



LIQUID CHROMATOGRAPHY - MASS SPECTROMETRY SERVICES

iFyber's LC-MS services feature the analytical power of the Thermo Scientific Orbitrap Excedion Pro BioPharma Mass Spectrometer and the Vanquish Neo UHPLC System, one of the most advanced LC-MS platforms available today. This integrated setup delivers exceptional resolution, dynamic range, and sensitivity across a wide mass spectrum—ideal for tackling complex analytical challenges in proteomics, metabolomics, and biotherapeutic characterization. Whether you're seeking deep structural insights, ultra-trace quantitation, or high-throughput profiling, our system is optimized for low-flow separations and high-efficiency fragmentation workflows. We invite academic and industry partners to leverage our instrumentation and expertise to accelerate discovery, validate innovations, and push the boundaries of molecular science.

COMPANY

iFyber is a preclinical contract research organization that offers unique expertise at the interface of chemistry, biology, and materials science. Our complementary skill set and collaborative approach help our clients efficiently advance innovative technologies and address untapped markets. We specialize in providing creative yet practical solutions to applied problems using rigorous scientific practices. With customized models and state-of-the-art instrumentation, we deliver high-quality service and reliable, actionable results.

FACILITIES

iFyber's facilities are located at the South Hill Business and Technology Park in Ithaca, NY, within the scenic central NY Finger Lakes region. We have recently expanded to over 5,000 square feet of dedicated office and laboratory space, which houses both standard lab equipment and specialized instrumentation for chemical, diagnostic, microbiology, mammalian cell culture, and (LCMS) workflows. iFyber also has access to state-of-the-art equipment and facilities on the Cornell University campus, and our scientists are active users of Cornell core facilities.

THINK OF IFYBER AS:

- An extension of your R&D team Consultants with laboratories to support ideas with data
- An academic lab, solving R&D problems on corporate or start-up timelines
- A testing lab that develops new methods tailored to clients' products and services

APPLICATIONS

iFyber's LC-MS resources provide exceptional value to therapeutics and device manufacturers. Our system provides unmatched performance in untargeted and targeted analysis. Our team has decades of experience working with large and small molecules. Our mindset is to not be a commodity test-house, but rather a valued member of the team, providing outstanding customer service and delivery, including insight, information, and direction.

BIOPHARMA

The Orbitrap Excedion Pro BioPharma offers high-resolution, accurate mass analysis for intact protein characterization, with HCD, ETD, and ETHcD fragmentation for high sequence coverage, PTM elucidation, and impurity detection.

METABOLOMICS

Features enhanced dynamic range (eDR) and an electrodynamic ion funnel to minimize unintended fragmentation, boosting detection of low-abundance metabolites and increasing annotation of unknowns.

STRUCTURAL BIOLOGY

Enables residue-level HDX-MS for precise protein conformational analysis, epitope mapping, and drug-binding site identification with fast scan speeds and high sensitivity.

PROTEOMICS

Provides accurate quantification, deep proteome coverage, and PTM analysis with ETD/ETHcD fragmentation, supporting TMTpro 32plex and immunopeptidomics with maximized sequence coverage.

EXTRACTABLES AND LEACHABLES

Provides accurate quantification of knowns and unknowns while enabling structural confirmation and accurate mass analysis.

TECHNOLOGY

- Supports an extended range up to m/z 12,000 to enable intact protein, ADC, and large biomolecule analysis and confident deconvolution of high mass charge envelopes.
- FAIMS Pro Duo interface adds orthogonal ion mobility separation, reducing chemical noise and enhancing system robustness.
- Equipped with the OptaMax Plus ion source and EasySpray nanoLC-MS technology for high-sensitivity LC-MS data.
- Features an ultra-high-field Orbitrap mass analyzer (up to 70 Hz MS₂ scans), advanced quadrupole technology, and ion-routing multipole for specialized fragmentation (HCD, ETD, ETHcD).

