Center for Biomedical Research (CBR)

Bioanalytical, Biomedical, and Environmental Analysis

**Single Cell Analyzer**
- Single cell pH probing when cells are exposing external conditions
- Single cell temperature probing when cells are exposing external conditions
- Single cell analyzer instrument development (patent pending)

**Early Cancer Screening Using Urinary Biomarkers**
- P-scan Technology development and commercialization (patented)
- Method development for different panels of cancer biomarkers
- Correlation study of cancer biomarkers levels with cancer stages
- Concentration normalization of Urinary biomarkers
- Specificity, sensitivity, and accuracy of urinary biomarkers for cancer diagnosis

**Emerging Environmental Contaminants**
- Assessment and removal of emerging environmental contaminants
- Cytotoxicity study of nanomaterials

**Keywords**
- Bioanalysis; environmental analysis; biomedical; instrumental analysis; biomarkers; cancer screening

**Recognition**
- President’s University Citizenship Award for Mentoring, University of Missouri System

**Potential Collaboration fields**
- Microfluidic devices; biomaterials and nanomaterials; biostatistics; biosensors; psychologists; spectroscopy; biochemists and biologists

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**PoC:** Yinfa Ma, Associate Dean,
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A P-scan technique and single cell pH analyzer have been invented for biomedical researches.

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**CBR Research**