

Supplementary information

T-bet, but not Gata3, overexpression is detrimental in a neurotropic viral infection

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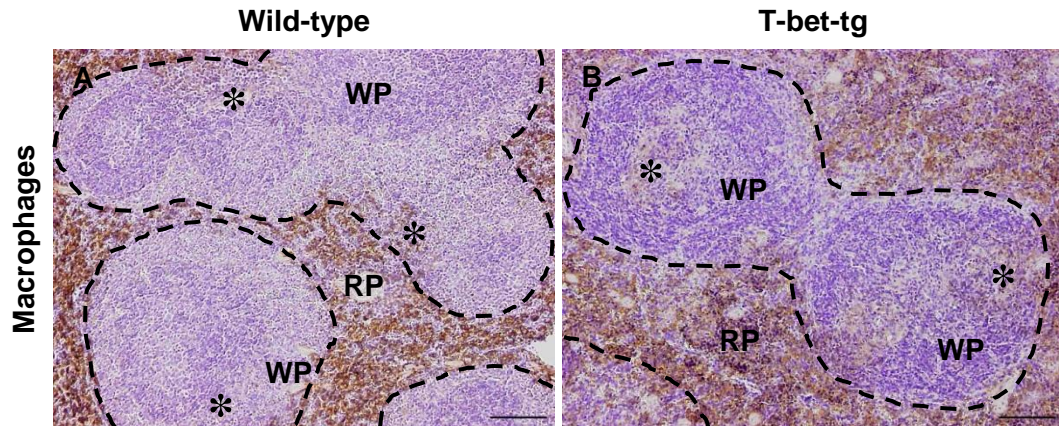
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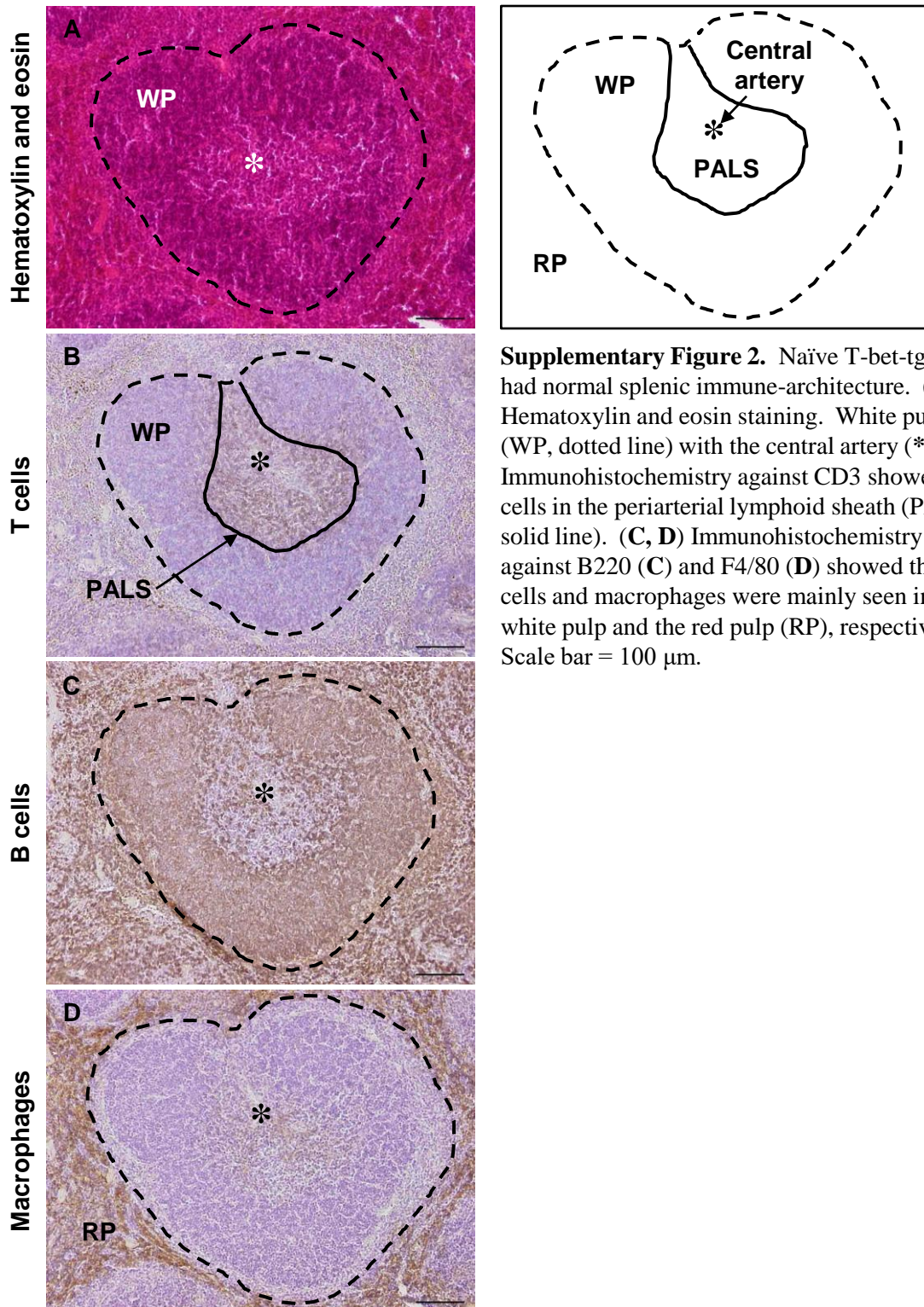
Supplementary Figure 1



