

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015  
Madison, Wisconsin**

**DATE:** October 28, 2015

**TO:** Chancellor Rebecca Blank, UW-Madison – Darrell Bazzell, Designated Representative  
Kitty Rhodes, Secretary, DHS – Karen McKeown, Designated Representative  
Cathy Stepp, Secretary, DNR – Mark Aquino, Designated Representative  
Ben Brancel, Secretary DATCP –Michelle Wachter, Designated Representative  
Dr. Robert Corliss, Chair  
Jeffery Kindrai, Vice-Chair  
James Morrison, Member  
Carrie Lewis, Member  
Barry Irmen, Member

Steven Geis, DNR Alternate  
Gregory Pils, DNR Alternate  
Scott Hildebrand, UW-Madison Alternate  
Charles Warzecha, DHS Alternate  
Gilbert (Gil) Kelley, DATCP Alternate

**FROM:** Dr. Charles Brokopp, Secretary  
Director, Wisconsin State Laboratory of Hygiene



**RE:** Wisconsin State Laboratory of Hygiene Board of Directors Meeting  
Wisconsin State Laboratory of Hygiene  
2601 Agriculture Drive  
Madison, WI 53718  
November 3<sup>rd</sup>, 2015  
1:00p.m. — 4:00p.m.

**C:**

Cynda DeMontigny  
Kristine Hansbery  
Linda Johnson  
Jan Klawitter  
Dr. Daniel Kurtycz  
Steve Marshall  
Marie Ruetten  
Dr. Peter Shult  
Steve Strebel  
David Webb

**WISCONSIN STATE LABORATORY OF HYGIENE  
BOARD OF DIRECTORS  
MEETING NOTICE**

**Tuesday, November 3, 2015**

**1:00p.m. – 4:00p.m.**

**MEETING LOCATION**

**Wisconsin State Laboratory of Hygiene  
2601 Agriculture Drive  
Madison, WI 53718**

**Notice is hereby given** that the Wisconsin State Laboratory of Hygiene Board of Directors will convene at 1:00 p.m. on Tuesday, November 3<sup>rd</sup>, 2015 at Wisconsin State Laboratory of Hygiene in Madison, Wisconsin.

**Notice is further given** that matters concerning Wisconsin State Laboratory of Hygiene issues, program responsibilities or operations specified in the Wisconsin Statutes, which arise after publication of this notice may be added to the agenda and publicly noticed no less than two hours before the scheduled board meeting if the board Chair determines that the matter is urgent.

**Notice is further given** that this meeting may be conducted partly or entirely by teleconference or videoconference.

**Notice is further given** that questions related to this notice, requests for special accommodations, or requests for a public appearance are addressed by the Wisconsin State Laboratory of Hygiene Administrative Offices by phone at (608) 890-0288 or in writing to the Wisconsin State Laboratory of Hygiene, 465 Henry Mall, Madison, Wisconsin, 53706.

**ORDER OF BUSINESS:** See agenda.

Respectfully submitted,



Charles D. Brokopp, DrPH  
Secretary, Wisconsin State Laboratory of Hygiene Board of Directors  
Director, Wisconsin State Laboratory of Hygiene  
October 28, 2015

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015  
1:00 P.M. – 4:00 P.M.

Wisconsin State Laboratory of Hygiene  
2601 Agriculture Drive  
Madison, WI 53718

**AGENDA**

**WELCOME & INTRODUCTIONS**

- DNR**            **Mark Aquino**  
Director, Office of Business Support and External Relations  
DNR designated WSLH Board Representative
- DATCP**        **Gilbert (Gil) Kelley**  
Director, DATCP Laboratory  
Alternate WSLH Board Representative

**PROCEDURAL ITEMS**

**PAGE**

- |         |                          |    |
|---------|--------------------------|----|
| Item 1. | APPROVAL OF MINUTES      | 6  |
| Item 2. | REORGANIZATION OF AGENDA | 11 |
| Item 3. | PUBLIC APPEARANCES       | 12 |
| Item 4. | BOARD MEMBERS' MATTERS   | 14 |

