# A Leader in Providing Innovative Contract Services

Founded in 1947, BioReliance Corporation is one of the world's leading contract services organizations, offering scientific and laboratory services related to safety testing for the biopharmaceutical and pharmaceutical industries. With nearly 700 employees around the world, BioReliance has the scientific expertise and depth of regulatory knowledge to support our clients' products through clinical development and commercial testing.

Over the years, BioReliance has led the industry in first-to-market testing protocols, including the first safety testing for the polio vaccine (1955), the first commercial mammalian-derived biologic (1981), and the first gene therapy to enter clinical trials (1990). Today BioReliance continues to invest in time-saving methods such as faster mycoplasma testing for biologics and new genetic toxicology applications for small molecules. In addition, our focus on operational excellence initiatives has resulted in lower turnaround times for many of our services.

BioReliance has preformed work on behalf of thousands of clients, including the majority of the major biopharma, biotech and pharmaceutical companies around the world. Every client with ongoing testing has a primary point-of-contact within our global program management group to monitor timelines and convey testing results. Our commitment at BioReliance is to ensure that your overall goals remain on track.

#### Service Preclinical Phase I Phase II Commercial Phase III ٠ ٠ ٠ ٠ Cell banking & testing ٠ ٠ ٠ ٠ ۵ Raw materials testing ٠ ٠ ٠ ٠ Lot release testing ٠ ٠ Clearance validation ٠ ٠ Virus manufacturing ٠ ٠ ٠ ٠ Genomics 4 ٠ ٠ ٠ 4 ۵ Genetic toxicology ٠ Mammalian toxicology

# BioReliance's services support all phases of drug development

# Comprehensive services

Full range of biologics testing, cGMP cell bank and virus manufacturing, toxicology, and clearance validation services

# Global facilities

Locations in Rockville, Maryland; Glasgow and Stirling, Scotland to support a broad range of global testing requirements

# Technical and regulatory support

Program management and scientific teams that design and monitor compliant testing and manufacturing programs tailored for each client's product





# BioReliance List of Services

BioReliance offers over 1000 protocols for biologics safety, toxicology and genomic services. You can inquire about a service, including custom assay development, by sending us an email at: info@bioreliance.com or by visiting our website, www.bioreliance.com.

### **Biologics Safety Testing**

We test cell banks, raw materials, biology based samples from bulk harvest and final products for a wide range of contaminants. With over 300 molecular biology tests alone, our breadth of expertise in biologics testing is unrivalled.

#### Analytical Methods (including Mass Spec)

Amino acid analysis Carbohydrate analysis Comparability testing N-terminal sequencing Peptide mapping Purposeful degradation Stability storage

#### **Cell Biology**

Biorepository Cross-reactivity testing Electron microscopy Fluorescence in situ hybridization Histology Karyology SKY Karyotyping

#### Clearance Validation and Cleaning Studies

Clearance studies for viruses, bacteria, DNA Cleaning validation studies Column re-use studies TSE studies by Western blot and bioassay

#### Genomics

Adventitious agent testing (AAT) Advanced mammalian genetic stability (Q5B) analysis Advanced residual DNA testing Advanced viral genetic stability analysis Bioreactor contamination remediation Custom Assay Development and Validation Data Analysis and Bionformatics DNA Methylation Analysis Infectivity assays In-process testing MCB characterization Microbial genetic stability analysis Microsatellite & STR services Novel cell line characterization for FDA submission Nucleic Acid Extraction RNA Expression Analysis Targeted genotyping Virus stock characterization

#### Immunology

ADA (Anti-drug Antibody) Bioprocess Contaminant Testing Custom ELISAs Detection of expressed recombinant protein Detection of cytokine response Detection of neutralizing antibodies Host Cell Protein Assays Immunogenicity Immunohistochemistry Neutralization Antibody Assays PK/PD Potency assays

#### In Vitro and In Vivo Virology

Biodistribution studies Detection of adventitious viruses Detection of specific mammalian viruses Detection of viral vectors and infectivity Immunoassays Retrovirology assays Tumorigenicity assays

#### Microbiology

Mycoplasma testing Sterility testing

#### Molecular Biology

Detection of human viruses Detection of retroviruses Detection of rodent viruses Detection of other species-specific viruses Q-PCR services Residual host cell DNA testing

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#### cGMP Manufacturing

We offer mammalian and insect cell banking, as well as viral manufacturing. Production of cGMP cell banks for human, murine, CHO and insect lines Production of clinical lots using viral vectors or cell therapies Long-term biorepository storage of cell banks

### Toxicology

#### Genetic Toxicology

Assessment of hemolytic property Chromosome damage Gene mutation Mammalian S9 microsome preparations Primary DNA damage

#### Mammalian Toxicology

Analytical chemistry services Contract pathology services Custom vaccine toxicology studies Repeated-dose studies Studies for nucleic-acid based therapeutics Transgenic carcinogenicity studies

### **Regulatory & Technical Services**

Advice on regulatory strategies Data review and evaluations Report writing and technical support Response to regulatory authorities



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