS, THEN PERHAPS WE CAN BUT WE
12	NEED TO FIGURE OUT I MEAN WE NEED TO REALLY
13	FIGURE OUT WHAT FUNDS ARE AVAILABLE. AND WE CAN
14	LINE THIS UP 5 MILLION MORE FOR THE NEXT MEETING,
15	BUT IT DOESN'T REALLY MATTER BECAUSE THIS IS
16	COMPETING WITH TWO OTHER GRANT ROUNDS.
17	SO DO WE NEED TO THINK ABOUT HOW MUCH
18	MONEY WE WANT TO PUT INTO BRIDGES, HOW MUCH MONEY WE
19	WANT TO PUT INTO TRAINING II, HOW MUCH WE WANT TO
20	PUT ITO TRANSLATION? WE NEED TO HAVE A GLOBAL
21	REASSESSMENT OF WHERE WE'RE GOING TO SPEND OUR MONEY
22	BETWEEN NOW AND THE NEW YEAR. THAT'S MY PERSONAL
23	OPI NI ON.
24	CHAIRMAN KLEIN: DR. PRICE.
25	DR. PRICE: IN OUR PREVIOUS DISCUSSION OF
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1	TEN MINUTES AGO, I TOOK AWAY FROM THAT, AS CONFUSING
2	AS I FOUND IT, THE MESSAGE THAT WE DON'T KNOW
3	ACTUALLY WHAT OUR BUDGETARY SITUATION IS RIGHT NOW
4	BECAUSE OF THE QUESTIONS ABOUT BOND ISSUING. AND
5	THAT BY THE END OF JANUARY, WE MAY ACTUALLY HAVE A
6	CLEARER POSITION.
7	CHAIRMAN KLEIN: THAT'S RIGHT.
8	DR. PRICE: CLEAR UNDERSTANDING. CAN I
9	FINISH THE THOUGHT? THEREFORE, I DON'T SEE WHY WE
10	TAKE AN ARBITRARY FIGURE, \$5 MILLION, WHEN WE DON'T
11	KNOW WHAT OUR BUDGET IS, NOR SHOULD WE TOMORROW
12	DECIDE WHAT OUR BUDGET IS GOING TO BE WHEN WE DON'T
13	KNOW WHAT THE SITUATION IS. SO WHY NOT FUND THE 20
14	MILLION TONIGHT, AND THEN RETURN TO THE GRAY AREA OF
15	GRANTS IN JANUARY WHEN WE KNOW BETTER WHAT OUR
16	FINANCIAL BUDGETARY SITUATION IS, AND THEN MAKE
17	THOSE DECISIONS.
18	CHAIRMAN KLEIN: TO BE CLEAR, WE KNOW OUR
19	BUDGET. WHAT WE DON'T KNOW WE KNOW OUR
20	AUTHORIZATION. AND OUR AUTHORIZATIONS ARE
21	SIGNIFICANTLY GREATER THAN WHAT'S IN OUR BUDGETS.
22	THE PROBLEM IS WE DO NOT KNOW AT THIS TIME WE DO
23	NOT HAVE SUFFICIENT INFORMATION TO GET A CLEAR
24	PICTURE OF THE TIMING OF WHEN WE CAN DO ADDITIONAL
25	BONDS OR POOLED MONEY INVESTMENT FUND LOANS. SO
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1	THAT INFORMATION MAY BE AVAILABLE, WITHOUT ANY
2	GUARANTEES, IN JANUARY. AT LEAST IT PUTS US INTO A
3	BETTER INFORMED POSITION.
4	DR. PRICE: SO OPERATIONALLY, WHATEVER THE
5	LANGUAGE YOU USE, OPERATIONALLY WE DON'T ACTUALLY
