



Summary Report of Wisconsin State Laboratory of Hygiene Research, Teaching and Outreach Activities Related to Our UW-Madison Mission

For Fiscal Year 2009: July 1, 2008 to June 30, 2009



*Wisconsin State
Laboratory of Hygiene*



THE UNIVERSITY
of
WISCONSIN
MADISON



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Dear Colleagues and Partners:

Welcome to the Fiscal Year 2009 edition of the Wisconsin State Laboratory of Hygiene's Research Annual Report, which documents the broad spectrum of our partnership, research, testing and outreach activities from July 1, 2008, through June 30, 2009.

Since 1903, Wisconsin residents have depended on the Wisconsin State Laboratory of Hygiene at the University of Wisconsin-Madison to help reach and maintain a high quality of life. As the state's public, environmental and occupational health laboratory, the WSLH plays a vital role in maintaining the health and safety of Wisconsin's citizens, protecting the environment and providing training to students and working professionals.

WSLH staff are committed to the Wisconsin Idea and the University of Wisconsin's mission of "creating and disseminating" knowledge. As Director of the WSLH, I'm proud to share our accomplishments with you.

Please look through this report and send us any comments about its contents. It is through cooperation and partnership with Wisconsin's public and environmental health community, its University and its citizens that we achieve our goal of being a world-class laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Charles Brokopp'.

Charles D. Brokopp, Dr. P.H.
Director, Wisconsin State Laboratory of Hygiene
Professor, University of Wisconsin-Madison Department of Population Health Sciences

Summary Report of WSLH Research, Teaching and Outreach Activities Related to Our UW-Madison Mission

For the period of July 1, 2008 to June 30, 2009

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David J. Hassemer, M.S.	Director, Laboratory Improvement Division (Retired Feb. 2010)	608-890-1748
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I. Partnerships with Non-WSLH Organizations

This section of the Research Annual Report focuses on partnerships that the WSLH participates in with other public and private sector organizations.

Partnerships are created for the purpose of meeting one of the core functions of a public health laboratory and leading to an outcome that can only be met through creation of the partnership. The following are the “Eleven Core Functions of State Public Health Laboratories,” as defined by the Association of Public Health Laboratories (1999):

1. Disease prevention, control and surveillance
2. Integrated data management
3. Reference and specialized testing
4. Environmental health and protection
5. Food safety
6. Laboratory improvement and regulation
7. Policy development
8. Emergency response
9. Public health related research
10. Training and education
11. Partnerships and communication

Common terms used in this section:

APHL = Association of Public Health Laboratories

ASTM = American Society for Testing and Materials (ASTM International)

CDC = Centers for Disease Control and Prevention

DATCP = Wisconsin Department of Agriculture, Trade and Consumer Protection

DNR = Wisconsin Department of Natural Resources

DPH = Wisconsin Division of Public Health

DWD = Wisconsin Department of Workforce Development

ISO = International Standards Organization

NIOSH = National Institute for Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

USDA = U.S. Department of Agriculture

USEPA = U.S. Environmental Protection Agency

USGS = U.S. Geological Survey

UW = University of Wisconsin

WisCon = Wisconsin OSHA Consultation

WOHL = Wisconsin Occupational Health Laboratory

WSLH = Wisconsin State Laboratory of Hygiene

FY 2009 (July 1, 2008 – June 30, 2009)

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Ambient and Workplace Air Program	<ul style="list-style-type: none"> • NIOSH • OSHA • MSHA • ASTM • Department of Energy 	<ul style="list-style-type: none"> • Reviewed Beryllium methods • Three staff members joined ASTM Committees • One staff member joined an ISO committee 	<ul style="list-style-type: none"> • Technical expertise • Method development • Analytical capability • Program funding
Calcium Absorption and Vitamin D Research	<ul style="list-style-type: none"> • Dr. Karen Hansen, UW Medical School 	<ul style="list-style-type: none"> • ICP-MS Sample analysis of Calcium stable isotopes 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Cancer Control and Detection Program	<ul style="list-style-type: none"> • UW-Madison Provost's Office • UW-Madison Division of Continuing Studies • UW-Madison Registrar • UW College of Agricultural and Life Sciences (CALS) 	<ul style="list-style-type: none"> • Officially approved the School of Cytotechnology Program as a undergraduate certificate program at UW-Madison • Accepted true undergraduates and certificate seeking students admission into UW-Madison as Special Students assuring appropriate and compliant financial aid practices. • Discussions with CALS to seek new academic home for the School of Cytotechnology. 	<ul style="list-style-type: none"> • Allows School of Cytotechnology Program transcripts to be provided by UW-Madison. Helps students when seeking higher education and documenting program with other agencies. • Allows for School of Cytotechnology students to have the same rights as other students on UW-Madison campus. Standardizes enrollment processes. • Allows School of Cytotechnology students to apply for and receive student loans following current financial aid regulatory practices.
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Dane County Cytology Center 	<ul style="list-style-type: none"> • On-site training for students in the School of Cytotechnology 	<ul style="list-style-type: none"> • Hands on training • Space for students • Instruction time and support
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Dr. Breslin • Dr. Kennedy 	<ul style="list-style-type: none"> • Topo2 amplification to measure therapy outcomes 	<ul style="list-style-type: none"> • Funding • Research opportunity
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Dr. Ken Young, UW 	<ul style="list-style-type: none"> • Analyzing genetic changes in Large Cell Lymphoma 	<ul style="list-style-type: none"> • Clinical specimens • Technical assistance
Cancer Control and Detection Program	<ul style="list-style-type: none"> • UW-Green Bay • UW-Platteville 	<ul style="list-style-type: none"> • Students from these two campuses completed their last year of coursework at the School of Cytotechnology Program 	<ul style="list-style-type: none"> • School of Cytotechnology Program provided last 38 credit hours of coursework toward a bachelor's degree. • Both UW-Green Bay and

		and received their Bachelor degrees from their home institutions.	UW-Platteville routinely work with the program to recruit students in the clinical laboratory discipline of cytotechnology.
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Wayne State University • University of Cambridge • University of South Alabama • Hutzel Hospital 	<ul style="list-style-type: none"> • Original research completed 	<ul style="list-style-type: none"> • Each partner provided certain cases with clinical profile
Cancer Control and Detection Program	<ul style="list-style-type: none"> • UW Hospital and Clinics 	<ul style="list-style-type: none"> • On-site training for students in the School of Cytotechnology 	<ul style="list-style-type: none"> • Hands-on training • Space and instructor • Time and support
Cancer Control and Detection Program – Tobacco Research Council	<ul style="list-style-type: none"> • David Lawrence 	<ul style="list-style-type: none"> • Extracted DNA to facilitate their research 	<ul style="list-style-type: none"> • Funding
Cancer Control and Detection Program – Training samples	<ul style="list-style-type: none"> • UW Health Cytology Laboratory 	<ul style="list-style-type: none"> • Agreement reached which allows the School of Cytotechnology to use sample materials for teaching 	<ul style="list-style-type: none"> • Access to specimens • Ability to use samples as teaching materials
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Bio-Pharmaceutical Technology Center Institute (BTCI) 	<ul style="list-style-type: none"> • For a fee, School of Cytotechnology Program students were able to participate in a five day hands-on molecular training program with BTCI. This is the first time that courses were made available to our students. 	<ul style="list-style-type: none"> • BTCI provided the same five day molecular training course to School of Cytotechnology Program students as other UW-Madison CLS students. The Program expects to continue for all students in FY2010.
Cancer Control and Detection Program	<ul style="list-style-type: none"> • Hologic, Third Wave Technologies 	<ul style="list-style-type: none"> • Entered agreement to provide technical help for new laboratories. 	<ul style="list-style-type: none"> • Serve as technical field experts in HPV testing as new laboratories come on board with testing. Will provide additional HPV testing for validation and certification of testing methods with other laboratories.
Carbon Cycling and Metal Deposition in Greenland Snow	<ul style="list-style-type: none"> • Prof. Mike Bergin, Georgia Tech 	<ul style="list-style-type: none"> • ICP-MS Sample analysis 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Chemical Emergency Response	<ul style="list-style-type: none"> • HazMat teams • 54th Civil Support Team • Local health departments • Environmental testing laboratories in 	<ul style="list-style-type: none"> • Annual update of the WSLH Response Plan to define the program's role in emergency response • Provided periodic email updates to the environmental testing 	<ul style="list-style-type: none"> • Information and cooperation in responding to emergency response events

	Wisconsin • Wisconsin governmental laboratories • Other State public health laboratories	laboratories related to emergency response • Maintained the quarterly proficiency testing program for regional HazMat and Civil Support Team • Collaborated with DPH to implement a field equipment loan program for local public health departments & state agencies • Successfully participated in functional exercises with CDC for chemical testing of clinical samples	
Chemical Emergency Response	• Food and Drug Administration (FDA) • DATCP • WEM • Other State public health, environmental, and/or food testing laboratories that do radiological testing	• WSLH actively participates as a member of the Food Emergency Response Network (FERN) for radiological testing • WSLH is a “surge capacity” laboratory for radiological testing in FERN • Successfully participated in a functional exercise with FDA for radiological testing of food	• Information • Test Methods • Proficiency testing samples • Surge capacity
Clinical Metals Toxicity Program - Lead and Multi-element Program	• CDC	• Evaluation program for laboratories testing several elements in whole blood • CDC program, jointly administered by WSLH and CDC • 97 participants, 30 percent international	• Data handling and generation of program data summaries • Fiscal resources for WSLH role
Clinical Metals Toxicity Program – LeadCare analyzer performance evaluation	• Environmental Science Associates Inc.	• Enrollment of new labs in evaluation program • Integration of new testing instrument into lab evaluation program • Publication of evaluation comparison for new instrument	• Testing services • Lab supplies • Shared experiments • Data evaluation

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Clinical Metals Toxicity Program – Point-of-Care analyzer PT enrollment promotion	<ul style="list-style-type: none"> • Environmental Science Associates Inc. 	<ul style="list-style-type: none"> • Enrollment of 95 new labs in evaluation program • Publication of new instrument evaluation study 	<ul style="list-style-type: none"> • Manufacturer-provided promotion of PT program to instrument purchasers • Testing resources
Clinical Metals Toxicity Program – Metals and EP proficiency value assignment	<ul style="list-style-type: none"> • New York Department of Public Health • Pennsylvania Department of Public Health • Centre de Toxicologie du Québec 	<ul style="list-style-type: none"> • Accurate value assignment for >100 laboratory evaluation specimens • Investigation of analytical issues 	<ul style="list-style-type: none"> • Reference data and blood specimens • Broader consensus on analytical issues
Community Acquired Pathogens (CAP) Program –Education and Training	<ul style="list-style-type: none"> • Clinical laboratories • DPH • CDC • UW • National Laboratory Training Network • Wisconsin Clinical Laboratory Technical Advisory Group 	<ul style="list-style-type: none"> • Teleconferences on upcoming influenza season, other agents • Mailings to rapid test sites, annual virology laboratory conference, lab guidance for H1N1 pandemic influenza • Provided regional meetings on Emergency Response • Provided proficiency testing exercises and shipping exercise to laboratories • Provided hands-on workshops for clinical laboratories • Developed and distributed emergency response competency assessments for clinical laboratories; provided “Certificate of Achievement” to qualified laboratories 	<ul style="list-style-type: none"> • Labs – venues, feedback • DPH, CDC – Expertise • UW – Facilities
Community Acquired Pathogens (CAP) Program – Emergency/Outbreak Response	<ul style="list-style-type: none"> • Wisconsin Laboratory Response Network (WLRN) laboratories 	<ul style="list-style-type: none"> • Continued response to BT events/concerns • Provided testing and laboratory support for 	<ul style="list-style-type: none"> • Labs – Laboratory capacity and specimen collection/transport • LPHDs – Specimen

	<ul style="list-style-type: none"> • LPHDs • DATCP-BLS • WVDL • DPH • CDC 	<p>H1N1 pandemic influenza response and surveillance</p> <ul style="list-style-type: none"> • Performed lab site visits • Maintained lab messaging system 	<p>collection/transport</p> <ul style="list-style-type: none"> • DPH – Epidemiologic expertise and guidance • CDC – Technical expertise
Community Acquired Pathogens (CAP) Program – Surveillance	<ul style="list-style-type: none"> • Wisconsin's 10 Virology Laboratories • Approximately 100 rapid influenza/RSV/Rota test sites • Clinicians • DPH 	<ul style="list-style-type: none"> • Provided laboratory-based surveillance for viral diseases, including influenza • Developed funding requests for influenza surveillance 	<ul style="list-style-type: none"> • Labs, rapid test sites, clinicians-data, and specimens/isolates • Conduit for information from CDC, WDPH & WSLH to colleagues • DPH-epidemiologic expertise, coordination of influenza surveillance and ELC funding
Community Acquired Pathogens (CAP) Program - Influenza Antiviral Resistance Detection	<ul style="list-style-type: none"> • Wisconsin Division of Public Health • CDC • Wisconsin Virology Lab Network 	<ul style="list-style-type: none"> • Maintained pyrosequencing equipment and reagents • Performed testing on H1N1 pandemic influenza specimens 	<ul style="list-style-type: none"> • DPH and CDC provide influenza surveillance guidance • WVLN provides surveillance isolates
Cytogenetics	<ul style="list-style-type: none"> • UW Pathology • Wisconsin Stillbirth Service Program • Waisman Center 	<ul style="list-style-type: none"> • Implication of array CGH in evaluation of causes of stillbirth in Wisconsin 	<ul style="list-style-type: none"> • Program funding • Archived collection of specimen material • Clinical information
DWD, Workers Compensation Division	<ul style="list-style-type: none"> • DWD • OSHA Madison • Insurance providers • DOA • Other associations depending on topic chosen 	<ul style="list-style-type: none"> • Current topic is extended work shifts and fatigue 	<ul style="list-style-type: none"> • Literature reviews • Existing company policies • Development of survey • Deployment of survey and lessons learned & analysis
Distribution System Water Quality Control (Water Research Foundation project)	Abigail Cantor & Andrew Jacques	Research to prevent bio-film buildup and pipe corrosion in municipal distribution systems.	<ul style="list-style-type: none"> • A new in-line water monitoring device (patent pending) • An experimental method for rapid determination of an array of microorganisms.
Drinking Water Quality Program	<ul style="list-style-type: none"> • American Water Works Association Research Foundation (AWWARF) • Southern Nevada Water Authority 	<ul style="list-style-type: none"> • Performed E-screen assays for endocrine disruptors 	<ul style="list-style-type: none"> • AWWARF funding • SNWA coordinates the project and sends samples to WSLH
Drinking Water Quality Program	<ul style="list-style-type: none"> • U.S. Environmental Protection Agency 	<ul style="list-style-type: none"> • Information sharing 	<ul style="list-style-type: none"> • Testing • Knowledge

