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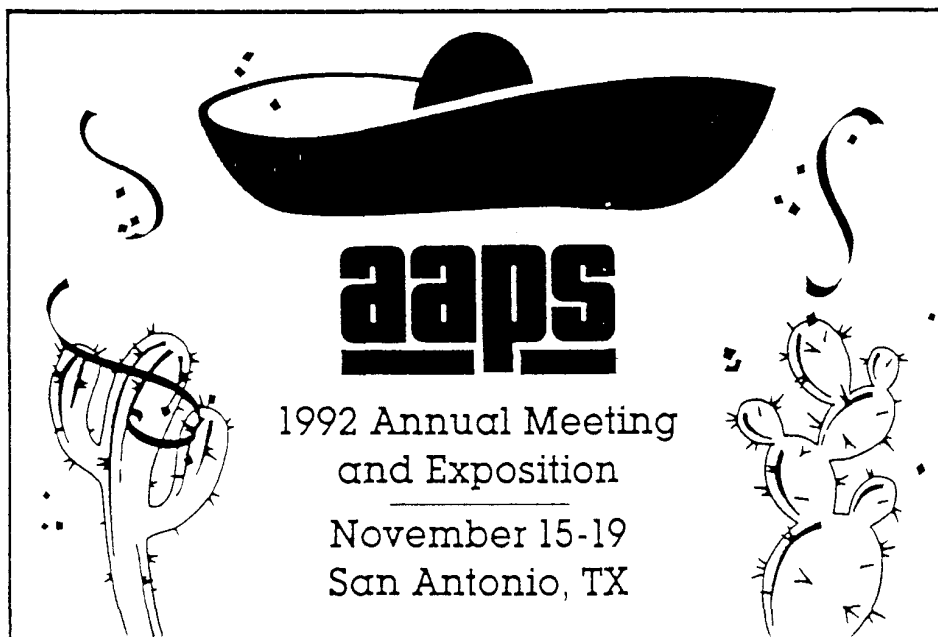
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Contributed Papers Abstracts



The Preliminary Program Outline which appears on the following pages has been included to assist you in your advance planning for the AAPS Seventh Annual Meeting and Exposition which will be held November 15-19 in San Antonio, Texas.

Times and events are subject to change. Please refer to the official AAPS Annual Meeting Program Schedule which will be distributed in San Antonio for a complete listing of all events.

**PLEASE BRING THIS ABSTRACT BOOK
TO THE ANNUAL MEETING.**

PDD 7331

HIGH ADSORPTION CAPACITY OF sCT TO PGL MICROSPHERES. S. Calis, R. Jeyanchi, R.C. Mehta, P.P. DeLuca. College of Pharmacy, University of Kentucky, Lexington, KY 40536

The interaction of sCT, a bioactive peptide-with a linear sequence of 32 amino acids, and poly(glycolide-co-lactide) (PGL) (50/50, MW 34000) was evaluated in an attempt to quantitate the extent and type of adsorption of the peptide to the polymer. Blank PGL microspheres with mean diameters of $14.8 \pm 1.3 \mu\text{m}$ and specific surface area of $0.3232 \text{ m}^2/\text{g}$ were prepared by an aqueous emulsification solvent extraction technique. Various amounts of microspheres were added to 1 ml of 1 mg/ml sCT solution and allowed to interact for a specific period of time. Maximum adsorption was reached in less time for the higher microsphere concentrations (12 hours for 10 mg, 24 hours for 5 mg and 48 hours for 2.5 mg microspheres). However, since more than 90% of added sCT was depleted from the solutions irrespective of the microsphere concentration, the depletion of sCT appears to be a result of two phenomena, adsorption to the polymer surface and interaction with the peptide already adsorbed on the polymer. A second study using 5 mg microspheres in 1 ml of 1 mg/ml sCT, which was replaced by fresh sCT solution every 24 hours, showed that a total of 5.1 mg sCT (10 moles sCT/mole PGL) was removed from solution in 6 days. This further suggests that following equilibrium, additional depletion of sCT from the solution occurred as a result of peptide-peptide interaction. This high capacity adsorption of sCT on hydrophobic polymers can be used favorably in drug delivery system development.