BEFORE THE BIOTECH LOAN PROGRAM TASK FORCE OF THE INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE TO THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE ORGANIZED PURSUANT TO THE CALIFORNIA STEM CELL RESEARCH AND CURES ACT

REGULAR MEETING

LOCATION: LUXE HOTEL

11461 SUNSET BOULEVARD LOS ANGELES, CALIFORNIA

DATE: TUESDAY, DECEMBER 11, 2007

4 P.M.

REPORTER: BETH C. DRAIN, CSR

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1	LOS ANGELES, CALIFORNIA TUESDAY, DECEMBER 11, 2007
2	4 P. M.
3	
4	CHAIRMAN ROTH: OKAY. I'D LIKE TO CALL THE
5	MEETING TO ORDER. WE CAN GET STARTED. LET ME APOLOGIZE
6	FOR THE TECHNICAL DIFFICULTY OF THE TELEPHONE HERE. IT'S
7	A WIRELESS WORLD, AND I GUESS WE'RE GOING TO HAVE TO GO
8	WIRELESS IN THE FUTURE, BUT WHAT I'D LIKE TO DO TO OPEN
9	THE MEETING IS ASK MELISSA TO TAKE A ROLL CALL OF THE
10	TASK FORCE MEMBERS.
11	MS. KING: FLOYD BLOOM. MARCH FEIT. MICHAEL
12	GOLDBERG.
13	MR. GOLDBERG: HERE.
14	MS. KING: BOB KLEIN. TED LOVE.
15	DR. LOVE: HERE.
16	MS. KING: ED PENHOET.
17	DR. PENHOET: HERE.
18	MS. KING: DUANE ROTH.
19	CHAIRMAN ROTH: HERE.
20	MS. KING: JEFF SHEEHY.
21	MR. SHEEHY: HERE.
22	MS. KING: OS STEWARD.
23	CHAIRMAN ROTH: OKAY. FIRST, I WOULD LIKE TO
24	JUST EXPRESS MY THANKS TO ALL THE MEMBERS OF THIS
25	COMMITTEE THAT HAVE AGREED TO SERVE. WHEN I STARTED OUT
	3

- 1 WITH THE LIST, THINKING THAT MAYBE 50 PERCENT WOULD AGREE
- 2 TO SERVE, I WAS PLEASANTLY SURPRISED TO FIND OUT THAT
- 3 EVERYBODY THAT WE ASKED TO COME ONTO THE COMMITTEE AGREED
- 4 TO DO IT. SO THANK YOU VERY MUCH. I KNOW YOU'RE ALL
- 5 VERY BUSY, NOT ONLY WITH YOUR RESPONSIBILITIES AT ICOC,
- 6 BUT YOU HAVE INDIVIDUAL BUSINESSES THAT WE'RE ALL
- 7 INVOLVED IN. SO THANK YOU FOR DOING THAT.
- 8 THE PURPOSE --
- 9 COULD I ASK THOSE OF YOU THAT ARE ON THE PHONE
- 10 TO MUTE SO THAT IT DOESN'T INTERFERE?
- 11 MS. FEIT: BEFORE WE DO THAT, THIS IS MARCY
- 12 FEIT. I DIDN'T ANSWER ROLL CALL AND I'M HERE. ALSO WITH
- 13 ME IS JEFF SARGUS. HE'S FROM THE COMMUNITY. HE'S FROM
- 14 ADVANCE CELL TECHNOLOGY.
- 15 CHAIRMAN ROTH: GREAT.
- 16 MR. KLEIN: BOB KLEIN IS HERE AS WELL.
- 17 CHAIRMAN ROTH: SO WE DO HAVE A QUORUM, AND IF
- 18 WE NEED TO TAKE ANY ACTION, I'M NOT SURE WE WILL, BUT IF
- 19 WE DO, WE'RE PREPARED TO DO THAT.
- 20 LET ME JUST GIVE AN OVERVIEW OF WHAT I WOULD
- 21 LIKE TO GET ACCOMPLISHED TODAY WITH THE TASK FORCE. AND
- 22 THAT'S REALLY TO DESCRIBE THE WORK PLAN THAT WE'RE GOING
- 23 TO PROCEED ON TO COLLECT THE INFORMATION IN ORDER TO COME
- 24 UP WITH A POLICY AND PROCEDURE THAT WOULD BE THE
- 25 RESPONSIBILITY OF THIS GROUP TO BRING FORWARD TO THE FULL

1	BOARD, THE I COC, FOR APPROVAL.
2	THE WORK PLAN THAT WE'VE BEEN ASKED TO COMPILE
3	NEEDS TO BE DONE. WE'D LIKE TO HAVE IT DONE FOR THE
4	MARCH ICOC MEETING. SO RECOMMENDATION AT THAT TIME TO
5	THE ICOC. SO THAT GIVES US ROUGHLY OVER 90 DAYS TO
6	ACCOMPLISH WHAT WE NEED TO. AND I DO THINK THAT THAT'S,
7	IN FACT, POSSIBLE TO DO GIVEN THAT MUCH
8	(INTERRUPTION IN PROCEEDINGS.)
9	CHAIRMAN ROTH: SO, AGAIN, TODAY WHAT WE'RE
10	GOING TO SEEK FROM THE TASK FORCE IS INPUT INTO AREAS
11	THAT WE THINK WE NEED TO EXPLORE, DO OUR DUE DILIGENCE,
12	IF YOU WILL, IN ORDER TO COME TO A DECISION. SO AMONG
13	OTHER THINGS, WE CERTAINLY WANT TO TALK WITH
14	ORGANIZATIONS THAT HAVE PRIOR EXPERIENCE WITH LOAN
15	PROGRAMS AND A NUMBER OF DISEASE ASSOCIATIONS THAT HAVE
16	DONE SO. THERE ARE OTHER STATES THAT ARE IN LOAN
17	PROGRAMS AND EVEN COUNTRIES THAT HAVE DONE LOAN PROGRAMS.
18	I WANT TO INTRODUCE TWO PEOPLE FROM
19	PRICEWATERHOUSE COOPERS WHO ARE WITH US TODAY. RICH
20	KALENKA, WHO'S IN THE AUDIENCE, AND CHRISTOPHER WASDEN
21	WHO'S HERE FROM NEW YORK CITY. YOU RECALL THAT
22	PRICEWATERHOUSECOOPERS HELPED US WITH THE STRATEGIC PLAN.
23	SO HAVING THEM HERE TODAY TO POTENTIALLY ANSWER SOME
24	QUESTIONS OR TO GIVE US SOME GUIDANCE ABOUT HOW WE MIGHT
25	APPROACH SOME OF THE DUE DILIGENCE, I THINK, IS
	5

1	IMPORTANT. SO I MAY CALL ON YOU GENTLEMEN FROM TIME TO
2	TIME TO MAKE COMMENTS TODAY.
3	SO WITH THAT, WHAT I'D REALLY LIKE TO DO IS SEE
4	IF THERE ARE ANY COMMENTS FROM COMMITTEE MEMBERS ABOUT
5	PARTICULAR ASPECTS THAT THEY THINK ARE GOING TO BE
6	IMPORTANT TO WHAT THIS TASK FORCE DOES. I'LL OPEN IT UP.
7	I KNOW BOB ALWAYS HAS SOMETHING TO COMMENT ON.
8	MR. KLEIN: WELL, THE KEY OBJECTIVE FROM MY
9	POLICY PERSPECTIVE IS TO IDENTIFY HOW WE CAN IMPLEMENT
10	THE SECOND PART OF THE FUNDAMENTAL PROGRAMS OF THE AGENCY
11	THROUGH LOAN PROGRAMS, IF FEASIBLE AND EFFECTIVE. WE CAN
12	CREATE A REVOLVING LOAN FUND THAT WILL STRETCH OUR
13	CAPACITY TO REACH A BROADER PROGRAM BASE AND TO REACH
14	POTENTIALLY THE GREATER SCALE THAT WOULD BE NECESSARY FOR
15	FUNDING PHASE I, FOR EXAMPLE, CLINICAL TRIALS OR PHASE II
16	TRIALS ON A VERY LIMITED BASIS. BUT ESSENTIALLY CAN WE
17	PUT TOGETHER AN EFFECTIVE LOAN PROGRAM, WHETHER IT'S FIVE
18	TO SEVEN YEARS, WHICH I ORIGINALLY PROPOSED, OR SOME
19	OTHER TERM THAT THIS COMMITTEE RECOMMEND AND THE BOARD
20	ACCEPTS THAT HELPS ADDRESS THE TREMENDOUS GAP BETWEEN
21	PROOF OF CONCEPT AND THE THERAPY DEVELOPMENT TO THE STAGE
22	THAT BIOTECH OR VENTURE CAPITAL OR PHRMA WILL PICK THESE
23	THERAPIES UP AND TAKE THEM TO THE PATIENTS.
24	CHAIRMAN ROTH: SO I'LL JUST ADD TO THAT THAT
25	WHAT BOB JUST DESCRIBED IS THE WAY I VIEW THIS. THIS IS

1	TO CREATE AN EVERGREEN, IF YOU WILL, SO THAT PEOPLE ARE
2	HELPED INITIALLY BY THE LOAN PROGRAM THAT GO ON AND ARE
3	ABLE TO REPAY THAT LOAN AT SOME FUTURE DATE. THAT MONEY
4	IS ALLOWED TO GO BACK AND CONTINUE TO BE CYCLED THROUGH
5	TO HELP GET OTHERS WITH THEIR FUNDING GAPS. AND HE DID
6	MENTION, YOU KNOW, PRECLINICAL PHASE I EARLY STAGE, BUT
7	THE STRATEGIC PLAN REALLY FOCUSED ON FUNDING THE GAPS
8	WHERE OTHER MONIES TO FUND SUCH ACTIVITIES THAT ARE
9	NECESSARY AND IMPORTANT TO THE ADVANCEMENT OF THIS
10	TECHNOLOGY ARE CLEARLY NOT AVAILABLE.
11	BUT DEFINING THAT TODAY, WHAT WE MIGHT THINK IS
12	IMPORTANT THREE OR FOUR YEARS DOWN THE ROAD, THERE MAY BE
13	ANOTHER AREA EQUALLY AS IMPORTANT THAT WE DECIDE WE WANT
14	TO PUT AN RFA OUT ON THE LOAN PROGRAM.
15	DR. LOVE: I WAS GOING TO SAY YOU REFERRED TO
16	LOOKING AT OTHER PROGRAMS THAT HAVE BEEN CREATED AND THAT
17	ARE WORKING. I THINK THAT'S A PARTICULARLY IMPORTANT
18	THING FOR US TO DO BECAUSE ANYONE WHO'S ALREADY GONE
19	THROUGH THIS AND SET UP A PROCESS THAT'S WORKING VERY
20	WELL, THAT'S BEEN TESTED, IF WE COULD BENEFIT FROM THAT,
21	I THINK THAT REALLY OUGHT TO BE JOB NO. 1 FOR US IS TO
22	SEE IF SOMEBODY HAS REALLY ALREADY DONE SOMETHING THAT WE
23	CAN REPLICATE.

7

LEGISLATION, BOB. DID THE ORIGINAL LEGISLATION ENVISION

24

25

I DID HAVE ONE QUESTION ABOUT THE ORIGINAL

1	THE LOAN PROGRAM?
2	MR. KLEIN: IT DID. THE REASON WE HAVEN'T
3	MOVED INTO THAT SECOND PART OF OUR PROGRAM MISSION TO
4	DATE IS THAT IT WAS IMPORTANT TO GET A STRONG AND
5	WELL-ANCHORED GRIP ON THE GRANT PROGRAMS BEFORE TAKING ON
6	THE ADDITIONAL SOPHISTICATION OF THE LOAN PROGRAM. SO
7	THE INTENT WAS FOCUS, GET A REFINED GRANT PROGRAM
8	FUNCTIONING AND IN PLACE. BY THIS MEETING WE'LL BE OVER
9	\$250 MILLION IN THE GRANT PROGRAM. WE'VE CERTAINLY
10	TESTED A BROAD SCOPE OF RFA'S UNDER THIS LOAN PROGRAM,
11	AND WE WILL BE OVER 500 MILLION BY APRIL OF 2008.
12	SO WE SHOULD HAVE A PORTFOLIO OF LEARNING THAT
13	ALLOWS US TO HAVE REFINED OUR GRANT PROCESSING POLICIES,
14	OUR PEER REVIEW POLICIES TO THE POINT THAT WE CAN THEN
15	APPLY THEM TO THIS OTHER TOOL REALLY THAT IS INTENDED TO
16	LEVERAGE OUR CAPACITY TO ADDRESS THE SCOPE OF PROGRAMS
17	BEFORE US.
18	CHAIRMAN ROTH: ED, YOU MIGHT COMMENT. DURING
19	THE MEETINGS THAT WE HELD ON THE IP TASK FORCE, THIS
20	SUBJECT CAME UP AND WE DECIDED NOT TO DEAL WITH IT THERE.
21	AND THAT'S WHY THIS COMMITTEE HAS BEEN FORMED. YOU MAY
22	TALK ABOUT SOME OF THE ISSUES.
23	DR. PENHOET: PROBABLY THE MOST FUNDAMENTAL OF
24	THOSE IS WE WILL HAVE IN PLACE AFTER TOMORROW'S MEETING,
25	HOPEFULLY, AN INTELLECTUAL PROPERTY POLICY WHICH COVERS

- 1 GRANTS TO PROFIT-MAKING INSTITUTIONS OR WANT TO BE
- 2 PROFIT-MAKING INSTITUTIONS. THE QUESTION IS TO WHAT
- 3 DEGREE THOSE SAME POLICIES WILL APPLY, IF AT ALL, TO
- 4 COMPANIES THAT TAKE LOANS AS OPPOSED TO GRANTS.
- 5 AND SO I THINK THE TRADE-OFF BETWEEN A LOAN AND
- 6 A GRANT MIGHT, IN FACT, HINGE ON WHETHER THE GRANT
- 7 POLICIES AND LOAN POLICIES ARE IDENTICAL OR DIFFERENT OR
- 8 VERY DIFFERENT THAN EACH OTHER WITH RESPECT TO ALL THOSE
- 9 FEATURES THAT WE PUT IN PLACE FOR THE IP POLICY.
- 10 I THINK AN ARGUMENT COULD BE MADE THAT A GRANT,
- 11 THE COST OF TAKING A GRANT IS IN LARGE PART EMBEDDED IN
- 12 THE REQUIREMENTS OF THE IP POLICIES. IN THE CASE OF A
- 13 LOAN, IF THERE'S A PAYBACK PROVISION, THEN SOMEONE COULD
- 14 ARGUE, I THINK, THAT SINCE THERE'S A PAYBACK, THERE
- 15 SHOULD BE LESS RESTRICTIVE IP AROUND IN TERMS OF WHAT THE
- 16 REQUIREMENTS OF A PERSON GETTING A LOAN WOULD BE RATHER
- 17 THAN A PERSON GETTING A GRANT. THE GRANT DOESN'T HAVE TO
- 18 BE PAID BACK. A LOAN DOES. I DON'T HAVE THE ANSWER TO
- 19 THAT, BUT I THINK THAT'S A QUESTION THAT WE'LL HAVE TO
- 20 ADDRESS.
- 21 MR. KLEIN: I THINK ANOTHER CORE CONCEPT HERE.
- 22 AT LEAST AS ORIGINALLY ENVISIONED, WAS THIS LOAN PROGRAM
- 23 IS ADDRESSING A GAP IN CAPITAL BECAUSE OF RISK,
- 24 PARTICULARLY IN A NEW FIELD. AND IT'S NOT THE INTENTION
- 25 THAT EVERY ONE OF THESE LOANS WILL BE REPAID. IF, IN

