

Regionally Activated Drug Delivery Nanoparticles

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BACKGROUND

A major challenge facing nanoparticle-based drug delivery vehicles with chemotherapy payloads is accumulation in healthy tissue through passive extravasation as well as active uptake by the reticulo-endothelial system. These healthy tissues get a dose of the active drug once the nanoparticles begin to break down resulting in dose limiting side effects. New approaches and platforms are needed to address this issue.

TECHNOLOGY DESCRIPTION

University researchers have developed a drug delivery platform technology modeled after the successful Doxil particle with the extra feature of being regionally activated in order to reduce the dose limiting side effects of ulcers and irritation to hands and feet that patients on Doxil experience. The nanoparticle formulation and method are designed to precisely deliver active drugs to the desired tissue region, such as a tumor. The nanoparticles can be administered systemically via intravenous injection or infusion. The method keeps the activation region spatially localized reducing wide systemic exposure.

INTELLECTUAL PROPERTY INFO

The invention is available for licensing.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	0000916 A1	01/02/2020	2013-303

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OTHER INFORMATION

KEYWORDS

drug delivery, nanocarrier,
nanoparticle

CATEGORIZED AS

- **Medical**
 - Delivery Systems
- **Nanotechnology**
 - NanoBio

RELATED CASES

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