6	KNOW NOW WHAT WE'RE GOING TO HAVE TO SPEND OVER THE
7	NEXT TO THE END OF THIS FISCAL YEAR, AND WE MAY
8	HOPEFULLY KNOW MORE ABOUT THAT IN JANUARY.
9	CHAIRMAN KLEIN: YES. AND WE CURRENTLY AT
10	OUR BUDGET ARE BELOW OUR AUTHORIZATION.
11	MR. SHEEHY: SO I THINK DR. PRICE MAKES AN
12	EXCELLENT SUGGESTION; BUT FOR HOUSEKEEPING, SHOULD
13	WE MAKE SOME RECOMMENDATION FOR THE DO NOT FUND AREA
14	JUST SO THAT WE CAN BECAUSE WE'LL COME BACK TO
15	THIS AND WE'LL SAY, OH, WE NEVER TOOK ANY ACTION ON
16	THE DO NOT FUND. I THINK DR. PRICE MAKES AN
17	EXCELLENT IDEA. WE FUND IT TO OUR BUDGET. LET'S
18	KICK EVERYTHING ELSE OFF TILL JANUARY.
19	I DO THINK WHILE WE'RE HERE, WE SHOULD GO
20	AHEAD AND TAKE A LOOK AT THE YELLOW AREA AND DECIDE
21	IF WE WANT TO MOVE ANYTHING OUT OF THERE.
22	MR. ROTH: THERE'S JUST ONE BIG DRAWBACK
23	TO THAT, AND THAT IS GIVING THE APPLICANTS, ALL OF
24	THE GRAY APPLICANTS, HOPE THAT WE'RE GOING TO DO
25	SOMETHING WITHOUT GIVING ANY CONTEXT TO IT
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1	WHATSOEVER. TO ME THAT
2	DR. PIZZO: I THINK THAT WHILE THAT IS
3	TRUE, DUANE, GOING THROUGH THE GRAY AREA MEANS GOING
4	THROUGH EACH ONE LINE BY LINE. AND I THINK THAT,
5	QUITE HONESTLY, I DON'T KNOW THAT WE'RE PREPARED TO
6	GO THROUGH EVERY ONE OF THOSE LINE BY LINE BECAUSE
7	WE CAN'T JUST TALK ABOUT THE ONES THAT WE MOVED UP
8	AND DOWN. THERE'S A LOT OF THEM. IF WE ARE GOING
9	DO SOMETHING LIKE THAT, I WOULD PREFER TO DO IT WHEN
10	WE REALLY KNOW THAT WE'RE GOING TO HAVE THE FUNDING
11	TO ACCOMPLISH THAT.
12	CHAIRMAN KLEIN: OKAY. NOW, JEFF HAS MADE
13	AN EXCELLENT SUGGESTION AS TO THE YELLOW AREA, THAT
14	SINCE WE'RE SHORT ON CURRENT SHORT ON ADDITIONAL
15	PROCEEDS, EVEN THOUGH WE HAVE A HIGHER
16	AUTHORIZATION, POTENTIALLY WE'RE IN A POSITION TO
17	TAKE A VOTE ON THE YELLOW AREA.
18	DR. PIZZO: CAN I MAKE A MOTION, JEFF?
19	CHAIRMAN KLEIN: SOMEONE WITHOUT ANY
20	CONFLICTS MIGHT WANT TO MAKE THE MOTION.
21	MR. ROTH: I'LL MAKE A MOTION NOT TO FUND
22	ANYTHING IN THE YELLOW AREA.
23	MS. GIBBONS: SECOND.
24	CHAIRMAN KLEIN: LEEZA GIBBONS IS THE
25	SECOND. SO MR. HARRISON, THERE IS A MOTION.
	1/1

