

Wyoming's Lab Loop

A Publication of the Wyoming Public Health Laboratory Volume 6 Issue 2 Winter 2008

WYOMING PUBLIC HEALTH LABORATORY CHEMICAL TESTING PROGRAM

The Wyoming Public Health Laboratory Chemical Testing Program (WCTP) provides analytical services to authorized state and local agencies that test for drugs and alcohol in biological samples. WCTP administers the Breath Program for evidential testing within the state to ensure results are forensically and legally supportable.

Many training opportunities are offered too. The program trains law enforcement personnel, which allow them to perform duties as Senior Operators for the Breath Testing Program.

Government affiliated programs such as family service, juvenile probation, adult probation and parole, and drug court agencies are trained in sample collection and results interpretation for chemical testing.

Technical guidance and expert witness services for agencies within the state are also provided by the WPHL Chemical Testing Program.

The laboratory analyzes over 40,000 samples (urine and blood) per year. The staff works very diligently to make sure each sample is handled in a manner, which allows the results to be used in legal proceedings. The forensic toxicologists of the laboratory are called to testify in court proceedings on a routine basis to explain the results and verify their validity.

There is a system of checks and double checks to ensure the correct results are reported for each sample. The chain of custody for each sample is maintained throughout the entire testing process. All samples with positive results are maintained in a secure refrigerated storage area for one year from the date of receipt.

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2008 Wyoming Sentinel Laboratories Site Visits

In the summer of 2008, the Wyoming Sentinel Laboratories were visited by the Preparedness Program Lab Advisor. It was hoped to accomplish many things while visiting the hospital and clinical labs. The following is a recap of the visits made in the state this summer.

As a requirement of the Cooperative Agreement with the Centers for Disease Control and Prevention (CDC), laboratories across the nation may be designated as either Advanced or Basic within the Laboratory Response Network in each state. We began this process back in March of 2008 during the Laboratory Manager Workshop in Saratoga. At that time, 22 laboratory representatives were in attendance at the workshop. Based on the criteria for an Advanced or Basic LRN Lab designation, 20 labs were designated as Advanced, one as Basic, and one was not eligible because microbiology is not performed at their facility. The summer's goal was to reach as many Wyoming's laboratories before the snow began to fall. To date, visits have been made to the majority of the labs with 3 local facilities need visits. After this summer, all laboratories within the state, regardless of whether they were

Continued on Page 6

WPHL Chemical Testing Program (WCTP)

Tests performed on each submitted specimen will vary depending on the type and purpose. A urine sample will normally be analyzed for seven drug classes plus alcohol, whereas a blood sample can be tested for alcohol and nine drug classes. All results produced by the laboratory are legally and forensically supportable in a court of law.

A large part of the WCTP is the Blood Alcohol Program. WCTP accepts properly collected and labeled samples from medical personnel from all over the state. Proper collection impacts the quality of the sample and the supportability of the results in court, so it is important to collect samples correctly. The blood collection kit contains clear instructions to follow. (Detailed collection procedures are contained in this issue of Lab Loop as a pull-out reference for your facility.)

The predominant workload for WCTP is Urine Drug Testing. The samples are screened by enzyme immunoassay technique and any presumptive positive samples are further analyzed.

The confirmation procedure consists of a physical extraction of the drug and analysis on a gas chromatograph/mass spectrometer (GC/MS). All samples must be positive using two separate testing methodologies before being reported as such. Each step of the testing process is reviewed by at least two individuals.

Once testing is completed results are either faxed or mailed to the individual submitter. Normal turnaround times for urine samples are 3 working days for negatives and 5 working days for positives.

Continued on Page 3



The Hitachi 717, an immunoassay analyzer, used for screening samples



GC/MS used for confirmation of positive samples

*Wyoming Public Health Laboratory
2300 Capitol Avenue
Cheyenne, WY 82002
307-777-7431*

<http://wdh.state.wy.us/phsd/lab/index.html>

*Richard Harris, PhD
Laboratory Director*

*Shawna Dereemer
BT Response Lab*

*Tom Johnson
Chemical Testing Lab*

*Jim Walford
Microbiology Lab*

*Please direct comments to:
WPHL at 307-777-7431
Lab Loop Co-Editors*

Gale Stevens and Wanda Manley

WPHL Chemical Testing Program (WCTP)

As with all aspects of the public health laboratory, we are your partners and are here to help! If you need any information regarding the sample testing capabilities, sample requirements, or results interpretation of samples you can contact the Wyoming Chemical Testing Program at 307-777-7868.

DID YOU KNOW?

Alcohol misuse is now the leading risk factor for serious injury in the United States, and the third leading cause of preventable death. It accounts for more than 75,000 deaths annually.

