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(54) PHARMACEUTICAL FORMULATIONS TARGETING SPECIFIC REGIONS OF THE GASTROINTESINAL TRACT

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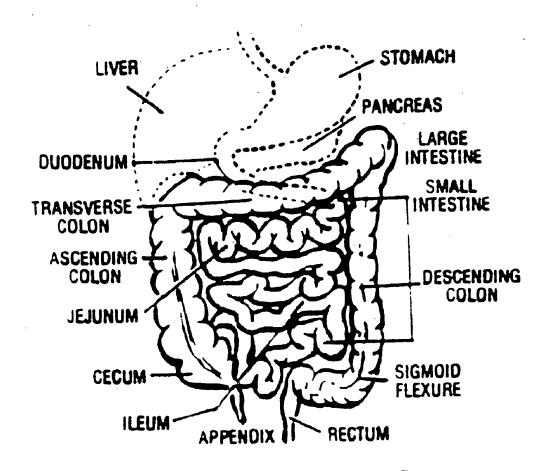
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- (57) ABSTRACT

Oral formulations of pharmaceuticals are provided with enhanced bioavailability by targeting specific regions of the gastrointestinal tract. Particularly, water soluble and acidlabile drugs such as cytidine analogs (e.g., decitabine) and 2'-deoxyadenosine analogs (e.g., pentostatin) are formulated with pH-sensitive polymers so that these drugs are preferably absorbed in the upper regions of the small intestine, such as the jejunum. In addition, drugs with poor oral bioavailability such as camptothecin compounds (e.g., 9-nitro-camptothecin) can also be formulated using similar strategies in order to significantly improve their oral bioavailability. These formulations can be used to treat a wide variety of diseases or conditions, such hematological disorders, benign tumors, cancer, restenosis, inflammatory diseases, and autoimmune diseases.





HUMAN INTESTINES

FIGURE 1

FIGURE 2

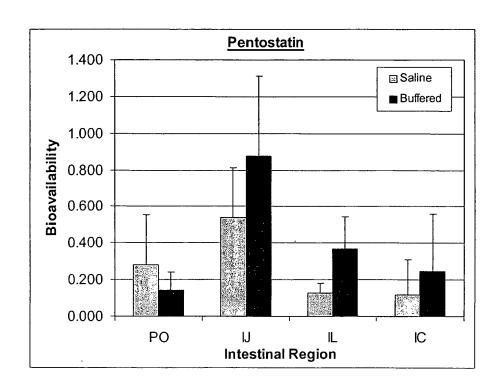
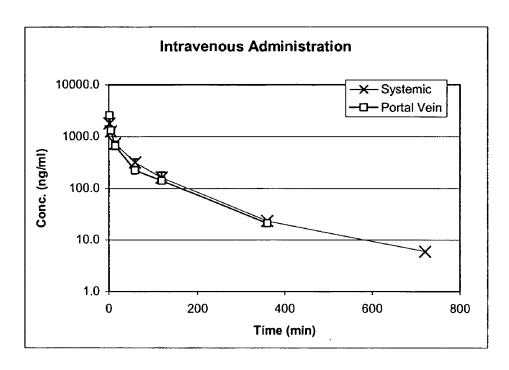


FIGURE 3



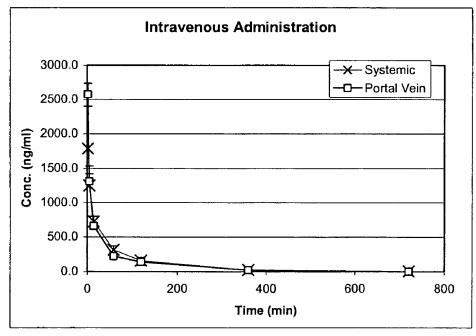
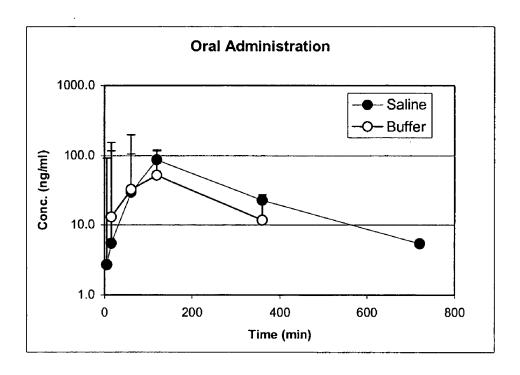
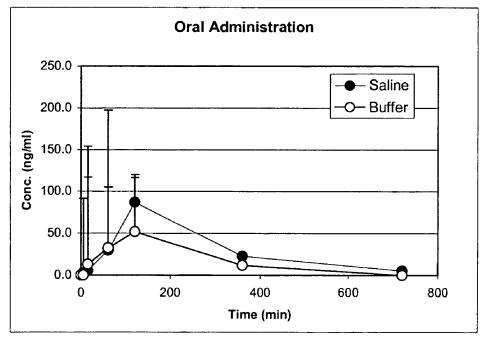




FIGURE 4







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