

Preparation, Characterization, and In Vitro Evaluation of Eudragit S100-Coated Bile Salt-Containing Liposomes for Oral Colonic Delivery of Budesonide

Hamid Alghurabi ^{1,2}, Tatsuaki Tagami ¹, Koki Ogawa ¹ and Tetsuya Ozeki ^{1,*}

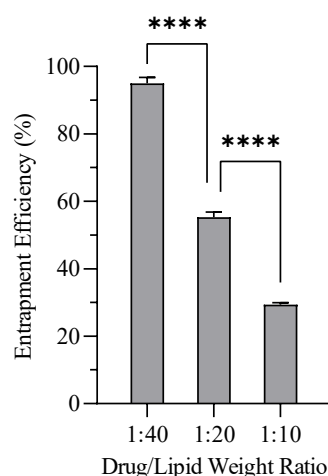


Figure S1. The effect of drug-to-lipid weight ratio on the EE of liposomes prepared by extrusion. DPPC:CH:SA molar ratio was 7:3:3 and SGC concentration was 0.25 mg/mL. **Notes:** The data represents the mean \pm standard deviation ($n = 3$). (**** $p < 0.0001$) compared to adjacent formulation(s).

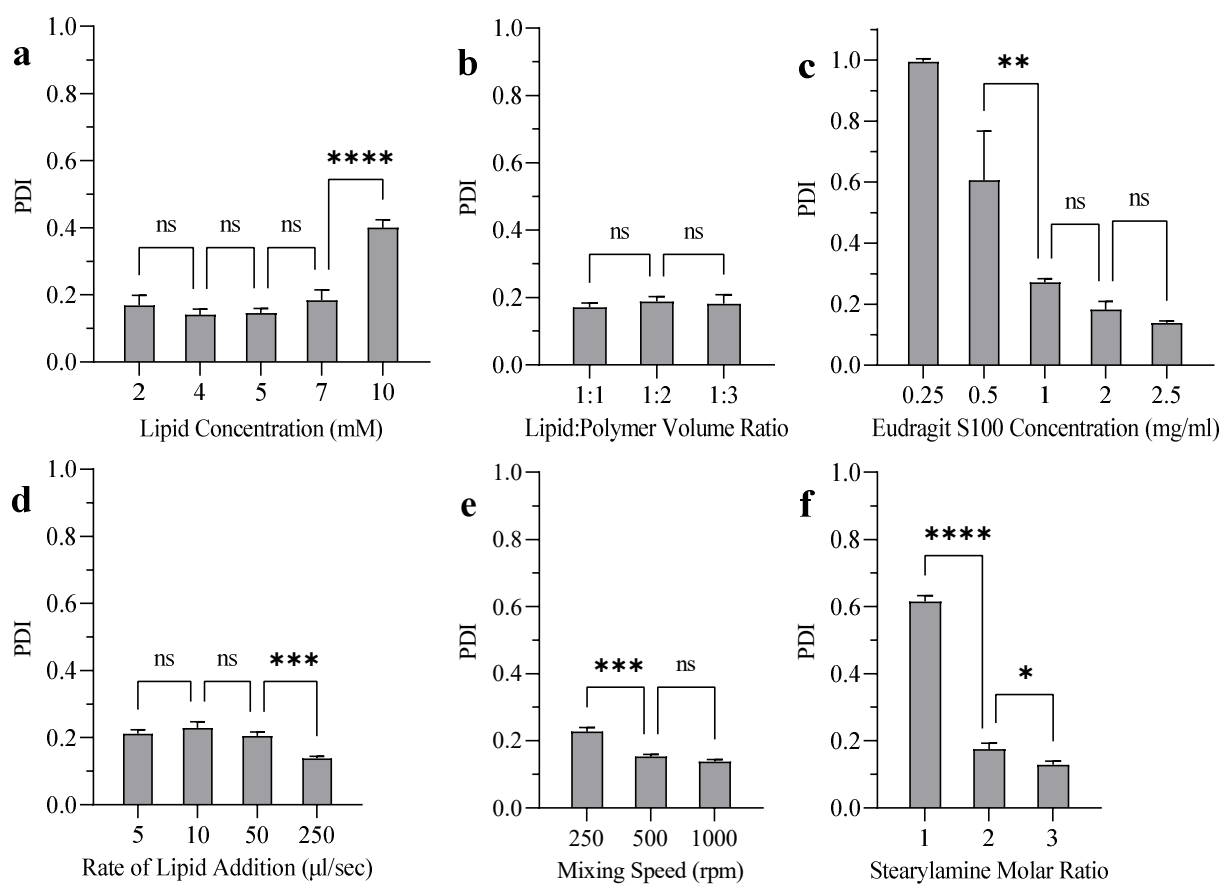


Figure S2. The effect of various coating variables: (a) lipid concentration (b) lipid:polymer volume ratio (c) ES100 concentration (d) rate of lipid addition (e) mixing speed (f) SA molar ratio on the PDI of liposomes. **Notes:** The data represents the mean \pm standard deviation ($n = 3$). (ns $p \geq 0.05$, * $p < 0.05$, ** $p < 0.005$, *** $p < 0.001$, **** $p < 0.0001$) compared to adjacent formulation(s).

