### Emory Glycomics and Molecular Interactions Core - FACILITIES & OTHER RESOURCES

**FACILITIES & OTHER RESOURCES**

**Updated 1 July 2022**

Fields Relevant for the Emory Glycomics and Molecular Interactions Core (EGMIC)

**EMORY GLYCOMICS AND MOLECULAR INTERACTIONS CORE (EGMIC)**

The **Emory Glycomics and Molecular Interactions Core (EGMIC)**, one of the **Emory Integrated Core Facilities (EICF)**, is located in a laboratory in Room 175 in the Whitehead Biomedical Research Building. The dedicated laboratory space for ECGC totals approximately 1,500 sq. ft. and includes state-of-the-art equipment for printing and interrogating glycan microarrays for determining the binding specificity of glycan binding proteins and organisms. An additional 500 sq. ft. laboratory in Room 4110 in the O. Wayne Rollins Research Center houses instrumentation that quantifies molecular interactions using label-free methods including surface plasmon resonance with a BiaCoreX100 and isothermal titration calorimetry using a MicroCal Auto-iTC200. In the same room, we also host a Bruker UltraFlexII MALDI-TOF/TOF for glycomics and proteomic analyses, as well as general molecular weight characterization for other biomolecules including nucleic acids and intact proteins.

The EGMIC provides four major types of service

·       Functional glycomics including glycan microarray screening (*Consortium for Functional Glycomics array of > 500 defined glycans, sialylated oligosaccharides array,* human blood group glycan array, and others), chemical release of glycans from glycoconjugates, production of Tagged Glycan Library, production and analysis of Shotgun Glycan Microarray.

·       Glycomics analysis: glycomic profiling of molecular masses of glycans in mixtures released from purified glycoprotein, mucins, glycolipids, as well as cultured cells, tissues, or organs which can generate compositional information on glycans and can provide predictions of structures.

·       Custom Microarray Printing of glycans, protein and providing microarray analysis

·       Convenient access to Biacore™ and MicroCal™ instruments for the study of molecular interactions including protein-glycan, protein-protein, protein-small molecules.