**BUSINESS ITEMS**

- |         |                           |    |
|---------|---------------------------|----|
| Item 5. | SCIENTIFIC PRESENTATIONS  | 15 |
| Item 6. | FY16 FIRST QUARTER REPORT | 18 |
| Item 7. | STRATEGIC MAP UPDATE      | 26 |
| Item 8. | CONTRACTS REPORT          | 27 |
| Item 9. | DIRECTOR'S REPORT         | 33 |

~~~~~



October 19, 2015

Dr. Charles Brokopp  
Wisconsin State Laboratory of Hygiene  
465 Henry Mall  
Madison, WI 53706

Subject: DNR State Laboratory of Hygiene Board Representative Delegation & Alternates

Dear Dr. Brokopp:

With Jack Sullivan's retirement from DNR, I am delegating all State Laboratory of Hygiene Board DNR Representative voting and decision-making authorities to Office of Business Support and External Relations Director Mark Aquino. Greg Pils or Steve Geis will serve as Mr. Aquino's alternates in the event that he is unable to attend.

The DNR is privileged to have representation on the SLH Board, and I look forward to continuing the strong partnership between DNR and the State Laboratory of Hygiene.

Sincerely,

Cathy Stepp  
Secretary

Cc: David Webb – State Laboratory of Hygiene  
Mark Aquino – AD/8  
Greg Pils – SS/7  
Steve Geis – SS/7

## Brokopp, Charles

---

**From:** Longfield, Kelly M - DATCP <Kelly.Longfield@wisconsin.gov>  
**Sent:** Thursday, October 22, 2015 1:17 PM  
**To:** Brokopp, Charles  
**Cc:** Wachter, Michelle R - DATCP; Javid, Nathaniel L.  
**Subject:** WSLH Board Appointment for DATCP (Alternate)

Dr. Brokopp – Secretary Brancel has asked me to notify you that we have a new Lab Director, Gil Kelley, and we would like him to be the alternate representative on the WSLH board. He will step in when Michelle Wachter isn't available.

Here is some background on Mr. Kelley. Let us know if you need anything else... thanks!

*I'm pleased to announce that a new Director has been selected for DATCP's Laboratory. Gilbert (Gil) Kelley will start his employment full time with the agency on Monday, October 19, 2015. Gil has a BS in Microbiology and comes to DATCP with over 20 years of laboratory management experience working for SF Analytical Laboratories, Red Star Yeast and Kraft Foods Group. His lab management experience includes: quality assurance, technical oversight, client relations, managing laboratory relocations, ISO 17025 accreditation and overall budget and facilities management. He is HACCP certified through the International HACCP Alliance, a Certified Food Scientist (IFT) and a member of the Institute of Food Technology (IFT), Wisconsin Lab Association (WLA) and the International Association of Food Protection (IAFP).*

Kelly M. Longfield  
Office of the Secretary  
Department of Agriculture, Trade & Consumer Protection  
608-224-5015

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**PROCEDURAL ITEMS**

**Item 1. APPROVAL OF MINUTES**

**Description of Item:**

The draft minutes of the August 18<sup>th</sup>, 2015 board meeting are submitted for approval.

**Suggested Board Action:**

Motion: Approve the draft minutes of the August 18<sup>th</sup>, 2015 board meeting as submitted.

**Staff Recommendation and Comments:**

Approve draft minutes.

Once approved, minutes become part of the public record and are posted on the WSLH website: <http://www.slh.wisc.edu/about/board/board-meetings-agendas-and-minutes/>.

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015  
1:00 P.M – 4:00 P.M.  
2601 Agriculture Drive  
Madison, WI 53718**

**UNAPPROVED MINUTES  
August 18<sup>th</sup>, 2015**

- MEMBERS PRESENT:** Dr. Robert Corliss (Chair), Jeffery Kindrai (Vice-Chair), Charles Warzecha (on behalf of Karen McKeown), Scott Hildebrand (on behalf of Darrell Bazzell), Gregory Pils (on behalf of Mark Aquino), James Morrison, Carrie Lewis, and Dr. Charles Brokopp
- WSLH STAFF PRESENT:** Dr. Peter Shult, Dr. Daniel Kurtycz, Kristine Hansbery, Jan Klawitter, Steve Marshall, Marie Ruetten, Steve Strebel, Dave Webb, and Nathaniel Javid
- DNR STAFF PRESENT:** Steve Geis, Ron Arneson
- GUESTS PRESENT:** Dr. Joshua Hyman

*Chair Dr. Robert Corliss called the meeting to order at 1:30 P.M.*

**Item 1. APPROVAL OF MINUTES**

Approve the minutes of the June 23, 2015 board meeting as submitted. Chuck Warzecha made a motion to approve, seconded by Jeffery Kindrai. Carrie Lewis abstained.

**Item 2. REORGANIZATION OF AGENDA**

There was no reorganization of the agenda.

**Item 3. PUBLIC APPEARANCES**

There were no public appearances.

**Item 4. BOARD MEMBERS' MATTERS**

Dr. Brokopp welcomed Greg Pils from the Wisconsin Department of Natural Resources. Greg is filling in the vacancy left by Jack Sullivan. Dr. Brokopp also mentioned that Mark

Buechner, the retired chief financial officer for the WSLH, passed away last week. Mark contributed greatly to the lab and will be sorely missed. His memorial service is on August 19<sup>th</sup>.

## **Item 5. SCIENTIFIC PRESENTATION**

### **1) Dr. Joshua Hyman, Core Director, DNA Sequencing Facility, UW Biotechnology Center**

Dr. Corliss introduced Dr. Joshua Hyman, Director of the UW Biotech Center's DNA sequencing facility since 2004. The Biotech Center is working with the WSLH to offer clinical services on UW campus. The WSLH's CLIA license now covers testing being performed in Dr. Hyman's laboratory. Dr. Hyman discussed mass spectrometry. Mass spectrometry begins with a sample that enters an instrument and is vaporized and ionized before going through the detector. The sample is accelerated through a tube by the use of magnetic fields in which particles are split by their charge. Early instruments were not very sophisticated, but they have been greatly improved in recent years. Dr. Hyman discussed some of the key projects his laboratory is undertaking. For example, the laboratory is testing infant urine samples collected from diapers to detect rare metabolic diseases. His lab also looks at whole genomes associated with rare diseases. The lab is able to look at the genes involved in various diseases in a way that is very cost effective. Dr. Hyman also discussed how research with genome sequencing is significant. For example, the lab found that a single mutation in a single gene has made corn more edible for human consumption. Dr. Hyman also discussed gene editing using Crispr/Cas 9 technology. The technology allows one to cut and insert sections of genes. NextGen sequencing is used to capture the specific areas to see if the target was correct. China has tested this in a non-viable human embryo. As expected, this has been controversial. With this technology, we can make gene deletions, remove enhancers, and make disease related genetic mutations. Finally, we do a lot of work on the UW campus with stem cells. Dr. Hyman provided some examples of success stories, e.g. Bart Starr's recovery from a stroke following post stem cell intervention. More analysis is needed to see the exact cause and effect relationship with stem cell intervention. The ultimate goal is to improve human life through technology, and thereby advancing public health.

## **Item 6. FY15 CLOSEOUT REPORT**

### **2) Marie Ruetten, Financial Manager, Wisconsin State Laboratory of Hygiene**

Marie Ruetten provided the FY15 closeout report. The fiscal year ended close to what we expected: we came out at \$410,795 better than budget at a net operating income. For total support and revenue, we came out under budget at \$508,653 with a -1.2% variance from budgeted to actual. For expenses, we came out under budget at \$919,448 with a -2% variance from budgeted to actual. On a modified cash basis, our total expenses were \$349,429 under budget with a -0.8% variance from budgeted to actual. This gives a net operating loss of \$159,224. Subtracting our reserve expenditures, our modified net operating loss is \$182,248.



Comparing our total support and revenue to FY14, we are down by \$3,565,555 and our expenses increased by \$229,641. Therefore, our net operating loss compared to FY14 is \$3,795,196. Our cash balance as of June 30<sup>th</sup>, 2015 was \$10,798,968. Subtracting our restricted cash, deferred revenue, and encumbered payables, we have an available unrestricted cash balance of \$1,410,075 as of June 30<sup>th</sup>, 2015.

## **Item 7. CONTRACTS REPORT**

### **3) Dr. Charles Brokopp, Director, Wisconsin State Laboratory of Hygiene**

Dr. Brokopp presented the contracts report to the Board. There are no current contracts that the Board needs to approve. New contracts for this period include three new contracts with the Department of Health Services to provide testing and conduct special projects, some related to influenza. We also have several DNR contracts providing laboratory testing to support various DNR projects including toxic air monitoring, aquatic invasive species, and lake protection. Dr. Brokopp asked the Board to review the packet for more information on these contracts. Dr. Brokopp mentioned that we asked DHS and DNR to review what testing they would like the WSLH to provide for the year. We have received the list and are currently reviewing it. Unfortunately, the total need is exceeding the resources we have. We will be meeting with DHS and DNR to address this issue.

## **Item 13. DIRECTOR'S REPORT**

### **1) Dr. Charles Brokopp, Director, Wisconsin State Laboratory of Hygiene**

The next Board meeting will take place on November 3<sup>rd</sup> at the Wisconsin State Laboratory of Hygiene at Agriculture Drive. We will provide an update on the strategic map at this meeting. Dr. Brokopp mentioned several public and environmental health incidents that have occurred in the lab including cyclospora, anthrax, CRE *Klebsiella pneumoniae*, and mumps. Dr. Brokopp also presented the water system testing report to the Board. Since the last Board report, 1,411 water systems were tested and 31 systems received a boil notice. We have also made some modifications to our newborn screening cards. We've added several questions on the card, including adding a reason for why the blood may not be screened. This is important to assure that all babies are screened and that there is a record for the ones who are not. APHL is hosting a series of environmental webinars. One of which was on informing decision-making through health assessments. Lastly, EHD produced a new brochure on testing for cyanobacteria and blue-green algae toxins.

**Chair Dr. Robert Corliss** made a motion to adjourn meeting at 3:00 P.M. **Charles Warzecha** seconded the motion. The motion passed unanimously and the meeting was adjourned.

Respectfully submitted by:

A handwritten signature in black ink that reads "Charles D. Brokopp, DrPH". The signature is written in a cursive style with a large initial 'C'.

Charles D. Brokopp, DrPH  
Secretary, Wisconsin State Laboratory of Hygiene Board of Directors

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**PROCEDURAL ITEMS**

**Item 2. REORGANIZATION OF AGENDA**

**Description of the Item:**

Board members may suggest changes in the order in which agenda items are discussed.

**Suggested Board Action:**

None.

**Staff Recommendation and Comments:**

Reorganize the agenda as requested by the Board

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015**

**PROCEDURAL ITEMS**

**Item 3. PUBLIC APPEARANCES**

**Description of the Item:**

Under the board's *Policies and Procedures* nonmembers are invited to make presentations.

**Suggested Board Action:**

Follow WSLH *Policies and Procedures*.

**Staff Recommendation and Comments:**

Follow WSLH *Policies and Procedures*.

*Per Policies and Procedures of the Wisconsin State Laboratory of Hygiene Board of Directors:*

§6.12 *Speaking privileges.* When the board is in session, no persons other than laboratory staff designated by the director shall be permitted to address the board except as hereinafter provided:

- (a) A committee report may be presented by a committee member who is not a member of the board.
- (b) A board or committee member in the course of presenting a matter to the board may request staff to assist in such a presentation.
- (c) If a board member directs a technical question for clarification of a specific issue to a person not authorized in this section, the Chair may permit such a person to respond.
- (d) The board may by majority vote or by decision of the Chair allow persons not otherwise authorized in this section to address the board if the situation warrants or the following criteria is followed:
  - (1) Written requests for public appearances on specific current agenda items shall be made to the board Secretary no later than two working days prior to the meetings. The request shall outline the reasons for the request including the subject matter to be discussed in as much detail as is feasible prior to the meeting of the board. Those requesting an appearance may, at or prior to the board meeting, provide board members copies of any written materials to be presented or a written statement of a position.
  - (2) Individual presentations will be limited to five minutes, unless otherwise authorized by the Chair.
  - (3) To schedule an appearance before the Wisconsin State Laboratory of Hygiene Board of Directors, contact the board Secretary, c/o Director, Wisconsin State Laboratory of Hygiene, 465 Henry Mall, Madison, Wisconsin 53706. Telephone (608) 890-0288. The subject or subjects to be discussed must be identified.
  - (4) The Wisconsin State Laboratory of Hygiene "Guidelines for Citizen Participation in WSLH Board Meetings" are published on its website: <http://www.slh.wisc.edu/index.shtml> and printed copies are available on request. (See Appendix 5) [Section §6.12 approved 5/27/03 board meeting.]

## Appendix 5

### Guidelines for Citizen Participation at WSLH Board Meetings

The Wisconsin State Laboratory of Hygiene board provides opportunities for citizens to appear before the board to provide information to the board on items listed on the agenda. Such appearances shall be brief and concise. In order to accommodate this participation in the allotted time, the guidelines are as follows:

- A. Items to be brought before the board:
  - 1. The board Secretary and Chair will assign a specific time on the agenda to hear public comment when a request to speak has been received from a member of the public.
  - 2. Individuals or organizations will be limited to a total of five (5) minutes to make a presentation to the board. Following the presentation board members may ask clarifying questions.
  - 3. An organization is limited to one (1) spokesperson on an issue.
  - 4. On complex issues, individuals wishing to appear before the board are encouraged to submit written materials to the board Secretary in advance of the meeting so the board may be better informed on the subject in question. Such information should be submitted to the board Secretary for distribution to all board members no later than seven (7) working days before the board meeting.
  - 5. No matters that are in current litigation may be brought before the board.
- B. The board encourages individuals to confine their remarks to broad general policy issues rather than the day-to-day operations of the Wisconsin State Laboratory of Hygiene.
- C. Citizens who have questions for board members should ask these questions prior to the board meeting, during any recess during the board proceedings, or after board adjournment.
- D. Written requests to appear before the WSLH Board of Directors should be submitted no later than two (2) working days prior to a scheduled board meeting.
- E. Submit written requests to:  
Secretary, Wisconsin State Laboratory of Hygiene Board of Directors  
C/O WSLH Director  
465 Henry Mall  
Madison, WI 53706  
Telephone: (608) 890-0288  
Email: [charles.brokopp@slh.wisc.edu](mailto:charles.brokopp@slh.wisc.edu)

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**BUSINESS ITEMS**

**Item 4. BOARD MEMBERS' MATTERS**

**Description of the Item:**

Board Members' Matters will present board members with the opportunity to ask questions and/or discuss issues related to the Wisconsin State Laboratory of Hygiene.

1) Agency Updates

- a. UW
- b. DHS
- c. DNR
- d. DATCP

**Suggested Board Action:**

Receive for information.

**Staff Recommendations and Comments:**

Receive for information.

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**BUSINESS ITEMS**

**Item 5. SCIENTIFIC PRESENTATIONS**

**Description of the Items:**

**IT PROJECTS UPDATE:**

- 1) Linda Johnson, Interim Director, Office of Information Systems, and Steve Marshall, Assistant Director (WSLH) will be providing an update to the Board on key IT projects.

**INFLUENZA PROJECT WITH CDC:**

- 1) Dr. Peter Shult, Director, Communicable Disease Division, WSLH, will be providing the Board with an update on a collaborative project with the Centers for Disease Control and Prevention on influenza.

**Suggested Board Action:**

Receive for information.

**Staff Recommendations and Comments:**

Receive for information.

# APHL/CDC Pilot Trumps WGS File Size for Fast Exchange of Flu Data

SAVED TOPICS: APHL, Informatics

SAVE PRINT SEND



Advanced molecular detection promises advances in both laboratory and epidemiological practice, especially in the area of whole genome sequencing (WGS). In the spring of 2015, APHL and CDC initiated a pilot project, in collaboration with the Wisconsin State Laboratory of Hygiene (WSLH), to exchange WGS data between APHL Influenza Reference Centers and CDC. The result is an elegantly simple deployment of technological tools that, when integrated, create an accessible environment for data exchange, management and analysis of WGS data.

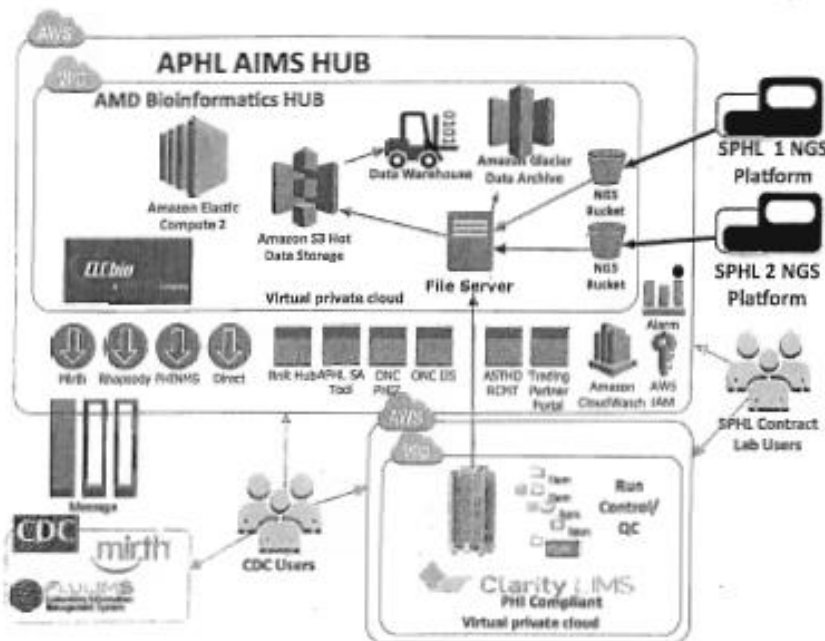
## CONTACT

**PATINA ZARCONI**  
Director, Informatics  
240.485.2788  
patina.zarconi@aphl.org

### 13 GB and Counting

But this solution was not easily achieved. From the outset, the challenges of a new technology that generates a 13 GB file with a single full run were evident: data storage, inadequate broadband speeds and infrastructure, CDC firewall restrictions, expensive bioinformatics tools and long-term archiving support. To address these issues, APHL worked closely with the WSLH and CDC's Influenza Division to explore and pilot WGS data exchange options between the Influenza Reference Centers and CDC.

The multi-faceted solution relies on the APHL Informatics Messaging Services (AIMS) environment. Developed by APHL with CDC support, the AIMS platform was designed to enable public health entities to share data efficiently and securely with diverse messaging partners. Since then, it has evolved into a stable and secure environment whose application and platform services reside in the Amazon Web Services cloud environment.



The solution begins with the transfer of Wisconsin WGS data using AWS Simple Storage Service



(S3) client – a tool that simplifies the uploading and downloading of WGS data to AIMS via a client-side application. Once the data is secured on AIMS, raw sequence files are available to CDC. These files will ultimately be available to submitting reference center labs through a simple file management service.

WGS raw data can then be transferred to bioinformatics tools for data analysis and to a separately managed/secured AWS cloud-based instance of Clarity LIMS to support quality control and run management. After two to three weeks, data can be transferred to AWS Glacier for long-term archiving and online backup.

#### Promising Results

The pilot project has shown very promising results. Large, multi-gigabit data files are available to trading partners in only a few minutes, a process that often took several days previously. Analysis is faster and analytical results, notes and updates are shared among all participants simultaneously from a central data source. Data is secured in a centralized environment using processes and procedures that comply with multiple federal standards.

The APHL/CDC Whole Genome Sequencing Data Exchange project holds great promise for innovation, data exchange, data availability and analytics. As it advances over the next year, APHL and CDC will add other reference centers and laboratories with the goal of making the system available to all public health laboratories. In addition, the partners plan to expand the scope beyond influenza to include several other pathogens.

## Building a Better Flu Vaccine



As this past flu season showed, determining exactly which strains of influenza virus to include in the annual flu vaccine can be tricky. And with influenza's high infection and death rate and its ability to mutate, these decisions can be life or death.

Looking for a way to speed up the process to know exactly what influenza viruses are circulating, the Centers for Disease Control and Prevention (CDC) is funding a 3-year project at the Wisconsin State Laboratory of Hygiene (WSLH) to pilot Next Generation whole genome sequencing of influenza viruses submitted for surveillance from Wisconsin and other states.

The WSLH is the first state public health laboratory in the country to collaborate with the CDC on this cutting-edge technology. The WSLH has been 1 of 3 CDC-designated Influenza Reference Public Health Labs since 2009.

Genetic characterization of influenza viruses is important both for monitoring genetic drift (how the virus may be changing) and for selecting the virus strains to include in influenza vaccines. Next Generation Sequencing (NGS) in state public health laboratories could potentially shave months off the process.

CDC staff recently spent two weeks at the WSLH training virology laboratory staff on the new technology and working with IT staff to establish a secure data pipeline to CDC that can handle the large amounts of data that is generated from sequencing.

