Chapter Five

5. Conclusion and future work

GlcN decreased PRN BA in a dose-dependent manner (200 mg/kg and not 100 mg/kg) mostly by decreasing PRN absorption and permeability in vivo, whereas GlcN Increased PRN concentration levels in situ and in vitro. Moreover, In vivo results suggest that the patient may suffer complications from uncontrolled, inadequately treated hypertension, angina pectoris and other diseases treated by PRN. As a result, it might be necessary to prescribe PRN with GlcN with caution as a dosage regimen adjustment of PRN might be needed in order to achieve the required therapeutic effect in patients receiving GlcN. (with caution until further clinical investigation describes such drug-drug interaction). Finally, our results showed that cimetidine and rifampin levels were in line with the previously reported researches.

Further studies are still warranted to uncover the effect of PRN and GlcN combination by studying the effect of GlcN on P-gp efflux transporters present in small and large intestine mucosa, in renal tubule, and in biliary hepatocytes. Moreover, it might be interesting to examine the effect of high and low doses of GlcN alone or in combination with PRN on P-gp. It is also warranted to perform an investigation of the stomach absorption of PRN alone and PRN combined to GlcN. Furthermore, further studies is still needed to investigate the effect of GlcN on CYP2D6 and CYP1A2 that are responsible for PRN metabolism as well as testing