Plasma Prostaglandin and Cytokine Concentrations in Periparturient Holstein Cows Fed Diets Enriched in Saturated or Trans Fatty Acids. By Rodriguez-Sallaberry et al., page 5446. Immune functions such as lymphocyte response to mitogens and production of antibodies are depressed in periparturient dairy cows. Development of feeding strategies which regulate inflammatory factors may decrease bacterial infections and lead to early breeding in postpartum cows. Peripartal trans fatty acid (tFA) supplementation increased plasma prostaglandin F$_{2\alpha}$ metabolite concentration, but had no detectable effects on peripheral prostaglandin E$_{2}$, tumor necrosis factor-$\alpha$, or interleukin-4 concentrations in the present study. Findings raise the possibility that peripartal tFA supplementation may affect uterine health and reproductive efficiency of early postpartum dairy cows through alteration of peripheral PGF$_{2\alpha}$ concentration.