

**BETH C. DRAIN, CA CSR NO. 7152**

BEFORE THE  
IP AND INDUSTRY SUBCOMMITTEE OF THE  
INDEPENDENT CITIZENS' OVERSIGHT COMMITTEE  
TO THE  
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE  
ORGANIZED PURSUANT TO THE  
CALIFORNIA STEM CELL RESEARCH AND CURES ACT  
REGULAR MEETING

LOCATION: VIA ZOOM

DATE: DECEMBER 13, 2022  
11 A.M.

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

FILE NO.: 2022-50

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**I N D E X**

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1. CALL TO ORDER	3
2. ROLL CALL	3
<b>ACTION ITEMS</b>	
3. CONSIDERATION OF WARRANT-BASED CO-FUNDING OPTION FOR TRANSLATIONAL AND CLINICAL PROGRAMS	4
<b>DISCUSSION ITEMS</b>	
4. PUBLIC COMMENT	NONE
5. ADJOURNMENT	66

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DECEMBER 13, 2022; 11 A.M.

CHAIRMAN JUELSGAARD: SO --

MS. BONNEVILLE: START THE RECORDING  
PLEASE. THANK YOU.

CHAIRMAN JUELSGAARD: ALL RIGHT. SO I'M  
GOING TO CALL THIS MEETING OF THE IP AND INDUSTRY  
SUBCOMMITTEE TO ORDER. MARIANNE, IF YOU COULD CALL  
THE ROLL PLEASE.

MS. DEQUINA-VILLABLANCA: SURE. ONE  
SECOND. MOHAMMED ABOUSALEM.

DR. ABOUSALEM: PRESENT.

MS. DEQUINA-VILLABLANCA: JUDY CHOU.

DR. CHOU: PRESENT.

MS. DEQUINA-VILLABLANCA: AMME-MARIE  
DULIEGE.

DR. DULIEGE: YES.

MS. DEQUINA-VILLABLANCA: LARRY GOLDSTEIN.

DR. GOLDSTEIN: YEAH.

MS. DEQUINA-VILLABLANCA: STEVE  
JUELSGAARD.

CHAIRMAN JUELSGAARD: YES.

MS. DEQUINA-VILLABLANCA: JIM KOVACH.

DR. KOVACH: YES.

MS. DEQUINA-VILLABLANCA: SHLOMO MELMED.

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1 JOE PANETTA.

2 MR. PANETTA: HERE.

3 MS. DEQUINA-VILLABLANCA: BARRY SELICK.

4 MICHAEL STAMOS.

5 DR. STAMOS: HERE.

6 MS. DEQUINA-VILLABLANCA: JONATHAN THOMAS.

7 CHAIRMAN THOMAS: HERE.

8 MS. DEQUINA-VILLABLANCA: ART TORRES.

9 KAROL WATSON.

10 OKAY. WE ARE AT QUORUM.

11 CHAIRMAN JUELSGAARD: THANK YOU. SO WE  
12 HAVE A SINGULAR TOPIC FOR TODAY. THIS IS ACTUALLY A  
13 CONTINUATION OF THE DISCUSSION WE HAD QUITE SOME  
14 TIME AGO REGARDING FOR-PROFIT COMPANIES AND THE  
15 ISSUE OF CO-FUNDING REQUIREMENTS FOR, IN PARTICULAR,  
16 AT THE TIME WE WERE LOOKING AT TRANSLATIONAL  
17 PROJECTS. AND THE ISSUE THAT WE WERE SEEING IS  
18 THAT, PARTICULARLY FOR SOME OF THE VERY YOUNG  
19 COMPANIES, THOSE THAT ARE STILL IN THE ANGEL  
20 INVESTING ROUND OR WHATEVER, SOME OF THEM WERE  
21 SIMPLY NOT ABLE TO COME UP WITH THE AMOUNT OF MONEY  
22 NEEDED FOR CO-FUNDING TO BE ABLE TO PARTICIPATE IN  
23 THE CIRM PROGRAMS. AGAIN, WE FOCUSED ON THE  
24 TRANSLATIONAL AREA.

25 SO IF YOU WILL RECALL, AT THAT MEETING

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1     THERE WAS A DESIRE ON THE PART OF THIS COMMITTEE TO  
2     SEE IF WE COULD COME UP WITH A STRUCTURE THAT, IN  
3     LIEU OF CO-FUNDING WITH MONEY, WE COULD COME UP WITH  
4     AN ALTERNATE SYSTEM IN WHICH A COMPANY WOULD PROVIDE  
5     CO-FUNDING IN THE FORM OF A WARRANT, WARRANTS TO  
6     PURCHASE SHARES IN THE COMPANY THAT HAD THE  
7     POTENTIAL FOR HAVING VALUE SHOULD THEY BE SUCCESSFUL  
8     IN THEIR DEVELOPMENT DOWN THE ROAD.

9             SO SINCE THAT MEETING, WHICH, AGAIN, HAS  
10    BEEN QUITE SOME TIME AGO, WE'VE DONE A FAIR AMOUNT  
11    OF WORK LOOKING AT THIS ISSUE, BARRY AND I TOGETHER  
12    WITH SHYAM PATEL, WHO I'M GOING TO TURN THIS MEETING  
13    OVER TO IN JUST A MOMENT TO WALK US THROUGH THE  
14    PRESENTATION, TO TRY AND COME UP WITH A  
15    RECOMMENDATION FOR A WARRANT-BASED APPROACH TO  
16    CO-FUNDING AS AN ALTERNATIVE TO COMING UP WITH  
17    MONEY.

18            SO THE PROPOSAL YOU ARE GOING TO SEE WOULD  
19    BE ONE THAT, AS I SAID, IS AN ALTERNATIVE, BUT WOULD  
20    STILL REMAIN THE CASE THAT, IF A COMPANY COULD COME  
21    UP WITH CO-FUNDING IN THE FORM OF CASH, THAT WOULD  
22    BE ACCEPTABLE; BUT THE OTHER WOULD BE IF THEY'RE  
23    UNABLE TO DO THAT OR DESIRE TO TRY AND DO A  
24    WARRANT-BASED APPROACH, THEN WE WOULD PROVIDE THAT  
25    OPPORTUNITY FOR THEM.

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1 SO WITH NO FURTHER ADO, THEN, SHYAM, I'M  
2 GOING TO TURN THE PRESENTATION OVER TO YOU TO TAKE  
3 US THROUGH THE SLIDE DECK THAT WAS SENT OUT AHEAD OF  
4 THIS MEETING.

5 DR. PATEL: THANK YOU, CHAIRMAN  
6 JUELSGAARD. THIS IS SHYAM PATEL. I'M THE SENIOR  
7 DIRECTOR OF BUSINESS DEVELOPMENT AND ALLIANCE  
8 MANAGEMENT AT CIRM, AND I'LL BE WALKING THROUGH A  
9 FEW SLIDES DESCRIBING THE PROPOSAL THAT STEVE  
10 OUTLINED.

11 SO LET ME JUST SHARE MY SCREEN REAL QUICK.  
12 EVERYBODY CAN SEE THAT?

13 SO AS STEVE NOTED, EARLIER THIS YEAR THE  
14 SUBCOMMITTEE DIRECTED CIRM TO EVALUATE CO-FUNDING  
15 CHANGES PARTICULARLY TO OUR TRAN PROGRAM AS WELL AS  
16 SPECIFICALLY TO LOOK AT A WARRANT ALTERNATIVE  
17 MECHANISM IN LIEU OF THE CASH-BASED CO-FUNDING  
18 REQUIREMENT. SO I'M GOING TO WALK THROUGH, FIRST OF  
19 ALL, THE CURRENT TRENDS IN THE FOR-PROFIT CIRM  
20 AWARDS, WHICH IS USEFUL BACKGROUND FOR THIS  
21 COMMITTEE. AND I THINK THERE WERE SOME QUESTIONS  
22 THAT WERE ALSO BROUGHT UP DURING THAT PREVIOUS  
23 MEETING. AND THEN I'LL TALK ABOUT HOW WE'VE  
24 HISTORICALLY IMPLEMENTED WARRANTS IN CIRM AWARDS.  
25 THERE'S TWO INSTANCES OF THIS, ONE WHERE IT ACTUALLY

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1 WAS PART OF THE PROGRAM ITSELF. AND THEN, LASTLY,  
2 I'LL TALK ABOUT THE PROPOSAL FOR IMPLEMENTING A  
3 WARRANT-BASED CO-FUNDING OPTION IN TRAN, CLIN1, AND  
4 CLIN2 PROGRAMS AND GIVE YOU KIND OF AN OVERVIEW OF  
5 WHAT THAT MIGHT LOOK LIKE. AND THEN FINALLY, I'M  
6 GOING TO LAY OUT THE STEPS, SHOULD THIS COMMITTEE  
7 WANT CIRM TO MOVE FORWARD WITH THIS PROGRAM, HOW IT  
8 WOULD BE IMPLEMENTED.

9 SO AS A BACKGROUND TO THE WHOLE  
10 CONVERSATION, IT'S IMPORTANT TO RECOGNIZE HOW WE  
11 ACTUALLY APPLY THE CO-FUNDING REQUIREMENT. SO IT IS  
12 APPLIED AS A PERCENTAGE OF THE TOTAL PROJECT COST.  
13 SO IF AN APPLICANT DEEMS THAT A PROJECT COST IS X  
14 AMOUNT OF DOLLARS, IN THAT PARTICULAR SCENARIO, THE  
15 CO-FUNDING AMOUNT IS BASED ON THE ADDITION OF THE  
16 CIRM FUNDS REQUESTED PLUS THE AWARD AMOUNT OF THE  
17 CO-FUNDING TO TOTAL PROJECT COST. SO IF WE SAY IT'S  
18 A 20-PERCENT CO-FUNDING REQUIREMENT, IT'S NOT 20  
19 PERCENT OF THE CIRM FUNDS, BUT IT'S 20 PERCENT OF  
20 THE OVERALL TOTAL PROJECT COSTS. AND THIS IS  
21 IMPORTANT TO REMEMBER AS YOU WALK THROUGH THE  
22 EXAMPLE DOWN THE ROAD IN TERMS OF HOW THE WARRANTS  
23 WILL BE IMPLEMENTED IF IT DOES COME INTO PLAY THEN.  
24 AND I'LL REVISIT THIS CONCEPT AGAIN.

25 SO WITH THAT OUT OF THE WAY, I ALSO WANT

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1 TO GO OVER WHAT THE CO-FUNDING REQUIREMENT LOOKS  
2 LIKE AND THE AWARD AMOUNTS LOOK LIKE FOR THE TRAN,  
3 CLIN1, AND CLIN2 PROGRAMS AND HOW THEY DIFFER BASED  
4 ON THE THERAPEUTIC MODALITY BEING DEVELOPED OR THE  
5 TYPE OF APPLICANT.

6 SO ON THE TRANSLATIONAL SIDE AGAIN, THE  
7 TRANSLATIONAL AWARDS ARE MEANT TO PROGRESS A PROJECT  
8 FROM HAVING DISCOVERED A CANDIDATE TO PRE-IND  
9 MEETING OR PRE-IDE MEETING IF IT'S A DEVICE. IN  
10 THESE INSTANCES THE AWARD AMOUNTS ARE SCALED BASED  
11 ON THE TYPE OF CANDIDATE BEING DEVELOPED, BUT THE  
12 MOST AMOUNT OF MONEY FOR A THERAPEUTIC CANDIDATE AT  
13 \$4 MILLION. THESE ARE DIRECT PROJECT COSTS. IN  
14 THIS INSTANCE, THERE ARE NO DIFFERENCES IN THE AWARD  
15 AMOUNTS BETWEEN THE NONPROFIT AND FOR-PROFIT FOR  
16 DIRECT PROJECT COSTS.

17 NOW, THE OVERHEAD COSTS ARE A LITTLE BIT  
18 DIFFERENT. SO FOR FOR-PROFIT COMPANIES, THEY CAN  
19 REQUEST DIRECT FACILITIES COSTS, BUT CAN'T REQUEST  
20 INDIRECT COSTS WHILE A NONPROFIT CAN REQUEST BOTH OF  
21 THOSE AMOUNTS.

22 WITH THE CO-FUNDING AMOUNT, THERE IS NO  
23 CO-FUNDING REQUIREMENT FOR NONPROFIT APPLICANTS TO  
24 THE TRANSLATIONAL PROGRAM, BUT THERE IS A 20-PERCENT  
25 TOTAL PROJECT COST CO-FUNDING REQUIREMENT FOR



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1 FOR-PROFIT APPLICANTS TO THE TRANSLATIONAL PROGRAM.

2 AND THEN ON THE CLIN1 AND CLIN2, HERE THE  
3 AWARDS ARE TOTAL AWARD CAPS. SO FOR A CLIN1, A  
4 FOR-PROFIT APPLICANT CAN REQUEST \$4 MILLION FROM  
5 CIRM FOR THAT PROJECT WITH THE EXPECTATION THAT  
6 THEY'RE PUTTING UP 20 PERCENT CO-FUNDING OF THE  
7 OVERALL TOTAL PROJECT COSTS. A NONPROFIT, ON THE  
8 OTHER HAND, CAN REQUEST \$6 MILLION AND DOES NOT HAVE  
9 A CO-FUNDING REQUIREMENT.

10 FOR CLIN2, THE AWARD AMOUNTS ARE DIFFERENT  
11 FOR FIRST-IN-HUMAN TRIALS, BUT THEN THE SAME FOR  
12 EVERY SUBSEQUENT TRIAL. SO FOR FIRST-IN-HUMAN  
13 TRIAL, A FOR-PROFIT CAN REQUEST \$8 MILLION FROM CIRM  
14 FOR THE TOTAL AWARD AMOUNT AND NEEDS TO PUT UP 30  
15 PERCENT CO-FUNDING OF THE TOTAL PROJECT COSTS. FOR  
16 A NONPROFIT FOR A FIRST-IN-HUMAN TRIAL, THEY CAN  
17 REQUEST \$12 MILLION FROM CIRM WITH NO CO-FUNDING  
18 REQUIREMENT AT ALL.

19 NOW, AFTER THAT FIRST-IN-HUMAN TRIAL,  
20 EVERY SUBSEQUENT TRIAL IS SUPPORTED BY CIRM UP TO  
21 \$15 MILLION. AND BOTH THE NONPROFIT AND THE  
22 FOR-PROFIT HAVE A 40-PERCENT CO-FUNDING REQUIREMENT  
23 AT THAT POINT ON THE TOTAL PROJECT COSTS.

24 SO THAT'S AN OVERVIEW OF THE TWO FUNDING  
25 MECHANISMS, TRAN AND CLIN. AND THIS IS GOING TO BE

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1     IMPORTANT AS WE WALK THROUGH THE EXAMPLES DOWN THE  
2     ROAD AND HOW A WARRANT-BASED CO-FUNDING OPTION MAY  
3     BE APPLIED.  AND I'LL REVISIT SOME OF THESE NUMBERS  
4     AS WE GO THROUGH THOSE.

5             AT THE TIME OF APPLICATION, THIS IS ONE OF  
6     THE THINGS THAT STEVE MENTIONED, WE DO REQUIRE THAT  
7     THE APPLICANT DEMONSTRATE THAT THEY HAVE THE ABILITY  
8     TO ACTUALLY CO-FUND THE PROJECT.  SO WHEN THEY  
9     SUBMIT THEIR APPLICATION, THERE'S TWO THINGS WE LOOK  
10    FOR.  THE FIRST AND FOREMOST IS THAT THEY HAVE CASH  
11    ON HAND OR A COMMITTED CO-FUNDING WITHOUT ANY SORT  
12    OF STRINGS ATTACHED TO IT EQUAL TO 25 PERCENT OF THE  
13    TOTAL CO-FUNDING REQUIREMENT.  AND THE REASON WE  
14    LOOK FOR THAT AMOUNT OF MONEY IS THAT THE  
15    EXPECTATION IS THAT WHEN THE CIRM AWARD LAUNCHES AND  
16    CIRM DISBURSES THAT FIRST AMOUNT FOR A MILESTONE IS  
17    THAT THE APPLICANT IS ALSO READY TO DISBURSE THEIR  
18    AMOUNT.

