2016 BUCKEYE CRUISE FOR CANCER FUND A NEED Agilent 6550 QTOF LC-MS System for Improved Metabolomics Studies

To understand cancer and develop new therapies, researchers must understand the chemical processes that keep cancer cells going. An important way of doing this is through a relatively new research area called metabolomics. This research involves identifying the small molecules, called metabolites, which cells make when they break down compounds from foods, drugs, and other substances. These metabolites reveal much about the biological processes that occur in cells and the body, and can help researchers understand how a cell or tumor reacts upon exposure to a food, drug, or other substance. For example, we are currently studying black raspberries because they contain substances that might help fight oral cancer.

The OSUCCC – James has a critical need for a new metabolomics system called the 6550 QTOF LC-MS. This instrument will process samples more quickly and efficiently than the current OSUCCC – James instrument, which is running at capacity due to the tremendous interest and value in this type of research.

The new metabolomics system will be housed in the Nutrient and Phytochemical Analytics Shared Resource. It will enable OSUCCC – James investigators to include metabolomics in their studies, which will lead to a better understanding of cancer and help develop more effective cancer prevention strategies and cancer therapies. It will also help attract top-notch faculty recruits through the Personalized Food and Nutritional Metabolomics OSU Discovery Theme Initiative

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