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2nd International Conference on

Tumor & Cancer Immunology and Immunotherapy

July 17-18, 2017 Chicago, USA

Tumor associated macrophages and Anti-glioma Targeted therapy

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N anotechnology and convection-enhanced delivery have been developed in recent years for treatment of glioma, each with highly desirable strengths in certain aspects, but limitations in other aspects. The development of an effective brainglioma targeting delivery system for glioma therapy is much needed. We developed a novel drug carrier that can combine the advantages of both liposomes and polymeric NPs to target brain-tumor associated macrophages (TAMs). By phagocytosis, the innate immune TAMs can take up NPs to initiate anti-glioma immune responses and transport drugs to destroy neighboring tumor cells. Nanoparticles (NPs) containing mixed lipid monolayer shell, biodegradable polymer core were conjugated with rabies virus glycoprotein (RVG) peptide as brain targeting ligand. Anti-glioma drug, paclitaxel (PTX), was loaded to RVG-NPs to treat malignant glioma. Characterization by AFM, nanosizer and HPLC assays showed that the size-controlled RVG-PTX-NPs had the desirable size (~140 nm), narrow size distribution and spherical shape. With a size of 140 nm, RVG-PTX-NPs prevented uptake by neurons and selective targeting to the brain TAMs with controlled release and tumor specific toxicity. In vivo studies revealed that RVG-PTX-NPs were able to cross the blood-brain barrier (BBB) and had specific targeting to the brain. Most importantly, RVG-PTX-NPs showed effectiveness as anti-glioma therapy on mice model for human glioma. We concluded that RVG-PTX-NPs provided an effective approach for brain-TAMs targeted delivery for the treatment of glioma.

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Butterfly Warrior: An Introspection on the Physical, Mental, Social and Emotional Aspects of Men with Systemic Lupus Erythematosus

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Medicine is a field in science that concerns itself to the improvement of an organism's well-being by having a catena to the field of Healthcare. It is a branch of science which treats diseases and unriddles illnesses which have no available cure like autoimmune diseases, like Lupus. Lupus or Systemic Lupus Erythematosus (SLE) is a disease where the immune system attacks the body's own cells mistaking it for a foreign aggregate of a person's body that usually targets the female population. Due to this, many researches of this disease have focused mainly on female Lupus cases, leaving the affected male population with little knowledge about their case and about themselves. As part of the research enterprise, an introspection among the physical, mental, emotional and social aspects of a male lupus patient was done to promulgate information about the accordant aspects of a person's self and to see any effects of the disease to the manliness of a male Lupus patient. The research was conducted through In-depth interviews and email interviews of one male lupus patient, having open-ended questions as its cornerstone being a case study. Results of the research were accomplished by sense-making, which furthered the knowledge of male lupus patients being physically deduced, mentally polished, emotionally reliant to God and family, socially selective and still relevantly male.

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