19            AND AS A REMINDER, ALL CIRM AWARDS ARE  
20    MILESTONE-BASED DISBURSEMENTS.  AND I'LL SHOW YOU  
21    THAT EXAMPLE IN A SECOND.  SO THE FIRST REQUIREMENT  
22    IS THAT THEY HAVE TO HAVE AT LEAST A QUARTER OF THE  
23    TOTAL CO-FUNDING COMMITMENT ON HAND WHEN THEY APPLY.  
24    AND THE SECOND REQUIREMENT IS THAT THEY CAN  
25    DEMONSTRATE THEY EITHER HAVE CASH ON HAND OR

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1 COMMITTED SOURCES OF CO-FUNDING FOR THAT REMAINING  
2 75 PERCENT OF THE CO-FUNDING AMOUNT. NOW, THIS 75  
3 PERCENT OF THE CO-FUNDING AMOUNT WILL BE DISBURSED  
4 OVER THE COURSE OF THE AWARD. IT COULD BE 30 MONTHS  
5 FOR A TRAN AWARD, IT COULD BE 24 MONTHS FOR A CLIN1  
6 AWARD, OR IT COULD BE FOUR YEARS FOR A CLIN2 AWARD.  
7 SO THERE'S A PRETTY LONG WINDOW OF TIME WHERE THEY  
8 NEED TO SHOW THAT THEY CAN DEMONSTRATE SOME OF THEIR  
9 FUNDING AMOUNTS.

10 NOW, OVER THE COURSE OF THE AWARD, AS I  
11 MENTIONED, CIRM HAS A MILESTONE-BASED DISBURSEMENT  
12 PROCESS FOR TRAN AND CLIN AWARDS. SO AT AWARD  
13 LAUNCH CIRM PROVIDES ENOUGH FUNDING TO ALLOW THE  
14 GRANTEE TO GET TO THAT FIRST MILESTONE. AND SO THE  
15 CO-FUNDING AMOUNT IS ALSO PROPORTIONAL TO THE CIRM  
16 FUNDING FOR EACH MILESTONE. SO AT EACH MILESTONE,  
17 CIRM IS GIVING THEM MONEY TO ACHIEVE THAT MILESTONE,  
18 AND THE AWARDEE IS ALSO PUTTING UP THE RESPECTIVE  
19 CO-FUNDING PROPORTION FOR THAT MILESTONE  
20 ACHIEVEMENT.

21 SO A QUESTION THAT WE'VE GOTTEN FROM THIS  
22 COMMITTEE IN THE PAST HAS BEEN HOW MANY FOR-PROFIT  
23 AWARDEES ARE THERE, AND HOW ARE THOSE NUMBERS  
24 CHANGING, AND WHAT IS THE PROFILE OF THOSE  
25 FOR-PROFIT AWARDEES. SO I'M GOING TO ADDRESS SOME

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1 OF THOSE QUESTIONS IN THIS SLIDE HERE.

2 SO FIRST AND FOREMOST, WHAT I'M DOING HERE  
3 IS I'M SPLITTING THE PROPORTION BASED ON PRE-2021.  
4 SO YOU CAN THINK OF THAT AS PROP 71 FUNDING. AND  
5 THEN JANUARY 2021 AND BEYOND, WE CAN THINK OF THAT  
6 AS PROP 14 FUNDING. SO UNDER THE PROP 71 ERA IN THE  
7 CLIN PROGRAM, THIS IS AGGREGATING BOTH CLIN1  
8 IND-ENABLING PROJECTS AS WELL AS CLIN2 CLINICAL  
9 TRIAL PROJECTS. ROUGHLY 40 PERCENT OF THE AWARDEES  
10 WERE FOR-PROFIT. IN THE COURSE OF PROP 14 FUNDING,  
11 THERE WAS A DIP IN 2021, BUT 2022 WE'RE BACK TO THAT  
12 ALMOST PARITY BETWEEN FOR-PROFIT AND NONPROFIT  
13 AWARDEES FOR OUR CLIN PROGRAM. AND THIS IS WHAT WE  
14 EXPECT TO SEE GOING FORWARD.

15 ON THE TRANSLATIONAL SIDE, PRIOR TO  
16 2021 -- NOW ONE THING TO NOTE HERE IS THAT THE TRAN  
17 PROGRAM HAD A FEW STARTS AND STOPS ALONG THE WAY  
18 DURING THE PROP 71 ERA. BUT UNDER THE PROP 71 ERA,  
19 THERE WAS ABOUT 12 PERCENT OF THE AWARDEES WERE  
20 FOR-PROFIT AWARDEES FOR TRANSLATIONAL AWARDS. IN  
21 THE PROP 14 ERA, BOTH IN 2021 AND CONTINUING IN  
22 2022, THERE'S BEEN A SIGNIFICANTLY HIGHER PROPORTION  
23 OF FOR-PROFIT AWARDEES IN THE TRANSLATIONAL PROGRAM.  
24 AND WE CONTINUE TO SEE THAT VOLUME OF APPLICATIONS  
25 AND AWARDS EVERY ROUND, AND WE EXPECT THAT TO CARRY

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1 FORWARD AS WELL.

2 AN IMPORTANT QUESTION FROM THIS COMMITTEE  
3 HAS BEEN WHAT ARE THE TYPES OF COMPANIES THAT  
4 ACTUALLY GET CIRM FUNDING. ON THE TRANSLATIONAL  
5 SIDE, THE COMPANIES ARE, AS STEVE DESCRIBED, VERY  
6 EARLY STAGE. THEY'RE EITHER SEED, BY SEED WE MEAN  
7 THEY EITHER HAVE GRANT FUNDING OR THEY HAVE INITIAL  
8 SEED FUNDING FROM ANGELS OR MAYBE A VC, VENTURE  
9 CAPITALIST, THROUGH VENTURE SERIES AB AND USUALLY  
10 IT'S SERIES A. SO THESE ARE FAIRLY EARLY STAGE  
11 COMPANIES, AND THEY'RE OPERATING OFF OF A LIMITED  
12 AMOUNT OF CASH AND RESOURCES, AND EVERY PROGRAM IS  
13 CRITICAL FOR THEM.

14 ON THE CLINICAL SIDE, WE SEE FULL RANGE  
15 FROM SEED THROUGH PUBLIC. SO IT IS SEED FINANCE  
16 COMPANIES ALL THE WAY THROUGH PUBLIC. THE PUBLIC  
17 COMPANIES ARE USUALLY PREREVENUE, AND THEY'RE SMALL  
18 TO MID-CAP COMPANIES. SO THEY'RE NOT GIANT  
19 BIOPHARMA COMPANIES APPLYING FOR CIRM FUNDING IN  
20 MOST INSTANCES.

21 SO WITH THAT IN MIND, THE REST OF THE  
22 SLIDES ARE GOING TO FOCUS ON THE WARRANT-BASED  
23 CO-FUNDING OPTION. SO AS I MENTIONED, THERE'S BEEN  
24 TWO INSTANCES PREVIOUSLY WHERE THERE WAS SOME SORT  
25 OF LOAN COVERAGE AND CIRM FUNDING OPPORTUNITIES.

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1 MOST RECENTLY IT WAS ACCELERATING THERAPEUTICS  
2 PUBLIC/PRIVATE PARTNERSHIP PROGRAM WHICH DID NOT  
3 AWARD ANY APPLICATIONS, BUT THAT HAD WARRANT  
4 COVERAGE AS PART OF THE AWARD. AND MORE  
5 PROMINENTLY, THERE WAS A LOAN PROGRAM IN THE PAST  
6 THAT CIRM HAD RUN FOR A NUMBER OF YEARS THAT DID  
7 HAVE WARRANT COVERAGE. IN LIEU OF GETTING AN AWARD,  
8 AN APPLICANT COULD REQUEST TO GET A LOAN INSTEAD  
9 FROM CIRM THAT IT WOULD PAY BACK ON CERTAIN TERMS.  
10 AND AS PART OF THAT WARRANT, THERE WAS WARRANT  
11 COVERAGE. AND THAT WARRANT COVERAGE OFTEN WAS  
12 SUBSTANTIAL. THERE HAD BEEN SOME CHANGES IN THE  
13 LOAN PROGRAM OVER TIME, BUT THE WARRANT COVERAGE  
14 COULD BE AS HIGH AS A HUNDRED PERCENT OF THE LOAN IN  
15 SOME INSTANCES.

16 THAT LOAN PROGRAM ALSO DEFINED THE WARRANT  
17 TERMS WITH RESPECT TO TERM LENGTH, NUMBER OF SHARES,  
18 EXERCISE PRICE, AND SO ON. AND LASTLY, IT ALSO  
19 ESTABLISHED A PROCESS FOR ASSIGNING WARRANTS TO A  
20 THIRD PARTY LIQUIDATING THOSE SHARES, THEN  
21 TRANSFERRING THOSE FUNDS TO CIRM FOR REDEPLOYMENT  
22 UNDER ITS FUNDING MECHANISMS. AND SO THE WARRANT  
23 OPTION THAT I'M GOING TO BE WALKING YOU THROUGH IN  
24 THE REST OF THIS PROPOSAL BORROWS AND ADAPTS AND  
25 ADOPTS A LOT OF THE ELEMENTS THAT WERE PREVIOUSLY

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1 DEFINED IN THAT LOAN PROGRAM, PARTICULARLY AROUND  
2 THE PROCESS OF ASSIGNING WARRANTS AND TRANSFERRING  
3 FUNDS, BUT ALSO SOME OF THE WARRANT TERMS WHERE THEY  
4 ARE USEFUL FOR CIRM. I'LL WALK YOU THROUGH THOSE IN  
5 THE REMAINING SLIDES.

6 SO THE PROPOSAL ITSELF, WHAT DO WE MEAN?  
7 SO HERE ONE THING I WANT TO MAKE CLEAR IS THAT THE  
8 WARRANT-BASED CO-FUNDING OPTION THAT WE'RE  
9 PRESENTING IN THE NEXT FEW SIDES DOES NOT MAKE ANY  
10 CHANGES TO THE AWARD AMOUNTS OR TO THE CO-FUNDING  
11 REQUIREMENT ITSELF. SO IT'S APPLYING A  
12 WARRANT-BASED CO-FUNDING OPTION GIVEN IN THE CURRENT  
13 CONFINES OF THE TRAN AND CLIN FUNDING MECHANISM AS  
14 IT IS. NOT MAKING ANY CHANGES TO THOSE.

15 WITH THAT IN MIND, IT PROVIDES AN OPTION  
16 TO THE APPLICANT TO SELECT THE WARRANT-BASED  
17 CO-FUNDING OPTION. AND TO AVOID CONFUSION, I'M  
18 GOING TO REFER TO THE ORIGINAL CO-FUNDING  
19 REQUIREMENT AS A CASH-BASED CO-FUNDING REQUIREMENT.  
20 HERE THE COMPANY IS ACTUALLY PUTTING UP CAPITAL TO  
21 FUND THE PROJECT ALONG WITH CIRM.

22 UNDER A WARRANT-BASED CO-FUNDING OPTION,  
23 THE COMPANY IS NOT PUTTING UP CAPITAL FOR THE  
24 MINIMUM CO-FUNDING AMOUNT, BUT WILL IF IT'S AN AWARD  
25 BIGGER THAN THAT. I'LL WALK THROUGH THAT AS WELL IN

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1 A SECOND.

2 SO WHEN THEY SELECT THE WARRANT-BASED  
3 CO-FUNDING OPTION AT THE STAGE OF THE APPLICATION  
4 SUBMISSION, WHAT THEY'RE AGREEING TO IS TO ISSUE  
5 WARRANTS TO CIRM IN VALUE EQUAL TO THE MINIMUM TOTAL  
6 PROJECT COSTS CO-FUNDING REQUIREMENT. AND THE  
7 APPLICANT IN RETURN MAY REQUEST CIRM FUNDING UP TO  
8 THE AWARD MAXIMUM. AND THE REASON FOR THIS IS  
9 BECAUSE THE CO-FUNDING AMOUNT IS BASED ON THEIR  
10 TOTAL PROJECT COSTS. SO IF WE WERE SIMPLY TO SAY  
11 YOU CAN ISSUE THOSE WARRANTS IN LIEU OF PUTTING UP  
12 CASH, THERE WOULD STILL BE A FUNDING GAP FOR THAT  
13 PROGRAM WHICH NEEDS TO BE FILLED. AND THAT'S KIND  
14 OF WHY WE ARE SEEING THIS LAST POINT WHERE CIRM  
15 FUNDING HAS TO COVER UP TO THE AWARD MAXIMUM. AND  
16 IT'S VERY DIFFICULT TO DESCRIBE THAT IN WORDS, AND  
17 THE BEST WAY TO DO THAT IS THROUGH AN EXAMPLE. SO  
18 I'M GOING TO WALK YOU THROUGH THAT NOW IN OUR TRAN1  
19 APPLICATION SCENARIO. AND THIS WILL MAKE IT CLEAR  
20 AS TO WHAT WE MEAN BETWEEN THE CASH-BASED CO-FUNDING  
21 OPTION AND THE WARRANT-BASED CO-FUNDING OPTION,  
22 WHICH PRESERVES THE OVERALL FUNDING OF THE PROJECT  
23 ITSELF.

24 SO HERE WE ARE WITH THE TABLE. LET'S  
25 FOCUS ON THE LEFT SIDE HERE WITH THE ORANGE COLUMN.



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1 SO I'M GOING TO TAKE TWO EXAMPLES. THE FIRST IS A  
2 \$4 MILLION PROJECT, TRAN1 PROJECT. SO BASICALLY  
3 IT'S GOING TO COST \$4 MILLION TO GO FROM HAVING  
4 DECLARED A CANDIDATE TO HAVING CONDUCTED THE PRE-IND  
5 MEETING. IN THIS PARTICULAR SCENARIO, UNDER THE  
6 CURRENT TRAN PROGRAM, AN APPLICANT CAN REQUEST \$3.2  
7 MILLION FROM CIRM WITH THE EXPECTATION THAT IT'S  
8 PUTTING UP \$800,000 OF ITS OWN CO-FUNDING TO COVER  
9 THAT \$4 MILLION TOTAL PROJECT COST.

10 SO, NOW, IF WE WERE TO APPLY A  
11 WARRANT-BASED CO-FUNDING MECHANISM TO THIS AND NOT  
12 ACCOUNT FOR THE \$800,000 COMING FROM THE COMPANY,  
13 THEN THERE WOULD BE A GAP IN THE PROJECT FUNDING.  
14 SO TO AVOID THAT, WHAT THE WARRANT-BASED CO-FUNDING  
15 OPTION PROVIDES IS THAT THE CIRM AWARD WILL BE \$4  
16 MILLION. SO THE APPLICANT CAN REQUEST \$4 MILLION  
17 FROM CIRM, WHICH IS THE CAP AT THE MOMENT. THEY  
18 WOULD NOT BE PUTTING UP ANY CASH CO-FUNDING IN THIS  
19 SCENARIO BECAUSE THE MINIMUM CO-FUNDING AMOUNT IS  
20 COVERED BY THE ADDITIONAL CIRM FUNDING. AND THEN IN  
21 RETURN THEY WOULD BE ISSUING TO CIRM WARRANTS THAT  
22 AMOUNTED TO \$800,000 IN CO-FUNDING. SO ESSENTIALLY  
23 WHAT THEY'RE GETTING IS A \$4 MILLION AWARD TO COVER  
24 THE \$4 MILLION DIRECT PROJECT COSTS OF THE PROJECT  
25 IN RETURN FOR PROVIDING \$800,000 IN WARRANT COVERAGE

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1 TO CIRM. AND THAT PRESERVES THE OVERALL FUNDING  
2 AMOUNT FOR THAT PROJECT, AND IT ALSO ALLOWS THE  
3 COMPANY TO COMMIT EQUITY INSTEAD OF CAPITAL TO THE  
4 PROJECT.

5 NOW, THIS SCENARIO, IT IS IMPORTANT TO  
6 POINT OUT THAT UNDER THE CURRENT CONFINES OF THE  
7 FUNDING MECHANISM AND THE CO-FUNDING, THE WAY THE  
8 CO-FUNDING IS APPLIED IS RELEVANT AND USEFUL FOR A  
9 SUBSET OF AWARDS. SO IF YOU TAKE ANOTHER EXAMPLE  
10 HERE, LET'S SAY IT'S A TRAN1 PROJECT THAT'S ACTUALLY  
11 GOING TO COST \$5 MILLION. SO IT'S GOING TO TAKE \$5  
12 MILLION TO TAKE A THERAPEUTIC CANDIDATE FROM  
13 DISCOVERY STAGE THROUGH A PRE-IND MEETING. IN THAT  
14 INSTANCE THE APPLICANT CAN REQUEST \$4 MILLION FROM  
15 CIRM AND IT CAN MEET ITS 20-PERCENT CO-FUNDING  
16 REQUIREMENT BY HAVING \$1 MILLION OF ITS OWN MONEY  
17 PUT UP, WHICH IT'S GOING TO NEED TO DO BECAUSE IT  
18 HAS A \$5 MILLION PROJECT THAT IT'S PROPOSING.