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Drinking Water Quality Program - <i>Cryptosporidium</i> speciation	<ul style="list-style-type: none"> • George DiGiovanni, Texas A & M • Greg Sturbaum, CH Diagnostics and Consulting • AWWARF 	<ul style="list-style-type: none"> • Received funding for development of detection methods for differentiating human pathogenic <i>Cryptosporidium</i> from non-pathogenic species 	<ul style="list-style-type: none"> • Funding • Report writing • Technical expertise • Personnel
Ecosystem Quality	<ul style="list-style-type: none"> • CSC Biology Studies Group 	<ul style="list-style-type: none"> • Validate new method for enterococci by qPCR Assay 	<ul style="list-style-type: none"> • Technical assistance • Laboratory supplies
Ecosystem Quality Program – Bioavailability of Mercury in Precipitation, Dry Deposition, and Urban Runoff	<ul style="list-style-type: none"> • UW EC & T Dept – Chris Babiarz and Jamie Schauer, Biomonitoring Team 	<ul style="list-style-type: none"> • Experimental design 	<ul style="list-style-type: none"> • Mercury expertise • Project oversight
Ecosystem Quality Program – Blue Green Algae Survey	<ul style="list-style-type: none"> • DNR • DHFS • Waukesha County • Dane County • Dawn Karner 	<ul style="list-style-type: none"> • 34 lakes and ponds surveyed for presence/absence for blue green algae species 	<ul style="list-style-type: none"> • Funding • Sample collection
Ecosystem Quality Program – Factors Regulating the Interactions of Trace Metals and Aquatic Organisms in Watersheds of the Great Lakes	<ul style="list-style-type: none"> • UW EC & T Department - Martin Shafer and Dave Armstrong, Biomonitoring Team 	<ul style="list-style-type: none"> • Determined relevant bioassays • Planned field work • Trained grad students 	<ul style="list-style-type: none"> • Metals expertise • Project oversight
Ecosystem Quality - Particle size evaluation of water column samples	<ul style="list-style-type: none"> • US Geological Survey • DNR Non-point Source staff 	<ul style="list-style-type: none"> • Continued fine-tuning process to measure particle size distribution in water column samples using a combination of laser, Coulter Counter, sieving and micro-filtration 	<ul style="list-style-type: none"> • USGS and DNR provide technical guidance and goals • WSLH provided the analytical expertise, approach and instrumentation to meet their goals • USGS and DNR also provided funding to support the R&D work
Emerging Contaminants in Eagle Serum	<ul style="list-style-type: none"> • National Park Service - Bill Route 	<ul style="list-style-type: none"> • Analyzed 32 samples for perfluorinated compounds and polybrominated diphenyl ethers, as well as PCB and DDT metabolites 	<ul style="list-style-type: none"> • Serum samples

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Food and Waterborne Diseases Program – DPDx: Online Diagnostic Assistance Program	<ul style="list-style-type: none"> • CDC – Division of Parasitic Diseases • Division of Public Health (WDPH) • Milwaukee City Health Dept (MCHD) • Wisconsin Clinical Laboratory Network (WCLN) 	<ul style="list-style-type: none"> • WSLH and MCHD utilize microscope-mounted digital imaging equipment for telediagnosis purposes • Continued to provide reference diagnostic testing for unusual and difficult clinical cases 	<ul style="list-style-type: none"> • CDC – Expertise, technical guidance and telediagnostic aid • Wisconsin Clinical Labs – provide specimens and complete case histories to aid in diagnoses • MCHD continues to provide a regional online diagnostic testing site in Milwaukee area
Food and Waterborne Diseases Program – Food Testing	<ul style="list-style-type: none"> • DATCP Lab • Division of Public Health 	<ul style="list-style-type: none"> • Food samples tested in support of outbreak investigations • Surveillance isolates of Salmonella, Campylobacter, E. coli and Listeria of food origin submitted for subtyping 	<ul style="list-style-type: none"> • DATCAP – Food testing expertise • DPH – Coordination, EPI investigations and information dissemination
Food and Waterborne Diseases Program – Wisconsin Enteric Pathogens Program (WEPS)	<ul style="list-style-type: none"> • CDC • WI Division of Public Health (WDPH) • Wisconsin Clinical Laboratories (WCLN) 	<ul style="list-style-type: none"> • Isolates of enteric pathogens submitted for identification, serotyping, subtyping, and antimicrobial resistance surveillance 	<ul style="list-style-type: none"> • CDC – Funding, expertise and technical guidance • WDPH- Funding and epidemiological support • WCLN- provide clinical isolates for surveillance
Forensic Toxicology Program- Improved Lab Service for Drug Impaired Driver Detection	<ul style="list-style-type: none"> • Wisconsin Department of Transportation- Bureau of Transportation Safety 	<ul style="list-style-type: none"> • Purchase of Liquid Chromatograph/Dual Tandem Mass Spectrophotometer 	<ul style="list-style-type: none"> • Funding
Forensic Toxicology Program - Drug Recognition Expert Program	<ul style="list-style-type: none"> • Wisconsin Department of Transportation- Bureau of Transportation Safety 	<ul style="list-style-type: none"> • Continued monitoring of DRE field performance • Recertification training for 50 WI officers • Presentation at national DRE conference 	<ul style="list-style-type: none"> • Funding • Program oversight • Training

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Forensic Toxicology Program – Law Enforcement/ Attorney /Judge Education	<ul style="list-style-type: none"> • UW Law School Resource Center for Impaired Driving 	<ul style="list-style-type: none"> • Seven presentations on alcohol- and drugged-driving impairment at three conferences/training sessions • More than 700 police officers and prosecutors trained in drugged driving issues during 13 Legal Update sessions throughout the state 	<ul style="list-style-type: none"> • Funding
Fragile X population screening	<ul style="list-style-type: none"> • Don Bailey (RTI) • University of North Carolina 	<ul style="list-style-type: none"> • Assay development and validation 	<ul style="list-style-type: none"> • Lead collaboration of population screening study for Fragile X syndrome
Genetics of Hearing loss	<ul style="list-style-type: none"> • Waisman Center, UW-Madison -- Dr. Lawrence Shriberg 	<ul style="list-style-type: none"> • Array studies of subjects with speech dyspraxia 	<ul style="list-style-type: none"> • Social and clinical aspects of speech dyspraxia
ICTR Core Laboratory	<ul style="list-style-type: none"> • UW Institute for Clinical and Translational Research (ICTR) 	<ul style="list-style-type: none"> • Established WSLH as a Core Lab for ICTR researchers. 	<ul style="list-style-type: none"> • ICTR promotes WSLH and provides contact to researchers across WI who are interested in potential collaboration projects with WSLH.
Intra-community variability of particulate matter related to asthma for California's Children's Health Study	<ul style="list-style-type: none"> Univ. of Southern California -- Ed Avol, PhD 	<ul style="list-style-type: none"> • Cleaning and pre-weighing of Polyurethane Foam (PUF) substrates for field sampling of atmospheric particulates. • Analysis of exposed PUF substrates for mass, trace elements, ions, EC/OC, and water soluble organic carbon. 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Iron Absorption in Primate Research	<ul style="list-style-type: none"> • Dr. Gabriele Lubach, UW Primate Laboratory 	<ul style="list-style-type: none"> • ICP-MS Sample analysis of Iron stable isotopes 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Maternal and Child Health Program	<ul style="list-style-type: none"> • WAPC - their members are from different areas in Wisconsin 	<ul style="list-style-type: none"> • Revised the guidelines for perinatal care sent to all perinatal doctors and clinics in Wisconsin 	<ul style="list-style-type: none"> • Guidelines to clients sending us prenatal cases
Maternal and Child Health Program/Genetic Disorders Program	<ul style="list-style-type: none"> • Waisman Center • UW Medical School • UW Grad School 	<ul style="list-style-type: none"> • Student training • Research testing • Improved patient care 	<ul style="list-style-type: none"> • Funding • Research opportunities

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Nano-particle composition	UCLA -- Nancy Jennerjohn	Analysis of nano-particles by HR ICP-MS for trace element composition.	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Nanotechnology Safety and Health	<ul style="list-style-type: none"> • UW Safety Department • LaFollette School of Public Affairs • UW School for Workers • Wisconsin Division of Public Health • UW Engineering school • WOHL • WisCon 	<ul style="list-style-type: none"> • Concentrated on issues surrounding nano-silver and planning for activities in 2009 as well as looking for grant opportunities. 	<ul style="list-style-type: none"> • Expertise • Access to real world nanotechnology applications • Industrial hygiene monitoring at a nano-materials lab at UW Engineering.
Neonatal blood spot analysis for trace metals	• Univ. of MN, Julie Ross, PhD	<ul style="list-style-type: none"> • Developed method for extraction of trace metals from blood spots on filter paper 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
Newborn Screening Program	• DHFS	<ul style="list-style-type: none"> • ~ 71,000 newborns screened for 47 congenital disorders 	<ul style="list-style-type: none"> • Funding • Policy development • Program oversight • Training
Occupational Safety & Health and Census of Fatal Occupational Injuries - OSHA Data Collection	<ul style="list-style-type: none"> • DWD/WC • DOL/BLS • DOL/OSHA • DHFS/Vital Records 	<ul style="list-style-type: none"> • Publish yearly incident rates on occupational injuries/illnesses • Publish yearly numbers on occupational fatalities • Supply OSHA with data on specific employers for work-related injuries/illnesses from the OSHA 300 logs 	<ul style="list-style-type: none"> • Funding • Program file access • Computer systems • System training when necessary • Computer support • Printing, mailings, forms and envelopes • Staff hands on training • National meetings & conferences • Hard copies of Death Certificates
Platinum Speciation	• University of Southern California – Particulate Matter Center	<ul style="list-style-type: none"> • ICP-MS Sample analysis 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Reactive oxygen species activity and atmospheric particulate matter composition	<ul style="list-style-type: none"> Univ. of Southern California, Constantinos Sioutas, PhD. 	<ul style="list-style-type: none"> Measured reactive oxygen species (ROS) activity and trace element composition of atmospheric samples. 	<ul style="list-style-type: none"> Funding Samples Research opportunities
Sexually Transmitted Disease Program – Corrections Intake Screening Project	<ul style="list-style-type: none"> Division of Public Health (DPH) Department of Corrections (DOC) 	<ul style="list-style-type: none"> Screened 3,682 incoming WI male inmates for chlamydia (CT) and gonorrhea (GC) using pooled testing, detecting 209 CT and 20 GC infections. Provided summary reports of results to DOC 	<ul style="list-style-type: none"> DPH – Financial support, development of screening criteria DOC – adherence to screening criteria, clinical aspects and follow-up
Sexually Transmitted Disease Program – Region V Infertility Prevention Project	<ul style="list-style-type: none"> State Labs and Public health departments from WI and five other states in the region (IL, IN, MI, MN, OH) Health Care Education and Training (HCET) CDC 	<ul style="list-style-type: none"> Provided combined chlamydia and gonorrhea testing data from all six states to region and CDC Provided summarized data back to the states Provided data and other information on laboratory testing to partners responsible for grant-writing and other related activities. Developed strategic plan goals and set objectives for coming years. Met twice annually in person with major partners, and several times over the course of the past 12 months via conference calls with subcommittees to work together towards accomplishments listed above. 	<ul style="list-style-type: none"> States, Labs – Data, collaboration, consensus on lab issues related to STD testing HCET – Administrative, coordinate partners' efforts CDC – Funding, program guidance
Sexually Transmitted Disease Program – Wisconsin Infertility Prevention Project	<ul style="list-style-type: none"> Planned Parenthood of Wisconsin Wisconsin Family Planning Clinics DPH (STD, Maternal & Child Health Programs) UW Madison Health 	<ul style="list-style-type: none"> Performed 58,121 chlamydia (CT) and 31,725 gonorrhea (GC) tests on women and men at risk, detecting 4,770 CT and 910 GC infections Expanded screening for GC in Milwaukee Family 	<ul style="list-style-type: none"> Provider Partners – Clinical aspects including specimen and data collection/ handling DPH – Funding, guidance on development of screening criteria

	Services (informal) • Milwaukee Health Department Laboratory	Planning clinics, due to high morbidity in that area. • Provided data and training to providers via teleconferences and the HCET-coordinated email Listserv.	
Sexually Transmitted Disease Program – CT-GC Prevalence Assessment Project	• Planned Parenthood of Wisconsin • DPH (STD, Maternal & Child Health Programs)	• Developed revised design based on changes in funding status and IRB requirements for the original plan that were not feasible. • Launched one month of “universal screening” for CT and GC in all PPW clinics during April of 2009. • Tested specimens from over 3000 patients for both CT and GC and collected enhanced selective screening criteria data.	• PPW: Patients and data, clinical expertise • DPH: Guidance, support, training
Southeast Regional Case-Control Study of Adult Brain Tumors	H. Lee Moffitt Cancer Center, Dr. Kathleen Egan	Analysis of trace elements in urine	• Funding • Samples • Research opportunities
Trace Element Epidemiology	• Dr. Mike Hannigan, University of Colorado-Boulder	• ICP-MS Sample analysis	• Funding • Samples • Research opportunities
Trace-level Iodine method development	Univ. of York (UK), Matthew Collins, PhD and Carrie Wright	Developed method for the extraction and analysis of Iodine from sheep teeth and vegetation	• Funding • Samples • Research opportunities
Tuberculosis Program – CDC Genotyping	• CDC • DPH Tuberculosis Program • Regional Genotyping Lab at Michigan PHL • WMLN labs	• Continued submission of <i>M. tuberculosis</i> isolates for the national universal TB-genotyping program	• DPH epidemiologic expertise • 10-day turnaround time for genotyping results

