

## CHAPTER VI

### CONCLUSION

LipL32 mRNA expression was detected in both kidney and liver tissues of *Leptospira* infected hamsters. Its level of expression was similar in all sample collected. The induction of TNF- $\alpha$ , TGF- $\beta$ , IL-10 and IP-10 expression in kidney and liver tissues were different. Real-time PCR should be performed to quantitate all cytokine gene expression in both tissues. Further experiments, such as in situ hybridization, to demonstrate the location of cytokine/chemokine expression could provide further information whether their expression correlates with pathologies observed in affected organs.

Since LipL32 expression could be similarly detected in both kidneys and livers. LipL32 may not be the protein involving in IP-10 and IL-10 induction. The studies on expression of other *Leptospira* components would be useful to identify the component involving in IP-10 or IL-10 induction. In addition, the comparison of T cell recruitment in livers and kidneys will confirm the difference in IP-10 expression since this cytokine is a T cell chemokine. The effect of IL-10 such as Th1 down-regulation should be investigated to demonstrate the effect of this cytokine in kidney tissues.