19 IN THAT INSTANCE, THE CIRM FUNDING PLUS  
20 THE APPLICANT'S CO-FUNDING AMOUNT TO COVER THE TOTAL  
21 PROJECT COST. IN THIS SCENARIO, A WARRANT-BASED  
22 CO-FUNDING OPTION WOULD NOT BE USEFUL AND WOULD NOT  
23 BE ATTRACTIVE TO THE APPLICANT BECAUSE OF THE FACT  
24 THAT THEY'VE ALREADY REACHED THE CAP OF THE CIRM  
25 AWARD AND THEY CANNOT REQUEST ANY ADDITIONAL FUNDING

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1 FROM CIRM TO COVER THE CO-FUNDING CASH THAT IT WOULD  
2 BE PUTTING UP IN LIEU OF -- INSTEAD OF PUTTING UP  
3 CASH, GIVING US WARRANTS. SO IN THAT PARTICULAR  
4 INSTANCE, IT DOES NOT MAKE SENSE FOR THE APPLICANT  
5 TO TAKE THE WARRANT-BASED CO-FUNDING OPTION.

6 SO THE LONG-WINDED WAY OF SAYING IT, THERE  
7 ARE A NUMBER OF PROJECTS WHERE THE AWARD MAY NOT  
8 HAVE HIT THE AWARD CAP AND IT COULD REQUEST  
9 ADDITIONAL FUNDING FROM CIRM; AND INSTEAD OF PUTTING  
10 UP ITS CASH-BASED CO-FUNDING, IT WOULD GET WARRANTS  
11 IN RETURN, IT WOULD PROVIDE WARRANTS IN RETURN.

12 SO TO PUT THAT INTO CONTEXT OF THE CURRENT  
13 STATE OF AWARDS THAT WE'VE BEEN GIVING OUT, HOW MANY  
14 APPLICANTS ARE ACTUALLY HITTING THE MAX AND HOW MANY  
15 ARE NOT? IT IS IMPORTANT TO UNDERSTAND HOW MANY  
16 WARRANTS WE MAY ACTUALLY BE LOOKING AT DOWN THE  
17 ROAD. AGAIN, THIS IS ALL WITHIN THE CONFINES OF THE  
18 CURRENT AWARDS. WE DON'T KNOW WHAT WOULD CHANGE  
19 WITH THIS WARRANT-BASED CO-FUNDING OPTION WHERE  
20 COMPANIES WOULD COME IN, WHAT SORT OF PROJECTS WOULD  
21 COME IN; BUT IF WE WERE TO APPLY THIS HISTORICALLY,  
22 WHAT WOULD HAPPEN? SO FOR TRAN, AGAIN, THE DIRECT  
23 PROJECT AWARD MAX IS \$4 MILLION. THE AVERAGE CIRM  
24 AWARD IS 3.8 MILLION. AND THREE OF THOSE EIGHT  
25 COMPANIES THAT WE COUNTED IN THIS PARTICULAR

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1 SCENARIO HAD REACHED THE AWARD MAX OR WERE NEAR IT.  
2 AND THE CUTOFF I USED HERE WAS \$50,000. SO I SAID  
3 IF THEY WERE AT OR WITHIN 50 K OF THE AWARD MAX AND  
4 HOW MANY WERE NOT. THIS WILL GIVE YOU AN IDEA AS TO  
5 HOW MANY ARE MAXING OUT AND HOW MANY WERE NOT.

6 THIS IS A HEAVILY FILTERED TABLE HERE  
7 BECAUSE WE'RE TRYING TO KEEP CONSISTENCY WITH  
8 RESPECT TO AWARD AMOUNTS, AWARD CAPS, AND TIMING,  
9 AND SO ON. SO IT DOESN'T REPRESENT THE ENTIRETY OF  
10 TRAN AWARDS THAT HAVE GONE OUT TO FOR-PROFIT  
11 COMPANIES.

12 ON THE CLIN1 AND CLIN2 SIDE, WHAT YOU SEE  
13 IS THAT ON CLIN1 THE AVERAGE AWARD HAS BEEN 3.8  
14 MILLION. AGAIN, THE CAP IS 4 MILLION. AND ROUGHLY  
15 FOUR OUT OF THE FIVE PROGRAMS COUNTED IN THIS  
16 PARTICULAR SCENARIO WERE WITHIN 50 K OF THE MAX  
17 AMOUNT.

18 ON THE CLIN2 SIDE, YOU HAVE A LOT MORE  
19 VARIABILITY. HERE THE AVERAGE AWARD SIZE IS \$6.3  
20 MILLION, AND ONLY TWO OF THE ELEVEN COMPANIES WERE  
21 AT OR NEAR THE MAX FOR THEIR PARTICULAR AWARD SIZE.

22 SO TO RECAP, THE WARRANT-BASED CO-FUNDING  
23 OPTION WOULD ALLOW THE COMPANY TO NOT HAVE TO PUT UP  
24 ITS CASH FOR THE MINIMUM CO-FUNDING REQUIREMENT IF  
25 THERE IS ROOM IN THE CIRM AWARD TO COVER THAT

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1 AMOUNT. IF THERE ISN'T, THEN IT DOES NOT REALLY  
2 MAKE SENSE FOR THE APPLICANT TO ACTUALLY EXERCISE A  
3 WARRANT-BASED CO-FUNDING OPTION.

4 SO I JUST WANT TO GO OVER WHAT THE IMPACT  
5 OF THIS OPTION WOULD BE ON CIRM, THE APPLICANT, AND  
6 THE PROJECT. SO THE IMPACT TO CIRM. FIRST AND  
7 FOREMOST, IT ENHANCES OUR ABILITY TO SUPPORT  
8 EMERGING COMPANIES AND TO EXPAND OUR PORTFOLIO. SO  
9 AS STEVE MENTIONED, THE ORIGINAL INTENT WAS TO BE  
10 ABLE TO SUPPORT COMPANIES THAT MAY NOT HAVE BEEN  
11 ABLE TO MEET THE CO-FUNDING REQUIREMENT WHEN THEY  
12 APPLIED TO CIRM. AND THIS WOULD ALLOW THEM TO DO  
13 SO. IT WOULD ALSO ALLOW OTHER COMPANIES WHO MAY  
14 WANT TO PRESERVE SOME OF THEIR CAPITAL TO MAINTAIN  
15 COMPANY OPERATIONS AND PUT UP EQUITY INSTEAD OF  
16 THEIR CAPITAL AT THAT REALLY EARLY STAGE TO TAKE  
17 ADVANTAGE OF CIRM FUNDING OPPORTUNITIES.

18 IT WOULD INCREASE OUR AWARD SIZE, AS I  
19 MENTIONED, BECAUSE WE WOULDN'T, IN ESSENCE, BE  
20 COVERING SOME OR MOST OF THE CO-FUNDING AMOUNT THAT  
21 WOULD BE COMING FROM THE AWARDEE IN RETURN FOR  
22 WARRANTS.

23 THE WARRANTS WOULD PROVIDE CIRM THE  
24 POTENTIAL FOR FINANCIAL RETURN, BUT IT'S IMPORTANT  
25 TO NOTE THAT THERE'S ALSO THE RISK OF ZERO FUTURE

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1 VALUE. AND LASTLY, IT WOULD INCREASE ADMINISTRATIVE  
2 EFFORT AND LEGAL COSTS FOR CIRM. SO ADMINISTRATIVE  
3 EFFORT IN TERMS OF ESTABLISHING THE AGREEMENT,  
4 MANAGING THE WARRANT PORTFOLIO. ON THE LEGAL COST  
5 SIDE, THIS WOULD BE IN TERMS OF COMING UP WITH THE  
6 MODEL AGREEMENT AS WELL AS ANY FUTURE AMENDMENTS  
7 THAT MAY NEED TO BE MADE TO THAT AGREEMENT THAT  
8 MIGHT REQUIRE LEGAL REVIEW.

9 SO THE IMPACT TO THE APPLICANT AWARDEE IS  
10 ALSO RELATIVELY STRAIGHTFORWARD. FIRST OF ALL, IT  
11 ENABLES ACCESS TO CIRM FUNDING OPPORTUNITIES FOR  
12 COMPANIES THAT ORIGINALLY COULD NOT MEET THE  
13 CO-FUNDING REQUIREMENT. IT ALSO ALLOWS FOR  
14 DEMONSTRATION OF FINANCIAL COMMITMENT TO THE  
15 CIRM-FUNDED PROJECT WITHOUT HAVING TO PUT UP ITS  
16 CAPITAL. AND IT'S IMPORTANT TO NOTE THAT WE  
17 DESIGNED THIS PROPOSAL TO HAVE NO ADVERSE FINANCIAL  
18 IMPACT ON THE PROJECT ITSELF, WHICH IS OF FOREMOST  
19 IMPORTANCE TO CIRM, WHICH IS TO ADVANCE THESE  
20 PROJECTS AND TO BRING THESE THERAPIES TO PATIENTS.  
21 SO THE AWARDEE'S CASH COMMITMENT WOULD BE COVERED BY  
22 A CIRM AWARD UP TO THE AWARD MAX IN THE EXAMPLE THAT  
23 I TRIED TO LAY OUT IN THE PREVIOUS SLIDE.

24 SO HOW DO WE IMPLEMENT THIS? SO I'M GOING  
25 TO TALK ABOUT FIRST THE PROCESS OF HOW WE MAY

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1 IMPLEMENT IT AND WHERE WE MAY ALLOW FOR SOME SORT OF  
2 CANCELLATION OR AMENDMENT, AND THEN I'LL WALK  
3 THROUGH SOME OF THE TERMS THAT WE THINK ARE RELEVANT  
4 AND INFORMATIVE FOR THIS PROPOSAL.

5 FIRST AND FOREMOST, AS I MENTIONED, THE  
6 APPLICANT WOULD HAVE TO SELECT THE WARRANT-BASED  
7 CO-FUNDING OPTION AT THE TIME OF APPLICATION  
8 SUBMISSION. THEY WOULD HAVE A CIRM MODEL WARRANT  
9 AGREEMENT TO REFER TO WHICH WOULD LAY OUT THE TERMS  
10 PARTICULARLY AROUND THE SHARE PRICE, THE TERM  
11 LENGTH, AND THE NUMBER OF SHARES -- I'LL DISCUSS  
12 THAT IN THE NEXT SLIDE -- BUT ALSO SOME OTHER TERMS  
13 AROUND AUTOMATIC ACTIONS OR CASH AND SO ON.

14 DURING THE AWARD CONTRACTING PHASE, SO  
15 THIS IS AFTER THE APPLICATION HAS GONE THROUGH  
16 GRANTS WORKING GROUP REVIEW AND HAS BEEN APPROVED BY  
17 THE ICOC, THIS IS WHEN CIRM AND THE AWARDEE ARE  
18 NEGOTIATING ON THE AWARD, WE WOULD EXECUTE THE  
19 AGREEMENT AT THIS POINT SO THAT IT WOULD ISSUE ALL  
20 THE WARRANTS AT AWARD START DATE. AT THE START DATE  
21 OF THE AWARD WHEN CIRM COMMITS ITS FIRST  
22 MILESTONE-BASED DISBURSEMENT, AT THAT POINT THE  
23 AWARDEE IS ISSUING ALL THE WARRANTS. AND THE REASON  
24 FOR THIS IS BECAUSE CIRM IS ACTUALLY PUTTING UP AND  
25 COMMITTING THE ENTIRETY OF THE AWARD AMOUNT AT RISK

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1 TO CIRM FOR THAT AWARD AND THAT PROJECT. AND IN  
2 RETURN THE APPLICANT NEEDS TO BE ABLE TO PROVIDE  
3 THOSE WARRANT COVERAGE TO CIRM.

4 SO IN TERMS OF WARRANT CANCELLATION, THERE  
5 ARE TWO SCENARIOS THAT WE ARE EVALUATING. FIRST AND  
6 FOREMOST IS DURING THE COURSE OF THE AWARD, WHAT IF  
7 THERE ARE SCENARIOS WHERE, EITHER DURING CONTRACTING  
8 OR DURING THE AWARD PHASE ITSELF, THE AWARDEE MAY  
9 WANT TO REVERT TO THE CASH-BASED CO-FUNDING  
10 REQUIREMENT FOR ANY REASON. THIS IS POSSIBLE. WE  
11 CAN SIMPLY CANCEL THE WARRANTS IN THAT CASE, REVERT  
12 BACK TO A CASH-BASED CO-FUNDING REQUIREMENT WITH THE  
13 EXPECTATION THAT NOW THE AWARDEE IS GOING TO COMMIT  
14 AND DISBURSE THE MINIMUM CO-FUNDING REQUIREMENT.  
15 SINCE WE REQUIRE THAT CO-FUNDING BE DISBURSED AT  
16 EVERY MILESTONE, THIS PROVIDES CIRM THE APPROPRIATE  
17 PROTECTION AND IT ALSO ALLOWS FOR RETURN OF FUNDS IF  
18 ALL THOSE FUNDS HAVE BEEN DISBURSED AND THE AWARDEE  
19 WANTS TO WORK BACK TO A CASH-BASED CO-FUNDING  
20 REQUIREMENT OVER THE COURSE OF THE AWARD.

21 SO WE BELIEVE IT'S RELATIVELY  
22 STRAIGHTFORWARD DURING THE ACTIVE AWARD. NOW, POST  
23 AWARD WE RIGHT NOW IN OUR CLINICAL PROGRAM HAVE A  
24 LOAN CONVERSION OPTION. SO LOAN CONVERSION OPTION  
25 ALLOWS ANY AWARDEE, AFTER THE AWARD HAS ENDED, TO



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1 CONVERT THEIR GRANT TO A LOAN AND TO PAY IT BACK  
2 WITH PRINCIPAL AND INTEREST. AND THAT WOULD  
3 EXTINGUISH THE REVENUE SHARING REQUIREMENT. AND THE  
4 REASON THAT EXISTS IS TO ENSURE THAT THE CIRM AWARD  
5 IS NOT A BARRIER TO FURTHER DEVELOPMENT OF THAT  
6 CANDIDATE OR COMMERCIALIZATION OF THAT CANDIDATE  
7 WHEN IT COMES TO PARTNERING ACTIVITY AND ON SO.

8 AND SO WE ARE EVALUATING WHETHER A SIMILAR  
9 OPTION COULD BE FEASIBLE TO CANCEL THE WARRANTS BY  
10 SOME SORT OF A PAYBACK MECHANISM. BECAUSE OF THE  
11 NATURE OF THE WARRANTS AND THE TIME AND THE  
12 EXPIRATION AND SO ON, WE NEED TO LOOK AT THIS MORE  
13 CAREFULLY. AND SO WHAT WE WOULD DO IS EVALUATE  
14 THIS, THE FEASIBILITY OF IMPLEMENTING SUCH AN  
15 OPTION, PRIOR TO ICOC REVIEW OF THE CONCEPT PLAN  
16 CHANGES AND COME BACK TO YOU SHOULD THIS COMMITTEE  
17 ALLOW US TO CONTINUE FORWARD WITH DEVELOPING THIS  
18 PROGRAM, AND THEN WE'D COME BACK TO YOU FOR REVIEW  
19 OF THE OVERALL PROGRAM.

20 SO I'M GOING TO QUICKLY GO OVER SOME OF  
21 THE WARRANT TERMS. AGAIN, THESE ARE SUBJECT TO  
22 CHANGE AS WE DEVELOP THIS PROGRAM SHOULD THE  
23 COMMITTEE APPROVE FURTHER DEVELOPMENT, BUT I WANTED  
24 TO LAY OUT SOME BASIC TERMS. AND THESE BORROW FROM  
25 THE PREVIOUS LOAN PROGRAM AND ARE ALMOST IDENTICAL

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1 TO THE WAY THE WARRANT COVERAGE WAS IMPLEMENTED IN  
2 THAT LOAN PROGRAM.

3 SO THE WARRANT TERM LENGTH WILL BE TEN  
4 YEARS. IT'D BE SET AT THAT. IT'D BE NONNEGOTIABLE.  
5 THE EXERCISE PRICE WOULD DIFFER BASED ON WHETHER THE  
6 COMPANY IS A PUBLIC COMPANY OR A PRIVATE COMPANY.  
7 SO FOR A PUBLIC COMPANY, IT'S RELATIVELY  
8 STRAIGHTFORWARD. WE WOULD USE THE AVERAGE CLOSING  
9 SHARE PRICE OF THE PAST TEN TRADING DAYS. THIS IS  
10 FOR COMMON SHARES. AND THEN FOR THE PRIVATE  
11 COMPANY, THE EXERCISE PRICE WOULD BE SET AT THE  
12 PREFERRED SHARE PRICE IN THE MOST RECENT FINANCING  
13 ROUND. IN SOME INSTANCES, IF THESE COMPANIES ARE  
14 VERY EARLY, THEY MAY NOT HAVE HAD A FINANCING ROUND.  
15 THEY MAY HAVE VARIOUS OTHER INVESTMENTS THAT ARE  
16 ALSO FLOATING UNTIL A FINANCING EVENT HAS BEEN SET.  
17 IN THOSE INSTANCES, WE WOULD FLOAT UNTIL A FINANCING  
18 EVENT SETS PREFERRED SHARE VALUE. SO, FOR EXAMPLE,  
19 A SERIES A ROUND WOULD SET A PREFERRED SHARE PRICE,  
20 AND THAT WOULD THEN SET THE EXERCISE PRICE FOR THOSE  
21 SET OF WARRANTS THAT CIRM HAS.

