

## Polymer Nanoparticles for Targeted Cancer Therapy

권익찬\*

한국과학기술연구원

(ikwon@kist.re.kr\*)

Self-assembled nanoparticles based on hydrophobically modified glycol chitosan (HGC) were prepared as for cancer therap. HGC conjugates were prepared by chemically linking 5 $\beta$ -cholic acid to glycol chitosan chains using 1-ethyl-3-(3-dimethylaminopropyl)-carbodiimide. In phosphate-buffered saline (PBS pH 7.4), the synthesized HGC conjugates formed nano-sized particles with a diameter of 200 nm and exhibited high thermodynamic stability. Paclitaxel was efficiently loaded into HGC nanoparticles to 10 wt% using a dialysis method. The paclitaxel-loaded HGC (PTX-HGC) nanoparticles showed high anti-tumor efficacy in vivo.