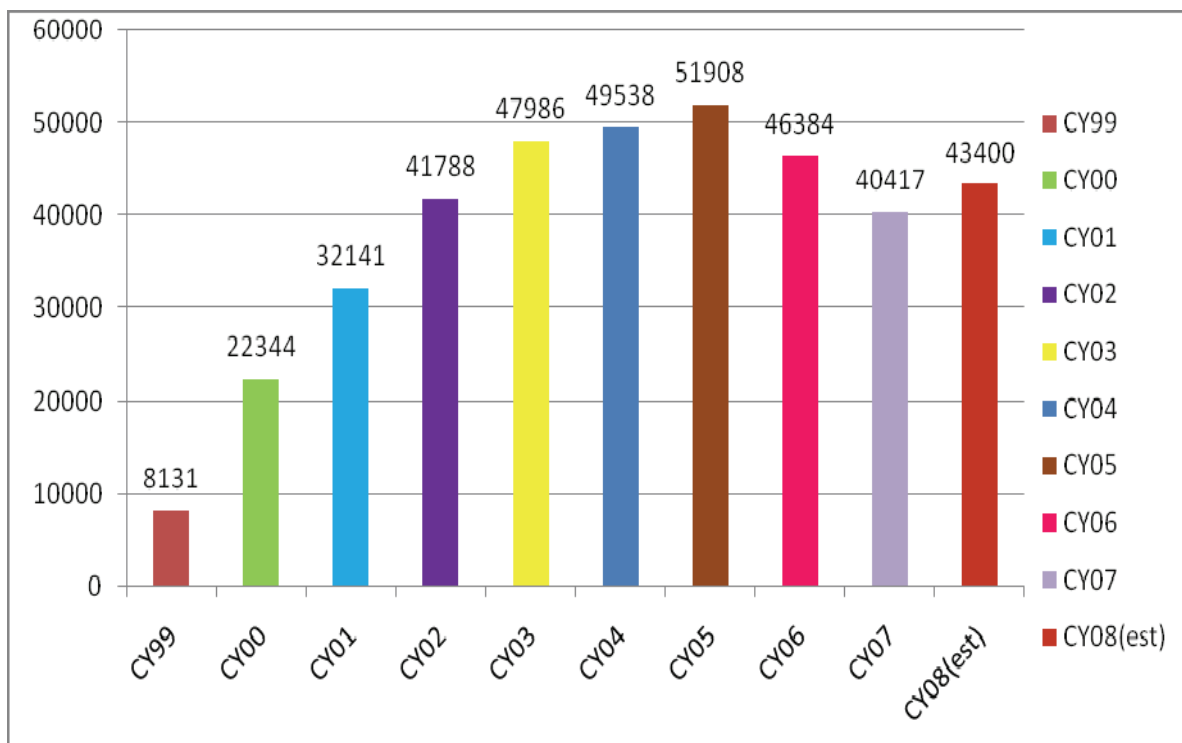
Wyoming Fatal Crashes and Alcohol

| | 2005 | 2006 | 2007 |
|----------------------------------|------|------|------|
| Fatal Crashes | 147 | 169 | 136 |
| Alcohol Involved Fatal Crashes | 50 | 58 | 46 |
| % Alcohol Involved Fatal Crashes | 35% | 34% | 33% |

Wyoming Department of Transportation: 2007 Fatal Traffic Crash Facts



Headspace Gas Chromatograph for EtOH



BLOOD ALCOHOL PROGRAM

Blood is collected by medical personnel from subjects for analysis at the laboratory. Proper collection impacts the quality of the sample and the supportability of the results in court. The kit contains clear instructions for the collector and submitter to follow. The following illustrations show the intact kit and its components.



Intact kit

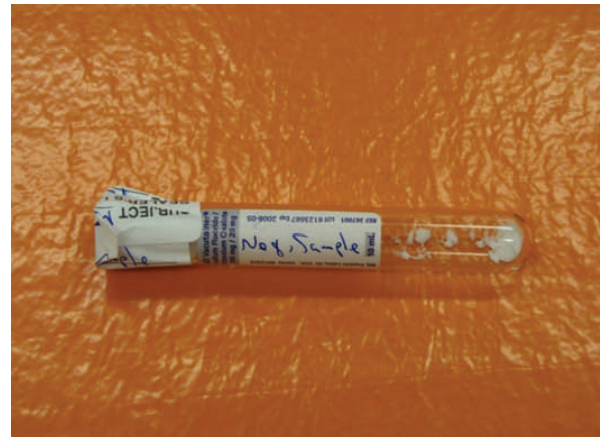


Blood Alcohol kit components

A properly collected sample should be at least $\frac{1}{2}$ full and mixed to prevent clots. The powder in the tube prevents clotting and also contains a preservative. Make sure the tube is mixed by inversion at least ten times. An inadequate sample may adversely affect the results.