1	MR. ROTH: FOR BOTH CHARTS.
2	CHAIRMAN KLEIN: NOW, COUNSEL IS TELLING
3	ME THAT SHERRY AND A COUPLE OTHER MEMBERS HAVE LEFT
4	BECAUSE WE'RE OVER OUR SCHEDULED TIME. AND,
5	THEREFORE, WE NEED TO PICK UP THIS MOTION IN THE
6	MORNING. SO I THINK WE HAVE A WELL-DEFINED APPROACH
7	FOR THE MORNING.
8	I WOULD LIKE TO SEE IF THERE'S SOME
9	COMMENT ON THIS POSITION AT THIS TIME, ALTHOUGH WE
10	WILL NOT TAKE ANY ACTION UNTIL THE MORNING. AND I'D
11	LIKE TO ALSO MAKE SURE WE HAVE PUBLIC COMMENT
12	BECAUSE, BEFORE WE DEAL WITH THIS VOTE, I WANT TO
13	MAKE SURE THAT THERE'S NO PUBLIC COMMENT DEALING
14	WITH ANYTHING IN THE YELLOW AREA. SO, IN FACT,
15	MAYBE I COULD MAKE A GENERAL INVITATION FOR PUBLIC
16	COMMENT AS TO ANY APPLICATION THAT REMAINS
17	OUTSTANDING AT THIS TIME. IS THERE PUBLIC COMMENT?
18	DR. AIRRIESS: THIS IS GRAY AREA NO. 1048.
19	NAME IS CHRIS AIRRIESS. YOU SAID ANY OUTSTANDING
20	APPLI CATI ON?
21	CHAIRMAN KLEIN: YES. THAT WOULD INCLUDE
22	THE GRAY AREA AND THE YELLOW AREA. WOULD YOU REPEAT
23	THE NUMBER AGAIN?
24	DR. AIRRIESS: THE GRANT NUMBER WAS 1048.
25	CHAIRMAN KLEIN: JUST GIVE US A SECOND TO
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	IUZ

LOCATE IT, PLEASE. ALL RIGHT. IF YOU WOULD PLEASE
COMMENCE YOUR COMMENTS.
DR. AIRRIESS: THIS GRANT APPLICATION IS
REGARDING ASSAY READY SCREENING PLATES THAT WOULD BE
USED TO ACCELERATE THE PROGRESS OF CONVENTIONAL DRUG
DISCOVERY USING STEM CELL-DERIVED PRODUCTS. AND SO
WHILST IT MAY NOT LEAD TO A SPECIFICALLY STEM CELL
ORIGIN THERAPEUTIC, WOULD ACTUALLY EMPLOY STEM CELL
PRODUCTS SUCH AS PURE CARDIOMYOCYTES AND SCREENING
HEART DISEASE DRUGS OR LOOKING FOR TOXIC EFFECTS OF
OTHER DRUGS ON THE HEART, ETC., AND MOTOR NEURONS.
I HAVE SOME PATIENT ADVOCATES WITH ME WHO
WOULD LIKE TO SPEAK TO THE POTENTIAL USE OF THESE
ASSAY READY SCREENING PLATES THAT WE'RE APPLYING FOR
FUNDS TO DEVELOP.
CHAIRMAN KLEIN: OKAY. THANK YOU. WHO
WOULD LIKE TO SPEAK?
MR. MORRIS: HOW'S EVERYBODY DOING? MY
NAME BILL MORRIS. I HAVE A COMPANY CALLED SUCCESS
FOR TEENS. I'M A MOTIVATIONAL SPEAKER TO HIGH
SCHOOL AND COLLEGE KIDS. I'M A FORMER WALL STREET
EXECUTIVE AND A WORLD RECORD HOLDER. SO I'M NOT A
SCIENTIST IN ANY, WAY, SHAPE, OR FORM. AND I JUST
WANTED TO KIND OF CLEAR THE AIR OF THAT.
SIX MONTHS AGO TWO PEOPLE FROM OUR BOARD
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ON ALS CAME TO CALIFORNIA STEM CELL, MARK HERSHEY
AND MIKE HARTMAN. AND MIKE, WELL, HE WAS HE'S
ONE OF OUR PATIENTS. HE HAS ALS. AND HE WOULD BE
THE BEST ONE TO BE STANDING IN FRONT OF YOU TONIGHT
EXPLAINING WHAT HE HAS GONE THROUGH WITH ALS.