Supplementary Figure 1. Splenic red pulp (RP) immunostained for a macrophage-specific marker, F4/80. (**A**, **B**) No significant differences were seen in F4/80 staining between DA virus-infected wild-type (**A**) and T-bet-transgenic (tg) mice (**B**). The dotted lines show the white pulp (WP) and asterisks (*) are central arteries. RP, red pulp; WP, white pulp. Scale bar = 100 μ m.

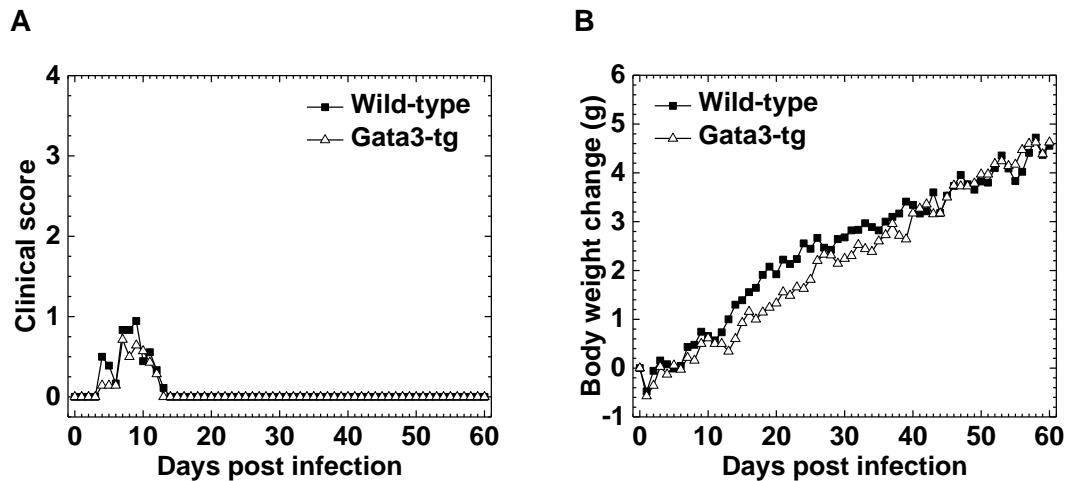
Supplementary Figure 2

Naïve T-bet-tg



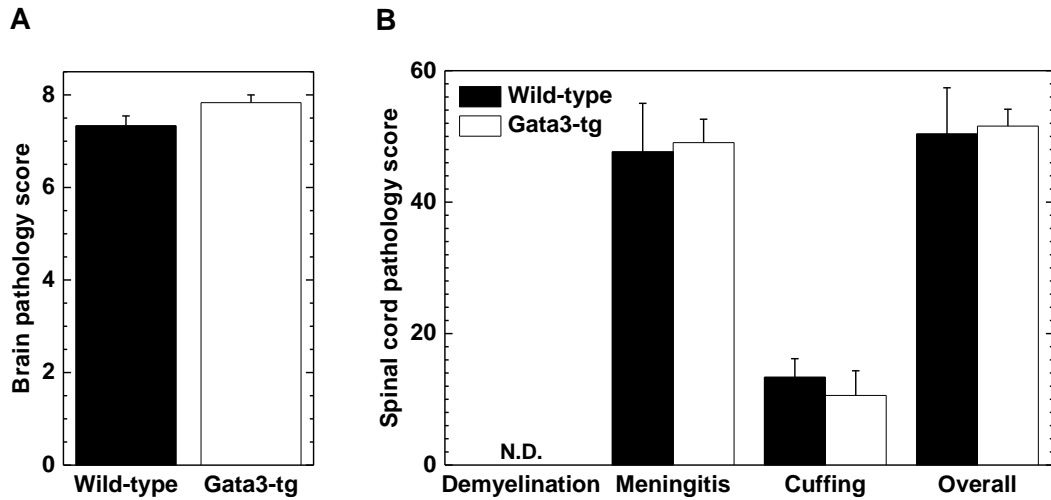
Supplementary Figure 2. Naïve T-bet-tg mice had normal splenic immune-architecture. **(A)** Hematoxylin and eosin staining. White pulp (WP, dotted line) with the central artery (*). **(B)** Immunohistochemistry against CD3 showed T cells in the periaarterial lymphoid sheath (PALS, solid line). **(C, D)** Immunohistochemistry against B220 **(C)** and F4/80 **(D)** showed that B cells and macrophages were mainly seen in the white pulp and the red pulp (RP), respectively. Scale bar = 100 μ m.

