

# A holistic view of biology, with multiomics

Enabled by cutting-edge sequencing and array technology, multiomic methods revolutionize research and push the limits of novel scientific insights to make new discoveries possible.

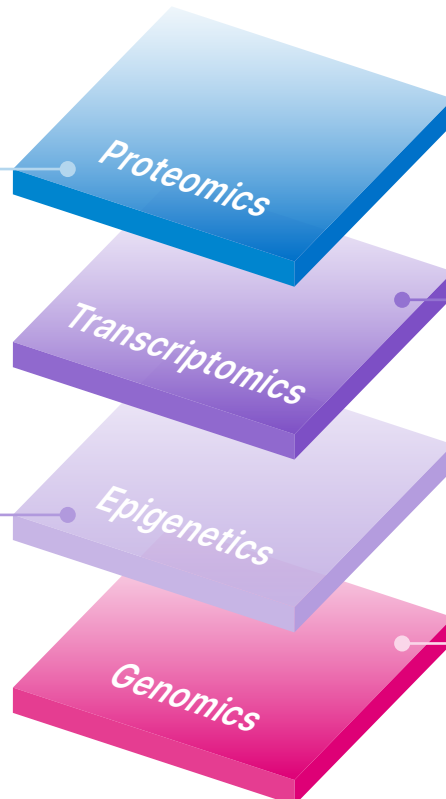


**66%**  
of life science  
research incorporates  
multiomics<sup>1</sup>

## What is multiomics?

A multidisciplinary approach that combines two or more “-omics” for a multidimensional view of human biology with limitless applications.

Quantifies protein expression to understand cellular phenotype and function. **Mass spectrometry, mass cytometry, NGS-based protein detection (CITE-Seq, PEA, Ab-Seq)**



The study of the transcriptome, the complete set of RNA transcripts that are produced by the genome, and how they are altered during the process of transcription and splicing. **mRNA-Seq, Total RNA-Seq (including non-coding RNAs), cfRNA**

The study of how cells control gene activity through processes like DNA methylation and histone modification. **Methylation arrays, WGBS, ATAC-Seq, CUT&Tag, ChIP-Seq, Hi-C**

Focuses on the structure, function, evolution, mapping, and editing of information coded within an organism's DNA (the genome). **WGS, WES, targeted, genotyping arrays**

## What are the benefits of multiomics?

Enhanced discovery power: Next-generation sequencing revolutionizes the types of discoveries possible.

### **A More Holistic View**

Gain a comprehensive picture of biological systems with an integrated approach to research.

### **Deeper Understanding**

Single-cell multiomic sequencing offers a powerful way to investigate individual cells for discovery at high resolution.

### **Maximizing Data**

Make the most of precious research samples by extracting the maximum amount of data possible.

### **Novel Drug Discovery**

Discover new therapeutic targets that enable the development of precision medicine.

### **A Customizable Approach**

With expert advisors and a range of technologies, our multiomics offerings provide the versatility to pursue whichever “-omics” fit your needs.

Multiomics publications have grown

**51%**

each year since 2012<sup>2</sup>

Multiomics grant funding has increased

**48%**

on average year-over-year since 2012<sup>2</sup>

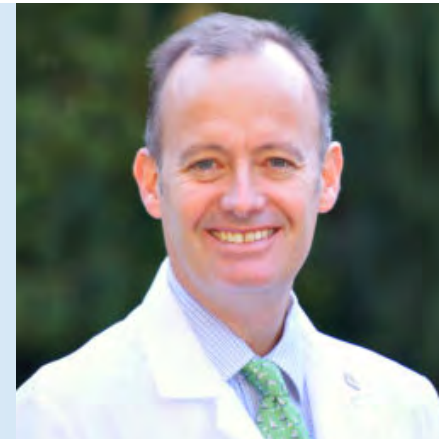


My advice is to dive right in. Multiomic workflows have become quite standard and just about anybody can do this type of work. The field is moving so quickly, if you wait for a time when it seems like it's mature, it will already have moved on to the next great thing.



– **Ben Humphreys, MD, PhD**

Chief of the Division of Nephrology, Washington University in St. Louis



More to see.  
More to understand.  
More with multiomics.

[EXPLORE MULTIOMICS WEBPAGE](#)

To learn more about the top multiomics approaches and decide which one best fits your research needs, explore our Multiomics web page.

1. Cell Biologist Market Research. Percepta Associates, Inc. Accessed 2021, [www.perceptaassociates.com](http://www.perceptaassociates.com).

2. Digital Science. Dimensions [Software] available from [app.dimensions.ai](http://app.dimensions.ai). Accessed May 21, 2021, under license agreement.