

# University of California at Los Angeles

Biomarker Reference Laboratory

## Objectives

To serve as a resource for facilitating the refinement and analytical validation of biomarker assays, methodologies, and reagents and assist in and perform Network-supported validation of biomarkers.

## Program Description

The goals of the UCLA Biomarker Reference Laboratory (UCLA-BRL) are to:

- Utilize our diverse infrastructure and highly skilled personnel to test, evaluate, quantify, and optimize detection of biomarkers useful early stage tumor marker. To this end, we have established Scientific Centers that can test for biomarkers in tissue (full tissue sections or 'intelligent' high density tissue microarrays) and in fluids (by conventional ELISA and nanotech electrochemical chip). In addition, we have the resources to detect nucleic acids in body fluids as well as DNA modification and alterations in tissue, cells and/or fluids,
- Develop new platforms and algorithms for biomarker detection and analysis. This includes the development and implementation, in conjunction with an industrial partner, of a high-throughput nano-detection chip for measuring biomarkers in fluids, and in-house pioneering research on mining biomarker profiles using tissue microarrays.
- Continue a program at UCLA that is highly professional and focused, yet at the same time flexible and cost-effective in order to meet the challenges of an evolving EDNR program.

## Expertise and Resources Available

The center has expertise and experience in microfluidics-based proteomics technologies, micro-arrays, ELISA, tissue arrays, and other immunological based assays and methods.