UNFORTUNATELY, MIKE DIED TWO MONTHS AGO.
WHEN I WAS ON WALL STREET, I HAD A BOSS,
HE SAID, "IF YOU CAN'T PUT IT ON THE BACK OF YOUR
BUSINESS CARD, DON'T TELL ME. MAKE IT SIMPLE." SO
WE HAVE PREPARED THREE SLIDES. WHEN I APPROACHED
CALIFORNIA STEM CELL, I SAID, LOOK IT, CHRIS, I'M
NOT A SCIENTIST. I'M A WALL STREET GUY. WE'VE GOT
TO CONVERT THIS FROM MANDARIN TO ENGLISH. I NEED TO
UNDERSTAND EXACTLY WHAT YOU'VE ACCOMPLISHED AND
WHERE YOU ARE.
AND WE CAME AWAY EXTREMELY IMPRESSED WITH
WHAT THEY'VE ACHIEVED AND WHAT THEY HAVE ON THE
HORIZON. I'M HERE TONIGHT HOPEFULLY TO MOVE THESE
PEOPLE FROM A TIER 2 TO A FUNDING OPPORTUNITY.
DO WE HAVE THOSE SLIDES? I APOLOGIZE FOR
THE WAY I'M DRESSED. I JUST CAME FROM A
MOTIVATIONAL SPEECH. I SPOKE TO A HUNDRED KIDS AT
THE ORANGEWOOD CHILDREN'S FOUNDATION IN ORANGE,
CALIFORNIA. SO I APOLOGIZE FOR
CHAIRMAN KLEIN: THE WORDS ARE
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1	APPRECI ATED.
2	MR. MORRIS: HERE WE GO. THIS IS WHAT WE
3	DID, YOU KNOW, FOR A LAYMAN. THIS IS LIKE MYSELF.
4	WE HAD TO TAKE IT FROM THE REALLY 25-LETTER WORDS
5	AND PUT IT INTO ENGLISH. AND THIS IS WHAT
6	CALIFORNIA STEM CELL DOES. IT'S TAKING THE IVF FROM
7	THE IVF CLINICS, AND THEY HAVE THAT PROPRIETARY
8	TECHNOLOGY AND KNOW-HOW IN THE STEM CELL SECTION IN
9	THE MIDDLE. WHAT THEIR MISSION IS ALL ABOUT IS TO
10	MOVE IT TO BIG PHRMA FOR DRUG DEVELOPMENT AS WELL AS
11	THE MEDICAL COMMUNITY FOR ACTUALLY FINDING ANSWERS
12	TO DI SEASES.
13	RIGHT NOW CALIFORNIA STEM CELL HAS TWO
14	DIVISIONS, THE REAGENTS AND THE THERAPEUTICS.
15	THEY'RE ACTUALLY GETTING REVENUES FROM THE REAGENT
16	SIDE OF THE BUSINESS. AND AS YOU CAN SEE, THIS IS
17	CELL AND MEDIA FOR RESEARCH AND DRUG DEVELOPMENT
18	USE.
19	THE THIRD AND LAST SLIDE. YOU KNOW, UNTIL
20	NOW THERE'S BEEN REALLY NO SOURCE OF MANUFACTURED
21	CELLS IN USE OF PHARMACEUTICAL COMPANIES FOR
22	SCREENING AND RISK ASSESSMENT. IF YOU SKIP DOWN TO
23	THAT NEXT PART WHERE CALIFORNIA STEM CELL HAS
24	INBOUND REQUESTS RIGHT NOW FOR SCREENING PLATES FROM
25	MERCK AND PFIZER AND WORTH. THIS COMPANY HAS GOT IT
	145

