

The Birmingham News

FoodSource Lure gets grant to create Lyme vaccine bait

Food would deliver vaccine to field mice

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Birmingham's FoodSource Lure Corp. has received a \$600,000, two-year grant from the National Institutes of Health to develop edible bait to deliver a Lyme disease vaccine to field mice.

The bait will be designed to attract the white-footed mouse, the primary carrier of the Lyme disease-causing bacterium. Deer ticks in their nymphal stage feed on infected field mice and carry the bacterium into adulthood when they feed on larger hosts - humans.

Under consideration is bait about the size of an ice cube that could be placed in a box small enough for the white-footed mouse, said Ed Rogers, FoodSource's co-founder and president. His company must determine the bait's color, flavor and exact composition.

Food Source is best known as a maker of edible fish lures that are sold by Wal-Mart Stores Inc. and other retailers, but the company also is working on wildlife vaccine delivery systems, gel hunting attractants and pet treats.

The National Institute of Allergies and Infectious Diseases grant "is highly significant, but only a small part of FoodSource's expanding work in the \$16 billion animal pharmaceutical market," Rogers said.

The funding is a first-phase grant for a mechanism to vaccinate the mice so they could no longer pass along the disease, or to reduce the disease's effectiveness. Based on its success with the vaccine-delivery product, FoodSource could land a larger grant from the NIH agency and rights to sell the vaccine bait. Further work would involve seeing if the vaccine works on other carriers, Rogers said.

Lyme disease, the nation's most common tick-borne disease, is caused by the bacterium Borrelia burgdorferi that's transmitted to humans who are bitten by infected blacklegged, or deer, ticks, according to the Centers for Disease Control and Prevention. Fever, headache, fatigue and a skin rash are among typical symptoms. In later stages, the untreated infection can spread to the brain, nerves, eyes, joints and heart.

Rogers said a consortium of researchers from across the nation has developed a vaccine to immunize field mice. FoodSource will partner with researchers at Tufts University's schools of graduate biomedical sciences and veterinary medicine who are experts on oral Lyme disease vaccine and the white-footed mouse.

Concern about warmer weather patterns enabling the population of ticks to increase led to the grant, Rogers said. Though the disease occurs primarily in the Northeast, people in Alabama and other regions have been victims.

FoodSource, using technology developed at Auburn University, specializes in biodegradable edible, food-grade baits for a variety of animal species. Its investors include several Birmingham-area individuals, the S.C.O.U.T. Healthcare Fund and Bonaventure Capital.

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