

MEETING
STATE OF CALIFORNIA
OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT
ENVIRONMENTAL CONTAMINANT BIOMONITORING PROGRAM
SCIENTIFIC GUIDANCE PANEL

SACRAMENTO CITY HALL
915 I STREET
HISTORIC HEARING ROOM, 2ND FLOOR
SACRAMENTO, CALIFORNIA

TUESDAY, MARCH 3, 2009

9:12 A.M.

JAMES F. PETERS, CSR, RPR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 10063

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

PANEL MEMBERS

Dr. Ulricke Luderer, Acting Chairperson

Dr. Marion Kavanaugh-Lynch

Dr. Thomas McKone

Dr. Julia Quint

Dr. Gina Solomon

Dr. Michael P. Wilson

OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT

Dr. Joan Denton, Director

Mr. Allan Hirsch, Chief Deputy Director

Dr. George Alexeeff, Deputy Director, Scientific Affairs

Ms. Sara Hoover, Chief, Safer Alternative Assessment and
Biomonitoring Section

Dr. Rachel Roisman, Public Health Medical Officer, Safer
Alternative Assessment and Biomonitoring Section

DEPARTMENT OF PUBLIC HEALTH

Ms. Diana Lee, Research Scientist

Dr. Michael Lipsett, Chief, Exposure Assessment Section

Dr. Jianwen She, Chief, Biochemistry Section

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Dr. Myrto Petreas, Chief, Environmental Chemistry Branch

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Davis Baltz, Commonweal

Mr. Tom Jacob, DuPont

Ms. Cheriell Jensen (via email)

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

INDEX

| | PAGE |
|---|------|
| Opening Remarks by Acting Chairperson Luderer | 1 |
| Update on CECBP Activities | |
| Presentation by CDPH Staff | 3 |
| Panel Questions | 28 |
| Public Comment | 33 |
| Panel Discussion | 40 |
| Next Steps | |
| Presentation by OEHHA Staff | 41 |
| Panel Questions | 45 |
| Public Comment | 71 |
| Working Discussion of Community Biomonitoring Study | |
| Presentation by CDPH Staff | 71 |
| Panel Questions | 77 |
| Public Comment | 104 |
| Panel Discussion | 108 |
| Meeting Summary by Dr. George Alexeeff | 131 |
| Closing Remarks by Acting Chairperson Luderer | 135 |
| Adjournment | 136 |
| Reporter's Certificate | 138 |

1 PROCEEDINGS

2 ACTING CHAIRPERSON LUDERER: Good morning,
3 everyone. Can you all hear me? I'd like to welcome you
4 back.

5 And I call the meeting of the California
6 Environmental Contaminant Biomonitoring Program Scientific
7 Guidance Panel back to order. Thank you all for coming
8 this morning.

9 Before we start actually doing our presentations
10 and discussions this morning, there's just some logistics
11 that I need to review with everyone.

12 So the restrooms are out through this door, down
13 the hallway. The emergency exits, just follow the lighted
14 exit signs to the nearest exit should there be an
15 emergency.

16 Also, I need to tell everyone that there's no
17 food or drink allowed in this room, I think except for
18 bottled water. But we can I think have food and drink in
19 the atrium area and in the annex room next door.

20 So the goals for the meeting today have been --
21 there's been an additional item added, because we didn't
22 get to it yesterday. But we're going to start out with a
23 program update and have opportunities for the public and
24 the Panel to provide input and comment on the California
25 Environmental Contaminant Biomonitoring Program study

1 design.

2 So there will be questions from the Panel after
3 each presentation, and then the public will be able to
4 comment.

5 And the comment cards today are green. And if
6 you would like to comment, you could just go to the front
7 table and fill out one of those green comment cards. That
8 would be great.

9 And then, please -- just as a reminder again, to
10 please keep your comments focused on the agenda item
11 that's up for discussion at that point. And we will
12 determine how much time each commenter has, based on how
13 many comment cards there are, how many people wish to
14 comment.

15 The materials for the meeting today are out in
16 the lobby. There are handouts of the presentations that
17 are going to be given today by staff. So those are
18 available to the public. And there's also a copy of the
19 binder that the Scientific Guidance Panel received at the
20 staff table.

21 And we will take one break this morning about
22 halfway through. The meeting is scheduled to end at one
23 p.m. today.

24 So unless there are any -- so the agenda then for
25 today will be, initially we'll start out with an update on

1 the California Environmental Contaminant Biomonitoring
2 Program activities from Dr. Michael Lipsett, the lead of
3 the Biomonitoring Program and Chief of Environmental
4 Health Investigations Branch.

5 And we will follow that with an item left over
6 from yesterday's agenda that we didn't get to, which was
7 to talk about next steps for the program.

8 At some point in there will be a break, around
9 10:30 or 11, and then we'll reconvene the meeting and have
10 a working discussion of the community biomonitoring study,
11 which will include a presentation by CDPH as well as
12 public comment and panel questions.

13 And we'll complete the meeting with a summary by
14 Dr. Alexeeff.

15 So unless there are any questions or comments, go
16 ahead and start with the first agenda item.

17 So then I'd like to introduce Dr. Michael
18 Lipsett, the lead of the Biomonitoring Program, Chief of
19 the Environmental Health Investigations Branch, California
20 Department of Public Health.

21 (Thereupon an overhead presentation was
22 Presented as follows.)

23 DR. LIPSETT: Thank you, Dr. Luderer and Panel
24 members. Seems like this microphone is working better
25 than the one yesterday.

1 (Laughter.)

2 DR. LIPSETT: Okay. I wanted also to introduce
3 on the left side there Dr. Myrto Petreas, who's the Branch
4 Chief for the Environmental Contaminant -- excuse me --
5 Environmental Chemistry Laboratory, Department of Toxic
6 Substances Control; and Dr. Jianwen She, who is the lead
7 for the laboratory portion of the California -- the
8 Biomonitoring Program within the Department of Public
9 Health.

10 A lot of this update is going to focus on the
11 laboratory activities. And probably most of your
12 questions would be better answered by them than by me.
13 But we'll see.

14 --o0o--

15 DR. LIPSETT: Okay. So we're going to talk about
16 the laboratory status, what has happened with that Request
17 For Information for archived files that we talked about at
18 the previous meeting.

19 Some of the potential and the collaborations that
20 we have with the Environmental Health Tracking Program.

21 And then, as Dr. Luderer mentioned, an update on
22 this community study that we also talked about at the last
23 meeting.

24 --o0o--

25 DR. LIPSETT: So first with the laboratory

1 equipment. All the equipment that was ordered in 2008 has
2 arrived. Installation is in progress at both
3 laboratories.

4 At CDPH, the ICP-MS is fully operational. Liquid
5 chromatography tandem mass spec is still being installed.
6 And the High Res GC-MS hopefully will be installed very
7 soon.

8 And in DTSC, their High Res GC-MS is fully
9 operational. And the liquid chromatography tandem mass
10 spec is being installed even as we speak.

11 --o0o--

12 DR. LIPSETT: At DTSC, they have installed and
13 tested new automated sample preparation equipment, these
14 liquid handlers that allow for program processing of
15 several samples at once, doing pipetting of serum
16 standards and extraction solvents, which will increase the
17 accuracy and precision of these operations and hopefully
18 will speed up the throughput substantially.

19 --o0o--

20 DR. LIPSETT: Next, we mentioned something
21 yesterday about the Analytical Methods Development. And a
22 lot of the laboratory activity over the course of
23 the -- well, the past few months and for, of course, the
24 next year or so will include new methods development,
25 analyze chemicals both in blood and urine, including, as I

1 just mentioned, methods to allow for high throughput.

2 The chemicals selected for this methods
3 development will focus primarily on the SGP
4 recommendations for priority chemicals, as we talked about
5 yesterday. But some methods that will be used in these
6 labs may be developed for related programs, both in DTSC
7 and in our department as well.

8 --o0o--

9 DR. LIPSETT: So this is a list of the new
10 methods that have already been developed by DTSC. These
11 are the new flame retardants -- brominated flame
12 retardants. You can look and see some of these are very
13 important on a quantitative basis. We know like TBB, the
14 tetrabromobisphenol A, which would be widely used in
15 electronics. The replacement for deca is
16 decabromodiphenylethane.

17 And all of these are fully operational now with
18 the exception of the one -- I don't know if you can see
19 that it's purple at the very bottom. And that one
20 apparently they're still getting low recoveries on and
21 they need to continue to develop that method. But the
22 others are still -- are fully operational.

23 --o0o--

24 DR. LIPSETT: Additional methods that DTSC has
25 developed to look at the hydroxy metabolites of the PCBs,

1 PBDEs. And these are -- these can all be isolated in the
2 same polar fraction during analysis and measured together.
3 And even though PCBs are not necessarily going to be one
4 of the priority chemicals, this is like two for the price
5 of one here in terms of doing this analysis. And
6 they're -- they've also developed methods to look at
7 environmental phenols and serum as well.

8 --o0o--

9 DR. LIPSETT: These are some methods that the
10 Department of Toxic Substances Control had made a decision
11 to be developing, in any case, that could be useful in the
12 Biomonitoring Program. These are not yet -- or let's say
13 they are not a priority chemical at least based on
14 discussion yesterday. But perhaps at a later meeting this
15 is something that the Panel may want to take up. We did
16 have some discussion yesterday, but didn't come to a
17 decision. At least the Panel didn't know whether it
18 should be a priority chemical.

19 However, like I said, DTSC is going to be doing
20 this for another program or programmatic reasons. And
21 hopefully these are things that can be used in the
22 Biomonitoring Program as well.

23 --o0o--

24 DR. LIPSETT: Within CDPH, the equipment really
25 has just been installed and they're beginning to do

1 methods development. But these are a number of compounds
2 and you'll -- that would be DAPs, the dialkyl phosphate
3 metabolites and pesticides, as you talked about yesterday.
4 And some of the specific organophosphate metabolites
5 are -- these are ones that the labs are planning to
6 develop in -- and this is in conjunction with the
7 collaborations that we're planning to have with the
8 tracking program.

9 --o0o--

10 DR. LIPSETT: Additional methods. Environmental
11 phenols. These will be in urine, unlike in serum, which
12 is what the DTSC is going to be doing. And looking at
13 phthalate metabolites as well.

14 --o0o--

15 DR. LIPSETT: And, finally, the labs are planning
16 to look at polycyclic aromatic hydrocarbons in urine and
17 to develop metal speciation. But these -- you know, when
18 this is going to take place is not clear, at this point.

19 --o0o--

20 DR. LIPSETT: So that's in terms of the methods
21 that have been and will be developed.

22 Did you have any questions about this, at this
23 point, of the lab people?

24 PANEL MEMBER WILSON: Michael, can you just
25 mention what the other program is that you're working with

1 on the perfluorinated substances?

2 DR. LIPSETT: Well, this is DTSC. So Dr. Petreas
3 will respond to that.

4 DR. PETREAS: The fluorinated compounds will be
5 analyzed or develop methods for different DTSC
6 initiatives, green-chemistry-related-mostly initiatives,
7 trying to track status and any trends.

8 DR. LIPSETT: All right. So I wanted to talk
9 briefly about this CDC request for applications, which
10 came out a couple of weeks ago. And this was issued
11 shortly after the House bill, as I mentioned yesterday,
12 had come out, the House stimulus package. And I think
13 that that package had something like \$6 billion in it for
14 CDC. However, the Senate did not see eye to eye with the
15 House on the monies that would be going to CDC, and most
16 of that was taken out of the final package.

17 So I talked with the project officer for this RFA
18 last week, and she indicated that it was her understanding
19 that they were not going to be getting stimulus money for
20 this. But in the omnibus spending bill that was -- that
21 will be funding the CDC for this fiscal year, because
22 Congress had been operating on continuing resolutions,
23 that they did have an increase of approximately \$9 million
24 in their budget that could potentially be used for
25 biomonitoring. But they had not yet received instruction

1 from their management and from each -- the Department of
2 Health and Human Services as to how much of that could
3 actually be used to help the states in their biomonitoring
4 programs. Some of it might still have to remain
5 intramural.

6 So they don't, at this point, know how much is
7 going to be available. They had indicated initially that
8 it would be up to 15 million. But it's clear that the cap
9 is going to be much lower than that.

10 So the overall goal of this RFA was intended to
11 increase both the capability and capacity of safe public
12 health laboratories to conduct biomonitoring. The main
13 focus when you read through this RFA is really on
14 laboratory operations. And it's supporting other efforts
15 within states to undertake biomonitoring.

16 Nonetheless, some of the activities that are
17 described in there are more along the lines of the field
18 operations than what we need to actually collect samples.
19 And, again, in talking with the project officer, she
20 clarified that that was indeed intended to be the case.

21 So the letter of intent is due on March 9th. And
22 we will be submitting a letter of intent. The application
23 is due April 6th. We will be submitting a proposal.
24 That's not a lot of time for what they would actually like
25 to see in this program. It's basically -- it's anything

1 and everything that you could ever want to have a state
2 program do in biomonitoring.

3 But we will be submitting a proposal at that
4 time. And the anticipated award date is August 31st of
5 this year. What they see as an outcome for this for the
6 several states or state programs that are awarded grants
7 under this -- it's actually not a grant. It will be a
8 five-year cooperative agreement, again contingent on
9 funding.

10 So any questions about this?

11 PANEL MEMBER QUINT: Hi. This is Julia Quint.

12 Michael, in Peter's presentation yesterday, there
13 was a lot of emphasis on the lack of capability or
14 resources to do the sample management part - I think
15 that's how he put it - of the -- in terms of the lab
16 capability. If we -- you can analyze samples that
17 speaks -- you know, taking the specimen, logging it in,
18 and doing the analytical work. But all of the work that
19 would be associated with a representative sample, you
20 know, that type of study, should we get resources to do
21 it, the lab is not capable of doing right now. So the
22 question is whether or not this grant is going to
23 highlight funding for that part of the activity in terms
24 of the lab.

25 DR. LIPSETT: You mean in terms of the --

1 PANEL MEMBER QUINT: -- what you're asking for.
2 Since it's limited to labs, I'm just wondering where the
3 emphasis will be, if you will have an emphasis.

4 DR. LIPSETT: Well, the focus, when you read
5 through it, it looks like it's all health. What they
6 really want is for the public health laboratories -- in
7 fact, it's the laboratories -- or public health
8 laboratories that are the designated recipients of these
9 grants. They're CLIA certified. This is CLIA, C-L-I-A,
10 certified laboratories are the ones that are eligible to
11 receive this funding.

12 That's kind of a bedrock of the philosophy of the
13 CDC is to have everything done under the certification of
14 this Clinical Laboratories Improvement Act.

15 But as I clarified with the project officer, this
16 could also involve monies for recruiting participants
17 collecting the samples, shipping the samples, logging them
18 in, biobanking, you know, whatever it takes. Anything and
19 everything that's related to helping the states set up
20 biomonitoring programs.

21 And there are two kinds of parallel tracks that
22 are described. Within this one is to have a
23 representative sample and being able to track trends
24 within a population. And the other is to be able to do
25 targeted public health investigations.

1 California actually has a much more difficult
2 time to try to do both of these than a tiny state, like
3 Maine or Vermont, because, you know, we have such a big
4 state with diverse populations.

5 So we are going to be meeting after this -- after
6 your meeting here, we're going to be meeting for a couple
7 of hours. And then later this week, just trying to map
8 out the entire strategy of what we think are the highest
9 priorities for our program and how we're going to go about
10 putting this together in this proposal.

11 PANEL MEMBER QUINT: Would this be an opportunity
12 to work within the microbial laboratory to do some of the
13 interesting work with one of our priority/designated --
14 the antimicrobials or something like that?

15 I mean, you don't have to answer, but it's just
16 something we talked about yesterday and something they
17 don't normally do. And we want to sort of push that
18 envelope a little bit if we can, because this is such an
19 important issue.

20 DR. LIPSETT: Yeah, it could be.

21 PANEL MEMBER QUINT: It could be. Okay.

22 DR. LIPSETT: Any more questions on that?

23 Dr. Denton.

24 OEHHA DIRECTOR DENTON: Michael, I did have a
25 question on the methods development. And before we get

1 too far away, I wanted to ask it.

2 The Panel spent quite a bit of time yesterday
3 prioritizing chemicals. How does your -- it looks like
4 some of them match, some of them don't match. A couple of
5 that don't -- that aren't on here, for example, are
6 perchlorate and cotinine.

7 Is it too soon to give an update for the
8 chemicals that the Committees did prioritize, where you
9 are or what the plan is that don't match with what you've
10 already listed?

11 DR. LIPSETT: Okay. Well, perchlorate -- I'm
12 actually going to talk about perchlorate a little bit
13 later in this in terms of the presentation of the --
14 regarding the collaboration with the Environmental Health
15 Tracking Program, because that is a chemical that we are
16 going to be working with CDC on methods, that it's not
17 listed in the lab slides. And I guess that's perhaps an
18 oversight in terms of listing that particular one there.
19 And these slides were actually prepared before the
20 meeting, so we didn't take into account everything that
21 you discussed yesterday. But perchlorate is one of the
22 chemicals that will be addressed.

23 With respect to cotinine, as I mentioned
24 yesterday, what Dr. Flessel had indicated was we would
25 need to have an entire piece of equipment devoted to that

1 and basically a really clean kind of room -- a facility
2 that would -- it would consume a substantial fraction of
3 the resources just to biomonitor for that specific
4 compound.

5 So I think, you know, unless we decide to focus
6 specifically on that for our proposal to the CDC, that
7 that is -- of the menu that we were given yesterday by the
8 Panel, that that one is likely to be of lower priority
9 than some of the other compounds that -- like the flame
10 retardants, for example, or some of the pesticides.

11 OEHHA DIRECTOR DENTON: I think it would be
12 helpful maybe in a future meeting, maybe the next meeting,
13 just to say, "Okay, here are the chemicals that the Panel
14 thought should be a priority and here's where we are on
15 the methods development," so we have, you know, a
16 synchronous list.

17 DR. LIPSETT: Yeah, I think that you'll see at
18 the next meeting we can do that. And I think that's a
19 very good idea, that there will be a -- that if you had a
20 Venn Diagram, I think that there will be, not total
21 overlap, but a pretty substantial overlap of those.