1	FACT, WE WERE SO LUCKY, IT WOULD BE A NEAR MIRACLE, BUT
2	WE NEED TO LOOK AT THIS WITH A REALITY STARING US IN THE
3	FACE, THAT THERE WILL BE A SIGNIFICANT NUMBER OF THESE
4	LOANS THAT DON'T RESULT IN THERAPIES AND COMPANIES THAT
5	ARE NOT ABLE, THEREFORE, TO REPAY THESE LOANS.
6	SO THE REASON THAT GAP IS THERE IS BECAUSE THIS
7	IS TOO GREAT A RISK AREA FOR THE BANKING INDUSTRY OR THE
8	VENTURE CAPITAL FIELD AT THIS STAGE OF DEVELOPMENT. WHAT
9	WE HOPE, IN TERMS OF ACHIEVING THESE EVERGREEN FUNDS, ARE
10	THAT THE INTEREST COLLECTED ON THOSE LOANS THAT DO PAY
11	OFF WILL BE SUFFICIENT TO COVER THE CAPITAL LOSS ON THOSE
12	THAT DO NOT. SO IF WE CAN ACHIEVE THAT OBJECTIVE, WE
13	WILL BE ABLE TO HAVE AN ABILITY TO ROLL FORWARD OUR
14	PRINCIPAL INVESTMENT ON A CONTINUING BASIS AND EXPAND
15	SUBSTANTIALLY THE REACH OF OUR FUNDING.
16	CHAIRMAN ROTH: SO JUST TO KEEP THE MEETING
17	MOVING ALONG, LET ME JUST SAY THAT I THINK THERE'S PUBLIC
18	CONSENSUS THAT WE NEED TO DO DUE DILIGENCE ON BEST
19	PRACTICES. AND LET ME I KNOW AT LEAST TWO PROGRAMS
20	THAT THESE TWO GENTLEMAN FROM PRICEWATERHOUSE HAVE
21	EXPERIENCE WITH. RICH KALENKA IS IN SAN DIEGO, IS THE
22	HEAD DADTNED HE MENTIONED A DDOCDAM IN ISDAEL AND I

10

HAD TALKED TO CHRIS EARLIER, WHO ADVISED THE STATE OF

TEXAS ON A LOAN PROGRAM. SO, GENTLEMEN, IF YOU JUST

QUICKLY MAKE A FEW COMMENTS.

23

24

25

1	MR. WASDEN: CHRISTOPHER WASDEN.
2	MR. KALENKA: MY NAME IS RICH KALENKA. I
3	WANTED TO THANK WAYNE FOR LETTING US PARTICIPATE, BUT
4	ALSO SUGGEST THAT THE ISRAEL PROGRAM WAS A GRANT PROGRAM.
5	I THINK SOME OF THE INVOLVEMENT THAT CHRIS HAS IN THE
6	STATE OF TEXAS PROGRAM MIGHT BE MORE APPROPRIATE FOR THIS
7	DI SCUSSI ON.
8	MR. WASDEN: THE TEXAS PROGRAM WAS SET ASIDE AS
9	\$250 MILLION THAT INITIALLY WAS THOUGHT TO BE A LOAN
10	PROGRAM WITH SOME SORT OF AN EQUITY COMPONENT, SO
11	CONVERTIBLE DEBT SORT OF STRUCTURE. WHAT TEXAS FOUND OUT
12	AFTER THE LEGISLATION WAS ALREADY APPROVED, PUT IN PLACE,
13	AND THE ORGANIZATION BEGAN THE PROCESS OF REVIEWING
14	APPLICATIONS, IS THAT THE STATE CHARTER OF TEXAS WOULD
15	NOT ALLOW THEM TO PROVIDE LOANS. SO THE CHALLENGE THAT
16	THEY HAD AT THAT TIME WAS DO YOU GO BACK AND RECHANGE THE
17	STATE LAW TO ALLOW THE PROVISION OF LOANS OR DO YOU
18	ACTUALLY CHANGE THE INSTRUMENT THAT YOU USE.
19	THE DECISION AT THAT TIME WAS TO CHANGE THE
20	INSTRUMENT, AND SO THEY INITIALLY THOUGHT THEY WOULD
21	INVEST EQUITY. THEY FOUND THE STATE CHARTER DID NOT
22	ALLOW THEM TO INVEST EQUITY EITHER. SO WHAT WAS FINALLY
23	DECIDED, AND THIS IS ALL MANAGED THROUGH THE BANK OF
24	ECONOMIC DEVELOPMENT FOR THE STATE OF TEXAS, IS THAT THEY
25	COULD HAVE THE INSTRUMENT BE A WARRANT. AND SO IN TEXAS,

1	WHILE IT'S CALLED THE EMERGING TECHNOLOGY FUND GRANT, IT
2	IS NOT A GRANT. IT IS AN EQUITY INVESTMENT IN THE FORM
3	OF A WARRANT.
4	SO THAT'S ONE THING THAT WAS A LITTLE BIT
5	SHOCKING THAT STATES, AT LEAST THE STATE OF TEXAS, DID
6	NOT HAVE THE FLEXIBILITY TO PERFORM THE PROGRAM WITH ANY
7	TYPE OF INSTRUMENT THEY WANTED TO. THERE WERE CERTAIN
8	LAWS THAT CAUSED THEM, AND THEY DIDN'T FIND THIS OUT
9	UNTIL AFTER THE FACT. SO THAT ONE OF THE INTERESTING
10	LEARNI NGS.
11	THE OTHER WAS WITH REGARDS TO THE PROCESS
12	WHEREBY APPLICANTS WOULD SUBMIT AN APPLICATION, HAVE IT
13	REVIEWED. THE STATE OF TEXAS ALSO, I THINK, MADE A
14	STRATEGIC ERROR IN THAT THEY DID NOT ALLOCATE
15	ADMINISTRATIVE FUNDING FOR THE PROGRAM. SO ALL THE
16	FUNDING THAT WAS APPROVED BY THE STATE HAD TO GO INTO
17	COMPANIES THEMSELVES, WHICH MEANT THAT ALL THE APPROVAL
18	PROCESS IN THE STATE WAS DONE ON A VOLUNTEER BASIS, WHICH
19	HAD SIGNIFICANT IMPLICATIONS WITH REGARDS TO EFFICIENCY,
20	TIMING, QUALITY OF REVIEWERS. AND THEY DIDN'T WANT IT TO
21	BE A POLITICAL PROCESS, SO IT WAS KIND OF A COMICAL
22	SITUATION WHERE IN ONE OF THE FIRST ROUNDS, IT WAS TAKING
23	TOO LONG AND SOMEONE HIRED A LOBBYIST TO HELP THEM TRY TO
24	FIGURE OUT HOW TO FIX THE PROBLEM, AND THEY WERE

IMMEDIATELY KICKED OUT OF THE PROGRAM BECAUSE THEY DIDN'T

25

1	WANT THERE TO BE ANY SEMBLANCE AT ALL THAT POLITICS COULD
2	INFLUENCE THE PROGRAM.
3	AND ALSO WHILE THE PROGRAM WAS INTENDED TO
4	FOCUS ON THIS VALLEY OF DEATH THAT THAT PROGRAM IS
5	FOCUSED ON, IT WAS BROADBASED IN NATURE, FOCUSING ON
6	EARLY STAGE COMPANIES AMONG ANY INDUSTRY REALLY, ALTHOUGH
7	PROBABLY ALMOST HALF THE MONEY WENT TO LIFE SCIENCES.
8	AND THE AMOUNT THAT THEY FOCUSED ON IN THEIR ORIGINAL
9	LEGISLATION CHARACTERIZED IT AS BEING BETWEEN \$250,000
10	AND ABOUT TWO MILLION. THE VAST MAJORITY OF THE FUNDING
11	WAS DONE REALLY AT AROUND A MILLION DOLLARS OR A LITTLE
12	UNDER THAT.
13	CHAIRMAN ROTH: ANY QUESTIONS? I THINK WHAT
14	CHRIS POINTS OUT IS THAT, IN ADDITION TO STUDYING WHAT
15	OTHER STATES AND OTHER DISEASE ORGANIZATIONS HAVE DONE
16	WITH THE LOAN PROGRAM, THAT WE SHOULD HAVE A FAIRLY
17	SIGNIFICANT LEGAL REVIEW, THAT WE DON'T RUN INTO THINGS
18	THAT WE JUST DIDN'T ANTICIPATE. I DON'T KNOW HOW MUCH WE
19	FOCUSED ON THE LOAN PROGRAM WHEN WE DID THE LEGISLATION.
20	THAT'S TASK FORCE NO. 2 OR PROJECT NO. 2.
21	MR. KLEIN: BASIC QUESTION. IN TEXAS, BE
22	INTERESTED TO KNOW, OUR ANTICIPATION IS AND OUR STRUCTURE
23	IS WE NEED TO ALL THESE WOULD GO THROUGH PEER REVIEW
24	JUST AS GRANTS WOULD. IN TEXAS DID THEY GO THROUGH A

25

PEER REVIEW PROCESS?

1	MR. WASDEN: THE REVIEW PROCESS IN TEXAS WAS
2	BELABORED, AND I WOULD WANT TO ADVISE SOMEONE WHO IS
3	TRYING TO IMPROVE UPON THE PROGRAM TO DO IT A LITTLE BIT
4	DIFFERENTLY. OKAY. THERE'S A SCIENTIFIC REVIEW PROCESS
5	THAT WAS DONE THROUGH THE TEXAS ACADEMY OF SCIENCE, WHICH
6	WAS INTENDED TO HAVE IT BE AN OBJECTIVE PROCESS. THE
7	PROBLEM IS THAT THE SCIENTISTS THAT ARE PART OF THE TEXAS
8	ACADEMY OF SCIENCE AREN'T ALWAYS THE BEST SCIENTISTS TO
9	REVIEW CERTAIN TYPES OF APPLICATIONS. SO YOU ENDED UP
10	GETTING PEOPLE WHO MAYBE DIDN'T KNOW A THING ABOUT YOUR
11	TECHNOLOGY REVIEWING AND GIVING AN OPINION, WHICH WAS
12	PROBLEMATIC SOMETIMES BECAUSE SOME VERY ATTRACTIVE
13	TECHNOLOGIES MIGHT GET A WEAK SCORE BECAUSE THE WRONG
14	PEOPLE REVIEWED IT. THAT WAS PART OF THE PEER REVIEW
15	PROCESS.
16	THE OTHER PART OF THE PEER REVIEW PROCESS WAS
17	HAVING MULTILEVEL REVIEWS. SO THERE WOULD BE A REVIEW AT
18	THE LOCAL LEVEL. SO IN TEXAS THERE ARE SEVEN REGIONAL
19	DISTRICTS, AND SO EACH DISTRICT WOULD REVIEW THE
20	APPLICATIONS THAT WOULD COME INTO THEIR DISTRICT. AND
21	THOSE WOULD GO THROUGH A THREE-LEVEL REVIEW AT THAT
22	DISTRICT. SO THERE'D BE KIND OF A FIRST PHASE TO WEED
23	OUT THE CHAFF. THERE WOULD BE ANOTHER PHASE FOR THOSE
24	THAT WE THOUGHT WERE GOOD ENOUGH TO BE REVIEWED BY THE
25	BOARD OF THAT DISTRICT. THOSE THAT MADE IT THROUGH THE

1	BOARD OF THAT DISTRICT WOULD THEN GO ON TO ANOTHER LEVEL
2	OF REVIEW. ALL THESE ARE VOLUNTEERS.
3	SO, AGAIN, YOU WOULD HAVE SITUATIONS WHERE
4	COMPANIES WOULD COME IN AND WOULD BE PRESENTING, AND YOU
5	MIGHT HAVE SOME VOLUNTEER WHO DIDN'T KNOW ANYTHING ABOUT
6	IT, BUT THOUGHT THEY KNEW A LOT ABOUT IT WHO COULD DERAIL
7	THE PROCESS. SO, AGAIN, THE POINT IS HAVING
8	PROFESSIONALS INVOLVED IS A GOOD THING BECAUSE OF
9	UNTOWARD CONSEQUENCES WHEN YOU DON'T HAVE PROFESSIONALS
10	I NVOLVED.
11	THEN WHAT WOULD HAPPEN IS ONCE
12	DR. PENHOET: QUESTION. WERE DIFFERENT GRANTS
13	FROM DIFFERENT INDUSTRIES COMMINGLED IN THE SAME GROUP?
14	IF THEY PUT OUT AN RFA, IN THIS ROUND WE'RE GOING TO DO
15	COMMUNICATIONS COMPANIES WHERE SOMEBODY DEVELOPING A
16	VACCINE MIGHT BE IN THE SAME GROUP AS SOMEBODY DEVELOPING
17	A NEW CELL PHONE.
18	MR. WASDEN: RIGHT. NOW, WHAT THEY WOULD DO IS
19	AT THE LOCAL LEVEL, THEY WOULD CREATE SUBCOMMITTEES THAT
20	FOCUS ON ONE OF THREE INDUSTRIES. SO THE THREE PRIMARY
21	INDUSTRIES THAT TEXAS WAS INTERESTED IN WAS
22	ENERGY-RELATED TECHNOLOGIES, LIFE SCIENCE TECHNOLOGIES,
23	THEN OTHER TECHNOLOGIES. THOSE ARE THE THREE BUCKETS.
24	SO EVERY QUARTER THERE WOULD BE A REQUEST FOR
25	PROPOSALS WITH NO DIRECTION. IT'S JUST THOSE THREE

1	BUCKETS. ANYTHING THAT YOU WANT THAT FITS INTO THOSE
2	BUCKETS SUBMIT. THEN THERE WERE CERTAIN REQUIREMENTS
3	THAT HAD TO BE MET. ONE OF THE MOST PROBLEMATIC
4	REQUIREMENTS WAS THAT YOU HAD TO HAVE AN AFFILIATION WITH
5	A TEXAS UNIVERSITY. PART OF THE WAY THIS WAS SOLD TO THE
6	TEXAS VOTERS IS THAT THIS IS TO COMPLEMENT OUR UNIVERSITY
7	SYSTEM AND TO HELP TECHNOLOGIES COME OUT OUR
8	UNIVERSITIES; THEREFORE, WE WILL ONLY GIVE MONEY TO THOSE
9	TECHNOLOGIES THAT HAVE SOME SORT OF UNIVERSITY LINK.
10	AFTER THE FIRST THREE ROUNDS, THERE WAS
11	SOMEWHAT OF AN EXHAUSTION OF THOSE OPPORTUNITIES THAT HAD
12	BEEN KIND OF PENT UP FOR SOME TIME OUT OF UNIVERSITIES,
13	AND YOU HAD OTHER GOOD IDEAS THAT WERE MAYBE UNIVERSITY
14	AFFILIATED THAT COULDN'T GET IN THE PROCESS, BUT YET WERE
15	WORTHY OF ECONOMIC DEVELOPMENT. SO THEY THEN BEGAN TO
16	LOOSEN THOSE REQUIREMENTS SUCH THAT AT ONE POINT IT GOT
17	TO THE POINT IF YOU HAD AN MBA INTERN GROUP THAT WORKED
18	ON YOUR PROJECT, THAT WOULD COUNT AS UNIVERSITY
19	AFFILIATION JUST SO YOU COULD LET MORE COMPANIES INTO THE
20	PROCESS. OKAY.
21	AFTER YOU MADE IT THROUGH THE MULTIPLE LEVELS
22	AT THE REGIONAL LEVEL, THEN YOU WOULD FINALLY GO TO A
23	17-MEMBER GOVERNOR-APPOINTED COMMITTEE. AND THE
24	17-MEMBER GOVERNOR-APPOINTED COMMITTEE WOULD DO THE FINAL
25	REVIEW BEFORE IT WOULD GO TO THE GOVERNOR, LIEUTENANT