Date: April 3rd, 2015

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**BUSINESS ITEMS**

**Item 6. FY16 FIRST QUARTER REPORT**

**Description of the Item:**

Marie Ruetten, Financial Manager, WSLH, will provide the financial report to the Board.

**Suggested Board Action:**

Review attached budget information and provide input.

**Staff Recommendations and Comments:**

Receive for information.

# Contents

WISCONSIN STATE LABORATORY OF HYGIENE

FINANCIAL REPORT

FIRST QUARTER FISCAL YEAR 2016

September 30, 2015

Contents

---

## FINANCIAL STATEMENTS

Statement of income

Comparative income statement

Comparative balance sheet

Statement of cash flows

Notes to the financial statements

---

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015**

**WISCONSIN STATE LABORATORY OF HYGIENE  
STATEMENT OF INCOME  
For the period July 1, 2015 through September 30, 2015**

|                                                | FY 16<br>APPROVED<br>ANNUAL<br>BUDGET | FY16<br>YEAR- TO-<br>DATE<br>BUDGET | FY16<br>YEAR- TO-<br>DATE<br>ACTUAL | VARIANCE<br>Over/(Under) | VARIANCE<br>% of<br>BUDGET |
|------------------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|--------------------------|----------------------------|
| <b>SUPPORT AND REVENUE</b>                     |                                       |                                     |                                     |                          |                            |
| Laboratory Services Revenues (Note 3)          |                                       |                                     |                                     |                          |                            |
| Agency                                         | \$ 6,353,127                          | \$ 1,584,728                        | \$ 1,507,920                        | \$ (76,808)              | -4.8%                      |
| Nonagency                                      | 18,889,145                            | 4,730,226                           | 4,484,267                           | (245,959)                | -5.2%                      |
| GPR Funding                                    | 11,300,000                            | 2,831,513                           | 2,804,371                           | (27,142)                 | -1.0%                      |
| OWI Fund Revenues                              | 1,605,900                             | 419,605                             | 456,027                             | 36,422                   | 8.7%                       |
| Grant Funding                                  | 5,489,180                             | 1,357,753                           | 1,351,616                           | (6,137)                  | -0.5%                      |
| Interest Income                                | 8,400                                 | 2,100                               | 3,557                               | 1,457                    | 69.4%                      |
| <b>TOTAL SUPPORT AND REVENUE</b>               | <b>43,645,752</b>                     | <b>10,925,925</b>                   | <b>10,607,758</b>                   | <b>(318,167)</b>         | <b>-2.9%</b>               |
| <b>EXPENSES</b>                                |                                       |                                     |                                     |                          |                            |
| Salaries                                       | 18,271,076                            | 4,298,661                           | 4,311,224                           | 12,563                   | 0.3%                       |
| Fringe Benefits                                | 7,407,261                             | 2,069,854                           | 2,026,421                           | (43,433)                 | -2.1%                      |
| Supplies & Services                            | 13,430,389                            | 3,206,284                           | 3,196,820                           | (9,464)                  | -0.3%                      |
| Transfer Overhead to UW                        | 839,805                               | 201,456                             | 204,010                             | 2,554                    | 1.3%                       |
| Building Rent                                  | 2,557,470                             | 583,560                             | 600,852                             | 17,292                   | 3.0%                       |
| Depreciation                                   | 1,830,027                             | 439,621                             | 467,203                             | 27,582                   | 6.3%                       |
| Bad Debt Expense                               | 24,000                                | 6,000                               | 3,321                               | (2,679)                  | -44.7%                     |
| Interest Expense                               | 1,200                                 | 300                                 | 663                                 | 363                      | 121.0%                     |
| Loss From Disposal Of Assets                   | -                                     | -                                   | 905                                 | 905                      |                            |
| <b>TOTAL EXPENSES</b>                          | <b>44,361,228</b>                     | <b>10,805,736</b>                   | <b>10,811,419</b>                   | <b>5,683</b>             | <b>0.1%</b>                |
| <b>NET OPERATING INCOME OR (LOSS)</b>          | <b>\$ (715,476)</b>                   | <b>\$ 120,189</b>                   | <b>\$ (203,661)</b>                 | <b>\$ (323,850)</b>      |                            |
| Difference btwn Depreciation and Capital       | 715,476                               | 178,869                             | 277,630                             | 98,761                   |                            |
| <b>MODIFIED NET OPERATING INCOME OR (LOSS)</b> | <b>\$ -</b>                           | <b>\$ 299,058</b>                   | <b>\$ 73,969</b>                    | <b>\$ (225,089)</b>      |                            |

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015**

**WISCONSIN STATE LABORATORY OF HYGIENE  
COMPARATIVE INCOME STATEMENT  
For the 3 months ended September 30, 2015 and September 30, 2014**

|                                                | <b>3 Months<br/>Actual FY16</b> | <b>3 Months<br/>Actual FY15</b> | <b>Variance<br/>Over/(Under)</b> | <b>Percentage<br/>Change</b> |
|------------------------------------------------|---------------------------------|---------------------------------|----------------------------------|------------------------------|
| <b>SUPPORT AND REVENUE</b>                     |                                 |                                 |                                  |                              |
| Laboratory Services Revenues (Note 3)          |                                 |                                 |                                  |                              |
| Agency                                         | \$ 1,507,920                    | \$ 1,330,024                    | \$ 177,896                       | 13.4%                        |
| Nonagency                                      | 4,484,267                       | 4,887,866                       | (403,599)                        | -8.3%                        |
| GPR Funding                                    | 2,804,371                       | 2,793,747                       | 10,624                           | 0.4%                         |
| OWI Fund Revenues                              | 456,027                         | 509,245                         | (53,218)                         | -10.5%                       |
| Grant Funding                                  | 1,351,616                       | 1,367,171                       | (15,555)                         | -1.1%                        |
| Interest Income                                | 3,557                           | 2,646                           | 911                              | 34.4%                        |
| <b>TOTAL SUPPORT AND REVENUE</b>               | <b>10,607,758</b>               | <b>10,890,699</b>               | <b>(282,941)</b>                 | <b>-2.6%</b>                 |
| <b>EXPENSES</b>                                |                                 |                                 |                                  |                              |
| Salaries                                       | 4,311,224                       | 4,453,589                       | (142,365)                        | -3.2%                        |
| Fringe Benefits                                | 2,026,421                       | 2,010,393                       | 16,028                           | 0.8%                         |
| Supplies & Services                            | 3,196,820                       | 3,093,266                       | 103,554                          | 3.3%                         |
| Transfer Overhead to UW                        | 204,010                         | 205,656                         | (1,646)                          | -0.8%                        |
| Building Rent                                  | 600,852                         | 541,921                         | 58,931                           | 10.9%                        |
| Depreciation                                   | 467,203                         | 492,879                         | (25,676)                         | -5.2%                        |
| Bad Debt Expense                               | 3,321                           | 14,239                          | (10,918)                         | -76.7%                       |
| Interest Expense                               | 663                             | 1,039                           | (376)                            | -36.2%                       |
| Loss From Disposal Of Assets                   | 905                             | -                               | 905                              |                              |
| <b>TOTAL EXPENSES</b>                          | <b>10,811,419</b>               | <b>10,812,982</b>               | <b>(1,563)</b>                   | <b>0.0%</b>                  |
| <b>NET OPERATING INCOME OR (LOSS)</b>          | <b>\$ (203,661)</b>             | <b>\$ 77,717</b>                | <b>\$ (281,378)</b>              |                              |
| Difference btwn Depreciation and Capital       | 277,630                         | 205,387                         | 72,243                           |                              |
| <b>MODIFIED NET OPERATING INCOME OR (LOSS)</b> | <b>\$ 73,969</b>                | <b>\$ 283,104</b>               | <b>\$ (209,135)</b>              |                              |

**WISCONSIN STATE LABORATORY OF HYGIENE  
COMPARATIVE BALANCE SHEET  
As of September 30, 2015 and June 30, 2015**

**ASSETS**

|                                             | September 30, 2015   | June 30, 2015        |
|---------------------------------------------|----------------------|----------------------|
| <b>CURRENT ASSETS</b>                       |                      |                      |
| Cash                                        | \$ 9,882,331         | \$ 8,918,171         |
| Cash-restricted-newborn screening surcharge | 2,144,236            | 1,880,797            |
| Net accounts receivables (Note 2)           | 3,043,419            | 3,764,249            |
| Other receivables                           | 200,032              | 830,324              |
| Inventories                                 | 75,306               | 66,402               |
| Prepaid expenses                            | 375,029              | 219,915              |
| Total current assets                        | 15,720,353           | 15,679,858           |
| <b>EQUIPMENT AND BUILDING IMPROVEMENTS</b>  |                      |                      |
| Equipment                                   | 25,203,175           | 25,203,234           |
| Building improvements                       | 7,221,347            | 7,221,347            |
|                                             | 32,424,522           | 32,424,581           |
| Less accumulated depreciation               | (22,664,836)         | (22,381,321)         |
| Total net fixed assets                      | 9,759,686            | 10,043,260           |
| <b>Total Assets</b>                         | <b>\$ 25,480,039</b> | <b>\$ 25,723,118</b> |

**LIABILITIES AND EQUITY**

**CURRENT LIABILITIES**

|                                      |            |            |
|--------------------------------------|------------|------------|
| Salaries payable                     | \$ 123,521 | \$ 544,580 |
| Accounts payable                     | 673,589    | 298,411    |
| Newborn screening surcharge payable  | 2,144,236  | 1,880,797  |
| Accrued expenses                     | 232,890    | 437,498    |
| Notes Payable - current              | 89,350     | 94,390     |
| Proficiency testing deferred revenue | 979,154    | 1,023,877  |
| Newborn screening deferred revenue   | 2,222,993  | 2,225,598  |
| Compensated Absences (Note 5)        | 668,222    | 695,205    |
| Total current liabilities            | 7,133,955  | 7,200,356  |

**LONG TERM DEBT**

|                               |                  |                  |
|-------------------------------|------------------|------------------|
| Compensated Absences (Note 5) | 1,649,847        | 1,587,530        |
| Total long term debt          | 1,649,847        | 1,587,530        |
| <b>Total Liabilities</b>      | <b>8,783,802</b> | <b>8,787,886</b> |

**EQUITY**

|                                       |                      |                      |
|---------------------------------------|----------------------|----------------------|
| Retained earnings-restricted (Note 4) |                      |                      |
| Operating contingency                 | 1,899,682            | 2,282,927            |
| Total restricted retained earnings    | 1,899,682            | 2,282,927            |
| Net Operating Income or (Loss)        | (203,661)            | (2,034,642)          |
| Retained earnings-unrestricted        | 9,584,803            | 11,271,534           |
| Contributed capital                   | 5,415,413            | 5,415,413            |
| Total unrestricted retained earnings  | 14,796,555           | 14,652,305           |
| <b>Total Equity</b>                   | <b>16,696,237</b>    | <b>16,935,232</b>    |
| <b>Total Liabilities and Equity</b>   | <b>\$ 25,480,039</b> | <b>\$ 25,723,118</b> |

|                     |           |           |
|---------------------|-----------|-----------|
| Contingency Funding | 8,586,398 | 8,479,502 |
|---------------------|-----------|-----------|

**WISCONSIN STATE LABORATORY OF HYGIENE**  
**STATEMENT OF CASH FLOWS**  
For the Period July 1, 2015 through September 30, 2015

**CASH FLOWS FROM OPERATING ACTIVITIES**

|                                                                                   |                |
|-----------------------------------------------------------------------------------|----------------|
| Net income                                                                        | \$ (203,661)   |
| Adjustments to reconcile net income to net cash provided by operating activities: |                |
| Depreciation                                                                      | 467,203        |
| Changes in working capital components:                                            |                |
| Decrease in net accounts receivables                                              | 720,830        |
| Decrease in other receivables                                                     | 630,292        |
| (Increase) in inventories                                                         | (8,904)        |
| (Increase) in prepaid expenses                                                    | (155,114)      |
| (Decrease) in salaries payable                                                    | (421,059)      |
| Increase in accounts payable                                                      | 375,178        |
| Increase in newborn screening surcharge payable                                   | 263,439        |
| (Decrease) in accrued expenses                                                    | (204,608)      |
| (Decrease) in notes payable - current                                             | (5,040)        |
| (Decrease) in proficiency testing deferred revenue                                | (44,723)       |
| (Decrease) in newborn screen deferred revenue                                     | <u>(2,605)</u> |
| Net cash provided (used) in operating activities                                  | 1,411,228      |

**CASH FLOWS FROM INVESTING ACTIVITIES**

|                                                       |                  |
|-------------------------------------------------------|------------------|
| Purchase of equipment and physical plant improvements | <u>(183,629)</u> |
| Net cash (used in) investing activities               | <u>(183,629)</u> |

**CASH FLOWS FROM FINANCING ACTIVITIES**

|                                                  |           |
|--------------------------------------------------|-----------|
| Principal payment on Capital Lease               | <u>-</u>  |
| Net cash provided (used in) financing activities | <u>-</u>  |
| Net increase (decrease) in cash                  | 1,227,599 |

**Cash:**

|           |                      |
|-----------|----------------------|
| Beginning | <u>10,798,968</u>    |
| Ending    | <u>\$ 12,026,567</u> |

**WISCONSIN STATE LABORATORY OF HYGIENE**  
**NOTES TO THE FINANCIAL STATEMENTS**  
For the period July 1, 2015 through September 30, 2015

**NOTE 1 –NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES**

Nature of Business:

- The Wisconsin State Laboratory of Hygiene (WSLH) is a governmental institution which provides medical, industrial and environmental laboratory testing and related services to individuals, private and public agencies, including the Department of Natural Resources (DNR) and the Department of Health Services (DHS). Approximately 75% of the WSLH operating revenues are program revenues, including contracts, grants, and fee-for-service billing. The remainder are general purpose revenues (GPR), which are Wisconsin state general fund dollars.

Budgetary Data:

- Fiscal Year 2015-2016 operating budget amounts were approved by the WSLH Board on June 23, 2015.

Basis of Presentation:

- The financial statements have been prepared on a modified accrual basis following Generally Accepted Accounting Principles (GAAP).

Basis of Accounting:

- Revenues are recognized at the completion of the revenue generating processes. Fee-for-service revenues are generally recognized in the period services are completed.
- Revenues from GPR, OWI, Grants, and expense reimbursement contracts for salaries, fringe benefits, capital, and supplies are recognized as expended.
- Expenses are recognized and accrued when the liability is incurred.

Estimates and assumptions:

- The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying footnotes. Actual results could differ from those estimates.

Assets:

- Cash is considered restricted if, by prior agreement with an outside entity, it must be segregated for future use by the outside entity or by WSLH at the outside entity's behest. As of September 30, 2015 available cash is restricted in an amount equal to the newborn screening surcharge payable to the Wisconsin Department of Health Services.
- Accounts receivable are reported at net realizable value. Net realizable value is equal to the gross amount of receivables less an estimated allowance for uncollectible amounts.
- Inventory is stated at cost (first in, first-out method).
- Equipment and building improvements are carried at cost. Expenditures for assets in excess of \$5,000 are capitalized. Depreciation is computed by the straight-line method.

Liabilities

- A liability for unearned revenue is recognized for prepaid receipts for WSLH-provided Proficiency Testing programs and for prepaid newborn screening tests.

**NOTE 2- ACCOUNTS RECEIVABLE**

- Accounts receivable and allowance for uncollectible account balances as of September 30, 2015 and June 30, 2015 are as follows:

|                           | <u>September 30, 2015</u> | <u>June 30, 2015</u> |
|---------------------------|---------------------------|----------------------|
| Accounts Receivable Total | \$3,471,705               | \$4,255,019          |
| Allowance for bad debt    | <u>(428,286)</u>          | <u>(490,770)</u>     |
| Net Receivables           | \$3,043,419               | \$3,764,249          |



**NOTE 3- LABORATORY SERVICES REVENUES**

- At the Board’s request, Laboratory Service Revenues on the Income Statement have been divided into two groups, Agency and Non-Agency, as follows:

Agency:

- Department of Natural Resources
- Department of Health Services
- Department of Agriculture, Trade and Consumer Protection
- University of Wisconsin
- Office of Justice Assistance
- Wisconsin Emergency Management

Non-Agency:

- UW Hospital Authority
- Medicare and Medicaid
- Municipalities
- Law Enforcement Agencies
- Proficiency Testing
- Newborn Screening