22 AND THE AMOUNT OF SHARES, SO THIS IS A  
23 LITTLE CONFUSING, BUT I'LL WALK YOU THROUGH THIS.  
24 SO IT WOULD BE DOLLAR AMOUNT OF CIRM AWARD  
25 CORRESPONDING TO THE REQUIRED MINIMUM CASH

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1 CO-FUNDING. IN THAT PREVIOUS EXAMPLE, WHERE WE HAD  
2 INDICATED THAT IF IT'S A \$4 MILLION DIRECT PROJECT  
3 COST AND THE AWARDEE, INSTEAD OF GETTING A \$3.2  
4 MILLION AWARD, COULD GET A \$4 MILLION AWARD AND HAVE  
5 TO PROVIDE \$800,000 IN COVERAGE TO CIRM. THIS IS  
6 WHERE THAT CALCULATION COMES INTO PLAY. SO WE TAKE  
7 THE \$800,000, DIVIDE IT BY THE EXERCISE PRICE, AND  
8 THAT WOULD DETERMINE THE NUMBER OF SHARES THAT THE  
9 WARRANTS WOULD HAVE TO ISSUE TO CIRM.

10 LASTLY, WE'D WANT THE MODEL AGREEMENT TO  
11 DEFINE OTHER TERMS THAT ARE IMPORTANT TO CIRM AND  
12 HOW IT MAY TRANSFER, SELL, OR ASSIGN THE WARRANTS TO  
13 A THIRD PARTY. MAY BE ABLE TO EXERCISE A CASHLESS  
14 EXERCISE OPTION. SO INSTEAD OF PAYING FOR THE  
15 ACTUAL SHARES, TO INCORPORATE THE COST OF THAT AND  
16 REDUCE THE SHARE AMOUNT APPROPRIATELY TO MAKE  
17 ADJUSTMENTS IN THE EVENT A COMPANY CHANGES THE  
18 COMPANY EQUITY. THESE ARE FAIRLY STANDARD TERMS  
19 THAT ARE IN MOST WARRANT AGREEMENTS. AND THEN,  
20 LASTLY, ANY NOTICES, RULES, AND AUTOMATED ACTIONS  
21 GOVERNING MERGERS, CHANGE OF CONTROL, LIQUIDATION,  
22 AND SO ON. AND THESE WILL BE IMPORTANT FOR CIRM AS  
23 WE MANAGE THEIR PORTFOLIO, THESE WARRANTS, AND WANT  
24 TO MAKE SURE THAT THERE ARE CERTAIN TRIGGERS THAT WE  
25 TAKE INTO ACCOUNT THAT WOULD ALLOW FOR THE TRANSFER

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1 OF THE WARRANTS, THE SALE OF THE SHARES, AND  
2 LIQUIDATION OF FUNDS BACK TO CIRM.

3 SO LASTLY, I WANT TO COVER WHAT THE  
4 PROCESS WILL BE. SO FIRST OF ALL, IF THE PLAN IS  
5 APPROVED FOR FURTHER DEVELOPMENT TODAY BY THE  
6 SUBCOMMITTEE, THIS WILL TRIGGER THE FOLLOWING STEPS.  
7 WE WOULD GO BACK AND DEVELOP THE CONCEPT PLAN  
8 CHANGES AS WELL AS CREATE A DRAFT MODEL WARRANT  
9 AGREEMENT AS A REFERENCE. AND IN THE FIRST QUARTER  
10 OF 2023, WE WOULD HOLD A JOINT SUBCOMMITTEE BETWEEN  
11 THE SCIENCE SUBCOMMITTEE AND THE IP AND INDUSTRY  
12 SUBCOMMITTEE TO REVIEW THE TRAN, CLIN1, AND CLIN2  
13 CONCEPT PLAN CHANGES. IF THOSE COMMITTEES APPROVE  
14 THOSE CONCEPT PLAN CHANGES, WE WOULD TAKE IT TO THE  
15 NEXT ICOC MEETING FOR CONCEPT PLAN CHANGES TO TRAN,  
16 CLIN1, AND CLIN2 PROGRAMS. AGAIN, WE WOULD PROVIDE  
17 THE MODEL WARRANT AGREEMENT AS REFERENCE. AFTER THE  
18 CONCEPT PLAN CHANGES HAVE BEEN APPROVED, CIRM WOULD  
19 IMPLEMENT THOSE CHANGES IN THE PA'S, IN THE  
20 APPLICATIONS, AND THE NOTICE OF AWARDS, AND AT THAT  
21 POINT THE PROGRAM WOULD BE LIVE. AND WE THINK THAT  
22 WOULD TAKE MAYBE A MONTH OR TWO AFTER THE ICOC  
23 APPROVAL. SO IT CAN BE A RELATIVELY QUICK TIMELINE  
24 TO GET THE WARRANT PROGRAM IMPLEMENTED IN TRAN,  
25 CLIN1, AND CLIN2, ASSUMING THAT WE WORK OUT THE

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1 DRAFT MODEL WARRANT AGREEMENT TERMS AS WELL AS MAKE  
2 THE APPROPRIATE PLAN CONCEPT CHANGES.

3 SO WITH THAT, I'M HAPPY TO TAKE ANY  
4 QUESTIONS, AND I'LL HAND IT BACK TO CHAIRMAN  
5 JUELSGAARD.

6 CHAIRMAN JUELSGAARD: THANK YOU, SHYAM.  
7 THANK YOU FOR THAT VERY DETAILED PRESENTATION.

8 SO AS SHYAM SAID, LET'S SEE IF THERE ARE  
9 ANY QUESTIONS OR COMMENTS THAT ANY OF THE COMMITTEE  
10 MEMBERS MIGHT HAVE.

11 MS. BONNEVILLE: WE HAVE A FEW, STEVE. I  
12 SEE MOHAMMAD.

13 CHAIRMAN JUELSGAARD: SO WE'LL START WITH  
14 MOHAMMAD AND THEN LARRY AND JOE.

15 DR. ABOUSALEM: MORNING, EVERYONE. THANK  
16 YOU, SHYAM, FOR THIS VERY CLEAR AND CREATIVE AND  
17 THOUGHTFUL MODEL AND PRESENTATION. JUST FOR  
18 EVERYONE, JUST TO CLARIFY, THIS IS MY FIRST TIME ON  
19 THE COMMITTEE SO I DON'T HAVE THE HISTORY OF THE  
20 CONVERSATIONS THAT TOOK PLACE BEFORE, BUT I DO HAVE  
21 A FEW COMMENTS. AND THEY'RE COMING FROM GENERALLY A  
22 POSITION OF CONCERN AS OPPOSED TO FULL SUPPORT YET.

23 SO THE CONCERN THAT I HAVE, I HAVE A FEW  
24 TO PUT TOGETHER. ONE IS I DON'T AGREE THAT THE  
25 IMPACT ON THE APPLICATION IS DEMONSTRATING FINANCIAL

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1 COMMITMENT BECAUSE REALLY DEMONSTRATING FINANCIAL  
2 COMMITMENT IS BY PUTTING UP CASH. IF YOU'RE PUTTING  
3 UP WARRANTS, WE ALL KNOW THAT EARLY, YOUNG COMPANIES  
4 IT'S VERY EASY, RELATIVELY ANYWAY, FOR THEM TO WRITE  
5 WARRANTS OR GIVE OUT STOCK BECAUSE THEY DON'T HAVE  
6 CASH ON HAND. SO I WOULD NOT MAKE THE STATEMENT  
7 THAT THIS IS A DEMONSTRATION OF COMMITMENT.

8 AND THEN THE IMPACT ON THE CIRM-FUNDED  
9 PROJECT, IF I UNDERSTOOD YOU CORRECTLY, SHYAM, YOU  
10 SAY THERE'S NO FINANCIAL IMPACT. I THINK THERE IS.  
11 IF YOU TOOK THE EXAMPLE OF A \$5 MILLION PROJECT, IF  
12 THERE IS A CAP OF 4 MILLION AND THEY DON'T HAVE THE  
13 CASH TO DO THE 1 MILLION, THEN THEY'RE LIMITING THE  
14 WHOLE PROJECT TO THE 4 MILLION BY GOING THIS ROUTE,  
15 AND THEY WILL NOT HAVE ENOUGH CASH OR WILL NOT GET  
16 CASH FROM CIRM TO PAY FOR THE ADDITIONAL DIRECT  
17 COSTS THAT ARE NEEDED. I MIGHT HAVE MISUNDERSTOOD  
18 THE CAP, BUT I'M JUST SAYING I DON'T THINK WE CAN  
19 JUST SAY NO IMPACT ON THE PROJECT BECAUSE IT DOES  
20 LIMIT THEIR ABILITY TO DO BIGGER THINGS.

21 SO LET ME COME TO THE SALIENT POINT, WHICH  
22 IS PART OF WHAT CIRM IS DOING IS YOU'RE SUPPORTING  
23 THE TECHNOLOGY AND YOU WANT THE INVENTION TO COME  
24 OUT AND COME THROUGH. BUT PART OF THAT, A BIG PART  
25 OF THAT IS VIABILITY OF THE BUSINESS THAT IS

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1 CARRYING THAT INVENTION AND THAT DISCOVERY AND THAT  
2 PROJECT THROUGH. SO PART OF OUR ASSESSMENT OF THESE  
3 COMPANIES IS GOING TO HAVE TO BE THEIR VIABILITY AND  
4 ABILITY TO CONTINUE ON THEIR PATH. SO OUR MONEY IS  
5 GOING INTO A PROJECT THAT'S GOING TO ACTUALLY LIVE  
6 THROUGH THAT EXPERIMENT. AND A COMPANY HAVING CASH,  
7 EVEN IF IT'S A YOUNG COMPANY, HAVING CASH FROM ANGEL  
8 INVESTORS OR OTHER EARLY INVESTORS, EVEN IF IT'S  
9 FRIENDS AND FAMILY, IS A DEMONSTRATION OF THEIR  
10 VIABILITY AND ATTRACTIVENESS TO THE FINANCIAL  
11 MARKET. YES, IT'S EARLY, BUT THAT ELEMENT IS  
12 IMPORTANT. AND BY NOT ALLOWING THEM TO ACTUALLY DO  
13 THE WORK AND GET MONEY TO SUPPORT THEIR PLANS, WE  
14 ARE TAKING THE PRESSURE OFF MANAGEMENT AND WE ARE  
15 ACTUALLY NOT HELPING THEM LEARN HOW TO BRING MONEY  
16 IN.

17 SO THERE'S THIS PIECE OF THE ECOSYSTEM  
18 THAT WE'RE TRYING TO DEVELOP AROUND THE SCIENCE THAT  
19 WE ARE SUPPORTING. SO TO ME THERE'S NOT ENOUGH SKIN  
20 IN THE GAME FROM THE COMPANIES. THEY'RE REALLY  
21 USING MONEY TO THE FULLEST, FREE MONEY TO THE  
22 FULLEST. MY RECOMMENDATION -- I LIKE THE CONCEPT,  
23 BUT MY RECOMMENDATION IS WE BALANCE OUT THAT MODEL  
24 WITH SOME ELEMENTS THAT STILL PRESERVE THAT ACTUAL  
25 SKIN IN THE GAME, ACTUAL MONEY PAID AS OPPOSED TO

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1 JUST GIVING THEM ESSENTIALLY THE FREE MONEY. AND I  
2 SAY FREE BECAUSE EARLY IN THE COMPANY'S AGE, THE  
3 VALUE OF THEIR STOCK IS NOT VERY HIGH. SO JUST KEEP  
4 THAT IN MIND. THANK YOU.

5 CHAIRMAN JUELSGAARD: SHYAM, DO YOU WANT  
6 TO RESPOND TO THAT?

7 DR. PATEL: THANK YOU. SO I'LL RESPOND TO  
8 THE POINT AROUND THE \$5 MILLION EXAMPLE THAT I HAD  
9 GIVEN OUT. SO IN THAT INSTANCE WHAT I WAS ARGUING  
10 WAS THAT IF IT'S A PROJECT THAT DOES NOT HAVE THE  
11 ABILITY TO REPLACE ITS CASH-BASED CO-FUNDING  
12 COMMITMENT WITH ADDITIONAL CIRM FUNDING UP TO THE  
13 AWARD MAX, IN THOSE INSTANCES THAT PARTICULAR  
14 APPLICANT WOULD NOT ACTUALLY SELECT A WARRANT-BASED  
15 CO-FUNDING OPTION. THEY WOULD STILL BE COMMITTED TO  
16 THE CASH-BASED CO-FUNDING OPTION BECAUSE THEY WOULD  
17 STILL HAVE TO PUT UP THAT MONEY TO GET TO THE TOTAL  
18 PROJECT COSTS. SO IT WOULD JUST NOT BE A USEFUL  
19 OPTION FOR THEM. THEY WOULD STILL BE PUTTING UP THE  
20 CASH CO-FUNDING.

21 SO IN THIS SCENARIO THERE ARE ALWAYS GOING  
22 TO BE APPLICANTS WHO ARE JUST SELECTING THE  
23 CASH-BASED CO-FUNDING OPTION BECAUSE THE PROJECT  
24 COST IS JUST BEYOND WHAT THE CIRM AWARD CAN FUND  
25 EVEN WITH THE MAXIMUM AMOUNT AVAILABLE.



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1 TO YOUR OTHER POINTS, I THINK WITH RESPECT  
2 THE FINANCIAL COMMITMENT, THAT'S A GOOD POINT, THAT  
3 PROVIDING CAPITAL AS OPPOSED TO PROVIDING WARRANTS  
4 IS NOT EQUIVALENT. AND I APPRECIATE THAT.

5 FROM MY PERSPECTIVE WITH RESPECT TO THE  
6 COMPANIES AND HOW THEY'RE FINANCED AND RAISE AND  
7 OPERATED, I ALWAYS LOOK AT THIS AS IF IT'S A REALLY  
8 EARLY COMPANY THAT HAS A TRAN, CLIN1, OR A CLIN2  
9 AWARD AND THEY'RE COMMITTING MONEY TO THAT PROJECT.  
10 EVEN IF THEY'RE NOT COMMITTING MONEY, THEY'RE  
11 COMMITTING SIGNIFICANT RESOURCES AND PERSONNEL TO  
12 IT. AND THERE'S HUGE OPPORTUNITY COSTS FOR THAT AS  
13 MOST ANY OTHER PROJECT THEY MAY HAVE IN THEIR  
14 PIPELINE. SO THERE'S ALWAYS GOING TO BE THAT  
15 RESOURCE COMMITMENT THEY'RE PUTTING UP EVEN IF THERE  
16 ISN'T A DIRECT FINANCIAL COMMITMENT.

17 AND I APPRECIATE YOUR POINT THAT YOU MADE  
18 WITH RESPECT TO THE COMPANIES SHOULD BE BRINGING IN  
19 MORE MONEY THAN JUST CIRM FUNDING FOR SUSTAINABILITY  
20 LONG TERM. SO I APPRECIATE THAT.

21 CHAIRMAN JUELSGAARD: LARRY.

22 DR. GOLDSTEIN: YES. THANK YOU. I WANT  
23 TO GIVE THE SAME DISCLAIMER AS MOHAMMAD. I'M NEW TO  
24 THIS. AND SO I MAY BE ASKING US TO TREAD THROUGH  
25 GROUND WE'VE ALREADY DONE IN THE PAST, BUT I'LL MOVE

1 AHEAD ANYWAY.

2 SO FIRST IS A VARIANT OF MOHAMMAD'S  
3 QUESTION, WHICH IS IN CASES WHERE WE WOULD BE DOING  
4 WARRANTS IN LIEU OF CASH, WOULD THE REVIEW OF THE  
5 PROJECT INCLUDE A BUSINESS REVIEW SO THAT, IN  
6 ADDITION TO EVALUATING THE SCIENTIFIC OR CLINICAL  
7 POTENTIAL, WE ARE ALSO EVALUATING THE BUSINESS  
8 VIABILITY OF THE PROPOSED PROJECT OR COMPANY? AND I  
9 GUESS I'M HARKENING BACK A LITTLE BIT TO THE ORCHARD  
10 SITUATION WHERE A THERAPY WAS DEVELOPED THAT IT WAS  
11 ULTIMATELY CLEAR IT WAS NOT ECONOMICALLY VIABLE FOR  
12 THE COMPANY AND PROBABLY SHOULD HAVE STAYED IN  
13 ACADEMIA ALL ALONG. SO I'LL DISTIL THE QUESTION.  
14 WOULD THE REVIEW INCLUDE A BUSINESS REVIEW?