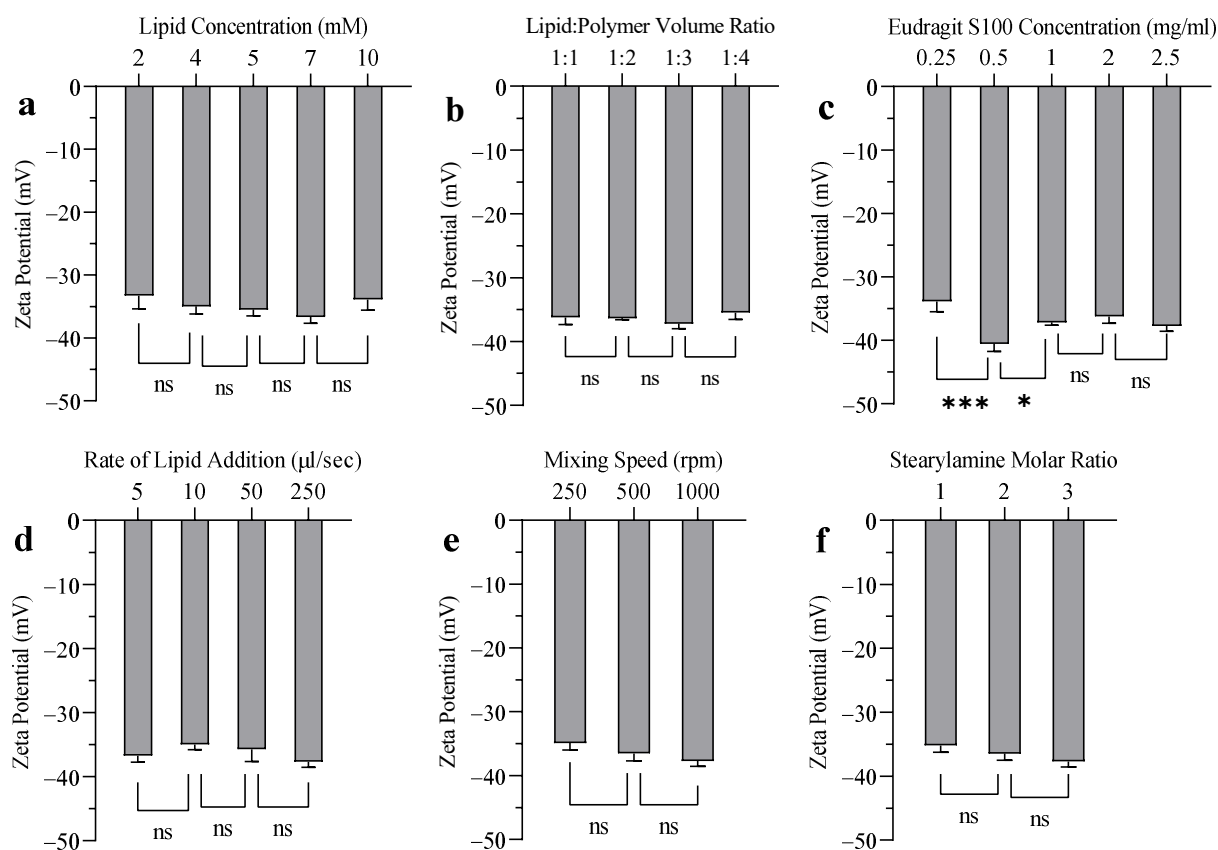


Figure S3. The effect of various coating variables: (a) lipid concentration (b) lipid:polymer volume ratio (c) ES100 concentration (d) rate of lipid addition (e) mixing speed (f) SA molar ratio on the zeta potential of liposomes. **Notes:** The data represents the mean \pm standard deviation ($n = 3$). (ns $p \geq 0.05$, * $p < 0.05$, *** $p < 0.001$) compared to adjacent formulation(s).