1	GOVERNOR, AND SPEAKER OF THE HOUSE. IN THAT 17-MEMBER
2	COMMITTEE YOU HAD PEOPLE THAT REPRESENTED MANY DIFFERENT
3	INDUSTRIES. AND SO TO A LARGE EXTENT, THEY WERE RELYING
4	UPON THE JUDGMENTS MADE UP TO THAT POINT BY SPECIALISTS
5	FROM THESE VARIOUS DIFFERENT TECHNOLOGY AREAS BECAUSE
6	NONE OF THEM WERE REALLY TECHNOLOGY SPECIALISTS. YOU
7	MIGHT HAVE ONE OR TWO OUT OF A COMMITTEE OF 17 THAT MIGHT
8	KNOW SOMETHING ABOUT THAT TECHNOLOGY, BUT IT WOULD BE
9	VERY LIMITED BECAUSE THEY WERE POLITICAL APPOINTEES AND
10	WHATNOT.
11	THEY WOULD MAKE A REVIEW. THEN IT WOULD GO TO
12	THE LIEUTENANT GOVERNOR, SPEAKER OF THE HOUSE, AND
13	GOVERNOR, WHO THEN WOULD HAVE THEIR OWN STAFF DO A
14	REVIEW. OKAY. AND PART OF THAT REVIEW WAS DRIVEN
15	PRIMARILY BY POLITICAL CONSIDERATIONS BECAUSE NO GOVERNOR
16	WANTED TO BE ASSOCIATED WITH A BAD DECISION.
17	CHAIRMAN ROTH: SO I THINK FORTUNATELY WE DON'T
18	HAVE TO GO THROUGH THAT TYPE OF REVIEW, BUT I THINK THE
19	IMPORTANT POINT THAT CHRIS IS BRINGING UP IS THAT OUR
20	REVIEWERS OF THESE TYPES OF APPLICATIONS ARE GOING TO BE
21	DIFFERENT THAN THE STANDARD REVIEWERS WE HAVE FOR
22	SCIENTIFIC APPLICATIONS. AND WE'RE GOING TO HAVE TO FIND
23	PEOPLE THAT REALLY UNDERSTAND PRODUCT DEVELOPMENT,
24	CLINICAL DEVELOPMENT, AND WORTHINESS OF IT.
25	MR. WASDEN: PROFESSIONALS.

1	MR. KLEIN: AND WE CERTAINLY HAVE SHOWN THAT WE
2	HAVE THE ABILITY TO ASSEMBLE A PEER REVIEW GROUP WITH
3	RELEVANT EXPERIENCE TO THE RFA THAT THEY'RE REVIEWING.
4	AND AS DR. PENHOET POINTS OUT, WE PUT OUT FOCUSED RFA'S,
5	SO THERE IS A CONSISTENCY, AT LEAST, IN THE AREA WE'RE
6	DEALING WITH. WE'RE NOT DEALING WITH HIGH TECH AND
7	BIOTECH AND OTHER. WE'RE IN THE STEM CELL AREA,
8	SOMETIMES PURELY IN THE EMBRYONIC, SOMETIMES IN A BROADER
9	SPECTRUM. BUT IN ADDITION, WE HAVE THE ABILITY TO PULL
10	IN SPECIALISTS IN OUR PEER REVIEW ON ANY SPECIFIC GRANT
11	SO WE'RE ON TOPIC ON THAT GRANT WITH SPECIALISTS IN THE
12	REVIEW ITSELF.
13	DR. PENHOET: WELL, THAT'S ONE MODEL. ANOTHER
14	MODEL, WHICH HAS BEEN SUGGESTED, WOULD BE THAT IN ANY
15	RFA, IF COMPANIES WERE COMPETING FOR THE MONEY, IF THEY
16	WERE AWARDED AN AWARD, THEY CAN CHOOSE WHETHER TO TAKE
17	THE AWARD AS A GRANT OR AS A LOAN. THAT'S ANOTHER
18	SUGGESTION THAT'S BEEN THROWN OUT, THAT THE COMPANY WOULD
19	HAVE THE DECISION AT THAT POINT. RATHER THAN HAVE AN RFA
20	SPECIFICALLY SAYING WE'RE PREPARED TO LOAN MONEY TO
21	COMPANIES DOING X, Y, AND Z, IT WOULD BE I'M NOT
22	ARGUING FOR THIS ONE WAY OR THE OTHER BUT THAT IS
23	ANOTHER ALTERNATIVE.
24	MR. WASDEN: ONE IMPORTANT ISSUE THAT I WOULD
25	POINT OUT. WHEN IT COMES TO WHATEVER INSTRUMENT'S USED,
	18

- 1 A LOAN OR A GRANT, CONSIDERATIONS FOR FOLLOW-ON CAPITAL
- 2 THAT THESE ORGANIZATIONAL WILL NEED HAS TO BE TAKEN INTO
- 3 ACCOUNT WHEN PUTTING THAT STRUCTURE TOGETHER BECAUSE WE
- 4 FOUND SITUATIONS WHERE VENTURE CAPITALISTS MAYBE WEREN'T
- 5 INTERESTED IN COMING ALONG IF THE TERMS UNDERNEATH THE
- 6 ONE INSTRUMENT WERE NOT APPROPRIATE FOR THEIR FUTURE
- 7 PARTICIPATION.
- 8 CHAIRMAN ROTH: OKAY. ANY ANYTHING ELSE FOR
- 9 CHRIS?
- 10 MR. GOLDBERG: YES. I HAVE FIRST A QUESTION.
- 11 THANK YOU VERY MUCH FOR THAT EXPOSITION ON TEXAS
- 12 BUREAUCRACY. WERE YOU INVOLVED OR SOME OF YOUR
- 13 COLLEAGUES INVOLVED IN DOING THE WORK THAT LED UP TO THE
- 14 FORMATION OF --
- MR. WASDEN: NO.
- 16 MR. GOLDBERG: NO. SO THIS IS JUST A SITUATION
- 17 YOU' RE AWARE OF?
- 18 MR. WASDEN: ACTUALLY I SERVED AS A COMMITTEE
- 19 MEMBER IN SOME OF THOSE REVIEW PROCESSES, AND I
- 20 SUCCESSFULLY TOOK A COUPLE COMPANIES THROUGH THE PROCESS
- 21 TO FUNDING, SO I'VE BEEN ON BOTH SIDES OF THE SITUATION.
- 22 MR. GOLDBERG: THANK YOU. I SHOULD JUST SAY AS
- 23 A GENERAL COMMENT, MY MAJOR CONCERN HERE WITH RESPECT TO
- 24 ANY DEBT INSTRUMENT THAT WE MAY USE IS THE NATURE OF THE
- 25 SECURITY INTEREST AND KIND OF WHERE IN THE CAPITAL

STRUCTURE THE RECIPIENT RESIDES, WHETHER IT'S SENIOR, 1 WHETHER IT'S SECURED, WHETHER IT'S UNSECURED, JUST AS AN 2 ISSUE THAT'S IMPORTANT TO ME. 3 4 CHAIRMAN ROTH: THANKS, CHRIS. 5 DR. LOVE: CHRIS, IS THERE ANY SECURITY, JUST TO THAT ISSUE, WERE THOSE LOANS SECURED OR WERE THEY 6 UNSECURED? 7 MR. WASDEN: THESE WERE UNSECURED. THE STATE 8 9 OF TEXAS TOOK NO ROLE IN GOVERNANCE. IT WAS A WARRANT, SO IT WAS EQUITY. AND THE PRICING OF IT WAS NEVER DONE 10 BY THE STATE OF TEXAS. THE PRICING WOULD BE DONE BASED 11 UPON A THIRD PARTY DOING A FOLLOW-ON ROUND OF FINANCING 12 13 WHERE THE STATE OF TEXAS WOULD CONVERT THEIR INTEREST AT 14 THAT PRICE BASED UPON A DISCOUNT THAT WAS PREDETERMINED. 15 DR. LOVE: DO YOU THINK THAT PROGRAM IS 16 SUFFICIENTLY VETTED NOW? YOU DESCRIBED A LOT OF THE CHALLENGES. BUT DO YOU THINK IT'S SUFFICIENTLY VETTED 17 NOW, THAT WE COULD ACTUALLY USE THAT AS A GOOD MODEL OF 18 BEST PRACTICE, OR IS THIS MORE A MODEL OF WHAT YOU DON'T 19 WANT TO DO? 20 MR. WASDEN: WELL, I THINK THERE'S THINGS THAT 21 YOU CAN LEARN FROM IT. OKAY. AND THERE ARE SOME THINGS 22 THAT THEY'VE DONE WELL, BUT I THINK THAT THE BENEFIT THAT 23 YOU HAVE HERE IS THAT YOU CAN LEARN FROM IT AND YOU DON'T 24

HAVE TO MAKE THEIR MISTAKES. AND I THINK YOU COULD HAVE

25

1	A MUCH MORE RESPONSIVE AND MUCH MORE EFFICIENT PROCESS
2	WITH HIGHER QUALITY OF DILIGENCE FOR BETTER DECISIONS.
3	MR. KLEIN: IN TERMS OF MICHAEL GOLDBERG'S
4	COMMENT, AS A STARTING POINT, THE ORIGINAL DISCUSSIONS
5	HAVE BEEN FOCUSED AROUND USING A SUBORDINATED DEBENTURE
6	MODEL WHERE THESE LOANS ARE SUBORDINATED TO WORKING
7	CAPITAL OF THESE COMPANIES. SO WE GET THE LEVERAGE
8	BENEFIT OUT OF BANKS PARTICIPATING MAYBE AT A HIGHER
9	TIER. NOW, SOME OF THESE YOU WON'T HAVE ANY BANKS AT ALL
10	OR ONLY IN LATER STAGES WILL YOU HAVE THEM. BUT I THINK
11	WHAT'S RELEVANT TO THIS COMMENT IS WE HAVE TO PLAN FOR A
12	STRUCTURE THAT DOWNSTREAM, IF IT IS PROGRESSING WELL,
13	WILL ACCOMMODATE SUBORDINATION TO ALLOW GREATER LEVERAGE
14	AND GETTING GREATER RANGE OUT OF THESE FUNDS WE'VE PUT
15	OUT AND WILL ACCOMMODATE EXIT STRATEGIES THAT ARE
16	INCREMENTAL, FIRST GETTING SOME VENTURE CAPITAL, THEN
17	GETTING LATER SOME BANK LOANS THAT COME IN.
18	AND SO LOOKING DOWNSTREAM AT WHAT THE EXIT WILL
19	BE WILL BE A CENTRAL ISSUE TO ADDRESS IN THE STRUCTURING
20	ON THE FRONT END.
21	CHAIRMAN ROTH: I THINK IN THIS CASE A SECURED
22	LOAN IS CLEARLY NOT GOING TO WORK. WE'RE TALKING ABOUT
23	IN LARGE PART START-UP COMPANIES WHO ARE VERY EARLY
24	STAGE. AND ANYTHING YOU PUT IN THERE THAT'S GOING TO BE
25	SECURED DEBT IS GOING TO AFFECT THEIR ABILITY DOWN THE

1	ROAD. AND BOB'S COMMENT ABOUT BANKERS COMING IN LATER
2	ON, YOU KNOW, I THINK FROM MY STANDPOINT, MAYBE TED AND
3	ED CAN BACK ME UP, BUT BANKS DON'T MAKE LOANS TO THESE
4	KINDS OF COMPANIES. THEY'RE FAR FROM REVENUES AND HAVE A
5	PRETTY HIGH BURN RATE. I JUST DON'T THINK THAT THAT'S
6	GOING TO BE PART OF THEIR I THINK VENTURE CAPITAL IS
7	VERY LIKELY TO COME IN.
8	DR. LOVE: IF THEY LOAN YOU MONEY, THEY WANT
9	YOU TO ESCROW ENOUGH MONEY, SO IT REALLY DOESN'T WORK.
10	MR. KLEIN: THERE ARE SPECIALIZED LENDERS.
11	BANKS IS PROBABLY THE WRONG TERM TO USE, BUT SPECIALIZED
12	LENDERS WHO ARE LENDERS, BUT TAKE AN EQUITY STAKE. AND
13	WE'RE LOOKING DOWNSTREAM TO CREATE STRUCTURES THAT WILL
14	ACCOMMODATE THAT LEVERAGE THAT WILL REALLY PUSH OUR FUNDS
15	FURTHER DOWNSTREAM IN THERAPY DEVELOPMENT IS IMPORTANT.
16	CHAIRMAN ROTH: OKAY. SO JUST TO SUMMARIZE, I
17	THINK WE REALLY AGREE THAT WE'VE GOT SOME DUE DILIGENCE
18	TO DO ON OTHER LOAN PROGRAMS AND TO LEARN WHAT WE CAN
19	FROM THOSE. AND I THINK WE'RE GOING TO NEED TO HIRE SOME
20	EXPERTS TO DO THAT. SO I WANT TO GET TO THAT TOWARDS THE
21	END OF THE MEETING, WHAT KIND OF CONSULTANTS DO WE NEED
22	TO BRING IN TO COLLECT THIS INFORMATION AND BRING IT BACK
23	TO THE COMMITTEE SO WE HAVE SOMETHING TANGIBLE TO WORK
24	WI TH.
25	THE SECOND AREA THAT I THINK WE NEED SOME

DILIGENCE ON ARE THE LEGAL ISSUES. AND I THINK WE SHOULD 1 WORK WITH THE CIRM STAFF, TAMAR AND OTHERS, TO HELP US 2 FIGURE OUT WHAT KIND OF EXPERTISE WE NEED THERE. 3 S0 I 4 WOULD ASK THAT THAT BE PART OF IT. AND SPECIFICALLY, I HAD THOUGHT ABOUT THIS PREVIOUSLY AND TALKED TO BOB ABOUT 5 ARE THERE ANY STATE REGULATIONS THAT, ONCE WE GET INTO 6 MAKING LOANS, THAT WE JUST DIDN'T ANTICIPATE. AND LET'S 7 GO PROACTIVE, ESPECIALLY HEARING WHAT HAPPENED IN TEXAS. 8 9 MR. KLEIN: SPECIFICALLY IN CALIFORNIA WE NEED TO BE COGNIZANT OF THE FACT THAT CONSTITUTIONALLY WE 10 CAN'T TAKE EQUITY. WE CAN'T OWN STOCK. SO REFINEMENTS 11 12 OF THAT, CAN YOU HAVE AN OPTION? I DON'T KNOW THE ANSWER 13 TO THE QUESTION. BUT THE REFINEMENTS TO THAT ISSUE IS 14 SOMETHING THAT WE'LL HAVE TO LOOK AT. BUT AS A 15 FUNDAMENTAL ISSUE, WE CANNOT, UNDER THE CONSTITUTION, AND 16 THE PROPOSITION DIDN'T ADDRESS THAT ISSUE INTENTIONALLY, 17 OWN STOCK AS A PART OF THIS PROGRAM. CHAIRMAN ROTH: OKAY. 18 DR. LOVE: DOES ANYONE KNOW IF WE CAN TAKE 19 WARRANTS IN THE STATE? 20 MR. GOLDBERG: THAT WOULD BE EQUITY, IT SEEMS 21 22 TO MF. 23 DR. LOVE: WELL, IT SOUNDS LIKE IT WASN'T CONSIDERED TO BE EQUITY IN THE STATE OF TEXAS. 24 25 MR. WASDEN: IN TEXAS THERE WAS A LOOPHOLE

