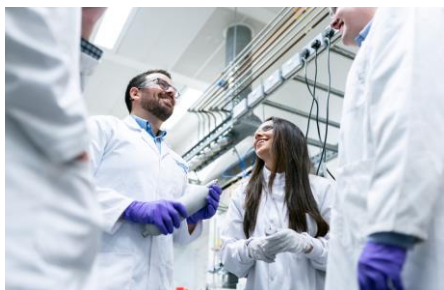


ANALYTICAL SERVICES

TO SUPPORT PHARMACEUTICAL DEVELOPMENT

As one of the major independent drug development companies in the country, Olon USA offers a wealth of experience in conducting studies designed to comply with the GLP/cGMP regulatory requirements of the Food and Drug Administration (FDA) and the International Conference on Harmonization (ICH). Olon USA is a DEA licensed facility.

KEY SERVICES



- ♦ Method development
 - Impurity/assay/potency
 - Chiral methods
 - Stability-Indicating
 - Residual solvents
 - Cleaning methods
 - Dose formulation analysis
 - Forced degradation
- ♦ Method Validation
- ♦ Storage Stability
 - ICH
 - Photostability
 - Stability-Indicating
- ♦ Quality Control
 - Release Testing
 - API
 - Drug Product
 - Preclinical to Commercial
- ♦ Method Transfers
- ♦ Characterization
 - Structure/Purity
 - Reference Standards
 - Impurity Identification
- ♦ Preformulation
 - Salt & Co-crystal screening
 - Polymorph screening
 - Hydrates/Solubility
- ♦ Chromatography
 - Analytical to prep scale



CORE CHEMISTRY SERVICES

Analytical Chemistry
Process Chemistry
API Manufacturing

RELATED SERVICES

- ♦ Analytical Method Development & Validation
- ♦ Kilo Labs
- ♦ In-Process Support
- ♦ Pilot Plant

ANALYTICAL SERVICES

TO SUPPORT PHARMACEUTICAL DEVELOPMENT



OLON RICERCA'S STATE-OF-THE-ART ANALYTICAL FACILITY INCLUDES:

DIVERSIFIED CHROMATOGRAPHY SYSTEMS

UPLC/HPLC systems equipped with diode array, UV/Vis, refractive index, evaporative light scattering and charged aerosol detectors.

HPLC-MS/MS systems equipped with binary gradients, diode array, autosamplers, external quaternary pumps, and on-line degasser systems.

UPLC-QTOF exact mass system equipped with binary gradients, diode array, autosampler, binary pumps, and on-line degasser systems.

Ion chromatography with conductivity detection.

GC systems equipped with headspace systems and flame ionization, nitrogen-phosphorus, and flame photometric detectors.

GC-MS system equipped with single quadrupole mass selective detector.

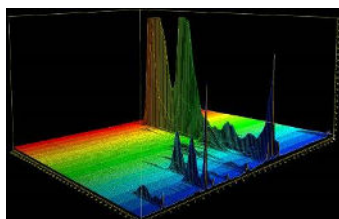
Semi-preparative and preparative HPLCs equipped with UV/vis detectors and fraction collectors.

COMPREHENSIVE INORGANIC CAPABILITIES

ICP-AES and ICP-MS systems to quantitate trace metals, catalysts, and inorganic salt forms.

Sample preparation by open vessel and closed vessel microwave digestion.

X-Ray Powder Diffraction



MANY COMPLEMENTARY TECHNIQUES

Nuclear Magnetic Resonance (FT-NMR)

Infrared Spectroscopy (FT-IR) Spectroscopy

Raman Microscopy/Spectroscopy

Fluorescence Spectroscopy

UV-Vis Spectroscopy

Differential Scanning Calorimetry (DSC)

Thermal Gravimetric Analysis (TGA)

Dynamic Vapor Sorption (DVS) Analysis

KF Moisture, Automated titrators

Particle Sizing, laser-light scattering

Dissolution

Polarimetry

Optical Microscopy (Polarized)

Hot stage microscopy

Viscosity, osmometry, refractive index

Olon USA is a US-based CDMO supporting the development and manufacture of APIs and performance materials in support clinical supply, market development and commercial distribution. Olon Ricerca's extensive process/synthetic chemistry, analytical chemistry and engineering expertise provides a synergy that excels at first-time scale-ups and subsequent development of safe, reliable, robust, and cost-effective manufacturing processes. Meeting client needs has been the foundation of Olon USA's business philosophy and is second only to its commitment to safety and regulatory compliance.