DEPARTMENT OF MEDICINAL CHEMISTRY
MASS SPECTROMETRY CENTER - INSTRUMENTATION

Waters Micromass Quattro Premier XE Tandem Quadrupole Mass Spectrometer (QT™Q)MS/MS

Manufacturer: Waters Corporation, Milford, MA, USA **[A]**

Mass range: 3000 Dalton (Primary & Secondary Beams)

Resolution: Unit mass (Q1 & Q2)

Collision Cell: T-wave™ (T) **[W]** – *rf* traveling wave technology

Interface: Micromass Zspray™ Atmospheric Pressure Ionization (API) Source

Ionization (±eV): Electrospray & Atmospheric Pressure chemical Ionization (ESI & APCI)
Atmospheric Pressure Photo Ionization (APPI)

Ion Detection: Daly detector after Q2

Inlet Systems:

Liquid Chromatograph (LC):
Waters ACQUITY Ultra Performance LC™ (UPLC™) System
(Waters Corp., Milford, MA) **[A]**

Infusion:
Integral syringe pump solvent delivery system (1 – 1000 µl $min.^{-1}$)

Sampling System:
Autoinjector integral to the Waters ACQUITY UPLC™ System

Data System (DS):

Hardware: IBM Pentium 4, 3.2 GHz, 1 Gbyte RAM

Software: Microsoft Windows^{xp}
Micromass MassLynx ® 4.1, MaxEnt® & BioLynx®

Acquisition Date: 2006

Funding: Mass Spectrometry Center Equipment Budget
Office of the Dean of the School of Pharmacy
*Drug Metabolism, Transport, and Pharmacogenomics Research (DMTRP) Program **[V]**
Department of Medicine/Metabolism, Endocrinology, Nutrition

*Predominant Uses:

Drug, metabolite & conjugate studies (qualitative & automated quantification); tandem MS analysis of non-volatile and thermally-labile complex biological extracts *and biopolymers; protein purity and mass determinations.

WEB LINKS:

[A] http://www.waters.com

[V] https://depts.washington.edu/pha/support/funds.html

[W] http://www.waters.com/webassets/cms/library/docs/720000635en.pdf