

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

ELIHU HARRIS STATE OFFICE BUILDING
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AUDITORIUM
OAKLAND, CALIFORNIA

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JAMES F. PETERS, CSR, RPR
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APPEARANCES

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Dr. Asa Bradman

Dr. Dwight Culver

Dr. Marion Kavanaugh-Lynch

Dr. Ulricke Luderer

Dr. Thomas McKone

Dr. Julia Quint

Dr. Gina Solomon

Dr. Michael P. Wilson

OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT

Mr. Allan Hirsch, Chief Deputy Director

Dr. George Alexeeff, Deputy Director, Scientific Affairs

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

Ms. Fran Kammerer, Staff Counsel

Dr. Gail Krowech, Staff Toxicologist

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APPEARANCES CONTINUED

DEPARTMENT OF PUBLIC HEALTH

Dr. Rupali Das, Chief, Exposure Assessment Section,
Environmental Health Investigations Branch

Ms. Diana Lee, Research Scientist

Dr. Sandy McNeel

Dr. Jianwen She, Chief, Biochemistry Section

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Dr. Myrto Petreas, Chief, Environmental Chemistry Branch

ALSO PRESENT

Mr. Davis Baltz, Commonweal

Mr. Trudy Fisher

Mr. Karluss Thomas, Silicones Environmental, Health and
Safety Council of North American

Dr. Rana Zahedi, Fellow, American Association for Public
Health

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1 PROCEEDINGS

2 CHIEF DEPUTY DIRECTOR HIRSCH: Good morning. My
3 name is Allan Hirsch. I am Chief Deputy Director for
4 OEHHA, the Office of Environmental Health Hazard
5 Assessment. Our director, Joan Denton, normally sits in
6 this chair. Joan had a scheduling conflict and regrets
7 that she could not make it here, but she'll be here at the
8 next meeting.

9 So I'd like to thank everyone for coming, the
10 panelists, people in the audience, people on the audiocast
11 who may be listening. I know we all have busy schedules,
12 and all of you on the panel especially. So we appreciate
13 the fact that you've made the time to be here for the next
14 day and a half talking about the Biomonitoring Program.

15 Just a few announcements. First, on logistics.
16 The restrooms, if you need them, are out either of the
17 doors here and to the right. And in the unlikely event of
18 an emergency, the emergency exits are also both of these
19 front doors, as well as two rear doors in the back of the
20 auditorium.

21 Okay. Just so everyone knows, the meeting today
22 is being transcribed. Our court reporter is here in the
23 front. And it is also being audiocast. So it can
24 accessed, I believe, from our website www.oehha.ca.gov.
25 There will be a transcript of the meeting posted on the

1 website within the next several weeks. And I'd like to
2 remind the panelists, it's important that when you're
3 speaking everyone needs to speak directly into the
4 microphone. We had a Prop 65 meeting here a couple of
5 weeks ago. And we learned, for everyone to hear, it's
6 important to speak directly into the microphone.

7 Conversely, bear in mind, there's no off button
8 here. We are being audiocast. So if you do make a side
9 bar conversation, important to keep the microphone away
10 from you.

11 Today -- well, the last Scientific Guidance Panel
12 meeting was held in Sacramento on March 2nd and 3rd, 2009.
13 The focus at that meeting was on selecting chemicals for
14 inclusion in the Biomonitoring Program. We also, as you
15 recall, talked about laboratory capacity and also
16 community biomonitoring studies. And some of the actions
17 that you took have resulted in the staff bringing several
18 specific items back to you for this meeting.

19 The meeting today will -- okay, is starting now
20 and we aim to finish about 4:30 in the afternoon today.
21 And then tomorrow we'll pick up about 8:30, and should be
22 scheduled to leave around one. So bear in mind,
23 tomorrow's meeting is at 8:30. That's an early start.

24 Today's agenda, we'll be looking at first a
25 program and laboratory update, and then we'll have several

1 presentations for you on chemical selection, both the
2 selection for the designated chemicals and the priority
3 chemicals. And that's a follow-up in part from some of
4 the actions that you took at the last meeting.

5 And then at tomorrow's meeting we'll hear
6 presentations and you'll have the chance to talk about
7 results communication, sharing results of biomonitoring
8 tests with participants and others. And I know that
9 during the drafting of the legislation, that was an area
10 that drew a lot of interest. And I'm sure there will be a
11 lot of interesting things to be said about that at
12 tomorrow's meeting.

13 So, once again, the goals of this meeting are to
14 basically obtain your recommendations on potential
15 designated and priority chemicals, get your
16 recommendations on the next steps in the chemical
17 selection process. And then lastly, consult with you on
18 program planning and particularly again results
19 communication.

20 So with that, I'd like to turn the meeting over
21 to our chair, Dr. Moreno.

22 CHAIRPERSON MORENO: Thank you, Allan. Can you
23 hear me okay?

24 All right.

25 Good morning, Ed Moreno, I want to again also

1 than everyone for attending this morning. Thank all the
2 panel members for their continued participation and for
3 the staff for coordinating all of this.

4 As we mentioned, we're going to -- the goals
5 today are for the panel to provide recommendations on
6 chemicals selection, as Allan mentioned; and to provide
7 feedback on Program planning, in particular the results
8 communication, which will be discussed today.

9 There will be -- or each presentation will be
10 followed by an opportunity for questions by the panel
11 members to the staff. There will also be opportunities
12 for discussion by the panel members, and also
13 opportunities for public comment. In terms of public
14 comment, if a member of the public would like to provide a
15 comment to the panel, please fill out a card. We have
16 cards here. Those will all be brought together to the
17 desk here. And if anyone who's listening would like to
18 submit a comment, I can read that comment if you Email it
19 to us at biomonitoring@oehha.ca.gov. You need to email
20 that during the meeting, and staff will provide those
21 comments to me to read during the session.

22 To make sure that we stay on schedule, we have
23 allotted time for public comment. Depending on how many
24 comments are presented, we'll divide that up equally and
25 staff will assist us in keeping people to the amount of

1 time that we can provide them for comment. And we want
2 everyone to have equal time for comment. And as a
3 reminder, please keep your comments limited to the topic
4 at hand.

5 As you can see, we need to speak directly into
6 the microphones, so everyone, including panel members, so
7 we can have some lively discussions here on the panel. So
8 remember to speak right into the microphone. We're going
9 to take three breaks today.

10 Before that, we have a copy -- we have copies of
11 the material. And we have one binder. Does staff know
12 where that one binder is for public viewing?

13 It's the table -- on the table at the entrance if
14 you want to look at each of those items.

15 And we'll take three breaks today. One
16 mid-morning and then we'll take lunch at one o'clock. I
17 regret we can't provide you lunch, so you're on your own
18 to find some food. And then we will have a mid-afternoon
19 break as well.

20 So with that, I'm going to hand it over to Diana
21 Lee, who will begin our first set of presentations this
22 morning.

23 MS. LEE: Thank you. I'm just here to update you
24 on a few staffing changes we've had recently in the
25 California Department of Public Health related to the

1 California Environmental Contaminant Biomonitoring
2 Program.

3 In May, we were delighted to welcome Dr. Rupali
4 Das as the Chief of the Exposure Assessment Section in the
5 Environmental Health Investigations Branch, and also as
6 new Director of the California Environmental Contaminant
7 Biomonitoring Program. As Chief of the Branch, Dr.
8 Lipsett, who unfortunately is ill today, but he will
9 continue to have involvement in the Program. But Dr. Das
10 will take over the daily oversight of the Program and also
11 continue implementing the Program as it folds out.

12 Dr. Das is well known to people working in the
13 environmental and occupational health arena. Board
14 certified in both internal and occupational medicine, Dr.
15 Das has nearly two decades of experience in occupational
16 and environmental health.

17 Since 1998, she has worked in the Occupational
18 Health Branch within the California Department of Public
19 Health. And some of the projects she's worked on include
20 the Occupational Pesticide Illness Prevention Program,
21 other externally funded research projects, including those
22 that are community-based participatory research;
23 occupational infectious disease control. And also she has
24 served on a number of both State and national scientific
25 advisory committees.

1 She also led our Division's emergency
2 preparedness and planning team. And currently also
3 jointly holds an appointment at the University of
4 California, San Francisco as an Associate Clinical
5 Professor of Medicine in the UCSF Division of Occupational
6 and Environmental Medicine. Prior to coming to the
7 California Department of Public Health, she worked in the
8 Office of Environmental Health Hazard Assessment for
9 several years focusing principally on acute exposures to
10 dangerous air pollutants. We are delighted to welcome Dr.
11 Das to the Program.

12 Dr. Das will be providing the Program update.
13 But prior to that, I should also introduce you to another
14 new member of the Program.

15 DR. DAS: Thank you, Diana. Good morning, panel
16 members. And thank you all for coming today.

17 I'd like to introduce you to Dr. Jed Waldman also
18 a new member of the California Environmental Contaminant
19 Biomonitoring Program. Jed is in the audience. Jed was
20 selected in April 2009 to head the Department's
21 Environmental Health Laboratory. This position was
22 previously held by Dr. Peter Flessel for those of you who
23 new him. Dr. Waldman had been Chief of the Laboratory's
24 Indoor Air Quality Section since 1996. The Indoor Air
25 Quality Program is responsible for research, training, and

1 public outreach on the full range of indoor air quality
2 issues, including building design, ventilation, volatile
3 organic compounds, bioaerosols and environmental tobacco
4 smoke.

5 Along with that section, the Environmental Health
6 Laboratory includes the Outdoor Air Quality Section, and
7 the Biochemistry Section, which includes the Biomonitoring
8 Program that we're here to discuss today.

9 Dr. Waldman completed his doctorate at the
10 California Institute of Technology. And before coming to
11 the Department of Public Health, he was an Associate
12 Professor of Environmental and Community Medicine at the
13 Robert Wood Johnson Medical School in New Jersey.

14 He's served on a number of advisory panels for
15 U.S. EPA, American Lung Association and other committees
16 as well.

17 We welcome Jed's leadership and we hope you will
18 join us in supporting him along with Dr. Jianwen She who
19 heads the Biomonitoring Lab staff.

20 I was going to introduce another member of our
21 biomonitoring team, Dr. Tivo Rojas-Cheatham, but he's not
22 here today. He will be here today, so we hope we'll
23 introduce you to him tomorrow.

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

1 DR. DAS: I'd like to go on now to make my
2 presentation. I'd like to just update you on a number of
3 activities that we've been conducting in the California
4 Environmental Contaminant Biomonitoring Program. I'll
5 refer to this as CECBP from now on in my presentation.

6 --o0o--

7 DR. DAS: Specifically, I'll be updating you on
8 these activities that you can see in your screen and on
9 the screen in front of you: The current status of funding
10 for the Program; our CDC biomonitoring lab grant that we
11 submitted in April; the collaboration that we're
12 undertaking with the Environmental Health Tracking
13 Program; the community study of maternal and infant pairs;
14 an update on the request for information for archived
15 biosamples; and a number of other program activities.

16 DR. ROISMAN: We're going to try to make a change
17 to the microphone to help the quality.

18 CHAIRPERSON MORENO: Rachel, was there a handout
19 for this presentation?

20 DR. ROISMAN: There is.

21 We'll grab extra copies, because they may not fit
22 in there.

23 DR. DAS: The first item I'd like to update you
24 on is the funding status of the Environmental Contaminant
25 Biomonitoring Program.

1 Is this better?

2 All right.

3 DR. DAS: All right.

4 As you all probably know, the budget for the
5 2009/2010 fiscal year is at base level funding. This is
6 no different from the previous Scientific Guidance Panel
7 meeting -- we'll just wait till everyone gets their
8 handouts.

9 CHAIRPERSON MORENO: Okay, one more reminder for
10 everyone to speak into the microphone.

11 Thank you.

12 DR. DAS: But not too close.

13 (Laughter.)

14 MS. HOOVER: Every other mike you need to speak
15 close, but the podium is more sensitive.

16 DR. DAS: Okay. So the funding for the
17 Biomonitoring Program is at base level, which is the same
18 as it was at the previous Scientific Guidance Panel
19 meeting, which means that it's \$2 million approximately to
20 fund the three departments, California Department of
21 Public Health, Department of Toxic Substances Control, and
22 the Office of Environmental Health Hazard Assessment.

23 The funding for the project comes from the Toxic
24 Substances Control account. That is collected and
25 initiated by the DTSC, Department of Toxic Substances

1 Control.

2

--o0o--

3 DR. DAS: This funds 13 State positions between
4 the three departments. And we are also lucky to have
5 in-kind contributions from State staff who are not
6 specifically funded by Biomonitoring funds. And we're
7 also very lucky to have fellows from the Association of
8 Public Health Laboratories and the Council of State and
9 Territorial Epidemiologists work with us. And we hope to
10 have more fellows from CDC's Epidemic Intelligence Service
11 and Public Health Prevention specialists, as well this
12 coming year.

13 As you all probably also know, the State has
14 mandatory furloughs, currently three days a month until
15 June 2010. And that has resulted in a decrease in the
16 amount of work we're able to do. I think other presenters
17 will talk specifically how it's decreased their amount of
18 work. But overall, in general, it means a delay in the
19 things we're able to get done.

20 Because the projected funding for this fiscal
21 year is at baseline, we're no longer planning a statewide
22 biomonitoring survey, as you know, and are instead seeking
23 additional funds and partnerships to leverage our ability
24 to examine trends in chemical levels. And I'll be
25 describing some of these efforts now.

1 --o0o--

2 DR. DAS: Shortly after the March Scientific
3 Guidance Panel Meeting, CDC, Centers for Disease Control,
4 issued a Request For Application for a cooperative
5 agreement for state-based public health labs, specifically
6 for biomonitoring, to increase the capacity to conduct
7 biomonitoring. And the RFA specified that this was not to
8 be for research activities.

9 The RFA requested a workplan for a five-year
10 cooperative agreement, but requested that only the first
11 year budget be specified. We submitted the application in
12 April, and requested a first-year budget of approximately
13 2.9 million, which is close to the \$3 million cap that CDC
14 placed on the first-year budget.

15 Although the RFA indicated that the anticipated
16 award date was to be August 31st, CDC has informally told
17 us that it might be September till we're notified when the
18 funding would start in October.

19 --o0o--

20 DR. DAS: Given the strong laboratory focus of
21 the RFA, the bulk of the funding, about 80 percent, would
22 go into the labs and the Biomonitoring Program, and 20
23 percent would help with field sample collection. So under
24 the laboratory portion of the proposal, we specified the
25 following activities:

1 specific metabolite, TCP. This involves 34 participants.
2 And urine will be monitored -- the analysis of urine will
3 be done by the California Department of Public Health labs
4 and air monitoring will be shared by Pesticide Action
5 Network of North America, PANNA, and the California
6 Department of Public Health labs.

7 --o0o--

8 DR. DAS: The study in Imperial county looks at
9 biomonitoring as a result of looking at the effects of
10 perchlorate water contamination. Imperial county gets
11 both drinking water and irrigation water from the Colorado
12 River. And at least some of the sources are natural
13 perchlorate contamination.

14 This study will look at perchlorate and selected
15 metals in the urine of 31 participants. The urine
16 analysis will be shared by Centers for Disease Control,
17 the University of Arizona, and the California Department
18 of Public Health. Drinking water will be analyzed by DTSC
19 labs. And produce will be analyzed by the Department of
20 Public Health's Food and Drug Branch laboratory.

21 Both these projects contain a results
22 communication piece. And that is what you'll hear in a
23 lot more detail about tomorrow Lori Copan will be
24 presenting that. So I won't be talking about it today.

25 --o0o--

1 DR. DAS: As you know from the previous
2 Scientific Guidance Panel meetings, we hope to carry out a
3 community study looking at paired maternal-infant
4 exposures in collaboration with the University of
5 California, San Francisco and the UC Berkeley School of
6 Public Health.

7 We'll recruit pregnant women delivering at UCSF
8 and/or San Francisco General Hospital and collect maternal
9 blood and urine and cord blood samples. And depending on
10 the level of funding, it's proposed to do between 50 and
11 100 women.

12 This study will utilize resources available
13 through an existing memorandum of understanding with CDC.
14 The CDC labs will initially analyze biospecimens for 10
15 chemical classes. And as our own labs develop their
16 methodology, we hope that these analyses will be shared by
17 the State Labs and the Biomonitoring Program.

18 --o0o--

19 DR. DAS: As I mentioned, there are a number of
20 different potential funding sources. And the level of
21 the -- the amount of work and the depth of the study will
22 depend on the funding that we receive. I've already
23 described the CDC grant. We're waiting to hear from them.
24 We submitted a letter of intent to the California Wellness
25 Foundation. And we are waiting for an invitation to

1 submit a full proposal to them hopefully later this
2 summer.

3 We continue to look for sources of funding from
4 other foundations and government sources that hope to
5 further the field of biomonitoring.

6 --o0o--

7 DR. DAS: Again to describe how funding will
8 affect the maternal-infant study, I want to describe the
9 study in a little bit more detail. In order to give our
10 funders a little more understanding about how different
11 look levels of funding could affect the study, we've
12 broken down the study into three objectives.

13 The first objective is the core objective. And
14 this would involve measuring and comparing levels of
15 chemicals in pregnant women and their infants. With just
16 the core, we would be able to do a very minimal
17 questionnaire, consent, collect samples, and handling the
18 samples would be shipped to CDC for analysis.

19 --o0o--

20 DR. DAS: With a little bit more funding, in
21 addition, we would identify sources of exposure to a
22 subset of chemicals through two questionnaires. One would
23 be administered by an interviewer and the other would be
24 take home. And we'd be looking at household exposures to
25 evaluate exposures to a subset of the chemicals analyzed.

1 Full funding would, in addition, allow us to test
2 and develop appropriate outreach and reach-back materials,
3 conduct focus groups, and look at the ideal methods for
4 returning results to participants. And this would be done
5 in conjunction with UC Berkeley researchers.

6 --o0o--

7 DR. DAS: Another possible collaboration we'd be
8 looking at is with the Kaiser Division of Research.
9 Within the last month, we've had a few conversations with
10 the Division of Research. Specifically, the Research
11 Program on Genes, Environment and Health, or RPGEH.

12 This is a program that was launched in 2007 and
13 aims to collect biospecimens 500,000 individuals in
14 northern and central California, Kaiser members. To date,
15 they've been collecting saliva samples only. But the
16 intent is to start collecting urine and possibly blood
17 from Kaiser patients. And this includes geographic
18 information systems database questionnaires, very minimal
19 questionnaires right now, and medical records.

20 In our conversations with Kaiser, they've
21 indicated that they're very interested in participating
22 with us. And what looks promising is possibly a small
23 pilot study with them, that's sort of a tack onto this
24 research study that's described in this slide, to collect
25 some biosamples and do some more exposure assessment.

1 stored biological samples, as well as participate in some
2 pilot studies in collecting samples with them. We
3 continue to provide support and to collaborate with
4 tracking. And to develop materials for a community study
5 and to expand lab capacity.

6 We're working on a Perspectives issue on
7 biomonitoring and we're working on a legislative report.

8 --o0o--

9 DR. DAS: By the next Scientific Guidance Panel
10 meeting, which is in early October, we hope to have the
11 following elements for you. We hope to bring you news
12 about the success of our CDC grant application. We hope
13 to have an invitation from the Wellness Foundation to
14 submit a full proposal. And we hope to have more
15 information about community studies in our collaborative
16 efforts.

17 --o0o--

18 DR. DAS: Any questions on any aspect of the
19 information that I've presented to you today?

20 CHAIRPERSON MORENO: Thank you, Dr. Das. We have
21 about 10 minutes scheduled for questions from the panel
22 members to our presenter.

23 Dr. Quint.

24 PANEL MEMBER QUINT: I just have a question about
25 the Tulare County project with the Environmental Health

1 Tracking Program.

2 You mentioned air sampling. Will those be
3 personal samples or are those -- what type of air sampling
4 is included in that project?

5 DR. DAS: Diana wants to answer that one.

6 MS. LEE: It's not personal air sampling. The
7 California Department of Public Health's Environmental
8 Health Lab will actually do outdoor sampling of some of
9 these potentially for pesticide drift in locations around
10 the communities, where some of these members that are
11 being biomonitored specifically live.

12 So it's kind of a pesticide drift in the
13 surrounding communities. There are a number of orange
14 groves and, I believe, olive groves in the area. And
15 actually Lori Copan will be giving more details about this
16 tomorrow.

17 PANEL MEMBER QUINT: And I just had one other
18 question regarding the Wellness Foundation grant. Did you
19 submit -- what was the focus of that submission? You
20 haven't submitted the grant proposal intent there.

21 DR. DAS: No. It's really a letter of intent.
22 It wasn't a specific -- it was an unsolicited proposal
23 basically. And it was -- at the time we submitted the
24 letter of intent, it was in the middle of their funding
25 cycle. And so we were not invited to submit a full

1 proposal at that time, but we hope that there will be some
2 more -- there has been some interest expressed by the
3 environmental health person at Wellness. And so we're
4 hopeful that we'll be invited to submit later this year.

5 PANEL MEMBER QUINT: Thanks.

6 CHAIRPERSON MORENO: Dr. Wilson. And please
7 remember to introduce yourself and speak into the
8 microphone.

9 Thanks.

10 PANEL MEMBER WILSON: Mike Wilson, at UC
11 Berkeley.

12 Yeah, Rupali, this is such a really inspiring
13 illustration of really taking the Program and leveraging
14 what's out there. And, you know, leveraging all these
15 different activities that are happening at the local,
16 State, and national level. It's just a great illustration
17 of this issue that has been sort of a continuing theme on
18 the panel here, how do we leverage what we're doing here.

19 It is just -- you are just doing a really great
20 job at doing that. And I guess the specific question I
21 had was about the collaboration with UCSF and UC Berkeley
22 on the mother and infant samples. If you could say
23 something about how the 10 different classes will be
24 selected.

25 DR. DAS: We're in the process of discussing

1 which classes of chemicals will be selected. And I think
2 the guidance provided by this panel will have -- will
3 definitely influence the chemicals we select. So, Diana,
4 did you want to say a little bit more. Those have not
5 been decided yet.

6 MS. LEE: It's not been fully decided.
7 Certainly, the priority chemicals that the panel has
8 currently chosen are definitely under consideration. So I
9 think both priority chemicals and then some of the ones of
10 interest, specifically to UCSF's Program on Reproductive
11 Health and the Environment are under consideration, but
12 those also exist within the designated list as well.

13 So I don't think there's anything new that's not
14 either on the designated or the priority list. And, of
15 course, it's within the laboratory analysis capability of
16 the CDC/NCH labs as well. So the game plan is that
17 because our labs are increasing both their EHL -- and the
18 Environmental Health Lab is increasing its capabilities -
19 and you'll hear about that shortly - that the memorandum
20 of understanding with the CDC labs indicated up to 10
21 chemical classes. So we're using that and then augmenting
22 with what our labs can do. So hopefully, we'll have more
23 than 10 chemical classes basically represented in the
24 overall analyses.

25 But it's still in a planning phase obviously. So

1 as Rupi indicated, as we get more information from our
2 funding sources, we'll be able to further finalize our
3 plans and will be coming back in October hopefully with
4 very good news.

5 PANEL MEMBER WILSON: Thank you very much.

6 CHAIRPERSON MORENO: Any additional questions?

7 And we will have time for discussion after public comment.

8 So down on this side, panel members?

9 PANEL MEMBER SOLOMON: Yes. Gina Solomon. Thank
10 you for an excellent presentation. I have a question
11 about the collaboration with the Tracking Program. Those
12 two studies, while very interesting, are both small, in
13 terms of sample size. And that had been a limitation that
14 the Tracking Program faced when they put in their
15 proposal. My hope, I guess, might have been that with the
16 sort of leveraging the Biomonitoring Program sort of
17 joining in as a partner on those projects, there might
18 have been the possibility of increasing the sample size.
19 I was wondering if that was discussed or considered?

20 MS. LEE: I'll comment on that. Yes, it
21 definitely was a consideration we brought back to the
22 Tracking Program staff to ask them about that sample size.
23 And basically, the money they are getting through their
24 implementation funding in their current round of funding
25 from CDC only allows them to do that many, in terms of

1 giving stipends, for instance, and collaborating with
2 their community partners.

3 So it's really limited by the funding
4 capabilities at this point from the Tracking Program in
5 particular.

6 Also, in recognition of the limited resources
7 that the Environmental Health Laboratory has, they've
8 actually provided some funding to the labs to purchase
9 some reagents and standards and so on to help with those
10 analyses. So it was really their interest in kind of
11 building the capabilities within EHL, the Environmental
12 Health Lab, that's kind of helped spark that.

13 Even if we were to get additional funding from
14 the CDC through for this, they -- because of their
15 timeframe, they've already started those projects, so it
16 would be difficult to augment even with that. And because
17 of our internal limits on how we chose to allocate that
18 funding, again with a greater emphasis going to building
19 both laboratory capability and capacity, there's limited
20 funding left over just for the sample collection phase of
21 it.

22 So in talking to the CDC staff, they certainly
23 said, we want you to collaborate with them and build your
24 resources jointly, so that there can be greater emphasis
25 on collaboration.

1 PANEL MEMBER LUDERER: Thank for that
2 presentation. I'm also very impressed at what you all are
3 accomplishing with limited, very limited, resources.

4 But my question specifically is about the mother
5 and infant study and the funding sources. So you had
6 mentioned kind of three levels of what could be
7 accomplished depending on the funding. But what wasn't
8 clear to me was which funding sources corresponded to
9 those levels. So is the basal funding the CDC grant or
10 would you be able to do more of those three things if that
11 is possible?

12 DR. DAS: So with the level of funding requested
13 from CDC, if we got the full level of funding, we would
14 hopefully be able to accomplish all of that and do 100
15 women.

16 The reason we broke it down into three objectives
17 that could be built depending on the level of funding was
18 really intend for the Wellness submission, because we're
19 really unsure of the amount of funding that could come
20 from Wellness and we wanted to show them that this is what
21 we can accomplish with limited funding. Here is what we
22 can accomplish with full funding.

23 So it's not tied to any one -- each objective is
24 not tied to a funding source. It's more within each
25 funding source, if we got a limited level of funding, we

1 could accomplish one objective. And with full funding we
2 could accomplish all three.

3 CHAIRPERSON MORENO: Dr. Kavanaugh-Lynch.

4 PANEL MEMBER KAVANAUGH-LYNCH: Thanks. I'll echo
5 the comments of my fellow panel members in thanking you
6 for an excellent presentation, and all the hard work
7 that's been going on since the last meeting.

8 The one comment I wanted to make is that - which
9 I suspect I don't even have to say, but I will - is that
10 most of these seem to be pretty focused on let's do the
11 lab analysis first. And if we get more money, let's then
12 do questionnaires. And if we get more money, then let's
13 do community participation -- or community notification.

14 You know, the benefit of the chemical analyses
15 alone is so limited, if you can't also get questionnaire
16 and survey data to understand where the exposures are
17 coming from. And so I know that you will, but I really
18 hope that you'll work hard to be able to add that layer to
19 the chemical analyses, both for the UCSF mothers and
20 daughters study.

21 But I also have a concern with the collaborating
22 with Kaiser and that aspect, because that is a weakness of
23 their current project is the lack of really any data on
24 kind of basic exposure information. And it would be a
25 shame to do analyses of 500,000 women and/or some subset

1 and not have any information about where the exposures are
2 coming from.

3 DR. DAS: Yes. Thank you for that comment.

4 The reason -- as I said, the reason that we had a
5 very strong lab focus is because the CDC grant was a lab
6 grant, and definitely we agree that without a
7 questionnaire we can't assess source of exposure.

8 Regarding the Kaiser study, the limited
9 questionnaire is perhaps I didn't make it clear, it's what
10 they have, as you said, currently in their database. And
11 in any collaboration that we do with them, we would
12 hope -- our intent is to supplement with additional
13 questionnaires. And we actually have given them a draft
14 questionnaire that's much more extensive to assess
15 exposures that they have submitted to their IRB for a
16 limited pilot study.

17 So the limited questionnaire is what they've.
18 And if we collaborate, we would want to supplement with a
19 much more extensive questionnaire to assess exposure. But
20 the limited, it's not for the 500,000 right now. It's
21 just for a small pilot.

22 CHAIRPERSON MORENO: Are there further questions
23 from the panel before we go to public comment and
24 discussion?

25 PANEL MEMBER SOLOMON: I'd just love to see the

1 questionnaire that you've developed, if that's something
2 you could share?

3 DR. DAS: It's a draft, but I think we can share
4 it, rightly?

5 MS. LEE: What was submitted so far to Kaiser is
6 just an example. It is a take-home part that we propose
7 that we could send home with women, so they could fill out
8 information about the personal care products they might be
9 using, for instance, or some of their housing information.
10 But it is intended to be just the take-home component. We
11 are, I think in an earlier meeting we indicated that we
12 were actually developing different modules of the
13 questionnaire, demographics, pesticides, et cetera. And
14 so those are still being developed too, but we could
15 certainly share some of that, I would think, at the next
16 meeting possibly.

17 DR. DAS: Yes, understanding that it's very, very
18 preliminary.

19 MS. LEE: And again, the intent for if we were to
20 do an in-person interview is to limit the time to say an
21 hour. We don't really want to exhaust somebody in that
22 kind of timetable.

23 And then have the take-home that they could take
24 home and fill out more comfortably in their own home with
25 their own, you know, products in front of them and so on.

1 But the other thing is that we want to -- they
2 have to dovetail with the analytes of interest. And so
3 with an hour in-person interview, you're not going to be
4 able to delve really deeply into all say 10 chemical
5 classes. And this is something that we are still trying
6 to work out with the UCSF partners as well, in terms of
7 what their immediate interests are.

8 But it's kind of a round robin kind of situation,
9 as you can understand, in terms of deciding on
10 specifically the analytes of interest and then the ones
11 within those that the questionnaire itself would focus on
12 specifically.

