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(54) **SEMICONDUCTOR NANOCRYSTAL-BASED CELLULAR IMAGING**

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(57) **ABSTRACT**

Methods for determining metabolic properties of living cells through the uptake of semiconductor nanocrystals by cells. Generally the methods require a layer of neutral or hydrophilic semiconductor nanocrystals and a layer of cells seeded onto a culture surface and changes in the layer of semiconductor nanocrystals are detected. The observed changes made to the layer of semiconductor nanocrystals can be correlated to such metabolic properties as metastatic potential, cell motility or migration.

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