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Tuberculosis Program – TB Elimination Cooperative Agreement	<ul style="list-style-type: none"> • DPH-TB Control section • CDC Tuberculosis Program 	<ul style="list-style-type: none"> • Continued rapid testing of all smear-positive respiratory specimens using a nucleic acid amplification (NAA) test • Broadened NAA testing algorithm to include more smear-negative respiratory specimens and non-respiratory specimens for high-risk patients • Maintained turn-around-time objectives to report TB lab results 	<ul style="list-style-type: none"> • Financial support • TB case records data • DPH epidemiologic expertise
Tuberculosis Program – Wisconsin Mycobacteriology Laboratory Network (WMLN)	<ul style="list-style-type: none"> • Wisconsin's 32 laboratories that perform some level of testing for mycobacteria • DPH - Tuberculosis Program 	<ul style="list-style-type: none"> • Held a statewide conference • Provided forum for discussion of utility of new testing technology • Provided statewide lab based surveillance for all mycobacteria species and for TB drug susceptibility • Provided forum for discussion of new molecular methods for mycobacteriology 	<ul style="list-style-type: none"> • Surveillance data • TB isolates for state TB Repository • Conduit for transfer of information from WDPH and WSLH to WI clinicians and infection control personnel • Assessment of mycobacteriology laboratory testing and reporting issues • DPH epidemiologic expertise
US EPA Region V Drinking Water Emergency Response Network	<ul style="list-style-type: none"> • US EPA Region V Laboratory • Public health laboratories from Illinois, Indiana, Michigan, Minnesota and Ohio 	<ul style="list-style-type: none"> • Participated in finalizing EPA Region 5 Drinking Water Emergency Response Plan, which will be used in the National EPA Drinking Water Response Plan 	<ul style="list-style-type: none"> • Ability to provide assistance in an emergency situation involving drinking water
UW-Madison Influenza Working Group	<ul style="list-style-type: none"> • UW clinicians, researchers and public health professionals doing work on influenza 	<ul style="list-style-type: none"> • Several networking meetings to learn more about the various influenza-related work we all perform • Implemented UW-Madison campus response to H1N1 pandemic. 	<ul style="list-style-type: none"> • Cooperation in response

Program Partnership Name	Who are Partners / Collaborators?	Measurable Accomplishments for FY 2009	What do Partners Provide?
Vanadium Speciation Research	<ul style="list-style-type: none"> • Dr. Jorn Herner • California Air Resources Board 	<ul style="list-style-type: none"> • Developing methods to isolate different oxidation states of Vanadium in trace metal samples. 	<ul style="list-style-type: none"> • Funding • Samples • Research opportunities
WisCon -- American Physical Therapy Association (APTA) Alliance	<ul style="list-style-type: none"> • OSHA Region 5 • OSHA Consultation IL, OH, MI, MN, WisCon • APTA 	<ul style="list-style-type: none"> • Formalized alliance agreement • Disseminated professional literature on best practice • Staff part of speakers bureau giving seminars around the state 	<ul style="list-style-type: none"> • Expertise for training on prevention of injuries to PT's and use of PT's in health care settings related to resident movement.
WisCon -- Appleton Medical Center Bed Tower Expansion – Boldt Company	<ul style="list-style-type: none"> • OSHA • WisCon • Boldt Co • On-site Contractors 	<ul style="list-style-type: none"> • Formalized partnership • Provided on-site services to contractors including Industrial Hygiene monitoring • Provided Safety & Health program assistance <ul style="list-style-type: none"> - 14 onsite contractors contacted during this period - 96 Onsite visits recorded - Scores of serious and 2 imminent danger hazards corrected on site 	<ul style="list-style-type: none"> • OSHA provides the framework for this partnership and staff to review data and provide two unannounced OSHA inspections annually • WisCon provides monthly site walk through, hazard correction, industrial hygiene monitoring, program assistance, training • Boldt as general contractor provides total site oversight, training, safety and health management
WisCon -- Associated Building Contractors (ABC) of Wisconsin	<ul style="list-style-type: none"> • Four OSHA area offices • Associated Building Contractors of Wisconsin • WisCon 	<ul style="list-style-type: none"> • Four companies are in the highest or platinum level of attainment for safety and health • A few more companies are at the lower levels • Provided training at two major ABC conferences (Appleton and Wisconsin Dells) • Taught sessions on four separate topics and a booth • Evaluated one more company for inclusion at Platinum level -- Faith Technologies. 	<ul style="list-style-type: none"> • OSHA provides formal framework for the partnership, CAS support and expertise • ABC-WI markets the program to its members • This is similar to the Milwaukee AGC partnership • WisCon provides on-site inspections, qualification inspections and industrial hygiene services as requested
WisCon -- Associated General Contractors (AGC) - Milwaukee, Wis.	<ul style="list-style-type: none"> • All four OSHA Area offices • Associated General Contractors of Milwaukee • WisCon 	<ul style="list-style-type: none"> • Two companies have signed on to the agreement at Five Star level, one at 3 STAR level • Higher level requires comprehensive qualifying 	<ul style="list-style-type: none"> • OSHA provides the formal framework for this partnership which is modeled on a national AGC agreement • Participating companies

		<p>inspection, provided by WisCon</p> <ul style="list-style-type: none"> • All levels require exemplary safety and health program management, upgrading of sub-contractors • Overall goal is to decrease worker injuries and illnesses 	sign on to using agreement
WisCon -- Association of Practitioners of Infection Control (APIC)	<ul style="list-style-type: none"> • Four chapters of the Association of Practitioners of Infection Control in Wisconsin • WisCon 	<ul style="list-style-type: none"> • Provided OSHA update information to meetings of APIC chapters 	<ul style="list-style-type: none"> • APIC provides current infection control information, also provides entry to the infection-control community statewide and a mechanism for dissemination of OSHA information to their members • WisCon provides updates on OSHA issues as it affects their institutions
WisCon -- DPH	<ul style="list-style-type: none"> • WisCon • Division of Public Health 	<ul style="list-style-type: none"> • WSLH provides the space and topic collaboration for the Prevention Center round table that meets quarterly • WisCon has followed up on ABLES referrals this past year 	<ul style="list-style-type: none"> • DPH provides the occupational surveillance programs of ABLES, the occupational indicators, occupational asthma, and dermatitis • WisCon provides a field component for all of these programs where the issues of lead, occupational asthma, occupational dermatitis and other occupational diseases are addressed in our field studies • In training, adding these areas to our goals for our OSHA grant • WisCon provides 1 FTE for the NIOSH indicators grant to DPH
WisCon -- Eau Claire Luther Midelfort Hospital Expansion – Boldt Company	<ul style="list-style-type: none"> • OSHA • WisCon • Boldt Co • On-site Contractors 	<ul style="list-style-type: none"> • Formalized partnership • Provided on-site services to contractors including Industrial Hygiene monitoring • Provided Safety & Health program assistance - 10 onsite contractors contacted during this period 	<ul style="list-style-type: none"> • OSHA provides the framework for this partnership and staff to review data and provide two unannounced OSHA inspections annually • WisCon provides monthly site walk through, hazard correction, industrial hygiene monitoring,

		<ul style="list-style-type: none"> - 116 Onsite visits recorded - Scores of serious hazards corrected on site 	<ul style="list-style-type: none"> program assistance, training • Boldt as general contractor provides total site oversight, training, safety and health management
WisCon -- Marble Institute of America	<ul style="list-style-type: none"> • Marble Institute of America • OSHA Region V • OSHA Cleveland office • OSHA Consultation in Wisconsin, Minnesota and Ohio 	<ul style="list-style-type: none"> • Working on safe handling of slab stone and silica exposure, delivery of training curriculum for training for prevention of silicosis in stone industry, and variety of outreach goals 	<ul style="list-style-type: none"> • Marble Institute of America
WisCon -- Metropolitan Builders Alliance	<ul style="list-style-type: none"> • Milwaukee & Madison OSHA • Metropolitan Builders Assn. • WisCon 	<ul style="list-style-type: none"> • Formalized alliance agreement • Discussions on provision of training • Dissemination of WisCon on-site information • OSHA ten hour class conducted 3-2009 	<ul style="list-style-type: none"> • Collaboration on training on OSHA safety & health topics as well as encouraging on-site WisCon visits for members • OSHA ten-hour course planning • Information related to new DHS Pb renovation & remodeling rules.
WisCon -- Milwaukee Columbia Saint Mary's Hospital Expansion – CG Schmidt-Barton Malow	<ul style="list-style-type: none"> • OSHA • WisCon • CG Schmidt-Barton Malow • On-site Contractors 	<ul style="list-style-type: none"> • Formalized partnership • Provided on-site services to contractors including Industrial Hygiene monitoring • Provided Safety & Health program assistance - 33 onsite contractors contacted during this period - 176 Onsite visits recorded - Scores of serious hazards corrected on site 	<ul style="list-style-type: none"> • OSHA provides the framework for this partnership and staff to review data and provide two unannounced OSHA inspections annually • WisCon provides monthly site walk through, hazard correction, industrial hygiene monitoring, program assistance, training • CG Schmidt-Barton Malow as general contractor provides total site oversight, training, safety and health management
WisCon -- OSHA Ergonomics Foundry Partnership	<ul style="list-style-type: none"> • OSHA Appleton Area Office • OSHA Region V ergonomics coordinator • 11 foundries in the Fox River Valley • WisCon • Mercury Marine in FonduLac 	<ul style="list-style-type: none"> • Development of best practices for difficult ergonomic issues facing the foundry group • Solutions/control technology developed at one foundry is transferred to all of the members of the group • Web site for project 	<ul style="list-style-type: none"> • Appleton OSHA provides framework and expertise • OSHA region V provides expertise • The foundries, having broken down confidentiality barriers, develop and provide best practices • WisCon provides expertise and is the data repository for

		developed and deployed to members	the project
WisCon -- Safety Health Achievement Recognition Program (SHARP) (OSHA)	<ul style="list-style-type: none"> • WisCon • Federal OSHA • SHARP companies 	<ul style="list-style-type: none"> • 14 SHARP companies as of September 30, 2009 • Most recent SHARP companies during this period are Portage Plastics 9-08 and Rotating Equipment & Repair Sussex – 5-09 • 4 renewals FY2009 – includes WASCO 	<ul style="list-style-type: none"> • National OSHA consultation sets the parameters for qualification for SHARP including comprehensive safety & health inspections, correction of all hazards found • None of the 58 attributes of a comprehensive safety & health management system can be below a 2 on a rating scale of 0-3, injury & illness rates below the national average for their industry • Program manager walk through inspection for recommendation for SHARP • Region V OSHA grants approval, presents a letter and certificate and removes the company from federal OSHA inspection lists • Consultation presents the flag to the company
WisCon -- Wisconsin Builders Association Alliance	<ul style="list-style-type: none"> • 4 WI OSHA Area Offices • Wisconsin Builders Association • WisCon 	<ul style="list-style-type: none"> • Formalized alliance agreement • Discussions on provision of training • Dissemination of WisCon on-site information • Articles written for newsletter on S& H topics • WI Dells- “Residential Fall Protection “ Training class 7-2008 • WI Builders Association Convention Lake Geneva – Booth 2-2009 	<ul style="list-style-type: none"> • Collaboration on training on OSHA safety & health topics as well as encouraging on-site WisCon visits for members
WisCon -- Wisconsin Committee on Safe Patient/Resident Handling	<ul style="list-style-type: none"> • Various insurance companies • BQA • OSHA • WI Assisted Living Assoc. • WAHSA • DHFS • WisCon • Mortenson, Matzell 	<ul style="list-style-type: none"> • During this period one statewide seminar was held on safe resident handling with nationally known instructors from the VA as well as Wisconsin OSHA and WisCon 	<ul style="list-style-type: none"> • Insurance companies provide data and access to their members • OSHA provides ergonomics expertise and staffing of group & training • BQA provides understanding of the regulatory environment • Associations provide buy-

	& Meldrum, Inc.		<p>in and access to their members</p> <ul style="list-style-type: none"> • DHFS includes BQA and injury prevention and falls • WisCon provides ergonomics expertise and the provision of training and on-site consultation to these employers
WisCon -- Wisconsin Council of Safety	<ul style="list-style-type: none"> • All four OSHA Area Offices • Wisconsin Council of Safety (part of Wisconsin Manufacturers and Commerce) • WisCon 	<ul style="list-style-type: none"> • This is an OSHA training alliance • In 2009 there were four OSHA topics chosen for training multiple sites across the state on a quarterly basis • In addition WSLH OSHA program taught a full-day introduction to industrial hygiene course at the WCS annual Safety Congress • WisCon also taught a course at the Congress on industrial hygiene basics 	<ul style="list-style-type: none"> • OSHA provides the formal framework, staff to provide offsite training, usually a CAS or the Area Director • Consultation Programs provide staff to provide off site training • WCS markets the training sessions, arranges for site, meals, registration etc. and collects evaluations of the sessions • The composite data is returned to Alliance members
WisCon -- Wisconsin Migrant Services Committee	<ul style="list-style-type: none"> • DWD-Bureau of Job Service • DWD Bureau of Migrant & Refugee Services • DPI-Title 1 Team • DHS-Division of Public Health • WisCon • UMOS 	<ul style="list-style-type: none"> • Training on migrant worker safety & health issues in Wisconsin • Dissemination of Spanish language materials for migrant worker safety 	<ul style="list-style-type: none"> • Collaboration & resources for migrant worker training
WisCon -- Wisconsin Occupational Health Nurses Association, South Central Chapter (WOHNA-SC)	<ul style="list-style-type: none"> • All four OSHA offices • WOHNA-SC • WisCon 	<ul style="list-style-type: none"> • This is a training alliance • WisCon provided basic training on ergonomics at the annual conference, as well as staffed a booth. 	<ul style="list-style-type: none"> • OSHA provides the formal alliance framework as well as staff to speak • WOHNA-SC provides access to their membership, occupational health nursing expertise and organizational skills in sponsoring events • WisCon provides expertise and staff to speak on a variety of OSHA topics
WisCon -- Wisconsin Ready Mix Concrete Association (WRMCA)	<ul style="list-style-type: none"> • All four OSHA offices • WisCon • WRMCA and their members 	<ul style="list-style-type: none"> • WisCon provided training at their annual conference • WisCon provided instructors as part of WRMCA's 10 hour OSHA course. 	<ul style="list-style-type: none"> • OSHA has a special emphasis enforcement program in this area and also provides training assistance through the CAS and they have set the formal parameters of the Alliance and the expected products

			<ul style="list-style-type: none"> • WisCon provides on-site consultation to members of the association, training and expertise • WRMCA provides entry to its membership, training opportunities which they arrange and manage, practical expertise for the industry
WisCon -- Wisconsin Underground Contractors Association Alliance	<ul style="list-style-type: none"> • Milwaukee and Madison OSHA offices • WUCA • WisCon 	<ul style="list-style-type: none"> • Formalized alliance agreement • Discussions on provision of training • Dissemination of WisCon on-site information 	<ul style="list-style-type: none"> • Collaboration on training on OSHA safety & health topics as well as encouraging on-site WisCon visits for members
Wisconsin Emergency Response Environmental Laboratory Network	<ul style="list-style-type: none"> • Most laboratories in the state doing environmental testing 	<ul style="list-style-type: none"> • Communications network to enhance emergency preparedness 	<ul style="list-style-type: none"> • Network has been established allowing communication on emergency response issues

II. Publications in Peer-Reviewed Journals

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III. Other Publications

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Kurtycz, D. "Two Million Lives Saved." *The ASC Bulletin*, September 2008; XLV(5): 110.

