



Non-Confidential Technology Disclosure

Title	Centrosome defects in precancerous lesions as tools for tumor diagnostics, prognostics and treatment.
Investigator	Steve Doxsey, Ph.D. Professor in Molecular Medicine, University of Massachusetts, Medical School.
Description	The invention is based on the discovery that centrosomal abnormalities in cells correlate with a future occurrence of cancer. The greater the degree of defects, the greater the probability of cancer and the greater its severity.
Application	This technology can be used to: <ul style="list-style-type: none">➤ Predict tumor development by examining a microtubule organizing center (centrosome) of a cell from an in situ lesion.➤ Predict aggressiveness of cancer in a patient by examining a centrosome from a pre-cancerous lesion.
Advantage	Enhancing patient survival through three avenues - <ul style="list-style-type: none">○ Diagnostic: Stage-specific markers for tumor development. This enables more efficient and accurate cancer detection.○ Prognostic: Very early potential markers for tumor development and aggressiveness. This can allow for earlier and more accurate treatment protocol.○ Therapeutic: potential targets for cancer therapy by altering/stabilizing centrosome function.
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Contact	Anita L. Ballesteros, Ph.D. Phone: (508)856-6611, Fax: (508)856-1482 Anita.Ballesteros@umassmed.edu