Fluorescence Nanoimaging (AFM)

Elasticity of cell wall and Adhesion energy

Nanocytomechanics (AFM)

Specificity = 98%
Sensitivity = 93%

Specificity = 83%
Sensitivity = 97%

SV-HUC-1
Normal cells

MGH-U1
Cancer cells

Nanomechanics (AFM) + Spectroscopy (Raman) ⇒ discriminates cancer from normal cells with high specificity and sensitivity for early diagnosis of cancer

Modulated Raman Spectroscopy

Specificity = 95%
Sensitivity = 98%