1	BECAUSE TEXAS COULDN'T DO EQUITY EITHER, BUT THERE WAS
2	THIS LOOPHOLE THAT ALLOWED WARRANTS.
3	ONE OTHER THING THAT WAS LOOKED AT WAS
4	ROYALTIES AS WELL, KIND OF SECURITIZATION OF ROYALTIES.
5	THEN YOU RUN INTO AN ISSUE WITH VENTURE CAPITALISTS NOT
6	LIKING ROYALTIES ON COMPANIES THEY INVEST IN. SO THERE'S
7	A LOT OF WORK THAT NEEDS TO BE DONE TO FIND OUT WHAT CAN
8	WORK.
9	CHAIRMAN ROTH: EXCELLENT. THE THIRD AREA THAT
10	I HAD ON MY LIST THAT I THINK WE SHOULD GET SOME
11	EXPERTISE ON IS TO DO A MODELING. IF WE MAKE 50 LOANS,
12	WHAT CAN WE EXPECT IN TERMS OF REPAYMENT VERSUS THOSE
13	THAT AREN'T GOING TO REPAY? AND START TO LOOK AT THAT
14	PORTFOLIO TO SEE WHAT IT MIGHT MEAN SIX, SEVEN YEARS DOWN
15	THE ROAD WHEN THESE WOULD BECOME DUE.
16	ANY OTHER THOUGHTS ON MODELING? INTEREST
17	RATES, ALL OF THOSE THINGS WOULD PLAY INTO THAT. WHAT
18	ARE REASONABLE INTEREST RATES THAT WE CAN ASSUME?
19	MR. KLEIN: WELL, AMONG THE DIFFERENT MODELS, I
20	WOULD ALSO SAY THAT WE NEED TO LOOK THAT THE MODELING
21	EXAMPLES, FOR EXAMPLE, FOR NORTH CAROLINA THAT REPORTEDLY
22	HAS HAD SOME GOOD SUCCESS WITH LOAN PROGRAMS AND HAS
23	EXPANDED THEIR LOAN PROGRAM OVER TIME, ALTHOUGH IT'S A
24	MUCH SMALLER PROGRAM.
25	ADDITIONALLY, IN TERMS OF MODELING, I THINK

1	IT'S GOOD TO LOOK AT THE INCUBATORS AND THE ACCELERATOR
2	COMPANIES IN THIS SPACE TO SEE WHAT THEIR SUCCESS RATE
3	HAS BEEN AND THE CHARACTERISTICS AND BEST PRACTICES FOR
4	INCREASING THAT SUCCESS RATE. THERE'S SOME ARGUMENTS
5	THAT DIFFERENT RISK FACTORS SHOULD BE ASSIGNED WHEN YOU
6	HAVE AN ACCELERATOR MODELED WITH TRAINED, PROFESSIONAL,
7	EXPERIENCED MANAGEMENT THAT'S COMMON TO ALL THE COMPANIES
8	IN THAT GROUP AS VERSUS A STAND-ALONE THAT MAY BE A
9	COMPLETE START-UP WITHOUT THAT KIND OF STEWARDSHIP OR
10	OVERALL MANAGEMENT UMBRELLA.
11	SO I THINK WE CAN LEARN A LOT FROM LOOKING AT
12	THE INCUBATORS AND ACCELERATORS AROUND THIS STATE AND
13	OTHER STATES IN UNDERSTANDING ESSENTIALLY RISK
14	ADJUSTMENTS IN THE UNDERWRITING APPROACH TO THIS RISK.
15	BUT I WOULD ALSO SAY, IN RELATIONSHIP TO WHAT DR. PENHOET
16	SAID EARLIER, MANY OF THESE COMPANIES MAY WELL HAVE A
17	PROGRAM WHERE THEY COME IN AND COMPETE HEAD ON HEAD WITH
18	NONPROFIT INSTITUTIONS IN THE SAME RFA ROUND, AND THEY
19	JUST ELECT TO GO THROUGH A LOAN PROGRAM BECAUSE THEY'VE
20	GOT PROBLEMS WITH ADAPTING TO THE GRANT FORMAT, AND IT'S
21	LESS BURDENSOME FOR THEM TO PAY BACK THE FUNDS IN TERMS
22	OF ADVANCING THEIR TECHNOLOGY.
23	MR. GOLDBERG: SO IS IT MY UNDERSTANDING,
24	DUANE, THAT YOU PROPOSE THAT WE BEGIN WITH A LEGAL
25	ANALYSIS THAT WOULD DETERMINE THE SCOPE OF WHETHER WE

- 1 CAN -- THE TYPES OF DEBT AND DEBT INSTRUMENTS THAT WOULD
 2 BE AVAILABLE, AND THEN PROCEED TO PERHAPS PARALLEL TRACK
- 3 A BEST PRACTICES ANALYSIS AND A FINANCIAL MODELING
- 4 EXERCISE?
- 5 CHAIRMAN ROTH: YES. I THINK GIVEN THE
- 6 TIMEFRAME THAT WE'RE TRYING TO WORK IN, THESE HAVE TO GO
- 7 PARALLEL. SO I'M TRYING TO COME UP WITH SORT OF THE BIG
- 8 ITEMS THAT WE WANT DUE DILIGENCE AND FEEDBACK TO THE
- 9 COMMITTEE.
- 10 MR. GOLDBERG: I AGREE WITH THAT APPROACH.
- 11 CHAIRMAN ROTH: SO WE TAKE THE BEST PRACTICES,
- 12 LEGAL ISSUES, THE MODELING.
- THE FOURTH AND ONE I DIDN'T HAVE ON MY LIST
- 14 UNTIL TODAY, BUT I HAD THOUGHT ABOUT IT, IS HOW ARE WE
- 15 GOING TO DO THE REVIEWS. THAT, I THINK, THE STAFF CAN
- 16 PROBABLY HANDLE THAT AND FIGURE OUT WHO DO WE NEED TO
- 17 REVIEW THESE TYPES OF APPLICATIONS VERSUS THE SCIENCE.
- DR. MURPHY: DUANE, I WOULD SUGGEST, JUST FROM
- 19 HEARING THAT STORY, I WOULD SUGGEST THAT THIS MAY BE A
- 20 CASE WHERE A TWO-STAGE REVIEW IS GOING TO BE CRITICAL.
- 21 BECAUSE I THINK THERE IS A BENEFIT FROM USING OUR CURRENT
- 22 GRANTS WORKING GROUP, WHICH IS TOTALLY IMMERSED IN THE
- 23 QUALITY OR THE LACK OF QUALITY OF STEM CELL RESEARCH, AND
- 24 HAVE AN INITIAL REVIEW. AND THOSE FOLKS WOULD NOT BE
- 25 CAPABLE OF DOING THE BUSINESS ANALYSIS THAT WOULD ALSO BE

KEY HERE. SO ONE OF THE THINGS WE MIGHT THINK OF IS A 1 TWO-STAGE REVIEW AS WE HAVE ON WITH THE MAJOR FACILITIES 2 3 GRANTS. 4 MR. GOLDBERG: GOOD SUGGESTION. 5 CHAIRMAN ROTH: I THINK THAT ONE CAN BE HANDLED INTERNALLY BY THE STAFF. 6 DR. PENHOET: I THINK BEFORE WE ASK THEM TO DO 7 THAT, WE HAVE TO DECIDE WHAT PROGRAMS WE WOULD WANT TO 8 9 FUND WITH LOANS BECAUSE IF, ON THE ONE HAND, IT WAS THE MODEL THAT I JUST ARTICULATED, ANY RFA CAN BE EITHER A 10 LOAN OR A GRANT, THEN IT WOULD GO THROUGH THE NORMAL 11 12 REVIEW PROCESS. IF WE ARE GOING TO HAVE TARGETED 13 PROGRAMS FOR LOANS ONLY TO COVER A CERTAIN SUBJECT, THEN 14 I THINK IT WOULD FALL IN THIS LATTER CATEGORY YOU'RE 15 TALKING ABOUT. AND I THINK WE'D HAVE TO DECIDE, FOR 16 EXAMPLE, IF WE'RE GOING TO HAVE A LOAN PROGRAM TO FUND PRECLINICAL DEVELOPMENT AND GMP TOX FOR COMPANIES THAT 17 WANT TO TAKE THINGS INTO CLINIC. THAT WOULD BE A VERY 18 SPECIFIC LOAN PROGRAM. WE SAID THOSE WOULD BE LOANS, BUT 19 THEN I THINK THAT'S ONE THING. 20 IF WE HAVE A GRANT PROGRAM FOR DOING THAT KIND 21 OF WORK, AND SOMEBODY COULD CHOOSE WHETHER TO TAKE A 22 GRANT OR A LOAN, IT WOULD BE A DIFFERENT PROCESS. 23 THINK WE HAVE TO DO SOME WORK TO FIGURE OUT THE USE OF 24 PROCEEDS FOR LOANS. WHAT ARE PEOPLE ACTUALLY GOING TO

25

1	USE THIS MONEY FOR, OR WHAT ARE WE GOING TO TRY TO FUND
2	FOR THEM?
3	THE OTHER THING IS I THINK YOU MADE THE COMMENT
4	ABOUT THIS DEBT BEING SUBORDINATED. HOWEVER, THERE HAS
5	TO BE SOME TERMS IN HERE THAT MAKE IT DEBT BECAUSE THERE
6	IS A PAYBACK PROVISION FOR THE GRANTS UPON SUCCESS. IF
7	THEY DON'T HAVE SUCCESS WITH THE PROJECT WE FUNDED, THEY
8	DON'T HAVE TO PAY BACK IF THEY GET A GRANT. A LOAN WOULD
9	OBLIGATE THEM TO PAY IT BACK, WHETHER OUR PROJECT WAS
10	SUCCESSFUL OR NOT, OTHERWISE IT'S THE SAME AS THE GRANT.
11	SO I THINK THERE WILL HAVE TO BE SOME KIND OF COVENANTS
12	THAT PUTS SOME PRESSURE ON A PERSON WHO'S TAKEN A LOAN TO
13	PAY BACK THE LOAN WHETHER OR NOT THEY'RE SUCCESSFUL.
14	WHAT IT'S SUBORDINATED TO IS ANOTHER QUESTION. I THINK
15	THAT'S PART OF WHAT WE HAVE TO TEASE OUT.
16	MR. KLEIN: WELL, THE GRANT MAY HAVE A
17	PROVISION WHERE IT'S PAID BACK MULTIPLE TIMES IF IT'S
18	SUCCESSFUL, WHICH MAY NOT BE APPLICABLE TO THE LOAN
19	PROGRAM. SO THERE CAN BE SIGNIFICANT DIFFERENCES IN THE
20	INCENTIVE OF WHETHER IT'S A GRANT OR A LOAN.
21	BUT SEPARATELY YOU CAN AS WELL POTENTIALLY HAVE
22	A SYSTEM WHERE THEY CAN COME IN AND COMPETE IN AN RFA,
23	BUT AS A GRANT, THE RFA MAY BE CAPPED AT A MILLION
24	DOLLARS. AS LOAN IT MAY BE \$4 MILLION. SO THAT IF
25	THEY'RE GOING TO BE ABLE TO APPLY FOR THE HIGHER STAKES,

- 1 THEY GO THROUGH THE SAME SCIENTIFIC PROCESS AS EVERYONE
- 2 ELSE DOES; BUT IN ORDER TO GET TO THE HIGHER STAGE AND
- 3 HAVE A LOAN, THEY GO TO THE SECOND TIER PROCESS WHERE YOU
- 4 LOOK AT THE BUSINESS SIDE OF THE TRANSACTION. BECAUSE
- 5 YOU DO WANT TO MAKE CERTAIN THAT THEY'RE COMPETING ON THE
- 6 SCIENCE WITH OTHER SCIENTIFIC OPPORTUNITIES THAT ARE
- 7 AVAILABLE TO US AND UNDERGO THE SAME SCRUTINY. YOU MAY
- 8 ESSENTIALLY HAVE THE DOLLAR VALUE BE THE CENTRAL
- 9 DIFFERENTIATION IN WHETHER THEY GO THROUGH THE SECOND
- 10 TI ER.
- 11 CHAIRMAN ROTH: SO JUST ONE THOUGHT HERE ON
- 12 THAT, AND I'VE TRIED TO THINK ABOUT THIS IN TERMS OF
- 13 GRANTS AND LOANS. I THINK THE LOAN PROGRAM IS GOING TO
- 14 PRIMARILY FOCUS ON PRODUCTS, PRODUCT DEVELOPMENT. AND I
- 15 ALSO THINK THAT SHOULD BE OPEN TO NOT-FOR-PROFIT
- 16 INSTITUTIONS AS WELL AS FOR-PROFIT. THE REASON I SAY
- 17 THAT, THIS THERAPY OR THESE THERAPIES THAT WE ENVISION
- 18 ARE VERY DIFFERENT IN TERMS OF HOW THEY'RE GOING TO BE
- 19 DEVELOPED THAN ANYTHING WE'VE DONE BEFORE. AND IT'S
- 20 LIKELY THAT INSTITUTIONS MAY BE ABLE TO GET PRODUCTS OF
- 21 THIS TYPE INTO PHASE I OR EVEN PHASE II. I THINK IT'S
- 22 GOING TO BE DIFFERENT, AND WE SHOULD AT LEAST HOLD OPEN
- THE OPPORTUNITY FOR INSTITUTIONS TO APPLY FOR THESE
- 24 FUNDS. JUST AS I THINK WE SHOULD ALLOW FOR-PROFIT
- 25 INSTITUTIONS TO APPLY FOR RESEARCH GRANTS AT SOME POINT.

