Despite the existing association of gut dysbiosis and T cell inflammation in heart failure, whether and how gut microbes contribute to T cell immune responses, adverse cardiac remodeling and dysfunction in heart failure remains largely unexplored. Carrillo-Salinas' latest results demonstrate for the requirement of the gut microbiota in cardiac T cell activation and maladaptive remodeling, and identify the potential contribution of the tryptophan/aryl hydrocarbon receptor (AhR) axis in protecting from systolic dysfunction and heart failure.