

How does the physical stiffness of a tumor cell affect not just its growth, but also how it responds to treatment?

A tumor's stiffness plays a critical role in cancer progression and influences how cancer cells spread, interact, and respond to therapies. By measuring tumor cell stiffness, we can uncover valuable information about cancer behavior, which can lead to earlier, more accurate diagnoses and help optimize and personalize treatment decisions.

How does stiffness affect cancer cells and treatment responses?

CANCER AGGRESSIVENESS

Tumor cells have different stiffness profile than healthy cells. Softer cells are more likely to spread and metastasize which may warrant more aggressive treatment. Firmer cells can be considered slower growing or indolent.

TREATMENT OPTIMIZATION

Some therapies may work better when combined with approaches that affect tumor stiffness, helping drugs reach their targets more effectively and improving outcomes.

THERAPY RESISTANCE

Stiffness of the tumor microenvironment can limit the effectiveness of some treatments, especially immunotherapies. Measuring stiffness can help us predict and possibly overcome resistance, making treatments more effective.



cancer cell stiffness matters

**CANCER ISN'T JUST ABOUT
ABNORMAL CELL GROWTH
— IT'S ALSO ABOUT CHANGES
IN THE PHYSICAL PROPERTIES
OF CELLS AND TISSUES**



We can measure stiffness to:



Learn more at
artidis.com



Deliver benign vs. malignant diagnosis
immediately after biopsy is taken.



Predict the risk of metastasis based
on cell stiffness through the Imminent
Aggressiveness assessment (indolent
vs. aggressive cancer differentiation).



Provide treatment recommendation
tailored to aggressiveness and tumor
microenvironment (TME) stiffness
profile.

