

IDAHO BUREAU OF LABORATORIES CLINICAL FORUM

2220 Old Penitentiary Road, Boise, ID 83712, 208-334-2235
<http://www.statelab.idaho.gov> or statelab@dhw.idaho.gov



Meet Dr. Christopher Ball, IBL'S New Bureau Chief

In our last issue, we announced Dr. Christopher Ball's acceptance of the Idaho Bureau of Laboratories' Chief position. In this issue, we thought you might enjoy a brief introduction to him with an interview by *Clinical Forum*.

Dr. Ball received a BS in Biology and a BA in History from Boise State University. He worked as an Environmental Microbiologist and Lab Supervisor for six years prior to working on his Ph.D. He received his Ph.D. in Microbiology, Molecular Biology, and Biochemistry from the University of Idaho, and was recently certified as a High-complexity Clinical Laboratory Director by the American Board of Bioanalysis with a specialty in Molecular Diagnostics. Dr. Ball has worked for the Idaho Bureau of Laboratories (IBL) since 2004 as a Principal Microbiologist specializing in molecular epidemiology and new method development. In May, 2009 he was appointed Acting Bureau Chief following the retirement of Dr. Hudson. In July, 2010 he accepted the permanent Bureau Chief position. He has been married for 17 years to Christine Starr, and they have an 11 year old son named Drae Starr-Ball. Christine works as a prosecuting attorney for the City of Boise. They enjoy entertaining family and friends, boating, skiing, and Boise State Bronco Football. Dr. Ball shared his broad perspective and knowledge of IBL in the following interview with *Clinical Forum*.



Clinical Forum: Can you expound on IBL's role and vision?

Dr. Ball: *The role of IBL is clearly defined in administrative rule; we provide laboratory services to support the programs of the Department, including those delegated to public health districts, and those of other state agencies. The vision stems from how we, as a group of scientists, administrators, and support staff, collectively define what is meant by laboratory services. The most obvious lab service is testing, but IBL offers much more than testing to our public health partners. In a 2002 MMWR recommendations and reports publication, 11 core public health laboratory (PHL) functions and capacities¹ were identified that more fully articulate the breadth of services expected of a PHL.*

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<http://www.getreadyforflu.org>

Dr. Ball (continued): *I'm happy to say that IBL has an active role in all 11 of those service areas. For the sake of conversational ease, however, I usually summarize these activities into 4 service areas: testing, inspection, training, and outreach. Examples of services in each of these areas are tabulated below.*

Testing	Inspection	Training	Outreach
<ul style="list-style-type: none"> • Clinical diagnostic and reference • Biological or chemical incident response • Acute or chronic environmental contaminants 	<ul style="list-style-type: none"> • Air quality monitoring stations • Clinical and environmental laboratories • Mammography and X-ray devices 	<ul style="list-style-type: none"> • 30 telelectures per year (on average) • Idaho LRN PT exercises • Intra-laboratory workforce development • Onsite LRN workshops 	<ul style="list-style-type: none"> • Method evaluation and guidance • Peer reviewed publications • Service Learning & internships • Presentations at state, regional, and national meetings

By using this framework as a model we are developing a vision where IBL excels in all core functions and capacities using the most innovative and efficient means possible.

Clinical Forum: Please tell us about IBL's recent accomplishments and future opportunities.

Dr. Ball: *In the last 18 months we've hired several new people, introduced organizational restructuring, and responded to the influenza pandemic. In the midst of all this change we were able to update our fee rules, participate in several national studies, bring on new analytical methods, and improve bureau wide safety and security training.*

There are several opportunities for growth in the upcoming months so stay tuned to future issues of Clinical Forum for updates.

Clinical Forum: What are aspects of your position that you truly enjoy?

Dr. Ball: *There aren't very many aspects of my position that I don't enjoy! Some of my favorite aspects include working with an exceptionally talented management team; expanding the public health research mission of the lab; and helping to define a unified service mission among all five sections at IBL.*

Clinical Forum: Is there anything else you would like to add?