13 CHAIRPERSON MORENO: Well, thanks. I'd like to
14 move into public comments. So as a reminder, if you want
15 to provide comments, please fill out one of these forms.
16 And I also want to ask if there were any Emails received
17 from the public that's listening in.

18 MS. DUNN: No Emails.

19 CHAIRPERSON MORENO: Okay, no emails. And we
20 have about five minutes remaining for public comment.

21 Thank you.

22 MR. BALTZ: Thank you, Dr. Moreno. Davis Baltz
23 with Commonweal.

24 And we'd also like to thank both the Scientific
25 Guidance Panel and in particular the staff of the Program

1 for really advancing activities in a difficult budget
2 situation. I think we all realize you've had to sort of
3 make lemonade in many cases. And I'm very impressed with
4 the activities that are moving forward. And I know we'll
5 be hearing additional presentations both from staff and
6 from a couple of the panel members, Dr. Quint and Dr.
7 Bradman, over the next couple of days.

8 So I'd like to welcome Dr. Das and Dr. Waldman to
9 the team and look forward to working with you as a member
10 of the public who's following this closely.

11 We've talked, you've talked, and provided comment
12 over recent months about given the budgetary constraints
13 of the Program and, sort of, the inability because of lack
14 of resources to sort of stay on the original timetable,
15 how it would be valuable for the Program to actually
16 generate some biomonitoring data that could call attention
17 to the kinds of information that the Biomonitoring Program
18 can provide that will help inform public health decision
19 making.

20 So in that regard, I'm pleased to see that you
21 actually have several activities lined up that will
22 generate some of this data, which can then be used to call
23 attention to the Program and its value for communities and
24 California residents.

25 We've also talked about the importance of fetal

1 exposure in terms of the potential life-long impacts it
2 can have on infants. So I'm particularly pleased to see
3 the UCSF mother-child pair project going forward and the
4 inclusion of cord blood. And I hope that that will be
5 something that won't be negotiated away.

6 Communication results, as Dr. Kavanaugh-Lynch
7 mentioned is also a critical part of all this. You all
8 know the legislation contained specific language that
9 communication of results would be offered to study
10 contributors. And I know it's time consuming and touchy,
11 but important activity and look forward to hearing the
12 presentation by Dr. Bradman about his experience with
13 CHAMACOS.

14 And I think that from our experience doing
15 biomonitoring with some members of the public and
16 community groups, and when people receive their results,
17 it's not this really scary experience if it's done right.
18 And, in fact, it can mobilize and galvanize support for
19 biomonitoring activities, because people who receive the
20 results in the communities from which those people are
21 drawn, then do see the value of biomonitoring data.

22 So thanks for this chance for an initial comment
23 and look forward to the next two days.

24 CHAIRPERSON MORENO: Okay. Thank you.

25 Well, with that, there does not appear to be

1 anyone else from the public that would like to speak.

2 So with that, I'll return it back to panel. We
3 have about 10 minutes scheduled for panel discussion. So
4 I'll open it back up to the panel again regarding the
5 Program update?

6 Okay. Well, then I took notes. And what I heard
7 during the question period was an interest among, at least
8 one panel member, to see the survey that was discussed.
9 So would the panel members like to have that shared --
10 would like to have staff share that with panel members?

11 Yes, all panel members.

12 PANEL MEMBER WILSON: Yeah, I would be interest
13 in that. And we've also developed a survey that's part of
14 a project that Dr. Kathy Hammond is doing with the vehicle
15 repair industry actually, among workers in that industry
16 that's trying -- that's an inquiry into reproductive
17 ocular and neurotoxicity, you know, effects occurring
18 among workers there.

19 And they've done a lot of work with the UC
20 Berkeley Survey Research Center in looking at,
21 particularly in the reproductive health aspects, that I'd
22 be happy to, you know, share with you, Diana, about -- as
23 you're working up that survey for UCSF and Berkeley.

24 MS. LEE: We've actually accumulated a wonderful
25 library of existing survey questionnaires, and we'd be

1 very welcome to have more.

2 Unfortunately, most of the questionnaires that
3 we've obtained have not been validated, and that is an
4 issue. We've been fortunate to have right now a copy of
5 the National Children's Survey, the initial trimester or
6 the early trimester, early enrollment that they're using,
7 for instance, as well as the follow-up children's one.
8 But we are certainly looking at a variety of others too
9 but, yeah, definitely.

10 PANEL MEMBER WILSON: And that sounds like a key
11 point is validated questions.

12 MS. LEE: It would be best if they were, but
13 again there's very few that have been validated. So we're
14 keeping kind of a spreadsheet, kind of looking at the
15 attributes of each questionnaire, the time period over
16 which the recall was based, for instance the particular
17 analytes of interest, that have been examined, the
18 findings from -- that hopefully have been published or at
19 least reported on through abstracts or presentations, so
20 that we can kind of look at different associations and so
21 on.

22 PANEL MEMBER WILSON: Okay.

23 MS. LEE: So in keeping with that we're hoping to
24 develop a data analysis plan once the analytes of interest
25 are developed.

1 PANEL MEMBER WILSON: Okay.

2 CHAIRPERSON MORENO: Dr. Quint.

3 PANEL MEMBER QUINT: Yes, with regard to the UCSF
4 Program on Reproductive Health and the Environment, the
5 Occupational Health Branch has a project with them as
6 well. And the focus of that project is to develop a
7 questionnaire to capture both environmental and
8 occupational exposure information.

9 And that project is being implemented through UC
10 Berkeley. And our focus on that project originally - it
11 was supposed to be with Kaiser - was to see if we could
12 have a limited short questionnaire that could actually be
13 incorporated in to the medical record, you know, to have
14 health care providers ask questions about that, so it
15 could be captured along with other health information.

16 So I'm wondering if that questionnaire is where
17 that all fits, because now that contract has been
18 extended. So if we could get a copy of that
19 questionnaire, I'd be happy.

20 MS. LEE: We do have a copy of that. Janice
21 Prudhomme, I think, and Laura Fenster have chaired that.

22 PANEL MEMBER QUINT: So that's all been
23 coordinated with this mother-infant there. Great.

24 MS. LEE: Yes.

25 PANEL MEMBER QUINT: Great leveraging.

1 CHAIRPERSON MORENO: And I do have a question for
2 staff. Is there anything that Dr. Das that you need from
3 this panel or panel could do to assist you in the funding
4 request that you've submitted?

5 DR. DAS: Yes. One of the ways that you could
6 potentially help is to submit a letter of support to the
7 Wellness Foundation, but I think that probably once we
8 submit a full proposal. I'm not sure if it would help at
9 this point, but if you have any influence with the
10 Wellness Foundation to get them to look at our letter of
11 intent with a little more seriousness and think about
12 funding that would be one way you could help.

13 CHAIRPERSON MORENO: Well, I think -- go ahead.

14 DR. DAS: Yes. And Diane was reminding me that
15 we already have a letter of support for the CDC
16 application from you, Dr. Moreno.

17 CHAIRPERSON MORENO: Thank you. I think
18 individual members in their capacity at any time could
19 lend their verbal support for the funding request, okay?

20 DR. DAS: Thank you.

21 CHAIRPERSON MORENO: All right. If there are no
22 more topics for discussion, I'm going to go ahead and turn
23 it back over to Diana for the next presentation.

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

1 DR. SHE: Good morning, panel members and
2 everyone. This is the CDPH labs update.

3 The Scientific Guidance Panel recommended a few
4 classes of chemicals of priority chemicals for CECBP to
5 monitor in the March meeting.

6 In the last four months, the Environmental Health
7 Laboratory worked hard to develop analytic method for some
8 of them. I will update you about our lab's activity and
9 the progress for this subgroup of chemicals.

10 --o0o--

11 DR. SHE: From the many things the lab has done,
12 I will focus the update on recent training, quality
13 control and proficiency test, method development, and
14 collaboration.

15 --o0o--

16 DR. SHE: All the chemists in our lab were
17 trained by the instrument vendor for physical operation
18 and application of the instrument. After that, we spent
19 four days at the CDC in May.

20 --o0o--

21 DR. SHE: During our training in CDC, we observed
22 lab setup, CDC's work flow, sample preparation, and the
23 CDC instrumental methods for some of the priority
24 chemicals. For example phthalate, OP and hydroxy-PAH.

25 CDC staff discussed the air quality assurance and

1 the quality control with us. They also shared their lab's
2 views on selecting biomarkers for the priority chemicals.
3 For example, some priority chemicals may have a few
4 different biomarkers. For the lab's view, which one is
5 practical realistically in monitoring. Some of the
6 biomarkers have distributed different media like urine,
7 blood, which one we should monitor. So there's some of
8 the views they shared with us.

9 We also learned we cannot replicate the CDC
10 methods exactly, because we don't have the dedicated
11 instrument. We don't have certain standards. So that's
12 the conclusion we reached.

13 --o0o--

14 DR. SHE: So we decided instead to do a procedure
15 piece would take lot to transfer, we decided to do a
16 performance-based match with the CDC criteria. So for
17 example, we wanted to match CDC's calibration reach
18 linearity. We wanted to reach their detection limit, so
19 we can have a lot of sensitivity. We wanted to match the
20 precisions.

21 So to do a performance-based technological
22 transfer, we emphasized internal quality control
23 performance monitoring. So lab spent last -- in the last
24 few months, lab prepared our own quality control materials
25 with urines. So of this quality control materials, we

1 chlorpyrifos and then go to the ester hydrolysis. We look
2 for the trichloropyridinol. That's our specific
3 metabolite. In the future, we will also develop method
4 for the DAP.

5 --o0o--

6 DR. SHE: So far the lab already optimized the
7 sample preparation procedure; adapted an instrumental
8 analysis method. There is a lot of examples of why we
9 cannot exactly copy the CDC method. We used the CDC
10 method and then we also developed our own method. We
11 found that maybe the method we developed give us better
12 performance.

13 We completed a method validation. So far we run
14 20 batches. This 20 batches is a clear requirement, the
15 minimum you needed to characterize your QC pool you heeded
16 to run at least 20 batches, to see the linearity. We get
17 very good linearity with a nine point calibration curve.
18 All of the calibration standards was level with the sample
19 process procedure.

20 We got very good precision. Most times
21 coefficient of variations was smaller than 15 percent. We
22 get good accuracy, but we still need to run a External QC
23 to validate our method.

24 We estimate with the SOP, Standard Operating
25 Procedure documentation in writing, we will have the

1 method in some -- in September.

2 --o0o--

3 DR. SHE: I will go briefly with a lot of three
4 groups of chemicals we also are working on.

5 For the pyrethroid metabolite, we look for
6 3-Phenoxybenzoic Acid, short for 3-PBA. So far for this
7 method, we also validated with 15 batches of runs. We are
8 not so lucky so we get some high CV for these samples.
9 And not too bad. Most time below 20 percent, but about
10 15, so we work still to try to resolve this problem.

11 So we hope the method will be ready in December
12 2009.

13 --o0o--

14 DR. SHE: A challenged group of chemicals lab is
15 so far working on are the phthalates. This table shows
16 the parent on the left column, and the metabolite we're
17 looking at on the right columns.

18 So the green rows two chemicals, MEP, MCPP. The
19 lab have no problems so far. But we find minor background
20 contamination in the MBP and the MBzP in the laboratory
21 blank.

22 The last ones MEHP. And the beta ground level is
23 so high, we can't -- we are not able to do it. But no
24 surprise CDC cannot do it reliably either, so we
25 will -- we tried to get a method for the first --

1 hopefully by December, hopefully we also can get a method
2 of MBP and MBzP soon.

3 --o0o--

4 DR. SHE: Also, in the March meeting Scientific
5 Guidance Panel asked us to look at the hydroxy-PAH. So
6 for the hydroxy-PAH, we used a GC-MS instrument. So far
7 we get very good linearity, high sensitivity. We get a
8 different challenge. Standard is not easily available.
9 So far, we acquired two set of standards. So we work on
10 the 3-PHEN and hydroxypyrene is the group of chemicals we
11 can use substitute standards soon. So we also expect the
12 method will be ready by December 2009.

13 --o0o--

14 DR. SHE: CDPH lab also worked on the method of
15 blood metals. And the lab already developed the method
16 for lead, cadmium, and mercury.

17 We participated national proficiency test.
18 Gladly we always past the test. At this moment, the lab
19 tried to generate a whole blood reference in materials for
20 these three metals plus manganese. Because we analyze the
21 urine samples, we tried to normalize urine against
22 creatinine, so lab also developed a creatinine method.

23 Dr. Frank Barley is in charge of this method of
24 development. He's expected to work on the metal panels in
25 the next few months.

1 We more presentation on this?

2 MS. DUNN: One more.

3 CHAIRPERSON MORENO: We could either -- hold on a
4 second.

5 We actually have 10 more minutes for this
6 presentation, I believe, and then we go to questions from
7 the panel or if the panel likes we can ask a few questions
8 now.

9 Wait.

10 PANEL MEMBER WILSON: Sure.

11 CHAIRPERSON MORENO: Why don't we finish up the
12 second presentation lab update, and then we'll go into
13 panel questions.

14 Thank you.

15 (Thereupon an overhead presentation was

16 Presented as follows.)

17 DR. PETREAS: So this is update of the DTSC
18 laboratory. So since last time, I want to show you some
19 of our new equipment we received since then.

20 --o0o--

21 DR. PETREAS: This is our high resolution GC-MS,
22 allowing us to analyze for persistent organic pollutants.

23 --o0o--

24 DR. PETREAS: We have the liquid chromatograph
25 MS, which expands our repertoire to other classes of

1 chemicals.

2 --o0o--

3 DR. PETREAS: In addition to these big-ticket
4 items, we purchased this automated sample preparation
5 equipment, which should allow us to increase our
6 throughput but automating and processing more samples
7 accurately and overnight and so forth.

8 --o0o--

9 DR. PETREAS: These are our two staff. So this
10 is Julie Wang and Miaomiao Wang. Now, these are CECBP
11 funded staff. And it would be very hard to carry the
12 Program on just these two staff. But fortunately, we have
13 in our lab the expertise and a core of scientists with
14 whom we place this to staff. And they work together
15 focusing on CECBP activities but guided in -- there's a
16 lot of synergy with our other staff. And we're also
17 fortunate to get one environmental fellow from the
18 Association of Public Health Laboratories, and he's also
19 working on method development in our lab.

20 --o0o--

21 DR. PETREAS: So again I need to stress here that
22 whereas we only have two staff funded by CECBP, DTSC staff
23 have a long history and a lot of expertise in this field.
24 And I just want to mention some of the activities that
25 were developed dependent of CECBP, but could be used as we

1 we need anyway for other purposes, but can be available
2 for CECBP implementation.

3 --o0o--

4 DR. PETREAS: So going back for the CECBP
5 timetable. Progress. By the late spring we had set up
6 and completed training on both of our large equipment and
7 also our smaller sample preparation equipment.

8 In late June, we sent staff for a week to CDC
9 where they were trained hands-on with the same equipment
10 that we have on the persistent organic pollutants and the
11 perfluorinated chemicals

12 So as we speak we start using the new equipment,
13 the high resolution GC/MS for the persistent organic
14 chemicals and the LC/MS for perfluorinated chemicals.

15 --o0o--

16 DR. PETREAS: This was a suggestion to show
17 briefly how we analyze serum. And it's complex, and you
18 can't read. It's not intended for you to read it, but the
19 idea is that we start with one milliliter of serum, and at
20 some point we bifurcate there. And after several steps,
21 we can separate in one channel the non-polar compounds,
22 the PCBs, the PBDEs and now we have added the new BFRs and
23 OC pesticides, there may be others which are in this
24 lipid, lipophilic fraction.

25 And then in the other fraction is where we find

1 the polar compounds, the hydroxy-PCBs, hydroxy-PBDEs,
2 triclosan, Bisphenol A, pentachlorophenol, TBPA and
3 others. So we're still working on those.

4 --o0o--

5 DR. PETREAS: Now, this is an update of the last
6 time I represented a similar slide, the question was what
7 about capacity with a base budget.

8 And I have asked the question then again, we can
9 only do one or the other. So we can do either, you know,
10 POPs, the PBDEs and some of the new BFRs or the
11 perfluorinated chemicals. And given the rather difficulty
12 of the two classes, we could do either about hundred -- by
13 end of this year, we should have methods to allow us to do
14 800 samples per year of one class or a thousand of the
15 other. Well, that was before furloughs.

16 So with the furloughs, we have to recalculate,
17 and we have a very difficult time planning at the lab.
18 And basically given that most of the -- many of the
19 activities are infrastructure. You have to have your QC.
20 You have to have your maintenance. The 15 percent
21 furlough, we think will result in 20 percent reduction in
22 the number of samples. I don't think you can read it very
23 well.

24 But so take 20 percent of 800 and it gives you
25 640, and singularly take about 800. So our numbers will

1 be lower, as long as this condition continues, but we're
2 there.

3 --o0o--

4 DR. PETREAS: Now, we have a Request For
5 Information collaboration that was mentioned, we will work
6 with Columbia University and we will be looking at the
7 PBDEs in serum of contemporary men. And this is an
8 interesting study, because it's a transgenerational study.
9 We already have analyzed the mothers of these young men
10 now.

11 It's partially funded and we're still trying to
12 figure out exactly when and how we're going to start. So
13 part of our capacity will be spent analyzing the samples.

14 --o0o--

15 DR. PETREAS: I'm supposed to give a summary for
16 both labs. So the good news is that we have all our
17 initial staff are on board and the equipment are in place.
18 We have some ongoing concerns, because at least our lab is
19 under-staffed and the other lab may need more operating
20 expenses. And we still haven't solved the issue of
21 instrument repairs and work goes, after the warrantee,
22 which ends pretty soon, will be costly.

23 But we are making progress. Both labs have made
24 progress with method development and validation. And once
25 the methods are finally validated, we can start producing,

1 analyzing and providing data. And hopefully next time we
2 can have something more to say here.

3 CHAIRPERSON MORENO: All right. Thank you, Dr.
4 Petreas. At this time, questions from the panel from
5 either presentation?

6 Dr. McKone.

7 PANEL MEMBER MCKONE: Yes. This is actually I
8 think to the first presentation, but probably to both. I
9 know Dr. She mentioned the effort to sort of calibrate and
10 compare with CDC. I think that's a great idea, first of
11 all, really wonderful to calibrate against them. But I
12 guess I'm curious about any results come back yet or I
13 mean do we have a sense of how well your labs are doing
14 compared to the CDC in terms of calibration comparison and
15 consistency.

16 DR. SHE: Yes, we have the result for TCP. We
17 already finished, trichloropyridinol validation. Compared
18 to CDC I think we are very comparable. So we get good CV
19 around some of the -- depend on which level of the
20 calibration we are talking. QC low, we are around 19
21 percent. CDC is slightly better than us.

22 For the QC medium, we are better than CDC. QC
23 high, I think, we mentioned the CDC's levels. So for the
24 detection limit, we both use 0.3 line. A lot of grams per
25 milliliter PPP levels. We both reach the same levels.

1 And we also run the CDC method parallel with our
2 method in our same machines. This is not because the CDC
3 method has some problems. Maybe just doesn't work on our
4 machines. Our own method, we think will give us much
5 lower background contamination on this method on CCP.

6 PANEL MEMBER MCKONE: Have you been able to -- I
7 mean, I'm trying to make sure I understand it. Have you
8 been able to take the same sample, the same standard, and
9 run it through both processes and compare and see if
10 you're up or down compared to them?

11 DR. SHE: Right. I note that CDC and Susan
12 McAndrew who is a CDC policy person, tried to request
13 their standard or the sample they already run. But so
14 far, somehow they set -- we have tried to set up a
15 nationwide PT program, so they're still didn't give us the
16 standard to run the sample. The same sample the CDC run,
17 we are not able to get it.

18 But on the other hand, CDC runs some sample from
19 the German External Quality Assessment. So we will access
20 the same sample from Germany. So we will use that sample
21 to compare with them. Hopefully, CDC will establish their
22 PT program and then we can get that sample run.

23 PANEL MEMBER MCKONE: Thank you.

24 PANEL MEMBER BRADMAN: I just wanted to clarify.
25 The method that you're using, are they the same isotope

1 deletion methods that CDC is using? I guess that's a
2 question also for Myrto.

3 DR. SHE: For The TCP specifically -- all of the
4 methods, by the way, we use isotope dilution in the LC-MS
5 or GC-MS.

6 For TCP specifically, we use the same isotope
7 standard as the CDC are using.

8 PANEL MEMBER BRADMAN: This gets back to a
9 comment that Tom just made, a question. But I've been in
10 discussions about labs, and NIEHS has even proposed
11 funding regional laboratories. And one of the issues
12 that's come up is the lack of round robin type proficiency
13 testing, like you've just raised. Except for lead, there
14 aren't too many programs for other toxicants.

15 Is that something that we can -- is that
16 something that we can contribute to or perhaps communicate
17 with either federal agencies or others to try to encourage
18 the establishment of that kind of proficiency testing
19 program here in the U.S.?

20 DR. SHE: Yes, I think that's a very good idea.
21 For the round-robin test, so far we only have one source.
22 It is the German program. CDC recommended it. I hope
23 that nationwide panel can help us to establish some
24 program for biomonitoring. We are happy to participate.

25 DR. PETREAS: There are also the NIST, Nation

1 Institute for Science Standards and Testing, that they --
2 I mean they are the gurus of certified material that the
3 labs need to establish the methods.

4 They don't have all the chemicals we want. So
5 this is a problem there. But many people who have
6 access -- like we have access to the human serum certified
7 for certain pesticides and PCBs. I mean, this is real
8 serum, so you can analyze that. And many people have
9 analyzed and shared those samples to establish new levels
10 for PBDEs or the new BFRs. So even though they're not
11 certified, it's a common material pretty well homogenized,
12 I guess. So if different labs share it, like Jianwen was
13 saying, if you take the German, it would be the same
14 across the labs.

15 PANEL MEMBER BRADMAN: As far as I'm aware, NIST
16 does not maintain any formal proficiency testing programs.
17 They produce the reference materials, but not -- they
18 don't track performance in different laboratories.

19 DR. PETREAS: No, you're right. But in the
20 beginning as you establish methods, you want to have some
21 certified material to see how well you're doing before you
22 participate in those.

23 DR. SHE: Actually, the German Scheme run in by
24 Dr. Hans Drexler is the official program that have all of
25 the -- are in the third round of their program. So they

1 have the evaluations and the feedback. So I think that
2 that's kind of official.

3 But Myrto is right, some chemicals we look at is
4 still a lot to do with the specimen.

5 PANEL MEMBER BRADMAN: Do you think we could get
6 some information on the German program?

7 DR. SHE: Yes, I will forward you the Email
8 address.

9 PANEL MEMBER BRADMAN: Thank you.

10 MS. LEE: I also want to comment that I believe
11 as a condition of the recipient of a cooperative
12 agreement, as indicated in the CDCR FA that this is -- the
13 proficiency testing issues will be considered as a whole
14 for all the grantees as well.

15 The Association for Public Health Laboratories is
16 hosting a planning meeting - and they call it the National
17 Biomonitoring Plan - on the day following the National
18 Public Health Environment meetings in Atlanta, at the end
19 of October. So this could be a topic of discussion there
20 too.

21 CHAIRPERSON MORENO: Dr. Culver.

22 PANEL MEMBER CULVER: Dwight Culver.

23 This is a really nitpicky question, I think, but
24 I was just curious in the creatinine test development, are
25 you developing a new method or are you just developing a

1 capability of using the standard methods?

2 DR. SHE: I hope Dr. Frank Barley is here. I
3 assure he's addressing using the standard method. There's
4 a lot of new methods. But I'm sorry, I cannot answer that
5 question exactly.

6 CHAIRPERSON MORENO: Panel Members?

7 Dr. Solomon.

8 PANEL MEMBER SOLOMON: I have two questions, one
9 for Jianwen. It's about the difficulty analyzing mono
10 ethylhexyl phthalate, MEHP, does that -- do you think that
11 you'll be able to get that method under way or is that
12 something that is with the background levels are posing
13 such a problem, that you're sort of putting that aside for
14 now?

15 And then my question for Myrto is actually to
16 find out a little bit more about the Columbia University
17 study and partnership, because that sounds interesting.

18 DR. SHE: So I'll answer the phthalate model
19 isotope problem with the background contamination. I feel
20 confident -- the chemist need to feel more confident than
21 I do. But I think we can resolve the problem. But maybe
22 a lot for the MEHP, for the MEP and MCP. These two
23 chemicals we do not have the background so far, so we
24 should have a lot of problem to get the methods done.

25 For MBP and MBzP, we have very slight background.

1 But on the other hand, today's instrument is so sensitive,
2 we use the most sensitive instrument than CDC's
3 instrument, because we buy late.

4 So some background will show up in our machine
5 that will not show on the CDC's machine. So like
6 round-robin test, eventually can show how it detected
7 something at very low level, not significant. I hope we
8 can resolve that issue with the calibration, if we can
9 spike at different levels. If we still get a very good
10 calibration on the standards, we can get an accurate
11 number, I think we can move on the phthalate method.

12 DR. PETREAS: So going back to the Columbia
13 University study, is looking at men, California men, who
14 are now in their thirties or forties. These are the sons
15 of women who participated in the Child Health and
16 Development Studies in the sixties. These are archived
17 serum from 28,000 pregnancies from Kaiser.

18 So, in fact, we have analyzed many of these
19 samples for different studies. Now, they track down the
20 sons of these women, and those who wanted to participate,
21 it's a productive study, timed pregnancy and sperm count
22 morphology, plus serum and other hormones tested and so
23 forth. And so we will be doing the serum analysis for
24 PBDEs. I mean the Columbia study wasn't funded for that
25 part, so this is our contribution with some partial

1 funding. The funding was for the collection and the
2 hormones and some other testing. So it's a gradual
3 deployment.

4 But it's very interesting because we know what
5 the mother's have. So it's in utero exposures and, you
6 know, some other effects later on in adult life.

7 CHAIRPERSON MORENO: Dr. Luderer.

8 PANEL MEMBER LUDERER: I have a question
9 regarding the standards that you've mentioned Dr. She, but
10 the lack of standards, that there's problems getting
11 standards. Is that for analytes that -- also the analytes
12 that CDC is currently measuring or it's for ones that CDC
13 is not measuring?

14 DR. SHE: For the standard for the hydroxy-PAH,
15 we have two sets so far, 3-PHEN and hydroxypyrene. And
16 the CDC mirrored a few more. And they have a customized
17 synthesized standard from Cambridge isotope and others,
18 which we may be able to get some of them in later stage of
19 our method development.

20 But most of the hydroxy-PAH -- the standard, like
21 the three benzene rings together, or apart four or five
22 benzene rings, CDC actually didn't find it so much. So we
23 do not have a full set of the CDC's ones, but we work
24 around to get some when the budget situation, I hope,
25 changes and then we can get some customized synthesized

1 standard like CDC's.

2 We also request that CDC give us a standard. I
3 hope when we have the CDC grant in place, CDC is more
4 willing to give us the standard.

5 CHAIRPERSON MORENO: Dr. Luderer, do we have more
6 questions on this side of the panel. We can start with
7 Dr. Quint actually.

8 PANEL MEMBER QUINT: Hi, thanks again. Great
9 presentations from both of you.

10 I did have a question. I think Gina asked it,
11 but I don't know if I understood the answer. And it's
12 regarding the high background for some of the phthalates.
13 You mentioned that for DEHP, and its metabolite in MEHP,
14 that CDC was also having problems with high background?

15 And the reason I'm asking is because there's a
16 2009 paper that was a collaboration between NIOSH and CDC.
17 And they report on levels of both the oxidative metabolite
18 of DEHP as well as MEHP. And in some cases, I think the
19 levels were quite low in nail salon workers. So I just
20 was confused about the statement that CDC was having
21 similar problems. So it sounds like part of what said is
22 that your -- the equipment that you use is more sensitive
23 than CDC's, is that not correct?

24 DR. SHE: I hope I got all of the question.

25 PANEL MEMBER QUINT: The question simply stated,

1 more articulately stated, was that I was just questioning
2 the problem with the high background, particularly for
3 DEHP. And I thought you mentioned that CDC was having the
4 same problem, but they just published a paper with NIOSH
5 where they did measure metabolites of DEHP, both the
6 oxidative metabolites as well as the, you know, MEHP. So
7 I was just wondering about that.

8 DR. SHE: So that's a good question actually.

9 While we were in the CDC in May, we talked with
10 Dr. Antonio, and she thinks MEHP have a problem, but the
11 oxidized metabolite may be a good way to go. So far, we
12 did not analyze it. We didn't try the oxidative
13 metabolite.

14 So some of the -- which biomarker to select is
15 one thing we talk with them. So MEHP right now on our
16 systems, we see a very close with MEP. That's a lot of
17 chemicals. And then we see very high levels of MEHP. You
18 want to correct me? Is that okay?

19 So I think we see something I think CDC saw it.
20 So far technically, we -- but the CDC uses a different
21 procedure of analyzation that we cannot exactly match that
22 procedure.

23 What they do is an on-line automatic sample
24 process. We use a different technique. We put a
25 precolumn to trap the contamination. So every year MEHP

1 in the urine we are allowed to go through trap column. We
2 directly got to the second column. If your system has the
3 contamination, we are trapped by the first column. But so
4 far, we didn't get a very successful result for MEHP. But
5 we are able to work on the MBP and MBzP. We significantly
6 reduce the background.

7 DR. ZAHEDI: We think we have found the source of
8 contamination for MBP and MBzP.

9 Oh, sorry. I'm Rana Zahedi. American
10 Association for Public Health Fellow. And for MEHP, we
11 are looking. We have to find a source of contamination
12 and then be able to maybe measure in urine.

13 PANEL MEMBER QUINT: Thank you. And I guess the
14 second question I have was for both labs, and it had to do
15 with the ongoing concerns that Myrto listed in her
16 summary, and the extent to which the CDC grant
17 application, if successful, how many of those ongoing
18 concerns, if any, would the new CDC grant address?