22 So maybe the lab people can do this at the next
23 meeting.

24 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

25 PANEL MEMBER SOLOMON: Yeah, I seem to remember,

1 at one point, that CDC had offered to do a single chemical
2 in a population of -- I can't remember how many, but --

3 DR. LIPSETT: 200.

4 PANEL MEMBER SOLOMON: 200?

5 DR. LIPSETT: Yeah.

6 PANEL MEMBER SOLOMON: And I was wondering if
7 you've decided what chemical you might ask them to do and
8 whether one of the ones for which the method has not been
9 developed, such as perchlorate - or this could be a way of
10 getting at cotinine without having to buy the equipment -
11 but I was wondering what staff was thinking about that
12 offer at this point.

13 DR. LIPSETT: Okay. Most of our discussions with
14 respect to the CDC offer have really focused on the larger
15 group of where they're going to be analyzing chemical --
16 up to ten panels of chemicals for up to 500 people. And
17 we're going to be talking about that with respect to the
18 community study.

19 So with respect to this -- the 200 chemicals that
20 you've just asked about, we haven't really had any
21 substantial discussions or come to any decision about
22 that. But you're suggesting that it might be a good idea
23 to try to look at cotinine?

24 PANEL MEMBER SOLOMON: Well, I just remembered
25 that there was -- that there was an offer. I thought it

1 was one chemical and 200 people; is that correct?

2 DR. LIPSETT: Yes.

3 PANEL MEMBER SOLOMON: And so if we only get one,
4 we should figure out which one is the most impractical for
5 us to do. That might be important. And, you know,
6 cotinine certainly would be a possibility. But I could
7 also see perchlorate being a good one, because there's a
8 near-term need. So I just wondered. But I'll await
9 updates on that.

10 --o0o--

11 PANEL MEMBER WILSON: I know we talked a little
12 bit yesterday about -- in the prioritization discussion
13 about the sort of perfluorinated substances. But I'm
14 wondering if there's any reason that California would have
15 a unique -- you know, sort of a unique exposure problem
16 with perfluorinated substances or not, or, you know, if
17 we're -- and then where we are with that.

18 DR. PETREAS: We have very limited data. This is
19 Myrto again.

20 The San Francisco Estuary Institute has looked at
21 sediments in the Bay, and they're very, very high in
22 fluorinated compounds. So there may be something
23 different in the Bay Area of California than the rest of
24 the country. So that makes it really intriguing and
25 interesting to check.

1 PANEL MEMBER WILSON: And --

2 DR. PETREAS: There's not much -- no
3 biomonitoring data from California really.

4 PANEL MEMBER WILSON: Yeah. I don't know if this
5 is a substance that's unique in the electronics industry,
6 for example, or if these are substances used in that
7 industry or -- do you have any knowledge about that?

8 DR. PETREAS: I don't think the electronics, no,
9 I don't think so.

10 PANEL MEMBER WILSON: Okay.

11 DR. LIPSETT: All right. The next slide
12 mentioned that the staff from the two laboratories are
13 going to be going to CDC in June. They actually have a
14 conference call tomorrow with the CDC to plan their trip
15 there and to discuss the different training that they're
16 going to be undergoing there. They have three staff from
17 DTSC, four from CDPH.

18 And they're mainly going to be focusing on sample
19 preparation and management, different analytical
20 procedures, QA/QC, data analysis, and reporting. Then on
21 returning to California, they're going to be developing
22 documentation for SOPs and adopting and adapting these
23 test methods for use in the state laboratories. And then
24 in the fall of this year, they will begin the analyses of
25 these archived samples, which we'll talk about shortly.

1 --o0o--

2 DR. LIPSETT: Okay. Any other questions
3 regarding the lab, training and lab status?

4 Hearing none.

5 --o0o--

6 DR. LIPSETT: I wanted to talk now about this
7 Request For Information. At the last Panel meeting, I
8 indicated that we're about to request some additional
9 information and clarification from some of the researchers
10 who had submitted proposals to us about having archived
11 samples that they wanted to have analyzed. And we did get
12 some additional information on some of the analytes of
13 interest, the sample volumes in their archive, both blood
14 and urine samples, when they needed to have results and if
15 they had some resources to make available to help
16 subsidize this analysis.

17 Now, in terms of getting the equipment that we
18 had been anticipating would be installed and up and
19 running by early this year, as I mentioned before, it's
20 still not complete. The lab resources were somewhat more
21 limited than we had anticipated. But we have been able to
22 make tentative commitments to four projects.

23 --o0o--

24 DR. LIPSETT: And for this CDPH lab, these are
25 looking at urine samples. Two of them are from UC Davis,

1 which Irva Hertz-Picciotto is the PI. One is the
2 Childhood Autism Risks from Genetics and the Environment,
3 looking at 3 to 500 samples for the DAPs and chlorpyrifos.

4 Thirty urine samples for phthalates and Bisphenol
5 A from another -- from another autism study that -- the
6 MARBLES study that she's the PI for.

7 And then 50 urine samples for phthalates and
8 Bisphenol A from the CHAMACOS study at UC Berkeley.

9 --o0o--

10 DR. LIPSETT: DTSC has made a tentative
11 commitment to analyze some archived biospecimens for a
12 Columbia University study of California men whose mothers'
13 sera were previously analyzed in the Child Health and
14 Development Studies. And this would be 230 serum samples
15 for PBDEs, other BFRs, and triclosan. And as I mentioned
16 earlier, these are chemicals for which the labs already
17 have methods -- that the DTSC already has methods
18 developed.

19 --o0o--

20 DR. LIPSETT: Any questions about this?

21 --o0o--

22 DR. LIPSETT: Okay.

23 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

24 PANEL MEMBER SOLOMON: I was just curious about
25 the timelines for these studies. And this sounds like for

1 some of them, the samples have already been collected and
2 for some not. And when might we expect to sort of see
3 some results coming out of these? They all sound like
4 great efforts. So this is wonderful.

5 DR. LIPSETT: Yeah, my understanding is these
6 samples are all collected already. These are archived
7 samples.

8 With respect to the timeline, Jianwen and Myrto,
9 do you want to respond to that?

10 DR. PETREAS: The RFI was able to collect some
11 data for the 2010 report to the stage.

12 So hopefully if we start -- as Michael was
13 saying, by starting in the fall, having had the training,
14 having had the equipment replaced, we should be able to,
15 within a year, have results.

16 ACTING CHAIRPERSON LUDERER: Dr. Quint.

17 DR. LIPSETT: Jianwen, did you want to say
18 something?

19 PANEL MEMBER QUINT: Yes, I think this is --
20 oops, sorry. Am I too close?

21 ACTING CHAIRPERSON LUDERER: I think we had
22 another comment.

23 PANEL MEMBER QUINT: Oh, sorry.

24 ACTING CHAIRPERSON LUDERER: Go ahead.

25 DR. SHE: Yeah, I think what Myrto indicated, we

1 will start to analyze the samples by September and then
2 hopefully we can get to this RFI out by -- in one year's
3 timeframe.

4 ACTING CHAIRPERSON LUDERER: Dr. Quint.

5 PANEL MEMBER QUINT: Yeah, I think this is great
6 that, you know, you got the response that you did. And it
7 seems like we'll get some really interesting results. I
8 had two -- one is a comment and then another is a
9 question.

10 These samples are a part of other research
11 studies. And I'm wondering, to what extent, we will have
12 information on, you know, like occupation or anything like
13 that, that would help us to, you know, have a richer
14 information without the results -- the biomonitoring
15 results, especially for the, you know, mother-child
16 samples, because there's lots of concerns about women who
17 work and they're exposed to toxicants, and usually work
18 histories aren't captured in a medical record.

19 So I'm just -- you know, anything that we can
20 glean from those that would help us to fill in gaps on
21 some of these other issues would be important. You know,
22 whatever demographic information. Because the
23 Occupational Health Branch has a study right now with a
24 program on reproductive health in the environment. And
25 we've tried to work with Kaiser in the past to actually,

1 you know, start -- to have them start developing as a part
2 of their intake questionnaires for OB/GYN information on
3 both environmental and occupational exposures. So it's an
4 important thing, but it's not being done.

5 The other question -- the comment that I have is
6 when people hear reference to a community study and they
7 see the RFI samples that are going to -- that fit the
8 description of the community study, I think there may be
9 some concern that what the general -- what people, in
10 general, think about a community study grows out of a lot
11 of Environmental Justice concerns and things like that.
12 And so they don't see this being a community study. It's
13 not as apparent to the layperson as it may be in terms of
14 a fit for the description and why we're doing this and in
15 terms of getting the program moving.

16 So, I think it's very clear -- it's very
17 important for us to communicate that we are also
18 continuing other efforts, like trying to find
19 opportunities with foundations to do more of what is a
20 typical community study or an occupational study or
21 whatever, to the extent that, you know, we are engaged in
22 those efforts.

23 And I think that, you know, we can approach some
24 foundations. And I know you have been doing that. And I
25 just want to just be on the record for saying that these

1 efforts are going on simultaneously with this community
2 study that we're doing, which is more of a convenience
3 kind of approach right now, because of the resource
4 limitation.

5 DR. LIPSETT: Yes, in terms of -- I appreciate
6 your comments. And just a couple of responses.

7 First, when you're asking about would we have
8 occupational information about the parents.

9 I know that that information has been collected
10 certainly in the California studies. But in terms of what
11 we would be producing for our database, at least not -- at
12 this point, we're not going to be doing analyses of
13 occupation in relation to that. But that information will
14 be available to the investigators, because they are
15 clearly collecting that kind of information.

16 But with respect to the community study, which
17 we're going to be talking about later, we are working with
18 a program on Reproductive Health and Environment at UC San
19 Francisco. And they're -- this issue about looking at
20 maternal and paternal occupation is something that
21 they're -- that the UCSF faculty and we are very well
22 aware of. And we'll be collecting that information for
23 that community study.

24 But the archive samples that were collected for
25 the labs to do some analyses were not necessarily intended

1 to be part of the -- under the auspices of community
2 studies as such, in the sense that the legislation
3 envisions it was more along the lines of trying to get
4 some archive samples that the labs could analyze, because
5 we're not really funded at an adequate level to be able to
6 undertake these studies with the base resources that we
7 have -- and the community-type studies. So that's why we
8 are going to be going to foundations and also to the CDC
9 with their new RFA to be able to collect samples in a more
10 targeted way in communities.

11 PANEL MEMBER QUINT: Yeah, I got confused for a
12 minute, because I forgot the RFI was just a test
13 methodology --

14 DR. LIPSETT: Right.

15 PANEL MEMBER QUINT: -- right. And the community
16 study is one you haven't discussed yet.

17 DR. LIPSETT: Right.

18 PANEL MEMBER QUINT: Okay. Sorry.

19 DR. LIPSETT: That's okay. Thank you.

20 Okay. So, in terms of collaborations with the
21 Environmental Health Tracking Program. As you know,
22 legislation requires us to be collaborating with this
23 Environmental Health Tracking Program, which is housed in
24 the Department of Public Health.

25 And there are two projects that they are in the

1 process of trying to work out, both in Tulare County and
2 Imperial County. These are -- the details and scope of
3 these two projects are still really under development, but
4 this is just sort a very broad-brush kind of overview at
5 this point.

6 The issues that they want to be investigating in
7 Tulare County are, you know, pesticide drift and then
8 Imperial County is perchlorate water contamination. These
9 are both going to involve looking at analytes in urine.
10 For Tulare it's the nonspecific OP metabolites and the
11 chlorpyrifos-specific metabolite that I mentioned earlier.
12 And in Imperial County it will be for perchlorate and
13 potentially some selected heavy metals.

14 At this point, they're planning -- it's a small
15 scale type of effort. Although, depending on what we
16 decide for the CDC RFP, we might try and enlarge it. Just
17 about 30 participants in each location.

18 In the Tulare County, the analyses are going to
19 be done our -- the urine analysis will be done by
20 Jianwen's group. And we also have another group in the
21 Environmental Health Laboratory Branch that has a long,
22 long history of doing air monitoring. And they will be
23 involved in monitoring for pesticides.

24 And then in both -- well, then in the Imperial
25 County there's going to be analysis of urine that

1 Jianwen's group is doing. Analysis of water samples that
2 DTSC is going to be doing, but it's Myrto's lab. It's one
3 of their environmental labs. And then our Food and Drug
4 Branch is going to be looking at melons, looking at
5 perchlorate in melons grown locally.

6 In both of these, one of the aspects that we are
7 going to be participating in a very direct way, because
8 this will be applicable to our program as well, is the
9 whole issue of results communication.

10 --o0o--

11 DR. LIPSETT: And some of the key collaborators
12 apart from the Environmental Health Tracking Program in
13 these:

14 In Tulare County there are several NGOs you can
15 see listed on this slide, the County Health Department and
16 the local health clinic.

17 In Imperial County, the main NGO there is one
18 called Comité Civico del Valle, which is a group that
19 we've had a number of collaborations in our department
20 with in the past. It's a very -- I guess, it's kind of a
21 centralized EJ group for Imperial County. They're active
22 in a lot of different areas.

23 The government collaborators I've already
24 mentioned. The DTSC group that's going to be doing the
25 analysis of water. And with CDC, what I was alluding to

1 health tracking, is that of its food pathway. Monitoring
2 the people near where the food is grown isn't really very
3 important. You've got to figure out where the food is
4 consumed.

5 And actually I would raise that as a different
6 problem in Tulare. I know in CHAMACOS we found it
7 important when we were trying to do the association of
8 the -- you know, the approximate population from drift,
9 and actually retention, more than drift. The soil
10 retention re-emission sort of exposes the local
11 population. But to see the signal you almost have to
12 figure out what's coming into them from the food pathway
13 to subtract that out. And we were able to sort of -- we
14 were able to do it by a combination of the national NHANES
15 data and food surveys. But you might want to
16 consider -- or that the -- it's very hard to do the
17 attributable length, otherwise if you don't figure out
18 what to do about the food, because it confounds to it. So
19 instead of having it be a confounder, you really need to
20 fold it in, so it's an adjunct instead of a confounder.

21 DR. LIPSETT: Can't control for it if you don't
22 measure it.

23 PANEL MEMBER MCKONE: Right.

24 DR. LIPSETT: That's a good suggestion. And I
25 don't know the extent to which the Environmental Health

1 Tracking people were going to be doing that. But I will
2 make sure that this is one of the considerations, is
3 address the study design.

4 As I mentioned before, it's still kind of fluid
5 at this point. It's a -- they're engaged in preliminary
6 negotiations with everybody.

7 ACTING CHAIRPERSON LUDERER: Comment?

8 MS. LEE: Diane Lee with CDPH.

9 This issue about food pathways has come up in
10 talking to Paul and some of the other researchers from
11 tracking. And there is proposed to be a questionnaire
12 that does look at that, especially with respect to locally
13 grown produce, both home grown as well as commercial. And
14 melons actually are a very big crop down in Imperial, as
15 well as tomatoes. And I think there's one other that
16 escapes my mind. So we're playing around with different
17 wordings on these questionnaires to address locally grown,
18 either self or neighborhoods or friends, you know, that
19 kind of produce that you get, that is actually grown in
20 that area, as opposed to the same produce being purchased
21 in commercial stores, you know, big grocery stores, et
22 cetera.

23 But we also have to consider the farmers' stands
24 and all that too. So there are some questions being
25 specifically developed for that.

1 PANEL MEMBER MCKONE: Well, that makes it
2 actually a great opportunity. If it's from a crop that
3 has a large local consumption factor, the more you could
4 do to sort of track the exchange and who's eating it. I
5 think it would really -- well, it would help a lot in
6 tracking the perchlorate into people through the food
7 pathway instead of just the drinking water pathway.

8 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

9 PANEL MEMBER WILSON: Michael, how is it the 30
10 participants in each of the two counties are being
11 selected?

12 DR. LIPSETT: I can't answer that question, but
13 perhaps Diana can.

14 MS. LEE: This is being done jointly again with a
15 number of SCPO-type partners. So I think there's an
16 active discussion about that. And they're not very really
17 super far along in that. So, as Michael mentioned, this
18 may be an area of focus that we also include in the CDC
19 RFA, so that we can make it a little bit more
20 representative. Thirty people isn't a lot. And through
21 the CDC, if we get some additional CDC funding, we may be
22 able to increase the sample size to allow for a more
23 representative-type targeted sample.

24 PANEL MEMBER WILSON: Thank you.

25 I mean, it probably goes without saying, but sort

1 of picking up on what Dr. Quint was saying about the more
2 the information that we can get from that group on
3 their -- on the occupational history and then, of course,
4 either residential history and so forth. But, you know,
5 often the occupational side is undervalued, I guess, or
6 underlooked.

7 ACTING CHAIRPERSON LUDERER: All right. Dr.
8 Luderer.

9 I just have a question about kind of related to
10 that. Might there be an opportunity to use -- you know,
11 to sort of pilot the population base sampling strategy
12 that would be used for a statewide study on a more local
13 level with either or both of these studies?

14 MS. LEE: We could certainly bring that
15 suggestion back to the tracking program.

16 ACTING CHAIRPERSON LUDERER: Any other questions?
17 Dr. Solomon.

18 PANEL MEMBER SOLOMON: I just would like to say
19 that I'm very impressed at the dramatic progress since the
20 last meeting. There's a lot of stuff that it's moved
21 forward. And I think these are all commendable projects
22 and very exciting. And I'm very impressed at how much
23 staff has done. So thank you.

24 DR. LIPSETT: Thank you.

25 So, Dr. Luderer, did you want to proceed with

1 this or did you have that "next steps" item that you
2 wanted to pursue? Or do you want to wait until I go
3 through this before doing that?

4 ACTING CHAIRPERSON LUDERER: I think we had
5 planned on doing the "next steps" discussion, at this
6 point, since it's related to the laboratory capability, if
7 that's all right.

