

# University of Michigan, School of Medicine: the Great Lakes New England (GLNE) Clinical Epidemiology and Validation Center

Clinical Epidemiology and Validation Center

## Objectives

To continue development and validation of biomarker panels for the early detection and risk assessment of epithelial cancers of the GI tract and to assemble a high quality, prospectively collected, protocol driven, carefully documented biorepository to support EDRN collaborative biomarker discovery and validation research.

## Program Description

The Great Lakes New England (GLNE) Clinical Epidemiology and Validation Center of the EDRN consists of a collaboration of the following institutions and their consortium partners: University of Michigan Medical Center- Cancer Center, MD Anderson Cancer Center, Dartmouth Medical School-Norris Cotton Cancer Center, the Dana Farber Cancer Institute, and St. Michael Hospital of Toronto. The GLNE proposes to:

- Develop and implement biomarker validation protocols for three different GI tract sites; colorectal adenocarcinoma, esophageal adenocarcinoma, and hepatocellular carcinoma. For colorectal adenocarcinoma detection, the GLNE proposes development of a stool based panel of genetic biomarkers supplemented by serum based proteomic and mucin derived biomarkers. For low esophagus early detection, the GLNE proposes a panel of serum-based methylation biomarkers coupled with tissue based ploidy, cyclin D1, and a genetic amplicon panel. For hepatocellular detection, an Associate Member affiliated with the GLNE proposes a validation trial of descarboxyprothrombin supplemented by proteomic profiles and proteomics discovered biomarkers.
- Establish a multi-institutional network that develops detailed standard operating procedures and data elements. Data are managed via a Good Computing Practice compliant, Web-fronted informatics network that includes a sample tracking system and a secure protocol server. The GLNE also provides diverse human populations to validate early detection biomarkers for high priority cancers.