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(54) Title of the invention : NANOLIPID DRUG CONJUGATE OF ARTEMISININ DERIVATIVE LINKED WITH APTAMERS FOR ACTIVE TARGETING OF BREAST CANCER

(51) International classification	:A61P0035000000, A61K0047540000, C12N0015115000, A61K0049000000, A61P0035020000	(71) <b>Name of Applicant :</b> <b>1)JSS College of Pharmacy, Ooty - JSS Academy of Higher Education &amp; Research, Mysuru</b> Address of Applicant :“Rocklands”, Post Box No.: 20, Ooty, The Nilgiris, Tamil Nadu-643 001, India. Ooty Tamil Nadu India
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(57) Abstract :

The present invention discloses nanolipid drug conjugate of artemisinin derivative linked with aptamers for active targeting of breast cancer cells. More particularly, the invention discloses a formulation comprising nanoemulsion loaded with dihydroartemisinin linked to anti-nucleolin AS1411 aptamer, to achieve good treatment outcome due to the active targeting of cancer cells. The nanoemulsion formulation of the present invention provides an effective anti-cancer therapy with less or no effect on the normal cells. In particular, the nanoemulsion loaded with dihydroartemisinin is coated with PEG (poly ethylene glycol) for the stealth property, followed by conjugating with amino modified AS1411 aptamer.

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