



ANALYTICAL, TRANSLATIONAL & IMAGING RESOURCES FOR NORTHWESTERN INVESTIGATORS

BIOLOGICAL IMAGING FACILITY (BIF) bif.northwestern.edu

BIF provides a wide range of photonic and electron microscopy along with all the equipment necessary for users to prepare samples and image analysis all in one facility so that users can acquire data quickly and efficiently. Microscopy capabilities include: confocal laser scanning, super-resolution spinning disk confocal, differential interference contrast (DIC), FCS, FLIP, FRAP, FRET, live-cell imaging, phase contrast, and widefield fluorescence.

Manager: **Tong Zhang, PhD**
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DEVELOPMENTAL THERAPEUTICS CORE (DTC) cdt.northwestern.edu

DTC provides a full suite of fee-for-service tumor biology and translational support services that advance preclinical stage projects. DTC's expert technical staff can select the animal model best suited for your project, perform cell and target-based experiments, assist with drug pre-formulation and stability, perform analytical method development for pharmacodynamics, pharmacokinetics for biologics, and conduct exploratory non-GLP compliant PK and toxicology. Disease models include sc and orthotopic tumor models and an extensive human tumor derived (PDX) repository.

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CENTER FOR ADVANCED MOLECULAR IMAGING (CAMI) cami.northwestern.edu

CAMI offers state-of-the-art in vivo imaging modalities that enable basic science researchers and clinicians to develop new tools to image disease states of cells and small animals and their responses to treatment. Imaging modalities offered include: 7 and 9T MRI, IVIS Spectrum, micro SPECT-CT, and micro PET-CT. One-stop imaging suite includes tissue culture and small animal facilities.

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HIGH THROUGHPUT ANALYSIS CORE (NU-HTA) htal.northwestern.edu

HTA affordably performs massively parallel experiments using state-of-the-art instruments and robotics. Capabilities include screening of small molecule compound libraries; macromolecular binding, biochemical, and cell-based assays; high content screening with widefield or confocal optics; nanoliter liquid handling up to 1536-well density; whole-plate kinetic assays (ion currents, GPCR signaling); CRISPR/Cas9 screening (multiplexed libraries); analysis of large data sets; Fluorescence Thermal Shift assays (measures protein melting); and complex liquid handling workflows.

Manager: **Sara Fernandez Dunne, MS**
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PROTEOMICS CORE proteomics.northwestern.edu

The Proteomics Core offers routine services that include simple protein identification, top-down MS, IP-MS pulldown, and BioID. The Core also provides specialized services such as untargeted quantitative peptide proteomics, targeted quantitative peptide proteomics, epiproteomic histone modification panels A and B, untargeted metabolomics, and phosphoproteomics.

Interim Manager: **Basil "Aarohan" Mattamana**
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QUANTITATIVE BIO-ELEMENT IMAGING CENTER (QBIC) qbic.northwestern.edu

QBIC is the leading facility for quantitative elemental mapping in the Midwest. QBIC provides researchers with access to high-resolution microscopy and high-sensitivity metals analysis instruments, capable of quantitatively imaging metals in individual cells and tissues. Instruments include high resolution ICP-MS, cutting edge LA-ICP-TOF-MS, standard ICP-MS, ICP-OES, AAS, and laser ablation coupled ICP-MS. Expert technical staff offer a range of services, including instrument training, sample preparation, analysis, and experiment design.

Manager: **Rebecca Sponenburg**
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SUPPLEMENTAL APPENDICES FOR GRANT PROPOSALS clp.northwestern.edu/grantappendixes

The Chemistry of Life Processes Institute provides boilerplate about our centers and cores that you can use for your grant proposals. Visit our website to download the document. Further information can be provided by:

Senior Director for Research, Education & Administration, CLP, and Research Professor Molecular Biosciences: **Sheila Judge, PhD**
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