

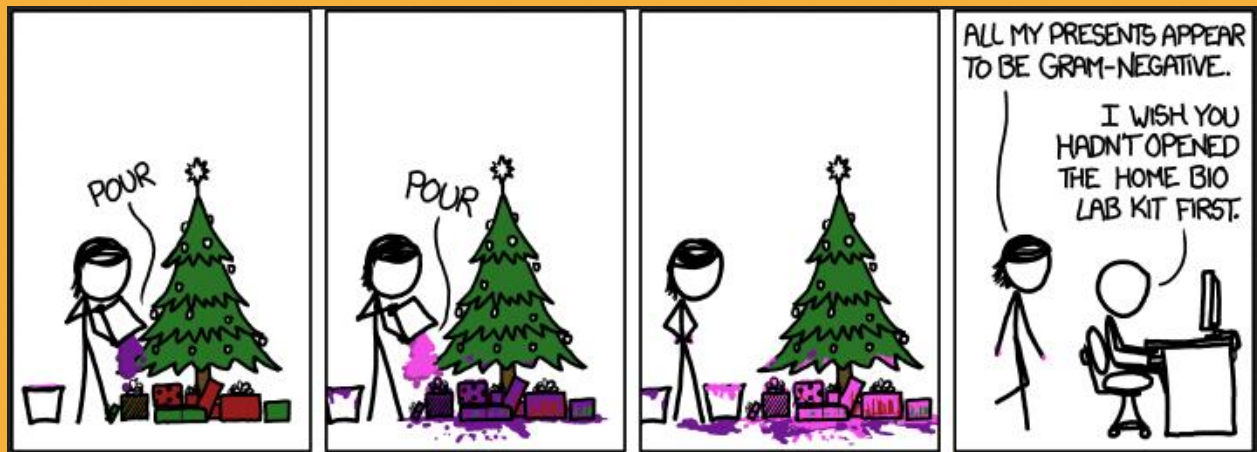
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microBYTES™

A Hardy Diagnostics eNewsletter

Micro Musings



xkcd.com

 **HARDY**
DIAGNOSTICS
a culture of service...

December, 2012

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*Case History #8
from Dr. Tortora*

MORE THAN A SORE THROAT

A young man came to the emergency room complaining of a fever and rash on his abdomen and arms. He had a history of a sore throat. His CBC showed a high white count. A chest X-ray was done and CT scan showed inflammation of the jugular vein of his neck. This resulted in a diagnosis of Lemierre's Disease. As expected, his blood cultures grew out *Fusobacterium necrophorum*, and he was put on appropriate antimicrobial therapy for this anaerobe.

Mini Catalogs

One-Stop Shopping



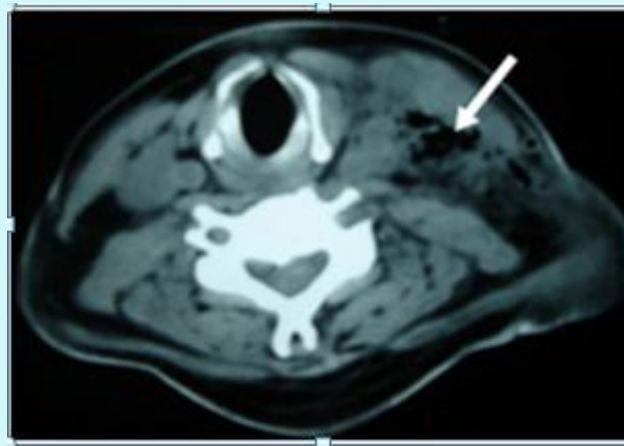
Hardy stocks over 13,000 lab supply products that are available to all microbiologists at the click of a mouse!

