



Faculty Capabilities and Interests

Name: Kendra Merchant
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Discipline: Biology
Subdiscipline(s): Anatomy and physiology, cancer biology, histology
Areas of Research Interests: Prostate Cancer Phytotherapeutics
Skills: Tissue culture, ELISA, flow cytometry, PCR, fluorescence microscopy
Research Summary
(current, performed in the past 5 year; 300 words or less) The goal of my research is to investigate the effects of dietary phytochemicals and identify molecular targets that can be used as treatment and/or prognostic markers for prostate cancer. The phytochemicals will be compared to determine their efficacy, and to identify possible synergistic combinations which may be used as adjuvant therapy in prostate cancer treatment. Dietary phytochemicals that will be used in this study include lycopene, genistein, epigallocatechin-3-gallate (EGCG) and coumarin which are typically found in high quantities in fruits and vegetables. The aim of this project is to firstly compare the chemosensitivity of these phytochemicals in prostate cancer and normal cells and identify possible synergistic combinations. Molecular effects will also be investigated using PCR and microarray to identify possible molecular targets of these phytochemicals in the cancer cells.
Keywords (5 maximum) prostate, cancer, phytochemical, phytotherapy, treatment