

## New Lyme Vaccine for Dogs Introduced

**Vaccine targets two key outer surface proteins involved in the disease's transmission.**

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Intervet/Schering-Plough Animal Health recently introduced Nobivac Lyme, a vaccine designed to provide dogs with dual protection against Lyme disease.

The vaccine targets two key outer surface proteins involved in the transmission of canine Lyme disease, according to the Kenilworth, N.J.-based company. It induces the production of highly specific antibodies, called borreliacidal antibodies, which kill *Borrelia burgdorferi* (the causative agent of Lyme disease) by binding to outer surface proteins (Osp) A and C. Other available products only protect against OspA, according to Rhonda LaFleur, Ph.D., group leader, Biologicals Research and Development at Intervet/Schering-Plough Animal Health.

"This vaccine represents a major advance in the prevention of Lyme disease in dogs because, unlike other Lyme vaccines on the market, it induces OspC borreliacidal antibodies that can kill *B. burgdorferi* at multiple time points during the infection process," Dr. LaFleur said. "OspA borreliacidal antibodies only kill *Borrelia* while they are in the tick midgut. OspC borreliacidal antibodies, however, kill spirochetes in the tick midgut, spirochetes that are migrating from the midgut to the tick's salivary glands and spirochetes that are introduced into the dog."

Nobivac Lyme is administered by giving two doses subcutaneously, two to four weeks apart, with an annual booster thereafter. The company reported that safety studies demonstrated virtually no site reactions.

The clinical signs of Lyme disease range from subtle lameness to high fever, swollen lymph nodes, lameness and loss of appetite. Rarely, a dog infected with the disease can develop severe clinical signs that, if left untreated or treated too late, can result in permanent damage to the heart, kidneys, nervous system and joints, or can even be fatal.