8 DR. LIPSETT: Sure.

9 OEHHA DIRECTOR DENTON: And there's public
10 comment.

11 ACTING CHAIRPERSON LUDERER: Okay. I'm sorry.
12 We have public comment. We have two.

13 Okay. Let's see. The first commenter is Tom
14 Jobe - am I pronouncing that correctly? - from DuPont.

15 MR. JACOB: I'm Tom Jacob.

16 ACTING CHAIRPERSON LUDERER: Oh, Jacob. Okay.

17 MR. JACOB: I just wanted to speak briefly to the
18 matter of the PFCs that Dr. Wilson and Dr. Petreas were
19 discussing. Those are one of the compounds that...

20 Okay. Tom Jacob from DuPont. Just wanted to
21 comment briefly on the matter of the PFCs that Dr. Wilson
22 raised, because these are compounds that we have some
23 involvement with, among others, that you're looking at.
24 And as I know some of you are aware, they have been
25 subject to the CDC Biomonitoring Program and they

1 documented some quite significant reductions as a result
2 of the Voluntary Stewardship Program that the U.S. EPA has
3 implemented in conjunction with the industry.

4 You asked specifically about the electronics
5 industry. And I'd just mention in that context that one
6 of those compounds is subject to a very severe,
7 significant new use rule restriction under the U.S. EPA,
8 the PFOS. But one of the permitted uses in that regard is
9 a very specialized use in semiconductor manufacturing.
10 And I have no idea whether that has any relation to the
11 sediment issues that Dr. Petreas was speaking to, but
12 that's -- that is an application in the electronics
13 industry. Although to my knowledge, the primary nexus of
14 manufacture in that industry is no longer here in
15 California.

16 PANEL MEMBER WILSON: Yeah, thank you for that.

17 And so, Tom, I'm just wondering on the -- you
18 know, I just have, you know, a nodding familiarity with
19 this whole class of substances, I mean in that being, you
20 know, slippery and bioaccumulative, you know. And I guess
21 if there is -- my question is if there are, you know,
22 reasons that -- in your mind, this might be something
23 California should be paying specific attention to, you
24 know, sort of in light of what the Estuary Institute is
25 finding in the bay.

1 MR. JACOB: Well, I'm not acquainted with that at
2 all. And just a slight branch. And I don't think all of
3 these compounds are bioaccumulative. They're
4 biopersistent, yes. But I'm not honestly aware of any
5 context in which I would expect any unique problems
6 associated with these compounds in California. They're
7 pretty -- the documentation of their presence in human
8 blood is pretty much universal. And that's one of the
9 reasons why the CDC has been monitoring them for some time
10 and one of the reasons why we're encouraged that their
11 studies have documented reductions.

12 And actually there was a study, as I understand
13 it, although I haven't read it, from the New York State
14 Health Department that documented actually reductions in
15 fetal blood as well. But with respect to specifics of
16 California, I don't have any knowledge to suggest that
17 there appear to be anything unique here.

18 PANEL MEMBER WILSON: And I notice -- you may not
19 be able to answer. But I'm curious if national production
20 levels for that class of substances are increasing or
21 declining, at this point.

22 MR. JACOB: Well, I can't speak authoritatively
23 to that. I would note that these are substances that are
24 in global commerce. And there are some manufactured in
25 the U.S., there's much manufactured outside the U.S. But

1 the substances are brought and traded internationally.

2 Those that are not restricted.

3 PANEL MEMBER WILSON: Okay. Thank you.

4 ACTING CHAIRPERSON LUDERER: Dr. Solomon I
5 believe has a question for you as well.

6 PANEL MEMBER SOLOMON: Yes, thank you for your
7 comments.

8 I was -- there's, I guess, 11 perfluorinated
9 compounds on the list that CDC is looking at. And I was
10 just curious -- because I know that the levels of PFOA,
11 PFOS have been sort of on the decline, which is great.
12 I'm curious about the others, because my understanding was
13 that, in some cases, there's substitutions occurring from,
14 you know, one perfluorinated compound to another. And so
15 I'd be interested in your comments on that.

16 MR. JACOB: I don't have specific knowledge about
17 directional transit in that regard. There are
18 substitutions to compounds that are more -- that don't
19 persist as long in the body as we understand it.

20 But I don't have specific knowledge, and I'm not
21 an authority on that. But I'm happy to track that down if
22 you wish.

23 ACTING CHAIRPERSON LUDERER: Myrto.

24 DR. PETREAS: I also want to -- just to thank you
25 for your comments.

1 This would be one of the topics we'll discuss
2 with CDC tomorrow, because when we are planning for the
3 training, I mean, this new substitute chemical that you
4 mentioned are what we are really targeting. What we have
5 here is just a class, but we're not so familiar at this
6 point.

7 I have to say there's no -- absolutely no human
8 data in California, so we don't know if it's unique or
9 not. But the limited data on sediments show us something
10 unique is in the bay at least. So it's worth exploring
11 with CDC what they think and what would be maybe the best
12 candidates to train on.

13 PANEL MEMBER SOLOMON: I guess -- this is Gina
14 Solomon. Just that, you know, it may seem crazy, but
15 maybe not, that California may be uniquely exposed,
16 because of our proximity to China. Because these are
17 persistent enough chemicals that they would tend to move
18 on air currents. And we already are the recipient of much
19 of China's mercury and other complex particulate matter.
20 So that's a possibility.

21 But it would be -- I would very much appreciate,
22 Dr. Petreas, any updates you can bring to the Panel on
23 CDC's experience with this group of chemicals and what
24 they think.

25 PANEL MEMBER WILSON: Can I ask you one other

1 final question? I'm sorry.

2 Again, it's following up on Dr. Solomon's
3 question about -- I think, you know, one of the things
4 that we've been interested in is trying to pay attention
5 to substances that are unique to California, but also
6 those that are, you know, increasing in production for
7 whatever reason.

8 And so, again, looking at the substitutes for
9 these fluorinated -- these fluorinated compounds that are
10 declining or I think, you know, for the phaseouts that --
11 or the voluntary phaseouts that have been going on,
12 if -- you know, and maybe you can't answer this -- but if
13 DuPont, for example, is moving toward other classes of
14 substances or -- or not or are continuing to -- continuing
15 to identify other fluorinated substances that would have
16 less biopersistent -- that are less biopersistent than
17 some of the other concerns around, the PFOA and PFOS.

18 MR. JACOB: Well, we, like the other
19 manufacturers of substances in this class, have committed
20 to virtually -- well, to eliminate the production of PFOA
21 by 2015. We know that we will achieve that. We're making
22 very significant progress.

23 And it is through development of alternative
24 chemistry, still fluorinated, that we believe have very
25 significant enhanced properties with respect to the

1 persistence in the body. And we believe that the other
2 manufacturers in this realm are also moving directionally
3 in that way.

4 ACTING CHAIRPERSON LUDERER: Diana Lee.

5 PANEL MEMBER WILSON: Thank you, Tom.

6 MS. LEE: Hi. Diane Lee with CDPH.

7 And I do believe that there are some fish studies
8 that show levels of perfluorinated compounds in fish
9 tissue. Then that would, of course, be another pathway
10 for human exposure.

11 And I just want to ask Myrto. Do you know if the
12 San Francisco Estuary Institute is planning on doing fish
13 tissue sampling for perfluorinated?

14 DR. PETREAS: I don't think they have done it
15 yet -- this is Myrto Petreas. I don't think they have
16 done it yet, but they have the advisory committee
17 discussing it now for the next round of --

18 ACTING CHAIRPERSON LUDERER: Your microphone.

19 DR. PETREAS: SFEI, the San Francisco Estuary
20 Institute has a committee -- advisory committee, and we
21 contribute to that. And I saw the request for input, I
22 guess, for the next round of sampling.

23 So perfluorinateds have not been tracked yet, but
24 possibly that would be included, given the results they
25 founds in the sediments. So it could be done next round.

1 It happens every three years, the fish sampling.

2 ACTING CHAIRPERSON LUDERER: All right. If there
3 are no other questions for Mr. Jacob, then I'd like to
4 move on to our next public comment.

5 And this is going to be from Mr. Davis Baltz from
6 Commonweal.

7 MR. BALTZ: Thank you. Davis Baltz of
8 Commonweal. I also wanted to comment on the
9 perfluorinated compounds.

10 If I'm not mistaken, the Panel did not prioritize
11 these yesterday. But clearly from this discussion,
12 there's quite a bit of interest. Dr. Petreas has noted
13 some potentially unique exposure pathways that
14 Californians may experience. And from Michael Lipsett's
15 presentation, we know that methods are under development
16 in the laboratories.

17 So given that Dr. Lipsett has encouraged sort of
18 a broad net to be cast for prioritized chemicals, I'd like
19 to just suggest that maybe, if there's time today, this
20 could be taken up and maybe a relatively quick item to add
21 this to the list of prioritized chemicals.

22 Thanks.

23 ACTING CHAIRPERSON LUDERER: Yeah, this actually
24 had come up. One of the Panel members had requested that
25 we discuss this. And we were going to have maybe a short

1 discussion about it in the "next steps" as something that
2 we would discuss more fully at possibly the next
3 Scientific Guidance Panel meeting, because it was not
4 something that was on the agenda to prioritize chemicals
5 today. So I think we'll talk about that a little bit when
6 we talk about next steps.

7 I'd like to thank the members of the public for
8 their comments.

9 And then move on to the "next steps" discussion
10 at this point.

11 Do we have a presentation?

12 MS. HOOVER: Yes.

13 (Thereupon an overhead presentation was
14 Presented as follows.)

15 MS. HOOVER: Hi to the Panel again. My name's
16 Sara Hoover and I'm Chief of the Safer Alternative
17 Assessment and Biomonitoring Section. And my job is to
18 try to summarize basically the discussion of yesterday and
19 pick up all the items that were talked about.

20 And, you know, feel free to add things if I've
21 missed anything.

22 --o0o--

23 MS. HOOVER: So to start with, I just wanted to
24 go over the potential designated chemicals that were
25 suggested for ongoing work and just some options for you

1 to consider.

2 One category that was extensively discussed was
3 the pesticides. And some of the possible ongoing work
4 that we could undertake is to look at the remaining top
5 100 from the Pesticide Use Report that are not already
6 designated.

7 We could continue to investigate household and
8 pet pesticides.

9 It was raised that we might want to follow up on
10 pyrethroid and organophosphate pesticides as a class, so
11 to capture other things that are not already designated in
12 these classes.

13 Also, to investigate other pesticides of
14 potential concern that are not on the CDC list, so
15 therefore they're not already designated. For example,
16 organochlorines are still in use in California.

17 And I just also wanted to note that there was a
18 lot of interest in this question of the potential to
19 biomonitor using the modeling that Dr. McKone described.

20 There was also discussion of doing some
21 additional follow-up on other classes of chemicals on the
22 CDC list that are not fully designated. So, for example,
23 the phthalates and the perfluorinated compounds. So those
24 could be looked at as a class to capture the full class as
25 a designated class.

1 priority chemicals you'd like to see. Any further
2 input -- I mean, we wrote down quite a bit of input on
3 your requested documentation. But if you have any further
4 input on what documentation you'd like to see, we'd like
5 to hear that, and discussion of other follow-up items.

6 So I'll turn it back to Dr. Luderer.

7 ACTING CHAIRPERSON LUDERER: Well, maybe we can
8 start just addressing those questions in that order.

9 Does any Panel member have comments on the choice
10 of potential designated chemicals to follow up at the next
11 meeting?

12 Dr. McKone.

13 PANEL MEMBER MCKONE: I think it would be useful
14 to follow up, as you brought up, plasticizers. And I know
15 we spent some time probably two meetings ago on that. But
16 there are a lot of substitutes entering the marketplace.
17 And it would be nice to even have a listing of what some
18 of those are and what -- we could begin reviewing
19 opportunities. Because, again, this is a great chance,
20 where we can look at emerging chemicals that are coming
21 into the marketplace. And there's a list of two or three,
22 I mean, main substitutes that are now coming out.

23 And, you know, there's some testing, but there's
24 no biomonitoring for these things. So it would be an
25 interesting opportunity.

1 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

2 PANEL MEMBER SOLOMON: I'd also like to add the
3 class of carbamates to the potential consideration for the
4 designated list just -- I think I'd mentioned that cabaril
5 is not on the CDC list, and that's a biggy. So I'd be
6 interested in that.

7 I think it would be very helpful to move ahead
8 with the pesticides. You know, I'd like to keep that ball
9 rolling. And so that would be probably my top priority
10 for the next meeting. Though I agree with Dr. McKone
11 about the plasticizers being a very close second. So if
12 there's sufficient staff time and resources.

13 And then my third priority, if we have a
14 possibility for doing that much, would be -- I actually am
15 still quite worried about the chloramine disinfection
16 byproducts. The switch of most drinking water systems to
17 chloramine has been relatively recent, and there's just, I
18 think, a need to get a handle on that. So I think it
19 would be good to at least learn a bit more about it, if
20 possible. But that, I think, comes below pesticides and
21 plasticizers. And it's just a matter of staff time MS.

22 HOOVER: Dr. Solomon, can I just have one follow-up?

23 So in terms of pursuing the pesticides, you
24 expressed interest in a class of carbamates. Anything
25 other specifically on this? For example, do you think

1 it's worthwhile to screen the remaining top 100, or should
2 we focus in on household pet pesticides and the other
3 things listed? Any guidance on what Dr. Solomon and the
4 rest of the Panel on -- specifically? Because obviously
5 as we showed in our presentation yesterday, it's kind of a
6 complex topic and large topic to tackle. So any guidance
7 beyond what you have mentioned about the carbamates
8 would --

9 PANEL MEMBER SOLOMON: It's clear that pesticides
10 aren't an easy topic, and I'm not sure that I've got any
11 fabulous answers for you. From a hazard perspective, the
12 pesticides that tend to be of greatest concern are, you
13 know, the insecticides and the fungicides. From a use
14 perspective, the top uses tend to be the fumigants and the
15 herbicides. Well, actually fumigants are a big hazard.
16 But they're so short-lived, that they're tough for
17 biomonitoring in general, I think.

18 So though there was -- I mean, I think it would
19 be interesting to go back to Dr. Wilson's question of
20 whether MITC or some other metabolite of metam sodium
21 might be biomonitorable. Since it is such a high-use and
22 toxic fumigant and so particular to California, it's the
23 only one I could imagine really might be a good candidate.

24 So we do have to sort of make a decision about
25 whether we're going to go with use or whether we're going

1 to go more with toxicity or whether we're going to go with
2 sort of kid environments, household, indoor. And if we're
3 trying to focus on things that are peculiar to, you know,
4 what are typical for California, then actually use trends
5 could be particularly illuminating.

6 So, you know, I'd be curious what others on the
7 Panel think. I wish Dr. Bradman were here, because he
8 knows more about pesticides, I think, than any of us.

9 But, you know, I think you may actually have your
10 hands full with looking at some additional carbamates,
11 additional pyrethroids and organophosphates. We know
12 those are important chemicals already. And so sort of
13 wrapping them all in might be important. And metam sodium
14 and then the ones that were already screened.

15 If it's not -- it sounds like if you've already
16 done - how many? - 30 in the screening tool, and out of
17 the top 100 a bunch fell off, because they were either
18 already on the CDC list or they're not really
19 biomonitorable; like sulfur doesn't make sense to
20 biomonitor for. So if it's not a huge amount of work,
21 that could be a useful exercise. Then I would have to
22 look to Dr. McKone and others for cut points and then ask
23 that, you know, sort of the top tier of those be brought
24 to the Panel for consideration.

25 PANEL MEMBER MCKONE: First of all, I wasn't

1 implying that plasticizers should trump pesticides. I
2 thought of bringing it up. So I agree with that one.

3 Yeah, I've been thinking about how to cut the
4 screen. And I don't -- well, first of all, I don't know
5 if you want to put toxicity in there, because it's kind of
6 a -- often we don't learn about the toxicity, until we get
7 good biomonitoring data on some substances. It's the
8 health tracking issue, or what comes -- the cart before
9 the horse or -- whatever problem. And so if we say, well,
10 we're only going to look at things that we already know
11 aren't toxic, I think that precludes the opportunity to
12 learn about health impacts. So we may want to not
13 prioritize highly on toxicity.

14 But then we have to look at quantity. And I do
15 think we have to be more careful about types of use. And
16 even when it gets to household uses, I think there's a
17 significant difference between something that's used, you
18 know, outdoors, on a rose garden or something, versus
19 something that's used for crack, crevice treatment
20 indoors, where actually the bulk of the use is sprayed
21 interior to the house, like some of the ant treatments
22 where you go along the wallboard you're really spraying.
23 I mean, you're really bringing it indoors. And that has a
24 much higher potential for exposure than something you use,
25 you know, several hundred feet away from the home. A

1 little bit of difference.

2 If we could get some more breakdown on use, and
3 if it's used just for a pet, I think that's different than
4 something that's sprayed along the foundation, and go with
5 that.

6 ACTING CHAIRPERSON LUDERER: Dr. Quint.

7 Oh, I'm sorry. Go ahead.

8 PANEL MEMBER MCKONE: Well, I was just saying, I
9 think if we get a little more split on use, it will help
10 us; and not just indoor-outdoor, but how it's used
11 indoors.

12 Thank you.

13 PANEL MEMBER QUINT: This is a non-pesticide sort
14 of club. I just want to hear a little bit more about the
15 cleaning agents and the glycol ethers. I'm familiar with
16 a lot of the glycol ethers. So I don't know if there's
17 something emerging that we're -- you're focusing in on.
18 And this is one of those that is a bridge, both consumer
19 use and occupational use. And California was sort of very
20 instrumental in, you know, highlighting the reproductive
21 and developmental toxicity of glycol ethers way back when.
22 So it would be a good opportunity, if it were on the rise
23 again, for something to look at that. I mean, it has some
24 California uniqueness and specificity -- not specificity,
25 but we have had a unique role in that.

1 So could you say which ones that you're --

2 MS. HOOVER: Actually, I don't have the list with
3 me. We did some screening, you know, as part of the
4 earlier work that we did. We had some screening, and we
5 had a meeting with ARB. So I have -- and actually one of
6 our branches, the Air Toxicology Branch, has been working
7 on this issue as well. So I'm in touch with the staff
8 person on that.