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Rubert, K., C. Hedman and J. Pedersen. "Influence of MnO₂ on the transformation of oxy- and chlortetracycline in pond water." In Coats JR, Henderson KL, eds., *Pharmaceuticals in the environment*, ACS Symposium Series no 806. Oxford University Press, New York, 2008.

Smith, M. "Schools of Cytotechnology." *The ASCT Voice*, January 2009.

Stanton, N. and D. Kennedy-Parker. "The Potential for Ingestion Exposure to Lead Fragments in Venison in Wisconsin." *ATSDR Health Consultation*, November 4, 2008.

IV. Research Papers in Progress

Arhami, M., M. Sillanpaa, S. Hu, M. Geller, J. Schauer and C. Sioutas. 2009. "Size-Segregated Inorganic and Organic Components of PM in the Communities of the Long Angeles Harbor across the Southern Los Angeles Basin, California." *Aerosol Science and Technology*. In press. 43, 145-160.

Baker, M., R. Laessig, M. Katcher, J. Routes, D. Kurtycz and C. Brokopp. "Implementing Routine Testing for Severe Combined Immunodeficiencies within Wisconsin's Newborn Screening Program." Submitted to *Assoc. Public Health Laboratory Journal*, June 2009.

Baker, M., R. Laessig, M. Katcher, J. Routes, W. Grossman, J. Verbsky, D. Kurtycz and C. Brokopp. "Implementing Routine Testing for Severe Combined Immunodeficiency within Wisconsin's Newborn Screening Program." Submitted to *Public Health Reports*, 2009.

Bloetscher, F., D. Meeroff and S. Long. "Resolving Biofilms in Buildings and Compounds." Submitted to *Environmental Engineering Science*, December 2009.

Dorner, S., J. Wu, D. Das and S. Long. "Four decades of research: are indicators and pathogens correlated?" Submitted to *Water Science and Technology*, June 2009.

Gao, J., T. Guo, C. Hedman and J. Pedersen. "Transformation of sulfamethazine by - MnO₂: Reaction kinetics and product characterization." To be submitted in 2009 to *Environmental Science & Technology*.

Griffin, J., J. Plummer and S. Long. In press. Chapter 85. "Torque Teno (TT) Virus." In *Molecular Detection of Human Viral Pathogens*, D. Liu (ed.). Taylor and Francis Group, LLC., Boca Raton, FL.

Hoang Johnson, D., M. Sotir, D. Warshauer, J. Staples and J. Davis. "Tickborne Powassan virus infections among Wisconsin residents, 2003-2007." Submitted to the *Wisconsin Medical Journal*.

Kurtycz, D., M. Smith, R. He, K. Miyazaki and J. Shalkham. "Comparison of Methods Trial for High Risk HPV." *Diagnostic Cytopathology*, Accepted June 29, 2009.

Kurtycz, D., M. Smith and T. Arts. "Significance of Multinucleated and/or Multilobulated Cells in Pap Smears: A Review of 375 Cases of Morphology and Follow Up." From 2009 poster presentation and under review and expansion for publication in FY 2010.

Long, S. and J. Olstadt. "Assessment of the Efficacy of the First Water® System for Emergency Hospital Use." Submitted to *Disaster Medicine and Public Health Preparedness*, March 2009.

Maricas, D., S. Corsi, G. Bowman, M. Manix and G. Anderson. "Biochemical Oxygen Demand of Aircraft and Pavement Deicers." Airport Cooperative Research Program, 2007-2009. To be submitted in 2009 to the Journal of *Environmental Science and Technology*.

Marshall, S., C. Brokopp and T. Size. "Leadership Principles for Developing a Statewide Public Health and Clinical Laboratory System." Submitted in 2009 to *Public Health Reports* Supplement on Laboratory Systems.

Munson, E., M. Napierala, J. Basile, C. Miller, J. Burtch, T. Block, J. Hryciuk and R. Schell. "Trichomonas vaginalis transcription-mediated amplification-based analyte-specific reagent and alternative target testing of primary clinical vaginal saline suspensions." Submitted for publication in 2010.

Nardelli, D., E. Munson, S. Callister and R. Schell. "Comparison of infection and vaccination/ infection animal models of Lyme arthritis in C3H/HeJ mice." Submitted for publication.

Routes, J., W. Grossman, J. Verbsky, R. Laessig, G. Hoffman, C. Brokopp and M. Baker "Statewide newborn screening for severe T-cell lymphopenia." Submitted to *Journal of the American Medical Association*, 2009.

Rubert, K., C. Hedman and J. Pedersen. "Oxytetracycline in freshwater aquaculture sediments." To be submitted in 2009 to *Journal of Environmental Monitoring*.

Rubert, K., C. Hedman and J. Pedersen. "Influence of oxygen and divalent cations on the transformation of tetracycline antibiotics by MnO₂." To be submitted in 2009 to *Environmental Science & Technology*

Sham, C., S. Long and R. Gullick. "Operational Guide to AWWA Standard G300: Source Water Protection." Under contract for publication by AWWA.

Spokas, L., P. Veneman, S. Simkins and S. Long. In press. "Performance Evaluation of an Artificial Wetland Treating High-Ammonium Primary Domestic Sewage Effluent." Submitted to *Water Environment Research*.

Tans-Kersten, J. and D. Warshauer. "Evaluation of the use of Higher concentration antimicrobial supplement in the BACTEC MGIT 960 system to reduce contamination rates." Submitted in 2009 to the *Journal of Clinical Microbiology*.

Van, T., S. Marshall, P. Shult and D. Warshauer. "Evaluation of Antibigram Use and Development of a Statewide Antibigram in Wisconsin." To be submitted in 2009 to the *Journal of Clinical Microbiology*.

Zaccard, C., R. Schell and C. Spiegel. "Efficacy of bilateral bronchoalveolar lavage for the diagnosis of ventilator-associated pneumonia." Accepted for publication, 2009.

V. Papers Presented at Scientific Meetings

Arts, T., M. Smith and D. Kurtycz. "Significance of Multinucleated and/or Multilobulated Cells in Pap Smears: A Review of 375 Cases of Morphology and Follow Up." Poster presentation #072 at the American Society of Cytopathology's 56th Annual Scientific Meeting, November 7-11, 2008; Orlando, FL.

Baker, M. "Universal Newborn Screening for SCID in Wisconsin." 2008 SCID Family Conference, July 25-27, 2008; Wintergreen, VA.

Baker, M., C. Brokopp, G. Hoffman, R. Laessig, D. Kurtycz, M. Cogley, T. Litsheim, D. Mickle, W. Grossman, J. Verbsky and J. Routes. "Universal Newborn Screening for Severe Combined Immunodeficiency in Wisconsin." Newborn Screening Symposium, October 31, 2008; Houston, TX.

Baker, M., M. Katcher, C. Brokopp, R. Laessig, D. Kurtycz, G. Hoffman, M. Cogley and D. Mickle. "Wisconsin, First in the World- Wisconsin Screen for Severe Combined Immunodeficiencies (SCID)." Wisconsin Public Health Association-Wisconsin Association of Local Health Departments and Boards-National Association of Local Health Departments and Boards Joint Annual Conference, July 22, 2008; Madison, WI.

Baker, M., C. Brokopp, G. Hoffman, R. Laessig, D. Kurtycz, W. Grossman, et al. "Newborn screening for severe combined immunodeficiencies (SCID)—a 2008 Wisconsin perspective." Proceedings of the 2008 Newborn Screening and Genetic Testing Symposium, Nov. 3-6, 2008; San Antonio, TX.

Brokopp, C. "WSLH Continuity of Operations Plan (COOP)." Great Lakes Regional Center of Excellence Annual Meeting, Nov. 7, 2008; Hilton Head, SC.

Di Giovanni, G., N. Garcia, R. Hoffman and G. Sturbaum. "Getting the Most From LT2 Monitoring: Genotyping *Cryptosporidium* On Method 1622/23 Slides American Water Works Association Water Quality Technology Conference, November 17, 2008; Cincinnati, OH.

Dunnick, T. "Extending PHINMS for Use in a Messaging Hub." Session F4-PHIN Messaging (Intermediate), 6th annual Public Health Information Network Conference, August 27, 2008; Atlanta, GA.

Fey, P., A. Weber, S. Marshall, C. Bean and S. Bhattacharyya. "Improving State and Local Public Health Laboratory Networks and Systems." Breakout session -- Association of Public Health Laboratories Annual Meeting, Anchorage, AK; May 2009.

Gao, J., T. Guo, C. Hedman and J. Pedersen. "MnO₂-mediated transformation of the antimicrobial sulfamethazine." Poster presentation for The 19th V.M. Goldschmidt Conference, June 21-26, 2009; Switzerland.

Gruetzmacher, G. "Exposure Assessment Using Whole Air Sampling Methods." American Industrial Hygiene Conference & Exposition, June 4, 2009; Toronto, Canada.

Hedman, C., J. Hemming, M. Mieritz, S. Havens, M. Shafer and S. Geis. "Bioassay Directed Fractionation and Identification of Estrogenic Compounds in CAFO Runoff by HPLC-UV-FL-MS/MS." Presented by C. Hedman at 17th Annual Midwest Chapter -- Society of Environmental Toxicology and Chemistry (SETAC) Meeting, March 31, 2009; LaCrosse, WI.

Hedman, C. "Pharmaceuticals and personal care product (PPCP) analysis as part of an integrated anthropogenic waste indicator (AWI) analysis scheme." American Water Works Association Water Quality Technology Conference, November 2008; Cincinnati, OH.

Kurtycz, D., M. Smith, J. Shalkham and P. Miller. "HPV Result: First Year of Testing Using TWT Invader Methodology." Poster presentation #041 at the American Society of Cytopathology's 56th Annual Scientific Meeting, November 7-11, 2008; Orlando, FL.

Liddicoat, L. "Prescription Drugs, Poor Driving, DRE Evaluation...and a Surprising Verdict - A DUID Case Study." American Academy of Forensic Sciences 61st Annual Meeting, February 19, 2009; Denver, CO.

Long, S., J. Plummer, F. Bloetscher and C. Sham. "Microbial Contamination and Climate Change: Examples from recent floods." In Proceedings of the Water Quality Technology Conference, November 15-19, 2009; Seattle, WA.

Long, S., J. Plummer and S. Clark. "Combining Monitoring and Modeling in Microbial Source Tracking." In Proceedings of the AWWA Annual Conference and Exposition, June 14-18, 2009; San Diego, CA.

Long, S. "An Integrated Approach to Microbial Source Tracking." North Central Branch of the American Society for Microbiology 69th Annual Meeting, October 9-10, 2009; La Crosse, WI.

Marshall, S., C. Kirk, E. Bowles, P. Shult, N. Broekema, T. Van and C. Carlson. "Building a State Public/Private Clinical Laboratory Network: Moving Beyond Bioterrorism." Association of Public Health Laboratories Annual Meeting, May 2009; Anchorage, AK.

Powell, J. "Fluorescence Microscopy." National Laboratory Training Network -- Laboratory Methods for Detecting Rabies, March 3, 2009; Richmond, CA; 20.

Powell, J. "Quality Assurance in the Rabies Laboratory." National Laboratory Training Network -- Laboratory Methods for Detecting Rabies, March 4, 2009; Richmond, CA; 20.

Raca, G., J. Laffin and D. Kurtycz. "Introduction to Cytogenetics and Molecular Cytogenetics." Workshop #14 at the American Society of Cytopathology's 56th Annual Scientific Meeting, November 7-11, 2008; Orlando, FL.

Shult, P. "National Laboratory Database." CCID/NCPDCID/Division of Laboratory Systems External Peer Review, October 22, 2008; Atlanta, GA.

Smith, M., J. Larson, G. Beaubrun, P. Nichols, C. Vong and D. Kurtycz. "Screening HPV Tests for Women Ages 30 and Older: One Size May Not Fit All." Poster presentation #038 at the American Society of Cytopathology's 56th Annual Scientific Meeting, November 7-11, 2008; Orlando, FL.

Stanton, N. "Blood Pressure, Birds, and Baltic Herring: Some dual use ICP-MS applications." CDC Lab Resource Network Level One Emergency Preparedness Laboratory Meeting, April 22-23, 2009; Jacksonville, FL.

Sullivan, M., G. Layco, P. Iwen and S. Marshall. "Preparing Future Public Health Laboratory Leaders." Roundtable -- Association of Public Health Laboratories Annual Meeting, Anchorage, AK; May 2009.

Tans-Kersten, J. and D. Warshauer. "Evaluation of the Use of a Higher Concentration of PANTA Supplement in the BACTECT MGIT 960TB System to Reduce Contamination Rates." Poster presentation for the 109th General Meeting of the American Society for Microbiology, May 18-21, 2009; Philadelphia, PA.

