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Connections

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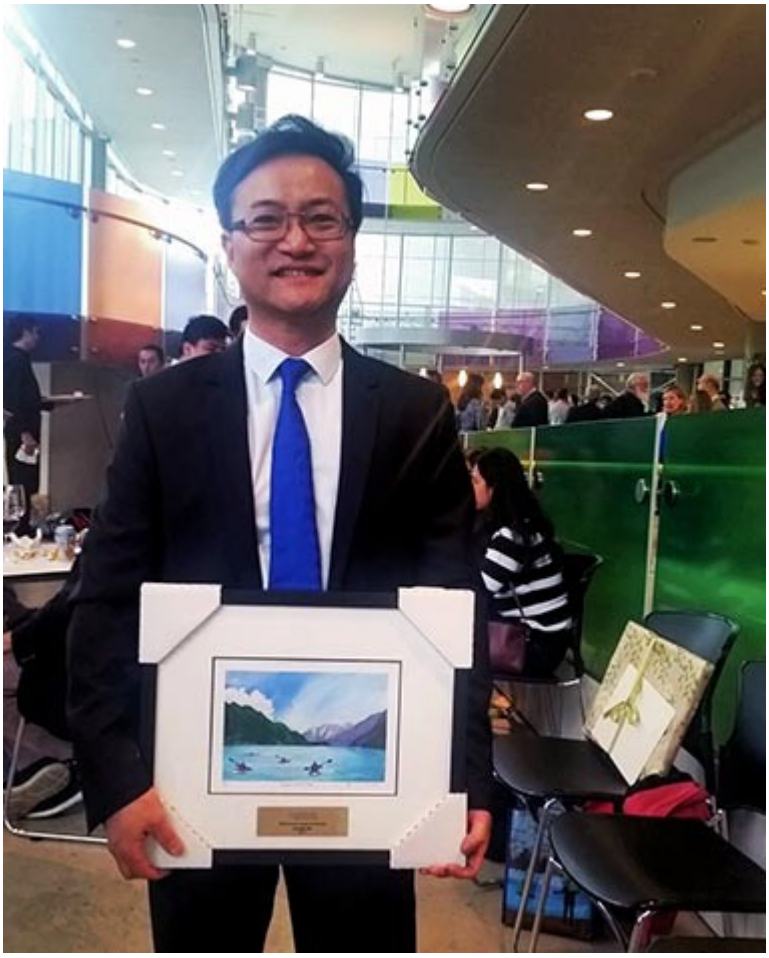
Caleb Lee receives UBC Pathology Technical Staff Service Award



CMPT is thrilled to announce that Caleb Lee, one of our staff members, received the UBC Pathology Technical Staff Service Award for 2017.

> **"This award celebrates and recognizes the contributions of committed technicians and technologists whose outstanding performance enhances the mission of the Department to 'maintain national leadership and international prominence within the discipline of pathology and laboratory Medicine' and helps create a more positive environment for colleagues and trainees."**

Caleb has worked with CMPT for more than 15 years and his service and loyalty to the program are admirable. We would like to highlight his amazing time management skills and great work ethic.

On a day-to-day basis, he is responsible for the creation and quality control of all the PT samples for our program. We have complex and varied programs that need almost perfect coordination and he has been performing these tasks with great responsibility but also with a lot of humility.

He is also responsible for the technical training of International delegates in the production of External Quality Assessment samples, who will eventually create their own EQA programs in their own communities. The International EQA training program has brought a lot of international recognition to CMPT and consequently to the Department of Pathology and Laboratory Medicine.

Congratulations, Caleb!!

Introducing CANCAST – Canadian Committee on Antimicrobial Susceptibility Testing.

By Robert (Bob) Rennie, CANCAST Chair

The importance of capturing the most appropriate clinical breakpoints for antimicrobial susceptibility cannot be overstated. Antimicrobial resistance has become a major consideration for clinicians and laboratorians alike. It is important that susceptibility breakpoints that are established are global, and that there is input from many quarters to ensure that we get the right answer.

In the past, collections of isolates of various species, without known resistance determinants (so-called wild-type strains), and clinical trials comparing minimal inhibitory concentrations (MICs) and microbiological and clinical cure rates were used predominantly to establish susceptibility breakpoints. With new agents, initial development of resistance was not usually a concern. Further, in many cases, buffer zones above the higher end of the wild-type distribution was considered acceptable to establish a susceptible breakpoint.

