WHAT IS CLAIMED IS:

1. A composition comprising a plurality of intact bacterially derived minicells, comprising a first minicell composition, wherein:

(a) each minicell encloses at least 500,000 molecules of a compound that displays autofluorescence, wherein the compound is PNU-159682;

(b) the minicell is attached to a bispecific antibody comprising (i) a first arm with specificity for a minicell surface structure and (ii) a second arm with specificity for epidermal growth factor receptor (EGFR);

(c) the composition contains less than about 5 EU free endotoxin; and

(d) the composition contains minimal or no PNU-159682 and/or nucleic acid trapped on the surface of the minicells.

2. The composition of claim 1, wherein the epidermal growth factor receptor (EGFR) is present in a brain tumor.

3. The composition ofclaim 1 or 2, wherein the first minicell composition comprises minicells, each of which encloses at least about 200 ng of PNU-159682 per 10^9 minicells.

4. A method of making the composition of any one of claims 1-3, comprising loading a plurality of minicells with a desired compound without resort to centrifugation, comprising

(a) incubating the plurality in a volume of an incubation solution of the compound in a buffered liquid, wherein the volume is on the order of about 100 mls; and then

(b) subjecting the plurality to multiple washing steps, each comprising cross-flow filtration of the minicells with a volume of buffered liquid that is about 20 liters, wherein none of the washing steps employs centrifugation of the minicells.

5. The method of claim 4, wherein a binary ionic compound, which is different from the desired compound, is dissolved in the incubation solution to a concentration that is on the order of about 200 mM or more.

6. The method of claim 4 or 5, wherein:

(a) step (b) comprises three to five washing steps; and/or

(b) the desired compound is fluorescent; and/or

(c) the incubating is for a period of about4 hours or more; and/or

(d) the desired compound is biologically active; and/or

(e) the desired compound is a small molecule drug of about 1500 Daltons or less; and/or

(f) the small molecule drug is cytotoxic; and/or

(g) the small molecule drug is activated *in vivo*.

7. The method of any one of claims 4-6, wherein the desired compound is PNU-159682.

8. Use of an effective amount of a composition according to any of claims 1-3, in the manufacture of a medicament for treating cancer in a patient in need thereof.