

## **Thesis summary**

The process of B cell lymphogenesis in swine remains uncertain. Some reports indicate that pigs belong to a group of animal that use ileal Peyers's patches (IPP) for the generation of B cells while others point to the possibility that the bone marrow is functional throughout life. The functional subpopulations of B cells in swine are also unknown. Together with other ruminants, and also birds,  $\gamma\delta$  T cells in swine may account for >70% of all T cells which is in apparent contrast with humans and mice. The purpose of this thesis was to address these discrepancies and unresolved issues. The results disprove the existing paradigm that the IPP is primary lymphoid tissue and that B cells develop in IPP in an antigen-independent manner. On the other hand, it shows that bone marrow is fully capable of B cell lymphogenesis and remains active at least for the same period of time as it had been speculated for the IPP. This thesis also identified functionally different subsets of porcine peripheral B cells, and shows that CD21 molecules can be expressed in differential forms. Finally, this thesis identifies two lineages of  $\gamma\delta$  T cells that differ in many functional and phenotype features. This finding may explain why  $\gamma\delta$  T cells constitute of minority of lymphocytes in circulation of humans and mice.