Adequate volume of blood



Proper labeling is important

One of the most frequent problems encountered with processing samples is not annotating the subject's name on the tube label. This photo shows a properly labeled tube with a completed seal. For illustration purposes there is no sample in the tube. Place subject's name on tube label and place seals over the top of the tube to cover stopper. Follow the instructions provided to assemble the kit for shipment to the lab.



URINE DRUG TESTING

The urine testing program is the predominant workload for the laboratory. Most samples received are collected in the kit depicted in the photo. Follow the kit directions and remember to label your samples!

**The quality of the result is directly dependent on the quality of the sample.
Your cooperation in the sample collection process is greatly appreciated.**

A TWIST ON SUDOKU (Answers on Page 11)

Try to fill in the missing numbers.

Use the numbers 1 through 9 for the small puzzle and numbers 1 through 36 for the large puzzle to complete the equations. Each number is only used once.

Each row is a math equation. Each column is a math equation.

Remember that multiplication and division are performed before addition and subtraction.



| | | | | | |
|---|---|----|---|-----|----|
| | X | | - | | 33 |
| - | | + | | - | |
| | + | | X | | 33 |
| X | | + | | - | |
| | / | | + | | 11 |
| 1 | | 12 | | -15 | |

| | | | | | | | | | | | |
|----|---|-----|---|-----|---|------|---|-----|---|----|-----|
| | X | | + | | + | | + | | + | | 314 |
| + | | X | | - | | - | | - | | - | |
| | X | | + | | - | | - | | - | | -15 |
| + | | - | | + | | X | | + | | + | |
| | + | | + | | X | | + | | - | | 102 |
| + | | - | | X | | - | | - | | + | |
| | X | | - | | - | | / | | + | | 369 |
| + | | + | | + | | - | | X | | - | |
| | X | | - | | + | | - | | + | | 969 |
| + | | - | | - | | - | | / | | + | |
| | + | | - | | + | | - | | X | | -35 |
| 98 | | 312 | | 273 | | -119 | | -17 | | 30 | |

Flu Surveillance by WPHL

The Wyoming Public Health Laboratory and the infectious disease epidemiology program coordinate seasonal surveillance for influenza to determine the rates of influenza like illness (ILI) in Wyoming communities. Together they work to identify the type of influenza circulating during the season and submit influenza strains to the

CDC for determining the serotype of influenza. The ability of influenza virus to have genetic drift (a minor variation in the genotype that affects the antigenic character of the virus) requires the seasonal vaccine to be reconfigured yearly. The development of a nationwide system for monitoring influenza viruses allows epidemiologists at the state and national level to track the circulating serotypes each year. It also provides a system for detecting new strains of influenza. The potential for a genetic shift (a major variation in the influenza genotype) is of concern as we see in the H5N1 strain. Shifts in the virus's genome have the potential for causing major increases in the morbidity and mortality during the influenza season and have the potential to cause a pandemic.

The Wyoming influenza program has coordinated with clinics throughout the state to become sentinel sites. These sites collect specimens from patients with ILI and submit them to the Wyoming Public Health Laboratory for viral typing and culture. Viral transport swabs are obtained and transported on ice to WPHL where real time PCR is utilized to determine whether the samples contain either influenza A or B. If influenza A is detected, it is further subtyped as AH1, AH3, AH5. The samples are also processed and cultured in RHMK cells. Cell cultures that demonstrate CPE (cytopathic effect) are typed and sent to the CDC. Each sample submitted also has clinical information submitted to the epidemiology program for correlating with the lab data. Early seasonal positive rapid flu tests can either be false positive due to the specificity of the test or an early indicator of the beginning of the season. The epidemiology service is also interested in collecting samples for culture and typing from these early positive rapid test patients to obtain information on the type of early strains appearing in Wyoming. More information on influenza and contact information can be found at <http://wdh.state.wy.us/phsd/epid/flu.html>

Reportable Diseases and Isolate Submission

The WDH prints a list of diseases and conditions that are required by law to be reported to WDH by all healthcare providers **AND** laboratories. This list includes select diseases for which a bacterial isolate must be sent to the WPHL. These bacterial isolates are confirmed and analyzed by pulsed field gel electrophoresis (PFGE). Using the results of PFGE analysis, epidemiologists are able to determine if patients with a matched PFGE pattern and a common exposure may be related in terms of a cluster or an outbreak. WDH epidemiologists have been able to link Wyoming patients to large US outbreaks (e.g. peanut butter salmonellosis) and to Wyoming-specific outbreaks. Laboratorians who report patients with a reportable disease and submit an isolate for analysis are helping to ensure that clusters and outbreaks are investigated and controlled in a timely manner. The reportable disease list can be found on the WDH website at <http://wdh.state.wy.us/phsd/epiid/reporting.html> and is also included in this issue.