15 CHAIRMAN JUELSGAARD: SHYAM, YOU WANT TO  
16 RESPOND TO THAT?

17 DR. PATEL: SURE. OUR CURRENT  
18 APPLICATIONS DON'T HAVE A BUSINESS PLAN SECTION. SO  
19 YOU MAY BE FAMILIAR WITH OTHER, FOR EXAMPLE, SBIR  
20 AND OTHER NIH-BASED MECHANISMS DO HAVE A BUSINESS  
21 PLAN SECTION THAT APPLICANTS REVIEW THAT THEY FILL  
22 OUT AND THE GRANTS REVIEWERS, GRANTS WORKING GROUP  
23 MEMBERS, REVIEW. WE DON'T HAVE THAT IN OUR  
24 APPLICATIONS.

25 THIS PARTICULAR INSTANCE, TO THE POINT

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1 THAT BOTH YOU AND MOHAMMAD MADE, IF IT'S IMPORTANT  
2 THAT THERE BE A REVIEW OF THEIR BUSINESS PLANS THAT  
3 DESCRIBES HOW THE COMPANY IS GOING TO PROGRESS THIS  
4 PROJECT AS WELL AS MAINTAIN SUSTAINABILITY, THAT  
5 WOULD BE SOMETHING WE DEFINITELY WOULD CONSIDER.

6 CHAIRMAN JUELSGAARD: SO, SHYAM, LET ME  
7 JUST ADD. SO NO MATTER WHAT AMOUNT OF MONEY A  
8 COMPANY IS REQUESTING, THIS IS THE EARLY PART OF  
9 YOUR PRESENTATION, THEY HAVE TO DEMONSTRATE THAT  
10 THEY CAN BASICALLY PROVIDE THEIR PART OF THE  
11 COMMITMENT, RIGHT, OF THE MONEY, THAT THEY HAVE THE  
12 WHEREWITHAL TO PROCEED WITH THE PROJECT. IT'S NOT  
13 LIKE ANY BUSINESS REVIEW AT ALL. WE DO HAVE ONE.  
14 AND SO I THINK MAYBE WE HAVE TO ENHANCE IT A LITTLE  
15 BIT, BUT I AGREE. I THINK WE NEED TO MAKE SURE THAT  
16 THEY HAVE THE WHEREWITHAL TO BE ABLE TO DO WHAT IT  
17 IS THAT THEY'RE PROPOSING TO DO AND NOT JUST, IN  
18 ESSENCE, FREE RIDING ON THE MONEY THAT WE WOULD  
19 PROVIDE.

20 HAVING SAID THAT, I JUST WANT PEOPLE TO  
21 KEEP IN MIND THAT THE OVERHEAD COSTS THAT WE'RE  
22 PROVIDING ARE SUBSTANTIALLY LESS IN THE CASE OF A  
23 FOR-PROFIT COMPANY THAN IN THE CASE OF A  
24 NON-FOR-PROFIT ORGANIZATION. SO THEY'RE HAVING TO  
25 BEAR A BIGGER BURDEN IN TERMS OF THOSE KIND OF COSTS

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1 THAN NONPROFIT COMPANIES ARE WHEN THEY SIGN ON TO A  
2 CIRM AWARD. JOE.

3 DR. GOLDSTEIN: EXCUSE ME, STEVE. I HAVE  
4 ONE OR TWO OTHER QUESTIONS IF I MIGHT TAKE ADVANTAGE  
5 OF THE TIME. SORRY.

6 I GUESS MY SECOND QUESTION IS SHOULD WE BE  
7 MORE AGGRESSIVE AS AN AGENCY AND TAKE THE VIEW THAT  
8 WE ALWAYS WANT TO TAKE SHARES IN A COMPANY AS  
9 OPPOSED TO CO-FUNDING SO THAT WE ALWAYS SHARE IN THE  
10 GROWTH POTENTIAL OF THESE YOUNG COMPANIES? SOME OF  
11 THEM WILL, OF COURSE, HIT; MOST OF THEM WON'T. BUT  
12 WE COULD, BY PROVIDING EARLY STAGE FUNDING, WE ARE  
13 EFFECTIVELY ACTING LIKE A VC IN SOME WAY, AND MAYBE  
14 WE SHOULD CONSIDER ALWAYS TAKING THAT VIEW SO THAT  
15 WE ALWAYS SHARE IN GROWTH.

16 CHAIRMAN JUELSGAARD: SO LET ME ASK YOU,  
17 LARRY. WHY WOULDN'T WE DO THE SAME, THEN, FOR  
18 ACADEMIC SETTINGS? WHY WOULDN'T WE ASK FOR THAT  
19 SORT OF RETURN AS WELL THERE? WHY DO YOU  
20 DISTINGUISH COMPANIES FROM NONPROFIT ORGANIZATIONS  
21 IF YOU'RE LOOKING FOR ECONOMIC RETURN?

22 DR. GOLDSTEIN: WELL, I THINK IT'S JUST A  
23 FUNDAMENTALLY DIFFERENT SITUATION, STEVE. WHEN  
24 WE'RE DEALING WITH ACADEMIA, WE KNOW THAT NOBODY IS  
25 GOING TO GET A PROFIT FROM IT, AND THE REWARD WILL

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1 BE THE DEVELOPMENT OF A THERAPY. BUT WHEN WE  
2 PARTICIPATE IN THE PRIVATE MARKET WHERE THERE IS THE  
3 POTENTIAL OF FINANCIAL REWARD FOR ALL OF THE  
4 PROJECTS, WHY WOULDN'T WE WANT TO SHARE IN THAT  
5 GROWTH POTENTIAL OF THAT MARKET?

6 CHAIRMAN JUELSGAARD: WELL, TO SPEAK TO  
7 THE FIRST POINT YOU MADE, I JUST WOULD POINT OUT  
8 CIRM AND THE COMPANY 47, I MEAN STANFORD AND THE  
9 COMPANY 47 THAT CAME OUT OF STANFORD AND THE  
10 TREMENDOUS AMOUNT OF MONEY THAT STANFORD MADE,  
11 PARTICULARLY WHEN THAT COMPANY WAS SOLD TO GILEAD,  
12 THERE WAS A SUBSTANTIAL ECONOMIC RETURN TO STANFORD  
13 IN THAT CIRCUMSTANCE.

14 THE GOOD NEWS IS THAT WE HAD A DEAL IN  
15 THAT CASE. OUR REGULATIONS PROVIDED THAT WE GOT A  
16 RETURN FROM STANFORD WHICH AMOUNTED TO A LITTLE OVER  
17 \$15 MILLION, AS I RECALL, THAT WE GOT FROM STANFORD.  
18 SO THE INSTITUTIONS ARE NOT NECESSARILY, SOME OF  
19 THEM ANYWAY, NOT MUCH DIFFERENT THAN FOR-PROFIT  
20 ENTITIES.

21 ANYWAY, DO YOU HAVE ANOTHER QUESTION,  
22 LARRY?

23 DR. GOLDSTEIN: FINALLY, IF WE TAKE THE  
24 VIEW THAT WE WANT TO SHARE IN THE GROWTH POTENTIAL,  
25 DO WE REALLY WANT TO ALLOW A COMPANY TO BUY BACK ITS

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1 REQUIREMENT OF FINANCIAL RETURN TO CIRM? SO AS  
2 YOU'VE DIAGRAMMED IT, A COMPANY COULD BUY BACK THEIR  
3 WARRANTS AT A TIME WHEN THEY THINK THAT THEIR VALUE  
4 IS JUST ABOUT TO SKYROCKET SO THAT THEY DON'T HAVE  
5 TO PAY WHAT IS LIKELY TO BE THE ANTICIPATED RETURN.  
6 AGAIN, MY POINT OF VIEW HERE IS THAT, IN DEALING  
7 WITH THESE FOR-PROFIT COMPANIES, SHOULD WE THINK  
8 ABOUT ACTING MORE AS A VC THAN AN ACADEMIC  
9 ORGANIZATION?

10 DR. KOVACH: JIM KOVACH. THAT'S THE THING  
11 THAT JUMPED OUT AT ME, LARRY -- THANKS FOR POINTING  
12 IT OUT -- IS INEVITABLY THE COMPANY THAT IS GOING TO  
13 SUCCEED WOULD BUY BACK THE WARRANTS AND WE'D LOSE  
14 THE OPPORTUNITY. SO I THINK IT'S A LITTLE DIFFERENT  
15 THAN THE LOAN. SO THANKS. THANKS FOR THOSE THREE  
16 REALLY GOOD COMMENTS.

17 CHAIRMAN JUELSGAARD: SO, JOE, YOU WERE  
18 NEXT.

19 MR. PANETTA: THANKS, STEVE. I THINK IT'S  
20 A GREAT DISCUSSION. AND I THINK GENERALLY I'M IN  
21 SUPPORT OF THE APPROACH AND I'M MAYBE A LITTLE BIT  
22 MORE EMPATHETIC TO HAVING GOTTEN MY START IN BIOTECH  
23 IN AN EARLY STAGE COMPANY THAT STRUGGLED TO BE ABLE  
24 TO MOVE PRODUCTS THROUGH RESEARCH AND  
25 COMMERCIALIZATION AND WORKED HARD AT IT REGARDLESS

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1 OF WHERE THE FUNDING CAME FROM.

2 SO AS I THINK ABOUT THIS AND MY TIME ON  
3 THE BOARD, ONE THING THAT I'VE ALWAYS LOOKED FORWARD  
4 TO HAS BEEN THE POTENTIAL FOR THE PROGRESSION OF  
5 SCIENCE TO MOVE FROM ACADEMIA AND INTO THE HANDS OF  
6 INDUSTRY PARTNERS WHO COULD POTENTIALLY DEVELOP IT  
7 TO COMMERCIALIZED PRODUCTS AND ULTIMATELY GET THOSE  
8 PRODUCTS INTO THE HANDS OF DOCTORS SO THAT PATIENTS  
9 CAN BE TREATED. AND THAT'S REALLY WHAT OUR GOAL IS  
10 HERE. SO WE WANT TO SEE SUCCESS, AND WE WANT TO SEE  
11 SUCCESS IN A WAY THAT WE'RE ALWAYS GOING TO TAKE  
12 SOME RISK TO BE ABLE TO ENHANCE THE OPPORTUNITY FOR  
13 SUCCESS. WE'VE ALWAYS TAKEN THAT RISK. AND WE WANT  
14 TO SEE THE TECHNOLOGY MOVE FORWARD. WE DON'T  
15 NECESSARILY WANT TO MAKE A PROFIT ON IT, WE DON'T  
16 NECESSARILY WANT TO MAKE A PROFIT ON THE COMPANIES  
17 THAT ARE DEVELOPING THE TECHNOLOGY.

18 BUT I THINK, FROM MY PERSPECTIVE, THAT I  
19 WANT TO DO EVERYTHING POSSIBLE AS A MEMBER OF THE  
20 ICOC TO ENHANCE THE OPPORTUNITY AND THE ABILITY FOR  
21 COMPANIES THAT DEMONSTRATE, AND WE'VE GOT A VERY  
22 RIGOROUS PROCESS, DEMONSTRATE THEIR ABILITY TO  
23 CONDUCT CLINICAL TRIALS AND TO MOVE PRODUCTS THROUGH  
24 TRANSLATIONAL PHASE TO BE ABLE TO DO THAT. SO I  
25 THINK WE ARE VERY SELECTIVE WHEN WE MAKE THE

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1 DECISIONS TO GIVE FUNDING TO THESE COMPANIES.

2 I THINK, TO STEVE'S POINT, WE DO LOOK AT  
3 IT SOMEWHAT FROM A BUSINESS STANDPOINT AS WELL, BUT  
4 I THINK IT'S A RISK THAT'S WORTH TAKING. I  
5 APPRECIATE THE CONCERN THAT MAYBE IT MIGHT APPEAR AS  
6 THOUGH THE COMPANY DOESN'T HAVE SKIN IN THE GAME BY  
7 ISSUING OPTIONS. BUT I, AGAIN, LOOK AT IT MORE FROM  
8 MY EXPERIENCE, THAT THERE'S A LOT OF INCENTIVE TO  
9 MOVE SUCCESSFULLY THROUGH RESEARCH AND DEVELOPMENT  
10 WITH A COMPANY THAT GOES BEYOND THE IDEA THAT  
11 THEY'RE GETTING FREE MONEY. ULTIMATELY THE GOAL OF  
12 THE COMPANY IS TO BE SUCCESSFUL AND DEVELOP A  
13 PRODUCT. AND I WOULD HOPE THAT COMPANIES THAT WE  
14 ARE PROVIDING THIS OPTION TO DEMONSTRATE THAT  
15 COMMITMENT IN THEIR APPLICATION AND THE WAY WE LOOK  
16 AT THEM AS WELL.

17 CHAIRMAN JUELSGAARD: THANKS. MICHAEL,  
18 DID YOU HAVE ADDITIONAL COMMENTS?

19 DR. STAMOS: I DO. THANK YOU. FIRST OF  
20 ALL, I REALLY APPRECIATE THE CONVERSATION. I THINK  
21 A LOT OF GOOD POINTS HAVE BEEN RAISED, AND I WON'T  
22 REITERATE THEM OTHER THAN TO SAY ONE OF MY BIG  
23 CONCERNS WAS THE CANCELLATION POLICY. I THINK IT IN  
24 MANY WAYS UNFAIRLY ADVANTAGES AND DISADVANTAGES  
25 CIRM, ADVANTAGES THE COMPANY, DISADVANTAGES CIRM IN



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1 TERMS OF OUR ROI.

2 I WAS GOING TO GO WITH THIS. WE HAVE A  
3 HISTORY OF GIVING WARRANTS INSTEAD OF CASH, IT  
4 SOUNDS LIKE, BASED ON WHAT I SAW ON THE  
5 PRESENTATION. WHAT IS OUR TRACK RECORD? HOW HAVE  
6 THOSE COMPANIES DONE COMPARED TO THOSE THAT PUT UP  
7 CASH IN TERMS OF SUCCESS BECAUSE AT THE END OF THE  
8 DAY, THAT'S WHAT WE CARE ABOUT IS SUCCESS OF ANY OF  
9 THESE, RIGHT, BECAUSE THE IDEA CAN BE THE GREATEST  
10 IDEA IN THE WORLD, BUT IF IT DOESN'T REACH SUCCESS  
11 AS EVIDENCED BY COMMERCIALIZATION IN THIS CASE, THEN  
12 IT DOESN'T REALLY MATTER HOW GOOD OF AN IDEA IT WAS.

13 CHAIRMAN JUELSGAARD: WELL, YOU HAVE TO  
14 REMEMBER THAT, AND I'M GOING TO GET TO JIM IN A  
15 MINUTE, THAT NO MATTER WHAT, IN ALL OF THESE THERE'S  
16 A SECOND BITE OF THE APPLE, SO TO SPEAK, OR EVEN  
17 FIRST BITE OF THE APPLE. AND THAT'S THE ROYALTY  
18 ARRANGEMENTS THAT WE HAVE WITH BOTH FOR-PROFIT AND  
19 NONPROFIT ORGANIZATIONS. THAT ROYALTY IS BASED UPON  
20 THE AMOUNT OF FUNDING THAT WE PROVIDE. BUT IF  
21 THERE'S A COMMERCIAL SUCCESS, NO MATTER WHERE IT  
22 HAPPENS DOWN THE ROAD, WHETHER IT'S WITH THE  
23 ORIGINAL ORGANIZATION, WHETHER IT BE AN ACADEMIC  
24 CENTER, OR BE A FOR-PROFIT COMPANY, OR SOMEBODY THAT  
25 FOLLOWS ON FROM THEM, CIRM GETS A ROYALTY ON

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1 COMMERCIAL SALES OF A PRODUCT. SO THERE'S ALWAYS  
2 THAT THAT LIES IN THE BACKGROUND.

3 AND WHAT KIND OF RAISED THIS IS THAT, AS  
4 SHYAM WAS POINTING OUT EARLY ON IN THE PRESENTATION,  
5 WHAT WE'RE SEEING IS A MIGRATION. IN THE EARLY DAYS  
6 OF CIRM, ALMOST ALL OF THIS STUFF WAS BEING DONE IN  
7 ACADEMIC CENTERS AND NOT SO MUCH BY COMPANIES. AND  
8 NOW WE'VE SEEN A MIGRATION WHERE THE COMPANIES ARE  
9 BASICALLY REALLY GETTING INVOLVED IN THE AREAS THAT  
10 ARE IMPORTANT TO US. AND THE THING THAT WE FACED IS  
11 IN SOME CASES COMPANIES SIMPLY COULDN'T, WEREN'T  
12 ABLE TO APPLY FOR GRANTS BECAUSE THEY COULDN'T MEET  
13 THE FINANCIAL HURDLE OF PROVIDING THE AMOUNT OF  
14 CO-FUNDING THAT WE WANTED. SO THIS IS WHAT JOE IS  
15 RELATING TO. WE HAVE TWO MISSIONS, BUT OUR FIRST  
16 AND FOREMOST MISSION IS TO TRY AND BRING NEW  
17 THERAPIES TO THE FRONT SO THAT WE CAN DEAL WITH  
18 THESE UNMET MEDICAL NEEDS.