9 So we could definitely do a report back about,
10 you know, use trends or what are the emerging glycol
11 ethers that we know about, and that we'd let you know what
12 that list is and you can --

13 PANEL MEMBER QUINT: That would be great. I
14 would like that.

15 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

16 PANEL MEMBER WILSON: Yeah, just following that
17 up. First, on the cleaning product side, I think that
18 discussion started from based on the ARB's 1997 consumer
19 products survey, which, you know, showed sales of 164
20 million pounds per day of chemical products in California
21 that were consumer and commercial end-labeled products.
22 And the great majority of those were cleaning products.
23 And as I remember, there were three or four glycol ethers
24 that were identified as the primary ingredients in those.

25 And, you know, in our work just in the automotive

1 repair industry, looking at products that were -- that are
2 consumer-end labeled, like the brake cleaners and engine
3 degreasers and so forth, we found that 90 percent of the
4 sales of those were to professional automotive repair
5 mechanics.

6 So, again, what I think -- you know, what Dr.
7 Quint is noting is the importance of -- I suspect that
8 that's probably a similar situation with cleaning products
9 sold in California, that this is probably a high
10 occupational exposure issue. And, of course, they're used
11 in close proximity to the applicator, you know, to the
12 worker.

13 So I would like to, you know, at our next
14 meeting, really sort of nail this down. And I understand
15 there is additional information from ARB, I think, on -- I
16 think they've updated their '97 database.

17 MS. HOOVER: Yeah, I think there's some updated
18 information. So we'll look at the previous information
19 and the newer information and talk to the people in OEHHA
20 and ARB that are involved with this. So we'll get some --
21 try to get some clarity for you on that for the next
22 meeting.

23 PANEL MEMBER WILSON: And then on the pesticide
24 side of things, again it's -- it would be great also if we
25 could sort of -- to bring this one home and clarify where

1 we want to focus. And we have sort of some different
2 moving pieces.

3 But on the agricultural side, there was a set of
4 about five substances that were identified in the State
5 staff query that you did that don't appear on any of the
6 lists that we've -- that we've sort of been proposing so
7 far. And those are, I think, certainly worth considering.

8 And a couple things. I guess one is, I think I
9 want to, you know, revisit this question of the fumigants.
10 My understanding, for example, of methyl bromide -- I did
11 some work in the Watsonville area around looking at --
12 just at reports that the Department of Pesticide
13 Regulation had done on applications of methyl bromide in
14 the strawberry fields surrounding schools in that area.

15 And what they found was that the methyl bromide
16 was penetrating the polypropylene sheeting and they
17 had -- they were finding drift -- fairly significant
18 actual escape through the sheeting and then drift to the
19 edges of the field. And they didn't -- you know, didn't
20 do any modeling to where the material may be going.

21 But, you know, I think that -- you know, before
22 we screen away the fumigants, I think there's -- you know,
23 methyl bromide particularly has been important for
24 California in the strawberry -- in growing regions,
25 Salinas, Watsonville, so forth. And, you know, now we're

1 seeing emergence of methyl iodide. And it may be that
2 these are not substances that we can biomonitor for. But
3 I guess I would like some more -- some -- a little bit
4 more detailed information on whether or not that's true,
5 because -- you know, some of the details about that.

6 MS. HOOVER: Yeah. I just wanted to clarify
7 that, like we said, that was just sort of our initial cut.
8 So, yeah, we'd be happy to follow up on those issues and
9 see if there's any potential or concerns about those that
10 would be useful to look at from a biomonitoring
11 perspective.

12 PANEL MEMBER WILSON: Okay. And then the last
13 piece that I thought I had on this was on the -- oh, two
14 things. One was on the agricultural pesticides. We've
15 looked at, you know, hazard use and exposure really as
16 sort of three different lenses. And my sense is that
17 looking at just total volume applied, combined with some
18 measure of biopersistence, might be a good cut or a -- you
19 know, at least as a place to start in terms of thinking of
20 priorities in terms of this list, like from the top 100
21 that we're trying to get our hands around. And, you know,
22 we can talk about this as a panel.

23 But total, you know, pounds applied. And, you
24 know, all of that is in one way or another entering
25 ecosystems. And, at some point, some of it's going to

1 come in contact with people. It may be crude, but it's at
2 least a place to begin prioritizing.

3 And then, finally, this question of how -- you
4 know, what is the mechanism by which the State of
5 California can gather, you know, reasonable information on
6 the substances that are entering commerce and are expected
7 to increase in commerce? And this came up around the
8 flame retardants and also with respect to plasticizers
9 that you identified.

10 And I think it's a cross-cutting kind of question
11 that could also apply to consumer products, and to
12 agricultural pesticides for that matter. So that seems to
13 me to be a cross-cutting fundamental question that would
14 be important for us to know. If there's a vehicle
15 for -- within this program or working with other -- with
16 DTSC or some other entity within the state for purposes of
17 the Biomonitoring Program for us to effectively be
18 anticipating what is entering commerce in California. And
19 maybe we would start in these two sections, looking at
20 plasticizers and flame retardants, and test that process
21 and identify the barriers to meet that objective.

22 So I don't know if that's something that is -- if
23 it's possible for you by next -- you know, by our next
24 meeting to have some sense of that. I don't know if you
25 can reflect on that for me.

1 MS. HOOVER: I mean, in terms of like an
2 effective mechanism, of course, you know, I would turn to
3 our lawyer on that. So I don't know if maybe --

4 PANEL MEMBER WILSON: Or maybe what the set of
5 options would be, you know, what sort of a portfolio of
6 options for the State with respect to doing this, rather
7 than having a definitive answer. But what are our
8 options?

9 MS. HOOVER: Okay. Carol just indicated that
10 they could give an update. So she could maybe do
11 additional follow-up beyond 289 and just look at: Are
12 there other options? Are there other mechanisms? Yeah,
13 and just provide a report.

14 PANEL MEMBER WILSON: Okay. That would be
15 terrific. Thank you.

16 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

17 PANEL MEMBER SOLOMON: Just a couple things.

18 A word of caution on the glycol ethers, because I
19 reviewed some of the literature on that relatively
20 recently. And it's studying how little information is out
21 there on toxicity of these chemicals that -- I mean,
22 anything other than the short-chain glycol ethers that are
23 used in these products.

24 And the National Toxicology Program right now is
25 actually embarking on some testing of some of the glycol

1 ethers that we're interested in. So it would be probably
2 useful to follow that process. But it might end up being
3 a slightly longer term project. Those are certainly
4 something we should be keeping an eye on. It's
5 difficult -- I mean, we have to have a certain amount of
6 data to go on when we actually move forward to list
7 things. And it's annoying because, you know, they're
8 related to things that we know are nasty, but it's tough
9 to actually find a whole lot on them.

10 I think that, you know, it's clear that we all
11 have our wish lists and they somewhat overlap. But
12 they're also more than can possibly be done between now
13 and the next meeting. And so from my perspective, I'm
14 totally happy to let the staff make some decisions based
15 on your own time and resources to try to focus on what you
16 think is doable between now and the next meeting.

17 I think we've accomplished a lot, got a number of
18 important classes designated and some important priorities
19 set. And, you know, if we can keep up the -- you know,
20 keep things moving through the pipeline, that's great, of
21 whatever seems doable.

22 DR. ROISMAN: Rachel Roisman, OEHHA.

23 You know, comparing the last meeting to this
24 meeting, in terms of the type of information that we
25 provided to you all, if we could get some direction or

1 feedback about what kind of information you feel like you
2 need or what it should look like in order to make
3 decisions -- recommendations for designated and priority
4 chemicals.

5 For instance, at the last meeting for the --
6 mostly talking about designated chemicals, we produced
7 these fairly extensive documents which -- whereas for this
8 meeting, for the priority chemicals, we gave you
9 references and relied more on secondary sources. And I'm
10 just wondering if -- particularly at the next meeting, it
11 sounds like we'll be bringing forward some more potential
12 designated chemicals. And are you happy or comfortable
13 with references or secondary sources or -- it would
14 certainly reduce the number of chemicals we could talk
15 about if we're going to try to write documents on all the
16 potential designated chemicals. Whereas, doing something
17 more like what we did for the potential priority chemicals
18 would allow us to discuss more chemicals at the next
19 meeting. So I'm just wondering what you all would like to
20 see.

21 ACTING CHAIRPERSON LUDERER: Before we answer
22 that question, did you have another question, Dr.
23 Kavanaugh?

24 PANEL MEMBER KAVANAUGH-LYNCH: No, it will wait.

25 ACTING CHAIRPERSON LUDERER: Okay. Do any Panel

1 members want to comment on that question?

2 PANEL MEMBER MCKONE: Well, I just -- personally,
3 I find a little short summary is still quite useful.
4 Actually, I think -- one thing that would save us carrying
5 a lot of weight around --

6 (Laughter.)

7 PANEL MEMBER MCKONE: -- would be to give us, you
8 know, for the chemicals that we're interested in, or even
9 for classes, these little short write-ups, you know, with
10 the picture of the chemical, a little bit of discussion
11 about use and some chemical properties. And not ten
12 pages, just a couple of pages, so we can quick look at it.
13 And then give us -- I mean, you obviously now get all the
14 original citations and references. Putting those on a CD
15 is very useful. And then we don't have to carry a binder.
16 We have all the original.

17 Because if you have a short two-page summary with
18 citations that say, "So-and-so said this stuff" -- you
19 know, "It has KOW in the range here. It's very persistent
20 in soils, reproductive." And then just the citation. If
21 we want to dig down, we can go into the references, and
22 you don't have to write up a lot of material. I think
23 that's useful, because I still like the short summaries to
24 dig in and take a quick -- because I keep forgetting one
25 chemical from, you know -- I don't know it. Which one is

1 that? Is that the one with the branch here? And this is
2 this one and...

3 ACTING CHAIRPERSON LUDERER: Dr. Quint.

4 PANEL MEMBER QUINT: I also would like to echo
5 the -- you know, my preferences of short summaries.
6 What's important to me is you look at them and your
7 assessment of the information. I think digesting that
8 information by -- having it digested by -- identified and
9 reviewed by OEHHA is one of the great benefits of this
10 whole program, really.

11 I think what you've produced so far for the
12 priority chemicals is very, very helpful. And I know that
13 you've looked at the data and you've pulled out things
14 that are important and haven't missed anything.

15 But to spend time on developing a large summary
16 document -- toxicity document, I've done that. No, it's
17 very time consuming. This will slow the process down
18 enormously and use up a lot of your valuable time. You
19 know, I'd want you to spend more time doing a Gestalt and
20 then bringing back with the secondary sources and
21 everything else you think is important.

22 And like with the cyclosiloxanes, you went back
23 and got additional information that was available from
24 OEHHA. But the glycol ethers, going to another section or
25 branch to see what they've done. Leveraging those

1 resources is really important. And I think -- anyway,
2 that's the main thing.

3 MS. HOOVER: Can I just do one more follow-up.

4 So I guess just to clarify then, what we would
5 probably try to shoot for is something in between what we
6 did for the original designated, which was quite extensive
7 and a lot of detail, and we'd go for more how you've
8 described it as sort of naming what was found and then
9 providing the additional references. So we'll try to
10 shorten those, but still have the same essential structure
11 that we used for the designated chemicals that we handed
12 out before.

13 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

14 PANEL MEMBER SOLOMON: Yeah, I wish I could let
15 you off the hook for putting together these documents, but
16 it really does make a difference, because the criteria
17 that we need to look at are different than the criteria or
18 the, you know, information provided in many other sources.
19 And so for hazards, certainly it's not that -- it's not a
20 big problem to give us, you know, a review article or
21 something that -- or some secondary source that will
22 summarize the hazard piece.

23 But, you know, our questions really have to do
24 with, you know, use information and anything that we have
25 specific to California and anything we have specific to,

1 you know, biomonitoring methods. And all that stuff does
2 require, unfortunately, staff time and research, because
3 without that, it's very hard for us to make good
4 decisions.

5 And I actually was realizing that for this round,
6 for priority chemicals, it wasn't such a problem to use
7 the CDC summaries, mostly because there were a bunch of
8 low hanging fruit. I think there were, you know,
9 chemicals that were sort of obvious that jumped off of
10 that list.

11 But, for example, as with the pesticides, so we
12 discussed with the pesticides the -- you know, there are
13 other chemicals on that CDC list where we may need a bit
14 more staff work just because the CDC summaries don't tell
15 us what we need to know about patterns in California or
16 patterns over time, some of the things that we're
17 interested in for whether or not we might want to
18 prioritize some of those chemicals.

19 So this will require some staff time. I don't
20 think it needs -- these need to be quite as lengthy as the
21 original round, but they need to be kind of close.

22 ACTING CHAIRPERSON LUDERER: Yeah, I agree. I
23 think they're really, really helpful, and particularly
24 because they were organized the way that the criteria that
25 we have to follow for designation and for

1 prioritization -- they were organized according to those
2 criteria. That was really, really helpful. But I also
3 agree that having the supplemental references on a CD
4 would be great. I mean, we don't need to have them hard
5 copied.

6 Do any of the other Panel members have any other
7 comments?

8 DR. PETREAS: May I have a comment from the lab?

9 ACTING CHAIRPERSON LUDERER: Oh, sorry. Dr.
10 Petreas.

11 DR. PETREAS: Myrto Petreas.

12 As I listened to all this additional potential
13 designated, priority chemicals, designated chemicals, as
14 this list becomes longer, the pressure on the labs
15 increases. And I want to give you a reality check, that
16 with the current base funding, particularly DTSC has two
17 staff. So these two staff can work on CECBP-related
18 activities. Due to our long history of biomonitoring, and
19 our other staff, some methods can be made available to the
20 program.

21 But we only have two staff. So we don't -- I
22 mean, these are goals, but they've become remote goals at
23 this point.

24 ACTING CHAIRPERSON LUDERER: Yes, Dr. She.

25 DR. SHE: I have one clarification for -- try to

1 make. Yesterday, when we talk about the synthetic
2 hormones, so I think maybe we should talk about synthetic
3 pyrethroid. So that's a layer down. It doesn't mean it's
4 identical as pyrethroid for the team to look at.

5 ACTING CHAIRPERSON LUDERER: You're suggesting
6 that --

7 DR. SHE: The concept of synthetic pyrethroid
8 instead of pyrethroid. It doesn't consist of with when we
9 call the hormones. We want to call -- we doing a model
10 for the hormones, so we monitor the synthetic hormones.
11 Pyrethroid that's a bigger group of the nature of
12 pyrethroid.

13 ACTING CHAIRPERSON LUDERER: So you're suggesting
14 that in terms of follow-up, we should be focusing on the
15 synthetic pyrethroids rather than -- instead of
16 pyrethrins?

17 DR. SHE: Right.

18 ACTING CHAIRPERSON LUDERER: I think most of the
19 ones that are commercially used right now for the most
20 part are synthetic.

21 DR. SHE: That's the concept.

22 MS. HOOVER: So do you want to -- so I think we
23 have a pretty good picture of this. And we would
24 obviously have to do some prioritizing of our own. But
25 can we talk a little bit about the priority choices now?

1 ACTING CHAIRPERSON LUDERER: Dr. Kavanaugh-Lynch.

2 PANEL MEMBER KAVANAUGH-LYNCH: I just wanted to
3 make sure that on the "next steps" list we designated some
4 things yesterday that were not previously designated and
5 that those should go on the agenda for next time to
6 discuss whether those should be prioritized.

7 MS. HOOVER: Okay. So the cyclosiloxanes and the
8 antimicrobials and the hormones?

9 PANEL MEMBER KAVANAUGH-LYNCH: Yes.

10 MS. HOOVER: Okay.

11 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

12 PANEL MEMBER WILSON: I just want to -- following
13 up on your question, Sara, about, you know, the amount of
14 detail and information, you know, that we need. And, you
15 know, I think the -- I, you know, really appreciated all
16 of the work that went into these and preparing these
17 briefing books for us. And I think, you know, it was
18 obviously very effective.

19 I think on the cyclosiloxanes, for example, that,
20 you know, the Panel was split in our last meeting about
21 really what to do about these. And, you know, you
22 provided additional information in all of the
23 correspondence that would be with -- that OEHHA had had
24 with the association and so forth. And that was -- you
25 know, that was critical for the Panel to reach a decision

1 about those substances.

2 And I think we don't -- you know, we don't make
3 those decisions lightly. And so -- and yet, at the same
4 time, as we're looking at like this -- we're looking at
5 trying to prioritize a hundred different pesticides, it's
6 virtually -- it's just not possible to do that kind of
7 thing for all of those different pesticides. And so I
8 guess there's -- you know, there's -- I think, you know,
9 what's manageable for you, and I guess sort of getting
10 along the lines of what Tom is describing, that somewhere
11 in between I guess a brief summary, as well as -- you
12 know, sort of a brief summary, but then not -- and then on
13 the other end not as extreme as what you had to do for
14 cyclosiloxanes.

15 MS. HOOVER: Yeah.

16 PANEL MEMBER WILSON: Yeah. I mean, we're kind
17 of finding our way here.

18 MS. HOOVER: I mean, I think, you know, again
19 we'll go back and we'll look through the whole list and
20 we'll try to figure out an approach. So, for example,
21 with the flame retardants, you know, we were looking at
22 that as a class and we did a subset and presented that to
23 you.

24 PANEL MEMBER WILSON: Right.

25 MS. HOOVER: So we can look at something like

1 that for pesticides, probably not as extensive as the
2 flame retardants, because we ended up looking at quite a
3 large number of members of the class.

4 So we'll look at those kinds of things and, you
5 know, bring it to you, and then just have an ongoing
6 iterative discussion about what's needed.

7 PANEL MEMBER WILSON: Okay. Thank you.

8 ACTING CHAIRPERSON LUDERER: In terms of the
9 priority chemicals that you wanted to talk about, which
10 ones should we be discussing at the next meeting, I think
11 there was discussion already this morning about the
12 perfluorinated chemicals. So I wanted to support talking
13 about those as possible priority chemicals at the next
14 meeting.

15 Did anyone -- any other Panel members have
16 comments about those or additional priority chemicals?

17 PANEL MEMBER WILSON: I would just concur with
18 that.

19 MS. HOOVER: And then just to -- and then so we
20 already -- so in terms of priority, the other potential
21 pesticides of concern that are already designated are
22 those of interest to bring forward. So there's some
23 pesticides that you did not designate that are appearing
24 on the CDC list. So we were talking about screening
25 things that are actually already designated that you might

1 want to look at for priorities. So that's why that other
2 item is up there.

