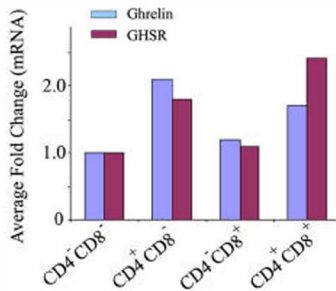
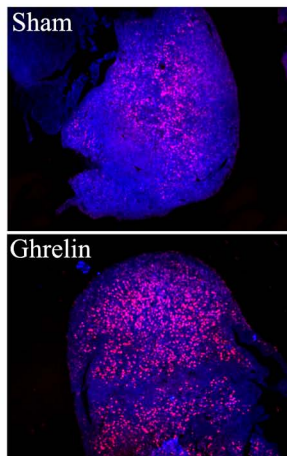


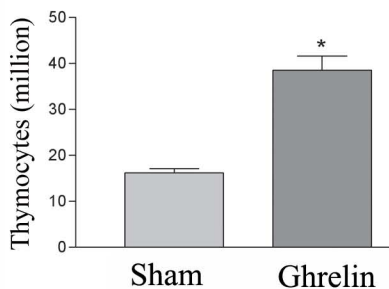
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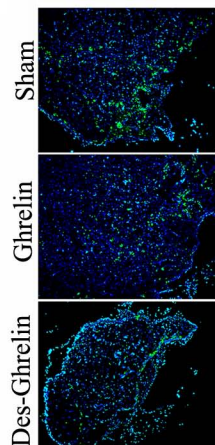
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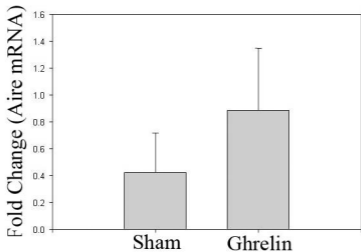


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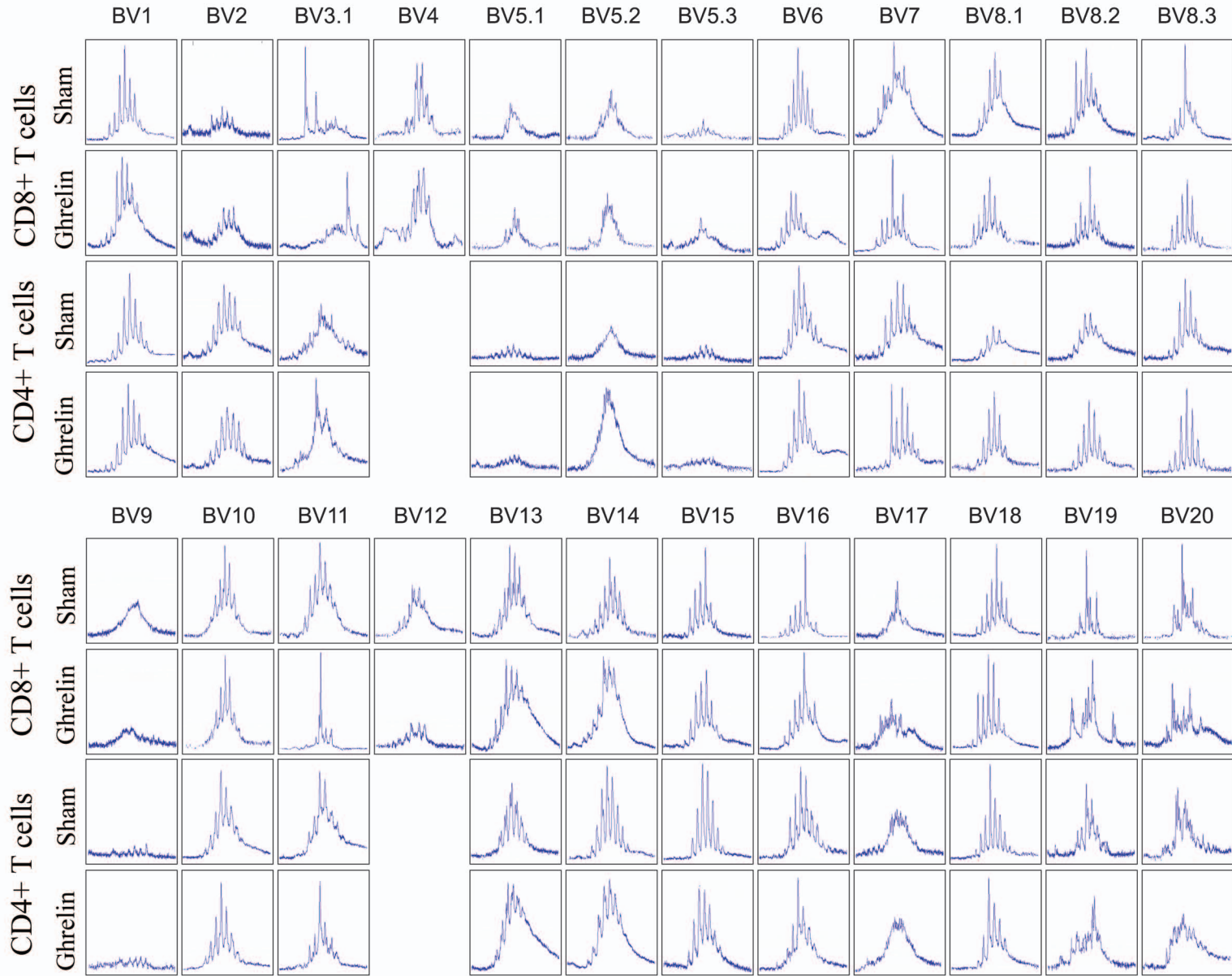