1	AND THOSE TWO SHOULD BE INTERACTIVE.
2	HOW THAT GETS ADMINISTERED AND DEALT WITH, I
3	THINK, HAS TO GO TO THE ICOC TO DECIDE THAT. WHAT WE
4	NEED TO DO IS COME UP WITH A POLICY FOR THE LOAN PROGRAM.
5	I EVEN DISLIKE THE NAME BIOTECH LOAN PROGRAM. I THINK WE
6	SHOULD DROP THAT BECAUSE IT'S REALLY PRODUCT DEVELOPMENT
7	LOAN PROGRAM THAT WE'RE TALKING ABOUT, I THINK, MORE THAN
8	JUST BASIC RESEARCH. RESEARCH WILL PROBABLY ALWAYS BE
9	GRANTS. AND I THINK BOTH FOR-PROFIT AND NOT-FOR-PROFIT
10	SHOULD COMPETE THERE. SAME WILL BE TRUE, I THINK, IN
11	THIS PROGRAM.
12	DR. PENHOET: BOB, QUESTION. DO WE HAVE THE
13	SAME RESTRICTION AS TO TOTAL AMOUNT OF MONEY FOR LOANS
14	GOING TO FACILITIES? IF SOMEBODY WANTS TO BUILD A PILOT
15	PLANT, COULD THEY BORROW MONEY FROM US TO DO THAT? OR
16	WOULD THAT MONEY HAVE BEEN CONSUMED IN THE SO THIS HAS
17	TO BE FOR SOME KIND OF RESEARCH.
18	MR. KLEIN: SINCE THEY CAN'T TELL I'M SHAKING
19	MY HEAD ON THE PHONE, WE DON'T HAVE MONEY THAT CAN GO TO
20	PRIVATE SECTOR AT ALL. ALL OF OUR FACILITIES MONEY HAS
21	TO GO TO NONPROFIT INSTITUTIONS.
22	CHAIRMAN ROTH: HOWEVER, ED
23	DR. PENHOET: THE MAIN CONCERN I HAD WAS
24	TIMING. IF WE PUT OUT AN RFA THAT SAID WE'LL FUND GLP
25	TOX, GIVEN THE SMALL NUMBER OF COMPANIES IN THE SPACE,

- 1 IT'S POSSIBLE THERE ARE EITHER ZERO, ONE, OR TWO. THERE
- 2 WON'T BE TEN COMPANIES LINED UP THAT ARE READY TO GO WITH
- 3 A GLP TOX PROGRAM. HOW --
- 4 CHAIRMAN ROTH: BASED ON THE INTEREST I'VE HAD
- 5 IN THIS WHOLE THING, I THINK THERE MIGHT BE MORE THAN YOU
- 6 BELLEVE OUT THERE.
- 7 DR. PENHOET: GOOD.
- 8 CHAIRMAN ROTH: JUST TO GET BACK TO THIS, ED, I
- 9 THINK THAT AN INSTITUTION MIGHT APPLY FOR SOMETHING WHERE
- 10 THEY ASK FOR FUNDS TO GET GMP MATERIAL. THAT COULD BE
- 11 DONE. THEY CAN'T BUILD A GMP PLANT WITH OUR MONEY, BUT
- 12 THEY COULD CERTAINLY OUTSOURCE AND GET IT DONE IN THE GMP
- 13 FACILITY.
- ANY OTHER THOUGHTS ON THAT ASPECT OF IT?
- 15 MR. GOLDBERG: I'D BE HAPPY TO MAKE A MOTION TO
- 16 RENAME THE COMMITTEE ALONG THE LINES YOU SUGGESTED.
- 17 CHAIRMAN ROTH: MOTION MADE. IS THERE A
- 18 SECOND?
- 19 MR. KLEIN: WHAT IS THE NAME UNDER
- 20 CONSIDERATION? WE GOING TO CALL IT THE THERAPY
- 21 DEVELOPMENT LOAN PROGRAM?
- 22 CHAIRMAN ROTH: NOT THERAPY. I THINK IT HAS TO
- 23 BE THE PRODUCT DEVELOPMENT LOAN PROGRAM.
- 24 DR. LOVE: WHAT DID WE CALL OUR GRANTS? WHAT
- 25 DID WE CALL OUR GRANTS PROGRAM? MAYBE JUST TO PARALLEL

1 THAT ONE. CHAIRMAN ROTH: WELL, LOAN PROGRAM. SO THERE'S 2 A GRANT PROGRAM AND A LOAN PROGRAM. BUT THE REASON I 3 LIKE PRODUCT IN THERE IS I THINK THAT'S WHAT THE LOANS 4 5 ARE INTENDED TO GO FOR, TO ADVANCE PRODUCT DEVELOPMENT. DR. LOVE: BUT WE WERE JUST TALKING ABOUT 6 POSSIBLY FUNDING SOME GMP, AND IT WOULD SEEM THAT WE 7 MIGHT NOT ALWAYS FIND IT. I WONDER IF WE WANT TO GIVE 8 9 OURSELVES A LIMITING NAME AS OPPOSED TO KEEP THE BREADTH 10 IN THE NAME SO THAT WE DON'T --MR. KLEIN: WELL, I THINK WHAT YOU'RE FOCUSING 11 12 ON, DUANE, IS THAT OUR OUTCOME FOCUS IS ISN'T IT THERAPY 13 DEVELOPMENT AND -- WHETHER IT'S SMALL MOLECULE OR CELL 14 REPLACEMENT, WE WERE TRYING TO DEVELOP PRODUCTS FOR 15 THERAPI ES. 16 CHAIRMAN ROTH: OR DIAGNOSTICS OR RESEARCH 17 TOOLS OR --MR. KLEIN: IF --18 19 CHAIRMAN ROTH: JUST BROADLY, IT'S GOING TO BE FOR PRODUCTS THAT ARE GOING INTO THE FDA REVIEW PROCESS. 20 MR. KLEIN: BUT FOR THE PUBLIC TO CONCEPTUALIZE 21 IT, MAYBE WE SAY THERAPIES -- THIS IS THE THERAPY, 22 DIAGNOSTICS, AND WHATEVER ELSE YOU WANT PUT IN THE LIST 23 LOAN PROGRAM SO THAT THEY CAN VISUALIZE WHAT YOUR OUTCOME 24

25

INTENT IS.

1	CHAIRMAN ROTH: SO I WOULD LOVE INPUT ON THAT.
2	WE WON'T MAKE A DECISION TONIGHT, BUT LET'S GET THE RIGHT
3	NAME BECAUSE I THINK STARTING WITH BIOTECH LOAN PROGRAM
4	GIVES A CERTAIN IMAGE THAT ISN'T EXACTLY WHAT I THINK
5	WE'RE TALKING ABOUT. LET ME LEAVE IT AT THAT.
6	THE NEXT THING ON MY LIST WAS SORT OF THE
7	ADMINISTRATION OF THIS PROGRAM AND HAVE A GROUP
8	INTERNALLY LOOK AT THIS. I SHOULD INTRODUCE LYNN HARWELL
9	AND SCOTT TOCHER. I THINK MOST OF YOU ALL KNOW THEM, BUT
10	THEY'RE GOING TO BE OUR STAFF ON THIS. THEY'RE TAKING
11	NOTES PROFUSELY OUT THERE. I THINK THIS ONE IS A CONCERN
12	TO ME. AND THAT IS THAT WE CANNOT BECOME A BANK WHERE WE
13	HAVE TO HAVE SO MUCH STAFF LOOKING AT PERFORMANCE OF THE
14	LOAN PORTFOLIO, CREDITWORTHINESS, ALL OF THESE KIND OF
15	THINGS. THAT JUST CANNOT HAPPEN. THERE HAS TO BE A WAY
16	THAT THESE ARE STRUCTURED, TO ED'S POINT, THAT THERE'S A
17	DUTY TO REPAY, IF YOU CAN. AND IN THIS CASE IT'S A STATE
18	AGENCY. AND WE HAVE TO HAVE THAT, I THINK, AS MUCH AS
19	POSSIBLE BE ON THE ONUS OF THE PERSON WHO TAKES THE LOAN
20	AS OPPOSED TO HAVING US, OUR STAFF, HAVING TO CONSTANTLY
21	CHECK ON THE STATUS OF THE REPAYMENT.
22	THE OTHER THING THAT I THINK SHOULD BE CRYSTAL
23	CLEAR HERE IS IF YOU GET INTO CREDITWORTHINESS OF THE
24	LOAN RECIPIENTS, THIS PROGRAM WILL NOT WORK. AND THE
25	ALTERNATIVE TO HAVING CONCERN ABOUT ABILITY TO REPAY IS

1	WE'LL JUST MAKE IT ALL GRANTS. THEN THEY DON'T HAVE ANY
2	ABILITY TO REPAY.
3	SO I THINK WE HAVE TO PUT IT OUT THERE WITH THE
4	KNOWLEDGE THAT IF IT'S A CREDIBLE PROGRAM, REVIEWED
5	EXTERNALLY, AND IT LOOKS LIKE IT'S WORTHY OF THE FUNDING,
6	WE SHOULD MAKE THOSE FUNDS WITHOUT CONSIDERATION OF
7	WHETHER THEY'RE GOING TO BE ABLE REPAY SIX OR SEVEN YEARS
8	DOWN THE ROAD BECAUSE WE WILL NOT KNOW THAT.
9	MR. GOLDBERG: THERE IS A CLASS OF INSTRUMENTS
10	THAT IS USED IN THE VENTURE COMMUNITY REFERRED VARIOUSLY
11	AS VENTURE DEBT WHICH HAS SOME OF THE FEATURES THAT YOU
12	DESCRIBE. THEY'RE REALLY NOT LOOKING TO THE UNDERLYING
13	CREDIT OF THE BORROWER, IF THEY'RE HIGH RISK. THEY DO,
14	HOWEVER, AS MANY OF YOU KNOW, CONTAIN WARRANTS AS
15	SWEETENERS TO OFFSET THE FACT THAT THE CREDITWORTHINESS
16	IS BAD. SO TO THE EXTENT THAT WARRANTS ARE PRESUMED TO
17	BE EQUITY, THAT MAY BE PROBLEMATIC FOR US IN TERMS OF
18	ACHIEVING RISK BALANCE. BUT IT MAY BE THAT, I WOULDN'T
19	USE THE TERM "LOOPHOLE" BECAUSE WE'RE NOT LOOKING FOR
20	LOOPHOLES, BUT IT MAY BE THAT THE LEGAL ANALYSIS
21	INDICATES THAT WARRANTS ARE, IN FACT, SOMETHING THAT
22	WOULD BE SATISFACTORY, YOU KNOW, IN A STRUCTURE FOR US.
23	SO TO YOUR POINT, IT'S GOING TO BE DICTATED BY THE FACTS.
24	CHAIRMAN ROTH: THE QUALITY OF THE PROGRAM, I
25	THINK, HAS TO BE FIRST AND FOREMOST. ONE OTHER THING I

- 1 THINK NEEDS TO BE SAID, AND THOSE OF YOU IN THE INDUSTRY
- 2 CAN BACK ME UP ON THIS, BUT VERY FEW OF THE BIOTECH
- 3 COMPANIES, BACK TO TALKING BIOTECHNOLOGY, ACTUALLY GO
- 4 BANKRUPT. SOME DO, BUT IT'S RATHER RARE. THEY TEND TO
- 5 HAVE THEIR INTELLECTUAL PROPERTY ACQUIRED. IN THAT CASE
- 6 THE DEBT WOULD FOLLOW THE ACQUIRER OF THAT.
- 7 SO I THINK TO BELIEVE THAT WE'RE GOING TO HAVE
- 8 A 70-PERCENT FAILURE RATE HERE IS COMPLETELY OUT OF THE
- 9 REALM, BUT I THINK THERE WILL BE A FAILURE RATE, BUT NOT
- 10 A VERY HIGH ONE.
- DR. LOVE: THEY DO GET DILUTED, SO WHATEVER
- 12 INSTRUMENT YOU HAVE, IF IT'S WARRANTS, CERTAINLY EQUITY,
- 13 THERE'S A POTENTIAL OF MASSIVE DILUTION.
- 14 CHAIRMAN ROTH: I THINK, TED, BOB'S ALREADY
- 15 ADDRESSED THAT. WE CAN'T DO WARRANTS OR EQUITY PROBABLY
- 16 IN THE STATE OF CALIFORNIA, SO I'M TALKING STRICTLY DEBT,
- 17 THAT THIS DEBT FOLLOWS THE TECHNOLOGY. AND IF THE
- 18 COMPANY MERGES OR IS ACQUIRED, IT SELLS THE INTELLECTUAL
- 19 PROPERTY, WE WOULD HAVE A CLAIM.
- 20 WHAT I'M REALLY GETTING AT IS I DON'T EXPECT
- 21 THIS PORTFOLIO, AND WE'LL FIND OUT IN THE MODELING, TO
- 22 END UP WITH A PROBABILITY OF A 70-PERCENT FAILURE RATE.
- 23 IT MAY BE FAR HIGHER THAN THAT IN TERMS OF PRODUCT
- 24 FAI LURE, BUT NOT THE ORGANI ZATIONS.
- MR. KLEIN: TWO THINGS. ONE, I DON'T WANT TO

1	PREJUDGE WHETHER YOU CAN HAVE A FORM OF STOCK OPTION. AS
2	LONG AS YOU DON'T EXERCISE THE OPTION, YOU MIGHT SELL THE
3	OPTION WHEN THE DEBT IS REPAID OR A PORTION OF THE DEBT
4	IS REPAID AND YOU SELL THE OPTION, AND YOU GET SOME OF
5	THE REPAYMENT FROM THAT SOURCE. THAT WE'LL HAVE TO LOOK
6	TO AN IN-DEPTH LEGAL REVIEW.
7	BUT THE OTHER SIDE OF THIS, WHILE WE'RE NOT
8	TALKING ABOUT TRYING TO UNDERWRITE CREDIT IN THE SENSE OF
9	A BANKABLE CREDIT, THERE IS AN UNDERWRITING THAT LOOKS AT
10	FUNDAMENTALLY RISK. AND YOU CAN LOOK AT THE RISK IN
11	TERMS OF WHAT'S THE MANAGEMENT QUALITY? WHAT'S THE
12	QUALITY OF THIS PRODUCT? WHAT'S THE FEASIBILITY OF THIS
13	PRODUCT ACHIEVING CERTAIN STAGES OF DEVELOPMENT?
14	DIAGNOSTIC FOR TOXICITY TESTING MIGHT HAVE A VERY
15	DIFFERENT PROFILE THAN A CELL REPLACEMENT THERAPY, FOR
16	EXAMPLE. AND SO WE MAY WELL HAVE AN UNDERWRITING RATING
17	ON RISK, AND THE HIGHER THE SCIENTIFIC BENEFIT, THE
18	HIGHER THE THERAPEUTIC BENEFIT, THE MORE RISK WE MAY BE
19	WILLING TO UNDERTAKE. THERE MAY BE A CROSS MATRIX
20	COMPARISON HERE.
21	SO I DON'T WANT ANYONE TO BELIEVE THAT BECAUSE
22	WE'RE NOT LOOKING AT BANKABLE CREDIT, THAT WE'RE NOT
23	LOOKING AT RISK AND HAVING A THOUGHTFUL PROCESS FOR
24	IDENTIFYING THOSE CRITERIA AND PERFORMANCE GOALS OF A
25	COMPANY THAT WOULD MITIGATE RISK AS A PART OF THIS.

