

Creation of ‘Super Avastin’: A New Nanomedicine Approach for the Treatment of PXE and AMD

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Abstract:

Nanomedicine is an emerging medical area that utilizes nanoparticles for the detection and treatment of diseases. The ubiquitous place of gold in Nanomedicine stems from its chemical ability to serve in an unoxidized state at the nano size level when most surfaces of other metals get oxidized. In addition to our ongoing interest on the development of hybrid gold nanoparticles for use in imaging and therapy of human cancers, we are also actively interested in the fabrication of biocompatible gold nanoparticles conjugated to Avastin for use in the treatment of choroidal neovascularization associated with Pseudoxanthoma elasticum (PXE) and age related macular degeneration (AMD) ophthalmic diseases. Herein, we report design and development of Avastin conjugated Gold nanoparticles (Super Avastin) for the treatment of PXE and AMD.