

S15-4 **Oral and pulmonary administration of calcitonin with polymer-coated liposomes**

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We have developed polymer-coated liposomes for effective, non-invasive drug delivery. Polymer-coated liposomes, which are liposomal particles coated with functional polymers, were designed in order to have suitable functions required for drug delivery. So far, we have reported prolonged retention in the gastro-intestinal tract owing to the mucoadhesive properties of polymer coated liposomes, as well as increased blood circulation times after injection of PEGylated liposomes. The contents of this presentation are 1. Mucoadhesion and penetration of polymer-coated liposomes and absorption of peptide drugs after oral administration 2. Application of polymer-coated liposomes in pulmonary drug delivery and 3. Novel strategies for designing mucoadhesive liposomes.