

2018 CSCC Award for Innovation in Laboratory Medicine

Sponsored by Roche Diagnostics Canada

Dr. Jessica Boyd

Dr. Hossein Sadrzadeh

Calgary Laboratory Services



This CSCC is pleased to announce that the 2018 Award for Innovation in Laboratory Medicine will go to Jessica Boyd, PhD, FCACB (Toxicology co-director) and Hossein Sadrzadeh, PhD, DABCC, FCAB (Clinical Section Chief and Toxicology co-director) and Calgary Laboratory Services for a transformation of urine drug testing to meet the clinical demands for addiction services and emergency medicine.

This Award, sponsored by Roche Diagnostics Canada, recognizes a clinical laboratory that has distinguished itself by outstanding accomplishment through innovation in Clinical Chemistry or Laboratory Medicine in one or more of the following:

- Innovation in strategic planning and implementation of laboratory services based on best practices.
- Innovation in development of new laboratory programs
- Promotion of a positive public image for laboratory medicine

The epidemic of opioid overdose deaths caused a large increase in the volume of urine drug screen requests that overwhelmed the existing two-step GC-MS processes at Calgary Lab Services. Five new opioid dependency clinics opened and specimens became backlogged which affected patient care and staff morale. Through consultation with the opioid-dependency physicians a LC-MSMS panel of 30 drugs was developed based on the historic pattern of drug detection.

The one-step LC-MSMS method required one third of the analytic time per sample and avoid the lengthy manual interpretation of the GC-MS. A robot was introduced to prepare samples for analysis and middleware was introduced to automatically transfer test results from the LC-MSMS platform into the Laboratory Information System (LIS). From conception to implementation this was a 25 month project. The innovations transformed the toxicology service, met the needs of patient care and established efficiencies for laboratory staff. Customization of the drug panel to meet the needs of local patients is an example of precision medicine.

Dr. Jessica Boyd is a clinical chemist at Calgary Laboratory Services and an Assistant Professor in the Department of Pathology and Laboratory Medicine, Cumming School of Medicine, University of Calgary. Dr. Hossein Sadrzadeh is the Division Head of Clinical Biochemistry at Calgary Laboratory Services and Clinical Professor, Department of Pathology and Laboratory Medicine, Cumming School of Medicine, University of Calgary.

Congratulations to Dr. Jessica Boyd, Dr. Hossein Sadrzadeh and Calgary Laboratory Services, recipients of the 2018 Award for Innovation in Laboratory Medicine.