DID YOU KNOW?

Animal bites are a reportable condition in Wyoming, and should be reported to WDH within 24 hours by fax or phone.

2008 Wyoming Sentinel Laboratories Site Visits

able to attend the workshop in Saratoga or not, have achieved their designation within Wyoming's Laboratory Response Network!

The visits allowed a glimpse into the labs and how they are dealing with issues that affect many labs nationally. Most labs in the state are dealing with short staffing issues. Whether it is the baby boomer age anticipating retirement, or just the inability to draw new hires to our rural facilities, the labs exhibited many creative "Grow Your Own Tech" practices. In addition to trying to recruit more staff, some facilities look to increasing automation in their labs in order to address staffing shortages in the future.

Many of our labs are significantly short on physical operating space. It is not something easily addressed, but for the most part the labs deal with it creatively. In the face of these limitations, good biosafety practices and reasonable workflow are maintained. Surprisingly, there are quite a few labs that are either in the process of remodeling or have some form of remodeling slated for the near future, which will go a long way to address this issue.

Another purpose of the site visit was to practice Sentinel Laboratory Protocol within the Laboratory Response Network. A "Workshop In-A-Bag" exercise was used to observe the laboratory's ability to refer suspect select agents and to what extent sentinel lab protocol was utilized in their lab. Biosafety issues became the main discussion during the exercise with the format of play providing a platform to analyze existing lab practices with an eye to improving them.

Summer 2008 Sentinel Laboratory Site Visits were felt to be very successful. So far, 100 technologists have been reached during the site visits, with a few more to come as the last few facilities are visited this month.

DID YOU KNOW?

There were an estimated 14,600 dog bites (severe enough to puncture the skin) to Wyoming adults in 2007.

Approximately 150 of those incidents were reported to WDH, and of that group, approximately 30% received PEP (post-exposure prophylaxis).

| ADVANCED LRN LABORATORY | BASIC LRN LABORATORY | NON-DESIGNATED LABORATORY |
|--|--|--|
| REQUIREMENTS: <ul style="list-style-type: none"> ⇒ CLIA Certified ⇒ Successfully inspected and CMS Approved ⇒ Microbiology performed to genus and species ID/AST testing ⇒ SOPs in place addressing Select Agent Program and the Rule-Out Refer process ⇒ Certified BSL II | REQUIREMENTS: <ul style="list-style-type: none"> ⇒ CLIA Certified ⇒ Successfully inspected and CMS Approved ⇒ SOPs in place addressing REFERRAL of specimens to an Advanced Sentinel Laboratory ⇒ Limited Microbiology performed, such as gram staining and culture inoculation | Laboratories that do not fit either category: <ul style="list-style-type: none"> ⇒ Usually a collection site only ⇒ No Microbiology performed ⇒ Still part of the Wyoming Laboratory Network with important functions of specimen collection and the ability to practice good biosafety practices |
| TOTAL ADVANCED LABS 32 | TOTAL BASIC LABS 1 | TOTAL NON-DESIGNATED LABS 2 |



Commit to your health.

Wyoming Department of Health Reportable Diseases and Conditions

A report is required by law from both the attending healthcare provider/hospital and the laboratory performing diagnostic testing.

Wyoming laboratories are responsible for reporting results when a reference laboratory is used.

Mail reports to: Wyoming Department of Health,

6101 Yellowstone Road Suite 510, Cheyenne, WY 82002 OR

Fax reports to our secure fax machine at (307) 777-5573 or phone (307) 777-3593 as indicated.

③ DISEASES IN RED: Immediate Notification at 1-888-996-9104

③ Diseases in Black: Reportable within 24 hours of diagnosis by fax or telephone

Diseases in Green: Reportable within 7 days of diagnosis by fax, phone, or mail

LAB: In addition to reporting, submit an isolate in accordance with IATA Dangerous Goods Regulations to:

State Public Health Laboratory, Hathaway Building-Fifth Floor, 2300 Capitol Avenue, Cheyenne, WY 82002 (307) 777-7431