1	TOGETHER. THEY NEED THE FUNDING.
2	THE INDUSTRY FOCUS HAS IDENTIFIED
3	MANUFACTURED HUMAN CELLS FOR SCREENING AS THE NO. 1
4	PRIORITY FOR STEM CELL PRODUCTS FOR THE BIG PHRMA.
5	I'LL LEAVE THE REST OF THAT FOR YOUR READING, BUT
6	THAT'S REALLY WHAT THEY DO, AND I THINK THEY'VE GOT
7	SOME PHENOMENAL OPPORTUNITIES. I IMPLORE YOU TO
8	GRANT THEM THE GRANTS THAT THEY NEED TO MAKE THIS
9	HAPPEN.
10	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
11	MR. MORRIS: LAST, I'LL LEAVE YOU WITH THE
12	EXPRESSION THAT SAYS WE MAKE A LIVING BY WHAT WE
13	GET, BUT WE MAKE A LIFE BY WHAT WE GIVE.
14	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
15	APPRECIATE YOUR COMMENTS. ADDITIONAL COMMENTS?
16	MS. NELSON-MEGGS: I'LL MAKE IT QUICK. I
17	JUST WANT TO THANK YOU FOR BEING HERE. I KNOW IT'S
18	LATE. I DROVE IN FROM BEVERLY HILLS WITH A
19	THREE-HOUR COMMUTE, SO I APPRECIATE YOU BEING HERE.
20	MY NAME IS ANDREA NELSON-MEGGS, AND I AM
21	HERE ON APPLICATION 1048. I'M REPRESENTING MY
22	FAMILY AND I'M ALSO REPRESENTING FSMA, WHICH IS
23	FAMILIES OF SPINAL MUSCULAR ATROPHY. MY HUSBAND
24	WASN'T ABLE TO BE HERE. I HAVE TWO DAUGHTERS. I'M
25	FORMERLY AN ATTORNEY. I NOW AM A MOTION PICTURE
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1	TALENT AGENT, SO I DO ALL THE MOVIE DEALS.
2	BUT MY TWO DAUGHTERS IS AVA, WHO'S THREE
3	YEARS OLD, AND ALEXANDRA. THIS IS ALEXANDRA. SHE'S
4	ONE, OR SHE WOULD BE ONE. ONE YEAR AGO EXACTLY OR
5	ACTUALLY IN A WEEK, WE WENT TO GET HER TWO-MONTH
6	CHECKUP. MY HUSBAND TOLD ME I CAN'T MAKE IT, BUT
7	PLEASE MAKE SURE YOU ASK THE DOCTOR WHY HER ARMS
8	AREN'T MOVING AS MUCH AS WHEN SHE WAS FIRST BORN AND
9	HER LEGS. AND THAT QUICKLY TURNED INTO A
10	RECOMMENDATION TO GO SEE A PEDIATRIC NEUROLOGIST,
11	WHO QUICKLY DIAGNOSED HER WITH SMA, SPINAL MUSCULAR
12	ATROPHY.
13	WE HAD NO IDEA WHAT THAT WAS AND QUICKLY
14	LEARNED THAT HER LIFE WOULD PROBABLY BE ABOUT A
15	YEAR. AND SHE WAS WITH US FOR TWO WEEKS MORE. SO
16	ON JANUARY 1 WE LOST OUR BABY GIRL, AND WE
17	CELEBRATED HER BIRTHDAY THIS YEAR DOING A WALK FOR
18	FSMA.
19	AND REASON WHY I'M HERE, I WAS ASKED, IS
20	TO REQUEST FUNDS FOR FSMA AND STEM CELL RESEARCH
21	BECAUSE OBVIOUSLY IF THESE FUNDS WERE AVAILABLE,
22	MAYBE MY BABY GIRL WOULD BE HERE AND WOULDN'T BE
23	CELEBRATING HER FIRST-YEAR BIRTHDAY AS A WALK. BUT
24	I JUST WANT TO PERSONALIZE THE REQUEST. THANK YOU.
25	CHAIRMAN KLEIN: THANK YOU VERY MUCH FOR
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1	YOUR ADVOCACY.