- All other revenues from individuals, businesses, clinics, and hospitals.

**NOTE 4- RETAINED EARNINGS - RESTRICTED**

- The operating contingency is computed annually and reflects two months of salary and fringe benefit cost for positions funded from program revenues. The contingency fund is considered adequately funded if working capital is greater than the contingency fund restriction. As of September 30, 2015 working capital (current assets less current liabilities) was \$8,586,398 thereby meeting the target contingency reserve requirement of \$1,899,682.

**NOTE 5- COMPENSATED ABSENCES**

- GASB Statement No. 16, “Accounting for Compensated Absences,” establishes standards of accounting and reporting for compensated absences by state and local governmental entities for which employees will be paid such as vacation, sick leave, and sabbatical leave. Using the criteria in Statement 16, a liability for compensated absences that is attributable to services already rendered and that is not contingent on a specific event that is outside the control of the State and its employees has been accrued. The table below details the liability by benefit category:

|           | Total       | Vacation  | Pers Hol  | Legal Hol | Comp Time | Sabbatical  |
|-----------|-------------|-----------|-----------|-----------|-----------|-------------|
| Current   | \$668,222   | \$449,903 | \$114,430 | \$1,184   | \$3,769   | \$98,936    |
| Long Term | 1,649,847   | -         | -         | -         | -         | 1,649,847   |
|           | \$2,318,069 | \$449,903 | \$114,430 | \$1,184   | \$3,769   | \$1,748,783 |

**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015**

**BUSINESS ITEMS**

**Item 7. STRATEGIC MAP UPDATE**

**Description of the Item:**

Steve Marshall, Assistant Director, WSLH, will provide an update to the Board on the new Strategic Map and the 2015 priorities.

**Suggested Board Action:**

Receive for information.

**Staff Recommendations and Comments:**

Receive for information.



2015 Priorities\*

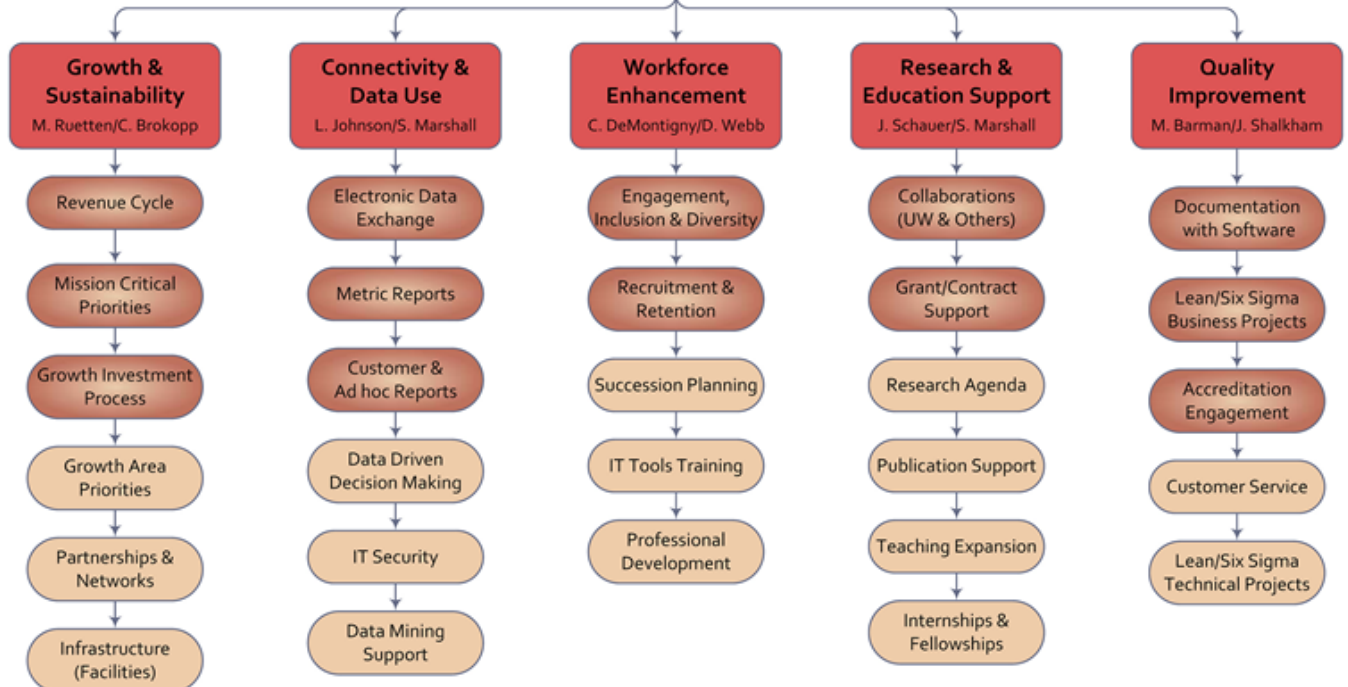
**STRATEGIC MAP**

2015-2017

**MISSION:** To improve and protect the human condition by providing accurate and precise testing, service, research and education.

**Advance the Mission and Vision of the WSLH**  
S. Marshall/D. Webb

**VISION:** To be a global leader in improving quality of life through the advancement of science-based public, environmental and occupational health laboratory practice and policy.



\*2015 priorities chosen based on relative importance, projects already underway, and progression to other objectives.

Last Updated 1/12/2015

Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015

**BUSINESS ITEMS**

**Item 8. CONTRACTS REPORT**

**Description of the Item:**

The table on the following page contains the major grants and contracts that have been received since the last Board meeting. Dr. Brokopp or other staff will be available to provide more details on these grants and contracts.

**Suggested Board Action:**

Receive for information.

**Staff Recommendations and Comments:**

There are no contracts requiring board approval.

# WSLH CONTRACTS FALL 2015

| CUSTOMER                                                              | CONTRACT NAME               | START DATE | END DATE  | ACCOUNT NAME                        | SCOPE OF WORK                                                                                                                                                                                                                                                                                                     | AWARD AMOUNT  | WSLH DEPT |
|-----------------------------------------------------------------------|-----------------------------|------------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|
| Department of Health and Human Services, Food and Drug Administration | 1U18FD005528                | 1-Sep-15   | 31-Aug-16 | WSLH 2015-20120<br>FDA FERN COOP    | Add to the capability of the U.S. Food and Drug Administration's Food Emergency Response Network (Year 1 of 5)                                                                                                                                                                                                    | \$ 240,000.00 | EHD       |
| The Nature Conservancy                                                | P104124                     | 1-Oct-15   | 30-Sep-15 | TNC NC015<br>PECATONICA             | Water sampling for WI Buffer Initiative sites near Hollandale and Blanchardville, WI. Includes samples taken below the Ridgeway Waste Water Treatment Plant. Testing for Suspended Sediment, Total P, and Dissolved P.                                                                                            | \$ 12,600.00  | EHD       |
| UT BATTELLE, LLC                                                      | 4000138916<br>MOD 1         | 5-Apr-15   | 31-Mar-19 | OAK RIDGE<br>NATIONAL<br>LABORATORY | X-RAY Diff Air testing.                                                                                                                                                                                                                                                                                           | \$ 25,000.00  | OHSD      |
| Wisconsin Department of Health Services                               | CARS 110128<br>26236646 680 | 1-Jul-15   | 30-Jun-16 | WDHS CARS<br>COLPOSCOPY             | Subcontracted services with Health Care Education and Training Inc (HCET). Supports colposcopies and other services as part of the Women's Health Program's cervical cancer screening and treatment services, particularly in rural WI counties and communities designated as Health Professional Shortage Areas. | \$ 66,800.00  | DPD       |

|                                               |                                                      |          |           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |     |
|-----------------------------------------------|------------------------------------------------------|----------|-----------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|
| Wisconsin<br>Department of<br>Health Services | BIO<br>RESPONSE<br>BIOLOGICAL-<br>CHEMICAL<br>BP4    | 1-Jul-15 | 30-Jun-16 | WDHS BIOLOGICAL<br>RESPONSE | Ongoing biological<br>testing capabilities<br>and capacity.<br>Funds maintain<br>relevant laboratory<br>support for<br>identification of<br>biological,<br>chemical,<br>radiological and<br>nuclear agents in<br>clinical,<br>environmental and<br>food specimens.<br>These funds also<br>support the<br>exchange of<br>laboratory testing<br>orders and results<br>and ensure staffing<br>to respond to<br>emergencies. | \$ 704,176.00   | CDD |
|                                               |                                                      |          |           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |     |
| Wisconsin<br>Department of<br>Health Services | CHEM LEVEL<br>1<br>BIOLOGICAL-<br>CHEMICAL<br>BP4    | 1-Jul-15 | 30-Jun-16 | WDHS CHEM LEVEL<br>1        | Ongoing biological<br>testing capabilities<br>and capacity.<br>Funds maintain<br>relevant laboratory<br>support for<br>identification of<br>biological,<br>chemical,<br>radiological and<br>nuclear agents in<br>clinical,<br>environmental and<br>food specimens.<br>These funds also<br>support the<br>exchange of<br>laboratory testing<br>orders and results<br>and ensure staffing<br>to respond to<br>emergencies. | \$ 108,795.00   | EHD |
|                                               |                                                      |          |           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |     |
| Wisconsin<br>Department of<br>Health Services | CHEM LEVEL<br>1 LAB<br>PASSTHROUGH<br>BIOCHEM<br>BP4 | 1-Jul-15 | 30-Jun-16 | WDHS CHEM LEVEL<br>1 LAB    | Ongoing chemical<br>testing capabilities<br>and capacity as a<br>Level One surge<br>laboratory in the<br>CDC LRN-C. WSLH<br>shall be able to<br>respond and<br>provide training<br>and consultation to<br>clinical<br>laboratories and<br>hospitals for<br>chemical testing.                                                                                                                                             | \$ 1,445,235.00 | EHD |
|                                               |                                                      |          |           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |     |
| Wisconsin<br>Department of<br>Health Services | FAF 60196                                            | 1-Jul-15 | 30-Jun-16 | WDHS CSTE IISP              | Provide specimen<br>collection supplies<br>to participating<br>IISP clinics;<br>provide diagnostic<br>testing and<br>subtyping for<br>influenza A & B<br>viruses; provide<br>testing via<br>GenMark eSensor.                                                                                                                                                                                                             | \$ 50,600.00    | CDD |
|                                               |                                                      |          |           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |     |

|                                               |           |          |           |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |     |
|-----------------------------------------------|-----------|----------|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----|
| Wisconsin<br>Department of<br>Health Services | FAF 60205 | 1-Aug-15 | 31-Jul-16 | WDHS ELC EBOLA    | WSLH writes Biosafety guidelines and SOPs for Ebola and EDI handling. WSLH will provide a summary of results from initial, routine and emergency biosafety risk assessments performed. WSLH complies biosafety related tools and resources, creates a summary of exercises and trainings offered by WSLH and conducts three (3) regional biosafety workshops.                                                                                                                                                          | \$ 114,642.00 | CDD |
|                                               |           |          |           |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |     |
| Wisconsin<br>Department of<br>Health Services | FAF 60203 | 1-Aug-15 | 31-Jul-16 | WDHS ELC ENTERICS | FoodCORE Progress Report; ELC Progress Reports; Travel for (2) staff to InFORM meeting; Travel for (1) staff to CaliciNet meeting; Travel for (1) staff to FoodCORE meeting; Travel for (1) staff to CDC-NGS training. Also Enteric pathogen testing, Norovirus pathogen testing, and specimen transport.                                                                                                                                                                                                              | \$ 337,252.00 | CDD |
|                                               |           |          |           |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |     |
| Wisconsin<br>Department of<br>Health Services | FAF 60206 | 1-Aug-15 | 31-Jul-16 | WDHS ELC HAI      | Conduct testing for mechanisms of carbapenemase production. Perform PFGE testing among carbapenemase producing isolates to aid in healthcare transmission. Conduct active surveillance for CRE colonization. Validate and implement a CDC developed PCR assay to detect the presence of VIM genes among CRE isolates. Establish a CRE proficiency testing program for state health laboratories. Establish regionalized testing for enhancement of CRE surveillance, Provide an annual update for CRE surveillance and | \$ 173,673.00 | CDD |

|                                         |           |          |           |                             |                                                                                                                                                                                                                                                                                                                                                   |              |     |
|-----------------------------------------|-----------|----------|-----------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----|
|                                         |           |          |           |                             | testing activities available to all WI clinical laboratories.                                                                                                                                                                                                                                                                                     |              |     |
| Wisconsin Department of Health Services | FAF 60197 | 1-Aug-15 | 31-Jul-16 | WDHS INFLUENZA SURVEILLANCE | ELC progress reports for Influenza surveillance and diagnostic testing. Covers 50% of one senior microbiologist.                                                                                                                                                                                                                                  | \$ 39,315.00 | CDD |
| Wisconsin Department of Health Services | FAF 60202 | 1-Aug-15 | 31-Jul-16 | WDHS ELC MOLECULAR/AMD      | Equipment purchase (Ultra low (-80C) upright freezer) and whole genome sequencing results for outbreak isolates.                                                                                                                                                                                                                                  | \$ 13,930.00 | CDD |
| Wisconsin Department of Health Services | FAF 60182 | 1-Aug-15 | 31-Jul-16 | WDHS ELC PARASITIC          | Development and implementation of probe-based PCR assay for detection and speciation of Plasmodium sp. In blood samples; PCR testing of all Babesia found in blood samples identified by microscopic exam to identify B. micro.                                                                                                                   | \$ 5,725.00  | CDD |
| Wisconsin Department of Health Services | FAF 60200 | 1-Aug-15 | 31-Jul-16 | WDHS ELC VPD                | Perform testing for N. meningitides and H. influenza on isolates received and perform PCR testing on CSF samples received; perform antibiotic susceptibility and serotyping on all isolates received; archive all received isolates; package and ship all isolates to CDC for national surveillance twice per grant year and individual isolates. | \$ 21,434.00 | CDD |
| Wisconsin Department of Health Services | FAF 60198 | 1-Aug-15 | 31-Jul-16 | WDHS ELC WATERBORNE         | Deliver ELC progress reports; provide waterborne disease diagnostic testing as requested; for cryptosporidium and legionella.                                                                                                                                                                                                                     | \$ 11,123.00 | CDD |
|                                         |           |          |           |                             |                                                                                                                                                                                                                                                                                                                                                   |              |     |

|                                                        |                  |                 |                  |                               |                                                                                                                                                                                                                                  |                     |            |
|--------------------------------------------------------|------------------|-----------------|------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|
| <b>Wisconsin<br/>Department of<br/>Health Services</b> | <b>FAF 60199</b> | <b>1-Aug-15</b> | <b>31-Jul-16</b> | <b>WDHS ELC WEST<br/>NILE</b> | <b>POW IgM and JC<br/>IgM testing of<br/>patient specimens<br/>from 2015 and any<br/>archived samples<br/>with compatible<br/>symptoms to<br/>validate testing,<br/>case recognition,<br/>and acquire<br/>positive controls.</b> | <b>\$ 10,000.00</b> | <b>CDD</b> |
|--------------------------------------------------------|------------------|-----------------|------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|



**Wisconsin State Laboratory of Hygiene  
Board of Directors Meeting  
November 3<sup>rd</sup>, 2015**

**BUSINESS ITEMS**

**Item 9. DIRECTOR'S REPORT**

- A. FY16 Meeting Calendar**
- B. Public or Environmental Health Incidents of Educational Interest**
- C. Water Systems Report**
- D. OSHA Laboratory and Consultation Contracts Renewed**
- E. Cytotechnology Program Accreditation for 3 years**
- F. WSLH Expands Viral and Bacterial Meningitis Proficiency Test Panels**
- G. Paris System for Reporting Urinary Cytology / Bethesda System for Reporting Cervical Cytology – Dr. Daniel Kurtycz**
- H. Academic Promotions, Appointments and Fellowships**
- I. Dr. Curtis Hedman and David Rogers publish method for fluoroquinolones in fish tissues using solid phase extraction**
- J. Laboratory Inspections and Accreditations**
- K. Food Emergency Response Network Grant – FDA \$240,000/year x 5 years**
- L. APHL Awards \$20,000 NBS Training Grant to WSLH Dr. Patrice Held**
- M. Update on “new “ laboratory**
- N. Laura Liddicoat to receive the 2016 Robert F. Borkenstein Award from the National Safety Council**
- O. Dr. Brokopp inducted into the Delta Omega Honorary Society for excellence in public health**
- P. Occupational Health Lab – Customer appreciation**
- Q. Board Governance**
- R. WSLH retirees come back for a visit**

**WISCONSIN STATE LABORATORY OF HYGIENE  
BOARD OF DIRECTORS  
FY16 MEETING CALENDAR**

|                                                                                                                                                             |                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>February 16, 2016</b><br/><b>1:00 – 4:00 p.m.</b><br/><b>Wisconsin State Laboratory of Hygiene</b><br/><b>2601 Agriculture Drive, Madison, WI</b></p> | <p><b>April 19, 2016</b><br/><b>1:00 – 4:00 p.m.</b><br/><b>Wisconsin State Laboratory of Hygiene</b><br/><b>2601 Agriculture Drive, Madison, WI</b></p>  |
| <ul style="list-style-type: none"> <li>■ Present FY16 2<sup>nd</sup> quarter report</li> <li>■ Review meeting dates for year</li> </ul>                     | <ul style="list-style-type: none"> <li>■ Present FY16 3<sup>rd</sup> quarter report</li> <li>■ Submit FY17 preliminary budget</li> </ul>                  |
| <p><b>June 21, 2016</b><br/><b>1:00 – 4:00 p.m.</b><br/><b>Wisconsin State Laboratory of Hygiene</b><br/><b>2601 Agriculture Drive, Madison, WI</b></p>     | <p><b>August 23, 2016</b><br/><b>1:00 – 4:00 p.m.</b><br/><b>Wisconsin State Laboratory of Hygiene</b><br/><b>2601 Agriculture Drive, Madison, WI</b></p> |
| <ul style="list-style-type: none"> <li>■ Approve FY17 budget</li> </ul>                                                                                     | <ul style="list-style-type: none"> <li>■ Present FY16 year-end closeout report</li> </ul>                                                                 |

## Report to the Wisconsin State Laboratory of Hygiene Board

### Representative Public or Environmental Health Incidents of Educational Interest For the Period August 3 – Oct. 23, 2015

| Approx. Date                   | Agent or Event Name                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Current Status |
|--------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>OUTBREAKS and INCIDENTS</b> |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |
| August 2015                    | <i>Blastomyces dermatitidis</i>                                       | The WSLH assisted the WI Division of Public Health (WDPH) with a blastomycosis investigation. The WSLH performed sub-culture testing on several patient specimens and then forwarded the isolates to CDC and Marshfield Clinic for further testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Complete       |
| August 2015                    | <i>Francisella tularensis</i>                                         | The WSLH performed testing on a bacteria isolate recovered from patient in western Wisconsin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Complete       |
| August 10, 2015                | HazMat assistance -- strange smell in residence next to gas station   | Residents of a private residence located next to a gas station in SE Wisconsin that was doing some construction work noticed an odd smell coming from their basement. Utility company and HazMat responded. The utility company metered and got a hit for methane. HazMat was unable to confirm for methane but did get a meter reading for VOCs. HazMat also indicated that they could “definitely smell something”. HazMat took samples using the 2.7L air canisters: one sample background, one at the bottom of the stairs, one farther into the basement. The canisters and a water sample from the basement sump were delivered to the WSLH’s Ag Drive facility. The ESS Organics section performed VOC testing on the canisters and water sample. Results were consistent with gasoline, in a high concentration. WOHL also performed methane testing on the vapor samples; results were unremarkable. | Complete       |
