



PerkinElmer Explores New Texture Analysis Techniques for Cancer Research

WALTHAM, MA -[PerkinElmer, Inc.](#), a global leader focused on the health and safety of people and the environment, today announced the release of a new application note that demonstrates how a new texture analysis feature in the Company's high content screening imaging software provides researchers with a powerful new means of analyzing cellular images in HCS applications.

Textural analysis is used when intensity and morphology are insufficient or not suitable to show the expected result for the study in several therapeutic research areas such as phenotypic assays in cancer biology, predictive toxicity and stem cell biology.

The application note details how texture analysis can be applied to quantification of PKC activation using PerkinElmer's [Operetta®](#) High Content Screening system and [Harmony®](#) image analysis software. PKC α is an isoform of Protein Kinase C which translocates from the cytoplasm to the plasma membrane when it interacts with regulators of cell cycle and motility pathways. This is an important HCS application in cancer research, as modulators of PKC α have shown potential as anti-tumor drugs. Previous attempts have been made to measure PKC α activation by quantifying the extent of its colocalization with a membrane marker or by measuring the accumulation of fluorescently tagged PKC in fluorescent spots. However, these types of evaluation of high content assays have proven to be unreliable and error-prone.

The application note concludes that the plasma membrane texture-based approach is a very robust method for accurately quantifying PKC α located in the ridge-like structures of membrane between neighboring cells.

The full version of the application notes on texture analysis and PKC activation can be downloaded at www.cellularimaging.com/application_notes/operetta.

About PerkinElmer, Inc.

PerkinElmer, Inc. is a global leader focused on improving the health and safety of people and the environment. The Company reported revenue of approximately \$1.8 billion in 2009 has around 8,800 employees serving customers in more than 150 countries, and is a component of the S&P 500 Index. Additional information is available through www.perkinelmer.com or 1-877-PKI-NYSE.

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