Repeated courses of BCG treatment lead to up to 80% failure rates. Response rates to current second line intravesical therapies average less than 20%.

[0006] Taxanes (such as paclitaxel and docetaxel) are a class of diterpenoid drugs that have anti-tumor activity against a wide range of human cancers. Paclitaxel was originally isolated from the bark of the Yew tree, and was known to act by interfering with the normal function of microtubule breakdown. Paclitaxel binds to the β subunit of tubulin, the building blocks of microtubules, causing hyper-stabilization of the microtubule structures. The resulting paclitaxel/microtubule structure is unable to disassemble, thereby arresting mitosis and inhibiting angiogenesis.

[0007] Albumin-based nanoparticle compositions have been developed as a drug delivery system for delivering substantially water insoluble drugs such as taxanes. *See*, for example, U.S. Pat. Nos. 5,916,596; 6,506,405; 6,749,868, and 6,537,579 and also in U.S. Pat. Pub. Nos. 2005/0004002 and 2007/0082838. The albumin-based nanoparticle technology utilizes the natural properties of the protein albumin to transport and deliver substantially water insoluble drugs to the site of disease. These nanoparticles are readily incorporated into the body's own transport processes and are able to exploit the tumors' attraction to albumin, enabling the delivery of higher concentrations of the active drug in the nanoparticles to the target site. In addition, the albumin-based nanoparticle technology offers the ability to improve a drug's solubility by avoiding the need for toxic chemicals, such as solvents, in the administration process, thus potentially improving safety through the elimination of solvent-related side effects.

[0008] The disclosures of all publications, patents, patent applications and published patent applications referred to herein are hereby incorporated herein by reference in their entirety.

BRIEF SUMMARY ~~OF THE INVENTION~~

[0008a] In one aspect, there is provided the use of a composition comprising nanoparticles comprising a paclitaxel coated with an albumin in the manufacture of a medicament for treating bladder cancer in an individual, wherein the medicament is to be administered concurrently with an effective amount of a platinum-based agent and an effective amount of an antimetabolite.

[0009] The present disclosure~~invention~~ in some embodiments provides a method of treating bladder cancer in an individual in need thereof, comprising administering to the individual an effective amount of a composition comprising nanoparticles comprising a taxane and an albumin (hereinafter also referred to as "the nanoparticle composition" or "taxane nanoparticle composition"). In some embodiments, the taxane is paclitaxel. In some embodiments, the taxane is docetaxel. In some embodiments, the albumin is human serum albumin. In some embodiments, the nanoparticles comprise paclitaxel (or docetaxel) coated with albumin. In some embodiments, the average particle size of the nanoparticles in the nanoparticle

intravenously. In some embodiments according to any of the embodiments in the present paragraph, the nanoparticle composition is administered at about 260-300 mg/m^2. In some embodiments according to any of the embodiments in the present paragraph, the platinum-based agent is carboplatin. In some embodiments according to any of the embodiments in the present paragraph, the antimetabolite is gemcitabine. In some embodiments according to any of the embodiments in the present paragraph, the carboplatin is administered intravenously at AUC of about 5. In some embodiments according to any of the embodiments in the present paragraph, the gemcitabine is administered intravenously at about 800 mg/m^2.

[0022] In some embodiments according to any one of the embodiments in the above three paragraphs, the taxane is paclitaxel.

[0023] In some embodiments according to any one of the embodiments in the above four paragraphs, the nanoparticles in the composition have an average diameter of no greater than about 200 nm (such as an average diameter of less than about 200 nm). In some embodiments according to any of the embodiments in the present paragraph, the taxane in the nanoparticles are coated with albumin. In some embodiments according to any of the embodiments in the present paragraph, the bladder cancer is urothelial carcinoma.

[0024] In some embodiments according to any one of the embodiments in the above five paragraph, the bladder cancer is a high grade bladder cancer.

[0025] These and other embodiment~~aspects~~ and advantages of the present disclosure~~invention~~ will become apparent from the subsequent detailed description and the appended claims. It is to be understood that one, some, or all of the properties of the various embodiments described herein may be combined to form other embodiments of the present disclosure~~invention~~.

BRIEF DESCRIPTION OF FIGURES

[0026] Figure 1 shows the percentage of change in tumor size in 45 platinum-refractory bladder cancer patients treated with Abraxane®.

[0027] Figure 2 shows Kaplan Meier progression-free survival graphs for platinum-refractory bladder cancer patients treated with Abraxane®.

[0028] Figure 3 shows Kaplan Meier overall survival graphs for platinum-refractory bladder cancer patients treated with Abraxane®.

[0029] Figure 4 shows the effect of prognostic factors influencing overall survival for platinum-refractory bladder cancer patients treated with Abraxane®.