



Beginnings...

1903 Laws of Wisconsin Chapter 344:

\$1,500 appropriated annually to UW for establishment and maintenance of a hygienic laboratory in connection with existing bacteriological laboratories.




The WSLH's first lab was in the basement of Agriculture Hall on the UW (now UW-Madison) campus. Photo courtesy of UW Archives.



Ag Hall (left) and the WSLH Henry Mall facility (right) today.

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN




WSLH in the Statutes: 36.25 (11)(a)

The laboratory of hygiene shall be attached to the University of Wisconsin-Madison ... and shall provide complete laboratory services in the areas of...

- water quality, air quality
- public health and contagious diseases for appropriate state agencies...

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

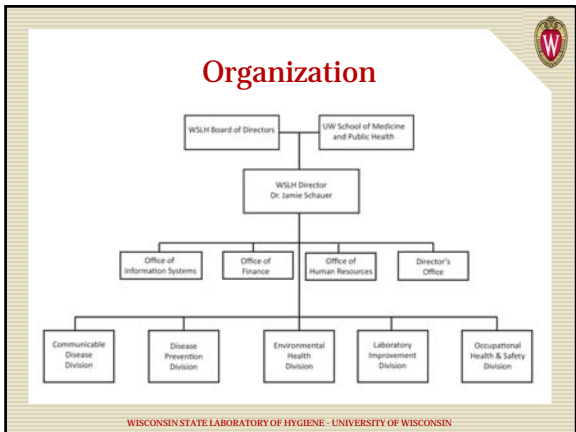


WSLH in the Statutes:

Laboratory shall be operated to furnish a complete laboratory service to the **Department of Health Services** and the **Department of Natural Resources** ...

... and make available to the (UW) System, the DHS and the DNR such facilities for **teaching in the fields of public health and environmental protection** as may be derived from such a laboratory.

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN



WSLH Staffing

The WSLH has more than 300 employees, including:

- Faculty and academic staff
- Laboratory scientists
- Occupational health specialists
- IT, business and administrative staff
- Research assistants and postdoctoral fellows


WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

What do we do?

Public Service:

- Reference testing
- Teaching
- Research
- Outreach
- Program Services

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN



State Lab Facilities

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN



465 Henry Mall -- UW campus

- Disease Prevention Division
- Natl. Atmospheric Deposition Program (NADP) Program Office
- Administration


2601 Agriculture Drive – Madison's east side

- Environmental Health Division
- Occupational Health Division (WOHL)
- Laboratory Improvement Division (WSLH Proficiency Testing)
- Communicable Disease Division

2810 Walton Commons – Madison's east side

- IT
- Occupational Health Division (BLS/OSHA Statistics, WisCon)

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN



Communicable Disease Division

WSLH Clinical Customer Service:

800-862-1013


608-262-6386

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Communicable Disease Division

Provide a broad range of reference testing including:

Tuberculosis, rabies, pertussis, HIV, hepatitis, influenza, salmonella, measles, polio, sexually transmitted infections, legionella, Lyme disease, tularemia, diphtheria, anthrax, encephalitis...



WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Communicable Disease Division

- CDC LRN – Bioterrorism/Biological Emergency laboratory response and coordination
- Outbreak Response
- Lab Surveillance
- Research, Education and Training- UW courses, APHL fellowships, UW-LAX rotations, WI Clinical Laboratory Network (WCLN)



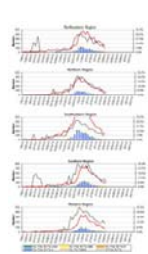
WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

WCLN (WI Clinical Lab Network)

- 130+ clinical laboratories across WI – coordinated by WSLH
- WCLN is subset of national Laboratory Response Network for bioterrorism/ emerging infectious diseases/other PH threats or emergencies.
- **WCLN** members **KEY** to WSLH and DPH lab-based surveillance activities and outbreak response
- Regional Meetings (PH encouraged to attend)
- Training (teleconferences, workshops, exercises, etc.)
- Listserv and Lab Messages
- More info. on WCLN Web site -- <http://www.slh.wisc.edu/wcln-surveillance/>

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Lab-Based Disease Surveillance



- Reports on WSLH web site (<http://www.slh.wisc.edu/wcln-surveillance/>)
- Bacteriology
- Virology (influenza, RSV, other respiratory, rotavirus)
- Mycobacteriology (TB)

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Electronic/Web-based Lab Reporting

Laboratory reporting is a critical component of disease surveillance and outbreak response. **Electronic reporting does NOT replace phone notifications if required.**