| | |
|---|--|
| ③ Amoebiasis (<i>Entamoeba histolytica</i>) | ③ Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA) Related Cases, Clusters, and Outbreaks ONLY |
| ③ Anaplasma/Ehrlichiosis | ③ Mumps |
| ③ ANTHRAX (<i>Bacillus anthracis</i>) | LAB ③ Pertussis (<i>Bordetella pertussis</i>) |
| ③ Bartonellosis (<i>Bartonella</i> sp) | ③ PLAGUE (<i>Yersinia pestis</i>) |
| ③ BOTULISM (<i>Clostridium botulinum</i>) | ③ Poliomyelitis/Poliovirus Infection |
| LAB ③ Brucellosis (<i>Brucella</i> sp) | ③ Powassan Virus (neuro- and non-neuro invasive) |
| ③ California Serogroup Virus (neuro- and non-neuro invasive) | ③ Psittacosis (<i>Chlamydophila psittaci</i>) |
| LAB ③ Campylobacteriosis (<i>Campylobacter</i> sp) | ③ Q-Fever (<i>Coxiella burnetii</i>) |
| Cancer | ③ Rabies (human and animal) |
| ③ Chancroid (<i>Haemophilus ducreyi</i>) | ③ Relapsing Fever (<i>Borrelia</i> sp) |
| ③ Chlamydia trachomatis Infection | ③ Reyes Syndrome |
| LAB ③ Cholera (<i>Vibrio cholerae</i>) | ③ Rocky Mountain Spotted Fever (<i>Rickettsia rickettsii</i>) |
| ③ Coccidioidomycosis (<i>Coccidioides immitis</i>) | ③ Rubella |
| ③ Colorado Tick Fever | LAB ③ Salmonellosis (<i>Salmonella</i> sp) |
| ③ Creutzfeldt-Jacob Disease (including classic CJD and variant CJD) | ③ SEVERE ACUTE RESPIRATORY SYNDROME (SARS) |
| ③ Cryptosporidiosis (<i>Cryptosporidium parvum</i>) | ③ St. Louis Encephalitis Virus (neuro- and non-neuro invasive) |
| ③ Cyclosporiasis (<i>Cyclospora cayetanensis</i>) | LAB ③ Shigellosis (<i>Shigella</i> sp) |
| ③ Dengue Fever | ③ SMALLPOX |
| ③ DIPHTHERIA (<i>Corynebacterium diphtheriae</i>) | ③ Streptococcal Disease, sterile site only |
| ③ Eastern Equine Encephalitis Virus (neuro- and non-neuro invasive) | LAB ③ <i>Streptococcus pneumoniae</i> , drug resistant, sterile site |
| ③ Ehrlichiosis/Anaplasma | ③ Syphilis (<i>Treponema pallidum</i>) |
| ③ Encephalitis | ③ Tetanus (<i>Clostridium tetani</i>) |
| LAB ③ <i>Escherichia coli</i> , shiga toxin producing (0157:H7, non-0157:H7, or untyped) | ③ Toxic-Shock Syndrome (Streptococcal, Staphylococcal) |
| ③ Giardiasis (<i>Giardia lamblia</i>) | ③ Trichinellosis (<i>Trichinella</i> sp) |
| LAB ③ Glanders (<i>Burkholderia mallei</i>) | LAB ③ Tuberculosis (<i>Mycobacterium tuberculosis</i> complex) |
| ③ Gonorrhea (<i>Neisseria gonorrhoeae</i>) | ③ TULAREMIA (<i>Francisella tularensis</i>) |
| LAB ③ <i>Haemophilus influenzae</i> (sterile site) | LAB ③ Typhoid Fever (<i>Salmonella typhi</i>) |
| ③ Hantaviral Disease | ③ Typhus (<i>Rickettsia</i> sp) |
| ③ HEMORRHAGIC FEVER VIRUSES | LAB ③ Vancomycin-Intermediate <i>Staphylococcus aureus</i> (VISA) |
| ③ Hemolytic Uremic Syndrome | LAB ③ Vancomycin-Resistant <i>Staphylococcus aureus</i> (VRSA) |
| ③ Hepatitis A, B, D, E | LAB ③ Vancomycin-Resistant Enterococcus (VRE) |
| Hepatitis C | Varicella (chickenpox only) |
| HIV/AIDS (Positive/reactive detection tests, All CD4's, and All viral loads) | LAB ③ Vibrio sp (including non-cholera) |
| *REPORT HIV/AIDS to: | ③ West Nile Virus (neuro- and non-neuro invasive) |
| FAX (307) 777-6144 Or Phone (307) 777-7719 | ③ Western Equine Encephalitis Virus (neuro- and non-neuro invasive) |
| ③ Influenza (lab confirmed) | ③ Yellow Fever |
| ③ Influenza-Associated Deaths | LAB ③ Yersiniosis (<i>Y. enterocolitica</i> , <i>Y. pseudotuberculosis</i>) |
| ③ Kawasaki Syndrome | |
| ③ Legionellosis (<i>Legionella</i> sp) | Other Reportable Conditions |
| ③ Leprosy (<i>Mycobacterium leprae</i>) | ③ Animal Bites |
| ③ Leptospirosis (<i>Leptospira interrogans</i>) | ③ Exposures Requiring Rabies Prophylaxis |
| LAB ③ Listeriosis (<i>Listeria monocytogenes</i>) | Blood Lead (All levels) |
| ③ Lyme Disease (<i>Borrelia burgdorferi</i>) | ③ Clusters/Outbreaks (GI, respiratory, other illness) |
| LAB ③ Malaria (<i>Plasmodium</i> sp) | ③ Methemoglobinemia/Nitrate Poisoning |
| ③ Measles | ③ SUSPECTED BIOLOGICAL, CHEMICAL, OR RADIOACTIVE INCIDENT |
| LAB ③ Meloidiosis (<i>Burkholderia pseudomallei</i>) | ③ TOXIN ASSOCIATED ILLNESS |
| ③ Meningitis (all types) | ③ UNEXPLAINED DEATH |
| LAB ③ Meningococcal Disease (<i>Neisseria meningitidis</i>) | ③ UNUSUAL ILLNESS OF PUBLIC HEALTH IMPORTANCE |



