## Laboratory Capacity

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# Our Scientists CDPH EHLB Biomonitoring Staff



Our Equipment



Sample Preparation



ICP/MS - Metals Testing



Hi Sensitivity LC-MS/MS -Organics Testing

#### Numbers of Samples That We Could Analyze with Base Funding, Assuming Minimal Sample Management\*

Sample No./Yr.

Whole blood 1000

Serum 1000

Urine 1000

<sup>\*</sup>Only receive, log, test & report.

## Best Case Lab Capacity with Base \$

Metals in CDPH Lab\*

Able to do			
Tests (in Whole Blood)	When	No./Yr.	
Pb, Cd, Hg	Jan 09	1000	
add As	Mar 09	1000	
and One of Following:			
Speciated Hg	Oct 09	400	
or			
Speciated As	Oct 09	400	

## Best Case Lab Capacity with Base \$

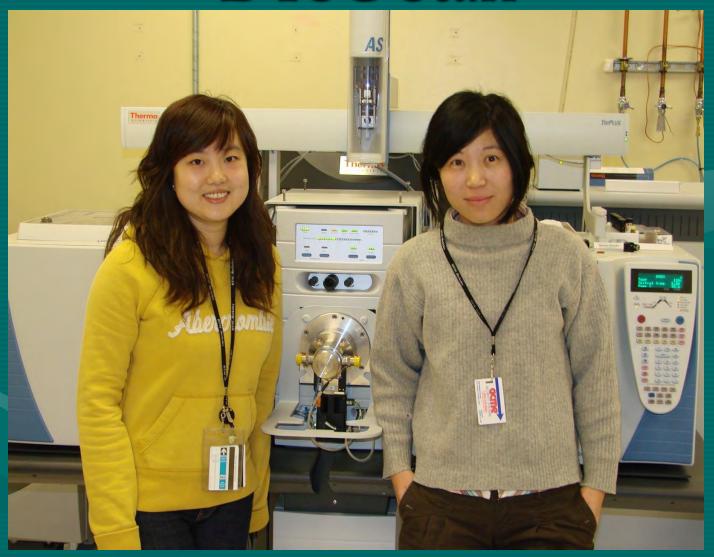
Organics in CDPH Lab\*

Able to do two of the following...

Tests (in Urine)	When?	No./Yr.
OP pesticides	May 09	1000
Phthalates/BPA	Oct 09	1000
PAH panel	Oct 09	1000

<sup>\*</sup>Assuming minimal sample management.

## DTSC Staff



DTSC Equipment



High Resolution GC/MS

## Current DTSC Activities Feed into CECBP Implementation

- On-going studies of persistent organic pollutants in human serum; 500 samples/yr; 2+ staff
   OCPs, PCBs, PBDEs
- Method development for new brominated flame retardants
- Wildlife samples (serum, eggs, adipose) provide testing material
- Standard operating procedures revised to conform with Clinical Laboratory Improvement Amendments (CLIA) requirements

#### DTSC Timetable for CECBP

- Dec 2008: Set up and training on HRGC/MS
- Feb 2009: Set up and training on LC/MS
- Jan-Apr 2009: Set up and optimize automated sample preparation systems
- Apr 2009: Staff training at CDC
- May 2009: Start using new system for POPs
  - Goal: Develop capacity for 800 samples/yr
     (PCBs, PBDEs, OCPs, some new BFRs) by Oct

## Best Case Lab Capacity with Base \$

Organics in DTSC Lab

Able to do ONE of the following			
Tests (in Serum)	When?	No./Yr.	
POPs (PCBs, PBDES, OCPs, some new			
BFRs)	Oct 09	800	
OR			
Perfluorinated chemicals	Oct 09	1000	

## CECBP Lab Capacity Summary

- Initial staff on-board and equipment arriving
- Caution: After warranty, equipment repairs will be costly.
- Need operating expenses & staff, must leverage base \$ by working with external partners.
- Collaborations via RFI provide samples with no/low collection-management costs.
- Once methods up, labs can focus resources on analyzing samples and providing results sooner.