

BioSPOKE™ Custom Biospecimen Procurement

Custom collection to meet unique research requirements

OVERVIEW

Asterand Bio's BioSPOKE™ service offers human tissues and clinical data custom collected to meet unique research requirements within a wide range of disease categories. Samples are provided in multiple preserved formats or as fresh and unpreserved biospecimens. This service allows Asterand Bio to deliver human tissues, biofluids, and accompanying clinical information in a manner which is most compatible with experimental design.

UNPARALLELED SERVICE

Our procurement project management team will manage the custom collection from start to finish. With pre-approved informed consents and study protocols, projects are serviced quickly. If revisions are required, Asterand Bio will work directly with you and our partners to ensure the consents and protocols meet study requirements.



EXCEPTIONAL NETWORK

Asterand Bio offers unmatched access to human tissue through a global network of more than 80 collaborating donor institutions. This extensive network, together with expertise in human tissue research makes us exceptionally well-suited to provide our clients with specialized procurement services.



BioSPOKE™ custom procurement services involve the following:

- Development of custom collection and processing protocols
- Tailored patient informed consent form (at client request)
- IRB Submission (or equivalent) as needed
- Provision of supplies, equipment and training
- Project management and logistics coordination
- Site monitoring

EXTENSIVE SPECIMEN FORMATS

Our donor institutions are experienced in the quality collection of a diverse group of specimen formats

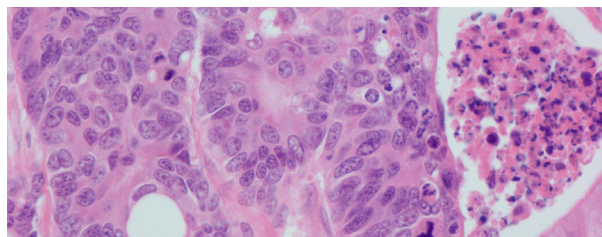
- Fresh, arrival at your site within 24 hours of collection
- Flash frozen, formalin fixed, specialized fixatives and media
- Custom processing as requested

Typical donor specimens include the following:

- | | | |
|----------|----------------------|--|
| • Tissue | • Whole Blood | • Peripheral blood mononuclear cells (PBMCs) |
| • Serum | • Plasma | |
| • Plasma | • Non-Induced Sputum | • Bone marrow mononuclear cells (BMMCs) |
| • Urine | | |

BROAD THERAPEUTIC OFFERING

- | | |
|-------------------|---------------|
| • Oncology | • Dermatology |
| • Normal Controls | • Autoimmune |
| • Immunology | • Metabolic |
| • Inflammation | • Pulmonary |



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ABOUT ASTERAND BIOSCIENCE®

Asterand Bio is the leading global provider of high-quality, well-characterized human tissue and human tissue-based research solutions to drug discovery scientists. Our mission is to provide human-based solutions to accelerate the identification and validation of drug targets and enhance the selection of drug candidates with an increased likelihood of clinical success.

ETHICAL AND REGULATORY CONTROL

All human tissue samples are obtained with informed donor consent and are de-identified prior to banking and distribution. Asterand Bio acts in strict compliance with the US Health Insurance Portability and Accountability Act (HIPAA) and the United Kingdom Human Tissue Authority (HTA) and is accredited by the College of American Pathologists (CAP) and ISO 9001. Asterand Bio has GLP accreditation according to the requirements of Good Laboratory Practice (GLP)– Directive of the European Commission 2004/9/EEC, and a Good Clinical Laboratory Practice (GCLP) laboratory for clinical assay services.

RESEARCH SERVICES

- Immunohistochemistry
- IHC/ISH Multiplexing
- ISH & FISH
- Western Blotting
- TMA, FDA & Custom
- Primary Cell Isolation
- Digital Pathology
- 2D and 3D Culture
- Histopathology
- Cell Based Assays
- qRT-PCR
- Assay Development
- LCM
- OrganDOT™
- siRNA Knockdown
- Mutation Analysis

BIOMATERIALS AVAILABLE

- Fresh, Frozen & FFPE
- Normal & Diseased Tissue
- OCT Embedded
- Serum, Plasma & Blood
- Synovial Fluid
- RNA, DNA & Protein
- TMA, FFPE & Frozen
- Primary Cells
- Proprietary Cell Lines

THERAPEUTIC AREAS

- Oncology
- Cardiovascular
- Metabolic
- CNS
- Respiratory
- Inflammation
- Genitourinary
- Fibrosis

XpressBANK™ BIOREPOSITORY

The Asterand Bio XpressBANK™ Biorepository is an invaluable source of high-quality, well-characterized and validated tissue, biofluids, cell lines and molecular derivatives, all intended for research use in the drug and diagnostic development process. Our extensive repository contains over 200,000 human tissues and biofluids. This bank includes material that is prospectively obtained in a variety of formats including fresh frozen and FFPE, supported by comprehensive clinical data.

BioSPOKE™ CUSTOM BIOSPECIMEN PROCUREMENT

Through our BioSPOKE™ service, human tissues and clinical data are custom collected to meet unique research requirements within a wide range of disease categories or as normal controls. Samples are provided fresh or in multiple preserved formats. Specialized processing may be tailored to each research request. This service allows Asterand Bio to deliver human tissues, biofluids and accompanying clinical information to our clients that are collected in a manner which is most compatible with their experimental design.

PhaseZERO® RESEARCH SERVICES

For over 20 years, Asterand Bio's trusted scientists have worked collaboratively with clients to facilitate the efficient selection of drug targets and candidate therapeutics with the highest likelihood for clinical success by providing a variety of pre-clinical drug discovery services. From target and biomarker validation, characterization of therapeutic candidates for potency, effect and safety to supporting clinical diagnostic assay development and testing, Asterand Bio provides clients with high-quality experimental design, execution, data interpretation and reporting. Each project is managed by a dedicated scientific project manager and customized to meet each client's specific needs.



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