Wyoming Department of Health - Confidential Disease Report

A report is required by state law from **both** the attending health care provider/hospital **and** the laboratory performing diagnostic testing. Information will be held in confidence and will be used for public health epidemiological purposes only.

Patient Information

| | | | | | | | |
|----------------------------------|--------------------------------|--------------------------------|---|---|----------------------------------|----------------------------|-------|
| Last Name: | _____ | First Name: | _____ | Gender | <input type="checkbox"/> M | <input type="checkbox"/> F | |
| Address: | _____ | City: | _____ | State: | _____ | Zip: | _____ |
| Phone: (Home) | _____ | Phone: (Work) | _____ | Date of Birth: | _____ | Age: | _____ |
| Occupation: | _____ | Hispanic: | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | | |
| <input type="checkbox"/> White | <input type="checkbox"/> Black | <input type="checkbox"/> Asian | <input type="checkbox"/> American Indian/Alaskan Native | <input type="checkbox"/> Pacific Islander | | | |
| <input type="checkbox"/> Unknown | <input type="checkbox"/> Other | | | | | | |

Provider and Laboratory Information

| | | | |
|--|--|--|---|
| Disease: | _____ | Laboratory Findings: | _____ |
| Specimen Source: | _____ | Onset Date: | _____ |
| | | Specimen Collection Date: | _____ |
| | | Result Date: | _____ |
| Laboratory Name: | _____ | | |
| Physician: | _____ | Phone: | _____ |
| | | Physician City: | _____ |
| Physician Institution/Clinic: | _____ | | |
| Person Reporting: | _____ | Phone: | _____ |
| Was Patient Hospitalized? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| Where? | _____ | | |
| If Yes, Admission Date: | _____ | Discharge Date: | _____ |
| Check All That Apply: | <input type="checkbox"/> Healthcare Worker | <input type="checkbox"/> Food Service Worker | <input type="checkbox"/> Daycare Worker/Attendee |
| Name of Facility: | _____ | | |
| Treatment: | _____ | Pregnant: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown |
| If this is a report of an STD, were any partners provided treatment? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Number: _____ |
| Other Comments: | _____ | | |

Send Reports To:

Epidemiology Section
Wyoming Department of Health
6101 Yellowstone Road, Suite 510
Cheyenne, WY 82002
Secure Fax: (307) 777-5573 / Phone: (307) 777-3593
Epidemiology Section Toll-Free, 24 Hour Hotline: 1-888-996-9104
Thank You for Your Cooperation With Disease Reporting!!!

Summer Findings in the Wyoming Public Health Bacteriology Laboratory

John Harrison, our resident microbiologist, is always identifying bugs in his laboratory. For the most part, he hits the routine organisms, including his share of MRSA, *E. coli* 0157:H7, *Salmonella*, etc; what really becomes interesting is when he uses his 16s rRNA Gene Sequencing for bacterial identification and comes up with some whoppers! Here are the summer's top entrees that have made it into his "*Book of Weird Bugs*", which he has put together over the years as a quick reference to strange organisms he has encountered:

1. *Finegoldia magna* – isolated from a wound site.
 - An anaerobic, opportunistic, gram positive coccus pathogen that normally colonizes human skin and mucous membranes. It has been reported to have caused many infectious diseases.
 - Formerly *Peptostreptococcus magnus*, this bug likes to mingle with other anaerobic and facultative anaerobic bacteria in cutaneous, respiratory, oral, or female pelvic infections.
 - Also isolated from soft tissue, bone and joints, and diabetic foot infections.

Bailey & Scotts 11th Ed Oxfordjournals.org

2. The Genus *Lysobacter* – isolated from a wound site.
 - A gram negative, slender, motile, rod that swarms on solid media.
 - Colonies can produce copious amounts of slime.
 - Many strains are of ecological and biotechnological interest as producers of antibiotics.