| August 14, 2015                | HazMat assistance – sinkhole affecting apartment building – gas smell | The WSLH received a phone call from Madison HazMat regarding a sink hole incident on the east side. An apartment building garage was flooded due to a sinkhole collapse. Residents had been removed from the property. There was a concern of a gas/petroleum like odor at the site. WDHS requested that HazMat sample using the unknown sampling canister kit from the WSLH. Sample and duplicate sample were taken at the high point in the stairwell of one of the affected buildings. A background sample was also taken per lab protocol.                                                                                                                                                                                                                                                                                                                                                                | Complete       |

|                    |                                                    |                                                                                                                                                                                                                                                                                                                                                                          |          |
|--------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                    |                                                    | <p>PID readings were also taken at the site and recorded on the paperwork for the lab. The HazMat team did an excellent job packaging and documenting/communicating meter readings on the sample submittal forms.</p> <p>Initial testing at the WSLH found some very low levels of VOCs. WOHL then assisted with re-testing after some clean-up/remediation efforts.</p> |          |
| August 20, 2015    | HazMat assistance: suspected bromine contamination | Following a death and development of symptoms in a resident, Madison HazMat was dispatched to investigate a suspected addition of bromine to a water softener. A sample was analyzed by WSLH and determined that the contamination was in fact hypochloride (bleach) in a high concentration.                                                                            | Complete |
| September 2015     | <i>Salmonella Poona</i>                            | The WSLH performed bacteria and PFGE testing for more than 20 Wisconsin patients as part of a multistate outbreak of <i>Salmonella Poona</i> related to imported cucumbers. WDPH and other state and federal agencies are investigating.                                                                                                                                 | Ongoing  |
| September 2015     | <i>Francisella tularensis</i>                      | The WSLH performed testing on a bacteria isolate from a patient in central Wisconsin. This case was not related to the August case from western Wisconsin. It's not unusual to have a few random <i>Francisella tularensis</i> cases a year.                                                                                                                             | Complete |
| September 2015     | Mumps                                              | The WSLH performed mumps testing from a small cluster of cases associated with UW-Whitewater.                                                                                                                                                                                                                                                                            | Complete |
| September 14, 2015 | HazMat investigation: Milwaukee explosion          | A small explosion occurred at a Milwaukee pool supply company, prompting a HazMat call. Samples were received at the WSLH, but following coordination with Milwaukee Health, WDPH, and the Milwaukee HazMat team, it was determined that no WSLH testing would be required.                                                                                              | Complete |
| October 2015       | Campylobacter                                      | The WSLH is performing bacteria and PFGE testing as part of foodborne disease investigation in east central Wisconsin. WDPH, local health departments and DATCP are investigating the outbreak. Multiple people reported GI illness after attending an event.                                                                                                            | Ongoing  |
| October 2015       | Viral Meningitis -- Enterovirus                    | The WSLH performed testing as part of a DPH investigation into a possible cluster of viral meningitis cases in northern Wisconsin. All were positive for enterovirus.                                                                                                                                                                                                    | Ongoing  |

| <b>RECENT EVENTS and FINDINGS</b> |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
|-----------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| August 3, 2015                    | Vitamin D study published–<br><i>JAMA Internal Medicine</i>                      | <p>A clinical trial led by Dr. Karen Hansen, associate professor of medicine at the UW School of Medicine and Public Health, has shown Vitamin D supplements may be ineffective in improving bone density or bone strength in postmenopausal women.</p> <p>WSLH Trace Elements Clean Laboratory staff led by Dr. Martin Shafer performed calcium absorption studies using stable isotope testing on urine specimens from the 200+ women enrolled in the study. WSLH staff used Hi-Res ICP-MS technology to quantify concentrations and ratios of calcium isotopes. This is the gold standard dual stable calcium isotope method.</p> <p>Study results were published in <i>JAMA Internal Medicine</i>.</p> <p>This is the latest in a nearly decade long collaboration between Dr. Hansen and the WSLH Trace Elements Clean Lab staff and Dr. Shafer.</p> | Complete |
| August 10-12, 2015                | IACP Annual Drug Recognition Expert Conference                                   | <p>WSLH Toxicologist Kimberle Glowacki and Toxicology Director Amy Miles presented to conference attendees in Cincinnati, OH, on drug trends throughout WI and across the country. Amy also addressed the DRE State Coordinators in closed meeting on August 9<sup>th</sup> to discuss issues with the lack of laboratory standardization across the country and varying cutoff levels for drugs of abuse. The conference attendees consisted of law enforcement, administration from NHTSA, Traffic Safety Resource Prosecutors and forensic toxicologists.</p>                                                                                                                                                                                                                                                                                          | Complete |
| August 20, 2015                   | Wisconsin Women of Color Network – Networking Together, Inc. Regional Conference | <p>Cytotechnology Certificate Program Director Michele Smith gave a talk on the importance of cervical cancer screening and HPV vaccinations at the 31<sup>st</sup> Regional Conference of the Wisconsin Women of Color Network – Networking Together, Inc.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Complete |
| August 21, 2015                   | Influenza Incidence Surveillance Project article in                              | <p><i>The Lancet Respiratory Medicine</i> featured two articles about the Influenza Incidence Surveillance Project 2009-2013. The IISP is the only multistate, nationally representative network that can estimate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Complete |

|                    |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |
|--------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                    | <i>Lancet Respiratory Medicine</i>                                | <p>influenza incidence in patients with influenza-like illness presenting to ambulatory care clinics in the USA.</p> <p>Wisconsin is one of the participating study sites. CDD Director Dr. Pete Shult, Virology Surveillance and Team Leader Erik Reisdorf and WSLH staff collaborated with Dr. Jon Temte in the UW Department of Family Medicine on the project.</p>                                                                                                                                                                                                                                                                                                                                       |          |
| August 25, 2015    | WI DNR Bureau of Law Enforcement Training Conference              | <p>WSLH Assistant Director and EHD Director Dave Webb co-taught a session with a representative from the State Crime Lab at the WI DNR Bureau of Law Enforcement Training Conference.</p> <p>Dave gave an hour-long presentation about the WSLH, including an overview of the entire WSLH and information on EHD analytical capacities and capabilities.</p>                                                                                                                                                                                                                                                                                                                                                 | Complete |
| August 25-26, 2015 | Governor's Highway Safety Conference - Impaired Driving Workgroup | <p>WSLH Forensic Toxicology Director Amy Miles gave a presentation with Tara Jenswold-Schipper from the WI Department of Justice on drug impaired driving, trends, and trial preparation for drug cases to the Impaired Driving Workgroup at the Governor's Highway Safety Conference. During the two-day meeting, several members of law enforcement from around the state complimented Amy on the improved turnaround time for impaired driver drug testing.</p> <p>The Impaired Driving Workgroup is comprised of staffers from the WI Department of Transportation/Bureau of Traffic Safety, law enforcement, WI Department of Justice, WI Department of Health Services and other program partners.</p> | Complete |
| August 25-26, 2015 | CDC Chemical Emergency Response Exercise                          | <p>The WSLH Chemical Emergency Response Unit performed arsenic testing on 500 urine specimens as part of a CDC chemical emergency response exercise. Specimens arrived about 9:30 AM on the 25<sup>th</sup> and all 500 were tested and reported to CDC by 1:00 PM on the 26<sup>th</sup>. WSLH response time and results compared favorably with the other LRN-C labs participating in the exercise.</p>                                                                                                                                                                                                                                                                                                    | Complete |
| August 26-27, 2015 | Farm Technology Days                                              | <p>WSLH Bureau of Labor Statistics/Occupational Safety and Health Statistics shared a booth with WI DPH Bureau of Environmental and Occupational</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Complete |

|                        |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |
|------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                        |                                                     | <p>Health staff at Farm Technology Days.</p> <p>BLS/OSH staff shared hand-outs with farm safety statistics and hosted a “spin the wheel” game where people answered safety and health questions to win a prize.</p>                                                                                                                                                                                                                                                                                                                                                                                             |          |
| September 2015         | <i>Journal of Water and Health</i>                  | WSLH Environmental Microbiology Director Dr. Sharon Long and colleagues had a paper published in the <i>Journal of Water and Health</i> on “Global Occurrence of Torque Teno Virus in Water Systems.”                                                                                                                                                                                                                                                                                                                                                                                                           | Complete |
| September 1, 2015      | ABMGG Training Program Director                     | WSLH Cytogenetics and Molecular Genetics Director Dr. Jennifer Laffin took over as Training Program Director of the American Board of Medical Genetics & Genomics (ABMGG) for all Fellowships -- Biochemical, Cytogenetics and Molecular. This post was previously held by Dr. David Wargowski, UW School of Medicine and Public Health.                                                                                                                                                                                                                                                                        | Complete |
| September 9 – 11, 2015 | Wisconsin Water Association Annual Meeting and Expo | Brandon Moss (Organic Chemistry), Dr. Sharon Long (Environmental Microbiology), Archie Degan (retired Water Microbiology and now consulting) along with colleagues presented on “Biostability: The New Science in Water System Operation” at the Wisconsin Water Association Annual Meeting and Expo.                                                                                                                                                                                                                                                                                                           | Complete |
| September 16, 2015     | WI Clinical Laboratory Network audioconference      | <p>CDD Director Dr. Pete Shult and Virology Surveillance and Team Leader Erik Reisdorf gave a teleconference on “Influenza and Other Respiratory Viruses Update – 2015” for the WI Clinical Laboratory Network.</p> <p>The audioconference provided a review of the past 2014 – 2015 respiratory virus season and highlighted the WSLH surveillance strategy for 2015-2016, based on our expectations for the upcoming respiratory virus season. Additional topics discussed included updates on MERS, Avian Influenza – H5 and EV-D68, as well as current and emerging diagnostic technologies and trends.</p> | Complete |
| September 17, 2015     | National Association of Social Workers in Wisconsin | BLS/OSH staff provided social worker injury statistics to the NASWW for the Social Work Safety Bill. This bill would help protect the safety of social workers making home visits by exempting them from the Castle Doctrine. The Castle Doctrine allows resident to use deadly force if they                                                                                                                                                                                                                                                                                                                   | Complete |

|                         |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |
|-------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                         |                                                               | “reasonably believe” someone has or is breaking into their house.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |
| September 21, 2015      | Work Fatalities News Release                                  | BLS/OSHA staff released a preliminary count of fatal work injuries in 2014. There were 97 workers who died in Wisconsin and 4,679 fatalities nationwide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Complete |
| September 29 – 30, 2015 | Water Environment Federation Technical Exhibit and Conference | Dr. Sharon Long (Environmental Microbiology) and graduate assistant Zac Carroll presented on “Pathogens and Surrogate Organisms in Anaerobic Digestion – Temperature, Time, and Ammonia Effects” at the 88th Annual Water Environment Federation Technical Exhibit and Conference (WEFTEC) in Chicago.                                                                                                                                                                                                                                                                                                                                                                                                                             | Complete |
| October 2015            | <i>MLO</i> article about PT services                          | CDC staffers interviewed the WSLH Proficiency Testing staff for an article to be published in an upcoming issue of the clinical laboratory magazine <i>MLO</i> .<br><br>The article -- “Proficiency Testing Program Providers Strive to Serve Their Customers” -- will answer many questions raised in 2012 when CDC, working in collaboration with the Association of Public Health Laboratories (APHL), conducted a series of focus groups with clinical laboratory professionals to further explore how laboratories use and perceive PT.                                                                                                                                                                                       | Complete |
| October 2015            | Vaccine Preventable Disease Reference Center – CDC            | The WSLH’s contract with CDC to serve as a national Vaccine Preventable Disease (VPD) Reference Center has been renewed for another 5 years. The WSLH Communicable Disease Division provides testing capacity for measles, mumps, rubella and other vaccine-preventable diseases for Wisconsin and 17 other state and local public health laboratories across the country, as well as surge capacity for CDC in case of a large-scale outbreak.<br><br>In addition to testing, the WSLH is the only VPD Reference Center providing test performance evaluation panels to public health laboratories so that they can assure the quality of their testing. This is a collaborative effort between WSLH Proficiency Testing and CDD. | Ongoing  |
| October 2015            | National Influenza Surveillance                               | The WSLH Communicable Disease Division has been chosen by the CDC to be one of three National Influenza Surveillance Reference Centers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Ongoing  |



|                             |                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |
|-----------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                             | Reference Center<br>-- CDC                                            | <p>for the next five years (2015 – 2020).</p> <p>The WSLH will provide influenza virus isolation, neuraminidase inhibition (i.e. anti-viral medication resistance) and whole genome sequencing testing services for Wisconsin and 21 other states.</p> <p>Test result data will be used by CDC to speed influenza vaccine development and better understand what influenza viruses are circulating and how they may be changing.</p> <p>Since 2009, the WSLH has served as a CDC virus isolation project partner looking for antigenic shift and drift in influenza viruses. This latest project builds upon that partnership.</p> |          |
| October 2015                | American Board of Medical Genetics and Genomics (ABMGG) certification | <p>WSLH Cytogenetics and Molecular Genetics Assistant Director Dr. Vanessa Horner and two ABMGG fellows at the WSLH have passed their American Board of Medical Genetics and Genomics certification exams.</p> <p>Dr. Horner is now dual boarded in Cytogenetics and Molecular Genetics. ABMGG Fellow Dr. Cate Paschal is boarded in Cytogenetics and Dr. Chris Vlangos is boarded in Molecular Genetics. Dr. Vlangos was the first molecular fellow trained at the WSLH.</p> <p>All ABMGG fellows trained at the WSLH so far have been board-certified.</p>                                                                       | Complete |
| October 2015                | Governor's Council on Highway Safety                                  | WSLH Toxicology Director Amy Miles gave a presentation about drugged driving trends in Wisconsin to the Governor's Council on Highway Safety.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Complete |
| October 13, 14 and 16, 2015 | WI Clinical Laboratory Network Regional Meetings                      | The WI Clinical Laboratory Network held regional meetings in Rice Lake, Kimberly and Wisconsin Dells. The all-day meetings presented by WSLH CDD staff and organized by WCLN Coordinator Erin Bowles focused on Laboratory Preparedness and Laboratory Biosafety and Biosecurity. Other topics of discussion were Carbapenem-resistant Enterobacteriaceae (CRE), Individualized Quality Control Plan (ICCP), and the popular case studies.                                                                                                                                                                                         | Complete |
