



A sterilization method for companion animals using inhibitors of SHP2 tyrosine phosphatase

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Technology description

Background

Six to eight million cats and dogs enter animal shelters every year in the United States. About half of the sheltered animals must be euthanized to make room for other animals. Surgical sterilization (spay/neuter) requires technical expertise, equipment, time, and recovery space. In many parts of the world, including parts of the U.S., veterinarians are not available at adequate levels for widespread, low-cost surgery. Spay/neuter is a safe and effective procedure, though it presents some risk of complication and carries with it both benefits and risks in terms of various health and behavioral effects. Targeting difficult-to-reach communities and feral populations of cats and dogs, as well as companion animals, would be easier if a simpler, nonsurgical method was available. The dream of animal care providers has always been to render a dog or cat sterile with a single pill or injection. There is a great demand for a low cost, single dose, chemical sterilization strategy for companion animals to reduce overpopulation. Technology Description Sterilization of male companion animals presently requires surgical procedures. Investigators have discovered a small chemical inhibitor that eliminated stem cells or permanently blocked stem cell activity could be used as a candidate sterilant. This technology would permit non-surgical sterilization of male animals with a single injection of a drug.

Application area

-Control breeding in companion animal populations -Control breeding in stray animal populations

Advantages

-Non-surgical method -Low cost -Single dose required

Institution

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