

Translational Biomarker Services for Clinical Development

Transition seamlessly from clinical research to early-phase clinical trials with Crown Bioscience's end-to-end multiomics biomarker solutions.

Successful clinical development depends on the generation of high-quality biomarker data from well-characterized clinical samples. Crown Bioscience integrates a global network of accredited laboratories with advanced multiomics capabilities to support translational research and early clinical development. From custom assay development and analysis of prospectively and retrospectively collected clinical samples to comprehensive bioinformatics and data interpretation, we generate robust, actionable insights that inform patient stratification, mechanism-of-action studies, and critical development decisions.

Integrated Biomarker Services - From Sample to Insight



- **Global Quality Standards:** Seamless access to CAP-, CLIA-, and ISO 15189-accredited laboratories.
- **Massive Biomarker Library:** ~450 IHC prequalified biomarkers, including 72+ ADC tumor-associated antigens.
- **End-to-End Scientific Partnership:** Direct collaboration with an expert scientific team from protocol optimization through data delivery.
- **Integrated Bioinformatics:** 20+ member team (majority PhDs) with 13+ years of multiomics data integration experience.



Therapeutic Areas of Expertise: Oncology/TME • Immunology/Autoimmune • Fibrosis • Dermatology • NASH/Liver • CNS • Vaccines and More

Cutting-Edge Multiomics Laboratory Services

Crown Bioscience continually invests in advanced technologies and assay validation to provide robust profiling for clinical specimens.

Spatial and Tissue-Based Analysis

- **Marker Library:** ~450 pre-qualified human IHC markers (21 functional categories) and 72 ADC tumor-associated antigens.
- **IHC and mIF:** Multiplex immunofluorescence featuring **Phenolmager®** (Akoya) and **InSituPlex®** (Vizgen).
- **In Situ Hybridization (ISH):** FISH and **RNAscope®** ISH (Advanced Cell Diagnostics).
- **Digital Pathology and AI:** AI-powered image analysis via **HALO® AI** (Indica Labs) with board-certified pathologist review.
- **Spatial Biology:** Spatial transcriptomics and proteomics using **GeoMx® DSP** (NanoString).

Protein Analysis

- **Flow Cytometry:** Traditional (18-color) and spectral flow (**Cytek Aurora**, 24- and 40-color).
- **Immunoassays:** ELISA, **MSD**, **Luminex®**, **ELISpot**, T cell functional assays, cytokine/chemokine profiling, and immune cell phenotyping.
- **Mass Spectrometry:** DIA-MS (global, targeted, and PTM proteomics; identifying 10,000+ protein groups from tissue samples).
- **Western Blotting:** Traditional and **Simple Western™**.

Genomic and Transcriptomic Analysis

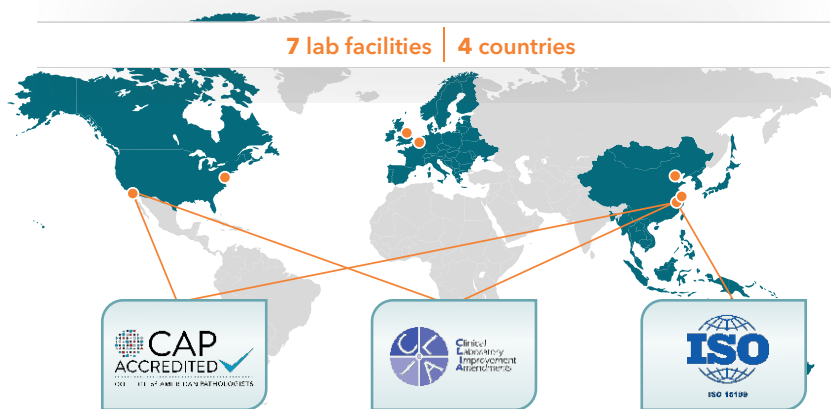
- **Next-Generation Sequencing (NGS):** Targeted panels (including CAP-accredited NGSST), WES, and WGS; RNA-Seq, lncRNA-Seq, WGBS, and single-cell RNA sequencing (**10x Genomics Chromium**).
- **Targeted Arrays and Profiling:** **nCounter®** (NanoString), PCR, qPCR, dPCR, and Sanger sequencing.
- **Advanced Mapping:** Long-read sequencing (**PacBio**) and Optical Genome Mapping (**Bionano Genomics**).
- **Microbiome Sequencing:** Full-length 16S rRNA and metagenomics.

Bioanalysis and Biofluid Testing

- **Bioanalytical Assays:** Comprehensive support for small molecules, biologics, and ADCs across plasma, serum, and urine.
- **Clinical-Sample RUO Testing:** Our robust bioanalysis assays can also be used to handle clinical-sample RUO (Research Use Only) testing.
- **Clinical Chemistry:** Complete blood count (CBC), blood chemistry, and general biochemistry.

Transforming Data into Clinical Insights

Uncover critical biological insights with hypothesis-driven and hypothesis-free biomarker discovery to inform trial design. Our integrated bioinformatics workflows maximize the value of your clinical trial data, delivered by a highly specialized team of computational biologists.



Partner with Crown Bioscience Today

From assay development through advanced bioinformatics, Crown Bioscience delivers the regulatory compliance, scientific expertise, and multiomics scale your clinical program demands.

Get in touch



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