19 DR. PETREAS: I think the Program should answer
20 that. But my understanding is we were expect -- to get
21 contract staff to work -- I mean, staff will be seeking
22 service. There will be staff contractors working the lab
23 and supplies and equipment are budgeted, but I think you
24 have a plan to discuss that.

25 MS. LEE: Yeah, the budget does include

1 additional resources for equipment and contract staff, as
2 well as for equipment maintenance. So some of those
3 concerns would be and certainly for operating expenses
4 like standards, et cetera. So some of those concerns
5 would be addressed through the CDC cooperative agreement.
6 Again, that is time limited. It's for five years. And
7 hopefully our California economy will have rebounded by
8 then and we'll have ongoing support.

9 PANEL MEMBER QUINT: Thanks.

10 CHAIRPERSON MORENO: I know at least one other
11 panel member wants to ask a question. But if you'll allow
12 me, I want to make sure we give enough time for public
13 comment. So is there anyone in the public that wants to
14 comment on the presentation for Public Health and DTSC lab
15 update.

16 Were there any Email comments?

17 MS. DUNN: No.

18 CHAIRPERSON MORENO: Well, then we are going to
19 take a break at a quarter to 11. So I'll bring it back to
20 the panel for remaining questions and any discussion you
21 may want to have.

22 Dr. Wilson.

23 PANEL MEMBER WILSON: Yeah. Mike Wilson.

24 For Dr. She, I was curious about the challenge
25 you're running into with the coefficient of variation,

1 which I assume is for your standard calibration curve, and
2 with the 3-BPA. And my question is if the coefficient of
3 variation of 15 percent or less is our laboratory standard
4 for acceptability, and how that compares or does CDC's lab
5 have an acceptable CV number and what that is?

6 DR. SHE: For the 3-PBE, our CV is high, and
7 especially for the low-level control is around 20 percent.
8 CDC generally accepts below 20 for the low-level control.
9 They have the QA/QC procedure and the policies. In their
10 policies for the low-level control, if you reach 20
11 percent CV, you're fine.

12 For the medium- and the high-level control, they
13 prefer that you reach 15 percent. Actually, below 15
14 percent, so that's CDC policy. Actually, CDC also adopted
15 the CLIA's standards. CLIA required it too.

16 PANEL MEMBER WILSON: And are we seeing the or
17 are you seeing the CV problem in your lower concentration
18 standards?

19 DR. SHE: Yes.

20 PANEL MEMBER WILSON: So, at this point, are they
21 actually acceptable under CDC's sort of -- CDC's
22 standards, if you will?

23 DR. SHE: No.

24 PANEL MEMBER WILSON: They're not.

25 DR. SHE: Because of this slightly about 20, we

1 have 20 point something, so we find out at the beginning
2 of our method development, we have someone run at a very
3 high bias. So we will go back to work on the method and
4 then continue a lot of 20 batches of run to see if we can
5 improve. Based on the recent data, I think we can improve
6 on getting to below 20 percent.

7 PANEL MEMBER WILSON: Great. Thank you.

8 PANEL MEMBER BRADMAN: Asa Bradman. I have a
9 question for Myrto about PBDE, PBDE 209.

10 In our priority chemicals for March, 209 is left
11 out of the list there. And I believe that CDC made some
12 progress on methods for that. And I believe you've done
13 some measurements of 209 as well. I may be wrong about
14 that. But I wanted to ask about methods for 209 and if
15 you feel like they're in place and feasible?

16 DR. PETREAS: We do 209. We did it in milk. We
17 did it in wildlife. We haven't done it in blood yet. But
18 the staff who went to CDC were trained. And hopefully now
19 that we are copying CDC's specific methods, we hope to
20 implement that. There's always a question of background.
21 But our lab is very clean, so we hope we'll be okay with
22 that, but hopefully we'll let you know next time.

23 CHAIRPERSON MORENO: Are there further questions?

24 If not, I just have one. As part of the
25 presentation, it was Myrto's presentation, there was a

1 slide 12 saying that with base funding the lab could do
2 one of the following.

3 Were you looking at any discussion today from the
4 panel members, at this time, on that issue of limited
5 capacity or is that something that will be for
6 consideration later on?

7 DR. PETREAS: Any time.

8 (Laughter.)

9 PANEL MEMBER WILSON: I mean, do you want to do
10 that now?

11 CHAIRPERSON MORENO: We just have a few more
12 minutes, if you want to have some discussion about that.

13 DR. PETREAS: If I may, I think we are discussing
14 perfluorinated chemicals as potential chemicals later
15 today. So maybe you want to do that then?

16 CHAIRPERSON MORENO: Maybe, we can hold off based
17 on the discussion -- that discussion, okay. Fine.

18 All right. If there are no further questions on
19 this presentation, yes, we're going to go ahead and break
20 and plan to come back at 11 o'clock.

21 Fran, has a comment.

22 STAFF COUNSEL KAMMERER: Fran Kammerer, staff
23 counsel OEHHA. I'd just like to remind the panel that
24 this meeting is subject to the Bagley-Keene Open Meetings
25 Act, as you're well aware. And I'd like to ask you to

1 refrain from discussing the subject matter of this program
2 during the break.

3 Thank you.

4 CHAIRPERSON MORENO: Thank you. We are breaking
5 just a few minutes early, so I would encourage everyone to
6 be ready to start at 11. I understand the next two
7 presentations there will be probably quite a bit of
8 discussion.

9 (Thereupon a recess was taken.)

10 CHAIRPERSON MORENO: We're going to get started.
11 First we have an announcement.

12 CHIEF DEPUTY DIRECTOR HIRSCH: Okay. Our
13 tireless IT staff has been monitoring the audiocast. And
14 we were told that during the morning, all of us here on
15 the panel were hard to hear. I know that we were all
16 speaking into the mikes. And as I speak now, they've been
17 working on it during the break. And I can hear myself
18 echoing a lot better now than in the morning. So I think
19 the situation is better.

20 But still let's make an effort here on the dais
21 to speak closely into the mikes. And I'm told the mike
22 for the public speakers that that's pretty sensitive, so
23 you can actually stay a little bit back from that one.

24 DR. McNEEL: This is Sandy McNeel. I have some
25 audio background. And I would just make one suggestion to

1 the panel members, because your mikes are very
2 directional. We tend to want to be polite and look at the
3 people that we're addressing. But for your microphones,
4 you have to speak straight into the microphone. And as
5 soon as you try to make eye contact with someone to your
6 side, your voice level drops off the microphone. So
7 again, if I could just ask you to be impolite, and don't
8 make eye contact with the person you're speaking to and
9 just right into that microphone. Thank you very much.

10 CHAIRPERSON MORENO: All right. Thank you.

11 Another announcement.

12 MS. DUNN: Dr. Moreno, if people could identify
13 themselves, because for the audiocast, it's very hard to
14 know who's speaking.

15 CHAIRPERSON MORENO: Okay. Thank you for those
16 reminders. Thanks for the work on the audio system.

17 We're back. And at this point I wanted to
18 introduce Dr. Rachel Roisman who is the lead -- OEHHA lead
19 for the Biomonitoring Program.

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

22 DR. ROISMAN: I'm going to be giving an update on
23 the chemical selection process before we dive into some
24 specific chemical selection issues. And I just wanted to
25 note that in the interests of the people listening via the

1 of criteria that are explained in the legislation. And
2 then based on feasibility and resources, the actual
3 chemicals that will be biomonitored will be selected from
4 the pool of priority chemicals.

5 --o0o--

6 DR. ROISMAN: Just to review what happened at the
7 March SGP meeting, in terms of designated chemicals, there
8 were several classes of chemicals that the SGP recommended
9 be added to the Program as designated chemicals. These
10 included antimicrobials, and synthetic hormones that are
11 approved for use in food animal production, as well as
12 cyclosiloxanes. And based on the SGP recommendations,
13 these chemical classes are now CECBP designated chemicals.

14 --o0o--

15 DR. ROISMAN: At the march meeting there were
16 also a lot of recommendations made about priority
17 chemicals. And there were several chemicals and chemical
18 classes that the SGP recommended be added as priority
19 chemicals, including some specific metals, some
20 environmental phenols, the class of brominated and
21 chlorinated organic compounds used as flame retardants.
22 And the important thing to note about this list is the
23 distinction between when a chemical class was added to the
24 priority chemical list as was the case with the flame
25 retardants, and when just specific members of the class

1 perfluorinated chemicals. We also discussed the class of
2 cyclosiloxanes since those were added to the designated
3 list at the last meeting. And selected pesticides that
4 are already being biomonitored by the CDC and are
5 therefore designated chemicals.

6 --o0o--

7 DR. ROISMAN: Another topic at the last meeting
8 was options to obtain information from chemical
9 manufacturers. And at the last meeting we talked
10 specifically about AB 289 and we've provided the panel
11 with a little bit of an update on AB 289. DTSC actually
12 has initiated requests under AB 289 for information on
13 carbon nanotubes and other nano materials, and on D5,
14 which is a cyclosiloxane and a designated chemical for the
15 Program, as well as TBPH which is a priority chemical for
16 the Program, since it's a -- it falls into the class of
17 the flame retardants that were named as priorities.

18 And DTSC has requested information on test
19 materials, you know, analytical methods, environmental
20 fate, and some manufacturing information. And some of
21 this information was made available to the SGP. And it's
22 also available on the DTSC website.

23 We were asked at the last meeting whether there
24 were other options for obtaining information from
25 manufacturers. And our lawyers have looked into that

1 issue in the interim, and they really haven't come up with
2 any other options that we have for obtaining information
3 from manufacturers about chemicals that are, you know,
4 expected to increase in use or really any options beyond
5 AB 289.

6 --o0o--

7 DR. ROISMAN: So an overview of today's agenda.
8 We're going to be discussing some potential designated
9 chemicals and today we're only going to be discussing
10 pesticides. We'll also be discussing some potential
11 priority chemicals, which will include some selected
12 pesticides, as well as cyclosiloxanes and perfluorinated
13 compounds.

14 Again, there will be an opportunity to talk about
15 the next steps for chemical selection. And again, all of
16 these materials are available on the website either now or
17 they will be available in the near future after the
18 meeting.

19 And I should also note that the materials that we
20 prepared on these subjects are again not intended to be
21 comprehensive literature reviews on the chemicals that are
22 being discussed, but are based on the criteria that are
23 established through legislation that the Panel is
24 encouraged to follow when naming -- recommending
25 designated or priority chemicals to the Program. And

1 that's what the materials are designed to address.

2 --o0o--

3 DR. ROISMAN: So these are the chemicals that
4 will be discussed today for consideration as designated
5 chemicals. One class of chemicals, pyrethrins and
6 pyrethroids. And then several specific chemicals
7 iprodione, octhilinone, and fipronil. And these are all
8 pesticides.

9 And in terms of priority chemicals, we'll be
10 discussing the perfluorinated compounds that are already
11 designated, cyclosiloxanes as a chemical class, and then a
12 very select group of pesticides, including DDT, DEET,
13 para-dichlorobenzene and 2,4-D.

14 --o0o--

15 DR. ROISMAN: And just as a reminder again about
16 an issue that came up at the meeting in March. The
17 Program names particular designated and priority chemicals
18 based on recommendations from the Scientific Guidance
19 Panel. And at the last meeting, the Scientific Guidance
20 Panel recommended that, you know, they focus on naming
21 parent compounds and that the Program and the labs
22 specifically work out the appropriate target compound for
23 measurement. And this may be a -- it maybe the parent
24 compound. It maybe a metabolite. It maybe an isomer or
25 another relevant indicator compound. And the particular

1 target compound may change as method development proceeds.

2 So this was something that we discussed, so that
3 the Panel discussions don't need to be overly wrapped up
4 in the details of exactly how the measurements will take
5 place or whether they're going to change as the technology
6 advances. But instead the Panel can focus on the parent
7 compounds and certainly offer input on target compounds,
8 if they have any interest or experience or advice about
9 them. But it's not something that needs to occupy a great
10 amount of discussion, unless you want it to.

11 --o0o--

12 DR. ROISMAN: And with that, I'll turn it back to
13 Dr. Moreno.

14 CHAIRPERSON MORENO: Thank you, Dr. Roisman.

15 So at this time, this is just an update on the
16 designated and priority chemical process to date. We are
17 going to have -- this will be followed right now by a
18 presentation of potential designated chemicals,
19 particularly pesticides.

20 Before we're moving on though, are there any
21 questions by panel members and feel free to follow up your
22 questions with some discussion. After that, we'll have
23 public comment and then we'll move on to the next
24 presentation.

25 So panel members.

1 PANEL MEMBER BRADMAN: I don't know if this is
2 the time, but -- this is Asa Bradman - I'd like to propose
3 BDE-209 for discussion as a priority chemical when that
4 comes up.

5 MS. HOOVER: Could you repeat that, Dr. Bradman?

6 PANEL MEMBER BRADMAN: I'd like to propose
7 BDE-209 as a priority chemical.

8 MS. HOOVER: So actually we wanted to clarify
9 that the entire class of brominated and chlorinated
10 compounds used as flame retardants are already priority
11 compounds. So is BDE-209 a flame retardant?

12 PANEL MEMBER BRADMAN: Yes, and I would like to
13 make sure that it gets added to the list.

14 It's currently not on the published list.

15 DR. ROISMAN: So that's just a technical issue.
16 It is a priority chemical, because it belongs to the
17 class. And we've noted on the list that -- on the
18 priority list we do not have a comprehensive list of every
19 chlorinated and brominated organic compound used as a
20 flame retardant, but we can certainly add that particular
21 one. But you can rest assured that it is a priority
22 compound, since it falls into that class.

23 PANEL MEMBER BRADMAN: We should be sure to make
24 sure that one is specifically on the list.

25 MS. HOOVER: Yeah, I see, what you mean, just

1 actually published it on the list, okay.

2 PANEL MEMBER BRADMAN: Exactly.

3 CHAIRPERSON MORENO: Other questions or interests
4 in discussion among the Panel members?

5 Okay, seeing none, I'm going to ask if there is
6 anyone in the public that wishes to comment on this
7 presentation, this update?

8 I will ask if there are any Email messages?

9 MS. DUNN: No.

10 CHAIRPERSON MORENO: None, okay.

11 Well, with that, I want to thank you, Dr.
12 Roisman, for that update. And we're going to go ahead and
13 move on to your next presentation.

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

16 DR. ROISMAN: So I'll give you a little bit of an
17 overview on how this agenda topic, Potential Designated
18 Chemicals is going to work. I'm going to give a
19 presentation that's an overview of pesticides and kind of
20 the process that we used when we were thinking about
21 potential designated pesticides.

22 And then there will be a brief opportunity for
23 questions. And then I'll be giving another presentation
24 specifically about the class of pyrethrins and
25 pyrethroids. And there will be an opportunity for

1 permethrin and cypermethrin and then several
2 organophosphates.

3 --o0o--

4 DR. ROISMAN: These are the chemicals on the list
5 that are already designated chemicals. There's only one
6 of them for which we already have CDC biomonitoring
7 results available. This is 2,4-D, and this will be
8 discussed at the meeting today as a potential priority
9 chemical.

10 There are several chemicals that are on the list
11 and CDC is biomonitoring them. And we expect the results
12 from the CDC before the end of 2009. And so we've
13 actually -- we're going to hold off on discussing those at
14 this meeting until we have the CDC results available

15 And then finally, there's a smaller set of
16 chemicals that the CDC has planned for inclusion in future
17 biomonitoring studies. For instance, glyphosate, which is
18 planned for the NHANES 2007/2008 cycle.

19 And this is an issue that we'll be asking you
20 about in a few minutes. But this is a designated chemical
21 as part of the Program. We aren't going to have the
22 biomonitoring results from the CDC for several years, and
23 we would like Panel feedback on how you'd like us to
24 handle chemicals that fall into this category.

25 --o0o--

1 DR. ROISMAN: So then that leaves a lot of
2 chemicals on the list that are potential designated
3 chemicals. And we adopted an orderly process for bringing
4 these chemicals to the Panel for discussion.

5 We've emphasized chemicals of high use in
6 California, based mostly on, at this point, agricultural
7 use, and also presence in food residue, because that
8 seemed like a marker of exposure to the general
9 population.

10 We've also looked at some chemicals where there's
11 significant household use. So some of the chemicals that
12 fit into this category will be discussed today. Other
13 chemicals we need to do more research on to find out if
14 they seem promising for inclusion in the Program. And a
15 lot of these chemicals raise some issues that we would
16 like you're feedback on, and that's what I'm going to get
17 into next.

18 So the next several slides raise several issues
19 that arose as we've started to look into pesticides.

20 --o0o--

21 DR. ROISMAN: The first one is the question of
22 the availability of the CDC biomonitoring results. For
23 example, I mentioned glyphosate is planned for inclusion
24 in the 2007/2008 NHANES cycle. The results may not be
25 available until 2011.

1 encountered very limited information about biomonitoring
2 for these chemicals in the general population. And so the
3 question for you is, how should we handle chemicals like
4 this where we really can't demonstrate. We don't have any
5 hard evidence about what the exposure is like.

6 --o0o--

7 DR. ROISMAN: Another issue is chemicals that
8 have been detected either infrequently or at low levels.
9 And for the most part we're relying on the results from
10 this CDC for this issue. So for example DEET, the levels
11 were below the limit of detection for most of the
12 participants, as reported in the CDC's third report.

13 Of note, the CDC does plan to measure some
14 additional DEET metabolites in the future. And they
15 expect to detect DEET at higher levels when they look at
16 these other metabolites. So low levels may be detected
17 either, because of a methodological issue maybe looking at
18 the wrong or, you know, not the best metabolite, or it may
19 be indicative of low exposure. And we may not know the
20 answer to why the low levels have been found.

21 And so we're wondering how the CDC biomonitoring
22 results should guide the choice of biomonitoring chemicals
23 for the California Program.

24 --o0o--

25 DR. ROISMAN: There are also several chemicals

1 that seem to have analytical difficulties. We've spoken
2 with colleagues at the CDC and been told that the methods
3 are very challenging, particularly for methomyl,
4 fungicides, with the exception of chlorothalonil and
5 fumigants, which are very reactive. They're not stable in
6 blood. They rapidly metabolize. And we've been told that
7 they're unlikely to be found in people. There are also
8 chemicals where the metabolites are very difficult to
9 predict, which makes it difficult to figure out exactly
10 how to biomonitor them. Fenoxycarb is one of these.

11 And then there are other chemicals for which they
12 have very non-specific metabolites. For instance,
13 methomyl, oxamyl. Carbaryl, its metabolite is 1-naphthyl,
14 which is a metabolite shared by of naphthalene. And
15 exposure to naphthalene is much more pervasive than is
16 exposure to carbaryl for most people. There is a way of
17 getting around this, where you can look at the -- I think
18 that carbaryl also metabolizes to naphthyl. And you can
19 look at the ratio of 1-naphthyl to 2-naphthyl to try to
20 figure out how much of the exposure is from carbaryl.

21 But it's a fairly complicated process and this is
22 an issue that isn't necessarily resolved for some of the
23 other chemicals I've mentioned. And propamocarb
24 hydrochloride also fits into the same category.

25 So the question for the Panel is to what extent

1 should these sorts of analytical difficulties and feedback
2 that we're getting from the CDC and others about how hard
3 it is to measure these chemicals, how should that
4 influence consideration of chemicals for the Biomonitoring
5 Program?

6 --o0o--

7 DR. ROISMAN: And this is just a summary slide
8 that raises those issues again. And again we were going
9 to have a few minutes here for questions and then -- but
10 most of the discussion will be after the rest of the
11 presentations.

12 CHAIRPERSON MORENO: Thank, Dr. Roisman.

13 So that's your first of three presentations,
14 correct?

15 DR. ROISMAN: Yes.

16 CHAIRPERSON MORENO: All right. I believe we're
17 planning on having about five minutes for questions right
18 now and then move on to the second one.

19 So, Panel members, questions for our presenter?

20 Let's move on then.

21 --o0o--

22 DR. ROISMAN: So the next two presentations that
23 you're going to hear --

24 MS. DUNN: Oh, I'm sorry. There was a public
25 comment that was related to the chemical selection update

1 that came in a little bit.

2 CHAIRPERSON MORENO: I'll go ahead and read it
3 now.

4 There might have been delays in getting the email
5 in.

6 All right. So this is with respect to the -- I'm
7 sorry, your first.

8 MS. DUNN: Chemical selection.

9 CHAIRPERSON MORENO: The first presentation comes
10 from Daniel Bagley. This is the comment I'm reading from
11 the email.

12 "The list of comment priority chemicals for
13 discussion today does not include all of the priority
14 chemicals recommended by the Guidance Panel in March. Did
15 the Biomonitoring Program decide to only pursue this
16 subset being discussed today?"

17 DR. ROISMAN: I can answer that. It was
18 certainly our intention to include all the chemicals that
19 were recommended by the panel. We didn't -- so if there's
20 an omission, it's an error that we'd like to correct. So
21 if that person could perhaps Email the
22 biomonitoring@oehha.ca.gov email address and tell us
23 what's missing from the list. We'll look into that. But
24 everything that was recommended by the panel at the last
25 meeting is intended to be included as a priority chemical

1 for the Program.

2 CHAIRPERSON MORENO: All right, thank you.

3 All right and that was the only Email we
4 received.

5 MS. DUNN: So I think what the question is was
6 being brought forward for consideration as a potential
7 priority.

8 MS. HOOVER: Can you reread that question,
9 because I am not sure if that was answered.

10 CHAIRPERSON MORENO: "The list of priority
11 chemicals for discussion today does not include all the
12 priority chemicals recommended by the Scientific Guidance
13 Panel in March. Did the Biomonitoring Program decide to
14 only pursue this subset being discussed today?"

15 DR. ROISMAN: So there were many chemicals
16 discussed as possible priority chemicals. And just
17 because of resources and time, we weren't able to pursue
18 all of them for the discussion today, if that's the
19 question?

20 CHAIRPERSON MORENO: Allan, did you want to --

21 CHIEF DEPUTY DIRECTOR HIRSCH: Yeah, I have the
22 advantage of looking at the Email here. If I understand
23 this Mr. Bagley's question, is that the panel recommended
24 a number of priority chemicals in March, and yet we're not
25 discussing those today. And if I understand that

1 correctly, that's because you designate -- you had
2 recommended a certain number of chemicals back in March,
3 so they're already on the priority list. And what we're
4 talking about today is taking other chemicals and either
5 putting them on the designated chemical list or the
6 priority list.

7 MS. HOOVER: Yeah, this is Sara Hoover of OEHHA.
8 The other possibility is that what he meant to say is that
9 there were a number of chemicals recommended as a
10 designated, and those are not being brought forward as
11 priority yet. So that's what Rachel was answering that
12 we're just not -- we can't cover everything in one
13 meeting.

14 CHAIRPERSON MORENO: So at this point, if Mr.
15 Bagley is still listening, if that -- if we've clarified,
16 but if not, then send us another Email.

17 (Laughter.)

18 CHAIRPERSON MORENO: All right. Thank you, Mr.
19 Bagley.

20 Dr. Roisman.

21 DR. ROISMAN: So the next two presentations, this
22 one that I'm about to do and the one that Dr. Krowech will
23 do following me, these are summaries of the documents that
24 we produced in advance of the meeting that were provided
25 to the panel available on the website outside on the

1 pyrethroids. Pyrethrins are natural chemicals derived
2 from chrysanthemum. Pyrethroids are synthetic esters.
3 They have more stable insecticidal properties. And there
4 are several metabolites shared among different pyrethrins
5 and pyrethroids. And so far the CDC, at least in their
6 published reports, have focused on measuring these
7 metabolites.

8 --o0o--

9 DR. ROISMAN: In terms of the issue of exposure
10 or potential exposure, there are approximately 26
11 pyrethrins and pyrethroids that are registered for use in
12 California. Use is in increase and there are two
13 pyrethroids that make the California Department of
14 Pesticides Regulation list of the top 100 pesticides used
15 in California in 2007.

16 And this list is focused mostly on agricultural
17 and structural uses. Permethrin was applied 414,000
18 thousand pounds and cypermethrin 337,000 pounds.

19 --000--

20 DR. ROISMAN: There is also household exposure to
21 pyrethrins and pyrethroids. And use at home is
22 increasing. The increase in use in the homes has been
23 linked to the decline of the use of organophosphates and
24 carbamates in the home. Household use reporting is not
25 required, so we can't provide specific numbers the way we

1 that's the key -- the last point you made, you really
2 should emphasize, especially for those listening who might
3 get confused that we say that a class is a priority. And
4 then someone says, by why isn't every chemical in that
5 class a priority. So we actually do have this process
6 where we do a priority class, single chemicals out, but
7 make it very easy to add chemicals as priorities, right.
8 They don't have to be designated first, if the class is a
9 priority.

10 DR. ROISMAN: Yeah, I mean it a little bit
11 differently. So the panel has the option recommending
12 either specific chemicals or chemical classes, either for
13 designated status or for priority status. And right now,
14 both the designated and the priority list contain a
15 mixture of chemical -- specific chemicals and chemical
16 classes.

17 So the issue was more that if a class is
18 designated, then we can more efficiently bring specific
19 chemicals for consideration as priority chemicals, because
20 we don't have to go through the designated process first.

21 But the Panel is welcome to recommend that the
22 class be -- you know, at some future point, that the class
23 be named as a priority as well. That's certainly up to
24 you, whether specific chemicals or the entire class be
25 named as a priority.

1 PANEL MEMBER MCKONE: So for the class of
2 permethrins, pyrethroids, right, that's a priority class,
3 so we cannot look at, I want to --

4 DR. ROISMAN: Right now, there are some --

5 PANEL MEMBER MCKONE: But the flame retardants
6 are. But not every flame retardant has yet been made a
7 priority. We can still go through and move some things
8 up, because there's hundreds of compounds in the class
9 called flame retardants, brominated/fluorinated flame
10 retardants.

11 DR. ROISMAN: And actually all of those chemicals
12 are priority chemicals. Now, it's important to -- there's
13 a distinction between prioritization and being a priority
14 chemical. Things are on the priority chemical list, but
15 that doesn't necessarily mean that they have been
16 prioritized on that list. So at the last meeting, based
17 on your recommendations, the entire class of brominated
18 and chlorinated organic compounds used as flame retardants
19 was added to the priority chemical list. So any chemical
20 in that class is a priority chemical.

21 There may be some of those that are of much more
22 interest than others, but that's a separate matter.

23 PANEL MEMBER WILSON: Just a clarifying question.
24 And so we have the class brominated and chlorinated flame
25 retardants prioritized -- thank you.

1 I'm going to talk to Sandy.

2 (Laughter.)

3 PANEL MEMBER WILSON: And it's a little
4 confusing, because we've prioritized some of the class
5 pyrethroids. And so what you're asking today is whether
6 we should designate the whole class, and that would then
7 give you or us the opportunity where we see it's
8 appropriate to prioritize within that class, but we have
9 to take that first step of designating.

10 DR. ROISMAN: Correct. And a lot of -- the
11 division, a lot of it is based on -- you know, so
12 everything that's on the CDC list, those are specific
13 chemicals that are designated chemicals. And so when
14 those are named as priorities, it's just those specific
15 chemicals. Whereas the chemicals that we've brought to
16 you all for consideration as designated chemicals so far,
17 for the most part, we've brought them to you as classes,
18 the flame retardants, the cyclosiloxanes, antimicrobials,
19 et cetera.

20 So for the most part this is the first time we're
21 kind of talking about going back to the CDC list and
22 looking at their specific chemicals and converting that
23 into a class designation. And it's, to some extent, you
24 know, a housekeeping issue.

25 PANEL MEMBER WILSON: Right.

1 PANEL MEMBER MCKONE: Well, then it seems to me
2 that because the marketplace changes, we should
3 reconsider. And when we do a class, we should make the
4 class a priority in a way that gives the staff flexibility
5 and ourselves flexibility to quickly pick a new chemical,
6 because, you know, we see these surprises all the time
7 where suddenly something shows up, and we really shouldn't
8 spend six months going through any kind of a process, we
9 should have the flexibility to say hey it's in a priority
10 class. It's a new compound we hadn't seen before. But as
11 long as it's in the class, we can move it right up into
12 the priority list.

13 So maybe we should go back and make sure that we
14 have that designated class, as such that we have the
15 flexibility to quickly designate priority chemicals and
16 raise them up to high priority.

17 PANEL MEMBER WILSON: To quickly prioritize
18 designated chemicals.

19 CHAIRPERSON MORENO: Okay, thank you.

20 Dr. Culver.

21 PANEL MEMBER CULVER: I'm a little bit confused
22 or maybe quite a bit confused.

23 But do we have some criteria by which we make the
24 decision whether a class should be designated or not?

25 DR. ROISMAN: The criteria that would apply would

1 be the criteria in the legislation for recommending that
2 chemicals be named as designated chemicals. So there's no
3 different criteria for a chemical or for a chemical class.

4 PANEL MEMBER CULVER: But designating a class is
5 a rather sweeping kind of thing to do, unless we have some
6 rationale for it.

7 CHAIRPERSON MORENO: Dr. Culver, do you mind if I
8 ask Fran that question. The statute reads, kind of,
9 there's a criteria for adding or recommending that
10 chemicals be added to the designated list. And can we use
11 those same criteria for, if this Panel is making a
12 recommendation, to add a class to the designated list?

13 STAFF COUNSEL KAMMERER: Can you repeat that?

14 CHAIRPERSON MORENO: And I believe that was the
15 interpretation, because we've already designated the class
16 of fluorinated/brominated flame retardants, correct?

