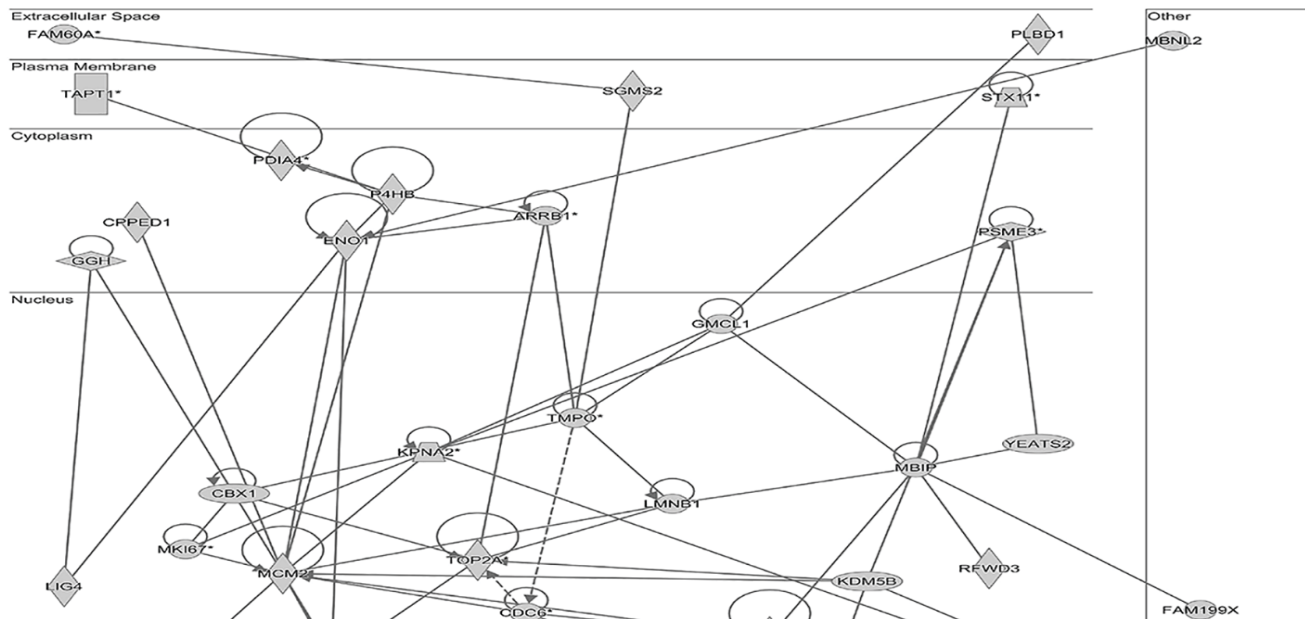


Molecular Bioinformatics (mBIO)

A University of Tennessee Health Science Center Institutional Core



MISSION

The mBIO Core's mission is to provide researchers on all UTHSC campuses with access to the latest technologies, workflows, and standards for analyzing molecular data.

INTRODUCTION AND SERVICES

The Molecular Bioinformatics (mBIO) Core was established through the Office of the Vice Chancellor for Research at the University of Tennessee Health Science Center in Memphis in 2014 to complement the services offered at the Molecular Resource Center (MRC), allowing one-stop data generation and analysis. The mBIO core offers consultation services during the experiment design phase and performs data analysis after raw data are generated. Services include sequence assembly, sequence alignment, differential expression analysis, and custom software designs. Expertise is also available related to protein structure/function prediction and proteomics/metabolomics.

EQUIPMENT AND SOFTWARE

The mBIO core maintains **four AMD 16-core blade servers** to offer researchers the computational power needed to handle the terabytes of next-generation sequencing (NGS) data that is generated every year. **Long-term data storage** is available as a fee for service. A local installation of **GALAXY**, a platform for hosting online bioinformatics analysis tools, is available for UT investigators to use at no charge by establishing an account on the **local Slipstream server**. Additional software includes **iPathway Guide** and site licenses for **Prism** statistics software by GraphPad.

The mBIO Core also provides frequent workshops and hands-on training opportunities for PIs, postdocs, and UTHSC students who are interested in learning the software, analysis pipelines, and statistics needed to perform bioinformatics analysis independently.

CORE DIRECTOR

Daniel Johnson, PhD, is Director of the Molecular Bioinformatics Core. Dr. Johnson earned his BS in Computer Science and Mathematics, his MS in Computer Science, and his PhD in Molecular Biosciences at Arkansas State University. Dr. Johnson was previously the lab manager for Arkansas State University's bioinformatics program. Dr. Johnson has published multiple papers in the field of bioinformatics, focusing on differential expression analysis and protein structure prediction. He joined the UTHSC team in 2015.

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For more information:

Molecular Bioinformatics (mBIO) Core

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