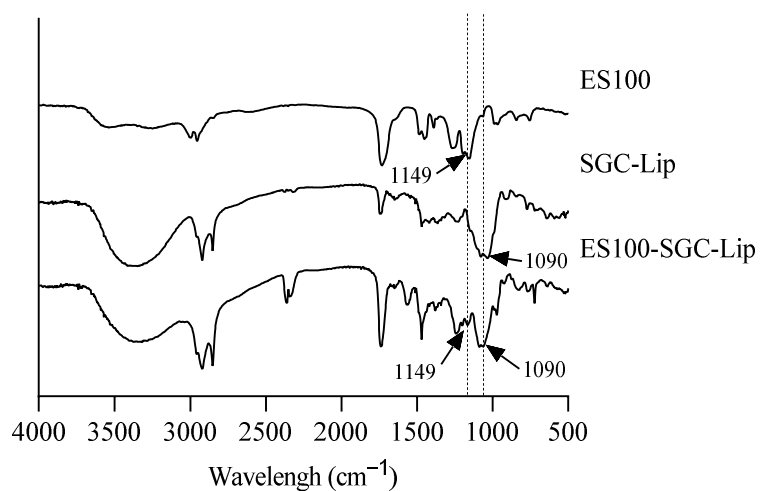


Figure S4. Fourier-transform infrared spectra of Eudragit S100 polymer and the liposomal formulation before and after coating with the polymer.

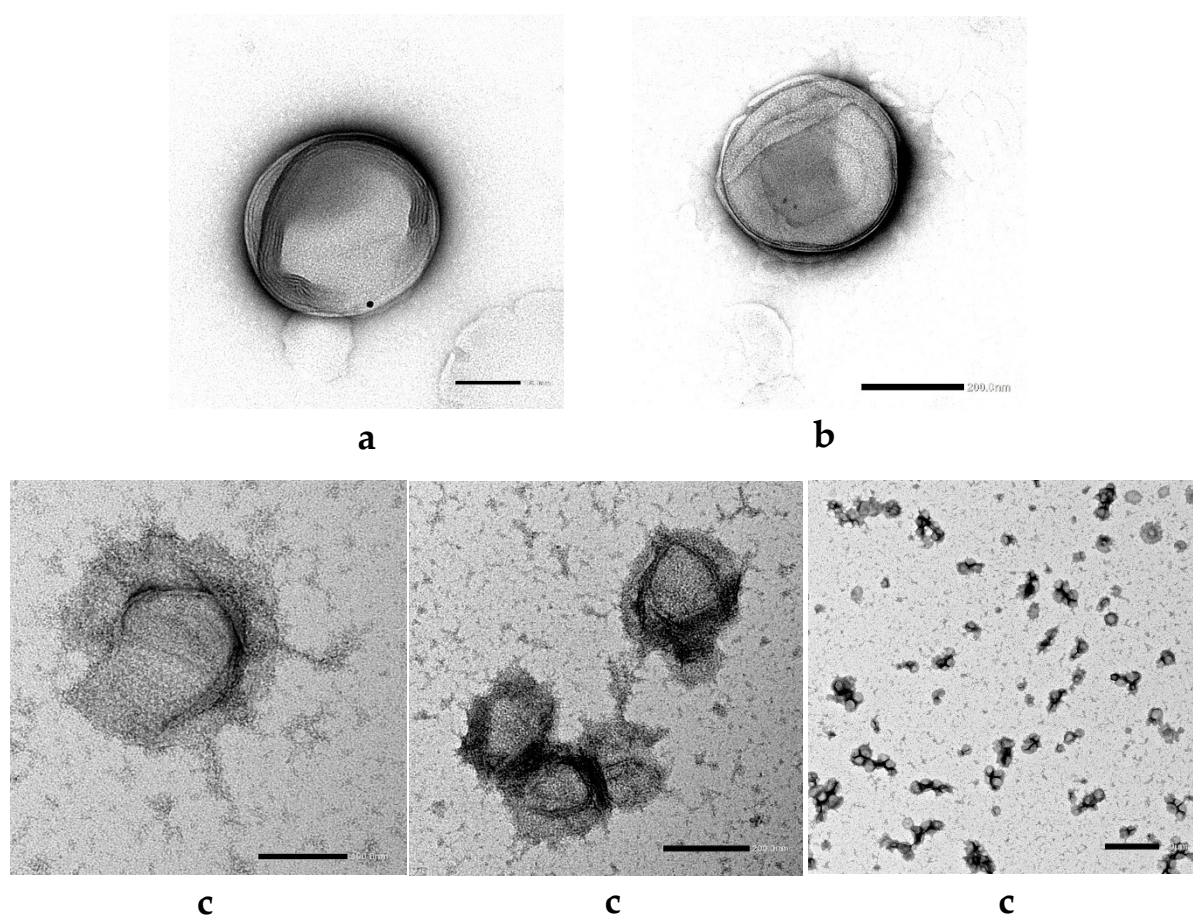


Figure S5. Transmission electron microscopy images of (a) Lip (b) SGC-Lip (c) ES100-SGC-Lip. From top left to bottom right, bars represent 100 nm, 200 nm, 100 nm, 200 nm, and 1 μ m.