17 Dr. Roisman.

18 DR. ROISMAN: Yes and cyclosiloxanes, and the --

19 CHAIRPERSON MORENO: And cyclosiloxanes. It's
20 just like asking again for some clarification.

21 STAFF COUNSEL KAMMERER: Fran Kammerer, staff
22 counsel for OEHHA.

23 I'm not sure I understood the question correctly,
24 but what the statute defines is basically it talks about a
25 chemical. And the definition of chemical is, can be a

1 chemical -- a group, a chemical substance, right. It can
2 be a combination of substances occurring in whole or in
3 part as a result of chemical reaction or occurring in
4 nature. And then it goes on to describe it can be a
5 mixture also. So does that answer your question? I'm not
6 sure if --

7 PANEL MEMBER CULVER: It does not help me.

8 MS. HOOVER: Let me try.

9 This is Sara Hoover, OEHHA.

10 So I take your point that when you look at a
11 whole class, you have to look at the criteria from the
12 point of view of the class. And that's definitely
13 considered acceptable by our lawyers to do so. So for
14 example, on the brominated and chlorinated flame
15 retardants, that discussion was about the class. And the
16 approach that we took, on the advice of the Panel, was to
17 look at representative members of the class and talk about
18 the criteria for designation or priority by looking at
19 representative members of the class.

20 And then it's up to the Panel's discretion if you
21 feel that there is -- you're right, there has to be some
22 basis for choosing the class. So if the Panel believes
23 that there's sufficient justification, you can certainly
24 choose to designate or call priority a class of compounds.

25 PANEL MEMBER CULVER: Then perhaps the Panel

1 should develop some criteria for making that designation,
2 for designating a class as a whole. Is that not --

3 MS. HOOVER: The Panel could choose to add
4 criteria if they want to do that. So far the panel has
5 felt that so far the discussion has been sufficient just
6 among the panel members. But that's certainly a proposal
7 the Panel could consider.

8 STAFF COUNSEL KAMMERER: Frank Kammerer again.
9 That specific criteria is not listed in the
10 legislative -- in the Code, so that would up to the Panel
11 to decide that specific criteria, if they want to.

12 CHAIRPERSON MORENO: This is Ed Moreno. If I
13 could share a comment. The section of the Code 105449
14 states that, "The Panel may recommend additional
15 designated chemicals..." plural. And so by designating a
16 class, we're designating chemicals. So if that was the
17 interpretation, Dr. Culver, that was taken at prior
18 meetings, the Panel used its discretion to designate a
19 class. And I think what you're asking is do we need to go
20 one step further and actually create a criteria to
21 designate a class, if I understand what you're saying.

22 PANEL MEMBER WILSON: I thought we do have
23 criteria and Dr. Roisman laid those out in her
24 presentation, or am I confused. The criteria for
25 recommending additional designate chemicals.

1 PANEL MEMBER CULVER: Yes, but now we're talking
2 class. And when you talk class, that's a different thing
3 than talking a chemical, talking about designating a
4 chemical. Within a class, chemicals can vary quite widely
5 in their biological effect, in their use. So all I'm
6 asking is if we're going to lump, we should probably have
7 some kind of criteria for doing that lumping. And I have
8 no heard it yet. And I was asking whether or not we
9 should develop one or does somebody else have one?

10 CHAIRPERSON MORENO: Dr. Wilson, and then Dr.
11 Quint.

12 PANEL MEMBER WILSON: Okay. I mean, I think this
13 was the content of the discussions that we've had about
14 the sort of referring to Dr. McKone's point that we've had
15 previously around how do we, as a panel, and then also as
16 a governmental organization respond to the rapid changes
17 that occur in the market with the use of individual
18 chemical substances.

19 And so as one -- so it is -- I guess it's a great
20 question is what's the wisdom of going after and sort of
21 focusing on a class, as compared to a specific substance?
22 And I think the wisdom of that, that I think we've -- you
23 know, we have come to with respect to, as an example, the
24 halogenated flame retardants is that the market moves so
25 quickly that it's not efficient for us to go looking at

1 individual substances because we'll find ourselves months
2 or years behind the market changes that occur. So by
3 designating the class, it allows us flexibility and sort
4 of nimbleness in our actions that we're able to take.

5 PANEL MEMBER CULVER: If our job here is, as a
6 committee, is to provide scientific guidance to a
7 Biomonitoring Program, then we need to keep in mind the
8 fact that we are recommending that somebody go out and do
9 biomonitoring. And are we going to do biomonitoring on
10 every single compound in a class?

11 Many of these compounds in the pyrethroids, for
12 example, have little or no toxicity or very, very little
13 toxicity anyway, and are not biopersistent, and have very
14 short half-lives. Is that going to be a useful thing for
15 the Biomonitoring Program to focus on a thing like that?

16 And I'm just asking questions. I'm not, I think,
17 rendering an opinion.

18 CHAIRPERSON MORENO: Dr. Quint had a comment.

19 PANEL MEMBER QUINT: Yes. I think for me it's
20 whether you have formal criteria or whether or not in
21 making the decision to designate this group of chemicals
22 as a class, you're going through some process, individual
23 members, you know, going through a process of defining
24 what would drive that decision, you know.

25 And in looking at the materials provided by

1 staff, you know, I counted five members of this class that
2 I would want us to look at the Biomonitoring Program. And
3 I'm looking at other information put together by staff
4 like structure, the similarities of the structures of
5 these compounds, the numbers of -- the ones of them that
6 are on the European list as endocrine disruptors, you
7 know, the ones that are on the Prop 65 list.

8 And the flexibility of designating as a class for
9 me is that we have -- you know, already I have five that I
10 would automatically want to look at right now. And given
11 that they are so similar in structure, then there are
12 likely to be others. And all we have now is maybe a lag
13 in either the toxicological information that would be the
14 driver for me or the potential health effects driver or
15 the potential use driver.

16 So I think, you know, there's a difference
17 between -- and maybe we do need to have formal criteria.
18 But I think in our discussions, when people make the
19 decision, if it comes to polling the members of the panel,
20 I think we have informal criteria that we have used to
21 make that decision. And we haven't formally -- because I
22 think it's going to be a little different maybe for
23 different, you know the set of things that we use to make
24 a decision about a class may vary a little bit depending
25 on what that class is.

1 But certainly I think the materials provided by
2 the staff are part of that. And in this particular one,
3 you know, they've given us use in California. They've
4 given us information about which ones are a priority,
5 which ones aren't. They've given us background
6 information that would help us decide in terms of, you
7 know, some of the properties of these chemicals.

8 So I took all of that together. And that formed
9 my decision about whether or not I thought it would be
10 appropriate to designate as a class. It's not formal
11 criteria though.

12 PANEL MEMBER CULVER: Well, I think if we could
13 encapsulate that and put it on paper, that would be a very
14 useful thing for to us do as a guideline for ourselves.

15 My ultimate concern is that we're told in the
16 material that was given to us for this meeting, that there
17 are 85,000 chemicals in commercial use in the United
18 States at the present time. We can't do biomonitoring, I
19 don't think, on 85,000 chemicals. How many chemicals can
20 we do biomonitoring on within a reasonable number?

21 So if we can't do biomonitoring on everything,
22 then we need to have some guidelines on shrinking the
23 number that we're going to -- that will be -- that we're
24 going to have to go monitor. Reducing that number to a
25 manageable extent.

1 If we just go class by class without very careful
2 thought, then the numbers of chemicals that are going to
3 have to be biomonitored are going to be astronomical --
4 well not astronomical, but close to 85,000. That is my
5 concern.

6 CHAIRPERSON MORENO: Thank you Dr. Culver.
7 Actually, if I may, we have -- we're not going to engage
8 in further discussion at this point or make any
9 recommendations at this point, because we have one more
10 presentation and we still need to get through public
11 comment before we come back to this panel to, if there's a
12 recommendation to be made.

13 So with that, we have one more presentation,
14 correct. So Dr. Roisman can you introduce our next
15 speaker.

16 DR. ROISMAN: Yes, Dr. Krowech who is a
17 toxicologist at OEHHA will be giving the final
18 presentation on this topic.

19 (Thereupon an overhead presentation was
20 Presented as follows.)

21 DR. KROWECH: I'm going to be talking about three
22 potential designated pesticides. Iprodione, which is on
23 the top 100 list of pesticides and also has high
24 agricultural use.

25 Ochthilinone, again on CDPR's top 100 list of

1 pesticides. And it has use in residential and consumer
2 products.

3 And fipronil which was on our pet pesticide list.
4 And we found it has household and garden use as well.

5 --o0o--

6 DR. KROWECH: Iprodione has high use on almonds,
7 lettuce, carrots, and peaches. And residues have been
8 found on numerous produce samples.

9 --o0o--

10 DR. KROWECH: Iprodione is listed under
11 Proposition 65 as known to cause cancer. There's evidence
12 that it's an endocrine disrupting chemical. And it has
13 anti-androgenic properties.

14 Two other dicarboximide fungicides class,
15 vinclozolin and procymidone also are carcinogenic and
16 anti-androgenic.

17 --o0o--

18 DR. KROWECH: In terms of the potential
19 biomonitor, Iprodione the physical and chemical properties
20 are available and included on this slide. The
21 pharmacokinetics and metabolism have been studied.
22 Iprodione is rapidly converted to 3,5-dichloroaniline, a
23 3,5-DCA is excreted in urine.

24 --o0o--

25 DR. KROWECH: A past biomonitoring study was

1 located. It found 3,5-DCA in 151 of 153 urine samples of
2 non-occupationally exposed individuals in rural Italy.
3 Other sources of 3,5-DCA could be vinclozolin which has
4 limited use in California, or procymidone, which is not
5 registered for use in the United States, or DCA as a
6 result of its use as a chemical intermediate and the
7 extent in California is not known.

8 --o0o--

9 DR. KROWECH: The analytical methods have been
10 developed for Iprodione. And analysis can be bundled with
11 other dichloroanilines such as metabolites of diuron,
12 propanil and triclocarban.

13 In terms of the need to assess the efficacy of
14 public health actions, this is a widely used agricultural
15 pesticide with residues found on produce samples. There
16 are concerns for cancer and endocrine disruption. And
17 biomonitoring would help assess the extent of exposure in
18 California.

19 --o0o--

20 DR. KROWECH: Are there any clarifying questions?

21 CHAIRPERSON MORENO: This is Ed Moreno.

22 Thank you for the presentation. So we have
23 another few minutes, five minutes for questions before we
24 go to public comment.

25 DR. KROWECH: Well, I've got two more, but I just

1 wanted to stop --

2 CHAIRPERSON MORENO: Oh, I'm sorry.

3 (Laughter.)

4 --o0o--

5 CHAIRPERSON MORENO: Sorry, go on, please.

6 DR. KROWECH: This is a mildewcide, fungicide and
7 bacteriocide. 2.5 million pounds were sold in California
8 2007. Over 440,000 pounds were used on the lumber in
9 2007. It's use in household products includes use in
10 paints, coatings, carpets, clothing, upholstery fabric,
11 Linens, mattress covers, leather, and plastic products
12 such as plastic toys.

13 --o0o--

14 DR. KROWECH: This slide details some household
15 exposures. Some exposures considered by U.S. EPA
16 included -- child exposures considered by U.S. EPA
17 included dermal exposure from carpets, textiles, and
18 mattress covers. And oral exposures from mouthing of
19 plastic toys and textiles and from carpet fibers.

20 U.S. EPA was concerned about the overall oral
21 exposure and took the following action:

22 The new use -- according to new use regulations,
23 ochthilinone is prohibited from use in plastic toys, and
24 in carpet fibers. It can only be used now carpet backing.

25 U.S. EPA required a reduction in the amount

1 that's used in mattress covers, and also requested a study
2 on residue transfer.

3 --o0o--

4 DR. KROWECH: The use in products manufactured
5 outside the U.S. is unknown however.

6 --o0o--

7 DR. KROWECH: The requirements for antimicrobials
8 are different from conventional pesticides. So the
9 database for ochthilinone meets both federal and State
10 requirements but has no adequate studies for
11 carcinogenicity or chronic toxicity. There's no
12 neurotoxicity and no pharmacokinetics and metabolism
13 studies available.

14 The existing database does include one positive
15 study for chromosomal aberrations. Although other
16 genotoxicity studies were reported as negative. And there
17 is an inadequate carcinogenicity study in mice.

18 Ochthilinone belongs to the isothiazolone class
19 of chemicals. This class reacts with cellular thiols.
20 For examples, cysteine residues of proteins. Some in
21 vitro studies have found neurotoxicity with one of the
22 isothiazolones, and a decrease in cellular glutathion with
23 several isothiazolones, including ochthilinone.

24 Occupational findings. There are several cases
25 of allergic contact dermatitis with isothiazolones. And

1 ochthilinone itself is responsible for several cases,
2 mostly among paint manufacturers. One paper reported an
3 association between isothiazolones and occupational
4 asthma.

5 --o0o--

6 DR. KROWECH: In terms of the potential to
7 biomonitor, the physical and chemical properties are
8 available and included here. As I mentioned before,
9 pharmacokinetics and metabolism data are not identified.

10 In terms of persistence outdoors, ochthilinone
11 binds to topsoil surfaces and undergoes microbial
12 degradation indoor degradation is unknown. Analytical
13 methods would need to be developed. And ochthilinone
14 cannot likely be bundled with other analytes.

15 --o0o--

16 DR. KROWECH: In terms of the need to assess the
17 efficacy of public health action, there's evidence of
18 increasing use of ochthilinone based on pounds applied in
19 California over the last 10 or so years. There's
20 potential for widespread exposure. The toxicity is not
21 well characterized, but there are concerns. And
22 biomonitoring would help assess exposure and evaluate the
23 need for further study.

24 --o0o--

25 DR. KROWECH: So I'll stop for any questions

1 before going on to the next chemical.

2 --o0o--

3 DR. KROWECH: Okay. Fipronil. Fipronil is
4 widely used as a tick and flea treatment for dogs and
5 cats. It's also used for control of cockroaches and ants.
6 And it's used as structural pest control approximately
7 65,000 pounds were used in California in 2007.

8 --o0o--

9 DR. KROWECH: A recently published study found
10 fipronil in 40 percent of U.S. households taken during
11 2005/2006. There's a potential for hand-to-mouth exposure
12 from contact with treated pets, particularly of concern
13 for children.

14 Fipronil after it's applied sequesters in the
15 oils of the skin and hair follicles and is continuously
16 released onto the animal's coat for a period of four to
17 five weeks. So there's exposure from petting the animal,
18 from dogs or cats lying on the carpet, and then children
19 playing on the carpet and from animals rubbing against
20 furniture.

21 So small children and toddlers would likely be
22 more susceptible.

23 --o0o--

24 DR. KROWECH: In terms of the known and possible
25 health effects, fipronil is classified by U.S. EPA as a

1 bioaccumulate.

2 Also, I just should mention that the
3 fipronil-sulfone, the metabolite, there's -- a study
4 showed that there's a 40-fold inter-individual variation
5 and formation of this metabolite in human liver tissue.

6 --o0o--

7 DR. KROWECH: No human biomonitoring studies have
8 been identified. Analytical methods have been found in
9 the scientific literature. And fipronil cannot likely be
10 bundled with other analytes, however.

11 --o0o--

12 DR. KROWECH: In terms of the need to assess the
13 efficacy of public health actions, the use of fipronil is
14 increasing. The potential for continuous exposure at
15 home, there's a great potential for continuous exposure at
16 home with children having a greater -- being at greater
17 risk. There are potential concerns for cancer, hormone
18 disruption and developmental toxicity. Biomonitoring will
19 help assess the extent of exposure and evaluate the need
20 for further study or action.

21 --o0o--

22 DR. KROWECH: So are there any clarifying
23 questions about fipronil or any of those I can answer them
24 now?

25 CHAIRPERSON MORENO: Yes. Thank you for the

1 presentation.

2 Sorry to interrupt you before.

3 (Laughter.)

4 CHAIRPERSON MORENO: Dr. Wilson, you have a
5 question.

6 PANEL MEMBER WILSON: Yeah, just a clarifying
7 question. I'm just trying to get oriented to where we are
8 with -- relative to what Dr. Roisman presented, that
9 this -- so these three fungicides they fall under the
10 potential designated chemicals group that also includes
11 the pyrethroids and pyrethrins, and -- is that right?

12 DR. KROWECH: Yes.

13 PANEL MEMBER WILSON: And there's 28 in that
14 group from the list. I'm just --

15 DR. KROWECH: Okay, so --

16 PANEL MEMBER WILSON: -- curious why we ended up
17 with these three in particular or are we --

18 DR. KROWECH: First let me clarify that Fipronil
19 was not on the -- you're talking about the list of 100?
20 Is that what you're talking about, the list of the top 100
21 that we started to go through?

22 PANEL MEMBER WILSON: Right, and where these
23 three land in that.

24 DR. KROWECH: Okay. So fipronil, first of all,
25 was not on that list. We separately have been developing

1 a list of pet pesticide and high household use pesticides.

2 So that's where fipronil came in.

3 In terms of the list of 100, so this -- so

4 ochthilinone and iprodione are on the list of the 28

5 potential designated. We also looked at -- one important

6 factor was chemicals where there -- pesticides where there

7 was a pesticide residue was found. That pretty much put

8 Iprodione up high on the list and became -- and so that

9 and plus there weren't any of the problems that Dr.

10 Roisman discussed, in terms of declining use, difficult to

11 biomonitor, nonspecific metabolites, so that's why

12 iprodione is here.

13 And ochthilinone so was among those 28 as well.

14 And in looking at that, we -- it was mostly used on

15 lumber, which didn't seem like there was much exposure.

16 But in looking at that, further research showed that it

17 was highly used in residential settings.

18 And so it became more of something that was used

19 in terms of household use. So that's how it wound up on

20 the list.

21 CHAIRPERSON MORENO: Dr. Quint, please next.

22 PANEL MEMBER QUINT: Go ahead.

23 This is Julia Quint. Gail, I have a question

24 about the developmental neurotoxicity, because in your

25 summary, I think there was one study that EPA or some part

1 of EPA decided the weight of evidence didn't support the
2 conclusion that, you know, it was of concern, with regard
3 to developmental neurotoxicity. Of course, that's
4 compelling if it's used in homes and, you know, potential
5 risks for children.

6 But then there's the other new studies, I think,
7 in vitro and in zebrafish, so I wanted to get your opinion
8 or assessment of where you think the findings are with
9 regard to potential for developmental neurotoxicity,
10 because I came away mixed from your summary here, in terms
11 of my concern for that particular endpoint.

12 DR. KROWECH: Well, the study that I mentioned
13 from U.S. EPA was, I think, in '96. I'm not sure of the
14 date.

15 PANEL MEMBER QUINT: Ninety-eight.

16 DR. KROWECH: Ninety-eight, okay.

17 They said there were positive findings. It was
18 reviewed a couple of times. But they didn't go to -- they
19 basically felt that it didn't meet the weight of evidence.
20 But since then, sort of starting in 2006 or 2009, there
21 have been these other findings. So I'm not a
22 developmental toxicologist. I can't really speak to that.
23 But I think there's enough concern to look -- you know, to
24 consider that as a possibility.

25 CHAIRPERSON MORENO: Well, I don't believe there

1 are any further questions. We're going to have discussion
2 in a moment. So at this time, I want to open it up to
3 public comment and ask if there are any -- is there anyone
4 that wanted to speak on this series of presentations by
5 staff?

6 And were there any Emails that were received?

7 MS. DUNN: No.

8 CHAIRPERSON MORENO: Okay, thank you.

9 MR. BALTZ: Davis Baltz, Commonweal.

10 I guess I'll hold it up.

11 Thanks for those very good presentations. Just
12 briefly on Dr. Krowech's, I think that, you know, all
13 three of those chemicals meet the bar for being designated
14 chemicals under the Program. So I hope that that won't be
15 controversial.

16 But I wanted to kind of come back to the
17 discussion on whether the pyrethrins and pyrethroids as a
18 class should be designated?

19 And I would support that. And again, coming back
20 to the criteria for recommending additional designated
21 chemicals, which was included in one of Dr. Roisman's
22 slides from the statute, I mean, I think clearly, known or
23 suspected health effects, need to assess efficacy of
24 public health actions, and most clearly exposure or
25 potential exposure to the public or specific subgroups.

1 I think the case can be made, at least on these
2 three, that this class of chemicals meets the bar. And to
3 your point, Dr. Culver, about, yes, we're not going to
4 designate 85,000 chemicals, I think, there's recognition
5 that wouldn't be possible.

6 But the point that was made in Dr. Roisman's
7 presentation about if you designate this class now, the
8 efficiency of saving time to have to come back to this
9 committee and go through a step-wise process to get them
10 just in the cue for consideration, I think is something
11 that should be considered, not in any kind of flippant
12 way. But if we can designate these as a class, there
13 still is another step of getting them prioritized. And if
14 any specific chemical in the class has low toxicity or a
15 short half-life, that would be considered the next step
16 when it would be prioritized.

17 So I would, to the extent that my advice will be
18 listened to, but I think a strong case can be made that
19 this should be designated as a class. And I hope that the
20 Guidance Panel will make that recommendation.

21 Thank you.

22 CHAIRPERSON MORENO: Thank you for your comments.

23 It does not appear that there are anymore public
24 comments to be heard. If that's the case, I believe at
25 this point, we'll bring it back to the Guidance Panel for

1 discussion. And this is the opportunity following
2 discussion to make recommendations to the Program.

3 So Panel members?

4 PANEL MEMBER WILSON: I guess, I need to be
5 oriented one more time. And going back to Dr. Roisman's
6 presentation that the topic for today is discussing
7 potential designated chemicals under the top 100
8 pesticides. And so we've talked about the pyrethroids and
9 the fungicides. And are there -- what are the ones that
10 we're not looking at or were they excluded? And where are
11 we? Were those excluded for a reason?

12 DR. ROISMAN: I mean, yes and no. But, in
13 general, the chemicals that we're talking about today are
14 not -- neither the potential designated nor the potential
15 priority chemicals are being brought to you because we
16 think oh, these are in order of priority. The key four
17 potential designated chemicals in all the potential
18 designated chemicals that exist, or these are the most
19 important potential priority chemicals. There are lots of
20 other reasons why these kind of came to the top and are
21 being discussed today.

22 So in terms of potential designated pesticides,
23 some of these are coming out of that list of the top 100.
24 Actually, the pyrethrins and pyrethroids are not, because
25 the ones that are on the top 100 list are already priority

1 chemicals. So that's a little bit different. That's a
2 question about the class.

3 As Dr. Krowech mentioned, two of the chemicals
4 that she mentioned were on this top 100 list, but we also
5 looked at chemicals that are not top use agriculturally,
6 but are of concern because of household use. And the
7 other important thing to keep in mind is that you know as
8 we worked our way through the list, a number of chemicals
9 raised these questions that we would like your feedback on
10 before we proceed, and those were the questions that I
11 presented in the first presentation.

12 And so, you know, we can pull out other chemicals
13 on the list of the top 100 pesticides used or other high
14 household used chemicals that we're not discussing today,
15 A, because we couldn't discuss everything today, but, B,
16 because there were methodological issues or there was
17 concern about exposure, et cetera, and they weren't
18 as -- they didn't seem quite as obvious.

19 So again, the ones that are here today are here
20 for a variety of reasons, not because they're necessarily
21 the highest priority, but because they're easier to
22 discuss in some way and they raised a lot of concerns.

23 PANEL MEMBER WILSON: Okay.

24 DR. ROISMAN: And this is certainly not the end
25 of the discussion about pesticides. You know, at future

1 meetings we plan to, you know, work our way through the
2 list, do research on additional ones and see which other
3 ones pop out, particularly after we get your input about
4 these issues that arose as we started to work our way down
5 the list.

6 PANEL MEMBER WILSON: That's great. That's very
7 helpful.

8 CHAIRPERSON MORENO: This is Ed Moreno. I just
9 wanted to point out for the Panel members, we're scheduled
10 to conclude this portion of the meeting by one, oh we have
11 about 45 minutes. And as Dr. Roisman pointed out, you did
12 present about six questions for guidance.

13 MS. HOOVER: Yeah, this is Sara Hoover of OEHHA.
14 I have a suggestion on that. A lot of those questions
15 relate to what you want us to do in the future. So my
16 suggestion would be for you to spend time on the specific
17 recommendations about the potential designated chemicals,
18 including the class of pyrethroids and pyrethrins, the
19 three that Dr. Krowech presented.

20 Then, if there's time, you could start talking
21 about those sort of future questions. But we could also
22 come back to that in the next steps discussion, if there's
23 not time.

24 CHAIRPERSON MORENO: Okay. I think that's a good
25 recommendation, Panel members, is that all right?

1 Okay. So we'll focus on the potential
2 designation of chemicals. So Panel members?

3 Dr. Solomon.

4 PANEL MEMBER SOLOMON: I have two questions. The
5 first is that there are a couple of pyrethroids that I
6 didn't see on the list here, fenvalerate and sumithrin.
7 And are those not really used in California or what is --
8 I was curious why they're not.

9 DR. ROISMAN: Sumithrin I believe is on there.
10 It has another -- it's also phenothrin.

11 PANEL MEMBER SOLOMON: I missed that sorry.

12 Then S-fenvalerate is on there, but I didn't see
13 fenvalerate, which I believe is used. I just want to make
14 sure that we don't have omission.

15 DR. ROISMAN: Well, that's -- there may be an
16 omission. I'll have to double -- I could check on that
17 during the break and get back to you. But also part of
18 the reason why we're talking about them as a class because
19 they're are a few that --

20 PANEL MEMBER SOLOMON: Right. I just wanted to
21 make sure we hit the whole -- we kind of weren't missing
22 significant ones in the class.

23 My other question is for -- perhaps for the lab
24 folks about sort of the methods for detection, because I
25 know that a number of these breakdown to common

1 metabolites. I'm just wondering if there's some sort of
2 obvious ways that they fallout, in terms of common
3 metabolites that would be tested for how those would be
4 approach from the laboratory perspective.

5 DR. ROISMAN: I can say one comment about that
6 while Dr. She is coming up. But there is one metabolite
7 in particular that I think is common to at least 10 of the
8 pyrethroids. I believe it's mentioned on the document,
9 but I don't remember off hand.

10 DR. SHE: I'm Jianwen She of the DTSC lab -- of
11 CDPH lab.

12 (Laughter.)

13 DR. SHE: Sorry about that.

14 Actually, the lab have a lot of experience on
15 this group of chemicals. They're all new for us. And we
16 work on the pyrethroid, which the CDC is monitoring, but
17 it is a group of chemicals like what kind of metabolite
18 will be handled, what's the best biomarker. We need to do
19 more research and get back next time. You want to add
20 anything?

21 DR. PETREAS: Myrto Petreas. DTSC lab.

22 (Laughter.)

23 DR. PETREAS: I can't answer -- as Dr. She said,
24 we haven't any experience with these particular chemicals.
25 But if we want to generalize the issue about class and

1 designating a class for priorities in a class. From a
2 lab's perspective it would be easier for us if you told us
3 that this is the class, and then we can plan to get all
4 our standards, get all our methods to potentially have all
5 possible chemicals, as many as possible, rather than
6 adding after the fact.

7 If they are in the same class of chemicals, it
8 behaves the same. I mean, this is easy for PBDEs or for
9 example 209, the deca-PBDE. Within the class, it's in the
10 same method, detection limits and other problems, but it's
11 the same method, so you can plan for it.

12 On the other hand, the new BFR, the brominated
13 flame retardants, that we have talked about, they've very
14 desperate, very different chemicals. So from a lab
15 perspective, it's not a class. You may call it the class.
16 It won't help the lab. But for certain classes, it helps
17 to tell us -- focus on this class. It may simply be pie
18 in the sky, but we can work towards it, given resources
19 and so forth. Just to clarify the issue about designating
20 classes.

21 CHAIRPERSON MORENO: Dr. Wilson.

22 PANEL MEMBER WILSON: I just have a process
23 question from what Sara said. It seems to me that I'm
24 worried that if we get into a discussion about the
25 fungicides, and specifically the pyrethroids, that we're

1 not going to get to these basic questions that Dr. Roisman
2 has asked, that seems that we need to address those as
3 staff go forward.

4 MS. HOOVER: Yes. So that was why I was saying
5 we can talk about that in the next steps section, because
6 that's -- it's really more of a -- I mean, it seemed to me
7 that if we notice certain chemicals for consideration as
8 potential designated, it would probably be helpful to get
9 through those specifically named chemicals. In terms of
10 general guidance, we can talk about that as time allows
11 and then also talk about it as part of the next steps, so
12 you would be giving guidance in that part of the
13 discussion on the agenda. And that's in the afternoon.

14 That's my idea. I mean, you guys can do what you
15 like.

16 PANEL MEMBER WILSON: All right.

17 CHAIRPERSON MORENO: All right.

18 Anymore questions or discussion by Panel members?

19 Dr. Luderer.

20 PANEL MEMBER LUDERER: I do have a question about
21 the ochthilinone, and about the potential for
22 biomonitoring. I think that you said that it couldn't be
23 bundled with other chemicals, but it is a member of this
24 chemical class, the isothiazolone chemicals.

25 So I'm wondering -- I mean, so potentially it

1 could be bundled with other chemicals of that class, is it
2 just that none of those are currently designated?

3 DR. KROWECH: Right. And also that chemical -- I
4 just want to also note that that chemical class, although
5 it doesn't come up in the 100 top pesticides, they're high
6 use. There were, including ochthilinone, about seven
7 million pounds of those chemicals sold in California in
8 2007.

9 CHAIRPERSON MORENO: Dr. Quint.

10 PANEL MEMBER QUINT: I realize -- this is Julia
11 Quint. I realize I do have two questions about
12 ochthilinone. Well, I have a general procedural question.

13 If we decide not to designate anyone of these
14 today, is there a possibility that they could be included
15 later or is that the end of it? I mean, is there an
16 opportunity --

17 MS. HOOVER: Yeah. I mean we could certainly
18 bring it back.

19 PANEL MEMBER QUINT: And the other question I
20 have, for this chemical in particular, it sounds like U.S.
21 EPA has taken certain actions. And one of those they've
22 requested a study on residue transfer. And I'm wondering
23 when -- do you have any idea when those data might be
24 available?

