Follicular Dendritic Cell-Specific Prion Protein (PrP^C) Expression Alone is Sufficient to Sustain Prion Infection in the Spleen

Running head: Role of Follicular Dendritic Cells in Prion Pathogenesis

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Figure S1. In the absence of PrP^C expression by follicular dendritic cells prions are scavenged by tingible body macrophages in the spleen

Mice were injected i.p. with ME7 scrapie prions. Spleens from CD21-Cre *Prnp*$^{stop/-}$→*Prnp*$^{stop/-}$ mice (in which cellular PrP^C was expressed only on B cells, upper row), *Prnp*$^{flox/-}$→CD21-Cre *Prnp*$^{flox/-}$ mice (with FDC-restricted PrP^C ablation, middle row) and CD21-Cre *Prnp*$^{flox/-}$→CD21-Cre *Prnp*$^{flox/-}$ mice (in which PrP^C expression was ablated on FDC and B cells, lower row) were collected 70 days after i.p. infection. Due to the absence of PrP^C-expressing FDC prion replication in these tissues was blocked. However, in the spleens of some of these mice, low levels of PrP^d (left-hand column, red) were occasionally localised within cells with characteristics typical of tingible body macrophages. These cells contained the remnants of many phagocytosed apoptotic lymphocytes (*tingible bodies*, arrowheads) and expressed the tissue macrophage marker EGF-like module-containing mucin-like hormone receptor-like 1 (EMR1) detected by mAb F4/80 (right-hand column, brown). Data are representative of spleens from at least 4 mice from each group. Sections are counterstained with haematoxylin (blue). Scale bar, 20 μm.

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