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## Poly-dopamine coated nano-size liposomes as novel drug carriers

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We report the stimuli-responsive poly-dopamine protected liposomes (liposome@PDA) drug carriers. The novel drug carriers are pH sensitive drug delivery systems. 5-fluorouracil (5-FU) which is the typical chemotherapeutic agent was loaded into the nano-size liposome@PDA capsules. The release percentages of 5-FU are 2.9%, 23.7%, 48.4%, 77.2% in the solution with pH 7.42, 6.87, 4.11 and 3.16, respectively. The *in vitro* cell cytotoxicity experiment showed that the capsules presented positive cell viability (above 90%). The capsule can easily pass the cell membranes and then up taken by the cells, thus leading to inhibition of cancer cell activity. The drug-loaded capsules performed better than free drug. Our finding demonstrates the great potential of liposome@PDA capsules as carriers in biomedical applications.

### Biography

Wei Zong has completed her Master's from Harbin Institute of Technology University. She is a PhD candidate in Harbin Institute of Technology University now.

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