25 DR. KROWECH: The study was just requested.

1 PANEL MEMBER QUINT: Oh, it was just requested,
2 so we're talking years.

3 DR. KROWECH: Right.

4 PANEL MEMBER QUINT: All right. Thank you.

5 CHAIRPERSON MORENO: Dr. Solomon.

6 PANEL MEMBER SOLOMON: This is more a comment
7 than a question. But I was very interested in the
8 iprodione breakdown product of the 3,5-dichloroaniline.
9 And that sort of leads into the related question about the
10 dichloroaniline metabolites and the sort of common class
11 as determined by the metabolite, rather than by the, you
12 know, chemical class or the original chemical.

13 And having just come from my other hats, which is
14 the NTP Board of Scientific Counselors meeting last week,
15 NTP has prioritized the class of dichloroanilines and is
16 going to be doing fairly extensive toxicity studies on
17 this class, because of serious, you know, sort of red
18 flags, toxicologic red flags from certain members of that
19 class.

20 And so the National Toxicology Program did look
21 at the dichloroanilines as a group. And, you know, the
22 Board of Scientific Counselors recommended unanimously
23 that NTP move ahead with, you know, full toxicity
24 assessment of the group.

25 And so that's something that we might want to

1 think about as we sort of think about the chemicals that
2 we're looking at today and some of the pesticides that
3 break down into dichloroanilines.

4 CHAIRPERSON MORENO: Dr. Luderer.

5 PANEL MEMBER LUDERER: Yeah. And one thing that
6 I really wanted to commend you all on is that having
7 brought these pesticides before us now that have the
8 household uses, that we haven't really been able -- been
9 looking at so much before. I mean, it's really striking
10 that there's really no knowledge about how much of these
11 is used, that there's no requirement for keeping track of
12 how much is sold or, you know, used in any way.

13 And three -- so a lot of the pyrethrins you
14 pointed out are widely used in consumer products and then
15 also octhilineone and the fipronil. And I think, you know,
16 the fact that we really don't have much of an idea about
17 how much of these are used, but we do know that there is
18 the potential for wide exposure, given that they're used
19 in consumer products. I just think that, in general, that
20 this is kind of a compelling reason for why you might want
21 to biomonitor some of these chemicals, to find out really
22 what is the extent of exposure.

23 CHAIRPERSON MORENO: Dr. Bradman.

24 PANEL MEMBER BRADMAN: I just want to comment on
25 a little data that we have from our studies. This is in

1 peer review right now, so it's not published yet.

2 But in about 40 percent of homes that we looked
3 at in the Salinas Valley acrodium was present in house
4 dust. So there's definitely a potential for exposure to
5 populations there, particularly through dust to children.
6 I'm sure there's other routes.

7 So we also liked the American Housing Survey
8 studies. We find permethrin in every home, both in
9 Salinas and the Oakland areas. Again these are not yet
10 peer reviewed. They're in review.

11 But about 95 to 100 percent of homes permethrin.
12 Actually, among all the pesticide we look at, permethrin
13 is usually at the highest levels, which is also similar to
14 the National Data. So there is, you know, some indication
15 here that it's out there in the world.

16 We have some data on PB -- pyrethroid metabolites
17 in pregnant women from the Salinas Valley. We found about
18 26 percent of women had pyrethrin metabolites in urine.
19 Again, that's also in peer review right now. We have a
20 lot of papers out, which is a little bit lower than what
21 was found in NHANES. It was done by the same lab as
22 NHANES.

23 Although we have found, in general, that levels
24 in our pregnant women are different than levels in women
25 who are not pregnant, so you have to be very careful

1 comparing biomonitoring data, and pregnant women to others
2 because of the physiological changes that are going on
3 during pregnancy.

4 But just to make the point, that, you know, we
5 have some preliminary evidence here for California that
6 there are exposures to these compounds occurring.

7 CHAIRPERSON MORENO: Okay. Well, we've had
8 presentations by staff with special -- a consideration for
9 class of pyrethrins/pyrethroids, and three additional
10 chemicals. So at this point, the Guidance Panel would be
11 open to any recommendations from Panel members.

12 Dr. Solomon.

13 PANEL MEMBER SOLOMON: I would like to move that
14 the Panel designate iprodione, fipronil, ochthilinone, and
15 the pyrethrins and pyrethroids as a class for
16 biomonitoring under the California Biomonitoring Program.

17 CHAIRPERSON MORENO: All right. Fran, was that
18 worded correctly, stated correctly?

19 STAFF COUNSEL KAMMERER: Yes.

20 CHAIRPERSON MORENO: Okay. Is everyone clear on
21 the recommended motion by Dr. Solomon?

22 PANEL MEMBER BRADMAN: Do you need to have the
23 word "designated"?

24 STAFF COUNSEL KAMMERER: She did.

25 CHAIRPERSON MORENO: All right. Is everyone

1 clear? If anyone is not clear, does anyone need any
2 clarification on the recommended motion?

3 No.

4 Do we need to have additional public comment?

5 STAFF COUNSEL KAMMERER: I beg your pardon?

6 CHAIRPERSON MORENO: We don't have to have
7 additional public comment on the recommendation, do we, at
8 this point?

9 MS. HOOVER: You can ask for it.

10 CHAIRPERSON MORENO: Anyone from the public want
11 to comment on the recommended motion by Dr. Solomon?

12 So we can take a vote all together, I think that
13 would be sufficient, don't you think so?

14 All those in favor signify by saying aye?

15 (Ayes.)

16 PANEL MEMBER WILSON: Did we have -- previously
17 when we've done it, we've had a second and then had
18 discussion.

19 CHAIRPERSON MORENO: Oh, I'm sorry. A second. I
20 apologize.

21 A second?

22 PANEL MEMBER MCKONE: I'll second. I would have
23 first, but I appreciate that Gina could get it all out
24 correctly.

25 (Laughter.)

1 CHAIRPERSON MORENO: No. Thank you, Dr. Wilson.

2 So we have a second by Dr. McKone.

3 So I apologize for that.

4 So all those in favor say --

5 PANEL MEMBER WILSON: And then we follow up with
6 discussion.

7 CHAIRPERSON MORENO: I'm sorry. I'm so sorry. I
8 skipped a step that set us back, didn't it. I apologize.

9 So we have a second.

10 Discussion by Panel members?

11 Okay.

12 Next step.

13 (Laughter.)

14 PANEL MEMBER WILSON: You're on a roll.

15 CHAIRPERSON MORENO: I'm off track completely
16 here.

17 Okay, so we can take it to a vote now?

18 All right. By a show of hands and signify by
19 saying aye, all those in favor?

20 (Ayes.)

21 (Hands raised.)

22 CHAIRPERSON MORENO: Good. It's unanimous. It
23 passes. Thank you, Dr. Solomon.

24 All right, at this point, we aren't scheduled to
25 break until one o'clock. And we do have some questions

1 that Dr. Roisman had presented to us. And so if the Panel
2 likes we can start to address some of those questions.

3 Dr. Roisman, do you want to actually begin that
4 conversation if you have recommended priorities or things
5 you'd like the panel to focus on.

6 DR. ROISMAN: So again these are just some
7 questions that we ran into when we were thinking about, in
8 particular, pesticides. Although, a lot of the issues
9 apply to other chemicals besides pesticides. And I've
10 just put them back on the screen. And I just thought that
11 we'd like to hear your input, and don't necessarily
12 expect, you know, easy answers to any these questions.
13 But I thought it was worthy of discussion, so that it can
14 guide us in terms of the next pesticides and other
15 chemicals that we would bring back to the Panel for
16 discussion.

17 CHAIRPERSON MORENO: Dr. Solomon.

18 PANEL MEMBER SOLOMON: I'd like to actually
19 tackle the chemicals with shared metabolites, because I
20 think that there's two issues there. There's the question
21 of whether the metabolite is actually the active compound
22 of interest or whether it's an inactive metabolite. And I
23 think that matters.

24 In the case of the organophosphates, the original
25 metabolites that were chosen by CDC for the NHANES

1 biomonitoring included ones that -- my understanding is
2 they were not biologically active, and they were common
3 metabolites. And so you, you know, would get urine
4 results of DMP or whatever, you know, the metabolite was.
5 And it was not terribly helpful in figuring out which of
6 the various OPs, which had very different toxicities a
7 person might have been exposed to.

8 With something like a dichloroaniline metabolite
9 where it's actually likely to be the active compound, and
10 is, you know, much more likely to be toxic, I think that's
11 really of great interest in some ways. And then we can
12 later on try to figure out well, how is somebody getting,
13 you know, ending up with a dichloroaniline in their body.

14 It is problematic to look at chemicals with
15 common metabolites, because it puts much more burden on
16 the Program to figure out where the exposures are coming
17 from, if you don't even know which chemical you're looking
18 for. But I don't think that we should exclude those,
19 because, in some cases, we may actually be -- it makes
20 sort of to be taking us to, sort of, indirectly a type of
21 class of chemicals that share our common toxicity pathway,
22 and that we might want to then be aware of as a group.

23 CHAIRPERSON MORENO: Dr. McKone

24 PANEL MEMBER MCKONE: Tom McKone.

25 CHAIRPERSON MORENO: And then Dr. Bradman

1 PANEL MEMBER MCKONE: I think this is a point.
2 Actually there's even a variation on this. I'm thinking
3 of the PAHs, where the hydroxies -- are the hydroxylated
4 pathway is actually competing with the binding to the AGE
5 receptor and it may be, you know, the other -- one pathway
6 may be more important.

7 But I think, in general, it speaks to whether
8 there have been efforts. I think naphthol is one case.
9 But there are efforts when there are similar compounds
10 leading to the same metabolite then to tease out. And
11 this suggests things like questionnaires or support with
12 exposure monitoring. I know in the case of the OPs we've
13 been somewhat successful when there are the -- the dialkyl
14 phosphate classes, with a little bit of household
15 sampling, with looking upstream you can begin to sort out
16 and understand what you're probably seeing. It takes a
17 little more effort.

18 So the discussion here is we don't want to
19 throw -- I mean, what I want to suggest is you don't want
20 to throw up your arms and walk away from a metabolite that
21 has multiple sources, because it's still an opportunity to
22 put bounds on the situation, and with some clever
23 research, with some more information you can really begin
24 to tease out which compounds are contributing to that.

25 I don't know if that's useful advice, but I do

1 think that's one thing to think about is don't see this as
2 a source of frustration, but see it as an opportunity for
3 a little bit better homework and research in other areas.

4 CHAIRPERSON MORENO: Dr. Quint.

5 PANEL MEMBER QUINT: This is Julia Quint.

6 I thought the question that Rachel raised was
7 when a compound that is not designated or priority shares
8 a metabolite with other substances that are, should that
9 substance then be included, because you're going to be
10 looking at it. Even if you didn't designate it,
11 you indirectly will be designating it, because
12 you'll -- you know, it shares a metabolite. I thought
13 that's what we were deciding not whether or not we
14 should --

15 MS. HOOVER: Yeah, that's -- this is Sara Hoover
16 of OEHHA. Yeah, Dr. Quint, that's exactly the question is
17 that this is really kind of at the panel's discretion. So
18 we want your opinion on whether if we identify such
19 compounds that have shared metabolites that are already
20 incorporated in the Program, should it be an automatic
21 thing, that as soon as we identify them, they
22 automatically go on, versus bringing them individually to
23 you. So I think, Rachel, you want to -- here's an
24 example.

25 DR. ROISMAN: Well, this is just the propanil

1 example from before. But, yes, that's the question of how
2 to handle these. Since they're going to be biomonitored
3 anyway, do you want us to talk about each one individually
4 at upcoming meetings or, you know, just update you and say
5 this metabolite is shared with among these compounds, so
6 they're included in the Program.

7 PANEL MEMBER MCKONE: Tom McKone.

8 CHAIRPERSON MORENO: Yes, Dr. McKone.

9 PANEL MEMBER MCKONE: I'm a little confused
10 about -- I mean, suppose we have compound A and compound B
11 and they both give rise to the same metabolite C, right,
12 that's what we're talking about.

13 Now, in the case where both A and B have some
14 concerns, in terms of toxicity, then I think it makes
15 sense put them both -- they have the same metabolite and
16 the metabolite is an indicator.

17 But what if A is completely harmless and B is the
18 one you're worried about, why put A on the list? I mean,
19 from my view - and again I'm speaking at, sort of,
20 somebody trying to do the inverse assessment - I just see
21 A as a source of noise. And I'm not interested in really
22 monitoring it. I'm just interested in how to tune the
23 noise out and find out what's going on with B.

24 So I think that's -- I mean, I think you have to
25 be careful not to say we're going to list a lot of

1 compounds just because they share a metabolite. Unless --
2 I mean again the exceptions are, if the metabolite is what
3 we're worried about, then this is not an issue. I mean,
4 if it's the metabolite that does the damage.

5 But if it's the parent compound that causes the
6 damage, I don't see a reason to bring along another
7 compound onto the priority list, suggesting that it is a
8 chemical of concern. I mean, you know we've gotten some
9 negative feedback about designating chemicals that, you
10 know, gives the impression that we're really worried about
11 the damage caused by that chemicals.

12 So if it's possible to do it in a way that we
13 still focus on the chemical of health concern and just
14 realize that there is confusion and noise that will be
15 brought in by other compounds with the same metabolite.

16 CHAIRPERSON MORENO: Dr. Quint, do you have
17 another question?

18 PANEL MEMBER QUINT: This is Julia Quint. I
19 think for me it just raises a concern about the
20 non-specificity of the results, and how you -- you know,
21 and it's a question of as long as you can resolve the
22 findings in such a way that you can distinguish between
23 the A and B in Tom's example, the one that you're
24 concerned about versus the one you're not concerned about,
25 you know, the contribution, I guess you would have to do

1 it through more detailed exposure information.

2 But you're having the same metabolite -- I mean,
3 there are a number of chemicals in occupational
4 biomonitoring for which trichloroacetic acid is the common
5 metabolite. And, you know, the -- so it's deemed
6 non-specific. So you can't say when you measure a certain
7 analyte what you're -- you know, it's not specific to one
8 particular parent compound.

9 So I guess the concern would be, and this is
10 interpretation of the findings and how you distinguish
11 between the A and B, the one you're concerned about and
12 the one you're not concerned about, that would be to me
13 something that we would have to -- that somebody would
14 have to figure out.

15 You know, so does it add more to the, you know,
16 exposure assessment side, you know, in a situation like
17 that? It seems to me it would, you know. And so far we
18 haven't sort of made decisions based on having to have
19 more detailed exposure information. But I think that this
20 would be a case where you would want it or need it.

21 DR. ROISMAN: If I could pose a question that may
22 help the discussion. For instance, this example that I
23 mentioned earlier with propanil. So diuron and linuron
24 are designated chemicals. They're biomonitored by the
25 CDC, I believe that they're actually ones that will have

1 results for by the end of 2009, so they could be -- so at
2 any point, they could be considered as potential priority
3 chemicals.

4 If they end up being recommended as potential
5 priority chemicals, you know, how would you like us to
6 handle propanil or triclocarban, which we think will be
7 biomonitored the same way? Would you like us to prepare,
8 you know, a designated chemical, write-up a document like
9 we did for iprodione, fipronil, et cetera, even though
10 it's a little bit different? Or, would you like us to do
11 something different because it is going to be biomonitored
12 if we're looking for diuron and linuron? And so is there
13 a different way to handle this kind of, you know, chemical
14 like this?

15 CHAIRPERSON MORENO: Two panel members down here
16 on this end.

17 Go ahead.

18 PANEL MEMBER SOLOMON: I hate to pile more work
19 on staff, but it actually could make a difference in our
20 decision about the priority status of say, you know, the
21 3,4-dichloroaniline metabolite. Or, you know, I could
22 see, for example, this panel considering whether or not to
23 move linuron up to a priority chemical and linuron in and
24 of itself might not make the cut.

25 But, you know, if there were something before us

1 that talked about the fact that, you know, triclocarban,
2 which is in every deodorant soap on the market is also,
3 you know, in that same class, we might -- you know, and
4 that it's known to be absorbed through the skin, and
5 levels are known to go up after showering, you know, it
6 might change our minds, and we might then bump this group
7 into a priority status. And so I actually do see it
8 mattering.

9 I think that it might be reasonable to do a
10 somewhat abbreviated version of the document, indicating
11 that indeed there is a common metabolite. But I think it
12 would help us to know, since we're going to be having to
13 make decisions about priority status.

14 CHAIRPERSON MORENO: Dr. Luderer.

15 PANEL MEMBER LUDERER: Yeah, and to me, this
16 example is very different from the example that Tom just
17 talked about, where you have a chemical that's of concern
18 and one that's not of concern and they share a common
19 metabolite. I mean, here you have four chemicals that
20 share a common metabolite where the sort of -- what Gina
21 was talking about earlier, where the metabolite may
22 actually be the chemical of concern.

23 And so I'd like to maybe propose that these kinds
24 of chemicals would be kind of considered as a class a
25 little bit, you know, kind of analogous to the other kinds

1 of classes that we've been considering, but in this case
2 the class would be defined by the metabolite, which is the
3 chemical of toxicological concern or one of them.

4 CHAIRPERSON MORENO: Dr. Wilson.

5 PANEL MEMBER WILSON: It's a really interesting
6 approach. So, if I understand it, that we would designate
7 substances that give rise to this metabolite, as a class.
8 Is that what you're suggesting?

9 PANEL MEMBER LUDERER: Yes.

10 PANEL MEMBER CULVER: An active metabolite, is it
11 not?

12 PANEL MEMBER WILSON: Exactly. If the metabolite
13 is the substance of concern?

14 That's interesting.

15 CHAIRPERSON MORENO: Dr. Kavanaugh-Lynch.

16 PANEL MEMBER KAVANAUGH-LYNCH: Mel
17 Kavanaugh-Lynch.

18 One of my concerns about making a global rule
19 about, yes, that they share a metabolite given the same
20 designation is that what we're choosing when we -- except
21 in the proposal that was just made that I agree with, in
22 general, we're choosing a chemical and then what actually
23 gets biomonitored may be one thing one year and the next
24 year with advances in science and things might be another
25 thing. In which case, you actually want to have

1 the -- you want to have the -- you want to know what
2 you're losing when you make that switch, which I'm not
3 sure you would find out if you -- I'm not being
4 articulate, but I'm glad you see what I mean. Thank you.

5 MS. HOOVER: I do see what you mean.

6 CHAIRPERSON MORENO: Dr. Luderer.

7 PANEL MEMBER LUDERER: Although you wouldn't be
8 designating the metabolite, you would be designating the
9 class of compounds, the parent compounds.

10 MS. HOOVER: I guess, yeah, we can word it as a
11 designation that parent compounds that give rise -- you
12 know, designate the class of parent compounds that give
13 rise to X metabolite. And that way it would be linking it
14 to the metabolite, but would still allow for this issue of
15 technical developments where they might look for other
16 metabolites.

17 CHAIRPERSON MORENO: This is Ed Moreno.

18 So I think I understand what's being discussed
19 here. It would still require work on staff, because staff
20 have to show that the metabolite is the chemical with the
21 health impacts. And then you go back and make the nexus
22 or the link between that metabolite and other chemicals.
23 And then you'd be bringing to the Panel recommendations of
24 groupings of parent chemicals where the link is, the
25 metabolite, correct?

1 MS. HOOVER: Yeah, I mean, it sounds to me like
2 the answer to the question here is no, it shouldn't be
3 automatic. And that we should actually look intelligently
4 at groups of chemicals where we identify this issue and
5 figure out if there's a -- like this particular example is
6 a good example, where we might want to word for
7 designation a particular class that links parents to
8 metabolites of concern.

9 PANEL MEMBER WILSON: And it seems -- Mike
10 Wilson -- you know, that that could be the question that
11 Marion raises about as the science evolves, we identify a
12 different metabolite or a different indicator that is more
13 efficient to run in the laboratory or what have you. That
14 seems like we could -- to manage that through the language
15 of the proposal. The metabolite or any of its subsequent,
16 you know -- I think it could be worded -- that issue could
17 be addressed in the language.

18 MS. HOOVER: Well, I think actually we've kind of
19 addressed that through previous guidance that Dr. Roisman
20 referenced, which is the SGP has told us that if you
21 identify a parent compound for designation or priority,
22 that the particular target is up to the discretion of the
23 Program. Like we don't have to come back to you and say
24 okay, now, there's a new metabolite or there's a new
25 indicator compound.

1 So I think in the wording -- that's why I
2 suggested, for example, parent compounds that share a
3 particular named metabolite, but that would still give us
4 flexibility to look for those parent compounds in whatever
5 way is appropriate as methods develop.

6 CHAIRPERSON MORENO: Right.

7 Are there further questions on this?

8 Dr. Solomon.

9 PANEL MEMBER SOLOMON: Just a quick comment. I'm
10 sure everyone is on the same page about this. I just
11 wanted to make sure it was said, that, of course, you
12 know, sharing a toxic metabolite doesn't mean that that's
13 the only toxic metabolite that many of these compounds may
14 break down to more than one metabolite of concern. And
15 that is why the Panel does want to give the Program
16 flexibility to look at other metabolites of these parent
17 compounds, so that, you know, if a number of things break
18 down to a specific dichloroaniline, there may also be
19 something else that they break down to that also matters
20 from a health perspective.

21 CHAIRPERSON MORENO: Well, Panel members, if
22 there's -- is there a consensus on this recommendation
23 back to the Program staff?

24 If there's consensus, we won't need to repeat it.
25 Are you clear?

1 MS. HOOVER: Yeah, we're clear.

2 CHAIRPERSON MORENO: Thank you, Panel members.
3 We have 10 more minutes before we break. And I was just
4 wondering if you would like to tackle one more question on
5 the list?

6 I'll take questions for the SGP for 500?

7 (Laughter.)

8 CHAIRPERSON MORENO: Dr. Solomon.

9 PANEL MEMBER SOLOMON: I'd actually like to
10 tackle, well, one that to me I feel reasonably strongly
11 about, which I guess is the last one. Chemicals that are
12 detected infrequently or at low levels in the CDC
13 Biomonitoring Program.

14 Because I actually think that we should look at
15 that. I mean, if CDC is not finding something, unless we
16 have reason to believe that the situation in California is
17 going to be really different, we shouldn't waste our time
18 with those chemicals. We have a small enough budget and,
19 you know, a big enough to-do list.

20 And so I guess I'm tipping my hand about how I
21 may feel about DEET as a priority chemical. I don't --
22 you know, something like that I don't see a different use
23 pattern in California than nationally. And if detection
24 levels are low at CDC, I'd say maybe let's just keep an
25 eye on it and not prioritize something like that.

1 CHAIRPERSON MORENO: Other Panel members on this
2 one?

3 Would you like to -- we can tackle this one then.

4 Okay, other comments?

5 Dr. Luderer.

6 PANEL MEMBER LUDERER: I do have one comment
7 about DEET, which is I think that one of the papers that
8 was given to the Panel as part of the package --

9 CHAIRPERSON MORENO: A little louder.

10 PANEL MEMBER LUDERER: -- that we could review
11 did talk about DEET metabolites that detected after
12 application of products containing DEET. Is that what
13 you're referring to when you're talking about the
14 additional metabolites that CDC is going to be
15 biomonitoring that might be found at higher levels?

16 DR. ROISMAN: Yes. There were two issues in that
17 paper and we talk about it more or later too. But the two
18 issues are that the CDC is planning to measure these other
19 metabolites. CDC, at least, thinks that they'll be
20 finding them at higher levels.

21 And then also in that paper, they were seeing
22 higher levels when DEET was applied in combination with
23 sunscreen which is -- but they both get at the point that
24 Dr. Solomon raised, which is that, you know, unless
25 there's compelling evidence to suggest that there's

1 something different going on in California, you know,
2 advice about what we can do with the chemicals that are
3 found at low levels.

4 CHAIRPERSON MORENO: Well, if there's no more
5 discussion -- go ahead.

6 DR. ROISMAN: Well, I was just going to say that
7 this also raises the related question of how to handle the
8 pending CDC results, which I think was this earlier
9 question.

10 PANEL MEMBER LUDERER: I guess, maybe I wasn't
11 being very clear. But what it seems to me that there's
12 kind of two different situations going on here. So with
13 the DEET it seems that maybe we're finding low levels
14 because we're not measuring the right thing, not because
15 there's not a systemic absorption and potential problems.
16 Whereas, with other things that we're measuring, maybe we
17 are measuring the correct metabolite and really there is
18 low exposure. So I think we need to be clear about which
19 one of those situations we think might be going on.

20 MS. HOOVER: Yeah, and I think that's what --
21 basically, by waiting for the CDC -- so if CDC decides to
22 biomonitor other DEET metabolites and finds them, then
23 this is why we're bringing up this related question about
24 does it make sense to you that we should actually wait to
25 get CDC results before we bring chemicals to you as

1 potential priority chemicals. And obviously this could be
2 a case-by-case basis. If there's some other compelling
3 reason to bring it forward, we could.

4 But this seems like it's a reasonable
5 consideration for when we -- you know, we have a lot to
6 choose from. So in terms of prioritizing which things to
7 bring in front of you, that information on DEET would be
8 useful to make a decision it sounds like.

9 PANEL MEMBER MCKONE: Can I comment?

10 You know, I guess you're looking for a general
11 answer. I mean, as all of these things, we do things on a
12 case-by-case basis, right? So it's kind of hard to yes
13 always or no always.

14 But I'll give you an example of where this may
15 come up. Suppose there is a chemical that CDC is moving
16 ahead on, and we find out the European Union is already
17 ahead of them. And there's a method out there and we can
18 engage in it earlier and it's important to us. We
19 wouldn't want to say well no, we're not going to do that
20 because we agreed we wouldn't do anything until CDC had
21 results. So I think of what you want --

22 MS. HOOVER: Yeah, so that's my other compelling
23 reason -- yeah, so that would be a good other compelling
24 reason, exactly.

25 PANEL MEMBER MCKONE: You want flexibility

1 because it's not -- if CDC were the only other actor in
2 the world, but it could be Canada. It could be Japan. I
3 mean, somebody else may be moving ahead and finding out
4 that there's an important chemical in a consumer product
5 and we want to look at it. So I don't think -- so my
6 answer would be no, we don't want to be essentially tied
7 to CDC all the time. I mean, they're useful, and we don't
8 want to say we're not coupled to CDC. But you also don't
9 want to say well, we'll wait till they have the results,
10 because there are many other good sources of information
11 that would cause California to want to move earlier than
12 that time when CDC has results. I guess I'm saying the
13 answer should be, no, don't wait, if there's compelling
14 evidence.

15 CHAIRPERSON MORENO: Other Panel members have
16 comments on this request for guidance?

17 Yes, Dr. Kavanaugh-Lynch.

18 PANEL MEMBER KAVANAUGH-LYNCH: I assume this
19 question would only apply to those things that we know CDC
20 is monitoring. So it wouldn't apply in cases where we've
21 question chosen designated chemicals that CDC does not
22 have on their list?

23 MS. HOOVER: That's right.

24 CHAIRPERSON MORENO: Dr. Wilson.

25 PANEL MEMBER WILSON: Yeah, Mike Wilson.

1 Just again a question that, for purposes of the
2 statute, once the CDC designates a substance, it then
3 becomes, by default, a designated substance in California.
4 We don't -- we're not required to wait for results before
5 we do that. So I would agree with Dr. McKone that it
6 makes sense that we -- you know, we don't wait for results
7 before we have the option of moving to prioritization.

8 CHAIRPERSON MORENO: Okay. This is Ed Moreno.

9 And what I'm hearing, staff, is that, in answer
10 to your question, should we wait for CDC results before
11 bringing chemicals to the Panel as potential priority
12 chemicals? What I'm hearing is that no, is what I'm
13 hearing. So is that what the rest of the Panel members
14 agree with?

15 Any -- no, with the following caveats.

16 PANEL MEMBER SOLOMON: Well, I guess just
17 personally, I would have a somewhat tough time putting a
18 chemical on the priority list if CDC is looking at it. We
19 expect results in the reasonably near term, and we don't
20 know what CDC is finding yet, and there is not a
21 compelling reason why we need to get out there ahead of
22 the curve in California.

23 So, you know, I would tend to -- but, I mean,
24 obviously, if there's some reason why we do want to move
25 ahead, we shouldn't be precluded from doing so. So it's

1 sort of -- I think it has to be case by case.

2 PANEL MEMBER BRADMAN: I think what we're saying
3 it's case by case. And that there are hard questions.

4 MS. HOOVER: I mean, it sounds to me, to
5 summarize -- to try to summarize again, is that we
6 definitely should take into account available CDC
7 biomonitoring results. We should look at when new results
8 may become available, and we should look at other possible
9 reasons that might compel us to permit sooner, like EU
10 results or other something we find out in California
11 specifically that would be different.

12 So we just -- so these are kind of good questions
13 for us to keep in mind that we answer and look at as we
14 decide what to bring forward.

15 CHAIRPERSON MORENO: All right then.

16 Okay with Panel members?

17 Yes. Okay, great.

18 Well, we took care of a few there. Is there
19 another opportunity today or tomorrow to address more of
20 these questions?

21 MS. HOOVER: Yeah. So there's going to be a very
22 brief next steps presentation by me, and then there's time
23 for discussion and further comments. So we can cover more
24 issues at that point as needed.

25 CHAIRPERSON MORENO: Okay. Yes, Amy.

1 PANEL MEMBER MCKONE: Can we deal with one more
2 quickly or are we done?

3 MS. DUNN: We received a written comment that we
4 just received today for your item that's right after
5 lunch, so I have printed copies for the Guidance Panel
6 members. And they're also in the binders that are outside
7 for members of the public, with the other background
8 materials for the item that's right after lunch.

9 CHAIRPERSON MORENO: Thank you. Well, we're
10 scheduled to break now at one, and to come back at two
11 o'clock. So we'll break for now. See you in an hour.
12 Thanks.