| October 14, 2015            | Local Public Health Laboratory Network meeting                        | Members of the Local Public Health Laboratory Network along with state agency partners from DPH, DNR, WSLH, UW-Madison and UW-Stevens Point met at UW-SP. Network members                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Complete |

|                       |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                            |          |
|-----------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                       |                                                       | <p>toured the UW-SP environmental testing laboratories, learned more about the DPH private well water data viewer created in collaboration with UW-SP, and also learned about the newly-forming Great Lakes Coastal Beaches workgroup. Time for networking and learning from one another was also a valuable component of the day.</p> <p>The meeting was organized and facilitated by Jan Klawitter (Public Affairs).</p> |          |
| October 15-16, 2015   | WI Prosecutor's OWI Conference                        | Bill Johnson, Tom Neuser and Amy Miles (Toxicology) each gave separate presentations to the prosecutors of WI on a variety of topics. Tom Neuser gave a presentation on common defense attorney tactics, Bill Johnson co-presented with AAG Tara Jenswold and Officer Deanna Reilly on drug impaired driving and Amy Miles presented on updates from the WSLH and current issues with Daubert hearings.                    | Complete |
| October 16, 2015      | New Public Health Employee Orientation                | WSLH Public Affairs Manager Jan Klawitter gave an overview presentation about the WSLH at the New Public Health Employee Orientation sponsored by WDPH. Jan gives these presentations twice annually.                                                                                                                                                                                                                      | Complete |
| October 19-23, 2015   | Presentation at SOFT 2015 (Atlanta, GA)               | WSLH Toxicologist Stephanie Weber presented a scientific abstract on Heroin in Wisconsin drivers during the annual SOFT conference. Feedback from the presentation has been very positive with inquiries from several different states and countries asking for more information.                                                                                                                                          | Complete |
| October 19-23, 2015   | Workshop / Committee Chair at SOFT 2015 (Atlanta, GA) | WSLH Toxicology Director Amy Miles chaired a workshop entitled "Benzodiazepines and DUID" for the attendees of the SOFT conference. The workshop was a 4-hour training which included pharmacology, case examples and extraction techniques for the benzodiazepine drug class. Amy also chaired the international SOFT/AAFS Drugs and Driving Committee meeting and is now on the SOFT Board of Directors.                 | Complete |
| October 22 – 23, 2015 | WI Science Festival                                   | Kim Oxendine and Maureen McCormack (Cytogenetics), Jan Klawitter (Public Affairs), and Changhong Ye, Michele Smith and the Cytotechnology Class of 2016 (Cytology) hosted exploration stations as part of the WI Science Festival. Young (and some older) visitors to the Cytogenetics station were able to make a bracelet with beads representing different genetic traits like                                          | Complete |

|                  |                            |                                                                                                                                                                                                                                                                                                                                                                 |          |
|------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                  |                            | eye color and whether you can roll your tongue. Visitors to the Cytology station were able to make a “cell” using office supplies and plastic baggies.                                                                                                                                                                                                          |          |
| October 23, 2015 | IACP DRE TAP (Chicago, IL) | WSLH Toxicology Director Amy Miles attended the yearly TAP meeting and the main topic of discussion was how to get forensic DUID laboratories across the country to use similar cutoff and analytical techniques. A Resolution was introduced that has support from NHTSA, IACP and SOFT to work together to rectify the inconsistencies of laboratory testing. | Complete |

**Report to the  
Wisconsin State Laboratory of Hygiene Board  
Water Systems Tests by the WSLH  
For the period July 1 – September 30, 2015**

|                                                                                       |      |
|---------------------------------------------------------------------------------------|------|
| Number of systems on a boil water notice                                              | 122  |
| Number of water systems tested                                                        | 3724 |
| Percent of systems on a boil water notice                                             | 3.8% |
| Number of boil water notices for <u>municipal community water</u> systems.            | 0    |
| Number of boil water notices for <u>other than a municipal community water</u> system | 8    |
| Number of boil water notices for <u>non-transient, non-community</u> water systems.   | 6    |
| Number of boil water notices for <u>transient water systems</u> .                     | 108  |

|             | # of systems tested by SLH |    |    |    | # of Boil Water Notices |    |    |    |
|-------------|----------------------------|----|----|----|-------------------------|----|----|----|
|             | MC                         | OC | NN | TN | MC                      | OC | NN | TN |
| Adams       | 3                          | 0  | 0  | 5  | 0                       | 0  | 0  | 0  |
| Ashland     | 3                          | 0  | 1  | 1  | 0                       | 0  | 0  | 0  |
| Barron      | 2                          | 2  | 2  | 44 | 0                       | 0  | 0  | 6  |
| Bayfield    | 1                          | 1  | 1  | 1  | 0                       | 1  | 0  | 0  |
| Brown       | 9                          | 0  | 0  | 9  | 0                       | 0  | 0  | 0  |
| Buffalo     | 3                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Burnett     | 0                          | 0  | 1  | 53 | 0                       | 0  | 0  | 4  |
| Calumet     | 7                          | 1  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Chippewa    | 1                          | 2  | 0  | 49 | 0                       | 0  | 0  | 2  |
| Clark       | 7                          | 1  | 2  | 13 | 0                       | 0  | 0  | 1  |
| Columbia    | 10                         | 2  | 5  | 10 | 0                       | 0  | 0  | 0  |
| Crawford    | 5                          | 0  | 0  | 2  | 0                       | 0  | 0  | 0  |
| Dane        | 31                         | 8  | 11 | 34 | 0                       | 0  | 0  | 2  |
| Dodge       | 16                         | 2  | 5  | 5  | 0                       | 0  | 0  | 0  |
| Door        | 3                          | 1  | 2  | 95 | 0                       | 0  | 0  | 2  |
| Douglas     | 0                          | 0  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Dunn        | 0                          | 1  | 0  | 34 | 0                       | 0  | 0  | 0  |
| Eau Claire  | 0                          | 2  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Florence    | 1                          | 0  | 1  | 5  | 0                       | 0  | 0  | 1  |
| Fond Du Lac | 8                          | 2  | 2  | 0  | 0                       | 0  | 0  | 0  |
| Forest      | 4                          | 0  | 0  | 2  | 0                       | 0  | 0  | 1  |
| Grant       | 12                         | 3  | 3  | 8  | 0                       | 0  | 0  | 0  |
| Green       | 7                          | 1  | 2  | 1  | 0                       | 0  | 0  | 0  |
| Green Lake  | 5                          | 1  | 5  | 3  | 0                       | 0  | 0  | 1  |
| Iowa        | 8                          | 1  | 2  | 16 | 0                       | 0  | 0  | 0  |
| Iron        | 5                          | 0  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Jackson     | 2                          | 0  | 2  | 3  | 0                       | 0  | 0  | 0  |
| Jefferson   | 5                          | 4  | 2  | 14 | 0                       | 0  | 0  | 0  |
| Juneau      | 8                          | 3  | 0  | 12 | 0                       | 1  | 0  | 2  |
| Kenosha     | 0                          | 10 | 4  | 1  | 0                       | 0  | 0  | 0  |
| Kewaunee    | 3                          | 0  | 3  | 4  | 0                       | 0  | 0  | 0  |
| La Crosse   | 0                          | 2  | 2  | 1  | 0                       | 0  | 0  | 0  |
| Lafayette   | 7                          | 0  | 0  | 2  | 0                       | 0  | 0  | 0  |
| Langlade    | 1                          | 1  | 0  | 4  | 0                       | 1  | 0  | 0  |
| Lincoln     | 3                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Manitowoc   | 5                          | 2  | 2  | 25 | 0                       | 0  | 0  | 0  |
| Marathon    | 3                          | 1  | 3  | 0  | 0                       | 0  | 0  | 0  |
| Marinette   | 6                          | 0  | 2  | 13 | 0                       | 0  | 0  | 0  |
| Marquette   | 1                          | 0  | 2  | 11 | 0                       | 0  | 0  | 1  |
| Menominee   | 0                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Milwaukee   | 2                          | 2  | 3  | 0  | 0                       | 0  | 0  | 0  |
| Monroe      | 6                          | 3  | 1  | 6  | 0                       | 0  | 0  | 0  |
| Oconto      | 5                          | 0  | 0  | 19 | 0                       | 0  | 0  | 2  |
| Oneida      | 1                          | 3  | 1  | 1  | 0                       | 0  | 0  | 1  |
| Outagamie   | 9                          | 0  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Ozaukee     | 1                          | 1  | 5  | 2  | 0                       | 0  | 0  | 0  |
| Pepin       | 0                          | 1  | 0  | 14 | 0                       | 0  | 0  | 0  |
| Pierce      | 2                          | 0  | 3  | 13 | 0                       | 0  | 0  | 0  |
| Polk        | 1                          | 0  | 0  | 30 | 0                       | 0  | 0  | 4  |
| Portage     | 4                          | 1  | 3  | 0  | 0                       | 0  | 0  | 0  |
| Price       | 3                          | 0  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Racine      | 1                          | 4  | 5  | 6  | 0                       | 0  | 0  | 0  |
| Richland    | 6                          | 0  | 2  | 4  | 0                       | 0  | 0  | 1  |
| Rock        | 7                          | 7  | 6  | 22 | 0                       | 0  | 0  | 1  |
| Rusk        | 1                          | 1  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Sauk        | 8                          | 3  | 4  | 16 | 0                       | 0  | 0  | 2  |
| Sawyer      | 1                          | 1  | 1  | 3  | 0                       | 0  | 0  | 0  |
| Shawano     | 9                          | 0  | 0  | 5  | 0                       | 0  | 0  | 0  |
| Sheboygan   | 7                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| St. Croix   | 1                          | 2  | 1  | 35 | 0                       | 0  | 0  | 3  |
| Taylor      | 2                          | 0  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Trempealeau | 6                          | 1  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Unknown     | 0                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Vernon      | 5                          | 0  | 0  | 13 | 0                       | 0  | 0  | 3  |
| Vilas       | 3                          | 4  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Walworth    | 2                          | 2  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Washburn    | 1                          | 1  | 1  | 1  | 0                       | 0  | 0  | 0  |
| Washington  | 0                          | 6  | 3  | 3  | 0                       | 0  | 0  | 0  |
| Waukesha    | 3                          | 4  | 12 | 1  | 0                       | 0  | 1  | 0  |
| Waupaca     | 6                          | 1  | 2  | 0  | 0                       | 0  | 0  | 0  |
| Waushara    | 4                          | 1  | 0  | 12 | 0                       | 0  | 0  | 2  |
| Winnebago   | 4                          | 0  | 2  | 0  | 0                       | 0  | 0  | 0  |
| Wood        | 4                          | 4  | 2  | 2  | 0                       | 0  | 0  | 0  |

## July 2015

### Report on Public Water System Testing

MC is municipal community water system which means a water system which serves at least 15 service connections used by year round residents or regularly serves at least 25 year round resident and is owned by a county, city, village, town, town sanitary district, or utility district.

OC is other than municipal community water system which means a community water system that is not a municipal water system. Examples of other than municipal community water systems include but are not limited to those serving mobile home parks, apartments and condominiums.

NN is non-transient non-community water system which means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year. Examples of non-transient non-community water systems include those serving schools, day care centers and factories.

TN is non-community transient water system which means a non-community water system that serves at least 25 people at least 60 days of the year. Examples of transient non-community water systems include those serving taverns, motels, restaurants, churches, campgrounds and parks.

|             | # of systems tested by SLH |    |    |    | # of Boil Water Notices |    |    |    |
|-------------|----------------------------|----|----|----|-------------------------|----|----|----|
|             | MC                         | OC | NN | TN | MC                      | OC | NN | TN |
| Adams       | 3                          | 1  | 0  | 2  | 0                       | 0  | 0  | 0  |
| Ashland     | 3                          | 0  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Barron      | 2                          | 1  | 4  | 10 | 0                       | 0  | 0  | 1  |
| Bayfield    | 0                          | 1  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Brown       | 8                          | 0  | 1  | 2  | 0                       | 0  | 0  | 0  |
| Buffalo     | 3                          | 0  | 3  | 4  | 0                       | 0  | 1  | 0  |
| Burnett     | 0                          | 0  | 0  | 42 | 0                       | 0  | 0  | 4  |
| Calumet     | 6                          | 1  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Chippewa    | 1                          | 2  | 0  | 9  | 0                       | 0  | 0  | 1  |
| Clark       | 7                          | 1  | 0  | 9  | 0                       | 0  | 0  | 1  |
| Columbia    | 10                         | 2  | 4  | 6  | 0                       | 0  | 1  | 0  |
| Crawford    | 5                          | 0  | 0  | 1  | 0                       | 0  | 0  | 1  |
| Dane        | 32                         | 12 | 11 | 23 | 0                       | 0  | 0  | 0  |
| Dodge       | 16                         | 1  | 7  | 6  | 0                       | 0  | 0  | 1  |
| Door        | 3                          | 0  | 1  | 78 | 0                       | 0  | 0  | 0  |
| Douglas     | 0                          | 0  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Dunn        | 0                          | 1  | 0  | 19 | 0                       | 0  | 0  | 2  |
| Eau Claire  | 0                          | 4  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Florence    | 1                          | 0  | 0  | 3  | 0                       | 0  | 0  | 0  |
| Fond Du Lac | 8                          | 1  | 3  | 0  | 0                       | 0  | 0  | 0  |
| Forest      | 4                          | 0  | 0  | 3  | 0                       | 0  | 0  | 2  |
| Grant       | 10                         | 4  | 0  | 8  | 0                       | 0  | 0  | 0  |
| Green       | 7                          | 0  | 3  | 5  | 0                       | 0  | 0  | 0  |
| Green Lake  | 5                          | 0  | 0  | 1  | 0                       | 0  | 0  | 0  |
| Iowa        | 8                          | 0  | 2  | 5  | 0                       | 0  | 0  | 1  |
| Iron        | 5                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Jackson     | 3                          | 0  | 1  | 3  | 0                       | 0  | 0  | 0  |
| Jefferson   | 5                          | 4  | 4  | 19 | 0                       | 1  | 0  | 0  |
| Juneau      | 8                          | 2  | 2  | 5  | 0                       | 0  | 0  | 1  |
| Kenosha     | 0                          | 7  | 8  | 0  | 0                       | 0  | 0  | 0  |
| Kewaunee    | 3                          | 1  | 3  | 2  | 0                       | 0  | 0  | 0  |
| La Crosse   | 0                          | 1  | 2  | 1  | 0                       | 0  | 0  | 0  |
| Lafayette   | 6                          | 0  | 0  | 11 | 0                       | 0  | 0  | 0  |
| Langlade    | 1                          | 1  | 0  | 4  | 0                       | 0  | 0  | 0  |
| Lincoln     | 3                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Manitowoc   | 5                          | 3  | 3  | 31 | 0                       | 0  | 0  | 0  |
| Marathon    | 3                          | 0  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Marinette   | 6                          | 0  | 1  | 15 | 0                       | 0  | 0  | 2  |
| Marquette   | 1                          | 1  | 1  | 10 | 0                       | 0  | 0  | 0  |
| Menominee   | 0                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Milwaukee   | 2                          | 1  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Monroe      | 5                          | 2  | 0  | 12 | 0                       | 0  | 0  | 0  |
| Oconto      | 5                          | 0  | 1  | 8  | 0                       | 0  | 0  | 0  |
| Oneida      | 1                          | 4  | 1  | 8  | 0                       | 0  | 0  | 0  |
| Outagamie   | 9                          | 0  | 0  | 4  | 0                       | 0  | 0  | 1  |
| Ozaukee     | 1                          | 1  | 6  | 2  | 0                       | 0  | 0  | 0  |
| Pepin       | 0                          | 0  | 0  | 3  | 0                       | 0  | 0  | 0  |
| Pierce      | 2                          | 1  | 0  | 3  | 0                       | 1  | 0  | 0  |
| Polk        | 1                          | 0  | 0  | 17 | 0                       | 0  | 0  | 3  |
| Portage     | 3                          | 1  | 3  | 0  | 0                       | 0  | 0  | 0  |
| Price       | 3                          | 1  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Racine      | 1                          | 0  | 8  | 3  | 0                       | 0  | 0  | 0  |
| Richland    | 6                          | 0  | 1  | 6  | 0                       | 0  | 0  | 0  |
| Rock        | 7                          | 5  | 6  | 9  | 0                       | 0  | 0  | 0  |
| Rusk        | 1                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Sauk        | 9                          | 0  | 4  | 4  | 0                       | 0  | 1  | 1  |
| Sawyer      | 1                          | 1  | 1  | 1  | 0                       | 0  | 0  | 0  |
| Shawano     | 9                          | 1  | 2  | 9  | 0                       | 0  | 0  | 0  |
| Sheboygan   | 7                          | 1  | 0  | 1  | 0                       | 0  | 0  | 2  |
| St. Croix   | 1                          | 2  | 3  | 11 | 0                       | 0  | 0  | 3  |
| Taylor      | 1                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Trempealeau | 6                          | 2  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Unknown     | 0                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Vernon      | 5                          | 0  | 0  | 13 | 0                       | 0  | 0  | 2  |
| Vilas       | 3                          | 1  | 0  | 55 | 0                       | 0  | 0  | 0  |
| Walworth    | 2                          | 2  | 4  | 0  | 0                       | 0  | 0  | 0  |
| Washburn    | 1                          | 0  | 1  | 0  | 0                       | 0  | 0  | 0  |
| Washington  | 0                          | 6  | 2  | 2  | 0                       | 0  | 0  | 0  |
| Waukesha    | 4                          | 4  | 6  | 0  | 0                       | 0  | 0  | 0  |
