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# **FINAL PROGRAM**

## National Molecular Microbiology Diagnostic Users Group Annual Fall Meeting (NMG)

**Auditorium**

**Peter Gilgan Research and Learning Centre**

**660 Bay Street, Toronto ON**

**The Hospital for Sick Children**

**Monday November 28, 2016**

8:00-9:00 am **Breakfast in the Gallery sponsored by altona Diagnostics**

8:00-9:00 am **Registration outside the 2nd Floor Gallery**

9:00-9:10 am **Welcome and Introduction**

Dr. Astrid Petrich, NMG Meeting Chair

9:10-10:10 am **Workshop sponsored by BD**

 **Testing for Enteric Pathogens:  Why a Community Hospital  Chose the Molecular Approach**

 **Speaker:** Neil V. Rau M.D. F.R.C.P (C)

Medical Microbiologist and Infectious Diseases Consultant, Halton Healthcare Services

Lecturer, University of Toronto

 **Objectives:**

 1. Impact of the Enteric pathogens testing on:

A. Clinical situations

B. Laboratory Workflow

2. Logistics and challenges of verification and validation of a new Gold Standard.

10:10-11:10 **am Coffee Break in the Gallery**

10:10-11:10 am **Exhibits in the Gallery**

* **Abbott Molecular**
* **Accelerate Diagnostics**
* **ACGT Corporation**
* **Alere Canada**
* **altona Diagnostics Canada**
* **BD**
* **bioMérieux Canada, Inc**
* **Bio Nuclear Diagnostics**
* **Cedarlane Laboratories**
* **Fusion Genomics Corporation**
* **Integrated DNA Technologies**
* **Inter Medico**
* **Phoenix Airmid Biomedical**
* **Promega Corporation**
* **Qnostics**
* **Quidel Corporation**
* **Roche Diagnostics**
* **Seegene Canada**

11:10-11:40 pm **Workshop sponsored by Fusion Genomics Corporation**

 **ONETest Molecular Diagnostics for Infectious Diseases**

**Speaker:** Mohammad A. Qadir, PhD

Chief Scientific Officer, Fusion Genomics Corp

  **Objectives:**

1. Explain the role of next-generation sequencing in future molecular diagnostics

2. Provide an overview of the target capture assays for infectious diseases developed by Fusion Genomics Corp.

3. Introduce the bioinformatic solutions for infectious diseases developed by Fusion Genomics Corp.

11:40-12:10 pm **Workshop sponsored by Phoenix Airmid Biomedical Inc.**

**ELITe InGenius – The Sample to Result Solution to Improve Lab Workflow**

**Speaker:** Dr. Silvia Costa PhD

Elitech SpA

**Objectives:**

 1. Description of workflow improvements from the current routine

2. Maximum flexibility in customization of your workflow

3. Evidence of short TAT and hands-on-time

12:10-1:15 pm **Lunch in the Gallery**

1:15-1:45 pm **Workshop sponsored by altona Diagnostics Canada**

**AltoStar – The Complete Molecular Automation**

**Speaker:** Dr. Guido Adler PhD

 altona Diagnostics Hamburg

**Objective:**

To describe the new automated system from altona Diagnostics that includes primary sample preparation and purification, PCR set up, and utilization of a bi-directional LIS.

1:45-2:45 pm **Workshop sponsored by Accelerate Diagnostics**

 **Direct Susceptibility Testing of Positive Blood Cultures: A New Diagnostic Tool for Early Antibiotic Optimization in Patients with Sepsis**

 **Speaker:** Patricia (Trish) J. Simner, PhD, D(ABMM)

Assistant Professor of Pathology

Director of Bacteriology and Parasitology

Division of Medical Microbiology

Johns Hopkins Medical Institution

Baltimore, MD

 **Objectives:**

1.       Review the literature on direct susceptibility testing from positive blood cultures, and discuss challenges of implementation in the laboratory.

2.       Give an overview of the Accelerate Pheno™ system.

3.       Describe the potential clinical impact of fast susceptibility results on patient outcomes

2:45-3:15 pm **Coffee Break in the Gallery**

2:45-3:15 pm **Exhibits in the Gallery**

3:15-3:45 pm **Workshop sponsored Roche Diagnostics**

 **The Potential of Multiplex Real-Time PCR – A Modular Approach**

 **Speaker:** Dr. Eduardo Thuroff

 TIB MOLBIOL

 **Objectives:**

1. Understanding the development of the Carbapenase modular diagnostic panel

2. Defining the potential of Multiplex Real-time PCR

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3:45-4:15 pm **Workshop sponsored by Inter Medico**

 **How Rapid Influenza Testing Reduces Patient Isolation Days.**

 **Speaker:** Dr. Larissa Matukas

Head, Division of Microbiology and Infectious Disease Consultant

St. Michael's Hospital

 **Objectives:**

1. Describe the impact of rapid influenza diagnostic testing on managing isolation precautions.
2. Highlight the roles of clinical microbiology and infection prevention and control for successful patient management interventions