13 DR. ROISMAN: As a reminder, I believe that the
14 audiocast is still live during the break, so anything that
15 you --

16 MS. HOOVER: It was paused. Well, we should
17 pause it.

18 Amy, have you paused the audiocast?

19 MS. DUNN: It's live until I call to put music
20 on.

21 MS. HOOVER: Okay. And, Fran, do you want to
22 give the Bagley-Keene reminder.

23 STAFF COUNSEL KAMMERER: Yes, just a repetition
24 for you to remember to please not discuss the subject
25 matter --

1 CHAIRPERSON MORENO: Guidance Panel members.

2 Go ahead.

3 STAFF COUNSEL KAMMERER: Panel members, just
4 reminder of the Bagley-Keene Act, you're still subject to
5 that during this lunch break, so please don't discuss
6 subject matters of this Program during the lunch break.

7 Thank you.

8 CHAIRPERSON MORENO: Thank you.

9 (Thereupon a lunch break was taken.)

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1 comment, and then we'll finish with Panel discussion and
2 recommendations from the Panel to the Program.

3 (Thereupon an overhead presentation was
4 Presented as follows.)

5 DR. ROISMAN: Okay, so I'm going to be speaking
6 about potential priority chemicals.

7 --o0o--

8 DR. ROISMAN: As a reminder, these are the
9 criteria laid out in the legislation for recommending
10 priority chemicals. The degree of potential exposure to
11 the public or specific subgroups, the likelihood of a
12 chemical being a carcinogen or toxicant, and this can be
13 based on either peer-reviewed data, the structure of the
14 chemical, or toxicology of chemically-related compounds,
15 and the limits of laboratory detection.

16 And also, other criteria that the Panel may agree
17 to. The Panel is not required to come up with additional
18 criteria, but it's an option if that's of interest. And
19 once again, these criteria are not joined by ands, so not
20 all of the criteria need to be met in order for a chemical
21 or chemical class to be added to the priority chemical
22 list.

23 --o0o--

24 DR. ROISMAN: An overview of the materials that
25 have been provided for the discussion of priority

1 class, because that's what was recommended that be added
2 to the designated chemical list at the last meeting. So
3 there's a distinction there.

4 Both these chemicals would be measured by the
5 DTSC lab. They're both measured in serum. And although
6 the handout table provides a little bit more specific
7 information, in general, the perfluorinated compounds the
8 timeline for lab capability, meaning the time when the
9 labs would technically be able to measure these chemicals.
10 For some of them, there's no plan for -- no current plan
11 to be able to measure them. Others are further long in
12 the development process. And the labs think that within
13 12 months they would have methods for this. I want to
14 note that this has to do with lab capability, meaning
15 technical -- you know, are they actually capable of
16 measuring the compound in serum. This has nothing to do
17 with capacity, which would refer to the resources that are
18 necessary for them to do, you know, widespread
19 biomonitoring of these compounds. And that's a separate
20 issue that was discussed in more detail this morning.

21 These chemicals were found in humans in NHANES.
22 And we provided two articles published by folks at the
23 CDC, going over their results. And the handout is just a
24 reference to some of the background materials that were
25 provided.

1 biomonitoring results available for this chemical. It's
2 published in the third report.

3 A second pesticide, which it falls into a
4 slightly different category, is DDT. And it's actually
5 generally the metabolite DDE that's measured. It's
6 banned, but there is evidence of persistence. And there
7 are other concerns about it. And this raises an issue
8 that I mentioned in the earlier talk, you know, the
9 Panel's general attitude towards banned or limited use of
10 chemicals that may still be of concern. There may still
11 be issues about exposure and toxicity, even though use is
12 not high. And this is an opportunity for us to get your
13 input about either general or a specific strategy for how
14 you'd like us to handle those sorts of chemicals.

15 A third chemical is DEET, which has wide use by
16 the general public. And there is evidence of increased
17 absorption when it's used in combination with sunscreen
18 and it is often used in that manner by the members of the
19 general public.

20 And the fourth pesticide is para-dichlorobenzene,
21 which has some household uses, mostly in mothballs and
22 also in toilet boils, and as a space deodorizer. The
23 interesting thing about para-dichlorobenzene is it's been
24 found in very high concentrations in biomonitoring
25 studies, not just by the CDC but by others. And it's a

1 little bit hard to explain, given its use pattern. What's
2 measured for para-dichlorobenzene is 2,5-dichlorophenol.
3 And there's a suggestion that there must be other sources
4 of its exposure, because, you know, the use that's obvious
5 doesn't seem to explain the levels that have been found.
6 And that was one reason why we thought it was an
7 interesting chemical for the Panel to discuss.

8 --o0o--

9 DR. ROISMAN: This is an excerpt of the
10 information that we provided on these potential priority
11 pesticides, the chemical name -- again all of these are
12 for specific chemicals not for a chemical class. I did
13 make a note here about use and exposure, since it's
14 different and interesting in most of these cases, for
15 instance with DDT, that it's a banned but persistent
16 compound. And the issue about para-dichlorobenzene where
17 the uses don't seem to match up with the levels that have
18 been found in biomonitoring studies.

19 Now, DDT would be measured -- or its metabolite
20 DDE would be measured by DTSC in serum. This is a method
21 that they already have available.

22 The other chemicals would be measured by the CDPH
23 labs in urine. And you can see that although DEET is
24 something that the lab thinks they would be able to
25 measure within approximately 12 months, there's no current

1 percentage of the U.S. population had detectable levels of
2 2,4-D in the CDC survey? I was trying to remember that,
3 but didn't know off hand.

4 DR. ROISMAN: Yes. In general, they were found,
5 you know, in the 75th and up percentiles, and more so in
6 2001/2002 than in the '99/2000 group. Actually, it was
7 mostly below the limit of detection in the earlier group.

8 CHAIRPERSON MORENO: Dr. McKone.

9 PANEL MEMBER MCKONE: I had a question about the
10 para-dichlorobenzene. Actually, I first came across that
11 in the team studies, when it was measured on breath. And
12 it seems to be one of those that the breath is the more --
13 at least the original biomarker for exposure, instead of
14 looking at a metabolite.

15 Is there any possibility that there could be some
16 corroboration of the biomarker in urine with breath
17 levels, which the breath is the parent compound?

18 I know Lance Wallace -- this is back in the
19 eighties, right. There were all these presentations
20 showing pretty high levels, I mean -- or I shouldn't say
21 high, measurable, levels throughout the populations that
22 they studied.

23 I mean, it might confirm the source because it's
24 retained in lipids long enough to be on a breath marker
25 and it's volatile.

1 DR. ROISMAN: I'm not particularly familiar with
2 the breath methods. I don't know if anybody from the lab
3 would be able to speak about the possibility of that being
4 something we would develop.

5 DR. PETREAS: Yeah, I'm familiar with the study
6 at the time.

7 Myrto Petreas DTSC.

8 We use breath exhaled air for chemicals usually
9 with short half-lives. So perc, styrene -- I mean, these
10 are the things that you would use. And specifically, you
11 see the parent compound specific. Now timing is very
12 important, having a short half-life when you sample is
13 very critical in how to explain and interpret the data.

14 So I think -- I can't envision a statewide survey
15 with planned exhaled air, because it has to be done after
16 work or after eating or after not having visited the gas
17 pump or other things. So physically, yes, from a lab
18 point, you can do it, but how you correct the sample, how
19 you interpret the data are more complex than we wish to
20 get now.

21 CHAIRPERSON MORENO: Dr. Solomon.

22 PANEL MEMBER SOLOMON: I was just curious whether
23 any of the chemicals that you just presented to us are
24 ones for which there are opportunities out there that
25 staff might be aware of for funding or collaborations or

1 any other -- you know, any other possibilities that we
2 should know about that could be pursued, data -- you know,
3 populations or researchers that are looking to our Program
4 for partnership for possibly measuring those chemicals?
5 Because I would think those factors might weigh in to our
6 decision.

7 DR. ROISMAN: With these particular chemicals, I
8 I'm not aware of anybody who may be interested in
9 collaboration. But it's not something we've actively
10 pursued with these chemicals. I don't know if, Diana, if
11 you have any thoughts.

12 MS. LEE: Some of the organochlorine pesticides
13 like DDT have been stated to be of interest, like in the
14 maternal infant exposure study. For instance, especially
15 looking at immigrant populations or coming from countries
16 that still use DDT as a potential. And they a known
17 endocrine disruptor as well.

18 So the others not -- we haven't, I think, come
19 across those as being specifically of interest.

20 PANEL MEMBER BRADMAN: I hope everyone can hear
21 me. This is Asa Bradman.

22 Just to mention about DDT and the work that we've
23 done. We have found fairly high levels in pregnant
24 Mexican immigrant women in the Salinas valley, much higher
25 than NHANES or other California populations. So just to

1 underscore that there can wide variability and potentially
2 high exposures out there that could be related to health
3 effects.

4 Though this goes back to comments made by Gina
5 earlier, do we expect California to be different than
6 other places and will we learn anything new if we measure
7 it?

8 My feeling is that it's an important compound and
9 that we can learn about the distribution of exposures and
10 potentially identify populations at risk. But I'm not
11 sure whether California would really be different from
12 other states.

13 CHAIRPERSON MORENO: Dr. Solomon.

14 PANEL MEMBER SOLOMON: Diana, had something.

15 MS. LEE: California's proportion of immigrant
16 population is definitely higher than the national average.
17 So from that perspective it's one of the distinct features
18 that we cited as a population distinctly of interest to
19 look at.

20 PANEL MEMBER SOLOMON: Are we doing panel
21 discussion or just questions?

22 CHAIRPERSON MORENO: We're taking questions right
23 now. Then we'll go to public comment and then we'll bring
24 it back for discussion and recommendations.

25 PANEL MEMBER SOLOMON: Okay, then I'll hold.

1 CHAIRPERSON MORENO: Okay. Further questions?

2 Okay. If there are no further questions, do we
3 have requests from the public to speak on this item?

4 MS. DUNN: I have one. Is there anyone else?
5 There's two.

6 CHAIRPERSON MORENO: Okay. And do we have any
7 Emails?

8 MS. DUNN: No.

9 CHAIRPERSON MORENO: Thanks.

10 Okay. All right, just give me one moment here.

11 We'll take our -- I think we have two speakers.
12 I'll take the first one. Davis Baltz.

13 MR. BALTZ: Davis Baltz with Commonweal.

14 Just a quick remark and comment on the
15 perfluorinated compounds. Certainly, it would be our view
16 to prioritize these chemicals. One of the criterion
17 listed here is the degree of potential exposure. And if
18 I'm not mistaken, every single group that's been
19 biomonitored since the 1950s has this in their bodies.
20 And of particular concern, of course, is the astonishing
21 persistence of very little evidence of breakdown by
22 sunlight or temperature in environmental media.

23 So I hope that this will be a non-controversial
24 recommendation from the Panel to prioritize these.

25 Thanks.

1 CHAIRPERSON MORENO: Okay. Thank you for your
2 comments.

3 The next speaker is Karluss Thomas

4 MR. THOMAS: Hi. I'm Karluss Thomas with the
5 Silicones Environmental Health and Safety Council, of
6 north. I'd like to thank OEHHA and the Panel for the
7 opportunity to provide some brief comments on the
8 possibility of including the cyclosiloxanes as a class to
9 the list of priority materials.

10 I do want to start at the outset by acknowledging
11 that there could be and very likely will be a public
12 health benefit for biomonitoring compounds for which there
13 are well known human health effects. And having said
14 that, I do want to point out that both Canada and the
15 United Kingdom have done extensive risk assessment for
16 these materials, both of which have found that there are
17 no risks to human health associated with these materials.

18 In fact, the assessment in Canada was a pretty
19 robust probabilistic evaluation where they did look at a
20 variety of different applications and use scenarios,
21 including cosmetics, personal care products, household
22 products. And again, their final conclusion was that
23 there were adequate margins of exposure for the materials
24 for all of those use categories.

25 And with the case of the UK, that assessment was

1 a little bit more narrow from the standpoint that it
2 essentially evaluated the human health impacts associated
3 with environmental exposure to the materials. But again
4 that assessment as well concluded that there are no human
5 health risks associated with these materials.

6 I also want to point out from the standpoint of
7 safety that an independent scientific board of experts,
8 this Cosmetic Ingredient Review Panel, which evaluates the
9 safety of materials for cosmetics formulations, also found
10 recently a few months ago that these materials were safe
11 for cosmetics formulations.

12 And I'd also like to harken back to a part of the
13 discussion earlier where Dr. Culver, I think, was talking
14 about the potential utility of including a class of
15 compounds for priority or designated.

16 I do want to point out that with regard to these
17 materials, that there are differences. Even if you look
18 at the assessment that was done in Canada, the
19 environmental portion of the assessment, again there were
20 two assessments, an environmental evaluation and a human
21 healthy evaluation. The human health evaluation again
22 found that there are no risks associated with these
23 materials from the standpoint of the environmental
24 assessment. There were distinct differences noted between
25 D4, D5, and D6, which were the three compounds that were

1 evaluated as part of that assessment.

2 And from the standpoint of D6, they concluded
3 that there were no environmental consequences or there
4 were no environmental problems associated with D6. That
5 was also the case with D6 in the UK. So there were very
6 different conclusions reached for the different compounds,
7 which, again, I think speaks to the challenges associated
8 with adding compounds of materials as a class,
9 particularly when they have very different physical and
10 chemical properties, and they also have very different
11 human health impacts. And they also have very different
12 environmental behavior.

13 And finally, I know we don't have much time. I
14 just wanted to comment on the fact that there are also
15 challenges associated with minimizing sample contamination
16 associated with handling and measuring these materials. I
17 think this was also talked about before from the
18 standpoint of some of the other compounds, because these
19 materials are relatively widespread, at least from the
20 standpoint of their use in consumer products, there are a
21 lot of possibilities for sample contamination.

22 So I guess I just want to, you know, in closing
23 just emphasize the fact that while there can be public
24 health benefits to biomonitoring, the SEHSC does believe
25 there are any public health benefits, at least measurable

1 public health benefits, that can be achieved from adding
2 these materials to the list of priority materials.

3 Not only are there no human health risks, but
4 again from the standpoint of there being a class of
5 materials, they behave very differently, not only from
6 their human health standpoint, but also from the
7 standpoint of how they interact with the environment.

8 So I'll close there and be happy to take any
9 questions that folks have.

10 CHAIRPERSON MORENO: Thank you very much.

11 Are there any further individuals that would like
12 to provide comment, that haven't provided comment yet?

13 All right, with that, thank you very much. With
14 that, I'm going to bring this back to the Guidance Panel
15 and open it up for discussion. And following discussion,
16 this would be the time to make recommendations from the
17 Panel to the Program.

18 PANEL MEMBER WILSON: Mike Wilson.

19 I guess I'd like to start out with discussing the
20 perfluorinated compounds from Dr. Roisman's presentation.
21 And I think my inclination is that these substances should
22 be prioritized as a class. And based on what we're seeing
23 from the NHANES survey, I think it was 98 percent of
24 subjects were identified -- or perfluorinated compounds
25 were identified in 98 percent of participants. And also

1 this, I think, really striking set of articles provided by
2 staff that -- showing concentrations of perfluorinated
3 compounds in California sea mammals, the highest recorded
4 anywhere in the world. And the articles that I think made
5 it really interesting, although unexplained correlation,
6 between liver concentrations of perfluorinated substances
7 and infectious -- and mammals identified with infectious
8 diseases.

9 So that together I think is, in my mind,
10 certainly warrants elevating perfluorinated substances to
11 priority as a class.

12 MS. HOOVER: Excuse me, Dr. Moreno, just one
13 click insertion here. You can't actually do that today,
14 because at the moment you can only consider perfluorinated
15 compounds that have already been designated, because the
16 class of perfluorinated compounds is not yet designated.
17 So there are specific compounds that are designated
18 already. And that's why it's worded in that way. Those
19 PFCs that have already been designated. But you could, in
20 the next steps, we can talk about if you'd want to go back
21 and designate the class and consider the class.

22 PANEL MEMBER WILSON: I guess I would clarify
23 that then by saying my suggestion -- and it's up for
24 discussion that we -- that I would like to see those
25 perfluorinated substances that are designated be

1 prioritized for California.

2 CHAIRPERSON MORENO: Okay, Dr. Solomon.

3 PANEL MEMBER SOLOMON: I share Dr. Wilson's
4 concerns about the perfluorinated chemicals. What I'm
5 struggling with is what I heard from Dr. Petreas's
6 presentation earlier, which appeared to be -- it appeared,
7 and I'd love some clarification on this, that she was
8 seeking an either/or recommendation from the Panel about
9 whether to pursue the Persistent Organic Pollutants, such
10 as PCBs, you know, brominated flame retardants, et cetera,
11 versus the perfluorinated chemicals. And that the lab
12 does not have the capacity to do both.

13 If that's true, then I've got to say that's
14 giving me heartburn, because I'm having a tough time. I
15 care a lot about the flame retardants. And I'm super
16 concerned that, you know, that they pose a serious public
17 health concern in California. And at the same time, I'm
18 also quite concerned about the perfluorinated chemicals.
19 And so it would be sort of easy for us as a Panel to go
20 ahead and prioritize the perfluorinated chemicals.

21 And I just wonder if staff needs more guidance
22 from us or, you know, whether, sort of -- I'd just love to
23 hear a little bit more about where the laboratory
24 situation stands, and if the Panel should be trying to
25 weigh in on that difficult decision, either through the

1 priority-setting decision or perhaps we could go ahead and
2 prioritize the perfluorinated chemicals, so that when
3 resources become available, obviously they would be
4 pursued. But in the meantime, perhaps we should be giving
5 some guidance about which we care more about.

6 DR. PETREAS: We're all hopeful more resources to
7 become available, being we know by the CDC RFA maybe. I
8 mean, the truth remains that we only have two staff and
9 they can only work on one channel. And I don't know if
10 you remember the diagram I showed, the complex diagram how
11 you start with one milliliter of blood and you -- I showed
12 the diagram showing how you start with one milliliter of
13 blood and you can end up with a polar or non-polar
14 fractions. Very elaborate steps. And can you end up with
15 several little vials that you can get inject into
16 different instruments, and you get your PCBs or pesticides
17 or PBDEs and so forth or the hydroxies.

18 The PFCs are totally different chain altogether.
19 So you start from a different sample, stored in a
20 different little vial to begin with, and then you process
21 it. So we sent our staff to CDC to be trained on both.
22 And we have the instruments to do both, but we will -- and
23 we will develop the methods for both, but we can't produce
24 data for both. So maybe as you implied, maybe, you know,
25 if there were designated or prioritized, they would be

1 there. And then I guess the Program can decide how to go
2 after that. But it is a limit of resources, unless
3 something changes.

4 MS. HOOVER: This is Sara Hoover of OEHHA.

5 And actually, another thought would be, yeah, it
6 doesn't have to influence your choice of priority
7 chemicals, but we could bring to you the priority chemical
8 list and ask for your feedback, you know, given limited
9 resources. You could provide us, you know, your first
10 priorities within the priority list. So that would be
11 another option of giving that kind of guidance.

12 CHAIRPERSON MORENO: Dr. Quint.

13 PANEL MEMBER QUINT: I have a question, which may
14 be obvious. You listed so many samples per year, and then
15 you had the 20 percent reduction with the furlough
16 imposed. And I'm wondering what those numbers were based
17 on? Basically, I'm trying to figure out if we can reduce
18 the numbers for both and do both analyses?

19 DR. PETREAS: (Shakes head.)

20 PANEL MEMBER QUINT: No, okay.

21 So those numbers are some sort of statistical
22 number that you need in order to have meaningful results
23 or something?

24 DR. PETREAS: The number of -- this is Myrto
25 Petreas, DTSC. The number 1,000 started when we were

1 talking about statewide surveys. And then we tried to
2 calculate and estimate the resources, and how many samples
3 could we do based on our experience with this type of
4 analysis. So that was what it was based on.

5 You can't divide in two. It won't be the sum of
6 the two. It will be much larger than that number, because
7 having two chains and two different procedures is much
8 more inefficient.

9 PANEL MEMBER WILSON: And as I understand it
10 then, the flame retardants would fall into that algorithm
11 where you split into two samples, polar and non-polar
12 sections, is that right?

13 DR. PETREAS: Yes.

14 PANEL MEMBER WILSON: All right.

15 DR. PETREAS: Yeah, we call them POPs, the
16 Persistent Organic Pollutants -- it's either the
17 Persistent Organic Pollutants, which includes the PBDEs
18 and the BFRs or the PFCs, which is a totally different
19 chain.

20 PANEL MEMBER WILSON: You know, I guess in -- I
21 think -- I'd thank you, Gina, for reminding of this
22 question. And I guess we've had a lot of discussion about
23 the flame retardants being particularly, you know, a
24 unique issue for California. And so I guess I share your
25 sympathy, in that that's, you know, relative to the

1 perfluorinated substances, which I don't know why those
2 would be unique to California. So I guess that's
3 something that we need to, you know, deliberate with as a
4 Panel. If we have to actually make a decision today, is
5 that what you think would be helpful at this point?

6 PANEL MEMBER SOLOMON: It sounds like, what I'm
7 hearing from staff, is that we could decide, for example,
8 to prioritize the perfluorinated compounds -- well, some
9 of the perfluorinated compounds, that ones that are
10 already on the designated list, today. But that it, in
11 addition, might be helpful to get a general signal from
12 the Panel about whether, you know, how high -- it should
13 be relative to the Persistent Organic Pollutants.

14 And I think from my perspective, you know, I
15 think that the perfluorinated chemicals belong on the
16 priority list. I would like to see those biomonitored.
17 But I actually feel more strongly about the flame
18 retardants, especially the newer ones, because of the
19 California specific angle. But it's a tough one. I must
20 say I'm struggling with this.

21 CHAIRPERSON MORENO: Dr. Bradman.

22 PANEL MEMBER BRADMAN: I would just say I agree
23 with Gina on that assessment, all the way around, in terms
24 of the difficulty and the prioritizing given the
25 limitations.

1 CHAIRPERSON MORENO: Dr. Kavanaugh-Lynch.

2 PANEL MEMBER KAVANAUGH-LYNCH: I'd like to
3 advocate for the philosophy of putting things on the --
4 prioritizing chemicals that we think ought to be
5 prioritized. And then providing guidance later on in
6 terms of which to put at the top of the list versus lower
7 on the list, because I think there's a lot of -- I can
8 imagine circumstances, for instance, in a future budget
9 year of being able to -- for advocates and other people to
10 go and say, look, the State only has the capacity to do
11 one-third of the list that needs to be done. There's this
12 other two-thirds of a list that still needs to be funded
13 or arguments such as that.

14 CHAIRPERSON MORENO: Okay. This is Ed Moreno.

15 So what I'm hearing from the Panel members is
16 that we could make a decision today on making
17 recommendations for adding perfluorinated compounds that
18 are already designated to the priority list of chemicals
19 and then make a decision later as to best use of resources
20 from our laboratory in choosing one chemical or group of
21 chemicals over others.

22 So we can continue that conversation on
23 perfluorinated compounds. We also have two other groups
24 of recommendations. We have the cyclosiloxanes and the
25 pesticides. So what would the Panel like to do?

1 PANEL MEMBER WILSON: Mike Wilson. My preference
2 would be to conclude this question of the perfluorinated
3 compounds and --

4 CHAIRPERSON MORENO: Okay. Well, Dr. Wilson,
5 you've already expressed your interest to do that. Would
6 you like to pose a recommendation.

7 PANEL MEMBER WILSON: Yes. I guess I would
8 propose that the perfluorinated compounds that have been
9 designated thus far be elevated to priority chemicals
10 under the California Biomonitoring Program.

11 CHAIRPERSON MORENO: Okay. That sounds clear to
12 me. Is there a second then we'll have a discussion

13 PANEL MEMBER LUDERER: I'll second the motion.

14 CHAIRPERSON MORENO: Dr. Luderer seconds the
15 motion.

16 Discussion among panel members on that?

17 Okay. No discussion. Any comments from the
18 public on this before we take a vote?

19 I don't see any. So I'll go ahead and call for a
20 vote. All those in favor signify by saying aye?

21 (Ayes.)

22 (Hands raised.)

23 CHAIRPERSON MORENO: Okay. It's unanimous, no
24 opposed.

25 Thank you.

1 All right, why don't we move on to -- I'm sorry
2 panel members what would you like to discuss next?

3 Selected Pesticides, cyclosiloxanes.

4 Okay, cyclosiloxanes.

5 Do any panel members have any thoughts for
6 discussion here?

7 Dr. Wilson.

8 PANEL MEMBER WILSON: Well, I'll jump in there.
9 Mike Wilson. I'm trying to recall we had a long
10 discussion about cyclosiloxanes and whether to designate
11 them. And so as I remember one of the main concerns that
12 we expressed was the persistence and bioconcentration
13 issues related particularly to D5.

14 And there were others. There were other issues.
15 The second being -- another one, I guess, being the
16 potential -- I guess, the actual increase in the use of
17 these substances in the dry-cleaning industry and others
18 in California, as we're taking action on Perc.

19 So were there other major issues that we
20 discussed on cyclosiloxanes as a panel?

21 CHAIRPERSON MORENO: Dr. Solomon.

22 PANEL MEMBER SOLOMON: Well, we also discussed
23 the wide-spread use in cosmetics and other consumer
24 products. But I think that the driver for looking at this
25 class was that we were looking at, you know, chemicals

1 that were coming onto the market in response to California
2 regulatory decisions. And so we were looking at the, you
3 know, the likelihood that D5 would be replacing
4 perchloroethylene for a significant fraction of the
5 dry-cleaning market and that that could lead to an
6 increase in exposure.

7 I think once we started kind of, you know, turned
8 over the rock, then there was interest in the consumer
9 products, the persistence, and then some cancer data
10 that a number of us, I think, found troubling from some
11 studies that I believe were on D5.

12 CHAIRPERSON MORENO: Dr. Quint, did you have a
13 comment?

14 PANEL MEMBER QUINT: Yes. This is Julia Quint.
15 In addition to increased usage based on substituting for
16 perc in dry-cleaning, it is also because of the VOC
17 exemptions and Clean Air Act here, especially in southern
18 California, D5 has been used or is being used in a number
19 of -- you know, as a substitute for other solvents in
20 cleaners, especially in vehicle repair, automotive repair.

21 So we do have two unique situations here in
22 California. And a lot of states they don't have the
23 really strict VOC regulations that we have or limitations
24 on VOCs and so D5 has become a popular substitute or is a
25 substitute for some of the VOC solvents that normally

1 would be used.

2 With regard -- we did talk a bit about the
3 toxicity data and there is, included in the information
4 that staff prepared, is a reference to the OEHHA summary
5 on D5, which they did, based on the cancer study in
6 animals. And I don't know if there's been any update of
7 that. I think that was a couple of years ago. And I'm
8 asking staff whether or not there have been any new
9 developments on D5 with regard to the toxicity.

10 The other question I have about the OEHHA review
11 versus some of the other studies, Health Canada and the
12 UK, which you've included in binder, is whether or not
13 those other reviews of the potential health effects
14 included the industry-sponsored study or the study, the
15 cancer study. I wasn't clear what was included and what
16 wasn't included in the Health Canada evaluation and in the
17 UK Evaluation.

18 DR. ROISMAN: In answer to your first question,
19 OEHHA has not done any additional work on D5 since --

20 PANEL MEMBER QUINT: Since these --

21 DR. ROISMAN: -- the publication of that summary
22 document. There was a follow up to that document in
23 response to some issues brought up by industry, but that
24 was, you know, a few --

25 PANEL MEMBER QUINT: Clarifying.

1 DR. ROISMAN: Right.

2 And in answer to your second question, you know
3 in general, I think that both the work that the UK and
4 Canada did was fairly comprehensive. And I believe that
5 they did include the industry sponsored studies, and
6 perhaps the people here from industry could answer more
7 specifically, but I don't know offhand exactly which
8 studies were included in the review.

9 CHAIRPERSON MORENO: Dr. McKone.

10 PANEL MEMBER MCKONE: I just -- to review this
11 issue in a different perspective, this goes -- in one of
12 our earliest meetings we mentioned that it was very
13 important that we not only look at chemicals that have
14 been in commerce for 20 years or that we use biomonitoring
15 to always go backwards and say well, that's -- you know
16 like that flame retardant was probably a poor choice, for
17 example.

18 (Laughter.)

19 PANEL MEMBER MCKONE: Whatever it is.

20 And we saw this -- we identified a number of
21 compounds that we saw a rising market. And so an
22 opportunity to use -- to demonstrate that the
23 Biomonitoring Program could not only tell us what's out
24 there from 20 years of use, but what's going on currently.
25 And we want to basically demonstrate, I think, that the

1 Program can capture an ongoing event as well as past
2 events.

3 And, you know, this is one of the compounds that
4 met the criteria for that. I think there were a number of
5 others. So I think there were multiple motivations. And
6 our criteria do list that other -- I think this is that
7 other that was very important to us at the beginning that
8 we do look at -- so in that sense, it doesn't -- I don't
9 think we need strong proof of toxicity, but we needed to
10 have at least some chemicals in our set that are an
11 ongoing rising event, that we can capture the event as it
12 happens, not after it's over and then look backward.

13 CHAIRPERSON MORENO: This is Ed Moreno.

14 Dr. McKone, I recall that too, that the decision
15 to designate this group was based on additional criteria
16 that the Panel had the authority to do under the statute.
17 So thanks for reminding us.

18 Other comments by Panel members?

19 PANEL MEMBER WILSON: Mike Wilson.

20 Well, I guess just sort of picking up from that
21 issue and from what Dr. Quint has noted about the other
22 areas of commercial products with our VOC caps here in
23 California, that that's another driver. And I guess
24 the -- what's disturbing to me about this particular class
25 of substances, in particular the D5 and its volume in

1 commerce, is, you know, for example, it has been
2 designated -- or it has met the screening criteria in the
3 EU for a very persistent very bioaccumulative substance.