3 ACTING CHAIRPERSON LUDERER: Yes. And so we
4 specifically talked about pyrethroids and carbamates and
5 organochlorines that are on the CDC list that are already
6 designated.

7 MS. HOOVER: Well, I mean some of those you
8 already named as priorities. So you already covered the
9 pyrethroids.

10 ACTING CHAIRPERSON LUDERER: Right.

11 MR. HOOVER: So that's why I put non-OP,
12 non-pyrethroid, so we would basically screen the remaining
13 pesticides that are already designated and see if we pick
14 up things that are of concern.

15 PANEL MEMBER SOLOMON: Yeah. This is Gina
16 Solomon.

17 So it would be just any pesticides that are not
18 already prioritized that have been found in the CDC
19 Biomonitoring Program and that are used in California in,
20 you know, quantities that seem major or potentially, you
21 know, larger than in other states. So that it might
22 direct us to chemicals that are -- that could be an
23 exposure hazard in California.

24 MS. HOOVER: Okay.

25 PANEL MEMBER WILSON: I would agree with that.

1 But that's -- and, you know, looking at the original set
2 of substances that you have provided to us in our first
3 briefing book, you listed substances on Prop 65 list and
4 substances identified as toxic air contaminants and so
5 forth that were pesticides used in California. And, you
6 know, there was sort of, you know, ranges from 80,000
7 pounds to 11 million pounds for -- you know, looked to
8 be -- those could actually be flagged, I think, as Dr.
9 Solomon is saying, of unique interest to California, even
10 if they're already designated under CDC.

11 MS. HOOVER: Well, I mean, the fact that they're
12 already designated would then allow you to consider them
13 as priority chemicals.

14 PANEL MEMBER WILSON: Exactly.

15 MS. HOOVER: Yes.

16 PANEL MEMBER WILSON: So some sense of which ones
17 those are. And, you know, I could help work with you on
18 that also, with some of that work.

19 MS. HOOVER: Great.

20 ACTING CHAIRPERSON LUDERER: Any other comments
21 from the Panel members about priority -- possible priority
22 chemicals to discuss at the next meeting?

23 Okay. And so then the other issues that you
24 wanted to discuss for next steps, one of them had to do
25 with a laboratory --

1 MS. HOOVER: Yeah. So I think -- I don't --
2 yeah, I was sort of noting. So we talked about that we'll
3 do this follow-up that Dr. Wilson requested. And I'm just
4 noting that we'll do something similar in terms of letting
5 you know what the laboratory capacity is on chemicals
6 relevant to chemical selection, like we did for the
7 priority chemical -- potential priority chemical. So
8 we'll just let you know. And you know "now," "soon,"
9 "later," that kind of information.

10 ACTING CHAIRPERSON LUDERER: I mean, one item
11 that we talked about yesterday that didn't kind of
12 specifically appear on your list of things, but that's
13 related to that, is the idea of the laboratory staff
14 looking into diesel exhaust -- the methods of
15 biomonitoring diesel exhaust, whether that might be
16 something we could get an update on next time as well.

17 MS. HOOVER: Yes. So I just want to clarify that
18 this particular "next steps" is restricted only to
19 chemical selections of designation or priority. So the
20 follow-up past priority would be a next step that you can
21 talk about at the end of this next discussion, which would
22 be related more to the lab's follow-up once you've
23 designated. So we're restricting this particular next
24 step just to chemical selection. So that's why that's not
25 on there.

1 I just also wanted to note that we also should
2 call for public comment on this topic, because there -- I
3 think there may have been a comment submitted by Email
4 that's relevant to this topic.

5 All right. So just calling for public comment in
6 the room?

7 ACTING CHAIRPERSON LUDERER: Do we have any
8 public comments on this topic of "next steps" for the next
9 SGP meeting?

10 No?

11 All right. This would be a good time I think
12 probably to take a break. So shall we reconvene at 11
13 a.m.? So in ten minutes.

14 (Thereupon a recess was taken.)

15 ACTING CHAIRPERSON LUDERER: All right. I'd like
16 to reconvene the meeting. It looks like all the Panel
17 members are here.

18 Okay. We're going to start out this afternoon's
19 session with another presentation by Dr. Lipsett about
20 the -- a working discussion of the community biomonitoring
21 study.

22 Dr. Lipsett.

23 DR. LIPSETT: Thank you, Dr. Luderer.

24 (Thereupon an overhead presentation was
25 Presented as follows.)

1 DR. LIPSETT: Yeah, I want to just indicate that
2 we've made quite a bit of progress on this Community
3 Biomonitoring Study that had been recommended by the Panel
4 the last time. I presented a number of different kinds of
5 alternatives that were envisioned by the legislation, like
6 looking at people who were exposed by virtue of the same
7 occupation or a similar kind of disease.

8 And one option that we had mentioned was looking
9 at a study looking at paired maternal and cord blood
10 exposures, which the Panel seemed to be pretty
11 enthusiastic about.

12 Then indicated they wanted to be descriptive
13 rather than hypothesis-driven and to be able to leverage
14 this offer by the CDC lab to analyze biological specimens
15 for up to ten different groups of chemicals.

16 --o0o--

17 DR. LIPSETT: So we've had a number of
18 discussions with faculty both at UC Berkeley and at UC San
19 Francisco, the School of -- UCSF School of Medicine about
20 undertaking this study.

21 And we have developed a near-final letter of
22 intent to submit to a foundation for funding.

23 --o0o--

24 DR. LIPSETT: Now, the goals of this study would
25 be to measure and compare levels of over 100 chemicals in

1 pregnant women, both of their blood and urine, and then in
2 cord blood, representing the in utero exposures of the
3 children.

4 To examine potential sources of exposure, via
5 questionnaires, to a subset of these chemicals.

6 And also a very important aspect of this, as well
7 for us, is to develop and test approaches to providing
8 participants with biomonitoring results.

9 --o0o--

10 DR. LIPSETT: Okay. So in addition to us, we're
11 dealing with Dr. Tracey Woodruff and Jackie Schwartz at
12 the Program for Reproductive Health and the Environment at
13 UCSF. Dr. Quint had mentioned earlier that she had been
14 working on the project with respect to looking at
15 occupations. And actually our staff - I just wanted to
16 mention as an aside - our staff has been working with
17 the -- your former group, Dr. Quint, in the Occupational
18 Health Branch of the Department of Public Health on
19 developing occupation-related questions that would be used
20 in this questionnaire.

21 --o0o--

22 DR. LIPSETT: Okay. And at the UC Berkeley
23 School of Public Health, we've been talking with Dr.
24 Rachel Morello-Frosch with respect to results
25 communication - she's been one of the more active

1 researchers in this area - as well as Holly
2 Brown-Williams, who's also with the School of Public
3 Health and a group called Health Research for Action.
4 They are very good at developing language that is really
5 appropriate for all kinds of literacy levels, and have
6 done a lot in the way of health communications for a
7 variety of different audiences.

8 --o0o--

9 DR. LIPSETT: Okay. So in this pilot study we're
10 intending to be looking at 50 pregnant women. And this
11 will serve as a foundation for a larger study of about 500
12 maternal-infant pairs, that could be potentially
13 generalized to a larger study population.

14 For now we wanted to limit this to people --
15 women who speak English and Spanish and are receiving
16 prenatal care and intending to deliver either at the
17 Parnassus -- UC San Francisco Parnassus campus or at San
18 Francisco General.

19 And just as a general rule, the populations that
20 are serviced by these two campuses, the Parnassus campus
21 tends to be higher SES and San Francisco General tends to
22 be lower SES.

23 --o0o--

24 DR. LIPSETT: Just in terms of the Pilot Study
25 Design, this is what we've been considering initially to

1 One of the other groups that we were thinking
2 about was the coplanar PCBs, as these are thyrotoxic. And
3 if we're going to be looking at the PBDEs and perchlorate,
4 one of the -- the clinical markets we might want to be
5 taking a look at too is TSH, as well as T4 and the others.
6 And if we were to do that, we might want to look at the
7 coplanar PCBs as well.

8 So I don't know if you have any additional
9 thoughts about any of these chemicals or chemical classes
10 based on the list -- the CDC list that you had in front of
11 you?

12 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

13 PANEL MEMBER WILSON: Well, I guess, Mike, I
14 would ask you if there is anything that comes to your mind
15 about -- on this question of VOCs or other pesticide
16 classes that you think would be of interest?

17 DR. LIPSETT: Well, the VOCs that are listed by
18 the CDC, they're pretty extensive. I mean, you get a lot
19 of different chemicals there. On the other hand, if
20 you're particularly interested in thyroid function, which
21 is one of the things that I think I am and a number of the
22 other staff are as well, then I might tend to favor
23 looking at the coplanar PCBs. And this is something I've
24 talked with -- separately in a different context with Dr.
25 Bradman about, who felt that that might be something that

1 would be interesting as well to take a look at.

2 ACTING CHAIRPERSON LUDERER: Dr. McKone.

3 PANEL MEMBER MCKONE: If you're doing the
4 coplanar PCBs, is it possible at all to do some of the
5 furans and dioxins that are coplanar? Because they kind
6 of go together.

7 DR. PETREAS: Yes. The coplanar PCBs come with
8 dioxin and furans. But because their level is an order of
9 magnitude less than the remaining pesticides or other
10 chemicals, they require usually more blood, if this is
11 blood. CDC can do this in a panel of persistent organics.

12 DR. SHE: And the comment on the VOCs, CDC
13 currently lists like 33 compounds in their list. So
14 there's 33 of them.

15 PANEL MEMBER MCKONE: But isn't the relative
16 toxicity -- I mean, they're an order of magnitude lower.
17 But I think that if you look at the toxic equivalence,
18 they're an order of magnitude higher. So if it -- you
19 know, if you're trying to do a study --

20 DR. PETREAS: These are the dioxin-like PCBs.
21 But coplanar are the level of parts per trillion in blood.
22 You go back to pesticides, which are parts per billion.
23 So the order of magnitude difference in toxicity --
24 dioxin-like toxicity is high for this coplanar for
25 dioxin --

1 PANEL MEMBER MCKONE: Yeah, but -- I mean, you
2 had suggested you wouldn't do the furans and dioxins
3 because you need too much blood to do those?

4 DR. PETREAS: No. First of all, we won't be
5 doing them. CDC will be doing them. And they do it
6 together. So those coplanar PCBs, dioxin and furan the
7 same analysis for CDC as it would have been for us,
8 becoming the same fraction and they're similar levels, so
9 they can be measured together.

10 PANEL MEMBER MCKONE: Okay.

11 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

12 PANEL MEMBER SOLOMON: Yes, I like the thought of
13 focusing in on some of the thyroid disrupters. And in
14 that vein, it might then make sense to add cotinine as a
15 marker for thiocyanate, which, you know -- because there's
16 interaction with perchlorate. It's already been shown.

17 And I then agree with probably taking the VOCs
18 off the list.

19 Triclosan, I believe, has thyroid effects. And
20 so that might sort of bump that up in priority. It's
21 already on there.

22 And then the only other category that CDC can do,
23 that I think also has thyroid effects would be EBDC
24 fungicides - maneb, mancozeb, all that gang. So we might
25 take a look at whether that's worth including. And then I

1 think, you know -- well, I don't know. Do the
2 organophosphates and pyrethroids kind of come together in
3 the CDC panel or is that using two chits?

4 DR. LIPSETT: That was two chits.

5 PANEL MEMBER SOLOMON: Yeah, I see, then you
6 might -- I mean, I guess you could drop the pyrethroids
7 or -- but, wait. Are you -- are they doing the OPs or are
8 you doing the -- you're doing the DMP metabolites.

9 DR. LIPSETT: Well, we could potentially do the
10 DAPs in our lab and possibly the specific metabolites that
11 were referred to earlier like the chlorpyrifos. And if
12 that's the case -- I mean, we haven't made any final
13 decisions about this yet. We're still, you know, at the
14 letter-of-intent stage. So there's going to be time in
15 terms of trying to determine which of these chemicals
16 we're going to be looking at.

17 PANEL MEMBER SOLOMON: Because it does hang
18 together nicely. It seems like less of a scatter-shot
19 list if you prioritize thyroid disrupters and sort of try
20 to focus on hypotheses around that.

21 If you do the TSH and T4, does that -- that
22 counts as well, I assume, for CDC purposes?

23 DR. LIPSETT: Well, these are not done routinely
24 for new moms. And as this is something we would need to
25 be requesting funding to have those analyses done, they're

1 not that expensive to run. But these are things that
2 would be done either in a clinical lab -- we might ask CDC
3 to do them. I'm not sure if that would be the case.
4 Those were not part of the list of environmental chemicals
5 that they were offering to do.

6 ACTING CHAIRPERSON LUDERER: Dr. Quint.

7 PANEL MEMBER QUINT: Yeah, I like the idea of,
8 you know, trying to have some hypothesis around what you
9 look for. But I'm also interested in looking for things
10 that we think we can find, since this is a small sample
11 and we're doing it to sort of highlight the importance of
12 biomonitoring.

13 So I don't know enough about some of these and
14 whether or not you would expect in this small
15 population -- you know, some things I guess you would
16 expect to find. I don't know enough about the group of
17 women that we're testing.

18 But I would really like a high -- you know, some
19 to wage my bet on on finding something here.

20 So I just throw that out there, you know, with
21 the -- I just don't know what to say about some of these
22 in terms of -- I mean, some are -- obviously, we're just
23 willing to do, because they are for an interest.

24 But the other thing I had and wanted to say too,
25 in terms of Myrto's comment, is that if we look at --

1 hopefully, we're using this study, you know, to gain some
2 information about a larger study. So in looking at the
3 types of things that the CDC would measure, I hope that
4 there would be a high likelihood that we would be able to
5 measure those down the line as well.

6 So when talking about the coplanar PCBs, whatever
7 that discussion was about amount of sample and capability,
8 I would just hope that we choose something that we then
9 are able to do ourselves or somewhere down the line be
10 able to replicate.

11 So those are my only comments. I don't have any
12 specific -- you know, anyway to direct you, because I
13 don't know enough about what you would expect in this
14 population of women.

15 DR. LIPSETT: Well, just a comment. Thank you
16 for your input on this. This is going to be initially
17 just for 50 women. It's the pilot that we're going to be
18 doing to this larger study. And, you know, one of the
19 things that we might take away from it is that if there
20 are lots of nondetects, then we'll look at a different
21 group of chemicals in the larger population.

22 But it really -- but in the larger study, we're
23 thinking also of having it take place also in the Fresno
24 facility. So we would have looking at rural-urban types
25 of things, where we would be having a number of women

1 there who would be more likely to be exposed to
2 pesticides, for example. And so from that standpoint, if
3 we're looking at an urban population and we don't see much
4 in the way of, say, OPs, we might not necessarily say,
5 "Well, we're not going to look at those in a larger study
6 population."

7 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

8 PANEL MEMBER WILSON: Yeah, I'm of the same mind
9 as Dr. Quint. And I'm wondering if there are other -- or
10 if there have been other studies like this previously
11 published that you're aware of, and what the degree of
12 overlap here is with these substances with those that were
13 published.

14 DR. LIPSETT: Well, there is an ongoing study at
15 the State University of New York. And actually Diana Lee
16 is more familiar with that.

17 Do you want to talk about that a little, Diana?

18 MS. LEE: You know, Laura Geer at SUNY is
19 collecting -- currently involved in that study where she
20 is collecting both maternal and fetal cord blood samples.
21 And she's focusing primarily on triclocarban and metals.
22 She reported at the last brominated flame retardant
23 seminar that Arlene Blum organized.

24 So no study that I'm aware of has gotten this
25 kind of breadth of chemicals. Certainly, there have been

1 previous fetal cord blood measuring not naturally paired
2 with maternal samples. And perfluorinated compounds, for
3 instance, were analyzed in a group of cord in Baltimore, I
4 believe, done by Johns Hopkins -- a group at Johns
5 Hopkins. And certainly they're hoping to do this with the
6 National Children's Study.

7 So I think our state will actually -- if we do
8 this, it will be for the largest kind of breadth of
9 chemicals study to date. Certainly, in California there's
10 not been anything specific on that.

11 DR. LIPSETT: Actually, there's been one other
12 study that was of -- that the Environmental Working Group
13 did of ten -- maternal fetal pairs, but did look at
14 actually probably more chemicals than this all together.
15 But it was a sample of ten. And, you know, they're a
16 number that we clearly think are going to be very high in
17 these people like the flame retardants, for example, and
18 probably phthalates.

19 And I think that overall Diana is correct in
20 terms of the numbers of people and the numbers of
21 chemicals, this will be the first one that's going to be
22 this big.

23 PANEL MEMBER WILSON: I guess the -- that was
24 going to be my follow-up question, was EWGs results I
25 think was -- you know, they -- you know, obviously a very

1 small sample. But it was, I think, between 180 and 200
2 substances. And if there are, you know, within that as an
3 indicator -- or using that as an indicator, if there are
4 substances that are -- that we are likely to find in this
5 subset, you know, based on what they saw, it would be, I
6 think, worth considering.

7 I mean I understand what you're saying, Michael,
8 about -- you know, that we could broaden this -- that, you
9 know -- if there are nondetects, it may be that in a
10 larger study that includes the central valley, for
11 example, that there might be detects.

12 But it seems to me that it would be -- we should
13 do our best to identify substances that we will have
14 detects as much as possible.

15 ACTING CHAIRPERSON LUDERER: Any other comments
16 from the Panel members?

17 --o0o--

18 DR. LIPSETT: Okay. Then just some of the
19 challenges that we face in even at the pilot stage level
20 is just some of the logistical concerns related to
21 recruitment and questionnaire administration, coordinating
22 with the hospital staff over there and tracking samples
23 across multiple laboratories. This is clearly a reason
24 that we need to do a pilot study, to make sure that we can
25 get all of these things coordinated.

1 that you had been talking about before. Because we are
2 going to be focusing on, you know, a variety of different
3 economic and racial and ethnic groups in the San Francisco
4 area and in the central valley and a larger study.