Like many other disciplines, we now know that simplistic notion do not capture the true efficacy of an antimicrobial – microorganism combination. Other factors like pharmacokinetic/ pharmacodynamics (PK/PD), target attainment, effects of protein binding, clearance, effects of white cells, etc., all affect whether the antimicrobial will most likely be able to resolve a patient's infection. It is of little use if different laboratories use different methods, and have different breakpoints. It not possible to establish true rates of resistance that are comparable to other jurisdictions. In that instance surveillance for antimicrobial resistance cannot be utilized effectively for interventions or antimicrobial stewardship.

This movement for global harmonization of antimicrobial testing methodology, and establishment of standardized breakpoints is an important component of laboratory investigation of antimicrobials.

For the past 10 – 15 years, a movement in Europe (EUCAST) has brought together a variety of disparate countries, each with their own methods, and breakpoints to mold a unified system throughout most of Europe. This serves as a starting point for movement towards global harmonization. Each of those countries within EUCAST has its own National Antibiotic Committee (NAC), and they all feed information and ideas into the "mother ship", and have input into development of methods and standardization of breakpoints.

Using that basis, other countries (USCAST – USA; AUSCAST – Australia; China, and several others) have created their own NACs to participate in this important globalization. Outside Europe, other countries have different antibiotics within national formularies, and need to have their own NACs to serve their laboratories effectively and represent national interests within the global context. Canada is no different.

In that light, we have taken early steps to establish CANCAST. Like other NACs, CANCAST is formulated in the same manner with an Executive (or Steering Committee) and will have advisors and observers from the laboratory, pharmacology, antimicrobial resistance, accreditation, quality assurance and other groups to inform and provide advice on the most appropriate way to formulate, standardize and implement antimicrobial susceptibility testing across the country in concert with other NACs and EUCAST. Our initial Steering Committee consists of medical and clinical microbiologists, pharmacologists, antimicrobial resistance specialists, adult and pediatric infectious diseases physicians, and Health Canada (TPD – ex officio to provide advice on new antimicrobials). We are fortunate to have administrative support provided by Canadian Standards Group.

The goals of CANCAST are to interact with clinical microbiology laboratories across Canada to provide materials through a Website with breakpoint and quality control tables, and methodologies that are globally standardized, and perhaps more important are free for laboratories to use and can be rapidly updated with the latest changes and information. Through webinars and workshops, laboratories will have the opportunity to have input to the Steering Committee on ongoing improvements in methodology, etc., that can be taken to the international group to help inform and influence the continuing development of accurate antibiotic susceptibility reporting in the global environment.

CANCAST is in very early development. Sustainable funding is being sought to provide for that ongoing advancement of the program. We are looking for the best ways to create and maintain a user friendly Website with appropriate Tables and Rationale Documents detailing how the breakpoints have been developed. All of this is essential so that laboratories can interact effectively with clinical colleagues on antimicrobial issues.

It is important for Canada in this global environment to have an identifiable NAC working with our global partners. We are hopeful that Canadian clinical microbiology laboratories will embrace this movement to global harmonization of antimicrobial breakpoints, ensuring that susceptibility testing results are consistent across the country and with laboratories around the world. As we move this initiative forward, more information will become available.

At this time, any questions or requests for additional information can be addressed to rprennie@shaw.ca. As the initiator and chair of CANCAST, I will be pleased to try to address those issues until such time as our Website is established.

WHO Global Priority List

The World Health Organization (WHO) released a list of antibiotic-resistant priority pathogens that agency officials believe are the greatest threat to human health and should be the target of research and development for the development of new antimicrobial agents

On February 27, 2017, the World Health Organization (WHO) released a list of antibiotic-resistant priority pathogens that agency officials believe are the greatest threat to human health and should be the target of research and development for the development of new antimicrobial agents capable of combat these organisms.

"The major objective of the global PPL is to guide the prioritization of incentives and funding, help align R&D priorities with public health needs and support global coordination in the fight against antibiotic-resistant bacteria. The WHO PPL targets policy initiatives to incentivize basic science and advanced R&D by both public funding agencies and the private sector investing in new antibiotics."