1	CERTAINLY
2	CHAIRMAN ROTH: WELL, WHAT I WAS GETTING AT IS
3	THE COMPANIES, MANY OF THE COMPANIES THAT ARE GOING TO BE
4	APPLYING HERE, IF YOU LOOKED AT IT FROM CREDITWORTHINESS,
5	AREN'T THERE. WHAT YOU'RE TALKING ABOUT IS CAN THEY
6	IMPLEMENT ON THE PLAN THEY HAVE. IF THEY'RE ASKING FOR A
7	\$2 MILLION LOAN AND THE COST IS REALLY FIVE, DO THEY HAVE
8	THE OTHER THREE? OR IS THAT BASED ON THE COME?
9	THE SECOND THING IS I CAN'T IMAGINE THAT IF WE
10	WRITE LOANS, THEY WON'T BE MILESTONE DRIVEN. SO IF
11	SOMEBODY COMES AND ASKS FOR A LET'S SAY WE DID AN RFA
12	ON PRECLINICAL THROUGH PHASE I, SO THE FIRST MONEY WOULD
13	BE PAID OUT AT THE PRECLINICAL SUCCESS. IF IT'S A
14	FAILURE, THERE'S NO MORE LOAN TO BE MADE BECAUSE THEY'RE
15	NOT GOING TO PHASE I. SO I WOULD THINK THAT THAT WOULD
16	BE PART OF THE PROCESS THAT WE GO THROUGH SO THAT WE'RE
17	NEVER FUNDING SOMETHING JUST WITH A BLANK CHECK AND
18	SAYING HERE IT IS. WE HOPE YOU'RE SUCCESSFUL. I THINK
19	IT WILL HAVE TO BE LAYERED.
20	AND I AGREE WITH BOB. ONE OF THE CRITERIA IN
21	THE RFA HAS GOT TO BE WHAT'S THE TOTAL COST TO DO THE
22	PROJECT YOU'RE TALKING ABOUT, AND HOW MUCH OF THAT
23	FUNDING ARE YOU GOING TO BE ABLE TO PROVIDE, AND DO THEY,
24	IN FACT, HAVE THAT MONEY, OR IS IT BASED ON THE COME?
25	MR. KLEIN: AND DO THEY HAVE THE MANAGEMENT

1	SKILLS BASED ON PERFORMANCE OR HAVE THEY CONTRACTED WITH
2	THE MANAGEMENT SKILLS TO COVER THEIR GAPS TO INCREASE
3	THEIR CHANCES OF SUCCESS ON THIS PLAN?
4	CHAIRMAN ROTH: OTHER THOUGHTS ON THIS? AGAIN,
5	THE PREMISE IN THIS AREA THAT I STARTED WITH IS LET'S NOT
6	CREATE A BUREAUCRATIC NIGHTMARE FOR THE STAFF AT CIRM
7	BECAUSE OF THE WAY WE SET THIS THING UP, THAT THERE'S
8	CONSTANT, YOU KNOW, ISSUES THAT HAVE TO BE LOOKED AT AND
9	FEEDBACK. WE PUT THE ONUS ON THE RECIPIENTS OF THESE
10	LOANS TO KEEP US INFORMED AS OPPOSED TO HAVING GO OUT
11	MS. FEIT: MR. CHAIRMAN, THIS IS MARCY FEIT.
12	I'M GOING TO LEAVE THE CONFERENCE CALL, BUT I HAD SEVERAL
13	POINTS I'D LIKE TO LEAVE WITH, IF I COULD STATE THOSE.
14	CHAIRMAN ROTH: YOU'VE GOT IT.
15	MS. FEIT: FIRST OF ALL, I THINK THE LEGAL DUE
16	DILIGENCE ON WHAT PROP 71 SAYS ABOUT OUR RELATIONSHIP TO
17	FOR-PROFIT, NOT-FOR-PROFIT IS REALLY IMPORTANT ON THIS
18	I SSUE.
19	SECOND, I WOULD LIKE TO SEE US WRITE A PREAMBLE
20	TO THE WORK WE DO THAT STATES WHAT THE GOALS ARE FOR THIS
21	PROGRAM. WE'VE DONE THAT WITH ALL THE OTHER WORK WE'VE
22	DONE, AND IT'S A GOOD PLACE TO START IN TERMS OF WHAT OUR
23	GOALS ARE.
24	THEN IN TERMS OF THE DEFAULT PIECE IF THE LOAN
25	CANNOT BE REPAID, I THINK THAT HAS TO BE THOUGHT OUT
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1	REALLY CLEARLY. I DON'T BELIEVE THAT IT WOULD FARE WELL
2	FOR US TO SAY, WELL, OKAY, YOU CAN'T PAY IT BACK, SO BE
3	IT. I THINK WE HAVE TO THINK THROUGH EXACTLY WHAT THAT
4	MEANS AND HOW THAT WOULD WORK FOR THE TAXPAYER'S MONEY.
5	THE SECOND ISSUE ALONG THAT, IS IT POSSIBLE FOR
6	THEM TO DO A LOAN DRAW THAT CAN BE MONITORED SO THE WORK
7	COULD BE MONITORED SO THAT THERE ISN'T JUST ONE LUMP SUM
8	CHECK. AND SO AT SOME POINT, IF THE PROGRAM IS FAILING,
9	THAT MAYBE WE HAVEN'T DEFAULTED ON THE TOTAL FUNDS.
10	AND THE LAST POINT I WANTED TO MAKE, THAT I
11	AGREE WITH YOU THAT WE CAN'T HAVE THE STAFF BECOME THE
12	BANKERS. SO IS IT POSSIBLE TO BRING IN A TRUSTEE TO
13	OVERSEE THE LOANS THAT WE MAKE IN TERMS OF MANAGEMENT OF
14	THE MONEY AND THE LOANS. SO THOSE ARE JUST THE POINTS I
15	WANTED TO MAKE.
16	CHAIRMAN ROTH: THANKS, MARCY. GREAT POINTS.
17	AND WE'LL CERTAINLY TAKE THOSE INTO CONSIDERATION.
18	MR. KLEIN: JUST FOLLOWING UP ON MARCY'S POINT,
19	I THINK IT'S IMPORTANT ON THE BUSINESS SIDE OF THIS TO
20	LOOK VERY SERIOUSLY AT CONTRACTING OUT SERVICING OF THESE
21	LOANS, CONTRACTING OUT MONITORING SERVICES BECAUSE IT'S
22	OUTSIDE THE SCIENTIFIC CORE MISSION OF OUR STAFF. SO
23	LOOKING AT SPECIALIZED FIRMS WITH TRACK RECORDS IN THESE
24	AREAS THAT CAN PROVIDE THOSE SPECIALIZED SERVICES WILL
25	PROPERLY HELP US FOCUS OUR STAFF IN AREAS WHERE WE HAVE

- SPECIAL STRATEGIC ADVANTAGE AND YET TAKING OTHER FIRMS 1 THAT HAVE A GREAT DEAL OF OVERHEAD INVESTMENT ON A 2 CONTRACT BASIS AND HAVING THEM ADDRESS THEIR AREA OF 3 SPECIALIZED EXPERTISE AT HIGHER PROFICIENCY AND 4 5 EFFICIENCY LEVEL THAN WE CERTAINLY COULD. MS. FEIT: THANK YOU. I'M GOING TO LEAVE THE 6 CONFERENCE CALL, BUT JEFF IS STILL HERE LISTENING IN, 7 JEFF SARGUS. 8 CHAIRMAN ROTH: WE'LL CALL ON JEFF IF HE HAS 9 ANYTHING DURING THE PUBLIC COMMENT SECTION WHICH FOLLOWS 10 THIS. ANY OTHER THINGS ON ADMINISTRATIVE? I THINK 11 12 THAT'S ONE OF THE BOXES THAT WE'VE GOT TO CHECK. 13 DR. MURPHY: I THINK, DUANE, THAT GIVEN THAT 14 BOTH LYNN -- LYNN IS VERY, VERY BUSY RIGHT NOW. I THINK 15 WE SHOULD THINK ABOUT EXPANDING OUR OWN EXPERTISE 16 IN-HOUSE, AND SCOTT IS VERY BUSY AS WELL. SO GIVEN THE IMPORTANCE OF THIS AND ALSO GIVEN THE FACT THAT WE ARE 17 NOW MOVING MORE INTO THE APPLIED, THE TRANSLATIONAL, THE 18
- CLINICAL, I THINK THAT WE WILL THINK ABOUT BRINGING MORE 19
- PEOPLE, AT LEAST CERTAINLY ONE MORE PERSON INTO THE 20
- INSTITUTE TO BE ABLE TO FACILITATE THESE DISCUSSIONS. 21
- 22 CHAIRMAN ROTH: GREAT. ANY OTHER THOUGHTS ON
- 23 THAT?
- MR. SHEEHY: I THINK THE ADMINISTRATIVE POINT 24
- 25 IS A GOOD ONE. IT SEEMS LIKE WE'RE DANCING AROUND WHAT

SEEMS TO BE KIND OF A KEY POLICY DECISION THAT I THINK 1 YOU WERE TRYING TO ADDRESS WITH THE NAME CHANGE, WHICH IS 2 MAYBE TO LIMIT THIS IN SOME WAY, LIMIT THE SCOPE OF THIS 3 PROGRAM IN SOME WAY TO PRODUCT DEVELOPMENT OR CERTAIN 4 5 STAGES IN THE PROCESS WHERE THERAPIES OR TOOLS OR DIAGNOSTICS ARE DEVELOPED. AND IT JUST SEEMS -- WE 6 TALKED ABOUT SEVERAL DIFFERENT THINGS, LIKE BEING ABLE TO 7 CONVERT A LOAN, BEING ABLE TO CHOOSE BETWEEN A GRANT AND 8 A LOAN, VERY COMPLICATED AND DIFFICULT THING TO PUT ON 9 THE TABLE. IF WE GIVE THAT CHOICE TO INDUSTRY, BUT WE 10 DON'T GIVE THAT CHOICE TO INSTITUTIONS, IT DOESN'T REALLY 11 12 SEEM FAIR. BUT IF WE LIMITED THE SCOPE AND MAYBE JUST 13 TRIED TO BITE OFF IN THOSE AREAS THAT WE'VE IDENTIFIED IN 14 THE STRATEGIC PLAN WHERE INDUSTRY IS BEST SUITED TO MOVE 15 FORWARD AND WHERE WE'VE IDENTIFIED THOSE GAPS. WHY THE 16 VALLEY OF DEATH AND MAYBE THE DEVELOPMENT OF SPECIALIZED TOOLS OR DIAGNOSTICS. 17 IT SEEMS TO ME THAT WE ALSO KIND OF DEAL WITH 18 WHAT IS THE LOOMING ISSUE OF IP DIFFERENTIATION BECAUSE 19 IF WE'RE DOING BASIC RESEARCH, IP IS BEING CREATED. 20 AND WE STILL GET VALUE FROM THE CREATION OF THAT IP. WE 21 CAPTURE IT FROM THE INSTITUTIONS AS THEY COLLECT THAT IP 22 OVER TIME. BUT IF YOU'RE TALKING ABOUT THESE PHASES IN 23 PRODUCT DEVELOPMENT WHERE YOU'VE KIND OF BEEN FOCUSING, 24

THERE IS NO IP, IT SEEMS TO ME, THAT WILL BE BEING

25

- 1 CREATED. SO SOME OF THE BURDEN THAT WE PUT ON COMPANIES
- 2 AND PUT ON NONPROFIT INSTITUTIONS MIGHT NOT NEED TO BE SO
- 3 STRONGLY ADDRESSED IF NO IP IS BEING CREATED.
- 4 AM I MAKING SOME SENSE WITH THAT? MAYBE IF WE
- 5 DIDN'T TRY TO BITE OFF THE ENTIRE THING AND REALLY LOOK,
- 6 AND THAT WAY WE COULD HAVE A PROGRAM THAT WE MIGHT BE
- 7 ABLE TO TEST OUT FOR A WHILE AS OPPOSED TO TRYING. THIS
- 8 SOUNDS LIKE TALKING ABOUT SOUP TO NUTS. YOU CAN DO BASIC
- 9 RESEARCH. YOU CAN DO APPLIED RESEARCH. WE CAN DO
- 10 CLINICAL TRIALS. AND MAYBE JUST TRYING TO FOCUS FAIRLY
- 11 NARROWLY ON THOSE GAPS.
- 12 AND THEN WE ALSO MIGHT BE ABLE TO FIGURE OUT
- 13 WHAT OUR ADMINISTRATIVE CHALLENGES ARE IN TERMS OF
- 14 MANAGING THIS PROGRAM, AND THEN YOU DO KIND OF A BETA AND
- 15 SEE IF WE CAN GET THIS TO WORK. IT SOUNDS LIKE A LOT TO
- 16 DO IN 90 DAYS.
- 17 CHAIRMAN ROTH: WELL, AGAIN, I THINK THE WORK
- 18 PRODUCT THAT COMES OUT OF HERE IS GOING TO BE A POLICY
- 19 THAT WHEN THE ICOC, CIRM STAFF, ICOC AGREE THERE'S AN
- 20 AREA, A FUNDING GAP AREA IN, I'LL USE, PRODUCT
- 21 DEVELOPMENT FOR RIGHT NOW, THAT WE SHOULD PUT A GRANT
- 22 OUT. AND TODAY WE ALL TALK ABOUT EARLY STAGE, BUT THAT
- 23 CAN CHANGE. IT MAY BE THAT WE FIND LATER STAGE CLINICAL
- 24 TRIALS ARE NOT FUNDABLE IN THIS AREA BECAUSE THERE HAVE
- 25 BEEN A NUMBER OF, QUOTE, FAILURES. RIGHT NOW YOU

- 1 PROBABLY COULDN'T FUND MANY GENE THERAPY COMPANIES GOING
- 2 INTO PHASE III, EVEN THOUGH THAT WORK SHOULD GET DONE.
- 3 SOMEBODY HAS GOT TO CONTINUE THAT EFFORT, BUT THAT'S THE
- 4 KIND OF THING. I WANT TO MAKE SURE THE POLICY ENDURES
- 5 AND ISN'T SO NARROWLY FOCUSED THAT WE CAN'T WORK WITHIN
- 6 THE CONSTRAINTS OF IT WITHOUT HAVING TO COME BACK AND
- 7 REDO IT.
- 8 I THINK KEEPING IT BROAD AND THEN DECIDING
- 9 WHERE ARE THOSE GAPS AND PUTTING AN REA OUT FOR THAT, AND
- 10 THEN DECIDING GRANT, LOAN, BOTH, WHAT ARE THE OPTIONS
- 11 THAT WE SHOULD GO FOR? I THINK THAT GIVES US SOME
- 12 FLEXI BI LITY.
- 13 I DON'T THINK, JEFF, WE'RE GOING TO BE ABLE TO
- 14 ANSWER ALL THE QUESTIONS ABOUT THOSE KIND OF THINGS THAT
- 15 WE MAY DECIDE ON THE RFA'S. WHAT I THINK WE HAVE TO DO
- 16 IS GET A POLICY SO THAT PEOPLE CAN LOOK, AS THEY WILL AT
- OUR IP POLICY, AND SAY DO I WANT TO APPLY GIVEN THESE
- 18 CONSTRAINTS. HOPEFULLY IT WILL BE THE SAME THING HERE.
- 19 I'LL LOOK AT THE LOAN PROGRAM, I'LL SEE WHAT MY
- 20 REQUIREMENTS ARE UNDER THAT, AND MAKE A DECISION WHETHER
- 21 I WANT TO APPLY FOR ONE OF THOSE.
- MR. SHEEHY: WELL, THERE'S RELATIONSHIPS
- 23 BETWEEN ALL OF THESE. I MEAN WE WOULDN'T WANT PEOPLE
- 24 GAMING THE SYSTEM TO GET THE BEST DEAL WHEN IT DOESN'T
- 25 SOUND LIKE THAT WE NECESSARILY HAVE A VERY HIGH

1	EXPECTATION THAT LOANS WILL BE PAID BACK. SO IF WE ARE
2	GOING TO PUT A LITTLE BIT MORE PRESSURE ON LOANS BEING
3	PAID BACK WE'RE TALKING ABOUT, THEN WE HAVE A LITTLE BIT
4	LESS OF A GAMING. BUT IF A LOAN BECOMES DE FACTO GRANT
5	IF YOU JUST DON'T SUCCEED, THEN YOU'VE ALLOWED THE SYSTEM
6	TO BE GAMED. I DON'T KNOW THAT THAT'S NECESSARILY
7	APPROPRI ATE.
8	AND THEN YOU DO HAVE TO BE MORE BANK LIKE IN
9	THOSE SITUATIONS BECAUSE YOU DO HAVE TO ASSESS CREDIT
10	RISK IF YOU ARE GOING TO HAVE A HIGHER EXPECTATION OF THE
11	LOANS BEING PAID BACK.
12	CHAIRMAN ROTH: AGAIN, JEFF, WE CAN DISCUSS
13	THAT IN MORE DETAIL. BUT I KEEP REMINDING EVERYONE THAT
14	THE ALTERNATIVE IS TO JUST GIVE THEM GRANTS AND THEN
15	THERE'S NO EXPECTATION FOR PAYBACK. SO THIS PROGRAM IS
16	REALLY DESIGNED, AS I SAID, FOR AN EVERGREEN, AND
17	HOPEFULLY A SIGNIFICANT NUMBER OF COMPANIES AND/OR
18	INSTITUTIONS WILL BE INTERESTED IN THIS BECAUSE THEY
19	DON'T WANT TO ENTER INTO OUR IP, NOT SO MUCH THE IP
20	POLICY, BUT THE FINANCIAL CONDITIONS OF THE IP. AND THEY
21	SAID I'D REALLY RATHER TAKE A LOAN.
22	BUT, ANYWAY, WE WILL HAVE MORE DISCUSSION WHEN
23	WE COMPLETE THE DUE DILIGENCE ON THIS AND WE DO SOME
24	MODELING BASED ON HISTORICAL FINDINGS OF EARLY STAGE

