Toxic tall fescue grazing increases susceptibility of the Angus steer fecal microbiota and plasma/urine metabolome to environmental effects

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Supplemental Figures.

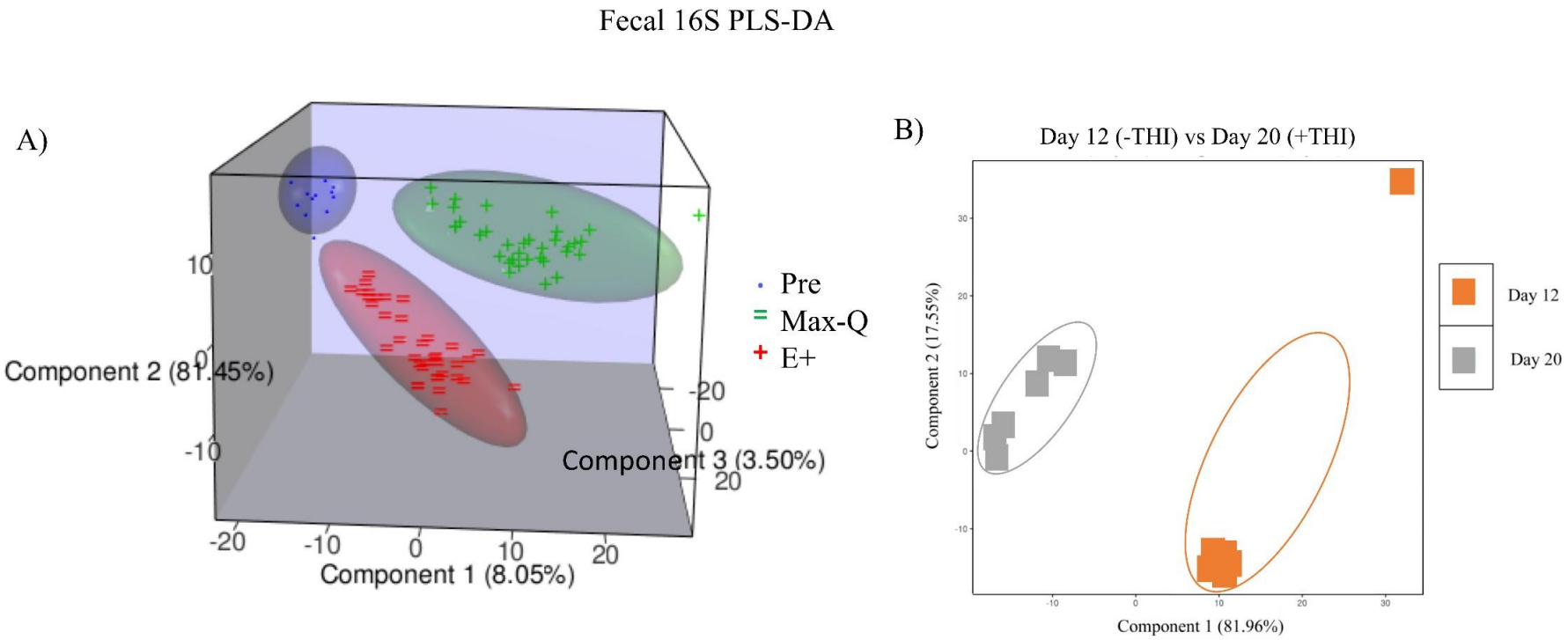


Fig. S1. Partial least squares discriminant analysis (PLS-DA) plots analyzing the fecal microbiota of Angus steers before pasture placement (blue) or grazing either a novel, non-toxic (Max-Q; n = 6; green) or toxic (E+; n = 6; red) endophyte-infected tall fescue (A) over the course of a 26-day grazing trial or (B) E+ grazing steers on Day 12 (-THI; orange) or Day 20 (+THI; gray) post pasture assignment.