5 PANEL MEMBER QUINT: I was not concerned. I just
6 was trying to speak for what -- some people who came to
7 the public meetings when they were concerned about
8 community, it was from, you know, a community located next
9 to hazardous exposures, and the sort of history we've had
10 in trying to, you know, reconcile Epi study results with,
11 you know, people's concerns about their health.

12 So I personally didn't have a concern. I think
13 this is a great -- I mean, obviously, I was working on
14 parts of this type of -- you know, aspects of this type of
15 a study myself before. But, you know, I think a lot of
16 people when they think about a community study, they think
17 about -- you know, and we're not tied to that. But it's
18 really from a long history of Environmental Justice and
19 being next to some emitting source and the effects on that
20 particular geographic community of those exposures, and
21 wanting to be biomonitored to find out that what they
22 perceive as illness is correlated with some objective
23 findings.

24 So that was my concern, is that, you know, there
25 be some -- you know, that we be aware of that is all.

1 DR. LIPSETT: Yeah. And actually, Dr. Quint, you
2 were not present at the last Panel meeting, because this
3 was one of the options that we had discussed -- or the
4 Panel had discussed when I laid out the options that were
5 in the statute, and which is looking at geographic
6 communities, looking at communities that were united by
7 virtue of occupation or by disease outcome. And I
8 think - and the Panel members can correct me if I'm
9 misstating this - that they felt that they wanted to get a
10 community-type study that would have sort of the broadest
11 application across the state. And they felt that specific
12 geographic communities, at least at this point in the
13 development of the program, would not necessarily carry
14 that same degree or generalizability.

15 PANEL MEMBER QUINT: Yeah, I read the two days
16 of -- all of the transcript, so I am well aware of the
17 discussion and I agree totally with the choice. And, in
18 fact, I think I suggested that we contact Tracey at the
19 Program for Reproductive Health and the Environment when
20 we were looking for a study.

21 So it's not my personal concern. I'm just
22 highlighting, you know, to the late public what -- kind of
23 perception of what a community study might be in terms of
24 that. So that's all. It's not a concern of mine.

25 MS. LEE: I think, in large part, that's why

1 we're very interested in collaborating with Environmental
2 Health Tracking, because they certainly are a very active
3 kind of advisory group that encompasses a number of
4 community groups and they are looking specifically at kind
5 of geographically placed community studies. And so the
6 Biomonitoring Program is trying to be a response to that.

7 PANEL MEMBER QUINT: Right.

8 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

9 PANEL MEMBER SOLOMON: My question is about the
10 results communications methods that you're planning to
11 use. I'd like to hear more about that and also about some
12 of the differences of opinion that you alluded to from the
13 collaborators.

14 DR. LIPSETT: Okay. I'm going to let Diana deal
15 with most of that, since she's been more involved on a
16 day-to-day basis with those discussions.

17 But in terms of the differences of opinion, this
18 is my characterization of it. Where Asa seemed to think
19 that once you had a community advisory group in place and
20 you worked with the community from the outset, and that
21 providing the results to individuals, particularly where
22 the clinical implications were not clear, was really not
23 as significant a barrier as some people might -- like
24 myself, might think that it would be.

25 And I think I'm also channeling some of the

1 anxieties of our -- of people within higher levels of
2 state government about that dimension of things too.

3 But I think that there are some issues just
4 related to providing results to people when you can start
5 with the consent process, where you can indicate right at
6 the outset that we know that we're going to be
7 biomonitoring for different kinds of chemicals where we
8 will not be able to tell you what the implications are
9 ultimately. And that if people are aware of that from the
10 very beginning, it may not be as problematic as otherwise.

11 But I think we do have to anticipate issues that
12 may come up with respect to, say, people when they find
13 that their levels of flame retardants are above the 95th
14 percentile, compared to the rest of the population of the
15 U.S. For example, one way we're thinking of providing, at
16 least a written or graphical representation of the
17 results, is to indicate, say, where somebody's levels were
18 in relation to a distribution, either of the study
19 population and/or of, let's say, if there are NHANES data
20 that are comparable or that they fit in that in terms of
21 being low, medium, or high.

22 And I guess just maybe in part because of my
23 legal training, I think about sort of worst-case
24 scenarios, in terms of the kinds of responses that the
25 people might have, and just trying to anticipate that

1 ahead of time in the whole results communication process
2 and pilot testing, these different approaches. And one of
3 the things that we wanted to do as well, that there hasn't
4 really been much in the way of rigorous research on, is
5 talking to people who are going to be participating
6 beforehand, you know, before they get their blood drawn
7 even, and asking them the kinds of things that they
8 anticipate that they're going to be getting in terms of
9 their results, what they -- as to what form they would
10 like to receive the information in.

11 And then comparing this -- their expectations
12 with what actually happens with what we give them
13 afterwards. And if there are discrepancies, that there
14 are ways that these things -- that the methods could be
15 improved.

16 So this in itself is actually a kind of research
17 project embedded within a pilot study and within a larger
18 study too.

19 But, Diana, did you want to say some more?

20 MS. LEE: Yeah, this has mainly been the purview
21 of Rachel Morello-Frosch at UC Berkeley and Holly
22 Brown-Williams with Health Research for Action. And
23 Holly's group is definitely more focused on what she
24 refers to as usability testing and comprehension and
25 looking at different literacy levels that different

1 populations present with. And Rachel is definitely
2 modeling more -- kind of a research kind of model. And
3 the populations she's worked with are, like at Cape Cod,
4 for instance, are definitely higher educated with respect
5 to providing specific biomonitoring information back.

6 So the merging of both of them, I think, has
7 prevented -- not prevented -- presented some unique
8 opportunities to kind of get a more comprehensive approach
9 to results communication. And so we're learning from them
10 basically. And so they've -- they're dialoguing together
11 to kind of come up with something jointly that could be
12 used to develop kind of a best practice framework as part
13 of this.

14 Rachel has also done work certainly in the
15 Richmond community. But that has not been biomonitoring.
16 That has really been environmental monitoring data. And
17 so she's very interested in kind of this usability kind of
18 factor of working with different kinds of communities.

19 So we're hoping to kind of merge the best of
20 both, so to speak, and get some best practice frameworks.

21 I think, you know, there's the possibility of
22 doing some focus groups and, as Michael indicated, some
23 pre and post kind of interviewing to kind of again
24 identify the knowledge base or the expectations of women,
25 why they -- you know, why they're participating, what

1 their expectations are from having participated in a
2 biomonitoring program study such as this. And then also
3 testing some different formats or ways to present
4 information back, whether it be chemical on chemical or
5 again these kind of classes, and combining it with some
6 information that might be useful to them in terms of
7 identifying potential sources and some possible
8 guidelines, recommendations for how women might want to,
9 if they so choose, to reduce exposures, for instance, some
10 of their practices that could be recommended. But this is
11 the kind of thinking down the line.

12 So it's definitely a developmental process.

13 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

14 PANEL MEMBER SOLOMON: Thanks. That's very
15 helpful.

16 And so my understanding from the legislation -
17 correct me if I'm wrong - is that people aren't required
18 to get their results. So that presumably you would have a
19 box that they could check on a consent form saying that
20 they do or they don't want their results.

21 And then what -- you know, was the plan to mail
22 the results to people and then give them a phone number to
23 call if they have additional questions? Or is the plan to
24 potentially, you know, have one-on-one counseling? Some
25 of these things will be much more research -- resource

1 intensive than others. And it would be interesting, I
2 think, for us, as a panel, to have an opportunity to think
3 some of this through with you.

4 I think that the communication of results aspect
5 of the Biomonitoring Program is very important. I also do
6 want to be sensitive to not slowing down the efforts by
7 getting too tied up in anxiety about what, you know, might
8 happen if we divulge results.

9 So I was just interested in hearing more about
10 what you actually are planning to do.

11 MS. LEE: Right. Well, I think our original
12 thought when we -- and partly in the process of costing
13 out this pilot even, that we were possibly thinking of,
14 what we call, passive reporting, something similar to what
15 you said, you mail something, but after kind of developing
16 a framework that would be acceptable hopefully, not just a
17 list of numbers and a list of chemicals. I mean, I think
18 we all agree that that might not be the most useful
19 product.

20 But we definitely wanted to provide an
21 opportunity for the women to call in.

22 And even as part of this pilot, there's resources
23 being identified where each woman could potentially be
24 interviewed. So it would be 50 women. And that's why
25 we're calling this kind of a nested study within the

1 study, so to speak, because it could be done as a separate
2 pilot itself. And that's where the intense resources come
3 in, if you're going to individually interview each woman
4 after -- or all those who say they want to get the results
5 back, for instance, to kind of again shape the framework
6 for the larger 500-plus event study. There's no -- I
7 don't think it's possible to be able to necessarily give
8 results back individually to each woman in a larger
9 cohort. But certainly the smaller one we could test some
10 methods for doing that and decide what is feasible and
11 what works and is able to satisfy the women's information
12 needs.

13 And then, of course, tied with this is a possible
14 component to do some training or rounds for the medical
15 staff as well. So that's something else that Tracey is
16 very interested in.

17 So you may be contacted for that, Dr. Solomon.

18 ACTING CHAIRPERSON LUDERER: Dr. Quint.

19 PANEL MEMBER QUINT: Yeah, I'm glad you mentioned
20 the last thing, because I think thinking ahead of time of
21 some way to disseminate biomonitoring, in general, and
22 some of this information to, you know, physicians and
23 other health care professionals who interface with women
24 and who will get the direct questions, as they already are
25 doing at Kaiser, is really important, because they have

1 not a clue most of the time about these exposures, what
2 they mean, what to tell people. So I think it's really an
3 important part of it.

4 MS. LEE: But, again, I can't underemphasize the
5 logistical issues that we face even in doing this pilot.
6 I mean just trying to -- overemphasize, right.

7 Wishful thinking.

8 (Laughter.)

9 MS. LEE: But just the logistical issues of
10 working in very busy clinic situations to identify,
11 consent them, and then find a space to administer a
12 questionnaire is posing some challenges.

13 And then being able to -- if you return results,
14 you want again to be able to do it in such a way that is
15 sensitive to the women. And then they do come in touch
16 with their medical providers, of course, and they can be
17 encouraged to request information or ask questions. And
18 so the medical, hopefully, staff will be able to answer
19 some information -- provide them some information.

20 And there is the proposal -- the inclusion of
21 development of some of these materials too in a format
22 hopefully that is sensitive to what the women would be
23 able to use.

24 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

25 PANEL MEMBER WILSON: You know, one of the models

1 I think that might be useful was actually the work that
2 HESIS did in communicating to the automotive repair
3 workers in California about, you know, the health effects
4 related to these hexane-based cleaners and then develop
5 the second set of guidelines for physicians.

6 So there were, you know, two obvious
7 communication needs, that one wouldn't work for the other.
8 And, you know, the physicians obviously needed a much more
9 technical set of information and I think, as Dr. Quint is
10 saying, some guidelines on how to communicate this
11 information in an appropriate way and so forth; you know,
12 recognizing that, you know, in general, physician's
13 training in occupational and environmental medicines,
14 these kinds of issues, tends to be limited.

15 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

16 PANEL MEMBER SOLOMON: Would it be reasonable to
17 ask for some of the draft communications materials to be
18 brought before this Panel so that we could take a look and
19 provide input? Because I think that is going to be
20 important. And I'm guessing -- or I'm hoping that some of
21 the kinds of materials that are produced, you know, on
22 these ten sets of chemicals will be used many, many times
23 in the future.

24 So, you know, as there is sort of a format
25 developed and a way of structuring the information, I

1 would certainly love to see that.

2 MS. LEE: Yeah, definitely. And actually we're
3 thinking of doing this kind of staging it timing-wise,
4 such that we might focus on maybe one or two classes as
5 part of this pilot initially. And it might be
6 something -- and, again, because we want to turn this data
7 out fairly quickly, that some of the analysis of some of
8 these analytes can be done quicker than others.

9 CDC has indicated roughly a six- to nine-month
10 timeline before they can give -- I mean, for most
11 chemicals. If we're going -- if the recommendation is to
12 include dioxin and coplanar PCBs, those will take longer.
13 And they could -- it could take up to over a year before
14 those results become available for us.

15 So for some of the ones like metals, and possibly
16 even phthalates, if our lab were to do it, those results
17 might be available sooner. And we might just focus on
18 using those two classes, because the metals, there are
19 some clinical levels, for one thing. And then the
20 phthalates, just because they're so ubiquitous, in the
21 consumer process and so on, that it might be kind of an
22 example of how we might deal with this so-called
23 uncertainty issue. And so that's part of the framework
24 that we're looking at possibly.

25 So in response to your question about looking at

1 materials, I don't see why that couldn't be done. But it
2 probably wouldn't be on all ten chemicals -- on ten
3 chemical classes.

4 ACTING CHAIRPERSON LUDERER: Dr. Roisman, is
5 there a comment?

6 DR. ROISMAN: Just logistical issue, because the
7 next meeting of the Panel is going to be at the end of
8 July. And I know that there -- I don't know -- I know
9 that this work is ongoing and I don't know exactly when
10 things are going to be produced. And I don't know if
11 Carol could comment about what the opportunities are for
12 us to receive input from the Panel and access to the study
13 between now and the next meeting. Or if, Diana, you think
14 it's just fine that we wait because nothing's going to
15 happen before then.

16 DR. LIPSETT: Yeah, with respect to the results
17 communication, we won't actually be embarking on that till
18 long after the next meeting. I mean the development of
19 materials will begin before then. But certainly in terms
20 of what will happen with the community study, that -- and
21 I don't think that we're looking at any time this year,
22 other than potentially initiating maybe some interviews
23 with some of the women. So we will be able either at this
24 next meeting or the meeting after to bring some materials
25 along the lines of what you requested, Dr. Solomon.

1 No, I think -- no, no, I think -- no.

2 Okay. Diana is contradicting me, but --

3 (Laughter.)

4 DR. LIPSETT: -- we will do our best. Let's put
5 it that way.

6 MS. LEE: Yeah. A lot of the work that Holly and
7 Rachel are proposing to do is contingent on us being
8 successful in securing funding. So to that extent, we --
9 I don't think we can commit.

10 DR. LIPSETT: Yeah. No, what I was thinking was
11 that we could at least present to you materials that we
12 know that others have used and that we would be trying to
13 build on in this program. And you could give your input
14 on that at a minimum.

15 ACTING CHAIRPERSON LUDERER: Dr. Kavanaugh-Lynch.

16 PANEL MEMBER KAVANAUGH-LYNCH: I want to commend
17 you. I think this is a really wonderful plan that you've
18 put together for a great study. And there's some elements
19 that I'm personally pleased about. One is the careful
20 attention paid to communication of results. And the
21 people you're working with are, you know, people who are,
22 you know, in the forefront of doing this, and I think will
23 be a able to guide you very well.

24 I was also happy to hear that the -- about the
25 Fresno connection, because one of my concerns was the lack

1 of generalizability of the population you're using. But
2 adding Fresno will certainly enhance that.

3 Another concern I have, actually as you develop
4 the communication materials, is right now limiting this to
5 English and Spanish. And I wonder if you've considered
6 adding Asian languages in the pilot, because some of the
7 cultural differences may really impact what you end up
8 doing in terms of communication of results.

9 MS. LEE: Yeah, we definitely considered it. And
10 especially at SF General, the Asian population is fairly
11 sizable. And probably also at Parnassus even just because
12 of the San Francisco demographics.

13 But again because the budget for this -- it's
14 amazing how it just kind of creeps up. And there's so
15 many different Asian languages. And, you know, just a
16 cost estimate for translation is 15 cents per word. And
17 this is the cost -- this is the estimate from UCSF in
18 terms of using their translators and so on. So we're --
19 just to give you an idea. I mean, we're translating the
20 consent form -- the recruitment materials, the consent
21 forms, the questionnaires, the -- whatever we end up, you
22 know, providing back as report back. That's adding up
23 considerably.

24 So we decided, for the pilot, we would limit it
25 mainly to Spanish and English. But in the larger study,

1 we definitely want to include some Asian -- some
2 languages.

3 But that is just totally feasibility.

4 ACTING CHAIRPERSON LUDERER: I just wanted to ask
5 you about the results communication, another question. I
6 actually also think this is a wonderful study and that
7 you've already really accomplished a huge amount in
8 designing it and working with all these different
9 individuals you're working with.

10 The question I had is -- we've talked about the
11 results communication to the individuals and then talked a
12 little bit about to the medical community. And I was
13 wondering whether you have specific plans, since this is
14 the idea, this is a community-based study, to communicate
15 the results to the broader community from which these
16 women come and whether that's going to be something that's
17 going to be included in the design of the study,
18 developing ideas for that, material ways of doing that.

19 MS. LEE: Yeah, we're kind of struggling with
20 that, because we don't have an identified like NGO-type
21 group necessarily. Although, there was -- there has been
22 some consideration to working with a clinic in the
23 mission, for instance, where the women deliver at San
24 Francisco General. So I think we haven't pursued that
25 mainly for timing, for one thing. And, again, just the

1 resource issues.

2 But I think we definitely want to incorporate --
3 you know, think about how even the findings of the study
4 could be, you know, somewhat publicized to the general
5 community of women of child-bearing years in some way.
6 And we could work through our own State Maternal Child
7 Health Branch possibly to do that, as well as other groups
8 and certainly professional groups and -- so any ideas for
9 that, we'd love to hear them.

10 DR. LIPSETT: Yeah, Dr. Luderer, I just wanted to
11 get some clarification about your question.

12 Were you speaking just of the population from
13 which the women were drawn or in terms of like the city or
14 the county? Because we do work with county health
15 officers. And in undertaking these studies in San
16 Francisco and in Fresno -- certainly Fresno, Doctor
17 Moreno's going to know about it. But we would want to
18 certainly keep the health departments apprised and work
19 with them to the extent that they would want to
20 disseminate -- help disseminate the findings throughout
21 the population that they serve.

22 ACTING CHAIRPERSON LUDERER: What I was
23 originally thinking of was more the community from which
24 these women come, because those might be the people who
25 would be the most interested in it, because they would

1 think, "Well, this may also apply to me." But I think,
2 more broadly speaking, that I think disseminating the
3 results of this kind of a study, even more widely, would
4 be a really good thing and would be important to do. So I
5 think they're both...