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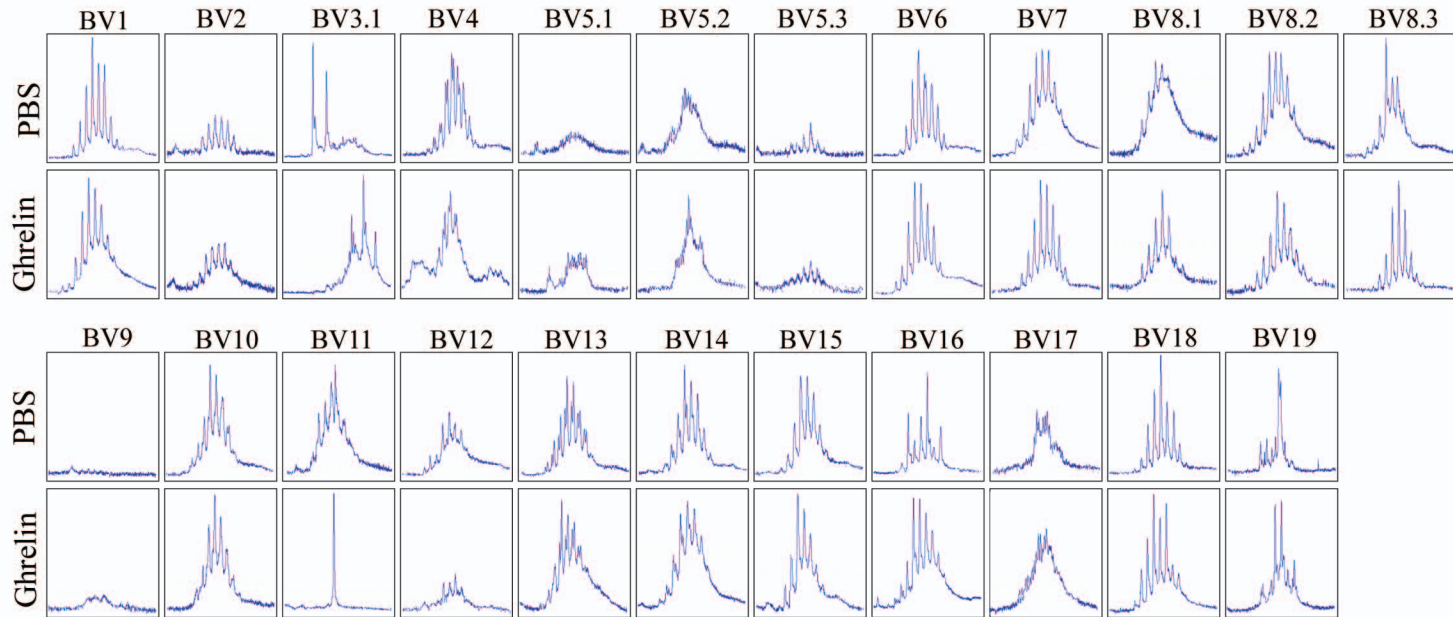