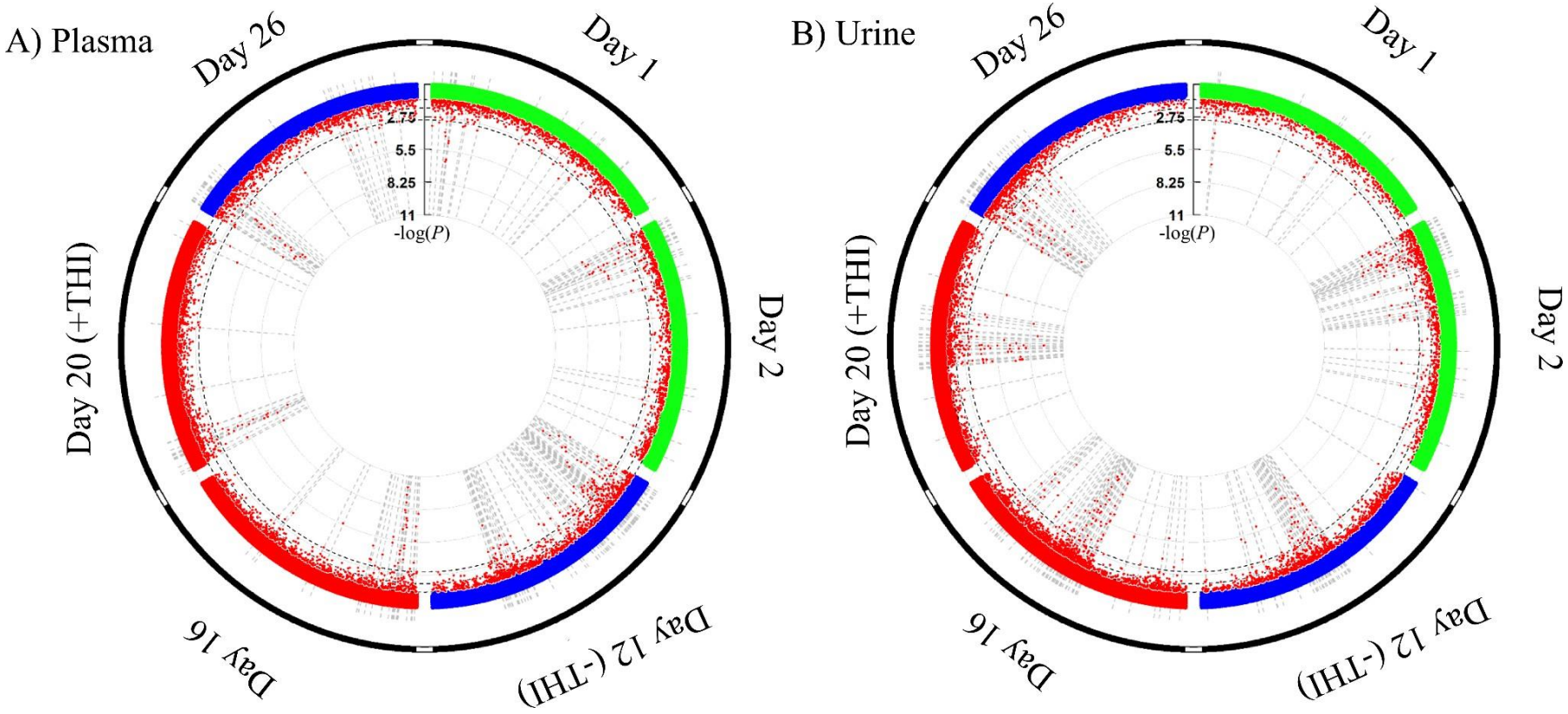


Fig. S2. Circular Manhattan plots representing high-resolution metabolomics (HRM) features in the (A) plasma and (B) urine of Angus steers grazing either a novel, non-toxic (Max-Q; n = 6) or toxic (E+; n = 6) endophyte-infected tall fescue over the course of a 26 day grazing trial. Red dots indicates HRM features were significantly affected by E+ treatment (FDR corrected $P < 0.05$) and the more central the dots the greater the significance.

