

McGill SPR-MS Facility (Page 1 of 2) - Representative publications

SURFACE PLASMON RESONANCE (SPR)

Tunable inhibitors / Université de Montréal / BIACORE 3000: Zandarashvili *et al.* (2020) Structural basis for allosteric PARP-1 retention on DNA breaks. *Science* 368:eaax6367. < <https://pubmed.ncbi.nlm.nih.gov/32241924> >

Antibody characterization / McGill Dept. Pharmacology / BIACORE T200: Liebsch *et al.* (2019) A β 34 is a BACE1-derived intermediate associated with amyloid clearance and Alzheimer's disease progression. *Nature Communications* 10:2240. < <https://pubmed.ncbi.nlm.nih.gov/31110178/> >

Small molecule therapeutics / McGill Dept. Physiology / BIACORE T200: Veit *et al.* (2018) Structure-guided combination therapy to potentially improve the function of mutant CFTRs. *Nature Medicine* 24:1732-1742. < <https://pubmed.ncbi.nlm.nih.gov/30297908/> >

DNA cage-protein complexes / McGill Dept. Chemistry / BIACORE 3000: Lacroix *et al.* (2017) Development of DNA nanostructures for high-affinity binding to human serum albumin. *Journal of the American Chemical Society* 139:7355-7362. < <https://pubmed.ncbi.nlm.nih.gov/28475327/> >

MATRIX-ASSOCIATED LASER DESORPTION/IONIZATION MASS SPECTROMETRY (MALDI-MS)

MALDI-TOF / Concordia University: Venegas *et al.* (2022) Carbohydrate esterase family 16 contains fungal hemicellulose acetyl esterases (HAEs) with varying specificity. *New Biotechnology* 70:28-38. < <https://pubmed.ncbi.nlm.nih.gov/35405333> >

MALDI Imaging / McGill Dept. Pharmacology: Shobo *et al.* (2022) Amyloid- β 1-42-oligomer interacting peptide D-AIP possesses favorable biostability, pharmacokinetics, and brain region distribution. *Journal of Biological Chemistry* 298:101483. < <https://pubmed.ncbi.nlm.nih.gov/34896396> >

Rapid Top-Down Sequencing / McGill Dept. Biochemistry: Bloudoff *et al.* (2016) Chemical Probes Allow Structural Insight into the Condensation Reaction of Nonribosomal Peptide Synthetases. *Cell Chemical Biology* 23:331-339. < <https://pubmed.ncbi.nlm.nih.gov/26991102/> >

LIQUID CHROMATOGRAPHY-COUPLED MASS SPECTROMETRY (LC-MS)

Intact protein MS and digests / McGill Dept. Pharmacology & Montreal Neurological Institute / ESI-qTOF: Stevens *et al.* (2023) Structure-based design and characterization of Parkin-activating mutations. *Life Science Alliance* 6:e202201419. < <https://pubmed.ncbi.nlm.nih.gov/36941054/> >

Tryptic digests / McGill Dept. Biochemistry / ESI-qTOF: Vranas *et al.* (2022) Selective localization of Mfn2 near PINK1 enables its preferential ubiquitination by Parkin on mitochondria. *Open Biology* 12:210255. < <https://pubmed.ncbi.nlm.nih.gov/35042405> >

Tryptic digests / McGill Dept. Anatomy & Cell Biology / ESI-qTOF: Khan *et al.* (2021) Crystal structure of human PACRG in complex with MEIG1 reveals roles in axoneme formation and tubulin binding. *Structure* 29:572-586. < <https://pubmed.ncbi.nlm.nih.gov/33529594> >

McGill SPR-MS Facility (Page 2 of 2) - User fees 2023

Prices are in Canadian (CAD) dollars and subject to change without notice.

Services are payable regardless of experimental outcomes and new projects cannot be accepted if an outstanding invoice is in excess of 90 days.

User fees are for instrument/labour cost recovery: e.g. preventative maintenance, supplies, data acquisition/analysis, project meetings/reports, manuscript/grant preparations.

Our facility and CFI must be acknowledged in scientific presentations and publications:

e.g. "Thanks to the McGill SPR-MS Facility for assistance with our experiments, infrastructure generously provided by the Canada Foundation for Innovation (CFI)."

Have questions regarding a proposed project? Please contact our Facility Manager: Dr. Mark Hancock [mark.hancock@mcgill.ca ; (514) 398-1350].

| Surface Plasmon Resonance (SPR) | <u>Internal Academic</u> | <u>External Academic</u> | <u>Government / Industry</u> |
|--|---|--------------------------|------------------------------|
| Cytiva BIACORE 3000 or T200 systems | SPR Instrument Time & Labour : \$ 90 / hour | \$ 120 / hour | \$ 180 / hour |
| | <i>SPR sensors (4 flow cells each) :</i> Variety of sensors are available based upon Cytiva catalog prices. | | |

| MALDI-TOF/TOF Mass Spectrometry | <u>Internal Academic</u> | <u>External Academic</u> | <u>Government / Industry</u> |
|--|---|--------------------------|------------------------------|
| Bruker UltrafleXtreme system | * MALDI Time & Labour : \$ 40 / sample | \$ 60 / sample | \$ 80 / sample |
| | * Note 1 : If needed, ZipTip clean-up (desalt/concentrate) is \$10 / sample. | | |
| | * Note 2 : Added discounts available for MALDI-TOF (or TOF/TOF) projects with 10 or more samples. | | |
| | MALDI Imaging with ITO slides : \$ please inquire | \$ please inquire | \$ please inquire |

| LC-MS (ESI-qTOF) Mass Spectrometry | <u>Internal Academic</u> | <u>External Academic</u> | <u>Government / Industry</u> |
|---|---|--------------------------|------------------------------|
| Bruker Impact II system | ** Intact Mass (proteins) : \$ 75 / sample | \$ 125 / sample | \$ 175 / sample |
| | ** Protein ID (in-solution digest) : \$ 150 / sample | \$ 250 / sample | \$ 350 / sample |
| | ** Note 3 : Added discounts available for LC-MS projects with 10 or more samples. | | |