Based on a series of criteria including mortality, impact on the healthcare and community, prevalence of resistance, resistance trends, transmissibility, treatability, and current development pipeline, the list is divided into Critical, High, and Medium priority:

WHO priority pathogens for R&D of new antibiotics

Priority 1: Critical

Acinetobacter baumanni, carbapenem-resistant

Pseudomonas aeruginosa, carbapenem-resistant

Enterobacteriaceae, carbapenem-resistant, 3rd generation cephalosporin-resistant

Priority 2: High

Enterococcus faecium, vancomycin resistant

Staphylococcus aureus, methicillin-resistant, vancomycin-intermediate and resistant

Helicobacter pylori, clarithromycin-resistant

Campylobacter species, fluoroquinolone-resistant

Salmonella species, fluoroquinolone-resistant

Neisseria gonorrhoeae, 3rd generation cephalosporin-resistant, fluoroquinolone-resistant

Priority 3: Medium

Streptococcus pneumoniae, penicillin non-susceptible

Haemophilus influenzae, ampicillin-resistant

Shigella species, fluoroquinolone-resistant

Some organizations have criticized the report for the exclusion of *Mycobacterium tuberculosis* from the list. Marie-Paule Kieny, WHO assistant director-general for health systems and innovation, responded that *Mycobacterium tuberculosis* is already considered the most important priority for R&D for new antibiotics and it is targeted by other well-funded programs.

For a full text of the report follow the link: Global Priority List of Antibiotic-Resistant Bacteria to Guide Research, Discovery, and Development of New Antibiotics.

BC Quality Forum

The BC Patient Safety & Quality Council held its annual meeting, 2017 quality Forum on March 1-3 in Vancouver, BC.

We had the opportunity to attend a few presentations. This year, the focus was greatly on innovation to achieve improvement.

The event was characterized by multiple participative workshops designed to encourage innovative thinking to look for solutions and improvements on the patient care field.

Of particular interest for me was Tiffany Christensen's presentation "Partnering with Patients: A Bed's Eye View" where Ms. Christensen tells her story from a cystic fibrosis patient undergoing two lung transplant to a patient's advocate promoting a partnership between patient and health care providers.

Interactive workshops at the 2017 Quality Forum

Presentations are available at the conference's website for those who want to check them out, please visit: https://qualityforum.ca/

One of the most important concepts I learned was the one of Patient Activation. As defined by Hibbard *"Patient activation is a behavioral concept… It is defined as an individual's knowledge, skill, and confidence for managing their health and health care's needs"*

In other words, Patient Activation is the process that takes a patient from a passive, disengaged, and overwhelmed by the situation state through stages of being more informed, knowledgeable, and confident to being proactive and taking action to improve their health, which results in improved patient safety, treatment adherence, reduced readmissions and improved overall outcomes.

Veronica Restelli, Editor

"A bird sitting on a tree is never afraid of the branch breaking because her trust is not on the branch, but on her own wings."

Anonymous

CMPT's Video challenge

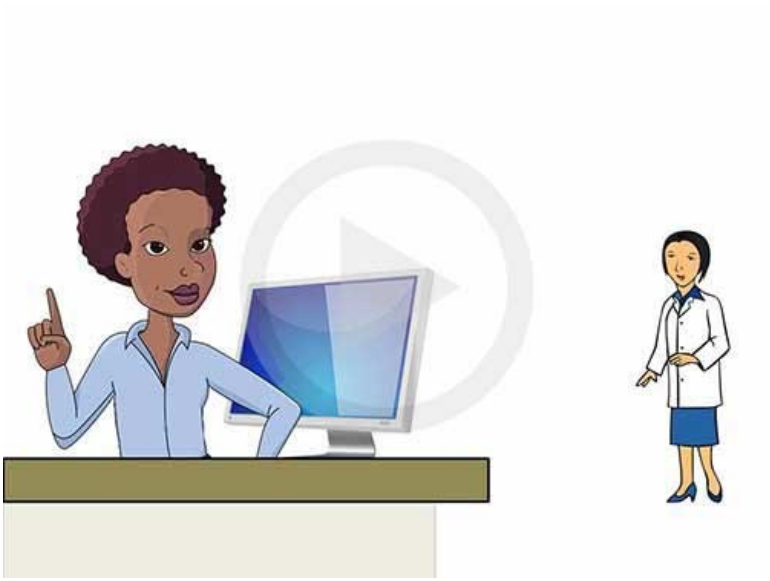
As part of the February 2017 Clinical Microbiology survey, CMPT sent its first Video Challenge (VC164). CMPT has been using its Paper Challenge as a way to evaluate extra-analytical processes in the total laboratory testing process.