Dr. Ball: *When I have conversations with other lab directors, and state and federal health officials I'm consistently astounded at how IBL, in collaboration with our public health partners, is on the cutting edge of public health lab practice.*

Idaho Invited to FERN Training

IBL's Rachel Ketterling was invited to participate as a trainer in the Food and Drug Administration (FDA) Food Emergency Response Laboratory Network (FERN) training held in Durham, New Hampshire in August. FERN is coordinated by both HHS/FDA and USDA/FSIS and integrates the nation's food-testing laboratories at the local, state, and federal levels into a network that is able to respond to emergencies involving biological, chemical, or radiological contamination of food. FERN plays a number of critical roles related to food security and food defense. These include:

- providing a national surveillance program that offers early means of detecting threat agents in the American food supply;
- preparing the nation's laboratories to be able to respond to food-related emergencies;
- offering significant surge capacity that strengthens the nation's response towards widespread complex emergencies, intentional or inadvertent, related to agents in food; and
- enhancing the ability of the country to restore confidence in the food supply following a threat or an actual emergency targeting the nation's food supply.

At IBL, Rachel provides training in rapid molecular methods for detection of agents of bioterrorism and evaluates testing platforms for food and environmental samples under the direction and guidance of the FERN. In New Hampshire, Rachel acquired first-hand experience in planning a rather involved training that will be very useful for in-house trainings at IBL, as well as larger trainings such as the FERN training. "A huge

¹ Disease prevention, control, and surveillance; integrated data management; reference and specialized testing; environmental health and protection; food safety; laboratory improvement and regulation; policy development; emergency response; public health-related research; training and education; and partnerships and communication. From: *MMWR* 2002; 51(RR-14): 1-8.

FERN Training (continued)

part of successful training is knowing what works and what doesn't, and usually we find out what doesn't the hard way. So, it's incredibly helpful to bypass the experimentation level and go straight to a source of tried-and-true knowledge", Rachel explained. In addition to set-up and preparation of the laboratory and materials for 18 students, Rachel was able to learn about future FERN projects, methods, and program direction that have potential impact on IBL's FERN/LRN planning and focus.

Involvement of IBL personnel in activities such as the FERN New Hampshire training results in the expansion of IBL capacity, provides needed professional development, increases institutional knowledge, and provides higher quality services when responding to future foodborne outbreaks. "This excellent opportunity has allowed me to obtain precious training knowledge and experience, helped provide new insight for some future work at IBL, and, hopefully, laid a bit of groundwork for developing beneficial relationships with other entities," Rachel summarized. Rachel is pictured with other trainers and trainees from the New Hampshire FERN training in the photograph below.

Rachel Ketterling (far left) and FERN group



Highlights from the Idaho LRN Proficiency Survey

We are excited at the launch of our latest innovation with the Laboratory Preparedness Survey #2-2010: a new web-based reporting system! Web-based reporting will facilitate participant lab reporting as well as accurate and timely data collection for individual lab and summary reports.

Idaho's Sentinel Laboratory Preparedness Survey is intended to test the Sentinel Lab's ability to thoroughly follow the protocols outlined for the rule-out or refer component of select agent identification. Sentinel Lab Guidelines can be found on IBL's website: www.statelab.idaho.gov. Designed as a learning tool, these surveys provide insight into opportunities for future preparedness training and it is our hope that they are useful opportunities to assess and/or improve your laboratory preparedness.

The Laboratory Response Network (LRN) in Idaho represents a wide array of microbiological experience. Aggregate results of Survey #1-2010 are summarized on page 5. To encourage participation in Idaho's Sentinel Laboratory Preparedness Survey, we offer these surveys *free of charge*. It is our goal to improve preparedness throughout Idaho.

Daylight saving time ENDS Sunday, November 7, 2010.

Is your emergency preparedness stockpile up to date?



When it's time to change your clocks because of daylight saving time, remember to check your preparedness kit to make sure your emergency stockpile isn't missing any items and that the food hasn't expired. APHA's Get Ready: Set Your Clocks, Check Your Stocks campaign is reminding people to refresh their emergency supplies before a disaster occurs.

If you haven't created a stockpile yet, now is the time to create one! (And as always, don't forget to check the batteries in your smoke alarms.)

