

## Chem in Med

- 69) Proteins degrade naturally in the gastrointestinal tract due to the reaction of acids and enzymes with proteins. Also, most intact proteins cannot cross the membrane barrier in the small intestine to proceed to the circulatory system. If the protein could pass through the membrane barrier in the small intestine, it might damage the epithelial cells lining the intestine.
- 70) The stomach is a more acidic environment.
- 71) No, it does not. Protons bind to certain functional groups in a protein, altering its shape.
- 72) The stomach secretes more gastric acid when protein is present because the protein disrupts the equilibrium in the stomach. The protein reacts with the acid and the concentration of  $H^+$  decreases, so more gastric acid is added to restore the equilibrium.
- 73) Enteric coatings are stable in acidic environments. Therefore the enteric coating controls where in the digestive tract the medication is stored.
- 74) The enteric coatings are dissolved in the basic environment of the small intestine.
- 75) The enteric coating is acidic because it reacts in an alkaline environment — a neutralization reaction.