

HOW DO YOU MAKE BETTER DEVELOPMENT DECISIONS FASTER?



How do you know a cGMP method validation is "phase appropriate"? How do you decide when to conduct E/L studies? How do you quickly identify the source of contamination? For companies looking for a true development CRO, EAG offers deep experience in analytical method development, program design and complex study execution—with the technical and regulatory know-how to help overcome R&D roadblocks, avoid regulatory setbacks and uncover sources of problematic manufacturing issues.

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PHARMACEUTICAL DEVELOPMENT: HOW WE CAN HELP

COMPREHENSIVE CMC ANALYTICAL SUPPORT

- Analytical method development and validation
- Stability (developmental and commercial)
 - All common ICH and custom conditions in 38,000 ft³ of cGMP storage, including photostability
 - Fully-compliant LIMS inventory and environmental monitoring systems
- Elemental impurities by ICP-MS for ICH Q3D and USP <232>/<233>
- · QC release testing
- Reference standard qualification and program management
- Vendor qualification

EXTRACTABLES & LEACHABLES

- · Controlled extraction studies
- Leachables method development and validation
- · Leachables stability programs
- · Toxicity evaluation for leachables
- E/L consulting and program design

COMPOSITION & SURFACE ANALYSIS

- Layer structure and chemical composition
- Particle size and composition
- Chemical imaging of drug and drug product
- Quantitation and distribution of active ingredients, excipients and coatings at the sub-micron scale

INVESTIGATIVE PROBLEM SOLVING, CONSULTING & LITIGATION SUPPORT

- Contaminant investigations
- Isolation, elucidation, identification and characterization of known and unknown materials
- Failure analysis of product, packaging and manufacturing processes
- · Evaluation of supply chain inputs
- Litigation support, including expert testimony for intellectual property and product liability challenges

RADIOLABELING & CUSTOM SYNTHESIS

- cGMP, GLP-certified and R&D materials
- Stable-label active ingredients and metabolites: ²H and ¹³C
- Radiolabeled active ingredient and metabolites: ³H, ¹⁴C and other labels
- Custom small-scale synthesis of compounds and reference standards
- Dedicated analytical support for qualification and generation of certificates of analysis

ENVIRONMENTAL RISK ASSESSMENT FOR PHARMACEUTICALS

- Product chemistry
- · Aquatic and terrestrial toxicology
- Metabolism
- · Environmental fate

INSTRUMENTATION & TECHNIQUES

EAG Laboratories uses state-of-the-art instrumentation in the areas of spectroscopy, chromatography and microscopy. We offer a secure, DEA-licensed stability suite that covers all ICH conditions.

CHROMATOGRAPHY/ SEPARATIONS

- HPLC, UPLC
- Semi-prep HPLC
- GC-MS
- LC-MS
- GPC
- GC
- · SEC & IC

DISSOLUTION

- Type I, II, III
- IR, ER, MR
- Bath & bathless
- Inline UV

DETECTION

- HPLC (UV, PDA, FL, RI, ELSD)
- High-Resolution MS
- MS
- MS/MS
- MS-IT
- MS-TOF
- CAD
- Conductivity

ELEMENTAL/PURITY ANALYSIS

- ICP-MS
- ICP-OES
- GDMS
- XRF
- IC
- AA
- Microwave digestion

STABILITY

- · cGMP-compliant
- · All ICH conditions
- · Custom conditions
- Photostability
- Fully validated Rees monitoring system
- Redundant chamber systems
- 100% backup power supply
- 38,000 cubic feet stability storage

COMPOSITION/IDENTITY

- FTIR
- Raman
- XPS/ESCA
- TOF-SIMS
- XRD
- Thermal Analysis (TGA/DSC/DTA)
- NMR
- Auger

MICROSCOPY/IMAGING

- SEM
- Optical Profilometry
- · Optical Microscopy
- AFM
- TFM

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