Springerlink.com

3. *Williamsia serindens* – isolated from a blood culture
 - A gram positive bacillus that forms smooth, orange to orange-red pigmented colonies and are usually found in soil.
 - *W. serindens* has been classified as a novel species of the genus *Williamsia* based on exhibited phylogenetic and phenotypic evidence.
 - John is identifying "Novel" species of bacteria that YOU are growing in your laboratories!

International Journal of Systematic and Evolutionary Microbiology

4. *Mycobacterium goodii* – isolated from a wound site, a fast growing non-tuberculous mycobacterium
 - These organisms are ubiquitous in nature and can be found in soil, dust, rocks, bio-aerosols, and water
 - Successful in forming biofilms
 - Infections can be traced to indwelling catheters, invasive procedures such as LASIK surgery, and use of contaminated instruments
 - Can cause lung disease in individuals with predisposing factors, e.g. COPD, Fibrosis, malignancy, just to mention a few.

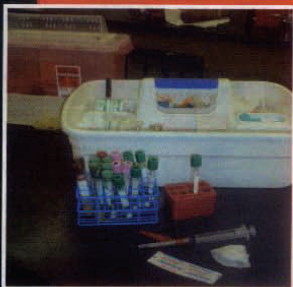
Emerging Infections invited article: *Infections Due to Rapidly Growing Mycobacteria*

As you can see, some of these bugs leave us all scratching our heads. You do not have to wait for a state reportable organism to send in an isolate. (See the reportable disease article and pull-out in this issue.) Just remember if you are having difficulty identifying an organism, John's 16s rRNA sequencer is a very reliable instrument for identification of those pesky organisms with a relatively rapid turn-around time. And who knows – maybe one of your bugs will end up in John's "*Book of Weird Bugs*".

Casper College Offers a Medical Laboratory Technician Program



Medical Laboratory Technician Program



Director:

Audrey E. Hentzen, PhD, MT (ASCP)
Casper College
Life Science Division
125 College Drive
Casper, WY 82601
(307) 268-2632
ahentzen@caspercollege.edu

As we know, the University of Wyoming closed the state's Medical Technology program many years ago. As the saying goes, "Don't it always seem to go - you don't know what you got till it's gone", and the loss of our medical technology program is proof of that! When our state's program closed we lost a valuable pool of future employees for our labs! For that reason, I would like to take this time to promote Casper College's Medical Laboratory Technician Program.

Casper College's Medical Technician Program is a 2 year course of study that awards an Associate of Science Degree in Medical Laboratory Technician to successful candidates. The course of study is completed through distance education. Upon completion of this course of study, the candidate becomes eligible for the certification examination as a professional Medical Laboratory Technician.

Audrey Hentzen, PhD, MT (ASCP) is the director of this program. According to Dr. Hentzen, the course of study has become much more accessible through the distance learning platform. It is an intense course of study, but is laid out in such a way that the candidate can take it as far as they want, eventually including completion of a Medical Technologist Degree through on the job training.

Information from Casper College's MLT Program Brochure:

The program is fundamental science and general educational coursework. The successful candidate may exit the program at the end of the first semester as a Phlebotomist. They are then eligible to sit for the phlebotomy certification examination.

If the candidate chooses to complete the MLT program they continue on for 3 more semesters. These 3 semesters consist of additional science and clinical courses with one semester being a clinical practicum off campus at a clinical affiliate site. Upon completion, the candidate would then be eligible to sit for the certification examinations offered by either ASCP or NCA.

The MLT program is always open to add new Clinical Affiliate Sites! Many times, if you train a student, that student will stay in your lab and continue to work. Be careful though! Attracting students to your facility could result in cultivation of future employees! It could also offer the student a platform to continue on to the Medical Technologist status by completing on the job training; and over a period of time would make them eligible to sit for their MT certification. This is classic "Grow Your Own Tech" strategy, which could work toward alleviating those staffing shortages we all face.

Being a Clinical Affiliate Site is definitely a commitment. I urge you to contact Dr. Hentzen to learn more about her program. Consider promoting her program in your high schools. She has a wonderful brochure that explains the program in detail. All you would have to do is get it to your high school's career development centers.

Please contact Dr. Hentzen, whether it is to obtain some brochures to promote the program or to learn what it would take to become a Clinical Affiliate Site. It is in our power to staff our labs with quality technicians and technologists – we just need to make the commitment to quality laboratory education, which is exactly what Dr. Hentzen offers through the Medical Laboratory Technician Program at Casper College.

Wyoming Alert and Response Network (WARN)

As many of you may remember, the summer of 2008 was a time for testing our state's capability to respond to emergency – specifically pandemic influenza. Wyoming Public Health Emergency Preparedness Program hosted a state wide exercise focusing on this scenario. Many of our hospitals participated in the exercise and at different levels included their ancillary services in the exercise. Some of the labs were in the thick of the exercise, with other labs not participating much at all. One thing for sure, the exercise heightened awareness of our state's capabilities to disseminate emergency information to the players in an emergency situation. One method of dissemination is the Wyoming Alert and Response Network (WARN).

