

Nanodevice size and surface charge studied

April 4 2006

Buffalo, N.Y., scientists say changing the size and surface charge of nanodevices alters the way they are taken up by body organs and tissues.

Dr. Mohamed Khan and Lajos Balough -- co-directors of the NanoBiotechnology Center at the Roswell Park Cancer Institute in Buffalo -- say their discovery should allow for better targeting of treatments.

Nanocomposites represent a class of nanodevices that have several potential medical uses, most notably cancer imaging and therapy. The study is the first detailed quantitative analysis of the significant effects the manipulation of the size and surface charge of nanodevices have on their biodistribution in a mouse melanoma tumor model system.

The scientists say their results are of great significance in the design of all nanodevices, targeted and non-targeted, being considered for cancer imaging and therapy.

Khan and Balough presented their research this week during the 97th Annual Meeting of the American Association for Cancer Research, in Washington, D.C.

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Citation: Nanodevice size and surface charge studied (2006, April 4) retrieved 25 April 2024

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