Effect of Cis-Urocanic Acid on Bovine Neutrophil Generation of Reactive Oxygen Species. By Rinaldi et al., page 4188. Neutrophils play a critical role in the host innate immune response during mastitis and other bacterial-mediated diseases of cattle through their ability to engulf and kill bacteria. The bactericidal activity of neutrophils is dependent upon intracellular generation of reactive oxygen species; however, extracellular production of reactive oxygen species results in tissue injury to the animal. The findings of the current study suggest that the compound cis-urolcanic acid may have therapeutic applicability to limiting the production of extracellular reactive oxygen species that are damaging to host tissue while preserving neutrophil function critical to bacterial clearance.