Louisiana Biomedical Research Network

Could you use $1500 in core bucks for use with any of the services provided by the LBRN Molecular and Cellular Biology Core?

Core Services include both one-on-one training for faculty and students as well as workshops on topics like bioinformatics and protein purification.

Sample services:

1. **Molecular Biology Reagent Equipment and Services**
    a. **GeneLab** provides conventional and next generation nucleic acid sequencing (NGS), and recombinant DNA Service. NGS equipment includes Torrent PGM, Ion Proton etc
    b. **NGS Services** provides a reliable connection between NGS experiments and the analysis of NGS data
2. **Protein Production, Purification and Characterization Laboratory**
    a. **Protein Purification and Characterization** includes semi automated Bio-rad profinia affinity chromatography system, AKTA Explorer FPLC system, and HPLC and ultracentrifugation equipment
    b. Peptide Synthesis and purification
    c. **Protein-protein interactions** are investigated using primarily Surface Plasmon Resonance (SPR) implemented on Biacore and ForteBio SPR equipment. Additional physicochemical characterization of protein-protein interactions is available through collaborations with the LSU Department of Chemistry.
    d. **Gene-to-Protein-to-Antibody Services** – you provide the gene, we return an antibody
3. **Molecular Immunopathology Laboratory Services**
    a. **Pathology Services** including necropsy procedures, gross and histopathological examinations and interpretation of immunohistochemistry and special stains performed by veterinarians and histology specialists
    b. **Flow Cytometry and immunophenotyping Services**
    c. **Multiplex/Luminex** complements immunophenotyping services for rapid and standardized analysis of soluble factors e.g., lymphokines, using bead based array technology.
    d. Microscopy – contains transmission and scanning electron microscopes, a laser dissection microscope, a Leica TCS SP2 for 3D fluorescence microscope, and a high-throughput digital slide-scanner.
    e. Metabolic analysis using Agilent Seahorse XF Pro Analyzer (96 well format): one can measure the oxygen consumption (OCR) and extracellular acidification rate (ECAR/PER) of live cells. OCR and ECAR or PER are key indicators of mitochondrial respiration and glycolysis as well as ATP production rate.

- **To apply for core bucks, contact Core Liaison**
- **For technical questions regarding core services, contact Dr. Yong-Hwan Lee at yhlee@lsu.edu or 225-578-0522**