Tans-Kersten, J. and D. Warshauer. "The Wisconsin Mycobacteriology Laboratory Network and Laboratory-Based Surveillance in Wisconsin." 5th National Conference on the Laboratory Aspects of Tuberculosis, August 11-13, 2008; San Diego, CA.

Tans-Kersten, J. and D. Warshauer. "Evaluation of the Use of Mitchison 7H11 Agar Plates in Conjunction with the BACTEC MGIT 960 Broth System for Recovery of Mycobacteria in a Public Health Laboratory." 5th National Conference on the Laboratory Aspects of Tuberculosis, August 11-13, 2008; San Diego, CA.

Tans-Kersten, J. and D. Warshauer. "The Wisconsin Mycobacteriology Laboratory Network and Laboratory-Based Surveillance in Wisconsin." UW Population Health Symposium, March 30, 2009; Madison, WI.

Van, T., S. Marshall, E. Reisdorf and P. Shult. "Surveillance of Influenza Antiviral Resistance in Wisconsin from 2006-2009." Association of Public Health Laboratories Annual Meeting, May 2009; Anchorage, AK.

Warshauer, D. "Staphylococcal Susceptibility Testing and Wisconsin Validation Study." 2009 Wisconsin Clinical Laboratory Scientists Annual Meeting, April 28, 2009; Appleton, WI.

Warshauer, D. "Nucleic Acid Amplification Testing for the Diagnosis of TB." 2009 National TB Conference, June 17, 2009; Atlanta, GA.

Warshauer, D. "Mycobacterium tuberculosis: Assessing Your Laboratory." 2009 National TB Conference, June 16, 2009; Atlanta, GA.

Williams, L., A. Weber, S. Marshall, P. Fey, P. Robinson, S. Banerjee, Northern Plains Consortium and R. Carey. "Antimicrobial Susceptibility Testing (AST) Practices in Clinical Labs in Six States: Results of the National Laboratory System (NLS) Assessment." *Abstracts of the American Society for Microbiology 109th General Meeting*, May 2009; Philadelphia, PA.

VI. Other Presentations

Note: Last number indicates number of people attending.

Barry, J. "Foundry Course for OSHA Compliance Officers." OSHA Region V, April 21, 2009; Waukesha, WI; 25.

Bisick, R., and M. Cline. Panel Luncheon presented to the ASCT Annual Conference; April 17-19, 2009; St. Petersburg, FL.

Bowles, E. "What's That Gram Stain." ASCLS-WI Chapter Annual Conference, April 28, 2009; Appleton, WI.

Bowles, E. "Providing Effective Laboratory Training Despite Diminishing Resources." NLTC V Conference, June 12, 2009; Orlando, FL.

Brokopp, C. "Challenges Facing Public Health Laboratories Today and Beyond." Washington Laboratory Symposium, November 20, 2008; Seattle, WA.

Brokopp, C. "WSLH- Your Public Health Partner in Research, Education and Service." UW-Madison Population Health Seminar Series, September 29, 2008; Madison, WI.

Brokopp, C. "An Aging Medical Technologist's View of Environmental Chemistry in the Public Health Laboratory – 45 years Back and 20 Years Ahead." 2008 APHL Annual Meeting; St. Louis, MO.

Brokopp, C. and M. Shafer. "Options for Dealing with Funding Deficits." 2009 Laboratory Response Network National Meeting, April 2, 2009; Orlando, FL.

Cochems, A. "Inhalant Abuse and Driving Impairment." 14th Annual IACP DRE Conference on Impaired Driving, August 10-12, 2008; Indianapolis, IN; 300.

Cochems, A. "Dissociative Anesthetics and DUI Investigations." Central Texas DWI Conference, July 7-9, 2008; Austin, TX; 200.

Cochems, A. "From Cheeseheads To Gators: Everything You Need To Know For A Thorough DUID Investigation." Institute of Police Technology and Management Annual Impaired Driving Symposium, June 9-11, 2009; St. Pete Beach, FL; 150.

Cochems, A. "Drug Impaired Driving Enforcement and Prosecution." 2009 Annual Lifesavers Conference, April 1, 2009; Nashville, TN; 75.

Cochems, A. "It's All Greek To Me - Interpreting the Drug Toxicology Report." 10th Annual Traffic Prosecutors Seminar on OWI, Oct 30-31, 2008; Elkhart Lake, WI; 150.

Cochems, A. "DRE Re-certification 2009, Drug Recognition Expert Re-Certification Training." May 6, 2009; Manitowoc, WI; 50.

Cochems, A. "Inhalant Abuse: Implications in OWI Investigations, Minnesota Annual DRE In-Service." January 13, 2009; St. Paul, MN; 150.

Cochems, A. and S. Divinorum. "The 'Minty' Fresh High." Annual Minnesota DRE In-Service, January 13, 2009; St. Paul, MN; 150.

Cochems, A. "Drug Recognition Expert Re-Certification Training." Institute of Police Technology and Management Annual Drug Recognition Expert Training, June 12, 2009; St. Pete Beach, FL; 100.

Cochems, A., J. Gscheidmeier and T. Schipper. "Drug-Impaired Driving: Enforcement, Toxicology and Prosecution." 34th Annual Governor's Conference on Highway Safety, August 21, 2008; Baraboo, WI; 60.

Crothers, B., D. Kaminsky, D. Kurtycz and L. Savajola. "2010: A Cytology Odyssey, Future of Cytology, Current Issues in Cytology." American Society of Cytopathology 56th Annual Scientific Meeting, November 10, 2008; Orlando, FL.; 400.

Degenhardt, D. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." April 8, 2009; Cudahy, WI; 35.

Degenhardt, D. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." April 29, 2009; Madison, WI; 20.

Eisenman, J. "General Industry - Safety Training Requirements." Sheboygan Area Safety Council, October 8, 2008; Sheboygan, WI; 50.

Fritsch, T. and D. Kalscheur. "Blood/Breath: Partners in Crime." Intoximeter EC/IR II Users Group Meeting, September 10, 2008; Milwaukee, WI; 55.

Gruetzmacher, G. and T. Moen. "OSHA Training for Healthcare." Rural Health Cooperative, April, 22, 2009; Sauk City; 100.

Gruetzmacher, G. "Introduction to Nanotechnology." WI Department of Administration Risk Management Conference, November 13, 2008; Madison, WI; 45.

Gruetzmacher, G. "Hexavalent Chromium." VPPPA Region V Conference, May 28, 2009; Madison, WI; 35.

Gruetzmacher, G. "Nanotechnology." Appleton OSHA Staff, October 15, 2008; Appleton, WI; 20.

Harding, P. "The Role of the Toxicology Lab in Vehicular Homicide Investigations." Vehicular Homicide Conference, March 11-13, 2009; Brookfield, WI; 190.

Harding, P. "Analysis of Defense Challenges to Breath- and Blood- Alcohol Results." The Indiana University Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation, December 7-12, 2008; Bloomington, IN; 65.

Harding, P. "Blood-Alcohol Analysis." The Indiana University Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation, May 11-15, 2009; Bloomington, IN; 41.

Harding, P. "Blood Alcohol Analysis: Principles and Practice." The Indiana University Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation, December 7-12, 2008; Bloomington, IN; 65.

Harding, P. "Addressing Challenges to Breath- and Blood-Alcohol Testing." 22nd Annual IACT (International Association for Chemical Testing) Conference, May 3-7, 2009; Anchorage, AK; 90.

Harding, P. "Analysis of Challenges to Breath- and Blood-Alcohol Testing." The Indiana University Robert F. Borkenstein Course on Alcohol and Highway Safety: Testing, Research and Litigation, May 11-15, 2009; Bloomington, IN; 41.

Harding, P. "Blood Alcohol: Analysis and Interpretation." 15th Annual Traffic and Impaired Driving Law Program, April 14-15, 2009; Appleton, WI; 40.

Harding, P. "The Blood:Breath Alcohol Ratio- Review and Research." 22nd Annual IACT (International Association for Chemical Testing) Conference, May 3-7, 2009; Anchorage, AK; 45.

Hedman, C. "Sample preparation: the do's and don'ts to determine the correct approach and optimization of a method." PITTCON Networking Session - 60th PITTCON Conference and Exposition, March 2009; Chicago, IL; 40.

Iverson, D. "Construction – Residential Safety Training and booth." Chippewa Valley Home Builders Association, April 8, 2009; 30.

Iverson, D. "Construction Update on Electrical Training." WITC - Rice Lake Technical College Conference, October 2, 2008; 35.

Kalscheur, D. "Toxicology for Coroners and Medical Examiners." Wisconsin Coroners and Medical Examiners Association Conference, January 5-7, 2009; Rothschild, WI; 60.

Kennedy-Parker, D. "Secrets for Determining Inter-element Correction Factors for Inductively Coupled Plasma Optical Emission Spectroscopy." Perkin Elmer ICP Users Group, November 12, 2009, Oakbrook, IL; November 20, 2009; Madison, WI.

Kirk, C. and E. Bowles. "Packaging and Shipping." ASCLS-WI Chapter Annual Conference, April 27, 2009; Appleton, WI.

Kirk, C. and E. Bowles. "Pandemic Poker." ASCLS-WI Chapter Annual Conference, April 27, 2009; Appleton, WI.

Kurtycz, D. "A Rapid Review of Gynecologic Cytology and Case Studies." UW Department of Obstetrics and Gynecology, June 25, 2009; Madison, WI; 30.

Kurtycz, D. "Gynecologic Cytology Practice of Paps, Thin Preps and Other Cervical Testing Techniques." Group Health Cooperative, January 7, 2009; Madison, WI.

Kurtycz, D. "Hyperkeratosis and Parakeratosis in Cervical Cytology." American Society of Cytopathology Teleconference Series, June 23, 2009; 300.

Kurtycz, D. "Introduction to FISH." Pathologist's Night Out Citywide Series, April 14, 2009; Madison, WI.

Lentz, D. "Fall Hazards and Abatement Solutions." WI Builders Association, July 24, 2008; Wisconsin Dells, WI; 25.

Lentz, D. "BCI Roofing Siding and Sheet Metal." Roofers Fall Protection Training, September 10, 2008; Menomonee Falls, WI; 45.

Lentz, D. "OSHA Update." Four City Safety Council, December 10, 2009; Portage/WI Dells, WI; 35.

Lentz, D. "Focus Four Hazards in Construction." Door County Builders Association, January 15, 2009; Sturgeon Bay, WI; 35.

Lentz, D. "Scaffolding Training and booth." ABC of Wisconsin, January 28, 2009; Appleton, WI; 50.

Lentz, D. "Fall protection Training and booth ." Wisconsin Builders Association Conference and Training show, February 6, 2009; Lake Geneva, WI; 100.

Lentz, D., D. Iverson and J. Eisenman. "OSHA Basics." May 18, 2009; Wisconsin Dells. WI.

Lentz, D. "Scaffolding Training/ Fall protection and booth." ABC of Wisconsin, February 18, 2009; WI Dells; 50.

Lentz, D. "Construction Safety." Metropolitan Builders Association, March 10 and 17 2009; Milwaukee, WI; 10 attendees.

Lentz, D., D. Iverson and J. Eisenman. "Scaffolding Training." Pro- Build Buyers Show, March 24, 2009; Eau Claire, WI; 100.

Liddicoat, L. "Driving Under the Influence of Drugs (DUID): Testing, Interpretation and Testimony." 20th Annual John R. Teggatz Forensic Science Seminar, November 6, 2008; Milwaukee, WI; 150.

Liddicoat, L. "Developing a DUID Case Strategy." 22nd Annual IACT (International Association for Chemical Testing) Conference, May 3-7, 2009; Anchorage, AK; 35.

Liddicoat, L. "DUI Drugs That Impair." 22nd Annual IACT (International Association for Chemical Testing) Conference, May 3-7, 2009; Anchorage, AK; 120.

Liddicoat, L. "Driving Under the Influence of Drugs (DUID): Testing, Interpretation and Testimony." The Medical College of Wisconsin Pharmacogenomics, Pharmacology and Toxicology Forum, Dec 2, 2008; Milwaukee, WI; 20.

Liddicoat, L. "Drugged Driving." 15th Annual Traffic and Impaired Driving Law Program, April 14-15, 2009; Appleton, WI; 60.

Liddicoat, L. "Current Issues in Alcohol Interpretation." Legal Update Training Programs, December 2008 – June 2009; Wausau, Green Bay, Hartford, Eau Claire, Sparta, Milwaukee, Dodgeville, Pewaukee, Ashland, Franklin; 700+.

Liddicoat, L. "Current Prescription Drugged Driving Issues." Legal Update Training Programs, December 2008 – June 2009; Wausau, Green Bay, Hartford, Eau Claire, Sparta, Milwaukee, Dodgeville, Pewaukee, Ashland, Franklin; 700+.

Marshall, S., C. Kirk and T. Monson. "WSLH Resources for Local Public Health." Wisconsin Epi Event, October 3, 2008; Wisconsin Dells, WI; 50.

Mealy, R. and G. Bowman. "Fear No Math: Removing the Black Box from Lab Math." 42nd Annual Wisconsin Wastewater Operator's Association Conference, September 30, 2008; Stevens Point, WI; 50.

Moen, T. "OSHA Update for Healthcare." Wisconsin Healthcare Safety Council, January 30, 2009; Watertown, WI; 15.

Moen, T. "OSHA Update." Milwaukee APIC, March 5, 2009; Cudahy, WI; 40.

Moen, T. "OSHA for Health Care." Shared Health & Richland Hospital, May 21, 2009; Richland Center; 35.

Neuser, T. "Determining and Understanding Blood Alcohol Concentrations." 10th Annual Traffic Prosecutors Seminar on OWI, October 30, 2008; Elkhart Lake, WI; 30.

Powell, J. "Rabies Diagnosis and Specimen Submission." Agriculture 13 (DATCP), October 28, 2008; Wisconsin Dells, WI; 63.

Raca, G., J. Laffin and D. Kurtycz. "Introduction to Cytogenetics and Molecular Cytogenetics." Workshop #14, American Society of Cytopathology 56th Annual Scientific Meeting, November 11, 2008; Orlando, FL; 40.