4:15-4:45 pm **Workshop sponsored by Quidel Corporation**

**Solana: An Isothermal Platform with Sustainable Solutions for Influenza and Other Molecular Testing**

**Speaker: Jim Baldrica**

 **Quidel Corporation**

**Objective:**

1. Introduce clinicians, laboratory personnel,  and medical directors to the Solana Isothermal Amplification Platform which uses Helicase Dependent Amplification (HDA) technology to power  true molecular testing  with turnaround times of  45 minutes or less.
2. Discuss design features and assays characteristics which contribute to rapid, simplified extractions and workflows that enable sustainable molecular testing in a variety clinical  laboratory and care settings that have wide-ranging throughputs and test time constraints


**Auditorium**

**Peter Gilgan Research and Learning Centre**

**The Hospital for Sick Children, Toronto ON**

**Tuesday November 29, 2016**

8:00-9:00 am **Breakfast in the Gallery sponsored by Luminex Corp.**

8:00-9:00 am **Exhibits in the Gallery**

9:00-10:00 am **Technological Advancements in the Microbiology Laboratory**

**Speaker:** Susan M. Poutanen MD MPH FRCPC

Microbiologist & Infectious Disease Specialist, University Health Network & Mount Sinai Hospital

**Objectives:**

1. Identify advances in microbiology diagnostics currently available

2. Describe future technologies on the horizon

10:00-10:15 am **NMG Annual Conference – A Look Back at the Last 10 Years**

10:15-10:30 **Picture Taking on the Gallery Steps and Birthday Cake**

10:30-11:00 am **Coffee Break and Exhibits**

11:00-12:00 pm **Impact of Culture Independent Tests on Public Health and Epidemiology**

 **Speaker:** Aleisha Reimer BSc, MSc

 Head, Public Health Genomics

National Microbiology Laboratory

Winnipeg, MB

**Objectives:**

1. To plea for the continuation of culture requests for gastrointestinal illness
2. To outline the consequences and impacts on enteric disease surveillance and food safety in an isolate-free world
3. To describe the state of research in the development culture independent subtyping such as metagenomics

12:00-1:00 pm **Lunch in the Gallery**

12:00-1:00 pm **NMG AGM (All participants are invited to attend)**

Auditorium

1:00-2:00 pm **Results of the 2015 National Challenge Panel for 16SrRNA Gene Sequencing and/ or MALDI-TOF**

 **Update on Implementation of a National Maldi-TOF Database**

**Speaker:** Kathryn Bernard

Head, Special Bacteriology

National Microbiology Laboratory

Winnipeg, MB

**Objectives:**
1.  Describe need for an external proficiency test for 16S rRNA gene sequencing and MALDI-TOF instrumentation

2. Describe 4 bacteria selected for the panel associated with different degrees of complexity for accurate identification

3. Present results of participant laboratories for each of the 4 test bacteria, striated down by method; nuances regarding use of both identification methods will be reviewed.

4. Discuss progress on implementation of

2:00:3:30 pm **Tell Us About Your Laboratory. A Chance to Describe Testing in Your Laboratory, Trouble-shooting/Interesting Cases**

**Chair:** TBD

**Objectives:**

1. To allow laboratories across Canada to showcase new molecular assays/technologies employed in their laboratory and indicate their clinical impact.
2. To allow laboratories to share their experiences with molecular assays including trouble-shooting.
3. To create an opportunity for sharing of ideas and experience for laboratories across Canada using molecular technologies.
4. **Automated workflow for bacterial whole genome sequencing in a Public Health laboratory**

T. Lee, R, Azana, V. Tang, **B. Auk**, N. Prystajecky, L. Hoang, M. Croxen

BCCDC Public Health Laboratory, Vancouver, British Columbia

1. **The Alberta Provincial Pediatric EnTeric Infection TEam (APPETITE): Province-wide Identification of Enteric Pathogens Responsible for Childhood Gastroenteritis.**

**Parsons BD**, Zhuo R, Chui L, Lee BE, Pang XL, Louie M, Ferrato C and Freedman SB on

behalf of the APPETITE Team.

1. **Evaluation of a qPCR Assay to Screen Water Samples for *Legionella* species**

Eisler D, Tsang F, Yu V, Yu D, Auk B and **Prystajecky N**.

BCCDC Public Health Laboratory, Vancouver, British Columbia

Department of Pathology and Laboratory Medicine, University of British Columbia

1. **Molecular Serotyping for Salmonella in Alberta.**

**Chui, L.**

Alberta Health Services, Edmonton, AB

1. **Preliminary Evaluation of a Laboratory Developed Multiplex Gastroenteritis Assay and the SeeGene Allplex Gastrointestinal Full Panel**

**Robert Needle1**, Dr. George Zahariadis1,2

Public Health and Microbiology Laboratory, Eastern Health, Memorial University of Newfoundland, St. John’s, Newfoundland

1. **Gastrointestinal Pathogen Testing by Multiplex PCR in a Paediatric Hospital.**

Petrich, A., and Richardson, S.

The Hospital for Sick Children, Toronto, ON

1. **Modernization of the Enterics Laboratory for the Genomics Era**

**S. Christianson**, A Reimer, L Tschetter, C Nadon

National Microbiology Laboratory, Public Health Agency of Canada

3:30 pm **Official Close of Meeting**