COMPANIES THAT ADVANCED AND WOULD HAVE BEEN ABLE TO REPAY

25

1	SEVEN YEARS DOWN THE ROAD. SO ONCE YOU SEE SOME
2	HISTORICAL PERSPECTIVE ON THAT, I THINK IT WILL BE VERY
3	HELPFUL TO US.
4	ALL RIGHT. ANYTHING ELSE ADMINISTRATIVE?
5	THE LAST AREA I WANTED TO TALK ABOUT BEFORE WE
6	OPEN IT UP FOR THINGS WE HAVEN'T THOUGHT ABOUT IS WHO ARE
7	THE CONSTITUENTS THAT WE NEED TO HEAR FROM? AND HOW CAN
8	WE ORGANIZE THAT INTO SOME BLOCKS WHERE WE HAVE SOME
9	PUBLIC MEETINGS WHERE WE GET REAL GOOD INPUT, EXPERT
10	INPUT, THAT WE INVITE TO COME AND ADDRESS US, MAYBE SOME
11	PRESENTATIONS AND SOME THOUGHTS, AND THEN SOME DISCUSSION
12	THAT WE WOULD HAVE WITH INTERESTED PARTIES. SO ONE
13	OBVIOUS ONE IS GOING TO BE INDUSTRY, THE INDUSTRY THAT'S
14	GOING TO ASK FOR AND BE INVOLVED IN THIS PROGRAM. ANY
15	OTHERS BESIDES THAT?
16	MR. GOLDBERG: ALL INTERESTED PARTIES.
17	CHAIRMAN ROTH: I THINK THERE'S A FINANCIAL
18	THE VENTURE CAPITAL INVESTMENT BANKING AREA THAT WE
19	SHOULD HAVE A DISCUSSION WITH.
20	MR. GOLDBERG: PERHAPS HAVE PRESENTATIONS FROM
21	THEM. RI GHT.
22	CHAIRMAN ROTH: SO I WAS THINKING WE MIGHT DEAL
23	WITH INDUSTRY SEPARATELY IN ONE PUBLIC MEETING, AND THEN
24	HAVE A SECOND MEETING WITH THE FINANCIAL TYPES TO DISCUSS
25	SOME OF THESE THINGS THAT WE'RE TALKING ABOUT.

1	MR. GOLDBERG: SECURITY INTERESTS.
2	CHAIRMAN ROTH: IF YOU CAME ALONG AND SAW THE
3	COMPANY HAD THIS TYPE OF A LOAN, HOW WOULD YOU REACT TO
4	THAT? WOULD THAT BE A BIG DETERRENT FOR YOU MAKING AN
5	INVESTMENT, OR WOULD YOU ACCEPT THE TERMS OF THAT?
6	MR. KLEIN: I THINK AS WELL WE SHOULD CONTACT
7	THOSE LEADING NATIONS THAT HAVE COME TO US WITH
8	DIPLOMATIC AND SCIENTIFIC MISSIONS WANTING TO WORK WITH
9	US AND ASK THEM WHAT THEIR BEST PRACTICES ARE.
10	ADDITIONALLY, BESIDES THE GAP IN FUNDING
11	RELATED TO THE PRIVATE SECTOR, THERE'S A VERY REAL ISSUE
12	THAT'S BEEN RAISED BY THE SCIENTISTS AND CLINICIANS,
13	WHICH IS, BASED ON THEIR PRIOR HISTORY, THEY FEEL
14	SOMETIMES THEY NEED TO CREATE A SMALL COMPANY TO CARRY
15	RESEARCH FURTHER BECAUSE THEY LOSE CONTROL OF THE
16	RESEARCH TOO EARLY. AND THERE ARE MANY GREAT DISCOVERIES
17	THAT ARE SITTING ON SHELVES AT LARGE COMPANIES THEY
18	WEREN'T ABLE TO CARRY THAT DEVELOPMENT OF THAT PRODUCT
19	DOWNSTREAM FAR ENOUGH WHERE THEY WERE ABLE TO THEMSELVES
20	PROVE THAT IT HAD A REAL FEASIBLE APPLICATION.
21	SO KAROLINSKA INSTITUTE IN SWEDEN, FOR EXAMPLE,
22	HAS CREATED A SPECIAL PROGRAM TO WORK WITH THEIR
23	SCIENTISTS TO ALLOW THEM TO CARRY SOME OF THIS RESEARCH
24	FURTHER DOWNSTREAM IN ORDER TO BE ABLE TO IN A MORE
25	DEFINITIVE WAY SHOW THAT THIS APPLICATION IS FEASIBLE

1	RATHER THAN HAVING IT SWEPT OUT AT AN EARLY DATE BY
2	BIOTECH OR VENTURE CAPITAL AND THEN NOT IMPLEMENT IT.
3	SO SEPARATE FROM THIS VALLEY OF DEATH GAP OF
4	FUNDING, THERE MAY BE A NEED TO ADDRESS AND ANALYZE HOW
5	MEANINGFUL THIS PROBLEM IS OF PROVIDING FUNDING WHERE
6	SCIENTIFIC GROUPS WITH THE RIGHT MANAGEMENT OVERSIGHT,
7	MAYBE THROUGH ACCELERATOR-TYPE STRUCTURES, CAN CARRY THE
8	RESEARCH FURTHER DOWNSTREAM AND ENHANCE ITS ABILITY TO BE
9	PICKED UP AND DEVELOPED INTO ACTUAL PATIENT THERAPIES.
10	CHAIRMAN ROTH: JUST SO EVERYONE KNOWS WHAT
11	WE'RE TALKING ABOUT, VALLEY OF DEATH GETS USED A LOT. I
12	LIVE IN IT BECAUSE I SPEND A LOT OF TIME HELPING
13	SCIENTISTS TRY TO OBTAIN FUNDING TO TAKE THE IDEA WHERE
14	THE GRANT LEFT OFF, THERE'S NO MORE GRANT MONEY LEFT, AND
15	WHERE VENTURE CAPITAL OR EVEN EARLIER ANGEL INVESTORS ARE
16	WILLING TO PUT MONEY IN. THERE'S CERTAIN PROOFS THAT
17	NEED TO BE DONE THAT IN YEARS PAST WERE MORE EASILY
18	FUNDED, AND TODAY THAT GAP IS WIDENING. MY GOOD FRIEND
19	HERE, MICHAEL, WHO'S ON THE VENTURE SIDE, YOU KNOW, THEY
20	CAN'T AFFORD TO PUT SMALL AMOUNTS OF MONEY OR HIRE AN
21	EXECUTIVE, SENIOR, EXPERIENCED MANAGEMENT TEAM UNTIL THAT
22	PROOF IS THERE.
23	AND SO HOW DO YOU GET FROM THE END OF THE GRANT
24	TO THERE, AND THAT'S WHERE I THINK THIS PROGRAM WILL BE A
25	TREMENDOUS ASSET IF WE STRUCTURE IT PROPERLY.

1	MR. KLEIN: AND JUST SO WE EXPLAIN TERMS, THE
2	ACCELERATOR MODEL, WHICH YOU'RE EFFECTIVELY REFERENCING,
3	BRINGS TOGETHER FIVE OR SIX OR SEVEN OR EIGHT COMPANIES'
4	EXPERTISE IN THE SPECTRUM OF KNOWLEDGE AND MARKETING AND
5	FINANCE AND FDA APPROVALS, ETC., SO THAT THOSE COMPANIES
6	REMAIN SMALL, KEEP THEIR OVERHEAD SMALL, BUT BENEFIT FROM
7	A PORTFOLIO OF MANAGEMENT SERVICES AT A HIGH LEVEL THAT
8	REALLY ENHANCES THEIR ABILITY TO MOVE THAT PRODUCT
9	DOWNSTREAM.
10	CHAIRMAN ROTH: OTHER MAJOR CONSTITUENCIES THAT
11	WE NEED TO HEAR FROM?
12	DR. MURPHY: DUANE, I WONDER IF ORGANIZATIONS
13	LIKE CHI WOULD BE USEFUL HERE, OR ARE THEY TOO FAR
14	DOWNSTREAM?
15	CHAIRMAN ROTH: NO. I THINK WE SHOULD INVITE
16	THEM TO THE INDUSTRY AND ALSO POTENTIALLY TO THE CAPITAL
17	PROVIDERS. I THINK ONE ON INDUSTRY, ONE ON CAPITAL
18	PROVIDERS, AND THEN OTHERS THAT WE MIGHT THINK OF THAT WE
19	SHOULD REALLY HEAR FROM.
20	DR. LOVE: SOME OF THE DEVICE GROUPS.
21	CHAIRMAN ROTH: MAYBE WE SHOULD INVITE ALL OF
22	THOSE BIO AND OTHERS TO WEIGH IN ON THIS, BIOCOM.
23	MR. KLEIN: YEAH. ANOTHER GOOD SOURCE IS THE
24	MARS INSTITUTE AT UNIVERSITY OF TORONTO, WHICH IS A CROSS
25	BETWEEN AN INCUBATOR AND ACCELERATOR-TYPE PROGRAM
	40

1	ASSOCIATED TO TRY AND DEVELOP THEIR THERAPIES.
2	CHAIRMAN ROTH: BUT WHAT BOB'S REALLY HITTING
3	ON IS THAT'S WHY I THINK WE NEED TO KEEP THIS PROGRAM
4	OPEN TO INSTITUTIONS AND OTHERS OUTSIDE OF, QUOTE,
5	ORGANIZED COMPANIES THAT ARE TRYING TO ADVANCE THINGS
6	THAT ARE REALLY PRODUCTS IN THE EARLY STAGE TO GET TO THE
7	POINT WHERE AN ORGANIZED COMPANY CAN BE PUT TOGETHER.
8	ANY OTHER CONSTITUENTS THAT WE SHOULD BE
9	TALKING TO?
10	MR. SHEEHY: YOU KNOW, IF WE'RE TALKING ABOUT,
11	AS BOB WAS ALLUDING TO, COMPANY FORMATION, THERE'S A VERY
12	INTERESTING TALK THAT WE HEARD IN THE IP POLICY FROM
13	SOMEONE AT THE NIH ON THE SBIR AND STTR PROGRAM.
14	MR. GOLDBERG: RI GHT.
15	MR. SHEEHY: TO GET THEIR INSIGHTS ON COMPANY
16	FORMATION MIGHT FIT INTO ONE OF THESE. I DON'T KNOW IF
17	IT SHOULD BE A SEPARATE STAND-ALONE, BUT WE MIGHT LOOK
18	AT YOU KNOW, THEY MIGHT BE ONE WAY TO START TO GET A
19	GRIP ON COMPANY FORMATION.
20	MR. GOLDBERG: MY RECOMMENDATION, AND, JEFF, I
21	AGREE WITH YOU. I THOUGHT THAT WAS AN EXTREMELY HELPFUL
22	PRESENTATION. MAYBE THAT FOLDS BETTER INTO THE BEST
23	PRACTICES REVIEW BECAUSE THE SBIR SEEMED TO BE A CATEGORY
24	OF THAT.
25	DR. PENHOET: ATP IS THE GOVERNMENT IS PART
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OF NIST. IT'S ONE THAT ACTUALLY DEALS WITH COMPANIES 1 MAYBE MORE IN THIS MODE THAN SBIR'S DO, SO THAT WOULD BE 2 3 ANOTHER GROUP. 4 CHAIRMAN ROTH: WE'LL TRY TO ORGANIZE. BUT AT LEAST TWO MEETINGS WHERE WE'D HAVE SEPARATE, FOCUSED 5 CAPITAL PROVIDERS AND THEN SORT OF THE INDUSTRY OR 6 INTERESTED PARTIES IN THE ONES THAT WOULD BE APPLYING FOR 7 THESE LOAN PROGRAMS. 8 9 MR. KLEIN: I THINK WHAT'S BROADLY BEING DISCUSSED HERE TOO IS WITH A NEW ADMINISTRATION, THERE 10 MAY BE AN ABILITY TO INTERFACE OUR PROGRAMS WITH CERTAIN 11 12 FEDERAL PROGRAMS THAT PROVIDE RISK SHARING ON THESE LOANS 13 AND ALLOW US TO GET FEDERAL GUARANTEES ON A PART OF THIS 14 RISK TO FURTHER EXPAND OUR FUNDS. 15 MR. GOLDBERG: HOW DOES REVEREND HUCKABEE FEEL 16 ABOUT THAT? 17 CHAIRMAN ROTH: ONE OTHER THING ON A RELATED ISSUE, AND THIS IS ANOTHER AREA THAT WE SHOULD DO SOME 18 INVESTIGATION IN, BUT ONE OF THE SMALL COMPANIES IN SAN 19 DIEGO COMMENTED THAT WHEN YOU APPLY FOR NIH GRANTS, 20 THERE'S A CERTAIN DEBT-TO-EQUITY RATIO THAT HAS TO BE 21 LOOKED AT, AND WE SHOULD MAKE SURE WE UNDERSTAND THAT SO 22 23 THAT WE'RE --24 MR. GOLDBERG: GOOD POINT. 25 CHAIRMAN ROTH: -- ACTUALLY ABLE TO --

1	MR. KLEIN: GET THAT LEVERAGE SOURCE.
2	CHAIRMAN ROTH: YEAH. AND COMPANIES AREN'T
3	MR. GOLDBERG: ACTUALLY IN THAT CASE IT'S A
4	NEGATI VE LEVERAGE.
5	CHAIRMAN ROTH: IT'S A NEGATIVE LEVERAGE. SO
6	WE WANT TO MAKE SURE, AND THAT'S WHERE THE OPTION MAY
7	COME IN, TAKE A GRANT OR TAKE A LOAN, AND THAT MIGHT
8	I NFLUENCE.
9	ANY OTHER BROAD AREAS THAT COMMITTEE MEMBERS OR
10	JEFF OR ANYBODY HAS THAT YOU WANT TO DISCUSS?
11	DR. LOVE: AT SOME POINT I THINK WE'RE GOING TO
12	HAVE TO THINK HARD, AND MAYBE THIS WAS MARCY'S POINT
13	ABOUT A PREAMBLE, WHAT ARE WE TRYING TO ACHIEVE BECAUSE I
14	THINK IF YOU REALLY WANT TO FOCUS ON GETTING THESE LOANS
15	REPAID, THEN WE SHOULD JUST LOAN THE MONEY TO PHIZER, AND
16	THEY'LL PROBABLY BE ABLE TO PAY IT BACK, BUT THEY DON'T
17	NEED IT AND PROBABLY WOULDN'T TAKE THEM. IF YOU WANT TO
18	DO THIS AND ENCOURAGE COMPANIES THAT ARE HIGH QUALITY,
19	HIGH QUALITY PEOPLE WITH HIGH QUALITY IDEAS TO COME IN
20	AND TAKE A RISK, THEN THAT MIGHT BE A SITUATION WHERE
21	THERE'S MORE RISK AND UNCERTAINTY AROUND BEING ABLE TO
22	ASSURE THAT THE MONEY WILL COME BACK. SO I THINK WE'VE
23	REALLY GOT TO WORK THAT THROUGH.
24	PERSONALLY I DON'T THINK IT'S IRRESPONSIBLE TO
25	BE ENCOURAGING THESE RISKIER COMPANIES TO COME IN, BUT I

