

What is claimed is:

1. ~~An invention not claimed in any divisional application. A method for locally delivering a chemotherapeutic agent to an upper tract urothelial carcinoma (UTUC), comprising:~~
 - ~~A. placing a balloon catheter with a working channel, via retrograde or antegrade ureteral access into the ureter and/or renal pelvis;~~
 - ~~B. inflating the catheter balloon such that the ureter is temporarily obstructed;~~
 - ~~C. instilling a liquid liposomal formulation comprising a chemotherapeutic agent into the working channel of the catheter; and~~
 - ~~D. allowing the instilled liposomal formulation to dwell in the ureter and/or renal pelvis for a time sufficient to allow at least a portion of the liposomal formulation to adhere to the urothelial wall.~~
2. ~~A method according to claim 1, wherein the instilled liposomal formulation is allowed to dwell in the ureter and/or renal pelvis for at least about 10 minutes, about 15 minutes, about 20 minutes, about 30 minutes, about 45 minutes, about one hour, or about 2 hours.~~
3. ~~The method according to claim 1, wherein the catheter is a ureteral occlusion catheter.~~
4. ~~The method according to claim 1, wherein the chemotherapeutic agent is a taxane.~~
5. ~~The method according to claim 4, wherein the chemotherapeutic agent is paclitaxel, docetaxel, or cabazitaxel.~~
6. ~~The method according to claim 1, wherein the chemotherapeutic agent is cisplatin.~~
7. ~~The method according to claim 1, wherein a liposomal formulation of the chemotherapeutic agent is prepared prior to instillation by adding an aqueous solution to a proliposomal formulation of the chemotherapeutic agent.~~
8. ~~The method of claim 7, wherein the aqueous solution is sterile water, saline, or a buffer.~~
- ~~The method of claim 1, wherein the volume of the liposomal formulation is from about~~
~~about 15 mL.~~
10. ~~The method according to claim 6, wherein cisplatin is formulated into a liposomal formulation using a proliposomal powder dispersion, comprising~~
 - ~~(a) cisplatin,~~
 - ~~(b) dimyristoyl phosphatidylcholine (DMPC), and~~
 - ~~(c) dimyristoyl phosphatidylglycerol sodium (DMPG)~~~~wherein the weight ratios of a : b : c are 1 : (2.5 - 4.5) : (1.5 - 2.5).~~
11. ~~The method according to claim 10, wherein the proliposomal powder dispersion additionally comprises~~
 - ~~(d) cholesterol,~~

~~wherein the weight ratios of a : b : c : d are 1 : (2.5 - 4.5) : (1.5 - 2.5) : (0.5 - 1).~~

~~12. The method according to claim 5, wherein paclitaxel is formulated into a proliposomal formulation using a proliposomal powder dispersion, comprising~~

~~(a) paclitaxel,~~

~~(b) dimyristoyl phosphatidylcholine (DMPC), and~~

~~(c) dimyristoyl phosphatidylglycerol sodium (DMPG)~~

~~wherein the weight ratios of a : b : c are 1 : (1 - 3.8) : (0.4 - 1.5).~~

~~13. The method according to claim 12, wherein the proliposomal powder dispersion additionally comprises~~

~~(d) cholesterol,~~

~~wherein the weight ratios of a : b : c : d are 1 : (1 - 3.8) : (0.4 - 1.5) : (0.5 - 1).~~

~~14. The method according to claim 12, wherein the proliposomal powder dispersion additionally comprises~~

~~(d) mannitol,~~

~~wherein the weight ratios of a : b : c : d are 1 : (1 - 3.8) : (0.4 - 1.5) : (1 - 3).~~

~~15. The method according to any one of the preceding claims, wherein the delivery of the chemotherapeutic agent is an adjuvant therapy for the treatment of UTUC.~~

~~16. The method according to claim 15, wherein the delivery of the chemotherapeutic agent is adjuvant to ureteroscopic ablation/resection of a UTUC tumor.~~

~~17. The method according to any one of the preceding claims, wherein the liposomal formulation is instilled two to five times, repeated twice a week, once a week, every other week, or every four weeks.~~