2	DR. AIRRIESS: IF I COULD JUST WRAP THAT
3	UP A LITTLE BIT. THANK YOU VERY MUCH, BOTH OF YOU,
4	FOR SPEAKING. REALLY THE GOAL THAT WE'VE GOT AS A
5	COMPANY IS TO FIND THERAPEUTICS TO TREAT DISEASE.
6	NOW, WE ARE ACTUALLY WORKING TOWARDS TRANSPLANTATION
7	THERAPIES THAT WILL USE MOTOR NEURONS TO TRY AND
8	CURE BABIES SUCH AS YOU'VE HEARD OF RIGHT NOW WITH
9	SPINAL MUSCULAR ATROPHY, BUT WE ALSO BELIEVE THAT
10	IT'S THE RESPONSIBLE THING TO DO TO TRY AND ENABLE
11	DRUG DEVELOPMENT USING ALL THE TECHNOLOGIES THAT WE
12	HAVE.
13	IF SOMEBODY CAN COME UP WITH A DRUG THAT
14	WILL PREVENT OTHER FAMILIES FROM HAVING TO GO
15	THROUGH THIS LOSS, WE THINK THAT THAT IS MONEY WELL
16	SPENT, AND THAT'S SOMETHING AND OUR TIME WELL
17	SPENT EVEN IF IT DOESN'T MEAN AS MUCH TO THE COMPANY
18	IN THE LONG RUN. BUT WE FEEL THAT THIS IS A VERY
19	IMPORTANT USE OF STEM CELL TECHNOLOGIES TO DEVELOP
20	THESE SCREENING PLATES THAT WILL ALLOW DEVELOPMENT
21	OF DRUGS FOR THINGS THAT WE CAN'T TREAT RIGHT NOW
22	LIKE ALS AND SMA.
23	CHAIRMAN KLEIN: THANK YOU VERY MUCH FOR
24	YOUR PRESENTATION. WITH THAT, ARE THERE ANY OTHER
25	ADDITIONAL PUBLIC COMMENTS? SEEING NO ADDITIONAL