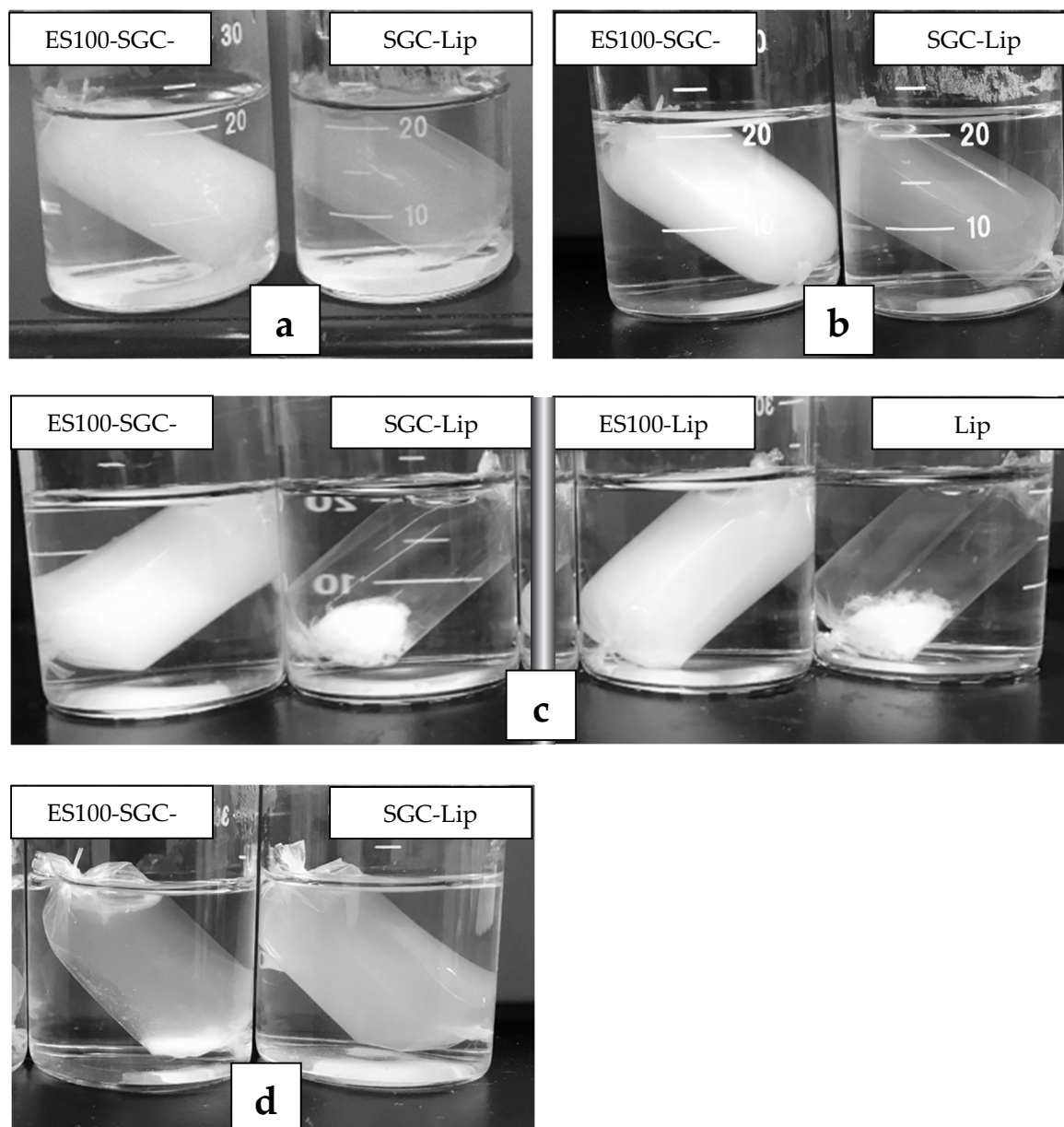


Figure S6. Photo images of various liposomal formulations after 24 h incubation at 37 °C in (a) SGF pH 1.2 (b) FaSSIF pH 6.5 (c) FeSSIF pH 6.5 (d) PBS pH 7.4.