19 AND SO PART OF THIS WAS A WAY OF ENHANCING  
20 FOR-PROFIT COMPANIES TO BE ABLE TO DO THAT,  
21 PARTICULARLY WHEN THEY'RE FINANCIALLY STRAPPED. SO  
22 IN ANY EVENT, THIS IS, I THINK, KIND OF WHAT'S AT  
23 THE CENTER OF THIS IS REALLY TRYING TO MAKE SURE  
24 THAT WE CAST AS WIDE A NET AS WE CAN FOR PROVIDING  
25 FOR THE OPPORTUNITY FOR NEW THERAPIES TO BE

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1 DEVELOPED WITHOUT HAMSTRINGING ORGANIZATIONS, UNLIKE  
2 ACADEMIC CENTERS THAT MAY NOT HAVE THE WHEREWITHAL  
3 TO BE ABLE TO SUPPORT THESE PROJECTS.

4 JIM, I KNOW YOU HAVE YOUR HAND RAISED AND  
5 BACK TO YOU.

6 DR. KOVACH: MOHAMMAD KICKED OFF A REALLY  
7 INTERESTING CONVERSATION AND A REALLY GOOD ONE.  
8 LIKE JOE, I WORKED IN BIOTECH BEFORE, AND I FEEL  
9 LIKE THE COMPANIES ISSUING WARRANTS GENERALLY ARE --  
10 THEY VALUE THEIR COMPANY AND THEIR OWN WORK VERY,  
11 VERY HIGHLY. AND SO I DO THINK THAT THERE'S A LOT  
12 OF VALUE THERE. IN FACT, IT SEEMS TO ME THAT, AS A  
13 WARRANT HOLDER, IT WOULD USHER IN THIS KIND OF  
14 CONTINUATION OF THE CHANGING OF CIRM TO REALLY KIND  
15 OF BE INTERACTIVE WITH COMPANIES IN A DIFFERENT WAY.  
16 IF YOU LOOK AT IT JUST KIND OF THEORETICALLY,  
17 DEPENDING ON THE EARLY STAGE OF THE COMPANY, CIRM  
18 COULD BE A VERY CONSIDERABLE SHAREHOLDER OR WARRANT  
19 HOLDER. THEY COULD ACTUALLY HAVE A SIGNIFICANT  
20 PLACE ON THE CAP CHART. AND SO THAT'S JUST  
21 DIFFERENT THAN IT HAS BEEN IN THE PAST AND JUST  
22 WANTED TO POINT THAT OUT, THAT THERE'D PROBABLY BE  
23 THE NEED TO CONTINUE TO KIND TAKE THIS MOVEMENT  
24 TOWARDS MORE OF AN ANALYSIS OF THE BUSINESS PLAN.  
25 AND I KNOW WE DO THAT ALREADY, BUT IT REALLY WOULD

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1 SEEM LIKE IT WOULD KIND OF USHER IN THE NEW ERA IN  
2 THIS WAY TO CIRM.

3 AND I THINK -- I DEFINITELY LIKE THE KIND  
4 OF INNOVATIVE THOUGHT BEHIND THE PROPOSAL.

5 CHAIRMAN JUELSGAARD: THANK YOU. MOHAMMAD  
6 AND THEN J.T.

7 DR. ABOUSALEM: THANK YOU, STEVE. AND  
8 THANK YOU, EVERYONE. THIS IS A VERY GOOD  
9 CONVERSATION. I'D LIKE TO REVISIT A COUPLE OF  
10 POINTS. THE POINT OF A BUSINESS REVIEW, FOR  
11 EXAMPLE, AND I LIKE THE CONCEPT, AT LEAST BE THE  
12 VIABILITY -- THE COMPANY'S ABILITY TO ACTUALLY CARRY  
13 OUT THE PROJECT. I KNOW WE DO THAT WITH THE OLDER  
14 PROGRAMS; BUT IN THIS CASE, IF WE'RE FUNDING IT A  
15 HUNDRED PERCENT, HOW ABLE ARE THEY TO ACTUALLY CARRY  
16 OUT THAT PROJECT AND CONTINUE BEYOND AS OPPOSED TO  
17 DROP DEAD RIGHT AFTER? THAT'S REALLY THE POINT THAT  
18 WE HAVE TO LOOK INTO.

19 I THINK ONE OF THE POINTS THAT WAS MADE,  
20 AND I JUST WANT TO CLARIFY THAT BECAUSE THAT'S MY  
21 UNDERSTANDING AND THAT'S MY VISION. WE SHOULD NOT,  
22 CIRM SHOULD NOT SHY AWAY FROM TAKING ITS SHARE OF  
23 THE PROFITS FROM THESE COMPANIES. AND IN MY OPINION  
24 THERE'S NOTHING WRONG IN SAYING THIS IS ONE OF OUR  
25 GOALS BECAUSE WE WANT THIS MONEY TO GO INTO FUNDING

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1 THE DEPLOYMENT OF THESE SOLUTIONS INTO THE  
2 UNDERSERVED COMMUNITY. SO WE DO HAVE A FINANCIAL  
3 GOAL. AND IF THIS BECOMES A VEHICLE FOR THAT, THEN  
4 GREAT. THIS IS A GOOD OPPORTUNITY TO DO THAT.

5 AND I FORGOT WHO MENTIONED THIS, IT COULD  
6 BE MICHAEL, I'M NOT SURE, BUT WHAT ABOUT THE -- THEN  
7 WE MAY WANT TO CHANGE THE TERMS. IN A CASE LIKE  
8 THIS, THE COMPANY DOES NOT HAVE THE OPTION TO CANCEL  
9 THE WARRANT, BUT IT'S ONLY AT THE DISCRETION OF  
10 CIRM. AND THAT COULD BALANCE OUT THIS. IF WE SEE  
11 THAT THIS COMPANY IS GOING TO GROW AND BECOME  
12 SUCCESSFUL AND WE ACTUALLY WANT TO SUPPORT THEM  
13 FURTHER, BUT ALSO GET A SHARE OF THAT SUCCESS, LET  
14 US MAKE THAT DECISION THAT, YEAH, WE WANT TO  
15 CONTINUE. WE DON'T WANT TO GET OUT. OR WE SAY  
16 LET'S CASH OUT NOW AND WE ARE DONE.

17 SO YOU MAY WANT TO CONSIDER JUST ACHIEVE  
18 THAT BALANCE BETWEEN OUR ABILITY TO SHARE IN THE  
19 REVENUES FOR THE OTHER CAUSES AND ALSO SUPPORT THE  
20 COMPANY AT THE TIME WHEN THEY'RE REALLY IN A TIGHT  
21 SITUATION. THANK YOU.

22 CHAIRMAN JUELSGAARD: J.T.

23 CHAIRMAN THOMAS: SO LET ME GO BACK TO ONE  
24 OF LARRY'S SUGGESTIONS, AND STEVE ASKED FOR  
25 CLARIFICATION ON YOUR RESPONSE TO THAT. SO HIS

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1 SUGGESTION ABOUT REQUIRING THAT WE GET WARRANTS IN  
2 BASICALLY EVERY CASE AND YOUR QUESTION ABOUT WOULD  
3 THAT APPLY TO ACADEMIA ALSO, SO MIGHT THERE BE AN  
4 APPROACH HERE WHERE OBVIOUSLY THE WHOLE REASON THAT  
5 THE 47 INC. PANNED OUT WAS THERE WAS A SPIN-OUT AND  
6 IT DID A COUPLE ROUNDS OF FINANCING AND ENDED UP  
7 GETTING PURCHASED AND THAT SPAWNED THE MONEY THAT WE  
8 GOT OUT OF IT AS A SHARE OF WHAT STANFORD MADE.

9 IS THERE A POTENTIAL PLAY HERE TO REQUIRE  
10 OF ACADEMIC AWARD RECIPIENTS THAT THEY IMPOSE UPON  
11 ANY SPIN-OUT THAT MIGHT ARISE FROM WHAT WE FUNDED A  
12 WARRANT OBLIGATION THAT WE CAN TAKE ADVANTAGE OF  
13 DOWN THE ROAD? STEVE, THAT'S A QUESTION TO YOU. IS  
14 THAT THE SORT OF THING YOU WERE THINKING ABOUT  
15 POTENTIALLY?

16 CHAIRMAN JUELSGAARD: WELL, SO LET'S JUST  
17 REVISIT HISTORY. SO THE REASON THAT WE GOT THIS  
18 AMOUNT MONEY FROM STANFORD WAS THAT UNDER OUR OLD  
19 REGULATIONS, ESSENTIALLY WHEN THEY OUT LICENSED, WE  
20 GOT A PERCENTAGE OF WHAT THEY RECEIVED IN THAT  
21 OUT-LICENSING SITUATION. AND THOSE WERE OUR OLD  
22 REGULATIONS THAT WERE IMPOSED ON EVERY ACADEMIC  
23 INSTITUTION GOING BACK IN TIME. BEN CAN HELP REMIND  
24 ME IF I GO ASTRAY HERE.

25 WE SUBSEQUENTLY CHANGED ALL THAT. WE

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1 DECIDED WE'RE NOT GOING TO IMPOSE THOSE KINDS OF  
2 CONSTRAINTS ON ANYBODY AND SIMPLY RELY ON ROYALTIES  
3 UPON COMMERCIAL SUCCESS. AND SO ANY MILESTONE  
4 PAYMENTS OR OUT-LICENSING PAYMENTS, ET CETERA, THAT  
5 WERE RECEIVED BY ANYBODY NO LONGER WERE CONSIDERED  
6 AS PART OF AN INCOME STREAM TO CIRM, BUT RATHER WE,  
7 AS I INDICATED EARLIER, HAVE NOW REVERTED TO SIMPLY  
8 A ROYALTY ON PRODUCT SUCCESS.

9 SO THE WARRANTS ARE A LITTLE BIT LIKE THE  
10 WAY WE TREATED ACADEMIC INSTITUTIONS IN THE PAST,  
11 WHICH IS THAT IF THERE WAS SUCCESS IN TERMS OF THEIR  
12 OUT LICENSING, THEN THEY OWED US SOME PORTION OF  
13 THAT OUT-LICENSING SUCCESS. AND I DON'T HAVE AN  
14 ISSUE WITH WARRANTS FOR FOR-PROFIT COMPANIES  
15 NECESSARILY. WE ARE TREATING THEM DIFFERENT THAN  
16 ACADEMIC INSTITUTIONS, BUT I WOULD POINT OUT THAT  
17 THERE IS THAT DISTINCTION. AND I RAISE STANFORD AS  
18 AN EXAMPLE BECAUSE THAT WAS A TREMENDOUSLY  
19 SUCCESSFUL CIRCUMSTANCE FOR THEM ECONOMICALLY.

20 THEY MADE REALLY A SIGNIFICANT AMOUNT OF  
21 MONEY OUT OF THE ULTIMATE ACQUISITION OF GILEAD OF  
22 47. STANFORD HELD THOSE SHARES UP UNTIL THE GILEAD  
23 ACQUISITION. SO IT ISN'T ALWAYS THE FOR-PROFIT  
24 COMPANIES THAT ARE COMING AWAY WITH MAJOR ECONOMIC  
25 RETURNS. IT CAN CERTAINLY BE THE CASE IN THE

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1 ACADEMIC SETTING AS WELL.

2 DR. STAMOS: IF THAT SAME SCENARIO  
3 OCCURRED TODAY UNDER OUR CURRENT RULES WITH STANFORD  
4 AND GILEAD, WOULD WE GET A ROYALTY ON THAT?

5 CHAIRMAN JUELSGAARD: WE WOULD GET A  
6 ROYALTY ON THE GILEAD, AND WE DO TODAY. IF GILEAD  
7 GETS AN APPROVAL OF THE ANTI-CD 47 ANTIBODY, THEY  
8 HAVEN'T YET, THEY'RE STILL IN CLINICAL TRIALS, BUT  
9 IF THEY GET AN APPROVAL AND THEY START SELLING THAT  
10 ANTIBODY, THE ONE THAT WAS DEVELOPED UNDER THE CIRM  
11 RESEARCH THAT WAS DONE, THEN, YES, WE'LL GET, I  
12 DON'T KNOW -- BEN, I KNOW YOU'RE ON THE LINE HERE.  
13 CORRECT ME IF I'M WRONG, BUT I THINK IT'S A  
14 3-PERCENT ROYALTY, SOMETHING LIKE THAT.

15 MR. HUANG: IT'S A LITTLE DIFFERENT. THE  
16 ROYALTY FORMULA BACK THEN APPLIED TO FOR-PROFITS.  
17 AND FOR NON-PROFITS, WE TOOK A PERCENTAGE OF THE  
18 LICENSING REVENUE. SO FOR THIS -- FOR EXAMPLE, SO  
19 GILEAD DOES COMMERCIALIZE A PRODUCT, IN THIS CASE  
20 WE'RE TAKING A PERCENTAGE OF WHATEVER STANFORD  
21 RECEIVES.

22 CHAIRMAN JUELSGAARD: OKAY.

23 MR. HUANG: UNDER OUR CURRENT REGIME, FOR  
24 EXAMPLE, LET'S SAY IF IT WAS AWARDED UNDER OUR  
25 CURRENT REGS, WE WOULD TAKE A PERCENTAGE OF THE NET



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1 COMMERCIAL REVENUE THAT GILEAD HAS. SO INSTEAD OF  
2 TAKING IT FROM STANFORD, WE WOULD GO ULTIMATELY TO  
3 THE COMMERCIALIZING ENTITY. SO THAT'S THE  
4 DISTINCTION.

5 DR. STAMOS: IT'S HELPFUL. I MAY HAVE  
6 MISSED THIS. I APOLOGIZE, BUT WE ARE ALL DATA  
7 DRIVEN. DO WE HAVE A TRACK RECORD OF OUR OWN  
8 FUNDING IN TERMS OF WARRANTS VERSUS CASH SUCCESS  
9 RATES OF THOSE COMPANIES? I STILL THINK IT WOULD BE  
10 HELPFUL TO KNOW IF WE HAD THAT DATA.

11 MR. HUANG: MAYBE SHYAM CAN ALSO  
12 INTERJECT, BUT WE'VE HAD SO FEW INSTANCES OF THE  
13 WARRANTS. AND ACTUALLY ONE OF THOSE CASES, THE  
14 ENTITY WHO WENT THAT ROUTE ACTUALLY PAID IT ALL BACK  
15 WITHIN TWO MONTHS WITH INTEREST. SO WE DID STILL  
16 KEEP THE WARRANTS AND WE EXERCISED A NUMBER OF  
17 THOSE, BUT THERE'S NOT REALLY ENOUGH DATA POINTS TO,  
18 LET'S SAY, TO HAVE A REAL TRACK RECORD.

19 DR. STAMOS: OKAY. THANK YOU.

20 DR. PATEL: I'D JUST MAKE THE POINT THAT  
21 IT WAS TIED TO THE LOAN PROGRAM. SO IT'S NEVER DONE  
22 UNDER THE CURRENT PROGRAMMATIC-BASED FUNDING THAT WE  
23 HAVE IN OUR DISCOVERY, TRAN, AND CLIN. THAT  
24 PREVIOUS LOAN PROGRAM, THERE WERE, I THINK, ABOUT  
25 FIVE LOANS GIVEN OUT. BECAUSE OF SOME OF THE TERMS,

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1 IT WASN'T A VERY POPULAR PROGRAM. THAT'S WHY IT WAS  
2 STOPPED, BUT THERE WAS ONE INSTANCE WHERE WARRANTS  
3 WERE ISSUED TO CIRM, AND THEN THEY ENDED UP BEING  
4 TRANSFERRED TO A THIRD-PARTY EXERCISE AND THE  
5 FUNDING CAME BACK TO CIRM.

6 SO IT WAS NOT, LIKE, A GREAT EXAMPLE THAT  
7 WE HAVE THERE. WE CAN'T REALLY DIRECTLY COMPARE IT  
8 TO WHAT WE HAVE NOW. BUT IN TERMS OF OUR CURRENT  
9 FUNDING OPPORTUNITIES, THE COMPANIES HAVE GONE ON TO  
10 HAVE VARIOUS SORTS OF PARTNERING OPPORTUNITIES. A  
11 LOT OF THEM HAVE RAISED VENTURE CAPITAL AFTER  
12 GETTING CIRM FUNDING, SEVERAL OF THEM HAVE BEEN  
13 ACQUIRED, AND A FEW OF THEM HAVE GONE PUBLIC.