| Waupaca     | 6                          | 1  | 3  | 8  | 0                       | 0  | 0  | 0  |
| Waushara    | 4                          | 0  | 1  | 11 | 0                       | 0  | 0  | 1  |
| Winnebago   | 4                          | 0  | 0  | 0  | 0                       | 0  | 0  | 0  |
| Wood        | 4                          | 1  | 5  | 0  | 0                       | 0  | 0  | 0  |

## August 2015

### Report on Public Water System Testing

MC is municipal community water system which means a water system which serves at least 15 service connections used by year round residents or regularly serves at least 25 year round resident and is owned by a county, city, village, town, town sanitary district, or utility district.

OC is other than municipal community water system which means a community water system that is not a municipal water system. Examples of other than municipal community water systems include but are not limited to those serving mobile home parks, apartments and condominiums.

NN is non-transient non-community water system which means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year. Examples of non-transient non-community water systems include those serving schools, day care centers and factories.

TN is non-community transient water system which means a non-community water system that serves at least 25 people at least 60 days of the year. Examples of transient non-community water systems include those serving taverns, motels, restaurants, churches, campgrounds and parks.

|             | # of systems tested by SLH |    |    |     | # of Boil Water Notices |    |    |    |
|-------------|----------------------------|----|----|-----|-------------------------|----|----|----|
|             | MC                         | OC | NN | TN  | MC                      | OC | NN | TN |
| Adams       | 4                          | 1  | 0  | 1   | 0                       | 0  | 0  | 0  |
| Ashland     | 3                          | 0  | 0  | 9   | 0                       | 0  | 0  | 0  |
| Barron      | 2                          | 0  | 3  | 5   | 0                       | 0  | 0  | 0  |
| Bayfield    | 0                          | 0  | 0  | 1   | 0                       | 0  | 0  | 0  |
| Brown       | 8                          | 1  | 4  | 16  | 0                       | 0  | 0  | 0  |
| Buffalo     | 3                          | 0  | 1  | 0   | 0                       | 0  | 0  | 0  |
| Burnett     | 0                          | 1  | 0  | 28  | 0                       | 0  | 0  | 0  |
| Calumet     | 6                          | 1  | 2  | 4   | 0                       | 0  | 0  | 0  |
| Chippewa    | 1                          | 1  | 1  | 13  | 0                       | 0  | 0  | 2  |
| Clark       | 7                          | 0  | 3  | 9   | 0                       | 0  | 0  | 1  |
| Columbia    | 10                         | 5  | 5  | 18  | 0                       | 0  | 0  | 1  |
| Crawford    | 5                          | 1  | 0  | 3   | 0                       | 0  | 0  | 0  |
| Dane        | 32                         | 9  | 10 | 27  | 0                       | 0  | 0  | 2  |
| Dodge       | 16                         | 2  | 12 | 7   | 0                       | 0  | 0  | 0  |
| Door        | 3                          | 1  | 2  | 185 | 0                       | 0  | 0  | 2  |
| Douglas     | 0                          | 0  | 1  | 11  | 0                       | 0  | 0  | 1  |
| Dunn        | 0                          | 1  | 0  | 6   | 0                       | 0  | 0  | 1  |
| Eau Claire  | 0                          | 1  | 5  | 0   | 0                       | 0  | 0  | 0  |
| Florence    | 1                          | 0  | 0  | 9   | 0                       | 0  | 0  | 1  |
| Fond Du Lac | 8                          | 9  | 2  | 17  | 0                       | 0  | 0  | 0  |
| Forest      | 2                          | 0  | 0  | 4   | 0                       | 0  | 0  | 1  |
| Grant       | 12                         | 4  | 1  | 21  | 0                       | 0  | 0  | 1  |
| Green       | 7                          | 0  | 2  | 5   | 0                       | 0  | 0  | 0  |
| Green Lake  | 5                          | 0  | 3  | 11  | 0                       | 0  | 0  | 0  |
| Iowa        | 7                          | 0  | 4  | 6   | 0                       | 0  | 0  | 0  |
| Iron        | 5                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Jackson     | 2                          | 0  | 1  | 10  | 0                       | 0  | 0  | 1  |
| Jefferson   | 5                          | 1  | 5  | 14  | 0                       | 1  | 0  | 2  |
| Juneau      | 8                          | 1  | 0  | 4   | 0                       | 0  | 0  | 1  |
| Kenosha     | 0                          | 10 | 4  | 12  | 0                       | 0  | 0  | 1  |
| Kewaunee    | 3                          | 0  | 1  | 14  | 0                       | 0  | 0  | 0  |
| La Crosse   | 0                          | 0  | 2  | 1   | 0                       | 0  | 0  | 0  |
| Lafayette   | 6                          | 0  | 0  | 10  | 0                       | 0  | 0  | 0  |
| Langlade    | 1                          | 1  | 0  | 9   | 0                       | 0  | 0  | 0  |
| Lincoln     | 3                          | 0  | 1  | 1   | 0                       | 0  | 0  | 0  |
| Manitowoc   | 5                          | 2  | 7  | 25  | 0                       | 0  | 0  | 0  |
| Marathon    | 3                          | 0  | 2  | 2   | 0                       | 0  | 0  | 0  |
| Marquette   | 6                          | 0  | 0  | 32  | 0                       | 0  | 0  | 4  |
| Marquette   | 1                          | 2  | 5  | 23  | 0                       | 0  | 0  | 1  |
| Menominee   | 0                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Milwaukee   | 2                          | 2  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Monroe      | 5                          | 2  | 3  | 4   | 0                       | 0  | 0  | 0  |
| Oconto      | 5                          | 3  | 3  | 36  | 0                       | 0  | 0  | 2  |
| Oneida      | 1                          | 3  | 1  | 18  | 0                       | 0  | 0  | 0  |
| Outagamie   | 9                          | 0  | 0  | 12  | 0                       | 0  | 0  | 0  |
| Ozaukee     | 1                          | 1  | 13 | 6   | 0                       | 0  | 0  | 0  |
| Pepin       | 0                          | 0  | 2  | 0   | 0                       | 0  | 0  | 0  |
| Pierce      | 2                          | 1  | 2  | 0   | 0                       | 1  | 0  | 0  |
| Polk        | 1                          | 0  | 0  | 27  | 0                       | 0  | 0  | 3  |
| Portage     | 3                          | 3  | 2  | 0   | 0                       | 0  | 0  | 0  |
| Price       | 3                          | 0  | 1  | 0   | 0                       | 0  | 0  | 0  |
| Racine      | 1                          | 3  | 12 | 3   | 0                       | 0  | 0  | 1  |
| Richland    | 6                          | 0  | 2  | 6   | 0                       | 0  | 0  | 0  |
| Rock        | 7                          | 5  | 7  | 17  | 0                       | 1  | 1  | 0  |
| Rusk        | 1                          | 2  | 1  | 0   | 0                       | 0  | 0  | 0  |
| Sauk        | 9                          | 1  | 1  | 5   | 0                       | 0  | 0  | 0  |
| Sawyer      | 1                          | 0  | 2  | 4   | 0                       | 0  | 0  | 0  |
| Shawano     | 9                          | 0  | 1  | 24  | 0                       | 0  | 0  | 0  |
| Sheboygan   | 7                          | 0  | 8  | 14  | 0                       | 0  | 0  | 0  |
| St. Croix   | 1                          | 1  | 0  | 7   | 0                       | 0  | 0  | 1  |
| Taylor      | 1                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Trempealeau | 5                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Unknown     | 0                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Vernon      | 5                          | 1  | 0  | 18  | 0                       | 0  | 0  | 0  |
| Vilas       | 3                          | 3  | 1  | 8   | 0                       | 0  | 0  | 0  |
| Walworth    | 2                          | 0  | 5  | 9   | 0                       | 0  | 0  | 1  |
| Washburn    | 1                          | 0  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Washington  | 0                          | 6  | 7  | 1   | 0                       | 0  | 1  | 0  |
| Waukesha    | 3                          | 5  | 17 | 26  | 0                       | 0  | 0  | 4  |
| Waupaca     | 6                          | 1  | 0  | 0   | 0                       | 0  | 0  | 0  |
| Waushara    | 4                          | 0  | 0  | 36  | 0                       | 0  | 0  | 1  |
| Winnebago   | 4                          | 0  | 1  | 0   | 0                       | 0  | 0  | 0  |
| Wood        | 4                          | 1  | 2  | 0   | 0                       | 0  | 0  | 0  |

## September 2015

### Report on Public Water System Testing

MC is municipal community water system which means a water system which serves at least 15 service connections used by year round residents or regularly serves at least 25 year round resident and is owned by a county, city, village, town, town sanitary district, or utility district.

OC is other than municipal community water system which means a community water system that is not a municipal water system. Examples of other than municipal community water systems include but are not limited to those serving mobile home parks, apartments and condominiums.

NN is non-transient non-community water system which means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year. Examples of non-transient non-community water systems include those serving schools, day care centers and factories.

TN is non-community transient water system which means a non-community water system that serves at least 25 people at least 60 days of the year. Examples of transient non-community water systems include those serving taverns, motels, restaurants, churches, campgrounds and parks.



Reply to the attention of:

SEP 23 2015

Dr. Charles D. Brokopp  
Director  
University of Wisconsin State Laboratory of Hygiene  
Board of Regents University of Wisconsin System  
Room 239 Stovall Building  
465 Henry Mall  
Madison, Wisconsin 53706

Dear Dr. Brokopp:

Enclosed is your approved FY 2016 Consultation Agreement as authorized by the Occupational Safety and Health Act of 1970. This agreement has been initially approved at the base award level of \$1,834,000 pending final Congressional and executive action on the Occupational Safety and Health Administration's (OSHA) appropriations bill.

Approval of the Agreement includes approval of the Consultation Project Plan. The Project Plan provides the framework for monitoring and evaluating the State performance in administering the Consultation program consistent with provisions of the OSHA Strategic Management Plan.


The Federal Financial Report (SF 425) is due 30 days after the end of each Federal fiscal quarter. All funds must be obligated by September 30, 2016. All agreements must be closed 90 days after the end of the performance period and the final financial reports must be submitted by December 29, 2016.

As you are aware, Congress has not completed action on our appropriations bill for FY 2016. Once a final appropriation is enacted, instructions for the submission of a modification, if necessary, will be forwarded to recipients. We anticipate that initial FY 2016 Federal funding may be provided under a short-term Continuing Resolution (CR). Cash drawdowns through the Department of Health and Human Services - Payment Management System (DHHS-PMS) are controlled based on the amounts apportioned by the Office of Management and Budget (OMB) under the CR. We will update the Payment Management System within 48 hours of notification by OMB of authorized funding levels. Recipients can query the Payment Management System at any time to review the availability of FY 2016 funds.



Questions regarding this letter should be discussed with your Regional Administrator.

Sincerely,

  
Kimberly A. Locey  
Director  
Administrative Programs

Enclosure

**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

**Consultation Services Agreement**

**OSHA 21(d) CONSULTATION PROGRAM**

CFDA # 17.564, Consultation Agreements

(1) Region: V  
 State: Wisconsin  
 Grantee: Board of Regents, University of Wisconsin  
 Grant Number: CS-27098-CS6  
 Starting Date: October 1, 2015  
 Ending Date: September 30, 2016

(2) Recipient  
 Wisconsin Occupational Health Laboratory  
 2601 Agriculture Drive  
 Madison, Wisconsin 53718  
 Steve Strebel, Director, WOHL  
 Recipient Liaison Representative  
 (608) 224-6216

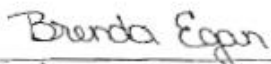
(3) U.S. Department of Labor  
 Douglas J. Kalinowski, Director  
 Occupational Safety and Health Administration  
 Directorate of Cooperative and State Programs  
 OSHA Liaison Representative  
 (202) 693-2200

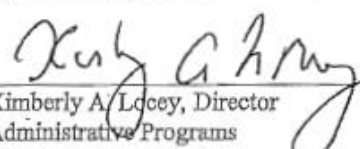
(4) Authority for Grant: P.L. 105-197, under Section 21(d)

1. Federal Base Award Amount: \$1,834,000

Uniform Administrative Requirements, Cost Principles, and Audit Requirements:  
 2 CFR Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements, Final Rule  
 2 CFR Part 2900: DOL Exceptions to 2 CFR Part 200

Terms and Conditions of the Grant:  
 THIS GRANT AGREEMENT includes the award notification letter as well as the entire grant application, including all attachments, exhibits, enclosures, etc.

(5) Recipient Approval  
  
 \_\_\_\_\_  
 Signature Date  
 Brenda Egan, Managing Officer  
 \_\_\_\_\_  
 Type Name and Title

(6) Federal Approval  
  
 \_\_\_\_\_  
 Signature Date  
 Kimberly A. Lacey, Director  
 Administrative Programs

SEP 23 2015



Reply to the attention of:

SEP 23 2015

Dr. Charles D. Brokopp  
Director  
University of Wisconsin State Laboratory of Hygiene  
Board of Regents University of Wisconsin System  
Room 239 Stovall Building  
465 Henry Mall  
Madison, Wisconsin 53706

Dear Dr. Brokopp:

Enclosed is your approved FY 2016 Consultation Agreement as authorized by the Occupational Safety and Health Act of 1970. This agreement has been initially approved at the base award level of \$1,761,800 pending final Congressional and executive action on the Occupational Safety and Health Administration's (OSHA) appropriations bill.


Approval of the Agreement includes approval of the Consultation Project Plan. The Project Plan provides the framework for monitoring and evaluating the State performance in administering the Consultation program consistent with provisions of the OSHA Strategic Management Plan.

The Federal Financial Report (SF 425) is due 30 days after the end of each Federal fiscal quarter. All funds must be obligated by September 30, 2016. All agreements must be closed 90 days after the end of the performance period and the final financial reports must be submitted by December 29, 2016.

As you are aware, Congress has not completed action on our appropriations bill for FY 2016. Once a final appropriation is enacted, instructions for the submission of a modification, if necessary, will be forwarded to recipients. We anticipate that initial FY 2016 Federal funding may be provided under a short-term Continuing Resolution (CR). Cash drawdowns through the Department of Health and Human Services - Payment Management System (DHHS-PMS) are controlled based on the amounts apportioned by the Office of Management and Budget (OMB) under the CR. We will update the Payment Management System within 48 hours of notification by OMB of authorized funding levels. Recipients can query the Payment Management System at any time to review the availability of FY 2016 funds.

Questions regarding this letter should be discussed with your Regional Administrator.

Sincerely,

  
Kimberly A. Locey  
Director  
Administrative Programs

Enclosure

**COOPERATIVE  
AGREEMENT**

**OSHA 21(d) CONSULTATION  
PROGRAM**

CFDA 17.604 Consultation Agreement

(1) Region: 5  
 State: Wisconsin  
 Grantee: Univ. of Wisconsin SLH  
 Grant Number: CS-27097-CS6  
 Starting Date: October 1, 2015  
 Ending Date: September 30, 2016

(2) Recipient  
 Name:  
**Brenda A. Egan**  
 Address:  
**21 N. Park St. Room 6401  
 Madison WI 53715**  
 Recipient Liaison Representative  
 608-262-9029  
 Area Code and Telephone Number

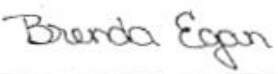
(3) U.S. Department of Labor  
**US Department of Labor - OSHA  
 230 South Dearborn St., 32nd Floor**  
 Chicago, IL 60604  
 Nick Walters  
 OSHA Liaison Representative  
 312-353-2220  
 Area Code and Telephone Number

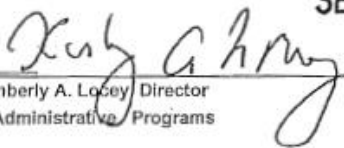
(4) Authority for Grant: P.L. 105-197, under Section 21(d)

|                                                                                          |                    | Pct. Total Funds<br>(Nearest 0.1%) |
|------------------------------------------------------------------------------------------|--------------------|------------------------------------|
| 1. Federal Base Award Amount:                                                            | <u>\$1,761,800</u> | 90.1%                              |
| 2. 100% Federal Funds for<br>Travel and Training:<br>(please also include in line 1)     | <u>\$45,370</u>    |                                    |
| 3. Total Recipient Share:                                                                | <u>\$193,798</u>   | 9.9%                               |
| 4. Recipient 100% Funding:<br>(please also include in line 3)                            | <u>\$3,084</u>     |                                    |
| 5. Total State and Federal Funds<br>Allocated to This Agreement:<br>(line 1 plus line 3) | <u>\$1,955,598</u> | 100.0%                             |

Uniform Administrative Requirements, Cost Principles, and Audit Requirements:  
 2 CFR Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements, Final Rule  
 2 CFR Part 2900: DOL Exceptions to 2 CFR Part 200

Terms and Conditions of the Grant:  
 This GRANT AGREEMENT includes the award notification letter as well as the entire grant application, including all attachments, exhibits, enclosures, etc.

(5) Recipient Approval  
  
 Signature  
 Brenda A. Egan  
 Managing Officer  
 Type Name and Title  
 Date: 8/13/15

(6) Federal Approval  
 SEP 23 2015  
  
 Signature  
 Kimberly A. Looney Director  
 Administrative Programs  
 Date



## Cytotechnology Programs Review Committee

Committee on Accreditation

September 10, 2015

Michelle A. Smith, SCT(ASCP)  
Director, School of Cytotechnology  
Wisconsin State Laboratory of Hygiene  
465 Henry Mall  
Madison, WI 53706

Dear Michelle:

In an effort to recognize the on-going pursuit of compliance and self-improvement of cytotechnology education programs, the CPRC has developed criteria for the potential extension of a given Program's current accreditation cycle. The Cytotechnology Programs Review Committee (CPRC) met recently to review eligible Programs for Continuing Accreditation-cycle Extensions, to include the School of Cytotechnology Program at Wisconsin State Laboratory of Hygiene (WSLH).

On July 18, 2013, the Program was granted Continuing Accreditation for 3 years by the Commission on Accreditation for Allied Health Education Programs (CAAHEP). Approximately 18 months prior to the commencement of the next Continuing Accreditation cycle, Cytotechnology Programs are reviewed for potential extensions.

As you know, the School of Cytotechnology at WSLH went through quite a transitional period prior to CAAHEP's accreditation action in 2013, and the 3-year accreditation period is based on the following criteria:

### 3 year cycle criteria

- Any one or more of the 3-year average outcomes, since last accreditation review, are below CPRC-established thresholds and/or Program has not consistently submitted its outcomes data, analysis and action plan(s) as a result of outcomes assessment, but has demonstrated good faith effort to resolve issues and has shown improvement;
- Annual Reports have consistently had missing data but Program has demonstrated good effort to obtain, analyze and submit data;
- Program has history of progress reports that are on-going, but has demonstrated good faith effort to resolve issue and has shown improvement;

A program currently in a 3-year accreditation cycle, based on the above criteria, ***may be considered for accreditation cycle extension if all 5-year criteria have been met:***

### SPONSORING SOCIETIES





## Cytotechnology Programs Review Committee

Committee on Accreditation

### 5 year cycle criteria

- All 3-year average outcomes, since last accreditation review, meet the CPRC-established thresholds;
- Annual reports have consistently had missing data, but Program has demonstrated good faith effort to obtain, analyze and submit data;
- Concerns were identified during self-study process, but Program has demonstrated willingness to develop and implement an action plan to resolve issues;
- Program has history of progress reports, but has demonstrated resolution of issues.

The School of Cytotechnology has met the criteria noted above; additionally:

- Progress Report submitted in October 2013 was deemed satisfactory.
- Annual Reports have improved consistently in the past two years with detailed analyses and action plans as needed.
- Program officials have made an effort to resolve identified issues, which began with submission of a detailed "Plan of Correction."