4 And so it just seems to me a bad idea to be sort
5 of, you know, motivating or engendering changes in
6 industry and commercial practices that are going to
7 increase the use of a very persistent, very
8 bioaccumulative substance, irrespective of really
9 questions of toxicity, because we are, in essence,
10 guarantying that we're going to disperse that substance
11 both across time and space, just by the nature of its
12 properties.

13 And so I guess it's -- I think it does make a
14 compelling case, based on all the discussions that we've
15 had, that this be, you know, prioritized for California.

16 CHAIRPERSON MORENO: Dr. Quint.

17 PANEL MEMBER QUINT: Julia Quint.

18 There's just one other aspect to this too, is
19 where you want to be on the curve of usage, you know, in
20 terms of D5 coming on to the market. The perc reg is, I
21 think -- I forgot when the final regulation goes into
22 effect, when the alternatives will, you know, start to be
23 used in a more wide-spread manner. But we are -- I mean,
24 in looking at this, one other thing to take into
25 consideration is, you know, the timing of events, with

1 regard to the chemical coming on to market. And I think,
2 you know, we're at a juncture where we can pretty much
3 measure it, you know, have an opportunity to have a point
4 at a time when, you know, the usage may not be as wide
5 spread. There is a lot of usage in terms of personal care
6 products. But with regard to what's unique about
7 California, is the dry-cleaning -- the perc ban, and some
8 of these other continuing VOC exempt chemicals.

9 So it's another thing to think about in terms of,
10 you know, setting -- designating it as a priority
11 chemical, is that we might be able to capture something
12 here.

13 CHAIRPERSON MORENO: Okay. Is there a further
14 discussion on cyclosiloxanes by the panel?

15 If not, is there a recommendation from a Panel
16 member on this class of drugs -- class of chemicals,
17 excuse me.

18 PANEL MEMBER MCKONE: This is Tom McKone.

19 I'll make the recommendation that we -- I have to
20 get the language right -- move this from designated to
21 priority and move the cyclosiloxane class. It's
22 designated as a class right now, so that means we move the
23 designated class to a priority class.

24 CHAIRPERSON MORENO: Okay. Is there a second?

25 PANEL MEMBER QUINT: I second.

1 CHAIRPERSON MORENO: Dr. Quint seconds.

2 Is there any discussion on this recommendation by
3 Panel members?

4 If not, does anyone from the audience today want
5 to comment on this item before -- this motion before we
6 vote on it?

7 Yes, sir.

8 MR. THOMAS: This is just to make actually just
9 one clarifying point. There was a little bit of
10 discussion about differences between the cyclosiloxanes
11 from the standpoint they're being designated as very
12 persistent bioaccumulative in the UK. That was not the
13 case with all of the cyclosiloxanes. So again, I think
14 the challenge is that we make these decisions on the basis
15 of a class of compounds, but all of the materials do not
16 behave the same.

17 So, for example, D6 that was not the
18 determination that it was very persistent or very
19 bioaccumulative. So I think the Panel might consider
20 whether making this decision as a class has broader
21 implications that are not going to be consistent with a
22 reasonably evaluation of specific materials.

23 So that's all.

24 CHAIRPERSON MORENO: Thank you.

25 Dr. Solomon.

1 PANEL MEMBER SOLOMON: Yeah. I just have a
2 couple of laboratory questions. Would the lab methods
3 that would be used for, you know, one cyclosiloxane tend
4 to work for the entire group or would there be a set of
5 different laboratory methods that would be needed for
6 these chemicals, for each individual one.

7 DR. PETREAS: Myrto Petreas. We don't know at
8 this point. I mean, this is, for us is far away in the
9 future.

10 PANEL MEMBER SOLOMON: Right. And I'd also like
11 to recognize that, you know, from a practical perspective,
12 you know, I understand that this isn't something that the
13 lab is going to be able to do anytime in the very near
14 future. So this would be presumably, you know, this group
15 of chemicals, if it gets onto the priority list, just as
16 sort of in the cue as resources become available.

17 It would be wonderful, you know as Dr. Quint
18 said, to be in sort of on the ground floor of some
19 chemicals that we think might be going up in the future.
20 It probably won't happen realistically, just because of
21 resources. But I guess we could just have to recognize
22 reality.

23 DR. ROISMAN: I believe, and correct me if I'm
24 wrong, that the cyclosiloxanes may have been included as
25 an option in the CDC, RFA proposal; is that correct?

1 DR. PETREAS: I don't know.

2 DR. ROISMAN: You don't know.

3 MS. LEE: This is Diana from the Environmental
4 Health Investigations Branch. Yes, they were included in
5 the five-year workplan, but I believe to be developed in
6 the fourth or fifth year of the workplan.

7 CHAIRPERSON MORENO: Dr. Culver.

8 PANEL MEMBER CULVER: Could somebody, perhaps on
9 the Panel, summarize for me why cyclosiloxanes should be
10 treated as a class?

11 PANEL MEMBER WILSON: Well, I'll jump in. I was
12 certainly concerned more about D5 than I was the others.
13 And at the same time, you know, looking at the information
14 that we have, it's not clear to me that the others have
15 been absolved, that D4 and D6, for example, have been
16 declared innocent. I think, you know, D5 is unique in
17 that it's, as I understand it from our last discussion,
18 it's a higher volume with production moving toward greater
19 volume. And we're seeing at least from the screening
20 evaluation, from the EU that it's a very persistent, very
21 bioaccumulative substance. So that's unique.

22 But it's not, at this point at least in my mind,
23 it -- there is -- I think there's enough information on
24 the others to raise concern and not enough to absolve
25 them.

1 CHAIRPERSON MORENO: Dr. Solomon.

2 PANEL MEMBER SOLOMON: I think there was also the
3 issue that D4 and D5 are used together frequently as a
4 cyclomethicone ingredient. So I recall that being
5 something that made us think that there was these
6 chemicals often co-occurred anyway and might be worth
7 looking at as a group.

8 PANEL MEMBER MCKONE: Yeah. And we talked about
9 this study in which we were looking at emissions from
10 consumer product electronics. And it was very broad
11 across from D3 all the way up through D6. So I would
12 actually say the difficulty here is if it weren't a class,
13 I mean, we're seeing it's a class with different problems
14 in different segments. Some are more persistent. Some
15 are more volatile. Some are used in different -- but
16 which one would we exclude or which two would we exclude,
17 because we're seeing it as a class of chemicals that in
18 consumer products is being used for a broader number of
19 categories as being used more as sealants in housing and
20 construction. So we don't quite know where to focus our
21 efforts to exclude either.

22 So I think we have to stay with a class, unless
23 we see strong evidence that there's one particular
24 compound or two or three that really stand out as very
25 different.

1 PANEL MEMBER CULVER: So it's the anticipatory
2 issue that also encourages us to consider them as a class,
3 is that what you're saying?

4 PANEL MEMBER MCKONE: Yeah, I think the fact -- I
5 mean, one of the drivers for this is that we're trying to
6 capture, you know, a rising curve in the middle,
7 hopefully, or toward the middle, as opposed to after the
8 curve has risen to look backwards. So I think that -- you
9 know, I don't think there's evidence that any one compound
10 is not rising in use right now. If we had that, we would
11 probably suggest to staff that they focus more
12 carefully on -- I mean, we still can prioritize within a
13 class that is prioritized.

14 (Laughter.)

15 CHAIRPERSON MORENO: Dr. Luderer.

16 PANEL MEMBER LUDERER: Yeah. And I think also
17 just -- I think maybe this point was kind of already made,
18 but just that many of these compounds, D3, D4, D5, D6,
19 they're used in similar ways and similar products,
20 particularly like in the personal care products. And one
21 of the articles that was included in our package showed
22 detection of multiple of these cyclosiloxanes in
23 fragrances. All of those were detected in fragrances and
24 then in other personal care products. So I think that's
25 another reason that we thought that they should be

1 considered as a class.

2 CHAIRPERSON MORENO: Any other questions?

3 Okay. We have a motion and a second on this. If
4 there's no further discussion, I'll call for a vote.

5 All those in favor raise your hand and signify by
6 saying aye.

7 (Ayes.)

8 (Hands raised.)

9 CHAIRPERSON MORENO: Okay, so that's unanimous.
10 So that passes.

11 Thank you. And we have selected pesticides that
12 have been researched and presented by Program today. So
13 I'd like to begin discussion on those items.

14 Dr. Solomon.

15 PANEL MEMBER SOLOMON: I actually came in here
16 prepared to say we shouldn't prioritize DDT, because of
17 the sort of interest that this panel has expressed in the
18 past for moving forward and not looking at sort of
19 historical banned chemicals.

20 But then I think I may have been persuaded
21 otherwise by some of the conversation that's occurred
22 today, and specifically the need or importance of focusing
23 on some of the immigrant populations in California that
24 may have been exposed in Mexico or other countries, and
25 who we should be keeping an eye on as part of the

1 Biomonitoring Program. And so that does seem like a
2 compelling public health reason.

3 I'm less convinced though with some of the
4 others. DEET, I don't see a use pattern that's really
5 different in California. And the concentrations were
6 pretty low in the CDC study. So I, you know, am not quite
7 seeing what puts that onto the priority list.

8 And then I did a little shelf survey, or at least
9 one of my interns did, a couple years ago on
10 p-dichlorobenzene, just checking to see what products it
11 was in, and whether mothballs or other moth repellents,
12 and various disinfectants and so forth, toilet bowl
13 deodorizers, urinal things contain p-dichlorobenzene. It
14 does need to be on the label, because it's a registered
15 pesticide. So it's one of those things that if you check
16 the ingredients of products you can figure out if it's in
17 them.

18 And we found almost none. And that's probably
19 largely because it's listed under Prop 65 in California as
20 a known carcinogen. And so therefore, any product sold in
21 California would need to be labeled with a warning. And
22 so, there's not -- there wasn't a lot out there. This was
23 a couple years ago.

24 So my guess is that, if anything, levels of
25 p-dichlorobenzene would be lower in California compared to

1 the levels seen in NHANES. That might be interesting in
2 and of itself. And so that we could sort of think as a
3 Panel about whether that's a reason to prioritize, in
4 order to show perhaps a difference that could be
5 attributable to public health, you know, right-to-know
6 laws, or whether it makes it less interesting, because we
7 don't think we're going to find as much. But I thought
8 that that was worth considering in the decision.

9 CHAIRPERSON MORENO: Dr. Luderer.

10 PANEL MEMBER LUDERER: I was going to play
11 devil's advocate and make basically the last argument that
12 you just made, that that might be a good reason for
13 monitoring for it, because it would, you know, potentially
14 show the beneficial effects of a public health law that's
15 been in place in California and that's unique to
16 California, Prop 65.

17 CHAIRPERSON MORENO: This is Ed Moreno.

18 As far as the DEET, you know, my public health
19 background, and that's one of the few chemicals that I'm
20 out there telling people to expose themselves too.

21 (Laughter.)

22 CHAIRPERSON MORENO: So I would be interested in
23 including DEET in California.

24 Additional comments by Panel members?

25 All right, are there any other questions of

1 Program staff?

2 Dr. Solomon.

3 PANEL MEMBER SOLOMON: Well, we should talk a
4 little bit about 2,4-D. A very interesting chemical.
5 Very wide spread. A lot of agricultural use and obviously
6 also consumer use. And various weed and feed kind of
7 products and other household, you know -- well, not
8 household, but garden herbicides. So there's reason to
9 expect a fair amount of exposure, not necessarily
10 differently in California than in other states, but
11 certainly it is one of those pesticides that would be, you
12 know, relatively high on the list of concern. And I
13 notice that there was that article about sunscreen
14 potentiating skin absorption of DEET. There's also quite
15 a literature on sunscreen and DEET and alcohol
16 potentiating skin absorption of 2,4-D, actually for three
17 or four -- maybe more than four by now, articles on that.

18 And that's of interest for the scenario of, you
19 know, a person who's having a beer and putting on
20 sunscreen and then spraying herbicides in their backyard.
21 It's probably pretty common.

22 (Laughter.)

23 DR. SOLOMON: So 2,4-D has been of interest to me
24 because of the sort of -- although the data are somewhat
25 conflicting, there are data out there on non-hodgkins

1 lymphoma and 2,4-D from the Agricultural Health Study,
2 from other studies in agricultural populations, some dog
3 studies, though there's questions about that from
4 household pets. The dogs, I guess are at higher -- may
5 have higher rates of canine malignant lymphoma after
6 exposure to -- if they live in homes where 2,4-D is
7 regularly used in the backyard.

8 And then there's some interesting endocrine
9 disruption data as well. So there are a number of -- a
10 number of reasons to raise some health flags about this
11 chemical.

12 So on balance, I think I'm leaning toward
13 prioritizing it, but, you know, the thing that's holding
14 me back a little bit is that I don't see a reason to think
15 that it would be different in California than in the rest
16 of the NHANES study.

17 PANEL MEMBER BRADMAN: I have a little exposure
18 data, if people are interested.

19 Sorry. Okay, again this is not peer reviewed,
20 but it's in submission.

21 For 2,4-D, in our population, we had detection
22 frequencies of about 20 -- 15 to 20 percent at different
23 points during pregnancy. This is in the Salinas valley,
24 where there's no reported use of 2,4-D in agriculture. So
25 a relatively small use of this herbicide.

1 Going back to para-dichlorobenzene, we had a
2 detection frequency for the main metabolite,
3 2,5-dichlorophenol of about 50 percent. And the NHANES in
4 pregnant women was about 67 percent. So it was slightly
5 lower in our population.

6 And for the NHANES here this is just for the
7 pregnant women in the NHANES sample. So it's just about
8 250 women, so it's not the whole sample of 2,000. So
9 para-dichlorobenzene was present at a bit lower level,
10 which may be consistent with what you said.

11 And then again, the 2,4-D was showing up in our
12 population, although it's not used agriculturally in that
13 region. So it's either coming in through food or home
14 use.

15 PANEL MEMBER MCKONE: This is Tom McKone.

16 That was Salinas. Did you have Oakland data?

17 PANEL MEMBER BRADMAN: No, we don't have Oakland
18 data.

19 CHAIRPERSON MORENO: All right, Panel members,
20 we're scheduled for about another five minutes for this
21 portion of the meeting.

22 We can --

23 PANEL MEMBER BRADMAN: Maybe this has been
24 addressed before, but do we have information on how much
25 para-dichlorobenzene is used in, like, air fresheners and

1 things like that? I believe that's a substantial use.

2 DR. ROISMAN: I have a little bit of information
3 that will probably not really answer your questions. I
4 know that there are 40 active products registered for use
5 in California, mostly like mothballs and mothcakes. You
6 know one product is a bird cage defender and another
7 anti-mildew product.

8 There are only 15 pounds of reported use from
9 2007, and that's on rights of way, but that's because all
10 the other uses of the product are not reported. But
11 that's all the specific use information I have for
12 California.

13 PANEL MEMBER SOLOMON: In response to your
14 question, it's not on the label of any air freshener kind
15 of products. So the spray air fresheners or the plug-ins
16 or all of those kinds of products. And since it is a
17 registered pesticide, it should legally be on the --
18 listed on the label if it were, in fact, in any of those
19 products.

20 PANEL MEMBER BRADMAN: Even if the product is not
21 being used as a pesticide?

22 PANEL MEMBER SOLOMON: That's a good question.
23 If it's being used as a disinfectant in any kind -- you
24 know, if it's being used as an active ingredient to
25 disinfect, it should be, but there may be away around it,

1 if they say that it's, you know, not being used for that
2 purpose.

3 But that does raise -- I mean your data raises a
4 really interesting questions. It makes one wonder where
5 the exposure is coming from. And I find that quite
6 provocative, a compelling reason to learn more.

7 PANEL MEMBER WILSON: I have to come back to
8 my -- a need for being reoriented again. From Dr.
9 Roisman's presentation, I know that these were substances
10 for which -- the potential priority pesticides were
11 substances for which CDC biomonitoring results are
12 currently available. And as I remember the 2,4-D was
13 flagged because it's in the top 100 for California.

14 But I'm wondering if you could just tell me again
15 what was it that for these four substances that, you know,
16 why these came to your attention, you know, specifically?

17 DR. ROISMAN: Sure. So 2,4-D was the only
18 chemical in the top 100 list that we had CDC biomonitoring
19 results available right now. There are nine others that
20 we hope to have information on in the near future. And in
21 addition to its agricultural use, it does have some
22 household uses, so that's why that one seemed to be of
23 interest.

24 DDT, again, is an opportunity for us to discuss
25 this issue of kind of how to handle limited or, you know,

1 low-use chemicals that still have other concerns, you know
2 they're persistent, there are toxicity concerns, and there
3 was some evidence that it was a particular problem in
4 California.

5 DEET is -- you know, it's difficult to generate a
6 list of high household use, because the reporting
7 requirements are not the same. And DEET is something that
8 we know is used in households. And there was this
9 interesting evidence of higher absorption when used in
10 combination with other products, that it is commonly used
11 in combination with. And so that was a reason why we
12 thought it -- you know, that it was interesting.

13 And then the para-dichlorobenzene, what was
14 interesting about that was again the levels in NHANES are
15 really quite high. And this question of where the
16 exposure is coming from is difficult to answer, because
17 the levels that are found, both in terms of the quantity
18 and, you know, in how many people they're detected doesn't
19 seem to match up with what you might expect from their use
20 in mothballs.

21 And so that seemed interesting as well. Again,
22 these were not the four pesticides that we are absolutely
23 the most concerned about. But there were pesticides that,
24 you know, biomonitoring results are available. You know,
25 we have something to base a comparison on. They have

1 toxicity concerns, et cetera. They seem to meet all the
2 criteria and so that's why we brought them forward.

3 But this is certainly not the end of the
4 potential priority pesticides. There are many others to
5 be discussed.

6 PANEL MEMBER WILSON: Yeah, okay. That's
7 helpful. Thank you. I know you had said that to us
8 before, but I guess it's a calibration check.

9 (Laughter.)

10 PANEL MEMBER WILSON: I appreciate that. And,
11 you know, I guess the two things that do come to mind
12 immediately for me at least, are the first two, being
13 2,4-D being a high-volume, both in agricultural use and in
14 home use. That seems to be a problem. It's unique to
15 California, also. I mean, in that it's used in high
16 volume here. And there's potential for home exposure.

17 And I'm also, you know -- I think, you know, Dr.
18 Bradman's, you know, findings around DDE in the immigrant
19 population is also compelling, and particularly for
20 California.

21 So those, I think, first two at least really, I
22 think, begin to get at some of the criteria that we've
23 sort of adopted informally, at least on the Panel, about
24 how do we set priorities.

25 So I don't know if others can make a similar

1 comment about the other two or all the four. I don't
2 know.

3 CHAIRPERSON MORENO: Dr. Solomon.

4 PANEL MEMBER SOLOMON: May I make a motion?

5 I'd like to move that the Panel prioritize 2,4-D,
6 its salts and esters, DDT, and p-dichlorobenzene as
7 priority chemicals for the California Biomonitoring
8 Program. And that I'd also like to move that the Panel
9 hold on making -- on prioritizing DEET and not prioritize
10 it at this time.

11 CHAIRPERSON MORENO: Is everyone clear on the
12 motion?

13 Okay, is there a second?

14 PANEL MEMBER WILSON: I'll second the motion.

15 CHAIRPERSON MORENO: Okay. All right.

16 Any discussion?

17 If not, any public comment on the motion and the
18 second?

19 Okay. If not, I'll bring it back. Any further
20 discussion?

21 No?

22 Then I'll call for a vote. All those in favor
23 raise your hand and signify by saying aye?

24 (Ayes.)

25 (Hands raised.)

1 CHAIRPERSON MORENO: That's unanimous. Okay, so
2 that passes. Thank you.

3 All right, it's 3:15.

4 And we are scheduled to take a break till 3:30.
5 And we'll come back at 3:30 with a presentation by Sara
6 Hoover.

7 Thanks.

8 Please don't discuss any panel material at the
9 break. Thank you.

10 (Thereupon a recess was taken.)

11 CHAIRPERSON MORENO: Okay. I'm going to call the
12 meeting back to order.

13 All right. Welcome back, everybody. I'd like to
14 call the meeting back to order and introduce Sara Hoover.
15 This is our last presentation agenda item for today.
16 We'll have the presentation and then opportunity for the
17 panel to ask questions. And that will be followed by
18 public comment and then we'll finish with the Panel
19 discussion.

20 Sara.

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

23 MS. HOOVER: So I'm just going to start by
24 putting back the questions for the SGP. And we've put in
25 red the questions we didn't discuss in detail. So if

1 for example, Dr. Petreas talked about measurements she can
2 only do on PCBs. And there's some interesting results in
3 regard to PCBs

4 So one of the things that would be useful is if
5 you, as Panel members, might take a look at the designated
6 chemical list and see if there's particular things on
7 there that you'd like us to bring forward.

8 --o0o--

9 MS. HOOVER: In terms of other items. We talked
10 about, in addition to naming priority chemicals that we
11 would bring to you, the priority chemical list and you can
12 talk about your highest priorities for biomonitoring. And
13 that's something we're considering bringing to you at the
14 October meeting, if that would be agreeable to the Panel.
15 And any other items you have interest in having follow up
16 on.

17 --o0o--

18 MS. HOOVER: And so the main issue on chemical
19 selection is the Panel's choice of which potential
20 designated chemicals to consider and potential priority
21 chemicals for follow up at future meetings.

22 So any questions, I'd be happy to answer or you
23 can begin your discussion.

24 PANEL MEMBER WILSON: Sara, where are we with
25 the -- you know, I know we're sort of working our way

1 through pesticide identification and prioritization in the
2 ways that we've talked about today. And where are we
3 going with the -- I mean, has the whole list of, for
4 example, the top 100 that are used California, have you
5 gone through -- has that list sort of been evaluated or is
6 that work still in progress?

7 MS. HOOVER: I'm going to pass that over to Dr.
8 Roisman and Dr. Krowech if they have comments on that.

9 DR. ROISMAN: That work is certainly still very
10 much in the process. There were approximately 28
11 chemicals on that list that seemed like they may be good
12 possibilities for adding as designated chemicals. Some of
13 those raised -- some of those issues that we discussed
14 earlier in the meeting and will discuss now. Other
15 chemicals on that list are already a priority or don't
16 seem very promising for biomonitoring for various reasons.

17 So, no, we plan to, you know, assuming this is
18 agreeable to you, take your recommendation from this
19 meeting, go back to the rest of the chemicals on that
20 list, and then, you know, continue to work through them in
21 an orderly manner. And as ones that seem concerning pop
22 out, we would bring them to you in the same way we brought
23 ochthilinone, iprodione, and fipronil and the pyrethroids
24 for discussion today.

25 PANEL MEMBER WILSON: That sounds good. I just

1 remember we had a discussion previously about based on the
2 materials that staff provided originally. I think it was
3 in the first meeting that had -- where we went through and
4 looked at high-volume substances that were high-volume
5 pesticides that weren't on the CDC list. And there was, I
6 don't know, maybe -- what were there like, 20 or
7 something, as I remember, that were, sort of, you know,
8 fairly high volume in the DPR data sets that you provided.
9 And they were flagged because they were on the Prop 65
10 list and so forth.

11 Have those ones -- have you looked through those
12 at this point? Or that's the work that's ongoing now.

13 DR. ROISMAN: That's the work that's ongoing.
14 And I should also add that the other work that's ongoing
15 is looking at pesticides that are of concern for household
16 uses or for whatever other reason, but that don't show up
17 on the top 100 list. And that's more challenging, just
18 because we don't have use data on those. But that's
19 being done in parallel with looking at the high-use
20 pesticides.

21 PANEL MEMBER WILSON: Okay, great. Thank you.

22 CHAIRPERSON MORENO: Sara, so you've presented --
23 yeah, thank you. You presented these items and some of
24 the considerations on your presentation here. Would you
25 like us to go back to the questions?

1 MS. HOOVER: Sure, yeah. If you have further
2 input on these highlighted questions, that would be great.

3 CHAIRPERSON MORENO: All right. Good. What's
4 the pleasure of the Panel? Which one?

5 Dr. McKone.

6 PANEL MEMBER MCKONE: I don't know if we have to
7 do these in order, but I had some thoughts about the last
8 one, if that's okay.

9 Tom McKone. Sorry, I didn't say who I was.

10 This is an interesting question, to what extent
11 should analytical difficulties influence consideration of
12 chemicals?

13 And I think the way to turn this or another way
14 to answer it is to remove the word "consideration". I
15 don't -- I mean, if you ask about consideration, I don't
16 think we should let analytical difficulties influence
17 consideration of chemicals. It will certainly influence
18 interpretation and the value of the results. And
19 whether -- I mean, and I think that's the issue is, if
20 analytical methods limit -- or inflate the CV, or cause
21 problems with limit of detection.

22 I still think that if there are chemicals that
23 meet certain criteria that we want to move forward, I
24 think we have to put them out there and hope that some
25 incentive. I mean, things change.

1 And so I think the way to really answer this is
2 to really say we don't want to influence our consideration
3 of chemicals, but we do have to think about the value of
4 the results.

5 But still, if a chemical shows up, I don't think
6 we should say well, let's skip it, because we don't have
7 good analytical methods yet. I mean, if we have no
8 analytical methods, that's probably a different issue.
9 But if the methods have some weakness.

10 I don't know if anyone else has some thoughts on
11 that.

12 CHAIRPERSON MORENO: Dr. Quint.

13 PANEL MEMBER QUINT: I certainly agree with that.
14 And I think the way -- I really like the summaries that
15 you provide to us, the format, and the -- you know, the
16 brevity is good. But I think within the summaries, the
17 format you're using I think there's an opportunity to
18 address the lack of analytical methods. So, you know, the
19 driver should not -- there's a way for us to address that.
20 And we may make decisions based on what you tell us about
21 the lack thereof or they're not really robust enough.

22 But I agree with Tom that this is always
23 changing. So if you're interested in a chemical that
24 might stimulate, you know, some interest by somebody out
25 there in developing good analytical methods. So I totally

1 agree with his assessment.

2 CHAIRPERSON MORENO: Dr. Solomon.

3 PANEL MEMBER SOLOMON: I agree with what I've
4 heard so far. And I think that these are criteria just
5 like -- I mean some of them are pretty much the same
6 criteria that we're looking at when we make decisions
7 about designating chemicals, such as the availability of
8 analytical methods.

9 And some of these, although they're not currently
10 criteria that the panel has adopted for making designation
11 decisions are things that we should -- you know, that
12 staff should indeed be weighing when deciding how to
13 prioritize what to bring to the Panel, and that we should
14 be weighing as a panel as well.

15 So, you know, I think that none of these bulleted
16 issues are going to have, you know, clear black and white
17 answers. And I think that chemicals that have, you know
18 for example, declining use or unknown exposure or
19 analytical -- or pose significant analytical hurdles, et
20 cetera, you know, might not be the first ones that I would
21 raise to bring forward. If there are others that seem --
22 and that's, you know, something obviously you -- you know,
23 I very much appreciated the fact that staff clearly used
24 some judgment about which pesticides to bring forward.
25 And I think those were, you know, very reasonable choices.

1 And so, you know, I kind of endorse the way
2 you've been thinking about these issues and the questions
3 that you're asking. And they're the right questions. And
4 in any of these cases, I think that you could look at a
5 chemical and say despite the fact that there are some
6 issues, we still want to bring it forward and talk about
7 it.

8 CHAIRPERSON MORENO: Dr. Wilson.

9 PANEL MEMBER WILSON: Mike Wilson.

10 I guess the other thing that this raises, and
11 again I'm in agreement with all of the Panel members thus
12 far, that, I mean, it's similar to the process we went
13 through with the perfluorinated compounds that, you know,
14 we -- it became clear that there's an analytical challenge
15 there, but it's also -- it was clear we wanted to
16 prioritize them.

17 And I think what could be really helpful is if
18 there are substances that OEHHA identifies and we
19 prioritize those, but we have analytical challenges or we
20 don't have a method, that would be the basis for
21 triggering action under AB 289, that this is unique to
22 California. We have this law available to us. And we'll
23 now request the methods and so forth from the producers.

24 And that would give us the basis to do so.

25 CHAIRPERSON MORENO: Dr. Luderer.

1 PANEL MEMBER LUDERER: Yeah. I just wanted to
2 maybe make a comment addressing the question about the
3 declining-use chemicals or limited-use chemicals. So, I
4 mean, I think we already actually kind of -- we did talk
5 about several examples of chemicals like this, where we
6 actually decided that even though they were declining use,
7 like we talked about DDT, that there were compelling
8 reasons why we should still biomonitor for it.

9 So one of them, I guess, actually that -- well,
10 yeah, that applies to DDT obviously is the persistence
11 that some of these chemicals, even though they're no
12 longer used in the United States will still be persisting
13 in the environment and potentially in humans.

14 But also, this issue that declining use in the
15 United States doesn't necessarily correspond with
16 declining use in other places. And if we have special
17 populations in the United States, like the immigrant
18 population in California in particular, that that would be
19 a reason for continuing to monitor for chemicals that
20 might be important exposures in those populations, even if
21 not in the rest of the California population at large.

22 And I think another good compelling --
23 potentially compelling reason for biomonitoring chemicals
24 with declining use would be to show the efficacy of public
25 health intervention that was designed to decrease the

1 exposure of the population to whatever that chemical may
2 be. And we talked about the -- well, of course, we talked
3 about that today and also the mothballs.

4 MS. HOOVER: Can you speak more into the mike,
5 Dr. Luderer.

6 PANEL MEMBER BRADMAN: Are we open for
7 considering a new designated chemical?

8 PANEL MEMBER WILSON: Well, or do you want to
9 finish our questions?

10 I think this question about --

11 CHAIRPERSON MORENO: No, I agree. Go ahead.

12 PANEL MEMBER WILSON: Mike Wilson.

13 I'm wondering if you could clarify what you -- or
14 maybe you did. You clarified that chemicals with unknown
15 exposure, does that mean for which there are no
16 biomonitoring data to date? Is that how you're defining
17 exposure there?