14 CHAIRMAN JUELSGAARD: I THINK THE THING OF  
15 IT IS IS THAT -- SHYAM, HOW MANY PRODUCTS HAVE  
16 EVOLVED INTO THE COMMERCIAL SETTING THAT CIRM HAS  
17 PROVIDED FUNDING FOR? HOW MANY ARE THERE?

18 DR. PATEL: HOW MANY OF THEM HAVE GOTTEN  
19 APPROVAL OR HOW MANY --

20 CHAIRMAN JUELSGAARD: YEAH. HOW MANY ARE  
21 BEING MARKETED RIGHT NOW THAT AT SOME POINT ALONG  
22 THE WAY GOT CIRM FUNDING?

23 DR. PATEL: I THINK THAT'S THE --

24 CHAIRMAN JUELSGAARD: 47, BUT THAT PRODUCT  
25 WAS STILL BEING DEVELOPED BY GILEAD.

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1 DR. PATEL: THAT'S RIGHT. SO, MARIA, DO  
2 YOU WANT TO ANSWER THAT QUESTION? YOU MIGHT HAVE  
3 MORE OF AN INSIGHT ON THAT THAN I DO.

4 DR. MILLAN: IN TERMS OF TOTAL PROGRAMS  
5 THAT HAVE EVER TOUCHED CIRM FUNDING, THERE ARE QUITE  
6 A FEW. THERE ARE JUST VERY FEW THAT ARE ACTUALLY  
7 CANCER SMALL MOLECULE PROGRAMS FOR CANCER, AND THEY  
8 WERE PROGRAMS THAT WERE FUNDED, KIND OF AN EARLY  
9 STAGE DEVELOPMENT. THE PROGRAMS THAT HAVE BEEN  
10 GOING THROUGH THE CURRENT MODEL OF THIS THERAPEUTIC  
11 DEVELOPMENT, I WOULD SAY PIPELINE DEVELOPMENT, WE  
12 HAVE NONE THAT HAVE BEEN -- THAT ARE CURRENTLY  
13 MARKETED.

14 SO I WANTED TO JUST ALSO -- I THINK THIS  
15 CONVERSATION IS GREAT. I WANTED TO BRING BACK THE  
16 ORIGINAL REASON THAT WE FELT THAT THIS IS SOMETHING  
17 THAT WAS WORTHWHILE LOOKING AT IS THAT IN THE  
18 CURRENT CLIMATE, WE KNOW THAT BOTH ACADEMIC AND  
19 FOR-PROFIT OR FOR INDUSTRY APPLICANTS TO CIRM MAY  
20 NOT EVEN COME IN AT ALL. AND THEY MAY HAVE VERY  
21 PROMISING APPROACHES WITH STRONG SCIENCE BEHIND IT.

22 SO THE WHOLE IDEA IS HOW COULD WE EVEN  
23 HAVE A THRESHOLD THAT WOULD ALLOW US TO DERISK  
24 MEANINGFUL PROGRAMS THAT SERVE THE MISSION. SO I  
25 JUST WANTED TO BRING THAT TO THE FOREFRONT. WE HAVE

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1 BEEN SEEING THAT EVEN IN OUR OWN PROGRAMS THAT WERE  
2 GAINING SOME EARLY CLINICAL -- PROMISING CLINICAL  
3 DATA WERE HAVING PROBLEMS EVEN FROM THE ACADEMIC  
4 SIDE THAT JUST RECENTLY SPUN OUT TO GET THE  
5 CO-FUNDING IN ORDER TO EVEN COME IN FOR CIRM  
6 FUNDING.

7 SO THERE WERE A COUPLE OF DIFFERENT  
8 INQUIRIES TO US IN TERMS OF WHAT CAN THEY DO IN  
9 ORDER TO CONTINUE DEVELOPMENT OF THOSE PROGRAMS.

10 CHAIRMAN JUELSGAARD: JUDY, I SEE YOUR  
11 HAND RAISED, AND THEN MOHAMMAD AFTER YOU.

12 DR. CHOU: I WANT TO BUILD FURTHER ON WHAT  
13 MARIA JUST MADE A COMMENT. I REALLY DON'T HAVE  
14 STRONG OPINION ON THE WARRANT ONE WAY OR THE OTHER.  
15 BUT JUST THINKING ABOUT THE FUNDING FOR ACADEMIA  
16 VERSUS THE INDUSTRY, I THINK NATURE GOT TO BE THE  
17 STAGE ALSO IN MONTHS. IN A SENSE, IF YOU REALLY  
18 WANT TO ACT LIKE A VC TO PROMOTE IN THE BUSINESS  
19 WORLD, I THINK THE MILESTONE FUNDING IS VERY  
20 IMPORTANT. HOWEVER, IN MY OPINION, I THINK FOR  
21 ACADEMIA IS A LITTLE BIT DIFFERENT AS YOU WANT TO  
22 GIVE AS MUCH AS POSSIBLE TO ALLOW DIFFERENT IDEA CAN  
23 BE REITERATED AND FINALLY COME TO MATURITY. FOR  
24 INDUSTRY, I THINK IN THE BUSINESS SETTING, GOOD OR  
25 BAD I'M IN INDUSTRY, SO EVERYTHING GOT TO HAVE A

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1 BUSINESS REASON. SO THEN A MILESTONE DRIVEN OF THE  
2 FUNDING IS PROBABLY -- I THINK THAT TOPIC IS EVEN  
3 MORE IMPORTANT, AND HOW DO WE LOOK AT THE WARRANT  
4 AND DOWN THE LINE. IT'S MORE OF HOW DO WE SET A  
5 STAGE, MILESTONE HITTING CERTAIN POINT TO ALLOW EVEN  
6 MORE FUNDING TO ENCOURAGE THE INNOVATION BECAUSE  
7 THAT'S GOT TO HAVE THE NATURE OF THE BUSINESS WORLD  
8 TO SELECT THE ONE TRULY HAVE THE VALUE AND SURVIVE.

9 CHAIRMAN JUELSGAARD: WELL, THAT'S SORT OF  
10 HOW WE DO THINGS NOW. SO THE FUNDING UNDER ANY  
11 PROGRAM IS BASED ON MEETING MILESTONES. AND IF YOU  
12 DON'T MEET A MILESTONE, THEN YOU DON'T GET THE  
13 FUNDING. SO WE ALREADY INCORPORATE THAT IDEA INTO  
14 HOW WE FUND BOTH FROM A FOR-PROFIT, BUT ALSO FROM A  
15 NONPROFIT POINT OF VIEW.

16 DR. CHOU: THAT'S VERY GOOD. IF ANYTHING,  
17 I WANT TO EMPHASIZE IS THE FOR-PROFIT IS EVEN MORE  
18 IMPORTANT IN A SENSE.

19 CHAIRMAN JUELSGAARD: MOHAMMAD.

20 DR. ABOUSALEM: THANK YOU. I HAVE A  
21 QUESTION AND THEN A SUGGESTION AFTER. THE QUESTION  
22 FIRST. HAVE YOU CONSIDERED, LIKE WHEN I HEAR  
23 EVERYTHING THAT IS BEING SAID ON THE PURPOSE OF THIS  
24 PROGRAM, HAVE YOU CONSIDERED, INSTEAD OF USING A  
25 WARRANT FOR THAT PORTION, ACTUALLY APPLYING YOUR

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1 LOAN PROGRAM? SO BASICALLY YOU HAVE THE 4 MILLION.  
2 SO YOU WILL FUND THE 3.2 AS YOU NORMALLY WOULD, AND  
3 THEN 800,000, YOU APPLY YOUR LOAN PROGRAM, AND THE  
4 COMPANY RIGHT UP FRONT RIGHT THEN THEY TAKE A LOAN  
5 OF \$800,000 UNDER THE TERMS OF YOUR CURRENT LOAN  
6 PROGRAM. SHYAM?

7 DR. PATEL: YES, WE DID. SO WE CONSIDERED  
8 THAT. AND THE REASON THAT WE CHOSE TO GO WITH THE  
9 WARRANT-BASED CO-FUNDING OPTION WAS THAT IT WOULD  
10 KEEP IT SIMPLER BOTH FROM OUR PERSPECTIVE AS WELL AS  
11 FROM THE COMPANY'S PERSPECTIVE WHERE THEY'RE GETTING  
12 A SINGLE AWARD AND NOT HAVING TO HAVE LOAN TERMS  
13 PLUS THE AWARD TERMS ON TOP OF THAT AS WELL AS THE  
14 FACT THAT, IN TERMS OF HOW THEY ARE CARRYING THAT IN  
15 THEIR BOOKS, THEY WOULD HAVE A LOAN AS WELL AS THE  
16 ONE ON TOP OF THAT. SO WE THOUGHT IT WOULD JUST BE  
17 CLEANER TO KEEP IT AS AN AWARD WITH THE WARRANT  
18 COVERAGE FOR THE AMOUNT THAT THEY'RE GETTING IN  
19 ADDITION TO WHAT THEY WOULD GET PREVIOUSLY.

20 BUT THAT IS SOMETHING WE DID CONSIDER.

21 DR. ABOUSALEM: SO, SHYAM, I'M NOT SURE IF  
22 I WOULD AGREE A HUNDRED PERCENT WITH THIS MAKING IT  
23 SIMPLER. THEY WILL STILL END UP WITH TWO  
24 INSTRUMENTS. THEY WILL END UP WITH THE FUNDING AND  
25 THEY WILL END UP WITH THE WARRANT, AND THESE ARE TWO

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1 ASPECTS. I DON'T THINK SAFE. I THINK YOU SHOULD  
2 REALLY CONSIDER THAT PRACTICALLY, AND THAT COULD  
3 SIMPLIFY THE SITUATION AND ACHIEVE YOUR GOAL.

4 NOW, THE SUGGESTION THAT I HAVE, IF WE GO  
5 WITH THE WARRANT ROUTE, AND THE COMMENT THAT WAS  
6 DISCUSSED EARLIER AND I COMMENTED ON IT, WHICH IS  
7 THEIR ABILITY TO CANCEL IT AT A TIME WHEN WE  
8 ACTUALLY WANT TO CASH OUT ON THE WARRANT. PERHAPS  
9 IF THEY CHOOSE TO CANCEL IT, THEN AT THAT POINT IN  
10 TIME SAY YOU HAVE THE OPTION TO CANCEL, BUT AT THAT  
11 TIME IT WILL BE ON HANDLED AS A LOAN FROM THE  
12 BEGINNING TO THAT POINT OF CANCELLATION AND INTEREST  
13 WILL ACCRUE AT THE TIME OF CANCELLATION. AT LEAST  
14 THAT COULD OFFSET THAT IDEA OF, OKAY, FREE MONEY FOR  
15 THE TIME I WANTED IT AND NOW I'M CASHING OUT.

16 DR. PATEL: YEAH. AND THAT WOULD BE PART  
17 OF WHAT WE WOULD BE DEVELOPING, AND THAT'S WHAT THE  
18 CURRENT LOAN PROGRAM IS. THE COMMITTEE HAS RAISED  
19 EXCELLENT POINTS WITH RESPECT TO THE CANCELLATION  
20 PERIOD AFTER THE AWARD HAS ENDED AND HOW LONG THAT  
21 TAIL IS. BECAUSE, AS YOU SAID, LIKELY THE INCENTIVE  
22 IS TO CANCEL THE WARRANTS RIGHT BEFORE A MAJOR  
23 FINANCING EVENT THAT WOULD THEN PREVENT US FROM  
24 REALIZING A RETURN ON THAT.

25 BUT IN ORDER TO CANCEL IT, IF WE WERE

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1 FOLLOWING OUR CURRENT LOAN CONVERSION PRINCIPLES, IT  
2 WOULD BE THE PRINCIPAL AMOUNT PLUS A PREMIUM ON TOP  
3 OF THAT. SO THAT WOULD BE THERE, AND THEY WOULD  
4 HAVE TO BE SIGNIFICANT FOR IT TO MAKE SENSE FOR CIRM  
5 TO TAKE THAT RISK.

6 WHILE I HAVE THE FLOOR, I JUST WANT TO  
7 ACKNOWLEDGE, THANK YOU, STEVE, FOR CLARIFYING ON THE  
8 BUSINESS PLANS THAT I WAS MISINTERPRETING AND AS  
9 BUSINESS PLAN OF THE COMPANY. WITH RESPECT TO THE  
10 FINANCIAL DUE DILIGENCE, I JUST WANT TO NOTE THAT  
11 WHILE RIGHT NOW WE ARE DOING FINANCIAL DUE DILIGENCE  
12 OF THE COMPANY IN TERMS OF SOLVENCY AND CO-FUNDING  
13 WHEN THEY APPLY. AND THEN OVER THE COURSE OF THE  
14 AWARD, GRANTS MANAGEMENT DOES DO CO-FUNDING CHECKS,  
15 AND THEY DO A FINANCIAL REVIEW OF THE ABILITY OF THE  
16 AWARDEE TO PUT UP THE CASH-BASED CO-FUNDING AMOUNT.

17 SO IN THIS PARTICULAR EXAMPLE, IN THE  
18 WARRANT-BASED OPTION, IF IT WAS IMPORTANT TO THIS  
19 COMMITTEE AND TO THE ICOC AS WELL AS TO CIRM THAT WE  
20 MAINTAIN THAT CHECK ALONG THE WAY TO SEE IF THE  
21 COMPANY IS PROGRESSING OR MAYBE EVEN HAS RAISED  
22 ADDITIONAL FUNDING TO KEEP FORWARD, THAT'S SOMETHING  
23 WE CAN BUILD INTO THAT MECHANISM.

24 CHAIRMAN JUELSGAARD: LET'S COME TO THE  
25 QUESTION THEN. SO THE LAST SLIDE THAT SHYAM SHOWED



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1 WAS ONE ABOUT WHETHER OR NOT WE WANT TO PROCEED WITH  
2 THIS CONCEPT OF DEVELOPING A WARRANT-BASED  
3 ALTERNATIVE TO CO-FUNDING. AND IF SO, THEN WE WOULD  
4 WORK THE DETAILS OUT WITH MORE DEFINITION AND THEN  
5 BASICALLY HAVE A JOINT MEETING BETWEEN THIS  
6 COMMITTEE AND THE SCIENCE SUBCOMMITTEE, WHICH IS  
7 WHERE ESSENTIALLY THE WHOLE NOTION OF CO-FUNDING WAS  
8 INITIALLY GENERATED IS AT THE SCIENCE SUBCOMMITTEE  
9 SIDE OF THIS. SO THIS WOULD BE OUR RECOMMENDATION  
10 TO THE SCIENCE SUBCOMMITTEE TO CHANGE THE CURRENT  
11 MECHANISM WE HAVE.

12 SO THE QUESTION IS WHETHER WE WANT TO  
13 CONTINUE TO PURSUE THIS OR WHETHER AT THIS POINT WE  
14 THINK, WELL, LET'S JUST STICK WITH WHAT WE HAVE AND  
15 JUST REQUIRE CO-FUNDING. SO I THINK THAT'S THE  
16 QUESTION THAT WE HAVE.

17 SO I SEE LARRY HAS RAISED HIS HAND, BUT I  
18 WANT TO GET A SENSE BEFORE WE END THIS CALL WHETHER  
19 THIS IS WORTH PURSUING OR NOT BECAUSE WE ALREADY  
20 SPENT A CONSIDERABLE AMOUNT OF TIME DEALING WITH  
21 THIS, BARRY AND SHYAM AND MYSELF AND SOME OTHERS AT  
22 CIRM.

23 LARRY YOU, HAVE A QUESTION OR COMMENT?

24 DR. GOLDSTEIN: WELL, I JUST WANT TO  
25 REMIND US THAT IN PART PROP 71 AND PROP 14 WERE

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1 JUSTIFIED TO THE VOTERS OF THE STATE OF CALIFORNIA  
2 BASED IN PART ON PROJECTED ECONOMIC RETURNS. AND,  
3 OF COURSE, THERE'S ALWAYS THE QUESTION OF, WELL, DO  
4 WE JUST SAY THAT IF THE STATE -- IF COMPANIES GET  
5 STARTED IN THE STATE, THEN OF COURSE THE STATE  
6 BENEFITS ECONOMICALLY, AT LEAST THE PEOPLE DO. BUT  
7 DO WE ALSO WANT TO TRY TO LIVE UP TO THE NOTION THAT  
8 THERE MAY BE DIRECT ECONOMIC BENEFITS IN THE CASE OF  
9 CIRM BY RETURN OF VALUE TO CIRM WHICH IS THEN USED  
10 TO FINANCE ADDITIONAL GRANT PROJECTS IN THE FUTURE?  
11 PERHAPS THIS IS PART OF THINKING ABOUT  
12 SUSTAINABILITY.