6 Dr. Quint, did you --

7 PANEL MEMBER QUINT: I was just thinking of
8 Kaiser as a natural partner. The Occupational Health
9 Branch HESIS, we started first working with Kaiser for
10 many years, because they get a lot of questions about, you
11 know, the effects of chemicals on pregnancy outcome
12 mainly. And they also, you know, have been very good on
13 the education end of things. And I know Tracey is
14 interested in working with them.

15 So both from a help with resources to translate,
16 you know, and also as a way to do broad dissemination to
17 women of reproductive age, because they are actually --
18 their education around this starts from, you know, early
19 on up through, you know. And they want to educate before
20 people become pregnant. So I think it's really good to
21 include them, if you haven't already, as a natural
22 partner.

23 ACTING CHAIRPERSON LUDERER: I'm wondering
24 whether this might be a good time to see if there are any
25 public comments.

1 It looks like we have one. And then we have one
2 that came in yesterday via the Internet as well. So -- or
3 do we have one?

4 MR. BALTZ: I think I filled out a card, didn't
5 I?

6 ACTING CHAIRPERSON LUDERER: Oh, I think it was
7 filled out earlier. You're right.

8 So why don't we start with Davis Baltz from
9 Commonweal.

10 MR. BALTZ: Davis Baltz with Commonweal.

11 Yeah, on the results communication, I just want
12 to make a couple of comments. You know, when this program
13 was just a bill in the Legislature, it was actually quite
14 contentious over the years that it was in the Legislature
15 on whether individual results would be communicated or
16 not. And the Breast Cancer Fund and Commonweal, as
17 cosponsors to the bill, really felt strongly it was
18 important to communicate results to individuals. And
19 keeping in mind the complicated logistics and cost of all
20 of that, we still feel that that's an important aspect of
21 this program, that if you're going to invite people to
22 participate in a study and draw blood from them, you
23 really do have an obligation to report back to them
24 individually about what was found in their samples.

25 So I think that, you know, keeping in mind some

1 cost-effective way to do this, there is going to need to
2 be some sort of individual or some specialized or
3 personalized communication of the results. And I don't
4 know how. I have to think more about this. But certainly
5 the NGO community has some experience with communicating
6 results.

7 Commonweal has participated ourselves and also
8 helped to organize some biomonitoring studies where we've
9 been involved with communicating results. And I think the
10 experience has been, again in deference to your fears
11 about worst-case scenarios, that for the most part people
12 don't panic and they take it in and they really do become
13 educated in an important way about the issues.

14 So if someone has flame retardants and there's a
15 95th percentile, well, that's kind of important
16 information for people to have in their life at this
17 moment.

18 If there's some way, and certainly Commonweal
19 and, I think, a number of other NGOs would be happy to,
20 you know, put our shoulder to the wheel in some productive
21 way to help shoulder some of the burden of maybe the
22 ongoing communication after initial results are delivered
23 in how communities can use these results effectively, not
24 only to empower themselves to make maybe personal changes
25 in behavior, but also some maybe involvement on larger

1 levels to reduce exposures among their peers.

2 So we certainly are happy to be involved with the
3 community advisory committee or any other ways that you
4 think that might be useful for us to be involved to carry
5 on this communication with study contributors.

6 And, you know, I think the experience, as I said,
7 of studies that had been done among communities is that
8 the people who do participate, benefit from learning
9 what's in their bodies, and then they become ambassadors
10 in a way for biomonitoring. And I think that's one of the
11 things that's important for this program and its evolution
12 right now is to still figure out ways with a limited
13 budget to raise awareness among the public about the value
14 of biomonitoring in California. And so, you know, this
15 pilot and others, I think, would be a good way to achieve
16 that.

17 So thanks.

18 ACTING CHAIRPERSON LUDERER: Thank you.

19 Also, we did receive a comment yesterday that
20 relates to the community biomonitoring study. So this
21 comment was saved until today. So this is a comment that
22 I'm going to read now from Cheriell Jensen.

23 And Ms. Jensen was commenting about the subgroups
24 of people to be included with special attention. She
25 wrote:

1 "I propose including a sample of autistic
2 children and a control group of the same age
3 range without autism. For this
4 autistic/non-autistic paired group of children
5 testing for aluminum and mercury, including the
6 organic forms, should be the first order of
7 testing. All substances tested for should also
8 be considered in this group."

9 And she goes on:

10 "For the following subgroups, I propose they
11 be tested for all the substances in the testing
12 program, with attention to some specifics. I
13 propose including testing people with
14 Alzheimer's, including a control group of the
15 same age range without Alzheimer's. Testing
16 should at least include all the pesticides,
17 herbicides, fungicides, and heavy metals.
18 Testing should include aluminum in this group
19 even if aluminum is not generally in the testing
20 program."

21 2) "I propose including a testing group of
22 obese people and a control group of specifically
23 non-obese people. Obesity has become epidemic.
24 We need to know why this change has taken place."

25 3) "I propose including a testing group of

1 diabetic persons and a control group of
2 specifically non-diabetic persons. The federal
3 government has acknowledged that Agent Orange is
4 a cause. We need to know more about this
5 connection to chemical exposure."

6 And, finally, "I propose including testing a
7 group of chemically sensitized persons and a
8 control group of specifically non-chemically
9 sensitized persons."

10 And then she concludes: "Including and
11 keeping track of the subgroups with the above
12 conditions within the groups of tested persons
13 could reveal some very important information.
14 The biggest payoff is for defining future, more
15 specific research."

16 So I want to thank Ms. Jensen for that comment.

17 And now I'll ask whether the Panel members have
18 any additional comments or questions?

19 Dr. Wilson.

20 PANEL MEMBER WILSON: Yeah, thank you.

21 You know, I've heard that UC Davis has been, you
22 know, of course, really involved in the question of autism
23 in California and trends and so forth, recently published
24 a paper, a really interesting paper on that.

25 And has there been any discussion about if that

1 would be -- or that might be a component of just the pilot
2 or the larger study from her point of view?

3 DR. LIPSETT: When you say from her point of
4 view, you mean from the point of view of this commenter
5 or --

6 PANEL MEMBER WILSON: No, from -- thank you --
7 Dr. Irva Hertz-Picciotto at UC Davis with respect to her
8 work on autism in California.

9 DR. LIPSETT: Yeah. Well, as I mentioned
10 earlier, two of the sets of archived samples that we're
11 going to be analyzing for the RFI are from each of her two
12 major studies, the CHARGE study and the MARBLES study. So
13 we are working with her to some extent. But in terms of
14 trying to set up an autism case control study, which is
15 what this commenter was proposing, I think, given our
16 current resources, that really is beyond the scope of --
17 and I think even the overall intention of the
18 Biomonitoring Program.

19 But with respect to working with Dr. Irva
20 Hertz-Picciotto or others, you know, hopefully we'll be
21 able to provide some information that will be useful in
22 terms of her search for etiologic clues to the cause of
23 autism.

24 PANEL MEMBER WILSON: Yeah, exactly.

25 Thank you.

1 DR. LIPSETT: I actually had one other question I
2 wanted -- or several questions for the Panel in terms of
3 our next steps, but also just with respect to the pilot
4 study. One of the issues that had come up during our last
5 discussion was from Dr. McKone, just in terms of trying to
6 do some analyses of, what would a pilot -- or a larger
7 study -- what kind of representativeness would that
8 actually carry for the population of pregnant women and
9 kids in California?

10 And I was just wondering, Tom, if you had any
11 comments, at this point, as to when and how you would like
12 to have some involvement in looking at the -- in helping
13 us develop the study design any further. You're talking
14 about doing some model -- if we took a population of 500
15 women with certain demographic characteristics from
16 certain locations, what does that mean in terms of its
17 potential generalizability to, say, pregnant women
18 throughout California?

19 PANEL MEMBER MCKONE: Yeah, that -- the question
20 of representativeness and, you know, the power that you
21 get from representing a bigger group.

22 Yeah, I would be interested in participating at
23 some level, at least running some of the statistical
24 simulation, to say how likely it is to represent a
25 broader -- that's I think what we talked about last time.

1 DR. LIPSETT: That's right. So we should just
2 call you at some point?

3 PANEL MEMBER MCKONE: Just call me.

4 (Laughter.)

5 PANEL MEMBER MCKONE: Do you have my number?

6 DR. LIPSETT: Yes.

7 PANEL MEMBER MCKONE: I think -- and, you know, I
8 could get -- I mean, I think we have -- you know, the
9 interactions I had on the pesticides were -- it's fairly
10 easy. I can try to find somebody else to help out with
11 it, if I can't do the work. I mean, you're looking for
12 somebody to include as a partner in the actual program?

13 DR. LIPSETT: I'm sorry?

14 PANEL MEMBER MCKONE: You're looking for somebody
15 that you can write up, I mean --

16 DR. LIPSETT: Well, this is something that you
17 expressed a particular interest in and the Panel did as
18 well. And I just wanted to make sure that in developing
19 both the pilot and the fuller program that these concerns
20 are addressed and made sure that the Panel has some
21 involvement with that aspect of it.

22 PANEL MEMBER MCKONE: That's good. Yeah, I think
23 the bigger concern was -- I mean, when it was raised, it
24 was raised in the bigger context of statewide
25 biomonitoring. And actually till you brought this up, it

1 didn't occur to me this is a good place to start is with a
2 pilot study, of learning how to build our toolbox to
3 analyze the representativeness of the sample.

4 DR. LIPSETT: Of this particular sample, right.

5 MS. LEE: I think our original thinking, at least
6 with this pilot -- the initial pilot of 50, was mainly
7 we're going to get some -- certainly some SES kind of
8 variation, English or Spanish. It is not going to be
9 designed to be representative in any way. And it probably
10 will be mostly kind of a convenience sample of, you know,
11 if we have these target numbers of 25 English speaking,
12 maybe, and 25 Spanish speaking, it could be something as
13 simple as that. Again, just because we want to kind of
14 test the framework of using questionnaires and so on, and
15 then think -- use this information to build our larger 500
16 cohort to make it hopefully more representative
17 ultimately.

18 DR. LIPSETT: Right. But that aspect of
19 designing the larger study is going to be going on sort of
20 concurrent with the conducting of this particular study.
21 And that's what I was referring to.

22 Okay. Then we didn't have a formal "next steps"
23 type of question -- set of questions for you with respect
24 to this pilot study. But as I mentioned before, with
25 respect to the CDC RFA that we're going to be responding

1 to over the course of this next month, I wanted to just
2 find out if there -- if there are any ideas that the Panel
3 might have, at this point, that might be useful in terms
4 of other targeted types of community studies that we could
5 think about undertaking over the course of the next five
6 years, because what the RFA calls for - and I know you
7 haven't read it - it calls for looking at biomonitoring
8 and trends throughout a state, trying to make sure that
9 we're able to do that, trying to do targeted public health
10 investigations, trying to build a laboratory-kind of
11 capacity.

12 But one of the things that they're interested
13 really in doing is this kind of a technology transfer to
14 the states and having states be able to undertake programs
15 that really would be helpful at the State level, in terms
16 of tracking chemical exposures, as well as undertaking
17 piloted -- or targeted types of public health
18 investigations.

19 And I know this is kind of a vague, very broad
20 general question. But if you had any thoughts that you
21 might want to convey to us in terms of helping us think
22 about things that we might want to incorporate in our
23 proposals to them, that would be very useful.

24 Don't all speak at once.

25 (Laughter.)

1 PANEL MEMBER WILSON: I've got just a clarifying
2 question.

3 Do you mean for the whole 500 set or --

4 DR. LIPSETT: No, no. I'm sorry. I wasn't
5 clear.

6 We're going to be responding to this RFA, the CDC
7 issue. They issued it a couple weeks ago. The deadline,
8 at least, unless they extended it, is April 6th. Which
9 because it has to be submitted through the grants.gov
10 website, it really means finishing in several days prior
11 to that. We basically have about three weeks to a month
12 to put it together. It's really the equivalent of an NIH
13 type of proposal in terms of what they're asking for.

14 But a couple of the kind of underlying themes,
15 apart from helping to build laboratory capacity, are
16 building a -- looking at trends for a state, trends of
17 specific chemical exposures, for example, or a variety of
18 different kinds of chemical exposures, as well as doing
19 more targeted types of public health investigations.

20 And it's really -- for us in California, this is
21 really a difficult proposition compared to, say, if we
22 were a small state like Maine or Vermont, where basically
23 your community study could be your entire state and you
24 could, you know, track the chemical trends. But since
25 we're so large and so diverse, even though we do have, you

1 know, a significant program under way, the kinds of things
2 that the CDC is asking for are going to be, I think,
3 pretty difficult to attain with the limited amount of
4 money that they're going to have available. I think we
5 stand a good chance at obtaining some of the money from
6 them. And it may be a million dollars a year for five
7 years. It may be less than that. It may be one and a
8 half.

9 But if you have any thoughts or suggestions -- or
10 I don't know, Carol, if they can Email us any of these
11 sorts of things rather than trying to bring something here
12 in the form of this meeting. Is that appropriate or not?

13 CHIEF COUNSEL MONAHAN-CUMMINGS: I always try to
14 discourage Email, because it goes in various places. And
15 people can accidentally hit "reply to all," and then you
16 have a serial meeting.

17 But in terms of just giving some thoughts, I
18 suppose that the members could do that. But what you
19 might want to do is collect those and have them available
20 to the public in the event that someone wants to know what
21 the input was. And maybe you could just kind of generally
22 discuss it at the next meeting that you heard that back
23 in -- and you included it or you didn't kind of thing, so
24 there's disclosure.

25 DR. LIPSETT: Okay. Thank you.

1 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

2 PANEL MEMBER SOLOMON: It seems like with the
3 decisions that we made yesterday on some of the priority
4 chemicals here, that we might have some sort of unique
5 things to offer the CDC. If they're interested in trends
6 over time, I cannot think of anything better than the
7 flame retardants, where it appears that we now have, you
8 know, methods that, you know, are being developed in our
9 labs that they don't even really have yet there. And that
10 we could be, you know, sort of using those and expanding
11 on those at the same time that we document the decline in
12 PBDEs.

13 And I just can't see any way to make it
14 representative of the State. They say that they want it
15 to be representative of the State, or can we pick -- I
16 mean, you know, would there be a way to sort of expand on
17 this cord blood study, where we would be proposing to, you
18 know, do 50 women this coming year and then another 50
19 women the following year in San Francisco and Fresno and
20 begin to start to look at trends there? And after
21 you -- I mean, it seems like you're not going to get
22 funding from CDC for this first round at the UCSF-UC
23 Berkeley collaborative study. But it does seem like that
24 might be something that you, CDC could fund for a second
25 round.

1 And, in addition, I'm also concerned about
2 leaving out the L.A. area. What about working with a
3 researcher like Andrea Rico, who, you know, does studies
4 in the communities around the Port of L.A. and Long Beach,
5 and start trying to pilot various methods for testing for
6 PAHs, nitro-PAHS, IGB - any of these sort of traffic
7 markers along some of those corridors. And then you would
8 have different snapshots. So it wouldn't be
9 representative, but some interesting data that could be
10 developed over time around diesel in southern California
11 and around flame retardants and other chemicals in
12 northern California.

13 DR. LIPSETT: Okay.

14 ACTING CHAIRPERSON LUDERER: Dr. McKone.

15 PANEL MEMBER MCKONE: I have actually a different
16 thought. And this is just kind of brainstorming. I don't
17 know if we're supposed to brainstorm in public meetings.

18 Last week at the health tracking -- I was at the
19 health tracking -- the future health tracking meeting.
20 And the CDC made it very clear that they're going to be
21 pursuing climate change as a big issue. And one of the
22 things to think about is how you can -- and actually not
23 just from their perspective -- it's monitoring climate
24 change and its impacts on communities.

25 And actually there's a lot of ways to tie that

1 into biomonitoring also. One of the questions that comes
2 up is how it's -- we should be starting now. We should
3 have started ten years ago, to monitor -- well, mitigation
4 20 years ago. But in terms of understanding mitigation,
5 we should be starting it at least now and unfortunately
6 earlier, monitoring the trends, what's happening in
7 different areas of California. There's always -- the
8 studies show that climate change is playing out. It plays
9 out very differently in different places. So it's not
10 only monitoring the climate change, but it's also
11 monitoring the health status of the communities
12 experiencing different levels of climate change and
13 different levels of stress associated with climate change.

14 So the questions that come up is water supplies
15 change, there's less water flow. And the bigger issue is
16 the exposures are likely to change to a number of
17 things - particulate matter, which we can't really
18 biomonitor. But a lot of the toxic air pollutants. So
19 even such a study as looking at trends in benzene
20 exposures in the South Coast and how is the climate warm,
21 does that change?

22 I mean you could post some studies that would
23 have a climate change tracking, an exposure tracking
24 through biomonitoring, and then health trends tracking.
25 So multiple components.

1 Again, it's the thought that it's really tied in
2 with the direction the -- they're being given a very
3 strong direction from CDC to tie their programs to climate
4 change mitigation and climate change tracking, and
5 tracking how it's playing out.

6 DR. LIPSETT: This is some kind of a side note to
7 that, Tom. The Environmental Health Tracking Program is
8 actually in my branch now too. And we have been looking
9 at monitoring of mortality -- heat-related mortality. And
10 not just limited to diagnoses of heat stroke, but looking
11 at, you know, cardiovascular and respiratory mortality in
12 older people in conjunction with heat waves too. So that
13 then they are taking this kind of direction very seriously
14 in terms of looking at climate change. It's not
15 biomonitoring, but just the -- you know, that our health
16 tracking program is going to be very actively involved in
17 monitoring changes related to that.