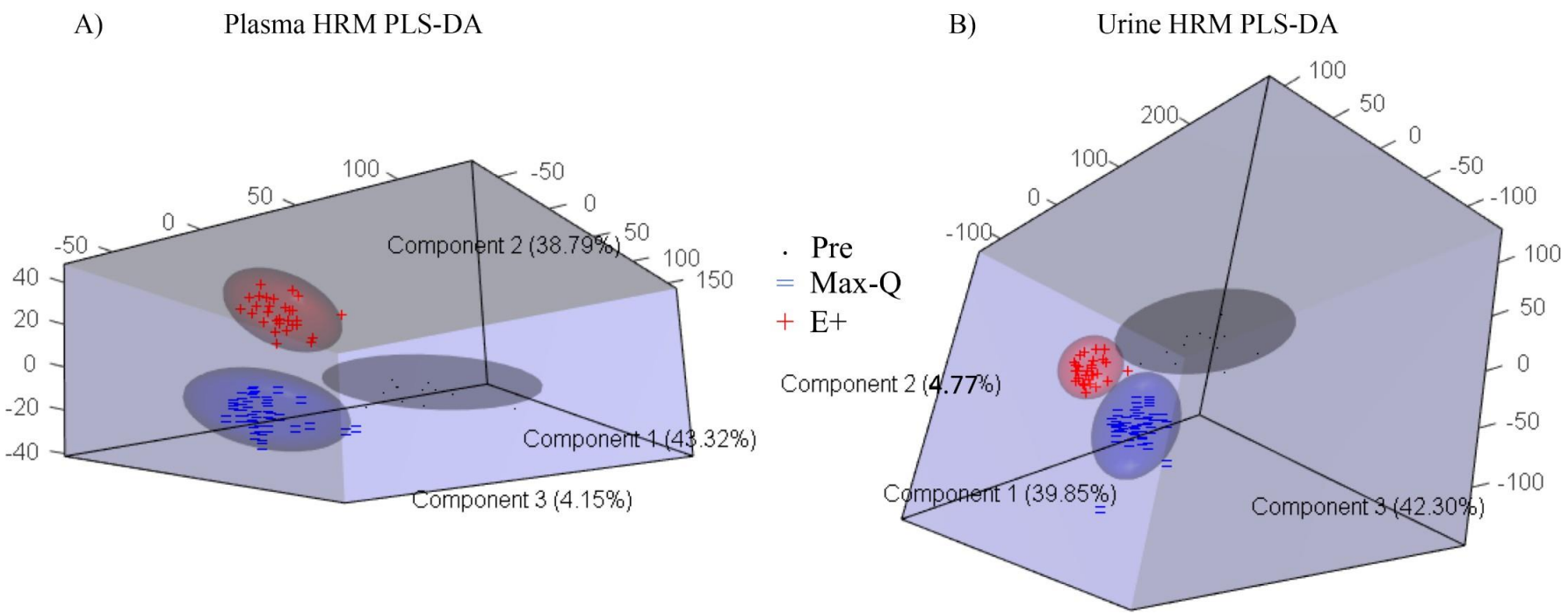
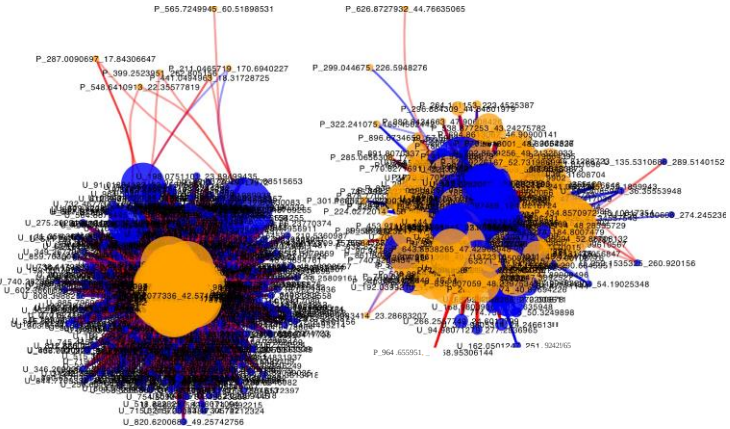
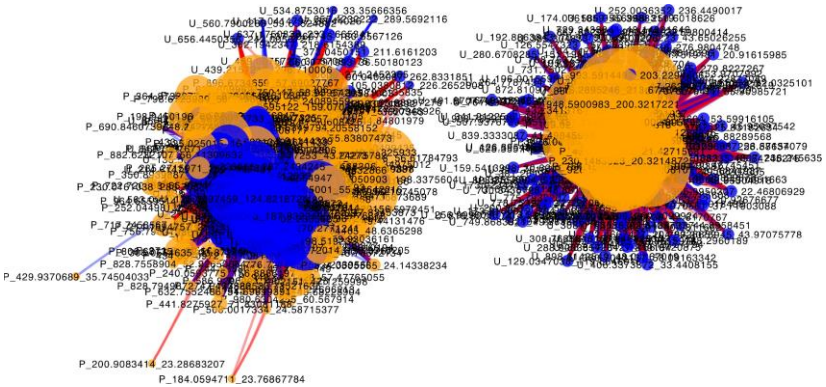


Fig. S3. Partial least squares discriminant analysis (PLS-DA) plots analyzing the fecal microbiota of Angus steers before pasture placement (blue) or grazing either a novel, non-toxic (Max-Q; n = 6; green) or toxic (E+; n = 6; red) endophyte-infected tall fescue over the course of a 26-day grazing trial in the **(A)** plasma and **(B)** urine.