Shalkham, J. and M. Smith. "Why Reality Doesn't Have to Bite: Tools for Keeping Your Professional Life Fresh." Workshop presentation for the ASCT Annual Conference, April 17-19, 2009; St. Petersburg, FL.

Shult, P. "WSLH Influenza Surveillance and Preparedness Activities." UW-Madison Avian and Pandemic Influenza Roundtable, October 2, 2008; Madison, WI; 40

Shult, P. "The Laboratory's Role in Response to Influenza and Impact on the Laboratory." Fox Valley CLS, November 13, 2008; Appleton, WI; 18.

Shult, P. "Infectious Disease Threats: What You Need to Know." WAHMR 2009, February 26, 2009; Wisconsin Dells, WI; 50.

Shult, P. "Advanced Unknowns: Practical Identifications." WAHMR 2009, February 27, 2009; Wisconsin Dells, WI; 50.

Shult, P. "Development of a Novel Course on Vaccines." RWJ Symposium, April 17, 2009; Madison, WI; 30.

Shult, P. "Influenza: The Ultimate Emerging Infectious Disease." ASCLS-WI annual Conference, April 27, 2009; Appleton, WI; 150.

Shult, P. "H1N1 (swine) Flu : Past, Present and Future???" WSLH Scientific Seminar, June 23 and 26, 2009; Madison, WI; 75.

Smith, M. "The Basics of Billing and Coding in the Cytology Laboratory." ASCP Teleconference, October 23rd, 2008.

Spallato, A. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." April 14, 2009; Watertown, WI; 17.

Spallato, A. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." April 28, 2009; Wausau, WI; 20.

Spallato, A. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." May, 5, 2009; Chetek, WI; 10.

Spallato, A. "Emergency Response Drinking Water Collection Kit and Reservoir Sampler." July, 21, 2009; Green Bay, WI; 20.

Sonzogni, W. "Triclosan: Why Are We Still Using it?" Environmental Chemistry and Technology Seminar, September 19, 2008; UW-Madison; 40.

Strebel, S. "Wisconsin Occupational Health Laboratory Updates." OSHA Region V Family Meeting, July 28-30, 2008; 60.

Tans-Kersten, J. "Collaborative Diagnosis of Tuberculosis." Heartland TB Nurse Case Management Training, March 31-April 2, 2009; Pewaukee, WI; 150.

Tans-Kersten, J. "Collaborative Treatment and Follow-up of Tuberculosis." Heartland TB Nurse Case Management Training, March 31-April 2, 2009; Pewaukee, WI; 150.

Tans-Kersten, J. "Genotyping: CDC and Wisconsin" Heartland TB Nurse Case Management Training, March 31-April 2, 2009; Pewaukee, WI; 150.

Tierney, J. "Updated CDC Guidelines for the Prevention of Needlestick Injuries." South Central Wisconsin Association of Occupational Health Nurses, November 20, 2008; 15.

Tierney, J. "Safe Resident Handling." Wisconsin Health Care Association District 9&10, June 9, 2009; 35.

Warshauer, D. "Foodborne Outbreaks: Response and Technology." WSLH Scientific Seminar Series, December 18, 2008; Madison, WI.

Woldseth, D. "Introduction of the WSLH." WI Division of Public Health New Employee Orientation, Oct. 15, 2008; Rothschild, WI.

VII. Programs, Workshops and Courses Presented by the WSLH

Bowles, E., A. Valley and J. Tans-Kersten. WCLN Gram Staining Workshops, July 18 and 24, 2008; Madison and Rice Lake, WI.

Degnan, A. "Health & Nutrition Workshop" UW-Madison Speakers Bureau at Fort Atkinson Elementary School District, March 17, 2009.

Kehl, S. "Culture of Stool Specimens." WCLN Teleconference, April 8, 2009.

Kehl, S. "Culture of Urine Specimens." WCLN Teleconference, March 11, 2009.

Kirk, C., E. Bowles, P. Shult and E. Reisdorf. WI Virology Laboratories Annual Conference, June 25, 2009; Madison, WI.

Kirk, C., E. Bowles, D. Warshauer, S. Marshall, T. Van, R. Podzorski, C. Spiegel, E. Munson, T. Van and T. Wisniewski "Challenges in Antimicrobial Susceptibility Testing." Sept. 24, 2008; Wisconsin Dells, WI.

Kirk, C. and T. Haupt. "Influenza 2008-2009: Surveillance and Testing Update." WCLN Teleconference, October 8, 2008.

Ledeboer, N. "Culture of Blood, CSF, and Other Sterile Body Fluids." WCLN Teleconference, January 14, 2009.

Spiegel, C. "Culture of Sputum, Throat and Other Respiratory Specimens." WCLN Teleconference, February 11, 2009.

Warshauer, D. and T. Wisniewski. "Review of April 2009 Educational BT Proficiency Exercise Agent." WCLN Teleconference, June 24, 2009.

Warshauer, D. and M. Costello. "Review of September 2008 Educational BT Proficiency Exercise Agent." WCLN Teleconference, December 10, 2008.

Warshauer, D. and J. Pfister. "Blastomycosis in Wisconsin." WCLN Teleconference, November 12, 2008.

Warshauer, D., J. Tans-Kersten, L. Will, R. Wisniewski, T. Wisniewski, R. Podzorski, J. Doyle, N. Woolever, Y. Kim and N. Sparks. Wisconsin Mycobacteriology Laboratory Network Annual Conference, November 4, 2008; Madison, WI.

VIII. Programs, Workshops and Courses where the WSLH was a Co-Sponsor

Bisick, R., R. Janzer, D. Hayes and M. Smith. "WSLH Update and Screening Guidelines Review." HCET Audioconference, April 21st, 2009.

Gruetzmacher, G. "OSHA Chemical Hazard Communication." Milwaukee Area Safety Day, June 11, 2009; 25.

Lentz, R. and T. Moen. "WisCon SHARP Program." Milwaukee Area Safety Day, OSHA, ASSE, June 11, 2009.

Lentz, R. "OSHA 10 Hour General Industry Course." Milwaukee Area Safety Day, June 10-11, 2009.

McDonald, R. "WSLH Update: Topics in STD Testing." Teleconference to WI Family Planning Clinics, Co-sponsored by WI Division of Public Health/ Family Planning Program, November 8, 2008; 50.

Smith, M. and R. Bisick. "2006 Consensus Guidelines: Management of Women with Abnormal Cervical Screening Test." HCET Audioconference, November 14, 2008.

WisCon staff. "Basic OSHA Requirements." WI Council of Safety - Safety Congress, May 18, 2009; WI Dells, WI.

IX. University or Technical College Courses Taught or Lectures Presented or Student Fellowships/Rotations Provided

Note: Last number listed indicates number of people attending.

Brokopp, C. Population Health 780, "Public Health Principles and Practices." December 2008; UW-Madison.

Brokopp, C. Population Health 650, "Public Health and Newborn Screening." UW-Madison.

Brokopp, C. Population Health 375, "Introduction to Public Health." UW-Madison.

Brokopp, C. Population Health 650, Public Health Preparedness. Summer 2009; UW-Madison.

Brokopp, C. Clinical Laboratory Science 102, "Clinical Laboratory Sciences and Beyond." UW-Madison.

Gehl, S. Clinical Laboratory Science Program Management Seminar 640, "Laboratory Financial Management." March 23, 30, 2009; UW-Madison.

Gruetzmacher, G. Introduction to Industrial Hygiene, "Hazard Controls & PPE." October 20, 2008; UW-Whitewater; 20.

Gruetzmacher, G. Introduction to Industrial Hygiene Course, "Industrial Hygiene Monitoring." April 9, 2009; UW-Eau Claire; 15.

Gruetzmacher, G. "Industrial Hygiene Profession." April 9, 2009; UW-Stout; 19.

Gruetzmacher, G. Industrial Hygiene Workshop, Advanced Industrial Hygiene. Spring 2009; UW-Whitewater; 15.

Gruetzmacher, G. Introduction to Industrial Hygiene, "Hazard Controls & PPE." April, 20, 2009; UW-Whitewater; 16.

Haase, B. and M. Doering. Medical Laboratory Technician program, "Hepatitis" and "HIV" lectures, January 2009; Madison Area Technical College.

Haase, B. and M. Doering. Clinical Laboratory Sciences 536, "Viral Hepatitis." May 4, 2009; UW-Madison.

Haase, B. and M. Doering. Clinical Laboratory Sciences 536, "HIV." April 29, 2009; UW-Madison.

Kurtycz, D. Clinical Laboratory Science 535, Lectures on Bacteriology (Co-Director). Fall 2008; UW-Madison.

Kurtycz, D. Clinical Laboratory Science 536, Mycology, Parasitology and Virology. Spring 2009; UW-Madison.

Kurtycz, D. General Pathology 402/404, Infectious Disease. Fall 2008; UW-Madison.

Kurtycz, D. General Pathology 703, Wound Healing/Repair. Spring 2009; UW-Madison.

Kurtycz, D. Pathology 721, Neoplastic Diseases and Colo-Rectal Panel. Fall 2008; UW-Madison.

Kurtycz, D. Pathology 803, Neoplasia I and II. Fall 2008; UW-Madison.

Kurtycz, D. School of Cytopathology Lectures, 20 lectures per semester, WSLH, UW-Madison.

Kurtycz, D. Department of Pathology, "Hyperparakeratotic Lesions in Cervical and Fine Needle Aspiration of the Liver." May 9, 2009; University of Iowa; 70.

Kurtycz, D. UW-Madison Pathology Fellows and Residents rotations through WSLH Cytology.

Long, S. Soil Science 875 and Civil Engineering 629, "Microbiology of Waterborne Pathogens and Indicator Organisms." Fall 2009; UW-Madison.

Long, S. Soil Science 132, "Water and Life." 4 lectures, Spring 2009; UW-Madison.

Long, S. Soil Science 324, "Soils and Human Health." Fall 2009; UW-Madison.

Marshall, S. Medical Microbiology and Immunology 554, "Response to Public Health Emergencies: Local, State and National Strategies." December 2, 2008; UW-Madison; 20.

Marshall, S. Medical Microbiology and Immunology 554, "The Politics and Legal Issues in Public Health." December 9, 2008; UW-Madison; 20.

Monson, T. Clinical Laboratory Science 535, Bacteriology laboratories. Fall 2008; UW-Madison.

Monson, T. Clinical Laboratory Science 536, Bacteriology laboratories. Spring 2009; UW-Madison.

Powell, J. Clinical Laboratory Science 536, "Respiratory Virus Overview." April 2009; UW-Madison; 24.

Powell, J. Clinical Laboratory Science 536, "Herpesviruses." May 2, 2009; UW-Madison; 24.

Powell, J. Zoonoses (091-115), "Rabies Information for the Veterinary / Animal Care Professional," May 2009; Madison Area Technical College, Madison, WI; 63.

Schell, R. Animal Health and Biomedical Sciences 990, Research. Summer 2008; UW-Madison; 1.

Schell, R. Microbiology 990, Research. Summer 2008; UW-Madison; 1.

Schell, R. Animal Health and Biomedical Sciences 990, Research. Fall 2008; UW-Madison; 1.

Schell, R. Microbiology 990, Research. Fall 2008; UW-Madison; 1.

Schell, R. Medical Microbiology and Immunology 504, Infectious Diseases. Fall 2008; UW-Madison; 3.

Schell, R. Medical Microbiology and Immunology 696, Critical Thinking in Microbiology. Fall 2008; UW-Madison; 4.

Schell, R. Medical Microbiology and Immunology 699, Directed Study. Fall 2008; UW-Madison; 1.

Schell, R. Medical Microbiology and Immunology 504, Infectious Diseases. Fall 2008; UW-Madison; 3.

Schell, R. Microbiology 990, Research. Spring 2009; UW-Madison; 1.

Schell, R. Animal Health and Biomedical Sciences 990, Research. Spring 2009; UW-Madison; 1.

Schell, R. Medical Microbiology and Immunology 350, Parasitology. Spring 2000; UW-Madison; 40.

Schell, R. Medical Microbiology and Immunology 603, Clinical and Public Health Microbiology. Spring 2009; UW-Madison; 14.

Schell, R. Medical Microbiology and Immunology 699, Directed Study. Spring 2009; UW-Madison; 2.

Shult, P. Microbiology 500, "Emerging Infectious Diseases." November 14, 2008; UW-La Crosse Clinical Microbiology Students tour; UW-Madison; 6.

Shult, P. Clinical Laboratory Science 536, Medical Virology. Spring 2009; UW-Madison; 24.

Shult, P. Medical Microbiology and Immunology 554, Emerging Infectious Diseases and Bioterrorism. Fall 2008; UW-Madison; 36.

Shult, P. Medical Microbiology and Immunology Club, "Careers in Public Health for the Laboratory Scientist." November 23, 2008; UW-Madison; 15.

Shult, P. Pharmacy, "Influenza Rapid Test Kits: What You Should Know." March 6, 2009; UW-Madison; 75.

Shult, P. "The Threat of Emerging Diseases." February 12, 2009; Marquette University Public Health Course; Milwaukee, WI; 60.

Shult, P. Medical Microbiology and Immunology 677, Vaccines: Practical Issues for a Global Society. Spring 2009; UW-Madison; 32.

Shult, P. "Influenza: The Ultimate Emerging Infectious Disease." February 11, 2009; Madison Area Technical College, Madison, WI; 36.

Shult, P. Medical Microbiology and Immunology 101, "Emerging Infections Diseases: Historical Perspective, Emergence Factors and Public Health Response." June 30, 2009; UW-Madison; 55.

Smith, M. Clinical Laboratory Science 102, "The Role of a Cytotechnologist." September 29, 2008; UW-Madison.

Sonzogni, W. Civil and Environmental Engineering 501, Water Analysis Intermediate. Fall 2008; UW-Madison; 8.

Sonzogni, W. and J. Tortorelli. Civil and Environmental Engineering 503, Water Analysis Intermediate Laboratory. Fall 2008; UW-Madison; 7.

Sonzogni, W. Environmental Toxicology 606, Colloquium in Environmental Toxicology. January 20, 2009; UW-Madison.

