CHAPTER VI

RECOMMENDATIONS AND FURTHER INVESTIGATION

Though the role of naïve B cell as APC was strongly suggested in controlling several autoimmune diseases (for example, SLE, type I diabetes, EAE, etc) and even in allergy, the evidences presented up to now are just merely implied in B cell depleted patients but limitedly introduced in *in vitro* experiment (Lund and Randall). The current study successfully provided us a convenient method to study and imply the role of human naïve B cell as APC to naïve $CD4^+T$ cells. This method will thus open an optional access to illustrate this issue, *in vitro*. It should be noted, however, that SEB pulsation system used on naïve B cells in the current study could not demonstrate *in vitro* regulatory T cell differentiation directly from naïve $CD4^+T$ cells. Though possible tolerance induction by naïve B cell's antigen presentation similar to that of mouse model is partially implied by ineffective naïve B cell's capability to prime effector phenotypes on T cells (Ashour and Seif, 2007; Raimondi et al., 2006a; Stark Aroeira et al., 1997), the lack of immunosuppressive property of the primed T cells still implys us the inadequacy of SEB pulsation to mimic peptide antigen presentation by splenic naïve B cells in mouse model (Reichardt et al., 2007b). Careful result's interpretation should thus be strongly regarded if applying the system for the other studies. Several factors can be contributed to unsuccessful regulatory T cell differentiation. To determine intrinsic variations among human naïve B cell subsets, expression profile meta-analysis was performed in this study. The current study thus provided an example to apply differential gene expression meta-analysis to approach such a question. With a similar method, we hope that other non-practical immunological questions could also be applied with the same   approach.