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## TEAM

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- **Full spectrum analytical services with a *customer focus***
  - Sample analysis to method development
  - Consultation to contract research
- **State-of-the-art *instrumentation***
  - 9 Mass Specs, multiple(U)HPLCs, GCs, UV-Vis, FT-IR, Fluorescence
  - Fully-equipped, modern laboratory facilities
- **Open source *teaching and learning environment***
  - Training and access by all users
  - **Highly qualified technical staff** - Full-time manager and technicians
  - 24/7 access for trained users





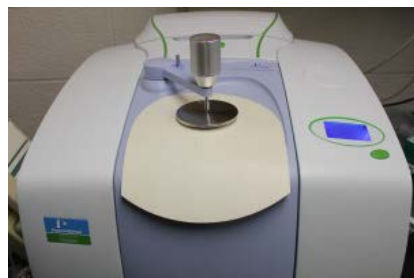
Inorganics/Metals



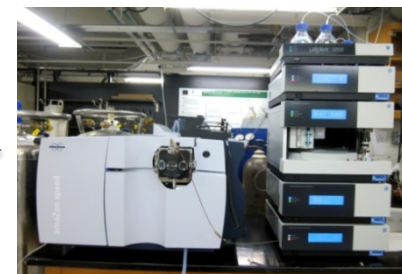
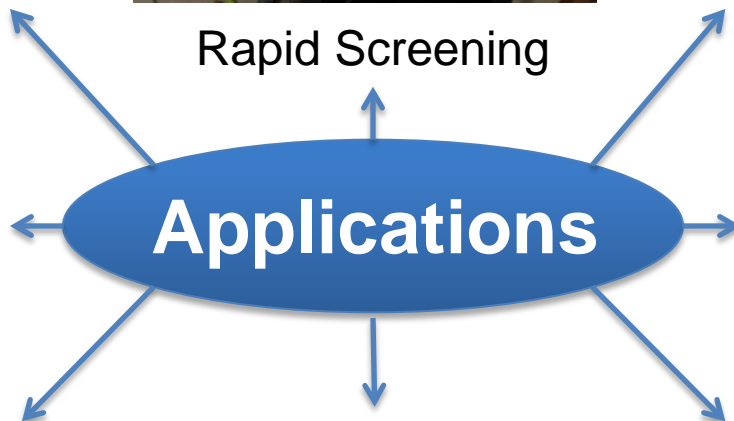
Rapid Screening



Quantitation



Spectroscopy



Fragmentation



NMR



High Res Protein



Volatile Analysis

- ***Submitted samples analysis*** – Samples are submitted for analysis and all work is performed by facility personnel. Results are returned with no interpretation.
- ***Assisted Investigator use*** – *Samples are assayed by the user under the guidance of facility personnel.*
- ***Investigator use*** – *Investigators that have been trained on a particular instrument and authorized by the facility director are allowed to perform their own analyses at a reduced cost. This option is often used by companies that desire routine access to facility equipment.*
- ***Consultation/Training*** – *Facility personnel and faculty experts are available for data interpretation and general advice. MS and NMR classes and training sessions are available.*
- ***Contract/Collaboration Research*** – *Facility services include contract/collaboration research, which is negotiated on a per contract basis.*

## MCAC: Instrument Overview

### Apex IV FTICR equipped with a 12T superconductive magnet (Bruker Daltonics)

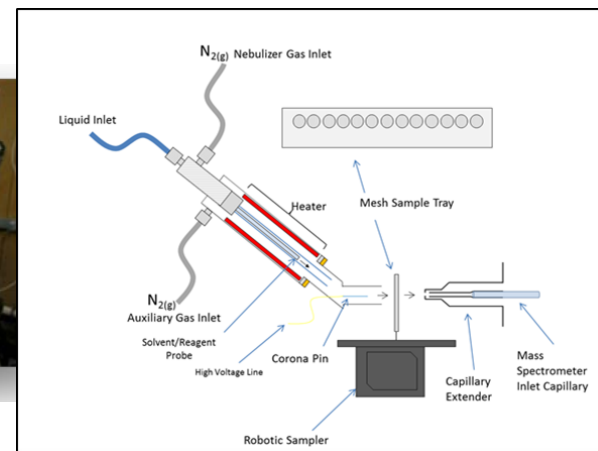


- Autoflex MALDI-TOF (Bruker Daltonics);
- Amazon Speed LC-Quadrupole Ion Trap (Bruker Daltonics)
- TGA-GC-MS for polymer work (PerkinElmer)
- Qsight210 Triple Quad (PerkinElmer)
- Clarus 680 with SQ8 GC-MS (PerkinElmer)
- NexION 300-D ICP-MS (PerkinElmer)
- SQ-300 with FX-15 UHPLC with APCI and ESI source (PerkinElmer)
- Stand-alone IC-5000 and IC 2100 Anion and Cation (Dionex)
- DX-600 Carbohydrate Analysis system (Dionex)
- DESI ambient ionization source for imaging (Prolsolia)
- UV, Vis, IR spectroscopy and luminescence system

### 400 mHz NMR (Joel) and 500 mNMR (Bruker)



### Axlon TOF with DSA ambient Source (PerkinElmer)



- GC-MS liquid injection for small molecule
- Testing of pharmaceuticals and flavors
- Development of new technique of glycan profiling
- Quantification of explosives
- Quantification of sugars
- Quantification of proteins
- NMR analysis
- Aquaculture water monitoring
- Small molecule HRMS
- GC-MS headspace analysis
- IC and HPLC separation
- ICP-MS metal analysis
- Analysis of sea water
- Spectroscopy (UV-vis and FTIR)
- DESI/DSA source development
- Arson mass spec analysis