Stanton, N. PHS/Environment Studies 471: Introduction to Environmental Health, "Childhood Lead Poisoning-Why you MAY be Smarter than your Parents." February 19, 2009; UW-Madison; 140

Strebel, S. Principles and Methods of Industrial Hygiene 479/679, "An Industrial Hygiene Laboratory Overview." November 19, 2008; UW-Whitewater; 16.

Strebel, S. Principles and Methods of Industrial Hygiene 479/679, "An Industrial Hygiene Laboratory Overview." April 8, 2009; UW-Whitewater; 20.

Tans-Kersten, J. and D. Warshauer. Clinical Laboratory Technician Program, "Mycobacteriology." August 20, 2008; Madison Area Technical College; 8.

Tans-Kersten, J. and D. Warshauer. Clinical Laboratory Technician Program, "Mycobacteriology." January 20, 2009; Madison Area Technical College; 8.

Tans-Kersten, J. Clinical Laboratory Science Mycobacteriology Laboratories, November 4-6, 2008; UW-Madison.

Warshauer, D. Clinical Laboratory Science 535, "Facultative gram-positive rods." September 23, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 535, "Enterobacteriaceae." September 30, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 535, "Enterobacteriaceae Part 2." October 2, 2008; UW-Madison; 24.

Warshauer, D. Medical Microbiology and Immunology 554, "Foodborne Disease: Role of Pulsed-field Gel Electrophoresis and PulseNet." October 2, 2008; UW-Madison; 12.

Warshauer, D. Clinical Laboratory Science 535, "Fastidious gram-negative rods." October 30, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 535, "Fastidious gram-negative rods (cont.)." November 4, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 535, "Mycobacterium, Nocardia, and Rhodococcus." November 6, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 535, "Mycobacterium, Nocardia, and Rhodococcus (cont.)." November 11, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Arthropods." February 13, 2008; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Introduction to Medical Mycology." February 25, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Contaminants, Subcutaneous Mycoses, and Actinomyces." February 27, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "The Dermatophytes and Superficial Mycoses." March 4, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Infections Due to Yeasts." March 6, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Systemic Mycoses Part 1." March 11, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Systemic Mycoses Part 2." March 13, 2009; UW-Madison; 24.

Warshauer, D. Clinical Laboratory Science 536, "Mycology Laboratory." February 25-April 3, 2009; UW-Madison; 24.

X. Other Teaching or Training We Provided NOT as Part of a "For-Credit" Class

Note: Last number indicates the number of people attending.

Gruetzmacher, G. "Wisconsin State Lab of Hygiene Resources for the Local Public Health Department." Wisconsin Public Health Association/Wisconsin Association of Local Health Departments and Boards Annual Conference, July 22, 2008, Madison WI.

Gruetzmacher, G. "Ergonomics in Ready Mix Operations." WI Ready Mix Association Annual Safety Conference, January 22, 2009, Wisconsin Dells, WI; 40.

Gruetzmacher, G. "OSHA Recordkeeping." WI Ready Mix Association Annual Safety Conference, January 23, 2009, Wisconsin Dells, WI; 40.

Gruetzmacher, G. "Hexavalent Chromium." Wisconsin Council of Safety, January 28, 2009.

Olson, J. "Management's Role in Improving Project Success." Leadership and Management Development Conference, October 15, 2008, Madison WI; 65

XI. Any Other Research or Outreach NOT Included Elsewhere

Note: Last number indicates number of people attending.

Lentz, R. "Occupational Safety in the Tree Care Industry." November 13-14, 2008, Milwaukee WI; 100.

Liddicoat, L. and P. Harding. "The WSLH Role in Wisconsin Highway Safety." Booth at the 34th Annual Governor's Conference on Highway Safety, August 20-21, 2008, Baraboo, WI; 280.

Liddicoat, L. "Forensic Toxicology: Impaired Driving and Death Investigations." Lecture given at UW School of Pharmacy for visiting faculty of Silpakorn University (Thailand), July 14, 2008; 20.

XII. Extramurally Funded Research

American Water Works Association Research Foundation, "Development of a Method 1622/23 *Cryptosporidium* Speciation Protocol for Use by Water Quality and Utility Laboratories". 2008-2010, \$266,000. Co-investigators: G. Di Giovanni (Texas A&M) , R. Hoffman (WSLH) and G. Sturbaum (CH Diagnostics).

Association of Public Health Laboratories, "WI Local Public Health Lab Network." 2008-2010, \$8,375. Primary Investigator: C. Brokopp. Grant Coordinator: J. Klawitter.

Centers for Disease Control and Prevention, "Clinical Laboratory Testing Integration Agreement." 2006-2009, \$650,000. Primary investigator: P. Shult

Centers for Disease Control and Prevention, "WI State Public Health Lab Capacity for SCID Screening." 2008-2011, \$1.5 million. Grant Number 5 UO1/EH00036501. Primary Investigator: C. Brokopp. Co-Investigator: M. Baker.

Council of State and Territorial Epidemiologists, "Improving Influenza Surveillance." 2008-2009, \$150,000. Primary Investigator: P. Shult

Environmental Protection Agency, "Technical Support for the Office of Ground Water and Drinking Water Regulation Development and Implementation with an Emphasis on Engineering." WSLH analytical testing subcontractor for primary contractor The Cadmus Group, Inc. 2007 - 2012.

Environmental Protection Agency – STAR Program, "Continuous Measurements for Particulate Matter Composition." 05/01/06 – 04/30/09 + one year no cost extension, \$250,433. Co-Primary Investigators: M. Shafer and J. Schauer.

Environmental Protection Agency – STAR Program, "Assessing Occurrence, Persistence, and Biological Effects of Hormones Released from Livestock Waste." 05/01/07 – 04/30/10, \$699,953. Primary Investigator: J. Hemming, Co-Primary Investigator: M. Shafer, J. Schauer and C. Hedman.

Environmental Protection Agency – STAR Program, "Sensitivity of Atmospheric Mercury Processes to Climate Change." 02/15/07 – 02/14/10, \$899,731. Co-Primary Investigators: M. Shafer and J. Schauer.

Environmental Protection Agency – STAR Program, “Platinum-Containing Nanomaterials: Sources, Speciation, and Transformation in the Environment.” 2008-2011, \$399,000. Primary Investigator: M. Shafer.

Environmental Protection Agency, Southern California Particle Center (SCPC). October 1, 2005 – September 30, 2010, \$391,470. Primary Investigators: J. Froines (UCLA) and J. Schauer, (WSLH/UW-Madison Schauer Research Group).

HATCH Program, “Evaluation of Surrogates for Monitoring Biosolids Digestion Processes.” October 2009 - September 2011, \$64,433. Primary Investigator: S. Long.

Jeffrey Modell Foundation, “Pilot Newborn Screening Program for SCID.” 2007-2009, \$500,000. Co-investigators: M. Baker, D. Kurtycz and R. Laessig.

Madison Metropolitan Sewerage District, “PFRP Equivalency Project.” January 2008 - December 2008, \$99,773. Primary Investigator: S. Long.

Madison Metropolitan Sewage District, “Biosolids Research.” January 2009 - August 2010, \$119,541. Primary Investigator: S. Long.

National Science Foundation, “Torque Teno Virus: A Potential Indicator of Human Enteric Viruses in Source and Drinking Waters.” July 2009 - June 2012, \$255,677. Co-Primary Investigators: S. Long (WSLH/UW-Madison) and J. Plummer (Worcester Polytechnic Institute).

NOAA-SeaGrant, “Factors Regulating the Interaction of Trace Metals and Aquatic Organisms in Watersheds of the Great Lakes.” 2008-2011, \$375,000. Primary Investigator: M. Shafer.

U.S. Department of Defense, “Tracking of Copper Sources in DoD Harbors with Stable Isotopic Ratios (Pilot Study).” June 2009-December 2009, \$25,000. Primary Investigator: M. Shafer.

U.S. Department of Labor -- Occupational Safety & Health Administration, “WI OSHA Consultation 21(d) Cooperative Agreement.” Federal Fiscal Year 2009, \$1,721,000. Primary Investigator: W. Sonzogni

United States Agency for International Development, “Determination of Heavy Metals and PAHs in Airborne Particulates in Lahore, Pakistan.” January 1, 2006-December 31, 2009, \$80,000. Primary Investigators: J. Schauer (WSLH/UW-Madison Schauer Research Group).

University of Wisconsin-Whitewater GEAR UP Grant, “Triclocarban in surface waters and its toxicity to *Ceriodaphnia dubia*.” July 2008 to May 2009, \$5,000. Primary Investigators: E. Harrahy and C. Hedman.

Water Research Foundation (WRF), “Distribution System Water Quality Control Demonstration.” June 1, 2009 thru December 31, 2011. Funding to be determined. Primary Investigator: A. Cantor and A. Jacques

Wisconsin Groundwater Coordinating Council and University of Wisconsin Water Resources Institute, “Development and Validation of a PCR-based Quantification Method for *Rhodococcus coprophilus*.” July 2008 - January 2009, \$40,894. Co-Primary Investigators: S. Long and S. Kluender.

Wisconsin Groundwater Coordinating Council, “Predicting Mercury Methylation: Testing the Neutral Sulfide Speciation Model in a Groundwater-Dominated Wetland.” July 2009 – June 2011, \$86,554. Primary Investigator: M. Shafer.

XIII. Committees, Work Groups, Boards-Within University of Wisconsin-Madison

Brokopp, C. Special Research Compliance Investigation – UW Graduate School. December 2008.

Brokopp, C. Mentoring Committee – Gordana Raca, Department of Pathology and Lab Medicine. UW School of Medicine and Public Health.

Brokopp, C. Mentoring Committee – Mei Baker, Department of Pediatrics. UW School of Medicine and Public Health.

Brokopp, C. Community Advisory Committee, Master’s in Public Health program. UW School of Medicine and Public Health.

Brokopp, C. Search and Screen Committee, Associate Dean for Public Health. UW School of Medicine and Public Health.

Brokopp, C. Academic Steering Committee, Department of Population Health Sciences. UW School of Medicine and Public Health.

Degnan, A. Co-Chair, WSLH Partners-in-Giving Campaign, 2004 - present.

Degnan, A. Co-Chair, WSLH Equity & Diversity Committee, 2009.

Gruetzmacher, G. Member, UW ad hoc nano-technology safety work group, 2006-present.

Klawitter, J. Vice-Chair, UW School of Medicine and Public Health’s Wisconsin Partnership Fund for a Healthy Future Public Health Education and Training Subcommittee, 2005–2009.

Kurtycz, D. Member, UW Medical Foundation Council of Faculty Committee.

Kurtycz, D. Member, CPD Committee (Office of Continuing Professional Development in Medicine and Public Health)

Long, S. Member, Committee on Women in the University.

Long, S. Member, Water Resources Management Curriculum Committee, Nelson Institute for Environmental Studies.

Long, S. Member, Administrative Committee, Department of Soil Science.

Long, S. Member, Research Committee, Department of Soil Science.

Marshall, S. Co-Chair, Core Labs Guide and CLIA Subcommittee, Translational Technologies Research Core Committee, UW Institute for Clinical and Translational Research, 2008-present.

Marshall, S. Preceptor, UW Masters of Public Health Program, Field and Capstone Project, May-August 2009.

Metcalf, T. Co-Chair, WSLH Partners-in-Giving Campaign.

Moen, T. Judge, Evans Moot Court Competition, UW Law School, 2007-present.

Moen, T. Member, UW ad hoc nano-technology safety work group, 2006 to present.

Olson, J. Member, UW-Executive Education Project Management Advisory Board, 2006-present.

Schell, R. Vice-chair (2006-09) and Member, UW School of Medicine and Public Health Animal Care Committee, 1994-present.

Schell, R. Member, UW School of Medicine and Public Health Oversight Animal Care Committee, 2009.

Schell, R. Member, Faculty Committees for UW-Madison Ph.D. and M.S. degrees

Schell, R. Member, NIH Grant Review Group

Shult, P. Member, UW-Madison Campus Health Issues Planning Committee, 2005-present

Shult, P. Member, UW-Madison Influenza Working Group, 2007-present

Shult, P. Member, UW Task Force on Biosecurity, 2004-present.

Sonzogni, W. Member, Faculty Committees for UW Ph.D. and M.S. Dissertations.

Sonzogni, W. Chair, UW Chemical Safety Committee, 1998-present.

Sonzogni, W. Member, UW Civil and Environmental Engineering Department Executive Committee, 1983-present.

Sonzogni, W. Member, UW Environmental Chemistry and Technology Program Executive Committee, 1983-present.

Sonzogni, W. Member, UW Molecular and Environmental Toxicology Program Steering Committee, 1999-present.

Sonzogni, W. Member, UW Occupational Health Committee, 2006-present.

Sonzogni, W. Member, UW Speakers Bureau, 1999-present.

Sonzogni, W. Member, UW Water Resources Management Executive Committee, 1994-present.

Warshauer, D. Member, UW Biosecurity Task Force, 2004-present.

Warshauer, D. Member, UW Clinical Laboratory Science Program Advisory Task Force, 2003-present.

Woldseth, D. Member, UW Research Administrators, 2007-present

XIV. Committees, Work Groups, Boards--Outside University of Wisconsin-Madison

Barry, J. Member, National American Foundry Society 10Q Industrial Hygiene Committee, 1995-present.

Brokopp, C. Member, College of American Pathologists (CAP) Inspection Team, July 2008.

Brokopp, C. Member, Wisconsin Newborn Screening Advisory Umbrella Committee, 2008 – present.

Brokopp, C. Member, Healthy Wisconsin 2020 Strategic Leadership Team, 2008-present.

Brokopp, C. Member, Scientific Oversight Committee for SCID Project – Children's Hospital of Wisconsin, 2008 – present.

Brokopp, C. Member, Association of Public Health Laboratories Board of Directors, 2009 – present.

Brokopp, C. Board Liaison, Association of Public Health Laboratories Informatics Committee, 2009 – present.

Cochems, A. Member, AAFS/SOFT Driving Under the Influence of Drugs (DUID) Committee, 2006-present.