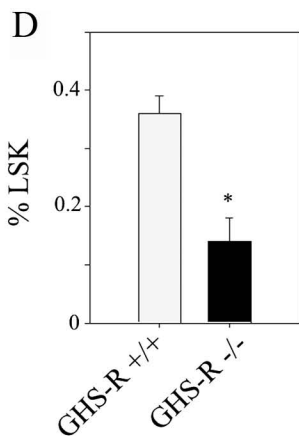
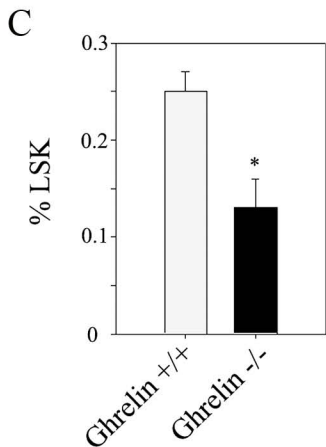
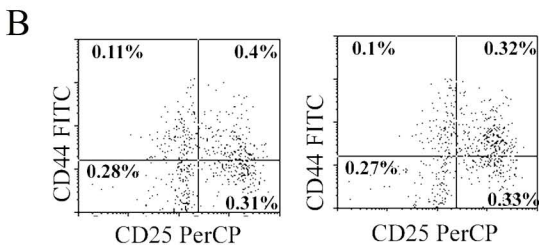
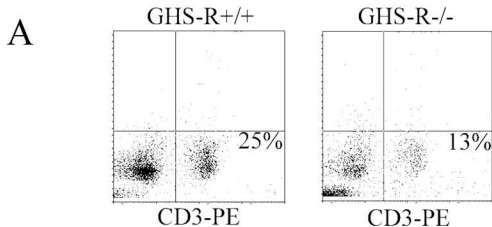
Supplementary Figure 2. Dixit et al.



Supplementary Figure 3 Dixit et al



Supplementary Figure 4 Dixit et al.



Supplementary Figure 5. Dixit et al

Supplementary Figure 1. (A) Thymocyte subsets populations were sorted and real time PCR analysis revealed both ghrelin and GHSR mRNA expression in all of the cells examined. The Ct values from 4 repeats were collapsed and normalized to GAPDH and expressed as average fold change. (B) Ghrelin infusion results in an increase in the GH immunopositivity in the pituitary glands of 14-month old mice. (C) Similar to aged BALB/c mice, 2 week long ghrelin infusion into aged C57BL/6 mice doubled the number of thymocyte in the thymi. (D) The increased in thymic cellularity of ghrelin treated mice is not associated with significant changes in the apoptosis in the thymus. TUNEL labeling of frozen thymic sections from 14-month old sham-treated and ghrelin- or des-acyl ghrelin-infused mice revealed no significant differences in cellular apoptosis. Images were acquired on a Zeiss Axiovert fluorescent microscope using SPOT advanced software.

Supplementary Figure 2. Real-time PCR analysis of aire mRNA expression revealed no significant difference between sham and ghrelin infused old mice (n = 4).

Supplementary Figure 3. CDR3 length analysis in peripheral CD4⁺ and CD8⁺ cells derived from 14-month old mice post ghrelin infusions. Ghrelin significantly improved the TCR diversity in V_8 family along with modest effects on V_7, V_19 and the V_20 regions. Note that ghrelin infusion also altered relatively polyclonal TCR repertoire of V_11 to a more oligoclonal profile and skewed the V_3.1 profile in CD8⁺ T cells, while similarly improving it in CD4 cells.

Supplementary Figure 4. TCR spectratyping of total splenic T cells revealed a similar profile of TCR diversity as observed in purified CD4⁺ and CD8⁺ cell. Note that ghrelin also significantly reduced the V₁₁ diversity compared to control mice.

Supplementary Figure 5. (A) The 12m old GHS-R^{-/-} mice display a reduction in CD3⁺ T cells in peripheral blood. (B) The ghrelin-deficient mice do not show perturbation in T cell development and DN stages. (C) Both ghrelin and GHS-R knockout mice display reduction in LSK cell in the bone marrow. 24m old mice were utilized in these studies and the data is represented at mean ± SEM of Ghrelin^{-/-} (n = 5), GHS-R^{-/-} (n = 5) and four wild type littermates of each genotype.