13 CHAIRMAN JUELSGAARD: YEAH. AS I SAID  
14 EARLY ON, AND BEN MENTIONED THIS, BUT RIGHT NOW THE  
15 WAY OUR REGULATIONS ARE WRITTEN, FOR THE PROJECTS  
16 THAT ARE FUNDED NOW FOR SOME PERIOD OF TIME,  
17 SHOULD THERE BE A COMMERCIAL SUCCESS ASSOCIATED WITH  
18 ANY OF THEM AND THOSE PRODUCTS GET SOLD, NO MATTER  
19 WHERE THEY'RE SOLD, WE GET A ROYALTY. I DON'T  
20 EXACTLY REMEMBER THE AMOUNT. AND BEN CAN REMIND ME.  
21 WE DO HAVE AN ECONOMIC STAKE ALREADY WHETHER THESE  
22 THINGS ORIGINATED IN ACADEMIA OR IN FOR-PROFIT  
23 COMPANIES OR WHATEVER.

24 I THINK AS MUCH AS ANYTHING ABOUT TRYING  
25 TO HELP YOUNG COMPANIES THAT ARE NOT NECESSARILY

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1 HAVING GREAT FINANCIAL WHEREWITHAL AS THEY'RE JUST  
2 GETTING STARTED AND WHERE EVERY DOLLAR COUNTS A LOT,  
3 AND TRYING TO HELP THEM MOVE FORWARD, BUT AT THE  
4 SAME TIME PROVIDING SOME ECONOMIC POTENTIAL UPSIDE  
5 FOR CIRM. SO THAT FOR ME IS KIND OF THE GIST OF IT.  
6 I THINK THIS IS WHAT MARIA WAS REFERRING TO EARLIER  
7 IS WE HAVE -- WHAT WE ARE SEEING IS WE ARE MISSING  
8 SOME OPPORTUNITIES TO PROVIDE FUNDING FOR WHAT MIGHT  
9 BE ATTRACTIVE SCIENTIFIC PROJECTS SIMPLY BECAUSE THE  
10 COMPANIES DON'T HAVE THE ECONOMIC WHEREWITHAL TO PUT  
11 UP THE CO-FUNDING AMOUNT. AND SO WE ARE NOT ABLE TO  
12 HELP THEM OUT, AND I THINK THAT'S KIND OF THE  
13 MAINSTAY OF WHAT THIS PROPOSAL WAS ABOUT.

14 DR. ABOUSALEM: STEVE, I'D LIKE TO ANSWER  
15 YOUR QUESTION, WHICH IS YOU'RE TRYING TO SEE IF THE  
16 COMMITTEE WOULD SUPPORT CONTINUING ON THIS PATH OR  
17 NOT. SO I WANT TO ANSWER FROM MY POINT OF VIEW  
18 BECAUSE IT'S NOT JUST A YES OR NO. I THINK THERE IS  
19 A YES, BUT WE NEED TO MAKE SURE THAT THE ELEMENTS OF  
20 OUR CONVERSATION ARE BEING ADDRESSED IN THE NEXT  
21 STEPS, IN MY OPINION, INCLUDING WHAT LARRY WAS  
22 SAYING. YES, WE WANT TO MAXIMIZE ALSO OUR  
23 OPPORTUNITY FOR HAVING OUR REVENUE SHARE, BUT THERE  
24 IS A POINT ALSO WE NEED TO THINK ABOUT HOW WE  
25 PREVENT, AS WE LAUNCH THIS, HOW WE WILL PREVENT

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1 EVERYBODY GETTING ON THE BANDWAGON AND GOING WITH  
2 THIS ROUTE AS OPPOSED TO THE CASH ROUTE. SO THERE  
3 WOULD HAVE TO BE SOME QUALIFICATION CRITERIA FOR THE  
4 COMPANIES THAT WILL BE ACCEPTED IN THE WARRANT  
5 PROGRAM VERSUS THE CASH IN THE PROGRAM. AND THINK  
6 OF IT ALSO AS AN EQUITY POINT. LIKE, DOES EVERYBODY  
7 HAVE THE OPTION TO GET FREE MONEY UNTIL THEY GET  
8 THEIR MONEY, AGAIN, THE TERMS OF THE CASHING OUT AND  
9 ALL THAT?

10 SO MY PERSONAL ANSWER TO YOUR QUESTION,  
11 STEVE, I LIKE THE DIRECTION. I STILL SEE A NUMBER  
12 OF ADJUSTMENTS TO BE DONE TO IT BEFORE WE CONSIDER  
13 IT READY, BUT IT IS ENCOURAGING.

14 CHAIRMAN JUELSGAARD: WELL, WHAT I HEAR  
15 FROM YOU, MOHAMMAD, AND WHAT I'VE HEARD FROM OTHERS  
16 IS THAT WE NEED A LITTLE MORE FLESHING OUT OF THE  
17 PROPOSAL. I THINK ONE OF THE CONCERNS HAS BEEN THAT  
18 SOMEBODY COULD WALK AWAY FROM A WARRANT ESSENTIALLY  
19 AND WE WOULDN'T SEE MUCH RETURN FROM IT. AND THE  
20 SUGGESTION WAS, MUCH LIKE WE HAD WITH THE LOAN  
21 PROGRAM, IS THAT YOU HAVE TO REPAY THE MONEY, BUT  
22 THEN THERE'S ALSO A PREMIUM THAT WILL BE REPAID AS  
23 WELL. SO THAT'S SOMETHING THAT WE NEED TO THINK  
24 ABOUT.

25 SHYAM, I THINK BEFORE -- I'M GOING TO

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1 PRESUME THIS IS WHERE WE ARE, THAT BEFORE WE DECIDE  
2 TO TRY TO GET TOGETHER WITH THE SCIENCE  
3 SUBCOMMITTEE, THAT WE DO A LITTLE MORE FLESHING OUT  
4 OF THE SPECIFICS OF WHAT WE INTEND HERE, COME BACK  
5 TO THIS SUBCOMMITTEE ONE MORE TIME WITH THE CONCRETE  
6 PROPOSAL OF HOW THIS WOULD WORK, AND SEE IF WE CAN  
7 GET ENDORSEMENT FROM THIS SUBCOMMITTEE, AND THEN WE  
8 CAN GO TO THE SCIENCE SUBCOMMITTEE.

9 I THINK WE'RE STILL MULLING THIS OVER, SO  
10 TO SPEAK. DOES ANYBODY HAVE A DIFFERENT IDEA ABOUT  
11 THIS?

12 DR. DULIEGE: NO, YOU SUMMED IT UP SO  
13 WELL, STEVE. THANK YOU.

14 CHAIRMAN JUELSGAARD: OKAY. SO I THINK  
15 WE -- THIS HAS BEEN A GREAT DISCUSSION. I  
16 APPRECIATE ALL THE PEOPLE WHO HAVE WEIGHED IN. I  
17 THINK WE NOW HAVE A LITTLE BIT BETTER IDEA OF WHAT  
18 WE NEED TO DO. AND WE'LL GO BACK TO THE DRAWING  
19 BOARD AND WORK A LITTLE BIT HARDER ON THIS.

20 BUT WHAT I DON'T GET A SENSE OF IS THAT  
21 PEOPLE THINK THIS IS JUST A STUPID IDEA, TO BE  
22 CLEAR, THAT PEOPLE WILL SAY THIS IS JUST DUMB.  
23 LET'S NOT DO WARRANTS. LET'S JUST REQUIRE THEM TO  
24 PUT UP CO-FUNDING. I THINK PEOPLE, GENERALLY  
25 SPEAKING, ARE OKAY WITH IT AS LONG AS IT'S DONE IN A

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1 THOUGHTFUL MANNER THAT REALLY CREATES THE  
2 OPPORTUNITY FOR REWARD TO CIRM OUT OF ALL OF THIS.  
3 AND ALONG WITH THAT, THE COMPANIES HAVE THE  
4 WHEREWITHAL TO DO THE PROJECT. THAT IS, THEY HAVE A  
5 BUSINESS PLAN THAT'S SUSTAINABLE SO THAT THERE'S NOT  
6 JUST THE IDEA THAT THEY RIDE ON CIRM'S MONEY AND  
7 DON'T HAVE ANY OTHER FINANCIAL MEANS TO DEAL WITH  
8 RUNNING THE COMPANY. IS THAT A FAIR ASSESSMENT?

9 CHAIRMAN THOMAS: YEAH. I THINK IT  
10 ABSOLUTELY IS. I THINK THERE HAVE BEEN SOME REALLY  
11 GOOD SUGGESTIONS AND QUESTIONS RAISED HERE THAT WILL  
12 JUST MAKE THE PROPOSED PROGRAM THAT MUCH STRONGER.  
13 SO I WOULD AGREE, GO BACK AND SHYAM CAN SYNTHESIZE  
14 ALL THIS AND INTEGRATE IT INTO THE NEXT DRAFT OF  
15 THIS TO COME BACK FOR THE DISCUSSION.

16 I DO WANT TO HIGHLIGHT LARRY'S LAST  
17 COMMENT, WHICH IS THERE IS EMBEDDED IN THE  
18 PROPOSITIONS THE NOTION THAT IT'S COMPLETELY FINE  
19 FOR CIRM TO GET SOME SORT OF A RETURN WITHIN THE  
20 BOUNDS OF THE REGS, ETC., THAT CAN HELP US PUT MONEY  
21 OUT FOR ADDITIONAL PROGRAMS AND THAT THIS IS ONE OF  
22 THE WAYS WE CAN DO IT. WE CAN'T HOLD EQUITY.  
23 THAT'S NOT PERMITTED. BUT THIS IS SOMETHING THAT IS  
24 ALLOWABLE, AND I DO THINK THAT IT'S A GOOD MECHANISM  
25 TOWARDS THAT END AND SOMETHING WE SHOULD BE THINKING

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1 ABOUT AS A MEANS OF INCREASING THE AMOUNT OF FUNDING  
2 WE HAVE AT OUR DISPOSAL TO FUND EVEN MORE THAN WE  
3 CAN ALREADY. SO I THINK EVERYBODY'S SUGGESTIONS AND  
4 QUESTIONS WERE GREAT. I THINK IT'S BEEN A REALLY,  
5 REALLY GOOD DISCUSSION.

6 SHYAM, THANK YOU VERY MUCH. YOU PUT A TON  
7 OF TIME INTO THIS ALREADY, AND IT SHOWS FROM THE  
8 QUALITY OF THE PRESENTATION. AND SO THANK YOU, BUT  
9 I THINK WE'LL GET, AS A RESULT OF THIS, AN EVEN  
10 BETTER PRODUCT IN THE NEXT GO-AROUND. THANK YOU.

11 CHAIRMAN JUELSGAARD: LET ME JUST ECHO  
12 WHAT J.T. JUST SAID ABOUT ALL THE WORK THAT SHYAM  
13 HAS PUT IN ON THIS BECAUSE I'VE BEEN AT HIS ELBOW  
14 WHILE HE'S BEEN DOING ALL THIS. SO IT'S A LOT OF  
15 EFFORT THAT'S BEEN INVOLVED.

16 SO UNLESS SOMEBODY FEELS STRONGLY  
17 OTHERWISE, I THINK THAT'S WHAT WE'LL DO. WE'LL PUT  
18 A LITTLE MORE WORK INTO THIS, COME BACK WITH A MORE  
19 DETAILED PROPOSAL TO COME BACK TO THIS COMMITTEE  
20 WITH. AND THEN ASSUMING THAT IT MEETS WITH MUSTER  
21 HERE, THEN WE CAN PROPOSE MEETING WITH THE SCIENCE  
22 SUBCOMMITTEE, BUT IT MAY BE A LITTLE LATER ON INTO  
23 THE NEXT YEAR BEFORE THAT HAPPENS.

24 AGREED?

25 (MULTIPLE AGREEMENT FROM MEMBERS.)

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1           CHAIRMAN JUELSGAARD: ALL RIGHT. THANKS,  
2           EVERYBODY. THANKS FOR PARTICIPATING IN THIS  
3           SESSION.

4           DR. DULIEGE: STEVE, IF I MAY, JUST ONE  
5           QUICK THING. IT'S HARD TO BE IN A CIRM/ICOC MEETING  
6           WITHOUT MENTIONING THE EMAIL THAT I ASSUME MANY OF  
7           US GOT FROM J.T. THIS MORNING AND THE SHOCK WAVE  
8           THAT IT HAS CAUSED TO, I'M SURE, MANY OF US. I  
9           DON'T KNOW, J.T., IF YOU WANT TO JUST MENTION JUST  
10          ONE WORD ABOUT IT. I'M SURE THERE WILL BE A TRIBUTE  
11          TO KEVIN.

12          CHAIRMAN THOMAS: YES. AS I INDICATED TO  
13          YOU IN AN EMAIL EARLY THIS MORNING, WE HAD TERRIBLE  
14          NEWS YESTERDAY THAT OUR COLLEAGUE KEVIN MCCORMACK  
15          HAS TRAGICALLY PASSED AWAY FROM A HEART ATTACK  
16          SUNDAY EVENING. AND IT'S REALLY UNFATHOMABLE. I  
17          KNOW EVERYBODY ON THE BOARD HAS WORKED WITH KEVIN IN  
18          ONE CAPACITY OR ANOTHER, AND HE'S BEEN SOMEONE WHO'S  
19          BEEN AN INTEGRAL PART OF THE ORGANIZATION IN  
20          OVERSEEING COMMUNICATIONS AND WORKING WITH MARIA  
21          B ON PUBLIC/PATIENT OUTREACH AND HAS BEEN THE VOICE  
22          OF CIRM TO THE OUTSIDE WORLD IN SO MANY DIFFERENT  
23          WAYS AND DONE IT WITH THE MOST CHARMING PERSONALITY.  
24          AND I THINK, ANNE-MARIE, YOU SAID KINDNESS AND  
25          TAILORING COMMENTS TO THE AUDIENCE THAT WERE



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1 DIRECTLY ON POINT AND PERSONAL AND MADE EVERYBODY  
2 FEEL LIKE HE AND CIRM, BY CONNECTION, WAS VERY  
3 CONCERNED ABOUT THEIR PARTICULAR CASE AND WAS DOING  
4 EVERYTHING HE AND WE CAN TO TRY TO HELP THINGS. HE  
5 WAS JUST A WONDERFUL PERSON. AND IT'S JUST A HUGE  
6 SHOCK TO THE ORGANIZATION.

7 WE ARE IN THE PROCESS OF SORT OF FIGURING  
8 OUT WHERE WE GO FROM HERE. MARIA B IS LEADING THAT  
9 EFFORT. AS I SAID IN THE EMAIL, DR. MILLAN HAS  
10 REACHED OUT FOR GRIEF COUNSELING TO MAKE THAT  
11 AVAILABLE TO THE CIRM TEAM. IT'S A HUGE AND  
12 TERRIBLE SHOCK. AND WE WILL -- I THINK THIS IS  
13 HAPPENING IN REAL-TIME. EVERYBODY IS TRYING TO  
14 DIGEST THIS AND ADJUST, AND WE'LL HAVE A PROPER  
15 TESTIMONIAL TO KEVIN, I THINK, AT OUR JANUARY BOARD  
16 MEETING WHEN WE'VE HAD TIME TO PUT TOGETHER  
17 SOMETHING THAT IS DESERVING OF HIS ENORMOUS STATURE  
18 IN THE ORGANIZATION. SO JUST IT'S VERY, VERY TOUGH  
19 FOR ALL OF US TO DEAL WITH. AND I WILL CALL UPON  
20 MEMBERS OF THE BOARD AT THAT JANUARY MEETING TO SAY  
21 SOME WORDS ABOUT KEVIN. SO THOSE WHO ARE ON, PLEASE  
22 ANTICIPATE THAT. ANNE-MARIE, THANK YOU VERY MUCH  
23 FOR MENTIONING IT.

24 CHAIRMAN JUELSGAARD: EXACTLY, YES. THANK  
25 YOU, ANNE-MARIE. ABSOLUTELY.

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ALL RIGHT. WELL, WITH THAT SAD NOTE, I  
THINK WE'LL CALL THIS MEETING TO AN END. SO THANK  
YOU ALL FOR PARTICIPATING. THANK YOU FOR ALL YOUR  
COMMENTS AND HELPFUL SUGGESTIONS, AND WE'LL COME  
BACK TO IT AGAIN.

(THE MEETING WAS THEN CONCLUDED AT 12:29 P.M.)

**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 VIRTUAL PROCEEDINGS BEFORE THE IP AND INDUSTRY SUBCOMMITTEE OF THE INDEPENDENT CITIZEN'S OVERSIGHT COMMITTEE OF THE CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE IN THE MATTER OF ITS REGULAR MEETING HELD ON DECEMBER 13, 2022, 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, CA CSR 7152  
133 HENNA COURT  
SANDPOINT, IDAHO  
(208) 920-3543