CORE
FACILITIES

PHARMACOKINETICS

Fleur Gaudette
Core Facility Manager

The pharmacokinetics core facility offers a wide range of services and a unique expertise in mass spectrometric quantification of xenobiotics and in the determination of drug metabolism.

Our cutting-edge instruments meet the diverse needs of drug discovery and development, life sciences, and both preclinical and clinical research.

SERVICES

Our LC-MS instruments (liquid chromatography coupled with mass spectrometry) enable the quantitative analysis of drugs and metabolites in biological fluids and tissues, achieving attogram sensitivity while requiring only a minimal amount of sample.

DEVELOPMENT OF BIOANALYTICAL METHODS

- Small molecules (molecular weights below 1,500 daltons)
- Large molecules (peptides and proteins)

IN VITRO/IN VIVO METABOLISM

- In vitro metabolic stability assessment: S9 fraction, microsomes, hepatocytes
- Identification, characterization and quantification of in vivo metabolites

METHOD VALIDATION

- Partial or full validation of analytical methods based on the highest quality standards in the industry (ICH, FDA).

SAMPLE ANALYSIS

- Quantitative analysis of small molecules, peptides and proteins
- Analysis of xenobiotics and metabolites in support of PK/PD studies
- Analysis of preclinical and clinical samples

HIGHLIGHTS

Our team is made up of bioanalysis specialists with over 35 years' combined experience in mass spectrometry and drug analysis in biological matrices

Since its beginning in 2014, our core facility has:

- completed **90 projects**
- developed and validated **over 100 methods**
- extracted and analyzed over **47,000** samples
- contributed to more than **54 publications**

RESEARCH IN ACTION

The pharmacokinetics core facility has developed and validated a sensitive and robust LC-MS/MS method for the simultaneous determination of delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) with their respective hydroxylated and carboxylated metabolites in human plasma. To date, we have analyzed over 2,500 samples. Quantified otherwise, we have performed 40 analytical sequences, 1,275 hours of instrumentation and 30,000 chromatographic peaks.

CRCHUM
CENTRE DE RECHERCHE
Centre hospitalier de l'Université de Montréal

Pavillon R
900, rue Saint-Denis
Montreal, QC H2X 0A9

Core Facilities
EXPERTISE DEDICATION INFRASTRUCTURE
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pharmacocinetique.cr.chum@ssss.gouv.qc.ca
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