MISSION
The University of Maryland Greenebaum Comprehensive Cancer Center Translational Laboratory Shared Service (TLSS) offers pre-clinical and clinical experimental support to basic researchers and physicians in the UMGCCC community. We work in areas across the entire spectrum: cell biology, *in vitro*, *in vivo* and human trials.

CORE RESOURCES
- Access to >120 human/murine cell lines
- Luciferase-expressing breast, head & neck, leukemia, ovarian and prostate cancer cell lines
- IACUC approved umbrella protocol
- Access/Knowledge in Using Xenogen/IVIS Imaging Mice
- Primary Derived Xenograft Models
  - Breast
  - Head and Neck
  - Leukemia
  - Ovarian
  - Pancreatic (under development)
- Access to IRB approved protocol for tissue acquisition

Clinical Trial Support
We isolate:
- Plasma
- Serum
- Whole Blood (isolation of PBMC, DNA, RNA, protein)
- Bone Marrow (isolation of marrow cells)
- Staining of isolated lymphocyte cells
  - Coordination with Flow Cytometry Core for analysis
- Exosomes and ct DNA
Combination of BCL2 inhibitor Venetoclax (Ven) and long acting Asparaginase (pegcrisantaspase or PegC) inhibits leukemia growth in an orthotopic patient derived xenograft (PDX) model of acute myeloid leukemia. NRG mice were injected with 1x10⁶ AML45-luc-YFP-luc cells (primary cells gift of Drs. Martin Carroll and Alexander Perl, UPENN). After engraftment, mice were treated with vehicle, 75 mg/kg Ven PO 5x/week, 250 IU/kg PegC IV 1x/week or their combination. Mice were imaged weekly on the Xenogen IVIS spectrum in the Imaging Core. Leukemia burden is depicted by color from high to low (red, orange, green, blue). Emadi et al Leukemia 35(7): 1907-1924, 2021.

CRISPR SERVICES