I am pleased to report that the CPRC has granted an accreditation-cycle extension from 3- to 5-years Continuing Accreditation. The Program's next accreditation cycle will begin in October 2017 with the request for a Self-Study Report to be submitted in six months.

CAAHEP will be informed of this Continuing Accreditation-cycle Extension, at which point you will receive a confirmation letter from them.

Congratulations to you and the School's faculty for continuous improvements of cytotechnology education!

Sincerely,

Stephanie Hamilton, EdD, MB, SCT(ASCP)<sup>CM</sup>, Chair  
Cytotechnology Programs Review Committee

cc Daniel F. I. Kurtycz, MD

### SPONSORING SOCIETIES



## APHL, CDC and WSLH to Provide Viral Proficiency Testing Panel

APHL and CDC, in collaboration with the Wisconsin State Laboratory of Hygiene, are providing a performance evaluation exercise for measles and mumps PCR testing. The panel of five samples is expected to ship the week of October 26, 2015. Public health laboratories are invited to participate in this exercise by submitting the registration form to WSLH by October 9, 2015. Please contact WSLH's Amanda Weiss at [amanda.weiss@slh.wisc.edu](mailto:amanda.weiss@slh.wisc.edu) for questions regarding the exercise or panel.

## WSLH to Provide Bacterial Meningitis Proficiency Testing Panel

APHL and CDC, in collaboration with the Wisconsin State Laboratory of Hygiene (WSLH), are providing a performance evaluation exercise for *Haemophilus influenzae*, *Streptococcus pneumoniae* and *Neisseria meningitidis* PCR testing and molecular typing/grouping. The panel of six samples is expected to ship the week of September 28, 2015. Public health laboratories are invited to participate in this exercise by submitting the registration form to WSLH by August 28, 2015. Please contact WSLH's Amanda Weiss at [amanda.weiss@slh.wisc.edu](mailto:amanda.weiss@slh.wisc.edu) for questions regarding the exercise or the panel.



**2015 Measles & Mumps PCR Performance Evaluation Program Enrollment Form**

|                                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------|--|
| If your laboratory participated in a previous CDC educational exercise, please provide your WSLH PT ID number |  |
|---------------------------------------------------------------------------------------------------------------|--|

Nucleic Acid Extraction instrument/reagent: \_\_\_\_\_

Real Time Platform (Instrument w/ model number and software version): \_\_\_\_\_

Does your lab use the CDC real time PCR assay/protocol? \_\_\_\_\_  
(If not, please specify)

|                     |                                           |
|---------------------|-------------------------------------------|
|                     | Ship samples to:                          |
| Facility Name:      |                                           |
| Contact Name:       |                                           |
| Dept, Rm, Ste, etc: |                                           |
| Street Address:     |                                           |
| PO Box:             | N/A Samples cannot be shipped to a PO Box |
| City/State/Zip:     |                                           |
| Country (if not US) |                                           |
| Email:              |                                           |
| Phone:              | (     )                                   |

|                     |                              |
|---------------------|------------------------------|
|                     | Send reports/evaluations to: |
| Facility Name:      |                              |
| Contact Name:       |                              |
| Dept, Rm, Ste, etc: |                              |
| Street Address:     |                              |
| PO Box:             |                              |
| City/State/Zip:     |                              |
| Country (if not US) |                              |
| Email:              |                              |
| Phone:              | (     )                      |

Return form to: (email) [amanda.weiss@slh.wisc.edu](mailto:amanda.weiss@slh.wisc.edu) or (fax) 608-265-1111

## Promotions

Jennifer Laffin, Ph.D., FACMG Associate Professor, Department of Pediatric  
University of Wisconsin-Madison, School of Medicine and Public Health

## Appointments

Patrice Held, PhD., FACMG Adjunct Appointment, Department of Population Health Sciences  
University of Wisconsin-Madison, School of Medicine and Public Health

Curtis Hedman, Ph.D. Adjunct Appointment, Department of Population Health Sciences  
University of Wisconsin-Madison, School of Medicine and Public Health

## 2015 Graduates

### WSLH

## American Board of Medical Genetics & Genomics Fellowships

**Christopher Vlangos, Ph.D., Clinical Molecular Genetics Fellow**

Fellow @ WSLH, 7/15/13-7/14/15

Passed ABMGG Exam, **Board Certified in Clinical Molecular Genetics**

Currently:

Assistant Professor, Department of Pathology

Assistant Director, Molecular Diagnostics Laboratory

Virginia Commonwealth University, Richmond, Virginia

**Catherine Paschal, Ph.D., Clinical Cytogenetics Fellow**

Fellow @ WSLH, 7/1/13-06/30/15

Passed ABMGG Exam, **Board Certified in Clinical Cytogenetics**

Currently:

Completing her **Clinical Molecular Genetics Fellowship**, Wisconsin State Laboratory of Hygiene  
7/1/15-6/30/16, this additional year is required to obtain the 2<sup>nd</sup> certification.

# The Paris System for Reporting Urinary Cytology

Dorothy L. Rosenthal  
Eva M. Wojcik  
Daniel F. I. Kurtycz  
*Editors*

 Springer

## Contents

### 1 Pathogenesis of Urothelial Carcinoma

Eva M. Wojcik Stefan E. Pambuccian

### 2 Adequacy of Urine Specimens (Adequacy)

Matthew T. Olson Gilliz A. Barkan Monique Courtade-Saïdi Z. Laura Tabatabai Yuji Tokuda Toyonori Tsuzuki Christopher J. VandenBussche

### 3 Negative for High-Grade Urothelial Carcinoma (Negative)

Dorothy L. Rosenthal Michael B. Cohen Hai Guan Christopher L. Owens Yuji Tokuda Eva M. Wojcik

### 4 Atypical Urothelial Cells (AUC)

Güliz A. Barkan Tarik M. Elsheikh Daniel F. I. Kurtycz Sachiko Minamiguchi Hiroshi Ohnani Eric Piaton Spascsija Savic Prince Z. Laura Tabatabai Christopher J. VandenBussche

### 5 Suspicious for High-Grade Urothelial Carcinoma (Suspicious)

Fadi Brimo Manon Auger Tarik M. Elsheikh Hai Guan Mitsuru Kinjo Eric Piaton Dorothy L. Rosenthal Tatsuro Shimokama Rosemary H. Tambouret

### 6 High-Grade Urothelial Carcinoma (HGUC)

Mourat T. Siddiqui Guido Fadda Jee-Young Han Christopher L. Owens Z. Laura Tabatabai Toyonori Tsuzuki

### 7 Low-Grade Urothelial Neoplasia (LGUN)

Eva M. Wojcik Tatjana Antic Ashish Chandra Michael B. Cohen Zulfia McCroskey Jac Y. Ro Taizo Shiraiish

### 8 Other Malignancies Primary and Metastatic and Miscellaneous Lesions

Rana S. Hoda Stefan E. Pambuccian Jac Y. Ro Sun Hec Sung

### 9 Ancillary Studies in Urinary Cytology

Lukas Bubendorf Nancy P. Caraway Andrew H. Fischer Ruth L. Katz Matthew T. Olson Fernando Schmitt Margareta Stojan Fiežar Theodoros H. Van Der Kwast Philippo Vielh

### 10 Cytopreparatory Techniques

Gary W. Gill William N. Crabtree Deirdra P. Kelly

### 11 Clinical Management

Marcus L. Quek Trinity J. Bivalacqua Ashish M. Kamat Mark P. Schoenberg

# The Bethesda System for Reporting Cervical Cytology

Definitions, Criteria,  
and Explanatory Notes

Third Edition

Ritu Nayar  
David C. Wilbur  
Editors



Nayar · Wilbur Eds.



The Bethesda System for  
Reporting Cervical Cytology

3rd Ed.

|    |                                                                                                                             |     |
|----|-----------------------------------------------------------------------------------------------------------------------------|-----|
| 1  | <b>Specimen Adequacy</b> .....                                                                                              | 1   |
|    | George G. Birdsong and Diane Davis Davey                                                                                    |     |
| 2  | <b>Non-Neoplastic Findings</b> .....                                                                                        | 29  |
|    | Daniel F.I. Kurtycz, Paul N. Staats, Nancy A. Young, Marluce Bibbo,<br>Terrence J. Colgan, Marianne U. Prey, and Ritu Nayar |     |
| 3  | <b>Endometrial Cells: The How and When of Reporting</b> .....                                                               | 91  |
|    | Edmund S. Cibas, David Cheltnow, Alan G. Waxman,<br>and Ann T. Moriarty                                                     |     |
| 4  | <b>Atypical Squamous Cells</b> .....                                                                                        | 103 |
|    | Fadi W. Abdul-Karim, Celeste N. Powers, Jonathan S. Berek,<br>Mark E. Sherman, Sana O. Tabbara, and Mary K. Sidawy          |     |
| 5  | <b>Epithelial Cell Abnormalities: Squamous</b> .....                                                                        | 135 |
|    | Michael R. Henry, Donna K. Russell, Ronald D. Luff,<br>Marianne U. Prey, Thomas C. Wright Jr, and Ritu Nayar                |     |
| 6  | <b>Epithelial Abnormalities: Glandular</b> .....                                                                            | 193 |
|    | David C. Wilbur, David C. Chhieng, Barbara Guidos,<br>and Dina R. Mody                                                      |     |
| 7  | <b>Other Malignant Neoplasms</b> .....                                                                                      | 241 |
|    | Sana O. Tabbara and Walid E. Khalbass                                                                                       |     |
| 8  | <b>Anal Cytology</b> .....                                                                                                  | 263 |
|    | Teresa M. Darragh and Joel M. Palefsky                                                                                      |     |
| 9  | <b>Adjunctive Testing</b> .....                                                                                             | 287 |
|    | Mark H. Stoler, Stephen S. Raab, and David C. Wilbur                                                                        |     |
| 10 | <b>Computer-Assisted Interpretation of Cervical Cytology</b> .....                                                          | 295 |
|    | David C. Wilbur, Marianne U. Prey, and Ritu Nayar                                                                           |     |

xxi

## Improving Data Reliability and Laboratory Efficiency Testing of Fluoroquinolones in Fatty and Non-Fatty Fish Samples with One Method using Automated Solid Phase Extraction and New Consumable Technologies

Toni Hoffine, Horizon Technology, Inc., Salem, NH USA

Curtis Hedman and David Rogers, Wisconsin State Laboratory of Hygiene, Madison, WI, USA,

Robert Bucu, Richard Koeritz, and Zachary Lilla, Shimadzu Scientific Instruments, Marlborough, MA, USA,

Michael McGinley, Phenomenex, Torrance, CA, USA,

Rob Freeman, Ty Kahler, and Rick Lake, Restek, Bellefonte, PA, USA

### Key Words

Aquaculture, Fluoroquinolones, Antibiotics, Solid Phase Extraction (SPE), Food and Agriculture Organization of the United Nations (FAO), National Oceanic and Atmospheric Administration Fisheries (NOAA), Food and Drug Administration (FDA), ultra High Performance Liquid Chromatograph (uHPLC)

### Introduction

The global demand for fish as a natural source of fresh animal protein, essential fats, minerals, and vitamins continues to rise with the human population. It is estimated that natural fish resources will not be sustainable, creating the need to increase the available supply of fish through aquaculture. According to the Food and Agricultural Organization of the United Nations (FAO), growth in the global fish supply was at an average growth rate of 3.2% per year during 1961–2009, outpacing the global population growth of 1.7% per year within the same time frame<sup>1</sup>. To keep up with the global demand, fish farming is projected to increase to an annual 6.4% growth rate through 2018, with a projected market value of \$164 billion<sup>2</sup>.

Fish farming is a growing commodity; however, the regulation of small and large fish farms will be critical for food safety on a global scale. According to the FAO, 37% of the fish produced is internationally traded<sup>1</sup>. China leads the world in exports of aquaculture at 61%<sup>3</sup>, while the USA leads the world in imports of fish, with over 50% sourced from aquaculture<sup>4</sup>. Grown in close proximity, fish within an aquaculture environment can develop disease and impact aquaculture economic trade. The mechanisms for keeping fish healthy and free of disease is regulated within each country, often prompting the use of antibiotics in the water; however, the misuse of large antibiotic doses has increased attention on the impact to human health and thus the testing of aquaculture according to country specific food safety regulations.



Fluoroquinolones are a commonly used fluorine subclass group of quinolones that are effective against gram negative bacteria<sup>1</sup>. Popular for their use in aquaculture, fluoroquinolones consumed in high levels have contributed to the development of antibiotic resistance in the human population<sup>5,6</sup>. Concerns prompted the FDA to ban the use of fluoroquinolones in food producing animals in 1997<sup>7</sup>. To regulate the use and level of fluoroquinolone antibiotics in fish from imports or aquaculture within the USA, the FDA routinely inspects domestic and imported aquaculture operations and recommends a standard method for the routine testing of four frequently used fluoroquinolone antibiotics in fish<sup>8</sup>.



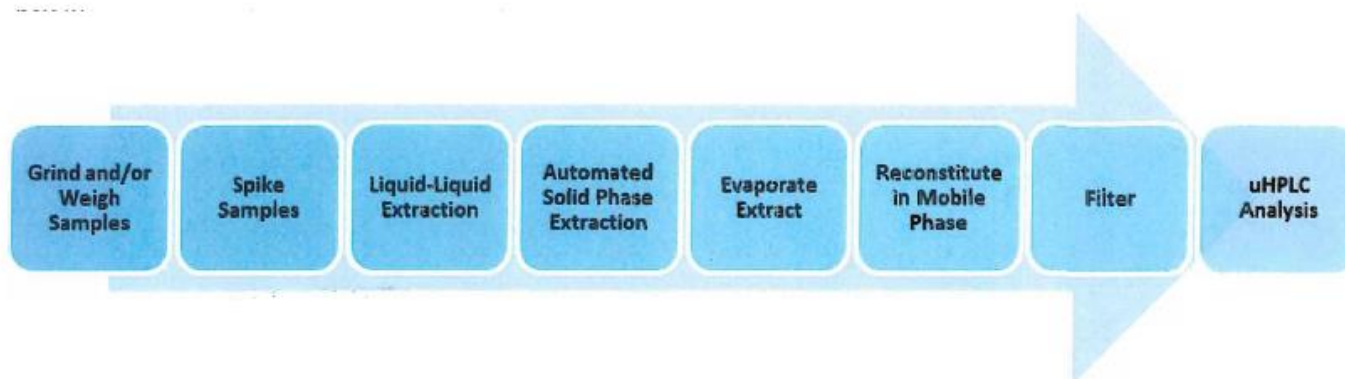
*SmartPrep Extractor for a wide range of sample matrices*

Since the October 2003 implementation of the FDA regulatory method, many new consumable technologies and improved automated systems are widely available to increase laboratory efficiency and generate more confidence in obtained results. Through the use of more effective sample preparation consumables, automated solid phase extraction of fatty fish and non-fatty fish samples was performed using the SmartPrep<sup>®</sup> Extractor to compare overall recovery and matrix cleanup effectiveness from two solid phase extraction cartridges of differing sorbent properties. Sample extracts were analyzed on an uHPLC system using enhanced column sorbent technology. The results demonstrate improved recovery and superior chromatography peak shape for more reliable identification of fluoroquinolones in less run time than the standard FDA method.

## Experimental

Fish samples were selected based on their fat content to provide both a low fat and high fat matrix for method development testing across a large range of fat content in fish. Only the fillets of each fish matrix were used for testing of fluoroquinolones. Fat content was tested separately following the grinding process for each matrix using gravimetric analysis. White bass fillets represented the low-fat fish matrix, with tested levels of fat content at 0.66%. Trout fillets represented the high-fat fish matrix, with tested levels of fat content at 18.2%.

Every effort was made to follow the existing steps and procedures outlined in the October 2003 fluoroquinolone FDA method, substituting consumables and thus respective solvents. Below is an overview of the multiple steps performed. Details for each step (pre-preparation, liquid-liquid extraction, solid phase extraction, evaporation, and analysis) are outlined below.





COLLEGE of AMERICAN  
PATHOLOGISTS

October 20, 2015

Charles D. Brokopp, MPH,MT(ASCP),DRPH  
Wisconsin State Laboratory of Hygiene  
465 Henry Mall  
Madison, WI 53706-1501

Dear Dr. Brokopp:

We would like to thank you for conducting the recent inspection at Cadham Provincial Laboratory.

As you know, the continuing success of the CAP's Laboratory Accreditation Program depends on the contribution of time and professional expertise by inspectors like you. Inspectors are the individuals responsible for making this program one of the best examples of peer review in American medicine today. Through your commitment to excellence, the College's Laboratory Accreditation Program has gained the recognition as the "gold standard" in laboratory accreditation. We greatly appreciate the time and efforts you have committed to this inspection and hope you will relay these feelings to your inspection team members.

Again, thank you for your participation.

Sincerely,

Mary J. Reznicek, MD  
North Central Regional Commissioner

Richard M. Scanlan, MD, Chair, Commission on Laboratory Accreditation





COLLEGE of AMERICAN  
PATHOLOGISTS

October 1, 2015

Charles D. Brokopp, MPH, MT(ASCP), DRPH  
Wisconsin State Laboratory of Hygiene  
465 Henry Mall  
Madison, WI 53706-1501

Dear Dr. Brokopp:

We would like to thank you for conducting the recent inspection at New Mexico Department of Health.

As you know, the continuing success of the CAP's Laboratory Accreditation Program depends on the contribution of time and professional expertise by inspectors like you. Inspectors are the individuals responsible for making this program one of the best examples of peer review in American medicine today. Through your commitment to excellence, the College's Laboratory Accreditation Program has gained the recognition as the "gold standard" in laboratory accreditation. We greatly appreciate the time and efforts you have committed to this inspection and hope you will relay these feelings to your inspection team members.

Again, thank you for your participation.

Sincerely,

Earle S. Collum, MD  
West Central Regional Commissioner

Richard M. Scanlan, MD, Chair, Commission on Laboratory Accreditation



Matthew H. Mead  
Governor

# State of Wyoming Department of Workforce Services

DIVISION OF WORKERS' COMPENSATION

1510 East Pershing Boulevard, South Wing

Cheyenne, Wyoming 82002

<http://www.wyomingworkforce.org>



Joan K. Evans

Director

Lisa M. Osvold

Deputy Director

June 9, 2015

Wisconsin Occupational Health Laboratory  
Attn: Steve Strebel  
2601 Agriculture Drive  
Madison, WI 53718

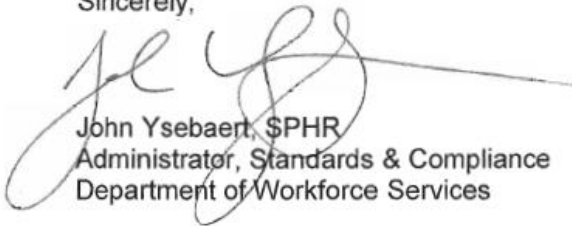
Dear Steve:

I just wanted to take a moment to express our thanks to you and your staff. Your lab recently provided advice, guidance and express service to the Wyoming OSHA Division on mercury sampling. Your services and guidance were very professional and timely. Due to the "rush" priority we received from your laboratory, we were able to relieve the anxiety of the entire community of Buffalo, Wyoming.

We very seldom have the need to sample for mercury. The rapid response we received from your lab for both the supplies and the analysis were remarkable. It is comforting to know that we can rely upon the professionalism and abilities of your laboratory.

Thanks again for support, and please let me know if we can ever return the favor.

Sincerely,



John Ysebaert, SPHR  
Administrator, Standards & Compliance  
Department of Workforce Services

Cc: Karen Godman, Manager Wyoming OSHA Consultation  
Dan Bulkley, Deputy Administrator, Wyoming OSHA



## WSLH RETIREES TOUR NEW FACILITIES AT AG DRIVE

On October 22nd, Dr. Brokopp welcomed former members of the WSLH to the Ag Drive for a tour of the new facilities. Dr. Brokopp was on hand to welcome the group and began by giving some background about the building design, construction and commissioning process. He provided specific examples of the many challenges staff have faced as the lab moves closer to final commissioning—a requirement before full occupation. Steve Strebel, Director, Occupational Health Division, and Dr. Pat Gorski, ESS Supervisor & Researcher, escorted the former employees through new and renovated areas of Environmental Sciences, pointing out changes to the dock and Shipping and Receiving areas, and identifying other spaces where some of the retirees had worked previously. Kristine Hansberry, Director of Laboratory Improvement Division, provided an historical perspective of proficiency testing, including its growth into international programs. Dr. Pete Shult, Director of Communicable Disease Division, and Audrey Prieve, Manager, CDD, described the rapid transition of laboratory testing to molecular methods: they explained that these and other technological changes necessitated some redesign of their space in the Ag Drive facility. Following the tour, Dr. Brokopp spoke candidly about the recent budget deliberations and what the future may hold for the WSLH. Retirees expressed their relief that the WSLH remained attached to the University of Wisconsin and that it is able to continue to serve its mission to state and local units of government and the people of Wisconsin. While thanking their tour guides, the WSLH retirees asked that congratulations be passed along to other WSLH leaders and staff, applauding everyone for their commitment to excellence in laboratory science and public health research.



Left to right: Nancy Sparks (back to camera), Dave Degenhardt, Dr. Rik, Dr. Stan Inhorn, Steve Strebel (back to camera)



Left to right: Nancy Sparks, Dr. Bill Sonzogni, John Strauss, Dr. Brokopp, Karen Kennedy-Parker



Left to right: Dr. Rik, Jane LaFlash, Terry Kurzynski, Dr. Stan Inhorn, Doug Dube



Left to right: Dr. Rik, Nancy Sparks, Phil Wand, Jane LaFlash, Mazie Webb, Terry Kurzynski, Dr. Brokopp, John Strauss, Dr. Inhorn, Kris Hansbery



Left to right - Back row: Doug Dube, John Strauss, Pat Gorski, Terry Kurzynski, Dr. Bill Sonzogni  
Middle row: Peggy Hintzman, Dr. Rik, Dr. Inhorn, Dr. Pete Shult, John Pfizer  
Front row: Jane LaFlash, Phil Wand, Nancy Sparks, Karen Kennedy-Parker, Mazie Webb