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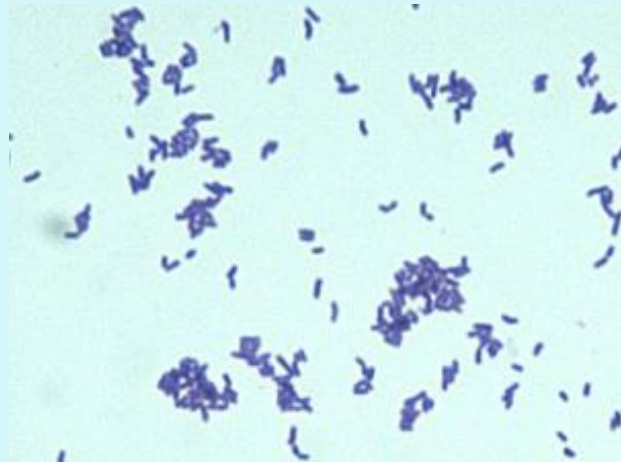
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- Dehydrated Culture Media

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CT scan of the neck showing a jugular vein with a gas filled abscess indicative of Lemierre's Disease.

But wait! His symptoms did not resolve. A second set of blood cultures revealed growth of a gram positive rod resembling *Corynebacterium* spp. It turned out to be beta hemolytic on a blood plate.



Gram stain of organisms from second set of blood cultures after failure of therapy for the *Fusobacterium*.

What is it?

~ ~ ~

Antibiotic use cut by 64% !

MicroTips...

How can I detect Yersinia, Aeromonas, and E. coli O157 all on one stool plate?

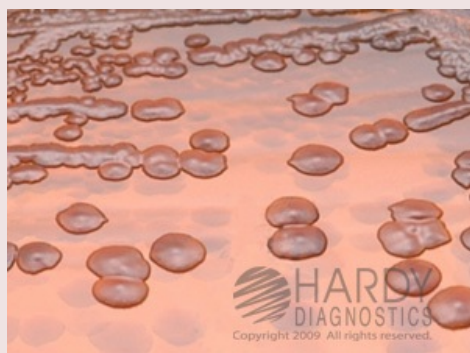
Hardy's stool biplate can isolate all three. The biplate consists of CIN Agar on one side and MacConkey with Sorbitol on the other.

CIN Agar can be used to selectively isolate *Yersinia enterocolitica* and *Aeromonas hydrophila* (the colonies will be large with a red center). MacConkey with Sorbitol is a selective and differential media for *E. coli* O157 (the colonies will be colorless).

This biplate is a good way to effectively screen for all three of these enteric pathogens.



Y. enterocolitica on CIN Agar



*E. coli*O157 on MacConkey with Sorbitol.



Vitamin D effective against respiratory tract infections

In patients with increased frequency of respiratory tract infections, supplementation with 4000 IU of vitamin D3 for one year reduced symptoms and the need for antibiotics, according to a recent study from Sweden.

At the Karolinska University Hospital, 140 participants were assigned to receive 4000 IU vitamin D3 or placebo daily for one year. Participants included patients with antibody deficiency (selective immunoglobulin A deficiency, immunoglobulin G subclass deficiency, common variable immunodeficiency) or with more than four bacterial respiratory tract infections per year. All participants had respiratory symptoms for at least 42 days before randomization.

The main study outcome was an infectious score calculated from five clinical characteristics that the patients recorded in a daily diary: respiratory symptoms, ear symptoms, sinus symptoms, malaise, and antibiotic use.

Compared with the placebo group, the vitamin D group had a significantly lower overall infectious score (202 points vs 249 points). **In the vitamin D group, symptoms of respiratory tract infection decreased by nearly 25%. The odds of taking antibiotics during the study period decreased by 63.5% in the vitamin D group, and the absolute number of days on antibiotics decreased by 50% (from 33 days in the placebo group to 16 days in the vitamin D group).**

All patients tolerated vitamin D treatment well, with no serious adverse effects.

[Click here](#) for ordering information.

[Click here](#) to receive a sample for evaluation.

Do you have a MicroTip or a case history to share with your fellow MicroBytes readers?

[Click here.](#)

Brainteasers



*Check out our
cranial puzzlers
for this month!*

Stock up for 2013!

Control Organisms



Let Hardy Diagnostics be your one stop source for microorganisms. Hardy is an authorized distributor for Microbiologics, where your organisms are sourced from ATCC, NCTC, or NCIMB.

* * *

The C. diff sniff with 100% sensitivity!

Dog Outperforms Microbiologists



Can a dog be more efficient at detecting *Clostridium difficile* than a hospital microbiologist? And with a faster turn around time?

A recent study published in the *British Medical Journal* showed that a dog trained to sniff out *C. difficile* could do so with a sensitivity of 100% and a specificity of 94%.