Supplementary Figure 3



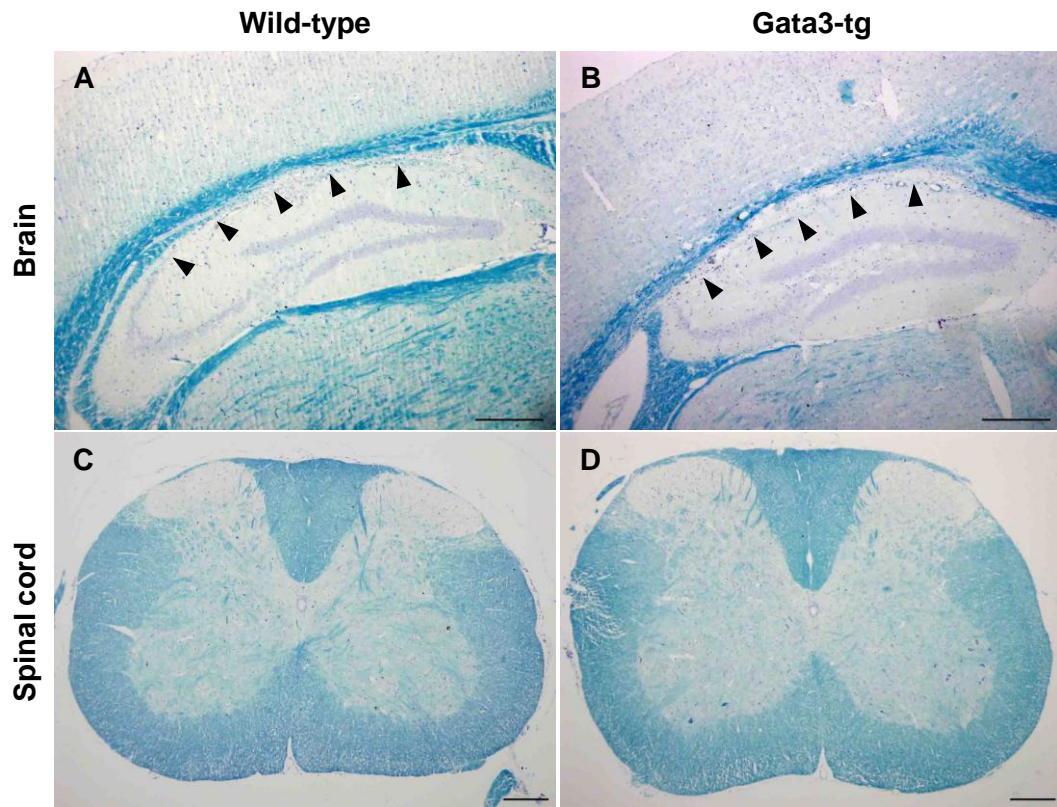
Supplementary Figure 3. Gata3 overexpression does not confer susceptibility to Theiler's murine encephalomyelitis virus (TMEV) infection. **(A)** Clinical scores of wild-type mice (closed boxes) and Gata3-tg mice (open triangles) 2 months after infection with the Daniels (DA) strain of TMEV (DA virus). Clinical scores were evaluated by measuring impaired righting reflexes: the proximal end of the mouse's tail was grasped and twisted to the right and then to the left (0, a healthy mouse resists being turn over; 1, the mouse is flipped onto its back but immediately rights itself on one side; 1.5, the mouse is flipped onto its back but immediately rights itself on one sides; 2, the mouse rights itself in 1 to 5 seconds; 3, righting takes more than 5 seconds; and 4, the mouse cannot right itself). **(B)** Body weight changes of DA virus-infected wild-type mice and Gata3-tg mice during the 2-months observation period. **(A, B)** Values are the mean of nine wild-type mice and seven Gata3-tg mice and representative of two independent experiments.

Supplementary Figure 4



Supplementary Figure 4. Gata3 overexpression does not alter neuropathology scores during the acute phase of TMEV infection. (**A**, **B**) Brain and spinal cord pathology scores of wild-type mice (black bar) and Gata3-tg mice (white bar) 1 week after DA virus infection. N.D., not detectable. Values are the mean + standard error of the mean (SEM) of six mice per group. The experiments were conducted twice independently.

Supplementary Figure 5



Supplementary Figure 5. Gata3 overexpression does not affect neuropathology during the chronic phase of TMEV infection. (A-D) Luxol fast blue stains of the brain and spinal cord sections from wild-type mice and Gata3-tg mice 2 months after DA virus infection. Arrowheads show hippocampal atrophy of the region CA1. Tissue sections are representative of nine wild-type mice and seven Gata3-tg mice and representative of two independent experiments. Scale bar = 300 μm (brain sections) and 200 μm (spinal cord sections).