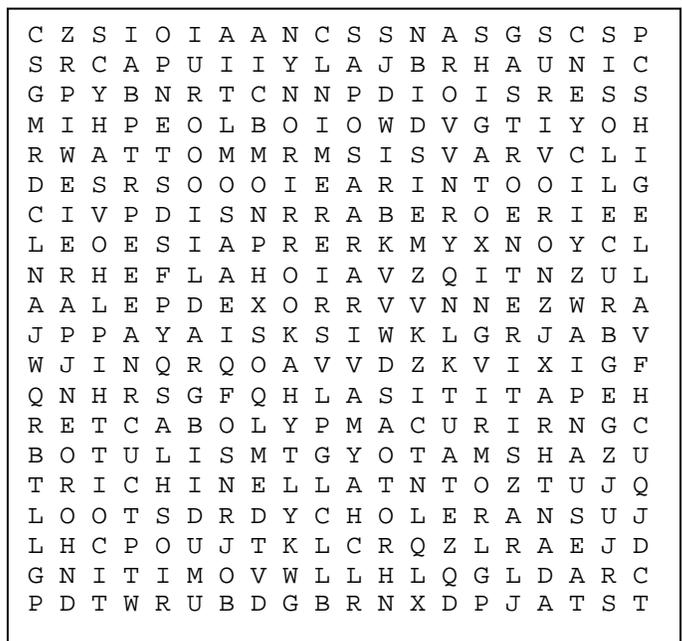
This information is good year-round: You don't have to wait for the clock change to update your stockpile. So think about having these materials at your next health fair or community meeting!

Check out APHA's FREE materials and tips you can share! <http://www.getreadyforflu.org/clocksstocks/> Select individual resources below, or download them all in one [PDF toolkit](#).

- Stockpiling fact sheet (PDF) [English](#) or [Spanish](#)
- Stockpiling checklist (PDF) [English](#) or [Spanish](#)
- **NEW!** Water stockpiling fact sheet (PDF) [English](#) or [Spanish](#)
- Budget stockpiling fact sheet (PDF) [English](#) or [Spanish](#)
- Pets stockpiling fact sheet (PDF) [English](#) or [Spanish](#)
- Cold & flu supplies fact sheet (PDF) [English](#) or [Spanish](#)
- Grocery shopping list (PDF) [Grocery list](#)
- Stockpiling recipes (PDF) [Stockpile recipes](#)

Foodborne Illness Find

(answers on last page)



- ABDOMINAL PAIN
- AEROMONAS
- ANTHRAX
- BOTULISM
- BRUCELLOSIS
- CAMPYLOBACTER
- CHOLERA
- CRYPTOSPORIDIUM
- CYCLOSPORA
- DIARRHEA
- EHEC
- GASTROENTERITIS
- GIARDIA
- HEPATITIS A
- LISTERIA
- NAUSEA
- NOROVIRUS
- OUTBREAK
- PLESIOMONAS
- SALMONELLA
- SHIGA TOXIN
- SHIGELLA
- STOOL
- TRICHINELLA
- TYPHOID FEVER
- VIBRIO
- VOMITING
- YERSINIA



Laboratory Preparedness Survey #1a-2010 SUMMARY

Question	Intended Result	Results	Participants	
			No.	%
Please use the Organism List to choose the identification of Specimen 1a-2010 isolate	<i>Brucella abortus</i> <i>Brucella</i> sp, not otherwise speciated Gram negative coccobacillus, suspicious of <i>Brucella</i> , unable to rule out or identify Gram negative coccobacillus	<i>Brucella abortus</i>	0	0.0
		<i>Brucella melitensis</i>	2	8.3
		<i>Brucella</i> sp, not otherwise speciated	4	16.7
		Gram negative coccobacillus, suspicious of <i>Brucella</i> , unable to rule out or identify	12	50.0
		Gram negative coccobacillus	2	8.3
		Gram negative bacillus	2	8.3
		Gram positive bacillus	1	4.2
		<i>Staphylococcus hominis</i>	1	4.2
Growth on various media				
Blood agar	Growth	Growth	24	100
Chocolate agar	Growth	Growth	23	95.8
		No growth	1	4.2
MacConkey agar	No growth	No growth	24	100
Colony characteristics				
Time to growth	48 hours	18-24 hours	3	12.5
		48 hours	19	79.2
		72 hours	2	8.3
Hemolysis	Gamma	Alpha	3	15.8
		Beta	0	
		Gamma	16	84.2
Gram stain				
Gram reaction	Negative	Negative	21	87.5
		Positive	3	12.5
Quality	Variable	Good	15	65.2
		Poor	8	34.8
Morphology	Coccobacillus	Coccobacillus	18	75.0
		Bacillus	5	20.8
		Coccus	1	4.2
Size	Tiny or small	Small	10	41.7
		Small-tiny	1	4.2
		Tiny	13	54.2
Spores	NA	Absent	22	91.7
		Present	2	8.3
Chaining	NA	Absent	22	91.7
		Present	2	8.3
Catalase	Positive	Positive	23	100
Oxidase	Positive	Positive	23	100
Indole	NA	Negative	13	100
Urease	Positive	Positive	15	100
Motility	Negative	Positive	1	7.7
		Negative	12	92.3