Cliff, a two year old beagle from Amsterdam pictured above, has proven himself to be a valuable asset in combating *C. difficile*, the most common cause of hospital acquired diarrhea.

After proving a 100% sensitivity with specimens, Cliff was then taken to two hospital wards to conduct further detection tests in a live environment. The dog managed to correctly identify 25 of 30 cases (83 percent sensitivity) and 265 of 270 negative controls (98 percent specificity).

Researchers added that the dog was efficient and quick, managing to screen a complete hospital ward for the presence of patients infected with *C. difficile* in fewer than 10 minutes.

When Cliff finds a patient with a *C. difficile* infection, he simply sits down by the patient's bed and awaits his reward in the form of a biscuit.



Advantages of KwikStiks:

1. Swab, hydrating fluid, and organism are provided in one foil pouch. No need for forceps, less chance of contamination.
2. Does not require frozen storage. Long shelf life.
3. Less cost! Compare our prices to the competition.
4. Traceable to reliable reference cultures. Certificates of Analysis available on-line.

KwikStik microorganisms are available in packages of 2 or 6.

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~ ~ ~

Phraseology

"Turn Over
a New Leaf"



This one has nothing to do with plants! In this case, "Leaf" is a semi-archaic term for a page. To

A dog's sense of smell is hundreds of times more sensitive than ours, which is why dogs have been used successfully for detecting many disease states, including cancer.

Watch a delightful 10 minute video about Cliff, the *C diff* sniffing dog, who puts microbiologists to shame!

* * *

Optical oddities...



Tilt your head to the left and see a new image!

*"Believe half of what you see
and none of what you hear."*

~ Marvin Gaye

Get the survey results...

Should stores be open on
Thanksgiving Day?

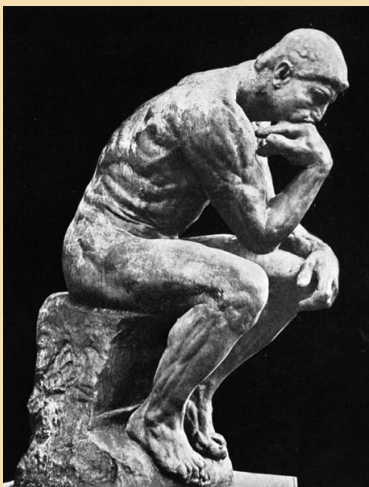
turn over a new leaf, therefore, is to turn to a new page in a book.

In this phrase, the book is most likely to be a journal or diary, where the new blank page gives you a fresh chance to fulfill your good intentions.

The beginning of 2013 is a good time to write something new and fresh on that leaf which is your life's story.

~ ~ ~

Think about it...



- * Why is it that people say they 'slept like a baby' when babies wake up like every two hours?
- * If a deaf person has to go to court, is it still called a hearing?
- * Why are you IN a movie, but you're ON TV?
- * Why do people pay to go up tall buildings and then put money in binoculars to look at things on the ground?
- * Why do doctors leave the room while you change? They're going to see you naked anyway.
- * Why do toasters always have a



For the first time, many stores opened their doors to bargain hunters on Thanksgiving Day, thus shattering the tradition of waiting until "Black Friday" to accommodate the hoards of holiday shoppers.

[Find out](#) what your fellow MicroBytes readers thought about this. The results were very lopsided!

Give us your opinion...

Should medical device companies have to pay a 2.3% excise tax?



Starting on January 1, 2013, all medical device manufacturers will be required to pay a 2.3% tax on all sales. The new tax, required by the Affordable Care Act ("Obamacare"), is levied on

setting that burns the toast to a horrible crisp, which no decent human being would eat?

* * *

Wisdom to ponder...



Bill Cosby

American actor and comedian, who had the most popular TV show for five years (1985-89); also earned a PhD in education in 1976.

"A word to the wise ain't necessary - it's the stupid ones that need the advice."

"I don't know the key to success, but the key to failure is trying to please everybody."

"Human beings are the only creatures on earth that allow their children to come back home."

"Women don't want to hear what you think. Women want to hear what they think - in a deeper voice."

"Sex education may be a good idea in the schools, but I don't believe the kids should be given homework."

