Ulcerative Dermatitis Syndrome

*C57BL/6 mice and related strains are prone to developing skin irritation with alopecia (hair loss) that can quickly progress to ulcers due to overgrooming and scratching (ulcerative dermatitis). Mice will persistently scratch along the head, neck, shoulders and axillary regions. Areas of devitalized skin are then readily colonized by opportunistic bacteria. These secondary bacterial infections can enhance the irritation of the region causing an ongoing cycle of irritation and infection. With chronic conditions, the ulcerated areas can scar, causing skin contracture that can restrict movement.

The disease appears to be multifactorial, and is associated with genetic factors, obsessive-compulsive disorders, and ectoparasite hypersensitivity. However, most recently this condition has been linked to an immune-mediated vasculitis within the skin (Andrews, A.G. *et al.* *Vet. Path.*, 1994).

The key to successful treatment of ulcerative dermatitis is to recognize the lesions early and treat aggressively. However, once lesions improve, they frequently return, making resolution of this condition difficult. Acute and chronic dermatitis can impact the immune system via upregulation of inflammatory pathways. The most common finding is a locally reactive lymphadenopathy (lymph node enlargement).