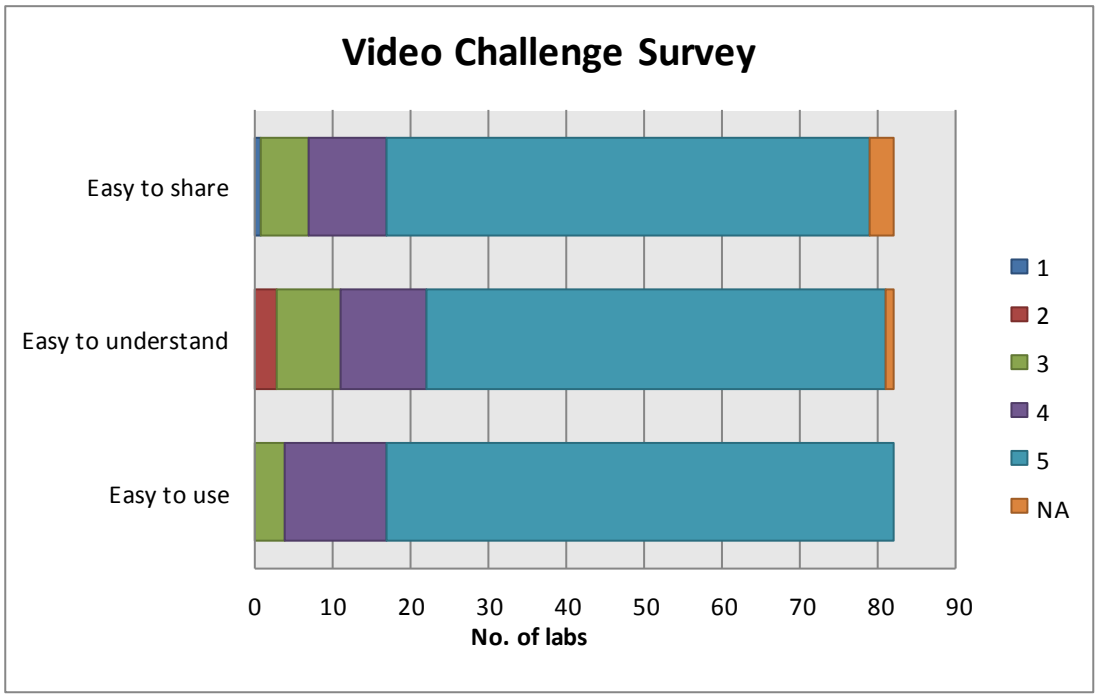
This year, CMPT introduced the Video Challenge as a new format to present scenarios where different types of laboratory errors may occur.

The advantages of the Video Challenge are many and among them, the error is not obviously stated, participants need to recognize it. Also, the scenario is not limited to a few sentences that can be misinterpreted or interpreted differently by the laboratories.

Because this was the first use of a video challenge, the opinions of participants were asked to review the experience, using a scale of 1 to 5 where 1 was considered extremely negative and 5 was considered extremely positive.

As can be seen in the attached graphs, the response was quite positive.





We hope that this format will allow for more flexibility, and that it is useful for our participants as a teaching and learning tool.

CMPT is committed to continual improvement and we continue to explore new ways of testing the laboratory process through means that allow for the education of the laboratory staff.

CMPT successfully completes ISO9001:2015 certification

CMPT was successfully audited by QMI SAI Global and has successfully undergone certification for the new international standard ISO9001:2015.

View certificate

Speakers lineup for the POLQM 2017 Quality Conference

Check the lineup of speakers for the POLQM 2017 Quality Conference: Laboratory Quality in Challenging Times.

Upcoming Events

MAY 2017

LABCON 2017

May 26 - 28, 2017 Banff, Canada
More info: https://labcon.csmls.org/

JUNE 2017

ASM Microbe / ICAAC 2017

June 1 - 5, 2017 New Orleans, US
More info: http://www.asm.org/index.php/asm-microbe-2017

SEPTEMBER 2017

Annual Congress of the British Columbia Society of Laboratory Science

September 28 - October 1, 2017 Kamloops, BC
More info: http://www.bcsls.net/pages/congress-program.html

OCTOBER 2017

POLQM - 2017 Quality Management Conference for Medical Laboratories

October 1 - 3, 2017 Vancouver, Canada
More info: http://conference.polqm.ca/

ABOUT CONNECTIONS

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