"You know the only people who are always sure about the proper way

medical devices sold domestically. Medical devices range from simple tongue depressors and bedpans to complex pacemakers and laser surgical devices. In addition, medical devices include *in vitro* diagnostic products, such as general purpose lab equipment, reagents, and test kits, including culture media.

This tax is on all sales (top line) regardless of whether the company made a profit or not (bottom line). Medical device manufacturers are the only industry required to pay the 2.3% tax.

The tax is expected to bring in \$20 billion to the federal government over the next 10 years. The House of Representatives voted to kill the tax, but the Senate is currently in favor of keeping it.

Will the new tax eliminate jobs, stifle innovation, and make American manufacturers less competitive; or does the new tax represent a good way to help pay down the enormous federal deficit?

Are you in favor of keeping the tax?

Tell the MicroBytes readers your opinion.

RUBES

to raise children? Those who've never had any."

"There is hope for the future because God has a sense of humor and we are funny to God."

"Nothing I've ever done has given me more joys and rewards than being a father to my children."

"Raising children is an incredibly hard and risky business in which no cumulative wisdom is gained: each generation repeats the mistakes the previous one made."

"Did you ever see the customers in health - food stores? They are pale, skinny people who look half - dead. In a steak house, you see robust, ruddy people. They're dying, of course, but they look terrific."

"The past is a ghost, the future a dream, and all we ever have is now."



* * * * *

We crave your comments...



How are we doing?



[Find more](#)
of Leigh Rubin's cartoon humor.



"Football is a mistake.

It combines two of the worst things about American life.

It is violence punctuated by committee meetings."

~ George F. Will ~

Customer Feedback.

"I want to make sure that you know how much we appreciate how user-friendly Hardy's product information is... Hardy Diagnostics understands clinical microbiology and has never disappointed us whenever we need support, even if that support is electronic."

Mary Stepney
South Bend Medical Foundation, IN

Are you a Hardy customer? If so, we need your help in assessing our performance.

At Hardy Diagnostics, we are fanatics about implementing Continuous Improvement. Would you please take a moment to answer two questions?

It should only take a minute or two and would be an immense help to us in honing our skills.

Provide some feedback...

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Did you know?



* * *

"Never doubt that a small group of thoughtful, committed citizens can change the world..."

*Indeed,
it is the only thing that ever has."*

~ Margaret Mead ~



* * *

A Poke at Politicians



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- Is celebrating its 32nd year of serving microbiologists.
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- Is ISO 13485 certified for the manufacture of medical devices to give you confidence in our products.
- Offers you its technical manual, HUGO, which contains over 4,500 pages of information regarding microbiology.
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"Politicians are people who, when they see light at the end of the tunnel, go out and buy some more tunnel." ~ John Quinton

"Politics is too serious a matter to be left to the politicians." ~ Charles de Gaulle

"Politics is the art of looking for trouble, finding it everywhere, diagnosing it incorrectly, and applying the wrong remedies." ~ Groucho Marx

"Politics is supposed to be the second oldest profession. I have come to realize that it bears a very close resemblance to the first." ~ Ronald Reagan

"I think politicians and diapers have one thing in common. They should both be changed regularly and for the same reason." ~ Anonymous

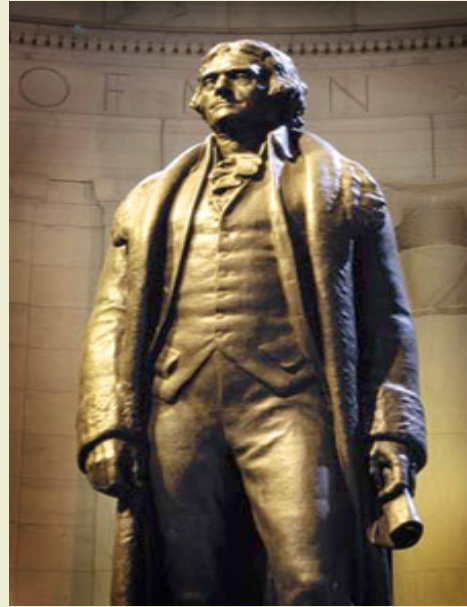
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"Determine never to be idle.

No person will have occasion to complain of want of time who never loses any.

It is wonderful how much can be done if we are always doing."

~ Thomas Jefferson ~



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