Wyoming Alert and Response Network (WARN)

The Public Health and Terrorism Preparedness Program and Hospital Preparedness Program jointly sponsored a project to create a single portal for emergency information dissemination and emergency response coordination for state, county, local, and tribal entities. To do this, WDH purchased computer systems in support of a three public health and emergency preparedness initiatives, with 'next step' plans to identify and train local coordinators, and build inter-agency and local partnerships to allow enhanced statewide emergency alerting capabilities and health resource coordination. Specifically, WDH implemented a single information technology and software solution that will support:

WYHAN - Health Alert Network

The State of Wyoming Department of Health is required to establish and build a Health Alert Network (HAN) that can notify public and private health officials and emergency responders during a health care crisis. This tool will be used by Wyoming public health officials for alert dissemination and communication utilizing email, voice alert, pager notification and mass fax messaging, via a secure Web-based portal. WYHAN will also serve as an information repository and data-sharing portal.

WYVOL – Wyoming Volunteer Registry

WYVOL will provide state and local volunteer coordinators with a tool that will capture and organize statistics about those who wish to volunteer their services during a medical crisis. This registry will capture professional credentials, geographical preferences, skills, certifications, contact and other important information.

WYHCT - Hospital Capacity Tracking System

WYHCT is a hospital capacity and tracking system that will allow for web-based updating of bed and other facility capacity statistics for the critical care hospital facilities throughout Wyoming. The WYHCT program will require hospitals to update their capacity data on an as needed basis. This data will then be analyzed and submitted to HRSA, WDH and other interested parties.

Amber Alerts

To continue the Public Health and Terrorism Preparedness Program's commitment to interagency cooperation, WARN provides support for the Attorney General, Division of Criminal Investigation Amber Alert notification service. The AMBER Plan is a cooperative effort to activate an urgent bulletin in the most serious child-abduction cases.

Wyoming has had 5 activations since its inception in January of 2004, resulting in two safe recoveries as a direct result of the activation.

As an FYI, all laboratory managers are listed as contacts within the WARN/HAN system. Notification comes to laboratories through fax machine numbers that have been supplied to the program through the Laboratory Capacity Grant Program.

If you have any questions or concerns regarding WARN, please contact Paul Card, Health Communications Program Coordinator for the Public Health Emergency Preparedness Program at:

paul.card@health.wyo.gov








ANSWERS FOR BRAIN TEASER

| | | | | | |
|---|---|----|---|-----|----|
| 7 | X | 5 | - | 2 | 33 |
| - | | + | | - | |
| 1 | + | 4 | X | 8 | 33 |
| X | | + | | - | |
| 6 | / | 3 | + | 9 | 11 |
| 1 | | 12 | | -15 | |

| | | | | | | | | | | | |
|----|---|-----|---|-----|---|------|---|-----|---|----|-----|
| 6 | X | 35 | + | 20 | + | 23 | + | 28 | + | 33 | 314 |
| + | | X | | - | | - | | - | | - | |
| 4 | X | 10 | + | 19 | - | 13 | - | 36 | - | 25 | -15 |
| + | | - | | + | | X | | + | | + | |
| 27 | + | 8 | + | 9 | X | 7 | + | 5 | - | 1 | 102 |
| + | | - | | X | | - | | - | | + | |
| 15 | X | 26 | - | 31 | - | 12 | / | 2 | + | 16 | 369 |
| + | | + | | + | | - | | X | | - | |
| 32 | X | 30 | - | 11 | + | 17 | - | 21 | + | 24 | 969 |
| + | | - | | - | | - | | / | | + | |
| 14 | + | 34 | - | 18 | + | 22 | - | 3 | X | 29 | -35 |
| 98 | | 312 | | 273 | | -119 | | -17 | | 30 | |

Wyoming's Lab Loop

Information Available in this Issue:

-  *WPHL Chemical Testing Program*
-  *Site Visits to Sentinel Labs*
-  *Reportable Diseases*
-  *Weird Bugs from the Summer*
-  *Flu Surveillance*
-  *MLT Program at Casper College*
-  *Wyoming Alert & Response Network*



What's Coming Up?

| Event | Location | Date |
|-----------------------------|---|------------|
| Clinical Micro Wet Workshop | Casper, WY | March 9-13 |
| CLCC Meeting | Radisson Inn at I-225 & Parker Road in Denver | May 13-15 |



Check out the BT Resources page at:
<http://wdh.state.wy.us/phsd/lab/btintro.html>

WY Public Health Laboratory
5th Floor Hathaway Bldg.
2300 Capitol Avenue
Cheyenne, Wyoming 82002