<p>Submitter Laboratory</p> <p>WLR: Secure login and password to enter laboratory results into template on WSLH web site. (<i>Report <25 reportable diseases/month</i>)</p> <p>ELR: Extract reportable results from LIMS, create HL7 and transmit to WSLH. (<i>Report >25 reportable diseases/month</i>)</p>	<p>WSLH</p> <p>Assign LOINC and SNOMED Codes (if necessary)</p> <p>Transform, if necessary</p> <p>Create HL7 Message</p> <p>Securely Transmit through PHINMS</p>	<p>WEDSS (WI Electronic Disease Surveillance Case Management System)</p>
---	---	---

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Disease Prevention Division

WSLH Clinical Customer Service:

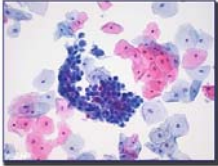
800-862-1013

608-262-6386

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Disease Prevention Division

Cytology




- Pap Test and HPV testing
- Cytotechnology Certificate Program (affiliated with UW-Madison Genetics Department)
- HCET collaborations

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Disease Prevention Division

Newborn Screening




- Testing ~65,000 Wisconsin newborns per year
- Detection of 44 metabolic conditions that can lead to permanent disabilities and/or death + hearing and heart screening performed at hospital and reported on NBS submission cards
- WI Newborn Screening Program administered by WI DPH and WSLH

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Disease Prevention Division

Genetics



Cytogenetics and Molecular Genetics
Chromosomal analysis for genetic defects

- Oncology, Prenatal, Postnatal
- Teaching - medical genetics
- Research - cause - cure for genetic abnormalities

Biochemical Genetics
Diagnosis and monitoring of inborn errors of metabolism. Works closely with WI Newborn Screening Program.

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Environmental Sciences and Toxicology
Customer Service

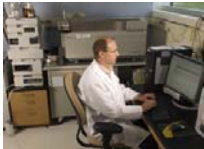
800-442-4618

608-224-6202

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Chemical Emergency Response



- One of 10 CDC-designated Level 1 chemical emergency response labs in U.S.
- Serve as a surge capacity lab for CDC
- HazMat team coordination – equipment and testing

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Drinking Water Quality



- Water microbiology for state and federal agencies
- Public water supplies - Safe Drinking Water Act (SDWA) requirements
- Private well owners – microbiology, fluoride, nitrate, lead, arsenic, radon
- Microbial Source Tracking to determine source of contamination

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Pollution & Ecosystem Quality




- Solid and hazardous waste - compliance and enforcement samples
- Environmental Toxicology - testing water for toxic effluents using living organisms
- Trace Elements Clean Lab – quantifying to the parts per billion and parts per trillion levels
- Fish advisories -- Mercury

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Outdoor Air Quality




- Research on measurement and characterization of emissions from air pollution sources
- Ambient air monitoring for DNR attainment standards and health advisories
- Natl. Atmospheric Deposition Program (NADP)

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division

Clinical Metals Toxicology



- Childhood lead testing
- National blood lead proficiency testing program
- Reference testing for other metals in human samples

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Environmental Health Division


Forensic Toxicology



- Alcohol and drug analysis for law enforcement agencies in support of Wisconsin impaired driving laws
- Court testimony on laboratory findings
- Coroners - motor vehicle and other death investigations

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Occupational Health Division



WI Occupational Health Lab (WOHL)
800-446-0404

WisCon – Onsite Safety and Health Consultation Program
800-947-0553

Bureau of Labor Statistics
608-221-6289

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Occupational Health Division

Wisconsin Occupational Health Laboratory (WOHL) scientists offer comprehensive industrial hygiene analytical services to 47 state OSHA consultation programs, as well as businesses and industrial hygiene consultants nationwide.


WisCon On-Site Safety and Health Consultation Program industrial hygiene and safety consultants, engineers, and nurses provide free safety and health consultation and training services to small businesses throughout Wisconsin to help these employers provide safe and healthy workplaces for their employees and meet federal OSHA obligations and responsibilities.

Bureau of Labor Statistics/OSHA Statistics Unit analysts collect, analyze and publish workplace injury, illness and fatality data from Wisconsin employers to identify workplace hazards and problem areas, educate workers and employers about workplace safety issues, and evaluate the effectiveness of interventions.

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

Laboratory Improvement Division

WSLH Proficiency Testing



- Clinical labs – more than 3,000 in U.S. and internationally
- Environmental labs – Wisconsin only
- 800-462-5261

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

24 Hour Emergency Hotline

You can contact the Wisconsin State Laboratory of Hygiene for emergencies 24/7 at **608-263-3280** (our emergency answering service).

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN

State Lab of Hygiene Key Contacts

Jan Klawitter
WSLH Public Affairs Manager
(608) 265-2529
jan.klawitter@slh.wisc.edu

WISCONSIN STATE LABORATORY OF HYGIENE - UNIVERSITY OF WISCONSIN
