

[Bioinformatics and Biostatistics Core](#)

The Bioinformatics & Biostatistics Core is a collaborative center that provides investigators with bioinformatics expertise to analyze large molecular datasets and develop novel algorithms.

We have expertise in genomics, transcriptomics, epigenomics, systems biology and clinical investigations. Our services include data analysis, systems analysis, biological interpretation, grant writing and training. Our goal is to provide exceptional fee-for-service computational analysis and algorithm development and create long-term collaborations.

List of services:

Analytical Services

Transcriptomics: (RNA-Seq, miRNA-Seq, microarrays, single-cell RNA-Seq) Study design, power calculations, alignment, gene-level or transcript level quantification, differentially expressed gene lists, gene set enrichment analysis (GSEA), gene set variation analysis (GSVA), time series analysis, gene set annotation, genome visualization, network/pathway analysis, integrative omics analysis for systems biology approaches.

Genomics (Exome / Whole Genome Sequencing, SNP arrays, GWAS): Study design, power calculations, alignment, SNPs, indels, CNVs, structural variants, annotation, genome visualization, germline or somatic mutation calls, network analysis, integrative omics analysis for systems biology approaches.

Epigenomics (ChIP-Seq, ATAC-Seq, methylation arrays, Bisulfite-Seq): Study design, power calculations, alignment, peak calling, visualization, comparative analysis, motif search, integration with RNA data (optional), differential methylation, network analysis.

Metagenomics/microbiome (16S rRNA-Seq, shotgun sequencing): Study design, power calculations, OTU picking, taxonomic abundance identification, alpha and beta diversity evaluation, network analysis, pathway analysis.

Proteomics: Study design, power calculations, protein annotation, pathway/network analysis, time series analysis, phosphoproteomics analysis, protein set enrichment analysis, integrative omics analysis for systems biology approaches.

[Additional Services:](#)

Custom Analytical Pipelines & Algorithm Development: Novel algorithms, custom analytical pipelines, custom integrative analyses

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Network Analysis: Protein-protein interactions, network propagation, data integration, subnetwork identification

Manuscript preparation: Provide ongoing support for drafting and revising manuscript text, figures, and methods.

Proposal consultations and preparation: Methods development, power calculations, preliminary data analysis, grant review.

Data management: Data storage (AWS or HPC on campus), GEO, or other public repository upload.

Rates

The initial consultation to discuss your project is free of charge (up to 30 minutes). Then, projects are charged at an hourly rate as follows:

Hourly rates:

CWRU/CCF/UH researchers	\$150/hour
Other Academic Institutions	\$175/hour
Industry	\$200/hour

After the consultation, we will provide you with an estimated number of hours required, a quote, and a start date. You will receive detailed monthly billing updates and ongoing analysis results via our project page during the project.