1	PUBLIC COMMENTS, ANY BOARD COMMENTS? SO SEEING NO
2	BOARD COMMENTS, COUNSEL DR. TROUNSON, ANY
3	ADDITIONAL POINTS?
4	DR. TROUNSON: I THINK, CHAIR, BETWEEN NOW
5	AND JANUARY, WE WILL EXAMINE THE BUDGETS OF ALL
6	THOSE GRANTS. THERE ARE SOME GRANTS THAT ARE
7	RELATIVELY SMALL ACTUALLY. AND SO, YOU KNOW, A CUT
8	ACROSS THE BOARD, THAT KIND OF THING, I THINK, WOULD
9	BE QUITE DAMAGING TO SOME OF THOSE COMPANIES OR SOME
10	OF THOSE INSTITUTIONS. WE'LL TAKE A LOOK TO SEE
11	WHETHER THERE'S ANY REASON FOR US TO THINK THERE'S
12	EXCESS IN THESE TWO-YEAR GRANTS, AND WE'LL REPORT
13	ANY SAVINGS BACK TO YOU AS WELL.
14	AND I THINK IF WE MAKE THIS DECISION TO
15	RELOOK AT THE BUDGET, WE ACTUALLY DO KNOW WHAT WE'RE
16	GOING TO EXPEND IN THIS TIMEFRAME. WHAT WE'RE A BIT
17	UNSURE ABOUT IS WHAT WE'RE GOING TO DO WITH THE
18	UPCOMING RFA'S, HOW MUCH MORE OR LESS THAT WE WOULD
19	EVEND ON TOD OF OD NOT CO MUCH OF WHAT THE DOADD! C
	EXPEND ON TOP OF OR NOT SO MUCH OF WHAT THE BOARD'S
20	ALREADY AGREED TO. BUT I THINK WHAT YOU'VE SAID,
21	ALREADY AGREED TO. BUT I THINK WHAT YOU'VE SAID,
21 22	ALREADY AGREED TO. BUT I THINK WHAT YOU'VE SAID, CHAIR, IS THAT IT WOULD BE BETTER FOR US TO HAVE A
21 22 23	ALREADY AGREED TO. BUT I THINK WHAT YOU'VE SAID, CHAIR, IS THAT IT WOULD BE BETTER FOR US TO HAVE A MORE FIRM BASIS OF THE UNDERSTANDING OF WHAT WE CAN
20 21 22 23 24 25	ALREADY AGREED TO. BUT I THINK WHAT YOU'VE SAID, CHAIR, IS THAT IT WOULD BE BETTER FOR US TO HAVE A MORE FIRM BASIS OF THE UNDERSTANDING OF WHAT WE CAN ACTUALLY RAISE IN TERMS OF OUR BONDS OR IN PRIVATE