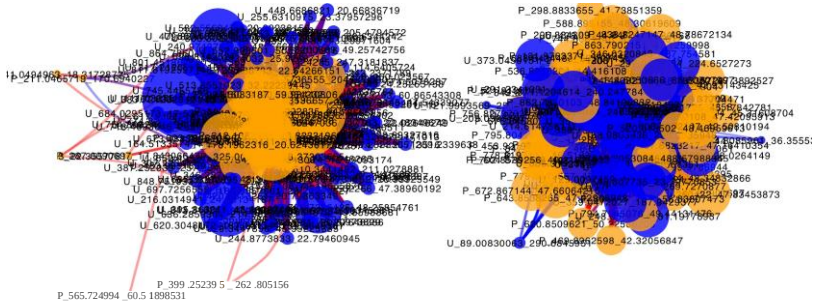
A) Overall; Max-Q



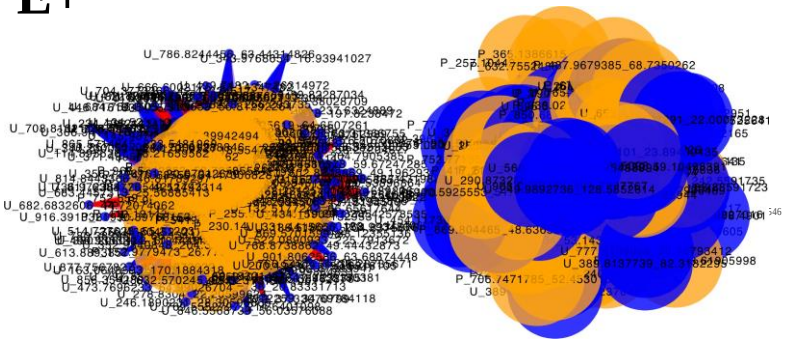
E+



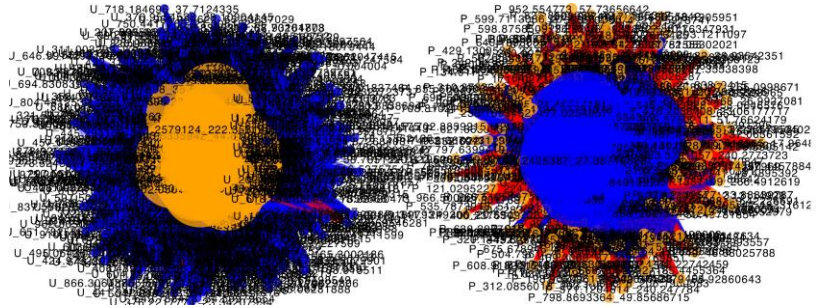
B) Day 12 (-THI); Max-Q



E+



C) Day 20 (+THI); Max-Q



E+

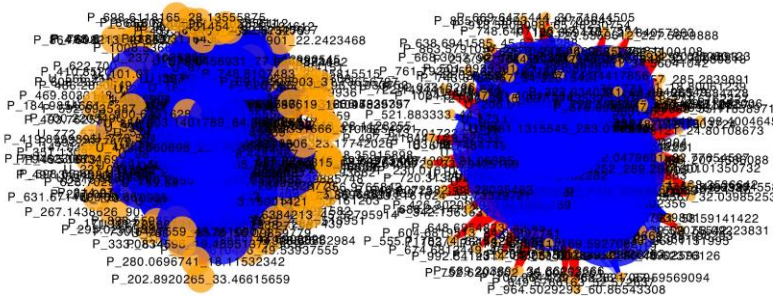


Figure S4. Bipartite network of plasma (orange) and urine (blue) high- resolution metabolomics (HRM) features that were selected by sparse partial least squares regression (sPLS; top 100 plasma and urine HRM features [X and Y matrix, respectfully]) using the *mixOmics* R package and were highly correlated ($|r| > 0.7$) for steers grazing a: **(A)** novel, non-toxic tall fescue (Max-Q) or toxic tall fescue (E+) throughout the grazing trial; **(B)** Max-Q or E+ tall fescue on Day 12 (-THI); **(C)** Max-Q or E+ tall fescue on Day 20 (+THI). Size of the node is respective of the metabolites between centrality within the respective networks.