18 DR. ROISMAN: It certainly could vary depending
19 on the particular group of chemicals we were talking
20 about. The example I gave was the fumigants. And in that
21 case we really don't have biomonitoring data in the
22 general public. So that is the case with that group of
23 chemicals.

24 PANEL MEMBER WILSON: Yeah. But I mean I think
25 we've -- you know, I wouldn't think that would be

1 something to screen -- or to, you know, not pay attention
2 to something. I mean, you know, we've been using volume
3 as a surrogate of exposure. You know, and maybe that's
4 just the case with the cyclosiloxanes as well. I don't
5 know if we -- did we have actual biomonitoring data for
6 those substances?

7 DR. ROISMAN: There's some.

8 PANEL MEMBER WILSON: We do add some.

9 DR. ROISMAN: It's limited.

10 PANEL MEMBER WILSON: I would not -- I mean, I
11 would not be worried about the lack of existing exposure
12 information or using that as a screen to discard
13 chemicals. I don't know. Any other thoughts on that?

14 PANEL MEMBER SOLOMON: I have a thought on that.
15 But the fumigants are an interesting question, because
16 they bring up two issues.

17 One is the exposure patterns. And the other is
18 the analyzability, which I guess was sort of a different
19 question.

20 And I actually had advocated previously not to
21 consider some of these fumigants, because I said well,
22 gosh, how are you ever going to be able to biomonitor for
23 something like methyl bromide, because it breaks down into
24 bromine, which is, you know, not something that's
25 practical as a biomarker.

1 And I think that is a valid problem. And if
2 something -- I think there's a difference between
3 something where we don't have a method yet to test for it,
4 but we think that such a method could be developed, versus
5 something where they're really, from a chemistry
6 perspective, can't really be a way to biomonitor for it,
7 because I think that there are substances that can't be
8 biomonitored for. If biomonitoring is the wrong tool, we
9 need to use other methods to get a handle on exposure and
10 we shouldn't be, you know, putting our time and effort
11 into it.

12 And, you know, that would certainly be the same
13 for metam potassium, for methyl iodide. You know, those
14 are nasty toxic chemicals, and, you know -- and I'm
15 concerned about exposures from drift of those chemicals,
16 but I don't think we can get at that with biomonitoring.

17 CHAIRPERSON MORENO: Okay, Panel members, I'm
18 going to break this discussion for a moment to allow for
19 some public comment. We have one person present who
20 wishes to speak and were there any Emails that came in?

21 MS. DUNN: No.

22 CHAIRPERSON MORENO: Thanks. All right, Trudy
23 Fisher, are you here?

24 MS. FISHER: Hi. My name is Trudy Fisher.
25 Thanks so much for allowing me a few minutes to comment,

1 and even more important thanks so much for your hard work
2 and all of the creativity and diligence and great energy
3 and so on you brought to this project, all of you.

4 My interest in this stems from the fact that I
5 spent seven years working at a local medical school in the
6 publications department. There were auto body paint
7 chemicals coming in from the building next door. And our
8 ventilation system wasn't working well enough to vent them
9 out.

10 So I was one of many people who became quite ill.
11 It was determined after numerous years of me feeling like
12 a burn victim, not being able to think straight and having
13 all kinds of increasing symptoms, although I didn't
14 consider myself sick at that point, that it was being
15 caused by this.

16 So I just, first of all, want to let anybody here
17 who's interested know that if there's anybody whose
18 research could benefit from anecdotal insights into, not
19 only what it means to be chemically sensitive in a modern
20 world, but also to have to teach yourself to read again at
21 age 45; have to teach yourself memory tricks again; how to
22 learn to be articulate again and so on after ongoing
23 low-level chemical exposure, please feel free to call on
24 me.

25 There are so many things I've learned from this

1 experience that I really think could benefit chemical
2 research.

3 I also wanted to say that in following this
4 sudden urgent interest in Washington and so on about the
5 type of health insurance plan that Americans will be
6 required to pay into, I'm newly rereinded that the
7 ability to keep oneself healthy, to prevent illness is
8 really what's preeminent. And because of that, I so feel
9 that this project is really vitally important.

10 I personally have no health insurance. Don't
11 feel that I need any. And yet, there's no law protecting
12 me from the smoke coming in from my fellow tenant's
13 apartment, the cigarettes smoke. There's no law
14 protecting me from the smoke coming in my window from the
15 Tandoori restaurant down the street, and so on. There's
16 so many things that I'm subject to because there aren't
17 laws banning those substances.

18 And what I would love to see happen from all that
19 you uncover in this project is that ultimately there not
20 just be right-to-know laws that are enacted, but that
21 substances will be banned and we will follow the EU's lead
22 and so on.

23 In one of the earliest meetings in the room
24 upstairs, the subject of Proposition 65 came up. And when
25 I was walking to BART afterwards, one of the other people

1 from another private citizen who'd been sitting in the
2 audience said to me, I don't really understand, what's
3 Proposition 65. And I explained to her that if there are
4 known carcinogens at this point in California, the public
5 has a right to be notified that they're about to enter a
6 workplace or, you know, a building and so on where known
7 carcinogens are used.

8 And we kept walking for a moment, and she said --
9 she was someone - I don't know if I mentioned that - who
10 had breast cancer and it was currently in remission, but
11 obviously her interest in this project was because she,
12 you know, is justifiably concerned about being exposed to
13 toxins.

14 And so she said, so I don't really understand,
15 they know these substances cause cancer, but they're still
16 allowed to be used. And despite having lived with this
17 subject for 16 years, it was like that emperor's new
18 clothes.

19 So anyhow, congratulations. Thank you so much.
20 I'm glad the project is still going, even with the limited
21 State budget and so on.

22 Thank you.

23 CHAIRPERSON MORENO: Thank you for being here.
24 Thank you for your comments.

25 Okay. Any other public comment?

1 Mr. Baltz.

2 MR. BALTZ: Davis Baltz with Commonweal for the
3 last time today.

4 (Laughter.)

5 MR. BALTZ: I just want to zero in on the
6 question of not having data. I think it was reflected in
7 the question about not having exposure data, but it could
8 be other kinds of data. And, you know, I think it's
9 probably beyond the scope of the Scientific Guidance Panel
10 or the Biomonitoring Program to solve this problem. But
11 as many of us know, we don't have a lot of information
12 that we need about many chemicals in commerce. And many
13 members of the panel, Dr. Wilson, have pointed that out in
14 some of their publications.

15 So I agree that it shouldn't be a reason to not
16 look for something. Otherwise, we'll only be, you know,
17 looking for the keys under the lamppost.

18 And Dr. McKone, you know, mentioned that things
19 are changing. Look at the whole biomonitoring field. It
20 was just a decade ago that CDC, you know, ramped up to
21 really do their first study with NHANES that was a
22 national report. So I think we can expect that we will
23 soon have analytical methods for more chemicals than we
24 have now.

25 I'd be curious to know of the 85,000 chemicals

1 that are registered for commerce - and not all of them I'm
2 sure are in use right now, but how many do we estimate can
3 actually be biomonitoring for? Is it even 10,000? I would
4 doubt it.

5 So I think they are going to be chemicals out
6 there that we're going to be concerned about, if not
7 already, that we don't have a method for, that we should
8 be alert to. Advances in analytical chemistry that allow
9 us to start to measure for it.

10 Could there be some way where if we don't have
11 exposure data per se in a biomonitoring study, but we do
12 know from air monitoring or water monitoring that we do
13 have high concentrations, and maybe juxtapose that with
14 proximity to, you know, populations or cities or farm
15 workers, and maybe also try to fold in some of the
16 properties of the chemical that we know. So even though
17 we don't have biomonitoring data per se, we have enough
18 other suggestive evidence that we should either prioritize
19 it or designate it, at least, and then see what kind of
20 methods are in process or might be explored to start to
21 biomonitor for it.

22 And then finally, you know, the California
23 Program, I think, is meant to augment and add to the
24 current biomonitoring field. And so if there are either
25 chemicals that CDC is not biomonitoring for that we can.

1 And this has been our charge from the beginning, but to
2 try to be ahead of the curve and figure out some ways that
3 California can contribute to the field of biomonitoring in
4 a unique and useful way.

5 And I know that that's something that all of you
6 are thinking about. So let's not necessarily take
7 anything off the table just because there are certain
8 challenges now. We all know we're not going to be
9 biomonitoring for many chemicals right away, but some of
10 them may be possible in the near or somewhat near future,
11 and we should stay open to that.

12 So thanks again. Look forward to the
13 conversations tomorrow also.

14 CHAIRPERSON MORENO: Thank you for those
15 comments.

16 All right. If there are no further public
17 comments, I'll bring it back to the Panel. We were
18 scheduled to discuss this till about 4:10 maybe 4:15. And
19 actually, at that time, staff would like about a five
20 minute break to kind of put today's discussions together
21 for the final summary, which would be the last item.

22 So about 10 or 15 more minutes of discussion,
23 Panel.

24 Dr. McKone.

25 PANEL MEMBER MCKONE: This is just a thought,

1 based on some of the comments. You know, I've done some
2 work in, what's called, decision theory and decision work.
3 And it's always the hardest decisions and the ones you
4 always have to make are the ones in the absence of
5 complete information. And so I think that's something
6 that has to be built into this.

7 We're never going to have the level of
8 information we want or need, so you have to really decide,
9 you know, what level of information is necessary to take
10 action. I think we're doing some of that. I mean we're
11 really struggling with what chemicals to look at, when to
12 say an analytical method is sufficient to go ahead, or do
13 we wait 10 years. And then there's a real price to pay
14 when you are postponing a decision. As I always say,
15 postponing a decision is often a higher cost than making a
16 decision with some likelihood of being wrong. So I think
17 that's an issue we have to struggle with constantly. It's
18 a very interesting, but common, challenge in these things.

19 CHAIRPERSON MORENO: Okay. Dr. Culver.

20 PANEL MEMBER CULVER: There was or there is an
21 investigator in Holland -- I think he's Holland or
22 Belgium, who several years ago made the point that
23 extraneous chemicals have no place in the environment.
24 Anything that we add to the environmental soup that we
25 live in any way can't be good. It's almost always going

1 to be bad.

2 I think we can kind of take that as our basic
3 premise. And as a result, any -- or the degree to which
4 chemicals do get into the environment, to that degree they
5 are not wanted and are probably deleterious. It would be
6 very nice to have toxicity data or human health impact
7 data on everything that goes into our environment, but
8 we'll never have enough of that sort of information.

9 But we can fall back on the concept that we
10 should keep our environment clean, and that any chemicals
11 that biomagnify in our environment are really baddies.

12 So I think there's some of those general
13 principles that ought to underlie our thinking.

14 End of comment.

15 CHAIRPERSON MORENO: Thank you.

16 We've got about five or ten minutes left. So
17 actually if I could -- the Panel members don't mind, I
18 asked Dr. Roisman and Sara, do those three remaining
19 questions that you had, what have you received sufficient
20 guidance on, and is there anything left that you would
21 like us to address?

22 MS. HOOVER: In terms of those so -- it's not
23 working.

24 Okay, try again.

25 Yeah. We're completely done with these

1 questions. What I'd really like to hear more about is any
2 guidance on specific chemicals to bring forward for
3 possible designation or priorities, so those were the
4 later slides.

5 CHAIRPERSON MORENO: All right. I think there's
6 interest among -- thank you -- interest among Panel
7 members to have that discussion now.

8 PANEL MEMBER BRADMAN: Asa Bradman. Can everyone
9 hear me?

10 Sorry, I have a quiet voice.

11 I just want to propose discussion among the Panel
12 of considering putting manganese on as one of the
13 designated chemicals. Manganese is an -- it's an
14 essential nutrient at high exposure levels. It's a fairly
15 potent neurotoxicant. And although industrial emissions
16 are declining in California, manganese is about 20 percent
17 by weight of maneb and mancozeb, two widely used
18 fungicides in California. About 1.8 million pounds, 1.9
19 million pounds are used annually in California. About
20 nine or ten million nationally.

21 And the agricultural use of maneb and mancozeb
22 represent the largest contribution of manganese to the
23 environment in California. There's not much exposure data
24 on this.

25 As a little disclosure, our group at Berkeley is

1 interested in studying this issue. And we're trying to
2 look into it, but it's a much bigger issue than the area
3 that we're working in in Salinas. And I just wanted to
4 raise that as a possible designated chemical.

5 MS. LEE: Diana Lee from the California
6 Department of Public Health. I'd like to add to Dr.
7 CHAMACOS -- Dr. Bradman's comment --

8 (Laughter.)

9 MS. LEE: -- there is that -- Excuse me. Dr. She
10 had mentioned that Dr. Barley in the Environmental Health
11 Laboratory Branch would be starting work on developing a
12 metals panel to be tested in urine. And this is one panel
13 that we mentioned also in our workplan for the CDC
14 application. And at the time we proposed a few specific
15 metals, knowing that, at this point, there were only four
16 metals included on the priority list to date.

17 Obviously, CDC includes more metals, and so they
18 are designated. But in terms of priority metals, there's
19 only four at this point.

20 So it might be something worth considering as
21 one -- the suite of metals that would be proposed in a
22 urine metal panel for Dr. Barley to consider and manganese
23 might be one of them.

24 We've had interest from our Environmental
25 Tracking Project Program, for instance, to look also, at

1 least in the Tulare county project -- no, excuse me, the
2 Imperial county project, to look at uranium, possibly
3 selenium as well, because they are naturally occurring in
4 the Colorado River water.

5 So again, in collaboration with the tracking
6 project, which Lori Copan will be speaking about more
7 tomorrow, we may hear more about metals as well.

8 DR. ROISMAN: If I could make one comment on the
9 subject. So maneb and mancozeb are both in the group of
10 already designated chemicals for which the CDC
11 biomonitoring results are expected to be available before
12 the end of 2009. We did plan to bring those to the Panel
13 for consideration as potential priority chemicals once the
14 CDC results are available, and has already designated
15 chemicals. And should they become priority chemicals for
16 the Program, you know, all the options for how to measure
17 them are open to the Program, including measuring, you
18 know, a metabolite, the parent compound, or manganese if
19 that turns out to be a good way to measure them.

20 So in some way, they're already -- you know, it's
21 already kind of partially included in the Program, but
22 could be discussed more when we get the CDC results and
23 discuss them as potential priority chemicals.

24 PANEL MEMBER BRADMAN: Right, but I wouldn't
25 proposes manganese as a marker, solely for maneb and

1 mancozeb exposure. I would propose manganese to stand on
2 its own. And maneb and mancozeb are probably the largest
3 source of manganese exposure, but they're not the only
4 source.

5 And so it's kind of the situation where the
6 breakdown product or the metabolites, so to speak, has
7 its own toxicity. But it's also a marker, you know, just
8 for manganese exposure from a variety of sources. So it's
9 a little bit -- doesn't quite fit into the model as just a
10 marker of maneb and mancozeb.

11 CHAIRPERSON MORENO: Dr. Solomon.

12 PANEL MEMBER SOLOMON: I'd support considering
13 additional metals, including manganese. And I also had a
14 question, I remember at one point we had talked about the
15 ban on phthalates in toys. And the questions about what
16 chemicals are coming into replace, I guess, it would
17 presumably be mostly DEHP and maybe some DBP in consumer
18 products.

19 And I know that's a tough research question. I'm
20 just wondering if that's still sort of in the pipeline and
21 where that might be?

22 The other issue that came up earlier today was
23 that, I think Dr. Quint mentioned, was the lower VOC
24 solvents. And that actually is a very big issue. And
25 it's come up a number of times recently in discussions

1 that I've been in, you know, that the California VOC
2 regulations are really shifting the market for solvents
3 that are used in a whole array of products.

4 And I don't know a lot about what's coming in.
5 And I'm not sure if that information is available, but it
6 would be interesting to try to take a systematic look at
7 some of these newer low-VOC solvents to see if some of
8 them might be of high enough concern that they would merit
9 consideration by our Program. I don't think that they
10 necessarily all would be automatically. I just think
11 there might be a few in there that we should be keeping an
12 eye on.

13 PANEL MEMBER WILSON: Mike Wilson.

14 And again, it's the Air Resources Board Consumer
15 Products Division that's tracking that, that they're, you
16 know, working on the VOC content. But I suspect they
17 would also have information on what, you know, might be of
18 interest for biomonitoring.

19 Gina, are you thinking of the substitutes for
20 these --

21 PANEL MEMBER SOLOMON: (Nods head.)

22 PANEL MEMBER WILSON: -- low-voc substitutes that
23 would be of growing interest in California, and presumably
24 growing use in California. I think that's a great point.

25 CHAIRPERSON MORENO: Dr. Quint, did you have a

1 comment as well?

2 PANEL MEMBER QUINT: This is Julia Quint. Along
3 those same lines, one chemical that we've talked about
4 that certainly fits into that category is 1-bromopropane,
5 which I just learned recently there's been concern all
6 along about its use in dry-cleaning as a substitute for
7 perc.

8 But apparently, and this is anecdotal at this
9 point, because of the economy, you know, the perc
10 regulation is tied to phase out of existing perc machines.
11 And because of the economy a lot of dry-cleaners are not
12 able to purchase new machines. So 1-bromopropane can be a
13 drop-in replacement for Perc in those machines.

14 So it was thought in the beginning, yes, that
15 there would be limited use of 1-bromopropane, because, as
16 happened recently, you know, if you don't have the right
17 technology, it can go acid, as they say in the trade, and
18 really wreck the machines.

19 But now the latest I've heard is that there will
20 be much more -- it will be used as a replacement for perc,
21 much more widely, because that way you don't have to
22 purchase new equipment. And that's hard for people to get
23 loans. This is a business, as we all know, with a small
24 profit margin.

25 So just as we're concerned about D5 as a possible

1 replacement, 1-bromopropane should be thought of in that
2 same vein. And most of you know the compelling reasons
3 why that chemical -- you know, 1-bromopropane is of
4 concern. It's on the Prop 65 list as a female and male
5 reproductive toxicant and a developmental toxicant. It's
6 also a neurotoxicant.

7 So anyway, I just -- that's a good example of
8 what Gina brought up.

9 CHAIRPERSON MORENO: All right. So I've heard
10 three suggestions: Manganese, low-VOC solvents, and
11 1-bromopropane. Any other chemicals of interest to Panel
12 members?

13 MS. HOOVER: I think it was also phthalate
14 replacements as well.

15 CHAIRPERSON MORENO: Thank you. Before any other
16 Panel members make any suggestions, I can ask the Program
17 staff, given those four chemicals, what are your thoughts
18 before we add five, six, seven.

19 MS. HOOVER: Yeah. I mean, we have obviously a
20 long list of things we're tracking. This is good, though.
21 I mean, we always like to hear what you're -- what things
22 are arising to the top for you, so this is very good
23 input.

24 CHAIRPERSON MORENO: Okay. Any other chemicals
25 of interest to panel members?

1 PANEL MEMBER SOLOMON: I would just like to
2 second the 1-bromopropane as being maybe particularly high
3 priority for the next meeting, because I do think that we
4 would be remiss to not consider it soon.

5 MS. HOOVER: And just one quick clarification,
6 the next meeting is only about two months away. So we're
7 not sure, you know, how much we're going to bring to the
8 next meeting, but we're looking also to the future.

9 And if you could also comment, we also had a few
10 items about potential priority. So if you could give us
11 some input on that, particularly, for example, PCBs and
12 any other -- anything else on the designated list.

13 Also, feel free to Email us, you know, after the
14 meeting, if you look at the designated chemical list and
15 send us suggestions. I think that's allowed from
16 Bagley-Keene, right, as individual members to us?

17 Yeah.

18 CHAIRPERSON MORENO: Can we take a few minutes
19 then to hear from Panel members regarding their interest
20 of taking chemicals on the designated list and to be
21 considered as potential priority chemicals.

22 I'm sorry, go ahead. Do you have a request, Dr.
23 Culver?

24 PANEL MEMBER CULVER: No, I was asking whether we
25 could have a copy of this presentation up on the monitor

1 now.

2 MS. HOOVER: Oh, yeah. This will be posted on
3 line and we can send it to you as well.

4 CHAIRPERSON MORENO: Dr. Solomon.

5 PANEL MEMBER SOLOMON: I have to say I'm not
6 excited about the PCBs offhand, as possible priority
7 chemicals for the reasons that we've talked about before,
8 that have been banned for awhile. And so unless there's
9 some reason to highlight them -- and I'm prepared to
10 believe there might be. I was talked around on DDT.

11 The other thing that came up earlier, I nearly
12 forgot about, was triclocarban. And I'd love to -- well,
13 either individually or perhaps as a group with some of the
14 chloroanilines would love to see that brought before the
15 Panel as a potential designated chemical.

16 CHAIRPERSON MORENO: Dr. Quint.

17 PANEL MEMBER QUINT: Yes, Julia Quint.

18 Another possible designated chemical or group of
19 chemicals to be considered would be the short chain
20 chlorinated paraffins, which I understand are going to be
21 replacements for flame retardants and are being widely
22 marketed, I think, in China as replacements.

23 So, Gail, you're shaking your head. Have you
24 heard --

25 MS. HOOVER: Yeah, I mean, I think they actually

1 are included in the class, because chlorinated compounds
2 used as chemical flame retardants.

3 PANEL MEMBER QUINT: Oh, So those would be
4 included.

5 MS. HOOVER: Short chain chlorinated paraffins,
6 right?

7 PANEL MEMBER QUINT: Okay, great. Thanks.

8 CHAIRPERSON MORENO: Dr. Bradman.

9 PANEL MEMBER BRADMAN: This is a little bit out
10 of my area, but what about some more discussion about
11 acrylamide. I know that's potentially important in diet.
12 There's been some controversy with that over the years. I
13 don't know if that's something that would have any unique
14 characteristics in California, but I would just put that
15 out there for some discussion.

16 PANEL MEMBER SOLOMON: This is Gina Solomon. My
17 understanding is that acrylamide actually is used for some
18 agricultural purposes. And, what was it -- I was on the
19 EPA acrylamide panel, so I should remember this. But it's
20 basically used in agricultural drainage ditches to try to
21 sort of capture runoff for something, which seems like a
22 dispersive of use, because you'd think it would then end
23 up in surface water.

24 And I remember there being some discussion about
25 that in the EPA meeting. So if it is used in agriculture

1 in California, that would give us, you know, some
2 California-specific reasons for concern. The main other
3 non-occupational exposure pathway is obviously through
4 food, and that's probably unlikely to be different in
5 California than elsewhere, but it's a contaminant of
6 considerable interest for, you know, neurotoxic and
7 carcinogenic reasons.

8 PANEL MEMBER CULVER: But in agriculture isn't it
9 the polymer that's used?

10 MS. HOOVER: Dr. Culver, use the mike.

11 PANEL MEMBER CULVER: My question was in
12 agriculture was is that in agriculture is it the polymer
13 or the monomer?

14 PANEL MEMBER SOLOMON: I believe it's the polymer
15 that's used.

16 PANEL MEMBER CULVER: Yeah, I think so and it's
17 used in water coagulation.

18 PANEL MEMBER SOLOMON: Right. So I think the
19 issue that came up was that there was some unpolymerized
20 acrylamide that would end up in the water in some of these
21 studies.

22 PANEL MEMBER BRADMAN: Is there CDC data for
23 acrylamide?

24 PANEL MEMBER SOLOMON: Yes.

25 DR. ROISMAN: Acrylamide is on the designated

1 chemical list, but the results from the CDC are not yet
2 available. And I'm not sure what the timeline --
3 they may be expected by the end of 2009, but I'm not
4 positive.

5 CHAIRPERSON MORENO: So it's just past 4:20, if
6 there are no more chemicals for potential designation or
7 prioritization, I'm going to go ahead and end this and
8 give staff about five minutes --

9 MS. HOOVER: No. Actually, Dr. Alexeeff is ready
10 to go, so no break needed.

11 CHAIRPERSON MORENO: No break, okay.

12 Dr. George Alexeeff, OEHHA Deputy Director for
13 Scientific Affairs.

14 DR. ALEXEEFF: Hi. George Alexeeff with OEHHA.

15 Okay. So we had a very, very productive day.
16 Dr. Rupali Das, who is now the lead for the California
17 Environmental Biomonitoring Program was introduced as well
18 as Dr. Jed Waldman.

19 And Dr. Das provided an overall updated overview
20 of the Program, included the overview of the current
21 baseline funding status; CDC grant application for
22 increasing lab capacity, and we're waiting a funding
23 decision at the end of August; the Environmental Health
24 Tracking was discussed with collaborations of the Program
25 with the Tulare and Imperial county activities; also, a

1 community study was discussed, the mothers and infant
2 exposure project is seeking funding.

3 There were discussions with other researchers
4 regarding our Request For Information on archived samples.
5 They're preparing a progress report to the legislature
6 which is due in January. And also, we will share the
7 format and sample questions of the survey instruments that
8 we're preparing. And that will be put on the web as well
9 as to the Panel.

10 Dr. She provided an update of Environmental
11 Health Laboratory activities. Staff received analytical
12 equipment trainings by the equipment vendors and at CDC.
13 And they're proceeding with the Quality Control
14 Proficiency Testing. Methods are being developed for
15 chlorpyrifos, phthalates, metals, and pyrethroids. And
16 staff are also collaborating with the community studies
17 and with UC Davis and UC Berkeley.

18 And Dr. Petreas provided an overview of the staff
19 and equipment at DTSC. DTSC staff received equipment
20 train and training at CDC on POPs and perfluorinated
21 compounds. And they've been focusing on increasing lab
22 capacity. And they're also developing a collaboration
23 with Columbia University on PBDEs.

24 Dr. Roisman provided an update of chemical
25 selection. The discussion focused on considering

1 additional pesticides as designated chemicals.
2 Presentations were made on pyrethrins, pyrethroids,
3 iprodione, ochthilinone, and fipronil. The Panel
4 unanimously recommended that pyrethrins and pyrethroids,
5 as a class, and the chemicals iprodione, ochthilinone, and
6 fipronil be added to the list of designated chemicals of
7 the California Environmental Contaminant Biomonitoring
8 Program.

9 Dr. Roisman provided an update of chemicals for
10 consideration to be placed on the priority list. And the
11 Panel unanimously recommended that the following chemicals
12 be added to the priority list of the chemicals for --
13 priority list of chemicals for the California
14 Environmental Contaminant Biomonitoring Program:

15 Perfluorinated compounds that have been
16 designated; cyclosiloxanes as a class; 2,4-D, its salts
17 and esters; DDT; and para-dichlorobenzene.

18 A list of questions was considered by the Panel,
19 a list of questions asked by staff. And the Panel gave
20 several suggestions, such that, for example, staff could
21 bring to the Panel a proposed designation of a class of
22 chemicals, where the parent compounds share a common toxic
23 metabolite.

24 The Panel recommended that as staff decides what
25 chemicals to bring forward, that they may take into

1 account CDC results or results that may be upcoming. But
2 if use patterns are similar in the U.S., then chemicals
3 detected infrequently by CDC may not be good candidates to
4 bring forward, unless it's due to poor analytical methods,
5 the choice of a wrong metabolite or other compelling
6 reason.

7 Staff should not necessarily wait for CDC results
8 before bringing them to the Panel. And staff should act
9 on other compelling reasons to bring chemicals forward.
10 And then other, in terms of chemicals that might be
11 declining, there could be other compelling reasons, such
12 as persistence to bring them forward. Chemicals for which
13 exposure is unknown, it could be used as a -- there could
14 be reasons to bring those forward as well. It could help
15 us to -- should not -- in other words, it should not be
16 used as a screen to eliminate chemicals for consideration,
17 simply because the exposure pattern is unclear.

18 And finally, with regards to analytical
19 difficulties, analytical methods difficulties should not
20 influence the consideration of chemicals, unless it
21 appears that the chemical cannot be biomonitored at all.
22 And that some of this information could be used to trigger
23 action under AB 289.

24 For suggestions from the Panel for future
25 designated chemicals: Manganese was suggested. There

1 will be continued work by staff on the review of
2 pesticides. Lower VOC solvents were suggested.
3 1-bromopropane was suggested. Phthalate replacements were
4 suggested. And it wasn't clear to me if priority
5 chemicals were suggested or if acrylamide was suggested or
6 not. It was discussed. All right, thank you.

7 CHAIRPERSON MORENO: Thank you for the summary.
8 I just want to clarify with Panel members on the
9 chemicals -- chemicals that were discussed toward the end
10 in the discussion priorities, was that just a discussion
11 or were those recommendations to the Program?

12 PANEL MEMBER BRADMAN: I think like discussion
13 about acrylamide?

14 CHAIRPERSON MORENO: Acrylamide triclocarban.

15 PANEL MEMBER BRADMAN: I saw that as a
16 discussion, at this point.

17 CHAIRPERSON MORENO: Okay. Thank you.

18 All right.

19 MS. HOOVER: Just to clarify. I know also
20 triclocarban was mentioned. So what we'll do is we will,
21 in addition to this summary, we'll definitely go back
22 through the transcript and look in detail at the
23 recommendations, as well as past recommendations and keep
24 in mind all of your previous input.

25 Oh, and Dr. Roisman is reminding me we'll also be

1 posting a meeting summary. So we'll go back through,
2 taking this into account, as well as the transcript and
3 make a summary.

4 CHAIRPERSON MORENO: All right. Thank you.

5 All right. Before we close, I just wanted to
6 remind people that tomorrow's meeting will start at 8:30
7 in the morning, the same room. And that meeting will
8 conclude at 1 p.m.

9 And I think that's it. So we'll recess now until
10 tomorrow morning.

11 Thank you, everyone.

12 (Thereupon the California Environmental
13 Contaminant Biomonitoring Program Scientific
14 Guidance Panel meeting recessed at 4:30 p.m.)

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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 under my direction, by
11 computer-assisted transcription.

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

15 IN WITNESS WHEREOF, I have hereunto set my hand
16 this 20th day of August, 2009.

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