



3DG offers specialized end-to-end research services focused on single cell multiomics and other genomics-scale technologies. We have been in the business of target discovery, validation, pathway and MOA elucidation for nearly 20 years. Our clients include global pharmaceutical companies, large and small biotechs and government agencies.

## Areas Of Expertise

### Single cell multiomics technologies

- Spatial transcriptomics (10X Visium, typically integrated with 10XGenomics single nuclei RNAseq)
- Single cell transcriptomics with large and small numbers of cells (10XGenomics and SmartSeq, respectively).
- Single-nuclei RNAseq from fresh frozen and FFPE embedded tissues.
- IHC imaging (widefield/confocal, chromogenic/fluorescent)
- High Content Imaging (Cell Painting, HCS)
- Single cell immune repertoire analysis, B-cell/T-cell clonotype studies, with cell type isolation by FACS and MACS.

### Bulk cell technologies

- 3D organoid models for gene expression and drug response studies in multiple therapeutic areas using patient derived and control cell lines
- Custom cell-based assay development and compound studies with multiple modality readouts.
- Capillary westerns (ProteinSimple)

### Tissues for spatial transcriptomics

- Brain, kidney, lung, heart, etc.
- Complete list: <https://support.10xgenomics.com/spatial-gene-expression/sample-prep/doc/specifications-visium-spatial-gene-expression-optimized-tissues>
- FFPE samples coming soon

**At 3DG we specialize in spatial and single cell transcriptomics.** Cells in tissues are highly influenced by their environment. Spatial multiomics provides the ability to see how regional context impacts cell function at genomic scale granularity. Access to cellular 'omics along with spatial context is a significant advance to understanding key aspects of cell biology, developmental biology, neurobiology, tumor biology and more. Combined, these analysis can accelerate the discovery of new therapeutic targets and novel approaches for treatment of disease.

## What Makes 3DG Different?

We specialize in providing end-to-end services for single-cell multiomics. For spatial projects we typically receive tissue samples and return transcriptome data with cluster analyses, H&E images and either unstained frozen section slides or images from fluorescent antibody imaging of client specified antigens. We can isolate nuclei from tissues for single cell RNAseq and integrate the transcriptomes with spatial transcriptomes from serial sections.

*"3DG brings a level of expertise in spatial transcriptomics that is difficult to find."*

**Barbara Nelsen,  
PhD, CEO Nelsen  
Biomedical**

*"We were very pleased with the adaptability, responsiveness and quality of scientific thinking data production and analysis demonstrated by the team at Predictive Biology. The communication before and after the study was excellent. Based on our positive experience and the results of that first study, we conducted two more follow-on sc-RNAseq studies."*

*Predictive Biology is an excellent choice as a contract research partner, particularly for single cell transcriptome projects."*

**James Lillie, PhD, CSO; OvaScience**

*"Over the last two years we have completed six studies with 3DG, with two additional projects currently in progress. These studies involved establishing new in vitro cell/drug response models, with imaging or molecular biology readouts such as qPCR and single-cell RNAseq.*

*3DG has done an excellent job of experiment design, execution and data analysis. All of the studies are custom designed projects. The communication, flexibility and data quality that 3DG has delivered is exceptional. I highly recommend 3DG as a contract research partner."*

**Alan D. Widgerow, MD CMO Alastin; Director, Center for Tissue Engineering, UC Irvine**

**Need Expertise? Contact 3DG at:**

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