Laboratory Preparedness Survey #1b-2010 SUMMARY

Please use the Organism List to choose the identification of Specimen 1b-2010 isolate	<i>Streptococcus pyogenes</i> <i>Streptococcus</i> Group A Gram positive coccus	<i>Streptococcus pyogenes</i>	9	37.5
		<i>Streptococcus</i> Group A	10	41.7
		Gram positive coccus	1	4.2
		Gram positive coccobacillus	1	4.2
		Gram negative coccobacillus	1	4.2
		<i>Gamella morbillorum</i>	1	4.2
		<i>Bacillus</i> species, not <i>anthracis</i>	1	4.2
		Growth on various media		
Blood agar	Growth	Growth	24	100
Chocolate agar	Growth	Growth	23	95.8
		No growth	1	4.2
MacConkey agar	No growth	No growth	24	100
Colony characteristics				
Time to growth	18-24 hours	18-24 hours	23	95.8
		48 hours		
		72 hours	1	4.2
Hemolysis	Beta	Alpha	1	4.2
		Beta	23	95.8
		Gamma		
Gram stain				
Gram reaction	Positive	Positive	23	95.8
		Negative	1	4.2
Quality	Good	Good	22	95.7
		Poor	1	4.3
Morphology	Coccus	Bacillus	1	4.2
		Coccus	21	87.5
		Coccobacillus	2	8.3
Size	Small	Small	19	86.4
		Large	3	13.6
Spores	NA	Absent	19	90.5
		Present	2	9.5
Chaining	NA	Absent	9	40.9
		Present	13	59.1
Catalase	Negative	Negative	23	100
Oxidase	NA	Negative	11	100
Indole	NA	Negative	5	100
Urease	NA	Negative	2	100
Motility	NA	Positive	2	40.0
		Negative	3	60.0

COMING SPRING 2011!

REGIONAL PACKAGING & SHIPPING DIV. 6.2 MATERIALS INITIAL CERTIFICATION COURSES

SOLUTION TO FOODBORNE FIND WORD PUZZLE

(Over,Down,Direction)

ABDOMINAL PAIN (14,1,SW)
AEROMONAS (11,9,NW)
ANTHRAX (17,18,N)
BOTULISM (1,15,E)
BRUCELLOSIS (19,11,N)
CAMPYLOBACTER (13,14,W)
CHOLERA (10,17,E)
CRYPTOSPORIDIUM (1,1,SE)
CYCLOSPORA (10,1,SW)
DIARRHEA (13,4,SW)
EHEC (4,10,NW)
GASTROENTERITIS (16,1,S)
GIARDIA (1,3,SE)
HEPATITIS A (20,13,W)
LISTERIA (1,8,NE)
NAUSEA (18,14,S)
NOROVIRUS (17,9,N)
OUTBREAK (5,1,SE)
PLESIOMONAS (2,11,NE)
SALMONELLA (8,11,SE)
SHIGA TOXIN (15,1,S)
SHIGELLA (20,3,S)
STOOL (5,17,W)
TRICHINELLA (1,16,E)
TYPHOID FEVER (12,16,NW)
VIBRIO (14,5,SW)
VOMITING (8,19,W)
YERSINIA (14,8,NW)



National Laboratory Training Network

Packaging and Shipping Division 6.2 Materials

An Interactive Online Training Course

This course is intended for those learners seeking re-certification in packing and shipping of infectious substances (Division 6.2 materials). This course does not apply to individuals seeking initial certification.

Register online at www.nltn.org/302-10.htm

UPCOMING TELECONFERENCES

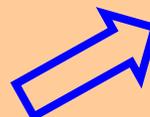
Update in Anaerobic Bacteriology
October 19, 2010; 12:30 MNT

Case presentations in Pediatric Infectious Diseases:
Focus on Bacterial Agents causing Invasive Infections
October 20, 2010 MNT

A Review of Medically Relevant *Corynebacterium*
Species and Other Coryneforms
November 16, 2010; 12:30 MNT

New breakpoints and new Susceptibility Testing
Recommendations from the Clinical and
Laboratory Standards Institute
January 5, 2011; 10:00 MNT

Case Histories and Surveillance for MDRO
January 18, 2011; 12:30 MNT



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