18 ACTING CHAIRPERSON LUDERER: Dr. Denton.

19 OEHHA DIRECTOR DENTON: Michael, I have a
20 suggestion. The preamble to the law talks about the
21 importance of this program being able to monitor the
22 effects of the California Environmental Protection Agency
23 regulations of the different BDOs. It might be worth a
24 discussion that we could have internally with CalEPA to
25 determine -- maybe have some suggestions of communities

1 which may -- or pilot projects which maybe direct -- which
2 could show some kind of a direct correlation with the
3 regulations -- with the regulatory programs that CalEPA
4 has undergone. Because that's a primary focus of this
5 particular Biomonitoring Program --

6 DR. LIPSETT: And it --

7 OEHHA DIRECTOR DENTON: -- with respect -- over
8 trends -- of trends because of regulations.

9 DR. LIPSETT: Well, and that actually is one of
10 the aspects of the CDC RFA as well, is to look at public
11 health interventions and to see what kinds of impacts
12 those have had. So that's a very good --

13 OEHHA DIRECTOR DENTON: So we'll take that as a
14 clock internal in CalEPA about that.

15 DR. LIPSETT: Sounds good.

16 OEHHA DIRECTOR DENTON: What is your timeframe
17 again?

18 DR. LIPSETT: Well, it's due April 6th. So if
19 this discussion could take place in the next week or so,
20 that would be great.

21 (Laughter.)

22 OEHHA DIRECTOR DENTON: Delegated by looking.

23 (Laughter.)

24 DR. LIPSETT: Well, the other thing too was that
25 the technical project officer is looking to see whether

1 the Program and Grant Office of CDC is willing to extend
2 the deadline for submission of the proposals. And if so,
3 I will let you know immediately. We hope to hear about
4 that this week.

5 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

6 PANEL MEMBER WILSON: I'll chime in here.

7 It seems to me that, you know, CDC is a
8 nationally focused organization. And, you know, of
9 course, one of the advantages of having them providing
10 support for California is the bellwether effect that
11 California has nationally and that what happens in
12 California -- that what happens in California has often a
13 national -- has national implications, and where they
14 might not have in Maine. And, you know, of course, we
15 have some infrastructure in place now to -- you know,
16 that's growing.

17 And then we have unique problems that we've
18 identified on this Panel, we've discussed, that, you know,
19 I think, are just of importance in terms of public health
20 and then actually applying, you know, problems that are
21 amenable to the public -- or to biomonitoring tools and to
22 understanding those problems.

23 And I think just more broadly that California has
24 demonstrated for many years an interest and a particular
25 skill in translating public and environmental health data

1 into public policy actions in a number of different areas.
2 And that it's -- that, you know, for -- you know, for CDC
3 to -- you know, I think just in terms of framing our
4 application here, that we have a history that is -- you
5 know, that's applicable to this arena, that California is
6 now engaged in this whole Green Chemistry Initiative.

7 The Legislature has demonstrated leadership and
8 interest in chemicals policy issues, and that
9 biomonitoring -- it's not clear yet what the role of
10 biomonitoring is going to be in that context. But that
11 that context is important in that it's possible
12 that there's -- the foundation is there sort of
13 intellectually, and in terms of just with respect to
14 general interest within the leadership on both sides of
15 the government in California of applying information to
16 policy changes, as compared to, you know, gathering
17 information for the sake of gathering information.

18 So, you know, I guess I would -- you know, it's
19 worth, I think, considering the infrastructure we have in
20 place on biomonitoring and then sort of larger
21 infrastructure in demonstrating through the leadership in
22 the Legislature on the administration's side in this
23 broader question of chemicals policy and how biomonitoring
24 information could be applied to that larger problem.

25 And noting also that chemicals policy, you know,

1 was identified as one of the six highest priorities by the
2 incoming EPA Secretary, and nationally, of course, and
3 also by the U.S. GAO in its recent high-risk series that
4 they report each year to the incoming Congress, that the
5 U.S. chemical management system and the chemicals policy
6 at large in the U.S. was identified as one of three
7 high-risk areas that required immediate attention by the
8 Congress, in company with the U.S. fiscal management
9 system and FDA's oversight of medical devices.

10 DR. LIPSETT: Yeah, actually, I think that would
11 be very helpful in terms of framing the context for this
12 proposal. So, you know, that's very useful.

13 Thank you.

14 PANEL MEMBER WILSON: And any help I can provide
15 in that, I'd be happy to do so.

16 DR. LIPSETT: Okay. We'll assign you to write
17 that part then.

18 (Laughter.)

19 PANEL MEMBER WILSON: I think Joan was looking at
20 me.

21 (Laughter.)

22 ACTING CHAIRPERSON LUDERER: One of the things
23 that I've been thinking about in listening to this
24 discussion is, you know, how could this proposal and these
25 potential funds be, you know, sort of leveraged to address

1 some of these key kind of priorities of the program, this
2 idea of having a population representative sample and then
3 tracking trends over time, which obviously sounds like in
4 the RFA are things that are really what they're interested
5 in as well, you know.

6 And so I'm thinking is there some way, maybe kind
7 of taking off from what Gina was talking about as well, of
8 tying it in with the maternal cord blood study, you know,
9 where you're already -- with the pilot study, you have
10 this urban northern California population and then you're
11 talking about having a rural Fresno-based population --
12 you know, of trying to include maybe a southern -- maybe
13 representative of southern California urban-rural. You
14 know, is there some way that we could -- and also working
15 with what we were talking about with Tom McKone about, you
16 know, trying to model these populations and trying to make
17 them more representative.

18 And then also the idea of trying to choose some
19 areas and populations that we can then repeatedly,
20 over time, sample from, so that we can actually see trends
21 rather than just - and I'm sort of thinking off the top of
22 my head here - you know, doing a lot of pilot studies that
23 are all in different areas and different populations, to
24 really try to start being able to look at trends. And,
25 you know, I don't know whether that's feasible to try to

1 address that in this -- with this RFA or not. I don't
2 know.

3 Any of the other Panel members have thoughts
4 about that?

5 Dr. Quint.

6 PANEL MEMBER QUINT: I hesitate to bring it up
7 because I always bring it up. And I think -- you know, I
8 want to ask a clarifying question. I think, Michael,
9 you've thought that what the CDC wanted was inclusion in
10 this proposal of things that could be applied nationally.
11 So it's -- did you not say that or --

12 DR. LIPSETT: No. They are doing national trends
13 for the chemicals that they have in their program, which
14 is, as you know, is piggybacked on the whole NHANES --

15 PANEL MEMBER QUINT: Right.

16 DR. LIPSETT: -- project. But they wanted the
17 states to be able to look at state-specific types of
18 issues and to be able to track trends over time, as Gina
19 has talked about, and flame retardants are a great example
20 to look at here.

21 And I think the idea of looking at sort of
22 similar geographic areas within the state over time makes
23 sense as well certainly. You know, when CDC samples --
24 does their sampling in California, they always do L.A. --
25 I mean, they always come to L.A. I mean, they do other

1 parts of the state. But L.A. -- we probably do need to
2 include that in --

3 PANEL MEMBER QUINT: Well, I thought maybe they
4 wanted some models of what you're doing in the state that
5 could -- other states could -- so they could expand, you
6 know, a state's -- a different state's ability to do
7 biomonitoring.

8 DR. LIPSETT: Yeah, I think that there may be
9 some of that there, but it's not specified as such.

10 PANEL MEMBER QUINT: No, that's not what you're
11 looking for.

12 DR. LIPSETT: But I think that they do -- I mean,
13 in an ideal world, with -- had there been a lot more
14 stimulus money available, they would probably want to see
15 all states being able to having this kind of capability.
16 There are a number -- Diana, was it about eight or nine
17 states that now do have active biomonitoring programs at
18 various stages of development. And I think that in
19 talking with people at CDC, they would love to have, you
20 know, other states learn from each other in what they're
21 doing.

22 PANEL MEMBER QUINT: Okay. The reason I asked
23 that, because I was thinking of exposures that translate
24 across many states and other issues. And certainly the
25 issue of pregnancy outcome and, you know, fetal

1 development and developmental issues and things like that,
2 autism, they certainly resonate and translate -- and air
3 pollution and those sorts of things. But the other thing
4 that translates is occupation. And there, you know, we
5 are in the dark ages in terms of chemicals policy, in
6 terms of having chemicals regulated to prevent chronic
7 disease, and biomonitoring for a long time, but not
8 relating that to chronic disease.

9 So I think -- and if at all possible, at some
10 point, and some -- you know, at some time, if we could
11 find, you know, an occupational cohort that we could look
12 at that had exposure to -- because there are lots of
13 crossovers between chemicals that have consumer use that
14 are also used by workers in large numbers.

15 And I'm not advocating for that any time soon,
16 but just to make mention of that in the grant, because we
17 do have an opportunity now. And we've been doing that in
18 California, trying to change the whole regulatory system
19 for chemicals, you know, by using OEHHA information to
20 impact development.

21 So, in some ways, California, again, is taking a
22 stance that's very different than the federal standards.
23 And so -- and just to keep that somehow in people's minds,
24 because we always talk about the higher exposures of
25 workers and some of the environmental numbers are built on

1 occupational Epi studies. But we don't go, you
2 know -- diesel is not regulated at all, and a number of
3 these things.

4 So not to highlight that, but if we have the
5 piece in there - and I know Michael is quite aware of
6 this - that if we do have the piece about how we're tying
7 all of these things to policy changes, to have that as an
8 aspect of it.

9 DR. LIPSETT: Well, just to -- I think this is
10 something that we probably want to include at least a
11 paragraph on. It's something that we might want to
12 consider in the future. And just to let you know, if you
13 haven't talked with your colleagues in your branch
14 recently, we did meet with them a couple weeks ago,
15 specifically about this topic, about trying to do
16 biomonitoring, which of the populations that they felt
17 might make the most sense to try and undertake some
18 biomonitoring projects and both in terms of the kinds of
19 exposures that they had and the likelihood of our labs
20 being able to do the analyses for the chemicals that
21 they're interested in, and also the feasibility of being
22 able to recruit individuals in those different
23 occupations.

24 So this is something that we are actively
25 considering and trying to collaborate with the

1 Occupational Health Branch on that.

2 PANEL MEMBER QUINT: Well, that's good. Thanks.

3 It's hard, it's difficult. Recruiting
4 especially.

5 ACTING CHAIRPERSON LUDERER: Dr. Solomon.

6 PANEL MEMBER SOLOMON: A very quick addition to
7 what Dr. Quint said.

8 There is a labor and environmental coalition in
9 southern California working with the truck drivers that
10 serve the ports of L.A. and Long Beach, as well as with
11 the communities in those areas. And so if, you know,
12 there was interest in really sort of trying to do a
13 stretch and look at traffic-related exposures and some of
14 the diesel markers, it would actually not be very
15 difficult to recruit some of the drivers to participate.

16 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

17 PANEL MEMBER WILSON: In addition to that, the
18 United Steel Workers is now the largest industrial union
19 in the U.S. and has -- it's been involved for some years
20 in this -- the Blue Green Alliance with environmental
21 groups focused on the economy, the sort of economic and
22 environmental implications of climate change. And that --
23 the steel workers has now adopted chemicals policy as one
24 of its sort of planks, if you will, within the Blue Green
25 Alliance, as one of those just topic areas that intersects

1 economic development, employment, the green economy, and
2 environment and public health.

3 And so I think as similar to what Dr. Solomon has
4 noted and sort of picking up on Dr. Quint's point, that if
5 there is interest in accessing a cohort of workers that
6 would have -- you know, that would be basically
7 industrially based in the U.S., that's potentially an
8 avenue worth pursuing. And also something that I can
9 assist with, if that's an interest, you know, or even
10 potentially relevant to the application.

11 MS. LEE: I think it seems to indicate that we
12 will probably request a letter of support for our
13 application from the Scientific Guidance Panel.

14 ACTING CHAIRPERSON LUDERER: The Panel would be
15 very happy to provide that.

16 (Laughter.)

17 ACTING CHAIRPERSON LUDERER: Any other comments
18 from Panel members, or questions before we move on to our
19 summary?

20 Okay. Dr. Wilson.

21 PANEL MEMBER WILSON: Could I just -- Sara's
22 summary that she wrote up from the day, I'm wondering if
23 that's something that we could -- that could be sent to
24 us. That wasn't -- we didn't have those, I think, slides
25 up here, right?

1 MS. HOOVER: Yeah, we'll be -- we can provide
2 those to you directly. We're also going to be posting
3 those on the web. And also because today wasn't webcast,
4 I had mentioned at yesterday's meeting that I would write
5 up a small summary about what you actually -- your input
6 at the end of the meeting. So I'll be providing that as
7 well.

8 PANEL MEMBER WILSON: Okay. Thanks very much.

9 ACTING CHAIRPERSON LUDERER: Okay. I'd like to
10 introduce Dr. George Alexeeff, who's going to -- who's the
11 OEHHA Deputy Director for Scientific Affairs. And he's
12 going to provide us with a summary of the meeting.

13 DR. ALEXEEFF: Thanks very much. It's a pleasure
14 for me to summarize all of the productive work of this
15 committee of the last two days.

16 So I thought I'd start by:

17 The Panel had a discussion of the potential
18 designated chemicals. The Panel recommended that the
19 following chemicals be added to the designated chemicals
20 list:

21 Those classes of antimicrobial chemicals approved
22 for the use in food production;

23 Those classes of synthetic hormones approved for
24 use in food production; and

25 Cyclosiloxanes.

1 The Panel discussed identification of priority
2 chemicals. The Panel recommended the following chemicals
3 be priorities for biomonitoring in California:

4 The metals mercury, cadmium, lead, and arsenic.

5 Diesel exhaust, including the compound

6 1-nitropyrene.

7 Pyrethroid pesticides already designated.

8 Environmental phenols, triclosan, Bisphenol A.

9 PBDEs and other brominated and chlorinated
10 organic chemical compounds used as flame retardants,
11 including BDE 17, BDE 28, BDE 47, BDE 66, BDE 85, BDE 99,
12 BDE 100, BDE 153, BDE 154, BDE 183, BDE 209, TBPH,
13 Dechlorane plus, BTBPE, DBDPE.

14 And I think there's more chemicals additionally
15 on the already designated list, including -- I also wanted
16 to mention short-chain chlorinated paraffins, and several
17 Tris compounds.

18 The Panel also identified the following
19 chemicals -- recommended the following chemicals be
20 priorities for biomonitoring:

21 Perchlorate;

22 Also, the phthalates already designated;

23 The polycyclic aromatic hydrocarbons, including
24 3-hydroxyfluoranthene, 6-hydroxychrysene, and the
25 3-hydroxybenzo[a]pyrene;

1 Organochlorine phosphate pesticides already
2 designated; and

3 Tobacco smoke as measured by cotinine.

4 Staff provided a status report on the status of
5 specific interest of pesticides -- I'm sorry -- pesticides
6 of specific interest to California, due to their use in
7 agriculture, to protect pets, or used around the home, as
8 well as pyrethroids in particular.

9 Dr. Lipsett presented an update of the laboratory
10 status; equipment installation; analytical methods
11 development; a proposal in response to a request from CDC
12 from Public Health Laboratories; an evaluation of archived
13 samples; training of staff at CDC; collaboration with the
14 Environmental Health Tracking Program, including a
15 perchlorate study.

16 He also presented a proposed community
17 biomonitoring study, which would incorporate
18 maternal-infant design, and which would also solicit
19 support from CDC.

20 And the Committee provided a considerable number
21 of suggestions for the design and implementation of the
22 study.

23 And then in terms of next steps, we discussed
24 some potential designated chemicals, including more
25 discussion on pesticides, such as carbamates, metam

1 sodium, and also some information on some of their
2 specific uses; also plasticizers; chloramine disinfection
3 byproducts; cleaning agents, including glycol ethers; and
4 some potential priority chemicals.

5 Thank you.

6 ACTING CHAIRPERSON LUDERER: Thank you very much,
7 Dr. Alexeeff.

8 Dr. Denton, did you want --

9 OEHHA DIRECTOR DENTON: I think there was one
10 additional thing, was that Carol was going to provide a
11 follow-up on requesting methods development or what other
12 options there are, other than the specific statute, that
13 we talked about for getting methods from manufacturers or
14 other sources.

15 PANEL MEMBER WILSON: Yeah.

16 ACTING CHAIRPERSON LUDERER: Dr. Wilson.

17 MS. HOOVER: And I just wanted to add something,
18 that after we had that discussion, Dr. Bruce La Belle of
19 DTSC came up to me and gave me considerable more
20 information about things they're pursuing under 289. And
21 he said he'd be happy to come and give an update to the
22 Panel. So we'll incorporate that and it's part of the
23 update.

24 PANEL MEMBER WILSON: Good.

25 And I think -- were you talking also about the

1 portfolio of options for pursuing information from the
2 manufacturers on newly sort of emerging substances?

3 OEHHA DIRECTOR DENTON: I think that's another
4 item.

5 PANEL MEMBER WILSON: Okay. It's distinct.
6 Okay.

7 ACTING CHAIRPERSON LUDERER: All right. Then I
8 would like to just make one more announcement before we
9 end here. And, that is, that the next meeting of the
10 Scientific Guidance Panel is planned for July 28th and
11 29th. And it is likely going to be held in the Bay Area.

12 But I guess we don't have an exact location for
13 that yet.

14 I also wanted to just thank all the CDPH and DTSC
15 staff. This is really, I think, amazing, remarkable
16 progress that's been made since our last meeting on kind
17 of all fronts in terms of all the developmental laboratory
18 methods, getting the laboratory set up, the study design,
19 all the help, and all the work that's been done on helping
20 us to work on designating and prioritizing chemicals.

21 And I also really want to thank all the members
22 of the public yesterday and today who attended and
23 provided comments. And all their input was really
24 helpful.

25 So with that, I will adjourn the meeting.

1 (Thereupon the California Environmental
2 Contaminant Biomonitoring Program Scientific
3 Guidance Panel meeting adjourned at 12:46 p.m.)

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 CERTIFICATE OF REPORTER

2 I, JAMES F. PETERS, a Certified Shorthand
3 Reporter of the State of California, and Registered
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the
6 foregoing California Environmental Contamination
7 Biomonitoring Program Scientific Guidance Panel meeting
8 was reported in shorthand by me, James F. Peters, a
9 Certified Shorthand Reporter of the State of California,
10 and thereafter transcribed into typewriting.

11 I further certify that I am not of counsel or
12 attorney for any of the parties to said meeting nor in any
13 way interested in the outcome of said meeting.

14 IN WITNESS WHEREOF, I have hereunto set my hand
15 this 16th day of March 2009.

16

17

18

19

20

21

JAMES F. PETERS, CSR, RPR

22

Certified Shorthand Reporter

23

License No. 10063

24

25