L-Selectin and Chemotaxis Throughout Bone Marrow Granulocyte Maturation in the Bovine. By Monfardini et al., page 3350. Blood polymorphonuclear neutrophilic leukocytes (PMNL) are the first line of defense during acute bacterial infection. L-selectin adhesion receptors play a pivotal role in determining PMNL capability to migrate into the inflamed site. After PMNL tissue recruitment is started, most mature granulocytes migrate from the bone marrow into the blood stream. Our results show that mature granulocytes, compared with immature ones, have a higher L-selectin surface expression, and a higher capability to migrate in response to chemotactic stimuli produced during acute infection.