

Research Funding

The Health Committee is pleased to announce the BTCA Board of Directors approved funding the following research through the AKC Canine Health Foundation Donor Advised Fund. The committee's team of vets reviewed a multitude of studies and agreed on the following:

03315: Canine platelet lysate against biofilm formation. Maria Naskou, DVM, PhD

Chronic infected wounds are commonly encountered in veterinary practice and characterized by accumulation of bacteria that are often organized in three-dimensional aggregations, known as biofilms. While conventional antibiotics have been widely used to combat bacterial infections, their inability to penetrate these biofilm aggregations along with the development of bacteria that are resistant to antibiotics eliminates their clinical efficacy leading to prolonged healing rates while amputation is occasionally required. Therefore, new therapeutic strategies are needed to fight biofilm formation by possibly improving the efficacy of topically used antibiotics. We have generated a novel biological product, named platelet lysate (PL), that derives from lysed platelets and is rich in growth factors and antimicrobial molecules. Our data support that canine PL reduces the growth of different types of bacteria, however this effect is influenced by the final formulation of the product. In this study we will optimize the formulation of canine PL and evaluate its antimicrobial activity alone or when combined with conventional antibiotics. The completion of this study will allow us to demonstrate whether canine PL can improve the efficacy of commonly used antibiotics. Blood will be collected from canine and following the generation of canine PL, its antimicrobial effect will be tested against bacteria that are typically isolated from infected wounds using an established biofilm assay.