Cochems, A. Member, Wisconsin Bureau of Transportation Safety Drug Recognition Examiner (DRE) Oversight Committee, 2002–present.

Cochems, A. Member, Wisconsin Bureau of Transportation Safety Standardized Field Sobriety Testing (SFST) Advisory Committee, 2004-present.

Degnan, A. Chair, WWA Wisconsin Water for the World (WWW), 2005–present.

Degnan, A. Member, WWA Research Committee, 2004–present.

Degnan, A. Member, AWWA Microbial Contaminants Research Committee, 2004-present.

Degnan, A. Member, AWWA Organisms-in-Water Committee.

Degnan, A.J. Member, AWWA Standard Methods Task Group 24th Edition.

Degnan, A.J. Mentor – Madison Area High Schools Advanced Science Programs.

Gruetzmacher, G. Past President, American Industrial Hygiene Association-Wisconsin Section, 2008-2009. Board Member, 2006-2009.

Gruetzmacher, G. Member, American Industrial Hygiene Association, Ergonomics Committee, 1996-present. Chair, 2007-2009.

Gruetzmacher, G. Member, American Industrial Hygiene Association, Non-Ionizing Radiation Committee, 1995-present.

Gruetzmacher, G. Member, American Industrial Hygiene Association, Occupational Epidemiology Committee, 2002-present.

Gruetzmacher, G. Member, American Association of Safety Engineers – Wisconsin Chapter Safety Day Planning Group, 2007 - present

Gruetzmacher, G. Member, Ergonomics Advisory Committee, Department of Occupational and Environmental Safety and Health, University of Wisconsin - Whitewater, 2003-present.

Gruetzmacher, G. Member, OSHA Health and Safety Program Assessment Training Group, 2007-present.

Gruetzmacher, G. Member, OSHA Strategic Plan Health Outcomes Taskforce, 2003-present.

Gruetzmacher, G. Member, OSHA OIS Development Team, Health Data Group, 2006-present

Gruetzmacher, G. OSHA Eau Claire Office Nanotechnology Alliance, 2007-present.

Gruetzmacher, G. Board Member, Wisconsin Council of Safety, 2006-present.

Gruetzmacher, G. Member, Wisconsin Council of Safety, Safety Congress Planning Committee, 1990-present.

Gruetzmacher, G. Member, Wisconsin Council of Safety, Safety Professionals Committee, 1990-present.

Gruetzmacher, G. Member, Wisconsin Ready Mix Association Annual Safety Conference Planning Group, 2004 to present

Harding, P. Board of Directors Member, International Association for Chemical Testing, 2000–present.

Harding, P. Executive Board Member, The National Safety Council's Committee on Alcohol and Other Drugs, 1995-present; member, 1986-present.

Hill, S., Vice-chair, Laboratory Certification Standards Review Board, 2007- present.

Hoffman, R., Chair, AWWA Organisms in Water Committee, 2004 – 2008.

Hoffman, R., Member, WI Water for the World Committee, 2005-present.

Hoffman, R., Symposium Chair, International Symposium on Waterborne Pathogens, 2007-present.

Hoffman, R., Manual committee chair, The Algae Manual, AWWA press, 2007 - present.

Hoffman, R., Invited participant, American Water Works Association's Technical Advisory workgroup: Improving the Contaminant Candidate List process, 2003-present.

Hoffman, R., Symposium Technical Committee - Member, Global Conference on Microbial Contaminants in Drinking Water, 2008-present.

Hoffman, R. Invited participant, American Water Works Association Research Foundation Developing a Strategy to Increase the Value of Regulatory *Cryptosporidium* Monitoring: *Cryptosporidium* Detection Method Research Needs, Golden, CO. August 2008.

Kalscheur, D. Member, Education Committee for the Wisconsin Coroners and Medical Examiners Association, September 2005-present.

Kalscheur, D. Member, Casepoint- Electronic Database for Coroners and Medical Examiners, 2002-present.

Kirk, C. Facilitator, Wisconsin Clinical Laboratory Technical Advisory Group Meeting and Conference Calls, 2004-present.

Kirk, C. Member, Great Lakes Border Health Initiative, Laboratory Subcommittee, 2005-present.

Kirk, C. Member, Wisconsin Interagency Laboratory Emergency Response Group, 2005-present.

Kirk, C. Member, Wisconsin Interagency Zoonoses Committee, 2005-present.

Klawitter, J. Member, Wisconsin Public Health Association Public Affairs Committee, 2003-present.

Klawitter, J. Member, Wisconsin Public Health Education and Training Advisory Committee, 2005-2008.

Kurtycz, D. Member, American Board of Pathology, Test Development and Advisory Committee, 2006-present.

Kurtycz, D. Member, American Society of Cytopathology, Cytotechnology Programs Review Committee (CPRC), 2008-present.

Kurtycz, D. Member, ASCP Teleconference Committee, 1992-present.

Kurtycz, D. Member, ASCP Instructional Technology Committee, 1992-present.

Kurtycz, D. Member, Editorial Board of *Diagnostic Cytopathology*, April 2003-present.

Kurtycz, D. Member, Papanicolaou Society of Cytopathology Executive Board, April 2004-present.

Kurtycz, D. Reviewer, *Archives of Pathology & Laboratory Medicine* - College of American Pathologists.

Kurtycz, D. Reviewer, *Cancer Cytopathology* - Wiley InterScience.

Kurtycz, D. Reviewer, *Diagnostic Cytopathology* - Wiley-Liss.

Kurtycz, D. Reviewer, *Journal of Lower Genital Tract Disease* - Blackwell Science.

Kurtycz, D. Member, College of American Pathologists (CAP), 1984-present.

Kurtycz, D. Member, American Society of Clinical Pathologists (ASCP), 1984-present.

Kurtycz, D. Member, American Society of Cytopathology (ASC), 1986-present.

Kurtycz, D. Member, Paleopathology Club, International Academy of Pathology, 1981-present.

Kurtycz, D. Member, United States and Canadian Academy of Pathology (USCAP), 1984-present.

Liddicoat, L. Member, AAFS/SOFT Driving Under the Influence of Drugs (DUID) Committee, 2001-present.

Liddicoat, L. Member, Casepoint-Electronic Database for Coroners and Medical Examiners, 2002-present.

Liddicoat, L. Secretary, The National Safety Council's Committee on Alcohol and Other Drugs, 2006-present; Member, 2003-present.

Liddicoat, L. Member, Wisconsin Bureau of Transportation Safety Drug Recognition Examiner (DRE) Oversight Committee, 2000-present.

Long, S. Member, Water Research Foundation Project Advisory Committee, Early Detection of Potential Taste and Odor Episodes in Waters, 2008 to present.

Long, S. Member, Yahara CLEAN Beach Bacteria Advisory Committee, 2008 to present.

Long, S. Vice Chair, AWWA Source Water Protection Committee, Water Science & Research Division, 2007 to present. Incoming Chair June 2010.

Long, S. Member, Madison Metropolitan Sewerage District EMS External Team, 2007 to present.

Long, S. Member, Madison Water Quality Technical Advisory Group, 2006 to present.

Long, S. Member, Wisconsin Water Association Research Committee.

Marshall, S. Observer, Clinical Laboratory Standards Institute (CLSI), Antimicrobial Susceptibility Testing Subcommittee, 2006-present.

Marshall S. Participant, National Center for Public Health Laboratory Leadership Forum (sponsored by the Association of Public Health Laboratories), 2008-present.

McDonald, R. Board Member, Health Care Education and Training Board of Directors, 2003-present

McDonald, R. Member of the Region V Infertility Prevention Project Advisory Committee, 1997-present, RVIPP Laboratory Subcommittee Chair, 2000-present

McDonald, R. Representative from Region V on the National Chlamydia Laboratory Committee (CDC), 2000-present

Monson, T. Member, APHL Food Safety Committee, 2007–present.

Monson, T. Member, APHL Yardstick Task Force, 2006–present.

Monson, T. Member, Council to Improve Foodborne Outbreak Response (CIFOR) Clearinghouse subcommittee, 2008–present.

Monson, T. Member, Shiga Toxin-producing *E. coli* Public Health Workgroup sponsored by the Centers for Disease Control and Prevention, Association of Public Health Laboratories and American Society of Microbiologists, 2008–present.

Monson, T. Member, APHL Salmonella Public Health Workgroup, 2008–present.

Monson, T. Member, APHL Campylobacter Public Health Workgroup, 2009.

Olson, J. President, Project Management Institute – Madison / S. Central Wisconsin Chapter Board of Directors, 2007-present

Pfister, J. Botswana Country Lead, Global AIDS Laboratory Project, APHL and CDC, 2005-present.

Popp, D. Member, American Industrial Hygiene Association Laboratory Accreditation Programs Technical Advisory Panel, 2005-present.

Popp, D. Interim chair, American Industrial Hygiene Association Proficiency Assessment Testing (PAT) Board, 2009-present

Powell, C. Member, American Industrial Hygiene Association Analytical Accreditation Board, 2003-present.

Powell, C. Member, American Industrial Hygiene Association Biosafety and Environmental Microbiology Committee, 2007-present.

Powell, C. Chair, American Industrial Hygiene Association EMLAP Task Force, 2003-present.

Powell, C. Member, ASTM Committee D22.08 Indoor Air Quality Committee and subcommittee on Mold Sampling and Analysis, 2005-present.

Powell, C. Member, American Industrial Hygiene Association LQAP Policy Task Force, 2005-present.

Shult, P. Member, APHL/CDC Working Group on Influenza Testing Algorithm for Public Health Laboratories, 2006-present.

Shult, P. Member, APHL Infectious Disease Committee, 2005-present.

Shult, P. Member, CDC/APHL Laboratory Partners Working Group, 2006-present.

Shult, P. Member, CDC Influenza Surveillance Steering Committee, 2006-present.

Shult, P. Member, CIDRAP Pandemic Influenza Response Best Practices Working Group, 2006-present.

Shult, P. Member, Governance Board, Wisconsin Association of Hazardous Materials Responders, 2004-present.

Shult, P. Member, Public Health Preparedness Committee, DPH, 2002-present.

Shult, P. Member, Wisconsin Clinical Laboratory Technical Advisory Group, 2004-present.

Shult, P. Member, Wisconsin Interagency Laboratory Emergency Response Group, 2005-present.

Shult, P. Member, Wisconsin Interagency Working Group on Terrorism, 2003-present.

Shult, P. Member, Wisconsin Pandemic Influenza Response Preparedness Planning Committee, 2002-present.

Shult, P. Subject Matter Expert, CDC Pandemic Operations Plan Review Committee, 2005-present.

Shult, P. Member, CDC/Joint Commission Technical Advisory Panel, 2007-present.

Smith, M. Education Chair, American Society for Cytotechnology, 2008-present.

Smith, M., Member, Coordinating Council on the Clinical Laboratory Workforce, December 2008-present.

Smith, M., Member, Wisconsin HCET Advisory Council, April 2009-present.

Sonzogni, W. Associate Editor, *Journal of Great Lakes Research*, 1990-present.

Sonzogni, W. Associate Editor, *Journal of Environmental Informatics*.

Sonzogni, W. Joint Task Group Member, Standard Methods for the Examination of Water and Wastewater, American Public Health Association, American Water Works Association and Water Environment Federation, 1985-present.

Sonzogni, W. Member, American Water Works Association Laboratory Committee, 2001-present.

Sonzogni, W. Member, American Water Works Association (Wisconsin Section) Research Committee, 1996-present.

Sonzogni, W. Member, City of Madison Commission on the Environment, 2006-present.

Sonzogni, W. Member, City of Madison-Dane County Joint Board of Health, 2005-present.

Stanton, N. Member, CDC's LRN-C Proficiency Testing Working Group, 2004 - present.

Stanton, N. Member, INSPQ (Quebec) Multi-Element External Quality Assessment Scheme Advisory Group, 2005-present.

Stanton, N. Member, Wisconsin Lead Poisoning Elimination Oversight Committee, Targeting High Risk Populations, 2004-present.

Stanton, N. Member, National Blood Lead Proficiency Testing Program, 2008-present.

Stanton, N. Advisor, Clinical and Laboratory Standards Institute, Subcommittee on Analytical Procedures for the Determination of Lead in Blood and Urine, June 2009-present.

Tans-Kersten, J. Member, APHL Committee to Update Assessment Tool for Mycobacteriology Laboratories, August 2007 to April 2009.

Tans-Kersten, J. Member, CDC Cooperative Agreement Funding Formula Work Group, January to April 2009

Warshauer, D. Member, Association of Public Health Laboratories Infectious Disease Committee, July 2008-present.

Warshauer, D. Association of Public Health Laboratories Tuberculosis Steering Committee, January 2005-present.

Warshauer, D. Association of Public Health Laboratories Infectious Disease Committee, July 2008-present.

Warshauer, D. Chair, Association of Public Health Laboratories Committee for the revision of the publication "Mycobacterium tuberculosis: Assessing your laboratory" January 2006-present.

Warshauer, D. Member, CDC and American Thoracic Society Work Group for the updating of guidelines for the diagnostic standards and classification of tuberculosis in adults and children. May 2007-present.

Warshauer, D. Member, CDC Work Group for the updating of guidelines for the use of interferon gamma release assays for the diagnosis of tuberculosis. May 2008-present.

Warshauer, D. Member, CDC Work Group for the updating of guidelines for the use of nucleic acid amplification assays for the diagnosis of tuberculosis. May 2008-present.

Wedig, M. Facilitator, Wisconsin Clinical Laboratory Technical Advisory Group, 2004-present.

Wedig, M. Member, Wisconsin Electronic Disease Surveillance System Core Team, 2007-present.

Wedig, M. Member, Wisconsin Electronic Disease Surveillance System Lead Team, 2007-present.

Wedig, M. Member, Wisconsin Electronic Disease Surveillance System Advisory Group, 2007-present.

XVI. Awards and Honors

Brokopp, C. Student Advisor for Daniel Erhardt, UW-Madison Master's of Public Health program, 2009.

Brokopp, C. Student Advisor for Susan Percy, UW-Madison Master's of Public Health program, 2009.

Moen, T. Madison Police Department "Partnership in Building Trust" award, May 2009.

Smith, M., ASCT Allen Award for Excellence in Writing, April 2009.



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