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Title: Fabrication of antibody-loaded microparticles for sustained-release immunotherapy of ovarian cancer

Abstract: Low success rates have been reported in the systemic administration of checkpoint-inhibitor immunotherapy of ovarian cancer. We hypothesize that through the localized administration of an antibody reservoir, treatment can be sustained and concentrated in the tumor region. In this study, we present the design and development of antibody-loaded particles towards a sustained-release immunotherapy. Coaxial electrospray (CES) is an emerging technology in the encapsulation of biomolecules because it's a one-step process that can achieve high encapsulation rates. We present the encapsulation of the fluorescently-labeled human immunoglobulin G (IgG-FITC) antibody in PLGA microspheres using CES.