1	LEAST FEEL MORE COMFORTABLE THAN TO CURRENTLY
2	OVEREXPEND TOO FAR IN THIS PARTICULAR ROUND.
3	CHAIRMAN KLEIN: THANK YOU VERY MUCH.
4	MR. SHEEHY.
5	MR. SHEEHY: YOU KNOW, IT'S AN IRONY THAT
6	THIS PARTICULAR APPLICATION CAME UP, BUT IT DID
7	RAISE A QUESTION IN MY MIND. THIS APPLICATION
8	ACTUALLY, LOOKING AT THE REVIEW, THE TECHNOLOGY TO
9	MAKE MOTOR NEURONS, AIM 1, ACTUALLY WAS VERY WELL
10	REGARDED. IT'S JUST AIM 2 AND AIM 3. AND THE
11	REVIEWERS ARE, I'LL QUOTE, "THE REVIEWERS WERE
12	ENTHUSIASTIC ABOUT THIS POSSIBILITY PROVIDING THE
13	BUDGET WAS APPROPRIATELY MODIFIED."
14	SO I ALSO WONDER FOR THOSE INDIVIDUALS WHO
15	WERE IN THE GRAY AREA, IF WE MIGHT OFFER THE
16	OPPORTUNITY, ESPECIALLY LIKE HERE WHERE IT'S SO
17	DIRECT, WE COULD AIM 1 IS LAUDABLE, IT'S
18	ACHIEVABLE, IT OBVIOUSLY WOULD MAKE A DIFFERENCE IN
19	SOME FOLKS' LIVES. SHOULD WE OFFER THEM THE
20	OPPORTUNITY TO SUBMIT NEW BUDGETS THAT MIGHT BE MORE
21	REALISTIC IN LIGHT OF THE REALITY THAT WE'RE ALL
22	HAVING TO LIVE WITH? I JUST PUT THAT OUT THERE.
23	IT'S ALWAYS HARD FOR ME WHEN I HEAR FROM
24	PATIENTS, BUT I'M ALWAYS MOVED BY THAT. AND THEN I
25	LOOK AND I READ THE REVIEWERS AGREED THAT THE FIRST
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1	AIM WAS STRONG AND FEASIBLE, AND THE MOTOR NEURON
2	FOCUS COULD POSITIVELY IMPACT THE IMPORTANT AREA OF
3	ALS RESEARCH. SO TO ME IT'S PRETTY COMPELLING. THE
4	ONLY THING AND MOST AGREE THAT AIM 1 IS OF
5	SUFFICIENTLY HIGH IMPACT TO WARRANT CONSIDERATION ON
6	ITS OWN. THEN THE REVIEWERS ARE ENTHUSIASTIC IF THE
7	BUDGET.
8	SO MAYBE SINCE WE HAVE THIS TIME, SINCE WE
9	KNOW WE'RE LIVING WITH AN ATTENUATED BUDGET, I HATE
10	TO MAKE THINGS CRAZY FOR EVERYBODY ELSE, AND I'M
11	SURE THERE ARE PEOPLE NOT HAPPY WITH ME RIGHT NOW,
12	BUT I JUST HATE TO SEE
13	CHAIRMAN KLEIN: ANOTHER OPTION THAT WE'RE
14	GOING WE'RE GOING TO ADJOURN AND THEN COME BACK
15	TOMORROW MORNING. BUT ANOTHER OPTION IS TO GIVE THE
16	STAFF DISCRETION, IF THEY NEEDED TO GET A
17	RESUBMISSION, GET IT, BUT NOT TO HAVE A WHOLE BUNCH
18	OF SUBMISSIONS. THE STAFF HAS THE ABILITY AND THE
19	DISCRETION TO ADJUST THE BUDGET IN THAT SPECIFIC
20	CASE BECAUSE IT'S SPECIFICALLY CALLED OUT, WHICH IS
21	AN EXCEPTION. SO I THINK YOUR POINT IS WELL TAKEN.
22	MS. GIBBONS: JUST A QUICK COMMENT, AND I
23	KNOW THIS WILL COME TO BEAR TOMORROW BECAUSE WE WILL
24	MORE THAN LIKELY CONSIDER A COUPLE OF THOSE REQUESTS
25	IN THE GRAY AREA.

1	YOU KNOW, I KNOW WE ALL WANT TO BE
2	RESPONSIBLE FISCALLY AND ALL THAT, BUT I DON'T
3	REALLY UNDERSTAND WHEN WE MAY GET ANOTHER SHOT AT
4	TOOLS AND TECHNOLOGIES. AND NOT REALLY KNOWING THAT
5	OUTLAY TO PROJECT, WE HAVE OUR RESTRAINTS IN OUR
6	BUDGET AREAS, BUT WE ALSO HAVE RECOMMENDATIONS FROM
7	OUR SCIENTISTS. AND I TAKE THOSE VERY SERIOUSLY.
8	WE LOOK AT WHAT THIS MAY MEAN IN TERMS OF, AS JEFF
9	WAS SAYING, THE OTHER GRANTS THAT WE'VE GIVEN OUT
10	AND MAY GIVE OUT. SO I DON'T REALLY KNOW HOW HARD
11	TO PUSH ON THE BUDGET AT THIS TIME WITHOUT REALLY
12	BEING ABLE TO SEE FAR ENOUGH DOWN THE LINE.
13	MAYBE THAT'S SOMETHING THAT WE CAN GET
14	EDUCATION ON OR I CAN GET EDUCATION ON TOMORROW FROM
15	SOMEBODY WHO MUST CLEARLY KNOW.
16	CHAIRMAN KLEIN: OKAY. SO WITH THAT,
17	UNLESS THERE'S OTHER COMMENTS, I'D LIKE TO THANK THE
18	PUBLIC. I'D LIKE TO THANK THE STAFF. I'D LIKE TO
19	SPECIFICALLY ASK IF WE'D GIVE THE STAFF A ROUND OF
20	APPLAUSE BECAUSE THIS IS AN EXTRAORDINARY EFFORT.
21	(APPLAUSE.)
22	CHAIRMAN KLEIN: I'D LIKE TO THANK THE
23	BOARD FOR THEIR PATIENCE AND WORKING WITH US
24	TONIGHT. AND WE'RE ADJOURNED TILL TOMORROW MORNING.
25	DR. PIZZO: COULD SOMEONE GIVE US THE
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REPORTER'S CERTIFICATE

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

UNI VERSITY OF CALIFORNIA IRVINE IRVINE, CALIFORNIA ON TUESDAY, DECEMBER 9, 2008

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

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