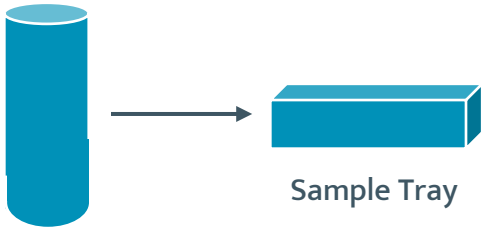
How Does LC/MS-MS Work?

Sample Preparation



Specimen

Sample Tray

Sample injected into LC machine

ASSURANCE LABORATORIES

Liquid Chromatography

Liquid chromatography separates compounds within a sample based on their differential affinities for the liquid solvent vs. the column matrix that the solvent carries the sample through.

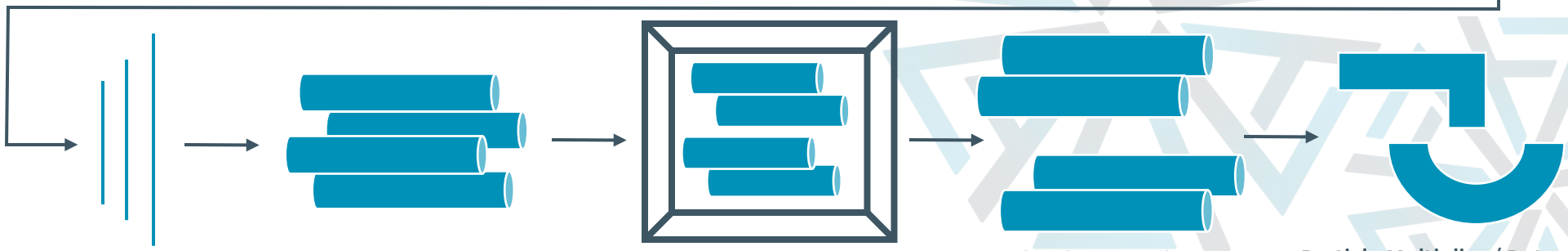
Solvent Reservoir

Solvent Pump

Liquid Chromatography Column
Compound Separation

Mass Spectrometry

Mass spectrometry utilizes alternating direct current (DC) and radio frequency (RF) voltages to effectively serve as a mass filter, allowing only compounds with a chosen mass to charge ratio to pass through.



Ionization Source

Quadruple Mass Filter (Q1)
Selection of Parent Compound

Quadruple Collision Cell (Q2)
Fragmentation

Quadruple Mass Filter (Q3)
Selection of Fragments

Particle Multiplier / Detector
Detection of Fragments