1	THINK WE NEED TO UNDERSTAND THAT THERE WILL BE A RISK
2	FINANCIALLY TO PUSHING IT IN THAT DIRECTION.
3	CHAIRMAN ROTH: AGAIN, I THINK THE ALTERNATIVE
4	IS WE JUST DO GRANTS. SO THAT'S WHY THERE'S A BALANCE
5	HERE THAT WILL BE STRUCK THAT SAYS I THINK SOME OF THE
6	POINTS ARE BEING MADE HIGH QUALITY, MEANING THEY, IN
7	FACT, TAKE THE MONEY AND IMPLEMENT IT, MILESTONE DRIVEN
8	SO THAT WE'RE NOT WRITING A BLANK CHECK FOR \$5 MILLION.
9	IT MAY BE \$5 MILLION IF THEY KEEP PROGRESSING. AND TO
10	MAKE SURE THERE'S SUFFICIENT FUNDING FOR THE TOTAL SCOPE
11	OF THE PROGRAM ABOVE AND BEYOND WHAT OUR FUNDING IS,
12	THOSE THINGS, I THINK, ARE IMPORTANT TO THE RFA.
13	MR. KLEIN: I ALSO WOULD LIKE TO STRESS THAT
14	EVEN THOUGH THERE MAY BE A CERTAIN HYPOTHETICAL SCALE
15	THAT'S RECOMMENDED FOR THIS PROGRAM, IN FACT, IT WILL
16	HAVE TO INCREMENTALLY PROVE ITSELF. SO WE'LL HAVE TO GO
17	THROUGH THIS, AS WE HAVE WITH THE GRANT PROGRAM, LEARN AS
18	WE GO, INCREMENTALLY PROVING IT OUT. AND AS IT TURNS TO
19	BE MORE SUCCESSFUL, WE'LL APPROACH HIGHER LEVELS IN THIS
20	PROGRAM, BUT IT WILL TAKE SEVERAL YEARS TO SCALE UP THIS
21	PROGRAM ON A PROVEN TRACK RECORD AS WE GAIN UNDERSTANDING
22	BECAUSE WE'RE LIKELY TO FIND, AS WITH OUR GRANT PROGRAM,
23	THAT WE'RE CREATING A NEW MODEL HERE THAT WE HAVE TO
24	LEARN A GREAT DEAL ABOUT.
25	CHAIRMAN ROTH: OKAY. IF THE COMMITTEE WILL

- 1 INDULGE, I'D LIKE TO OPEN IT UP TO PUBLIC COMMENT.
- 2 ANYBODY IN THE PUBLIC?
- 3 MR. FOELLMER: OLIVER FOELLMER FROM CAPRICOR,
- 4 INC. I WAS WONDERING IF THERE'S ANY LIMITATIONS ON A
- 5 LOAN PROGRAM TO FUND OR PROVIDE RISK REDUCTION TO THE
- 6 VENTURE COMMUNITY DIRECTLY. BECAUSE YOU'RE TALKING ABOUT
- 7 THE ADMINISTRATION OF A LOAN PROGRAM, YOU'RE TALKING
- 8 ABOUT ESSENTIALLY WHAT VC'S ARE DOING WITH VETTING
- 9 COMPANIES ON A BUSINESS SCALE.
- 10 ARE YOU ABLE TO COLLABORATE MORE DIRECTLY WITH
- 11 VENTURE COMPANIES OR MAYBE PROVIDE LOAN GUARANTEES SO
- 12 THAT THESE HIGH RISK INVESTMENTS INTO START-UP COMPANIES,
- 13 WHICH IS ESSENTIALLY COMPANY FORMATION THAT WE'RE TALKING
- 14 ABOUT, CAN BE ENCOURAGED?
- MR. KLEIN: POLICY DISCUSSION.
- 16 CHAIRMAN ROTH: WE'LL HAVE A DISCUSSION AND
- 17 FIND OUT. ANY OTHER PUBLIC COMMENTS?
- 18 MR. REED: THIS IS DON REED IN SAN FRANCISCO.
- 19 WISCONSIN'S PROGRAM, THEIR ENTIRE STATE PROGRAM, IS A MIX
- 20 OF PUBLIC AND PRIVATE INVESTMENTS, A MIX OF LOANS AND
- 21 GRANTS. AND IT OCCURS TO ME THAT THEY MIGHT HAVE HAD
- 22 DIRECT EXPERIENCE WITH MANY OF THE QUESTIONS THAT WE WILL
- 23 BE FACING. I WONDER IF IT MIGHT NOT BE WORTHWHILE TO
- 24 HAVE ONE OF THEIR REPRESENTATIVES COME OUT AND SPEAK TO
- 25 THEIR EXPERIENCES.

1	CHAIRMAN ROTH: ANYBODY ELSE THAT'S ON THE
2	PHONE?
3	DR. PENHOET: WHOSE LOAN PROGRAM WAS HE TALKING
4	ABOUT?
5	CHAIRMAN ROTH: WISCONSIN'S LOAN PROGRAM.
6	MR. EARP: THIS IS DAVID EARP FROM GERON.
7	WE'RE VERY ENCOURAGED BY THE FACT THAT CIRM IS THINKING
8	ABOUT TRANSLATIONAL RESEARCH AND CLINICAL TRIALS AND
9	PROVIDING THESE LOANS. SO I WANT TO SAY THAT AS AN
10	INITIAL COMMENT.
11	THE GRANT PROGRAM THAT WE HAVE MADE COMMENTS ON
12	AND A NUMBER OF OTHER COMPANIES HAVE MADE COMMENTS ON
13	RAISE SOME CONCERNS FOR COMPANIES IN A COUPLE OF AREAS,
14	ONLY ONE OF WHICH WAS ADDRESSED TODAY, AND THAT WAS THE
15	IP PROVISION. BUT THERE ARE ALSO SOME PROVISIONS IN THE
16	DRAFT PROPOSED REGULATIONS FOR THE GRANT PROGRAM RELATING
17	TO MARCH-IN RIGHTS AND ALSO RELATING TO CONSUMER ACCESS,
18	PATIENT ACCESS, TO THE THERAPEUTICS THAT ARE DEVELOPED
19	USING THE GRANTS. AND I THINK ONE OF THE CONCERNS WE
20	HAVE IS SOME OF THE VAGARIES AROUND THAT LANGUAGE THAT WE
21	DON'T REALLY KNOW WHAT THOSE OBLIGATIONS ARE. THEY'RE
22	NOT PERHAPS CLEARLY SPELLED OUT AS WE WOULD BE
23	COMFORTABLE WITH IN SUGGESTING THAT WE SHOULD GO FORWARD
24	WITH AN APPLICATION FOR A GRANT.
25	I DO WANT TO MAKE THE COMMENT THAT I HOPE THAT
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1	WHEN YOU THINK ABOUT THE CONDITIONS THAT ATTACH TO THE
2	LOAN PROGRAM, YOU THINK ABOUT THOSE ISSUES AS WELL AS THE
3	IP RIGHTS THAT GO ALONG WITH THE LOAN STRUCTURE.
4	THE SECOND COMMENT I HAD RELATED TO WHERE THE
5	MONEY IN LOANS THAT WAS GOING TO A COMPANY OR SOME
6	ORGANIZATION FOR, FOR EXAMPLE, CLINICAL TRIALS COULD BE
7	SPENT. IT'S VERY TYPICALLY THE CASE WHERE YOU HAVE
8	MULTISITE CLINICAL TRIALS GOING ON. A NUMBER OF THOSE
9	SITES WILL BE OUTSIDE OF ONE STATE. FOR INSTANCE, IN A
10	CLINICAL TRIAL WE'RE LOOKING AT INITIATING NOW A STEM
11	CELL CLINICAL TRIAL, A NUMBER OF CLINICAL TRIALS ARE
12	OUTSIDE OF THE STATE. AND IT WOULD BE HELPFUL IF
13	GUIDANCE COULD BE THERE COULD BE CONSIDERATION GIVEN
14	TO IF A CALIFORNIA ORGANIZATION APPLIES TO CIRM FOR A
15	LOAN, CAN THE MONEY BE SPENT IN SOME WAY, WHETHER
16	DIRECTLY OR INDIRECTLY, IN A CLINICAL TRIAL THAT'S BEING
17	CONDUCTED IN PART OUTSIDE THE STATE OF CALIFORNIA.
18	CHAIRMAN ROTH: SO THANK YOU FOR THOSE
19	COMMENTS. AND I KNOW THAT SOME OF THESE THINGS IN THE IP
20	POLICY WILL CERTAINLY HAVE TO BE LOOKED AT AND DISCUSSED
21	IN TERMS OF THE GRANT PROGRAMS. SO THAT'S ONE IN
22	TERMS OF THE LOAN PROGRAM.
23	THE SECOND THING I WOULD REFER TO THAT GIL
24	SAMBRANO, WHO'S HERE, HAS BEEN DOING A LOT OF WORK
25	LOOKING AT THE POLICY AND LOTS OF GOOD INPUT, CONDUCTED

VERY GOOD INPUT MEETINGS, WHICH I THINK WE'LL DO HERE 1 WITH OUR TWO MEETINGS THAT WE'RE GOING TO TALK ABOUT. 2 KUMAR ALSO WAS INVOLVED IN THAT. 3 4 ANYWAY, WE WILL CERTAINLY TRY TO MAKE SURE THAT 5 INDUSTRY AND OTHERS THAT ARE INTERESTED IN THIS ARE HEARD ON HOW WE ADDRESS THOSE HERE. TOMORROW WE'LL DO THE IP 6 POLICY, SO WE PROBABLY WILL GET SOME INPUT. 7 8 MR. KLEIN: ON THE LEGAL ISSUE, WE CAN'T SPEND 9 THIS MONEY OUT-OF-STATE. SO TO THE EXTENT THERE'S A CLINICAL TRIAL AND THE ANALYSIS OF THAT TRIAL IS DONE IN 10 CALIFORNIA OR A PORTION OF THE TRIAL'S DONE IN 11 12 CALIFORNIA, THAT MONEY WE CAN FUND. IT MAY BE THAT THEY 13 NEED TO BE A PATIENT FOUNDATION, DISEASE-BASED FOUNDATION 14 THAT FUNDS PART OF THE MONEY OUT OF THE STATE, BUT OUR 15 MONEY IS RESTRICTED TO BE SPENT IN THE STATE OF 16 CALI FORNI A. 17 CHAIRMAN ROTH: EVEN IF IT'S A SERVICE? DR. PENHOET: THESE ARE VENDORS ESSENTIALLY. 18 19 CHAIRMAN ROTH: THAT'S WHAT WE'RE LOOKING AT IN TERMS OF THE POLICY FOR NONPROFITS. AND MY UNDERSTANDING 20 IS THAT IF IT'S A SERVICE, THAT IT CAN BE INCLUDED. 21 MR. KLEIN: WELL, DO WE WANT TO ASK OUR COUNSEL 22 23 HERE? CHAIRMAN ROTH: IS THIS A QUESTION FOR TODAY OR 24 25 FOR TOMORROW?

1	MR. HARRISON: I THINK THIS IS A QUESTION WE
2	WANT TO LOOK CLOSELY AT.
3	DR. LOVE: IT IS AN IMPORTANT QUESTION THOUGH,
4	BECAUSE CLINICAL SITES, IT'S VERY RARE TO HAVE A TRIAL OF
5	ANY MAGNITUDE BE CONDUCTED IN ONE STATE.
6	CHAIRMAN ROTH: BUT I REMEMBER THE LANGUAGE
7	THAT WE'RE EXPLORING, AND I THINK THERE MAY BE A
8	PROVISION IN PROP 71 THAT ALLOWS THE SERVICE TO INCLUDE
9	THINGS LIKE THIS, BUT WE NEED TO RESOLVE. THAT'S
10	ACTUALLY BEING RESOLVED BY A DIFFERENT GROUP.
11	THAT'S ONE OTHER THING I WOULD COMMENT ON. A
12	LOT OF THE WORK THAT WE NEED TO DO IN THIS AREA WE CAN
13	LIFT FROM THINGS THAT WE'VE DONE IN OTHER AREAS. WE MAY
14	HAVE TO MODIFY IT A BIT TO MAKE IT APPROPRIATE GIVEN THE
15	LAST COMMENTS THAT WERE MADE.
16	OKAY. ANY OTHER PUBLIC COMMENT? IF NOT, THE
17	ACTION ITEMS, BOB, I NEED SOME INPUT HERE, I DON'T KNOW
18	WHAT WE HAVE TO DO TO BE ABLE TO RETAIN THE RESOURCES WE
19	NEED EXTERNALLY TO DO THAT, OR WHETHER WE SHOULD BE
20	MAKING THAT RECOMMENDATION AND/OR VOTING ON THAT HERE.
21	MR. KLEIN: WELL, AS COMMITTEE CHAIR, CERTAINLY
22	DR. MURPHY HAS INDICATED THAT THERE IS STAFF SUPPORT
23	THAT'S GOING TO BE PLEDGED FROM THE CHAIRMAN'S OFFICE AS
24	WELL AS SUPPLEMENTAL CIRM STAFF SUPPORT. AND AS
25	COMMITTEE CHAIR, ONCE YOU'VE DEVELOPED THE BUDGET ON THIS
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1	AND IT CAN BE BROUGHT TO THE PRESIDENT WITHIN THE
2	PRESIDENT'S AUTHORITY, THEN THE PRESIDENT CAN MAKE
3	DECISIONS ON RESOURCE ALLOCATIONS. AND IF WE HAVE ANY
4	POLICY QUESTION AS TO RESOURCE ALLOCATION, BUT I THINK
5	YOU'RE WAY BELOW THE PRESIDENT'S AUTHORITY IN THE DOLLARS
6	YOU'RE TALKING ABOUT. BUT WE CAN CERTAINLY ADDRESS IT IF
7	THERE'S SOME INCONSISTENCY, BUT I THINK THAT THE
8	AUTHORITY EXISTS WITH THE PRESIDENT TO ADDRESS THESE
9	NEEDS.
10	CHAIRMAN ROTH: OKAY. SO WHAT I WOULD ASK THE
11	COMMITTEE'S SUPPORT ON IS FOR ME TO WORK WITH DR. MURPHY
12	TO COME UP WITH A PROPOSAL AND TO MAKE SOME
13	RECOMMENDATIONS ABOUT THE PROFESSIONALS THAT WE NEED TO
14	DO THIS AND A BUDGET FOR THAT AND GET AN APPROVAL AS SOON
15	AS WE POSSIBLY CAN ON THAT BECAUSE I THINK, GIVEN THE
16	TIMEFRAME, WE'VE GOT TO GET STARTED.
17	DR. MURPHY: ABSOLUTELY.
18	CHAIRMAN ROTH: OKAY. THANK YOU ALL FOR
19	ATTENDING, AND THANK THE COMMITTEE FOR SERVING, AND WE'LL
20	SEE YOU ALL BRIGHT AND EARLY TOMORROW.
21	(THE MEETING WAS THEN ADJOURNED AT 6 P.M.)
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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 BIOTECH LOAN PROGRAM TASK FORCE OF THE INDEPENDENT CITIZENS OVERSIGHT COMMITTEE TO THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD AT THE LOCATION INDICATED BELOW

LUXE HOTEL
11461 SUNSET BOULEVARD
LOS ANGELES, CALIFORNIA
ON
TUESDAY, DECEMBER 11, 2007

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

BETH C. DRAIN, CSR 7152

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