

Exploring an immunology model for Devil facial tumor disease

Abstract

Tasmanian devil facial tumor disease (DFTD) is a transmissible cancer affecting a large number of Tasmanian devils in southern Australia. This cancer has proven to be neither viral or bacterial in nature, but it is known to transmit rapidly within the Tasmanian devil community. The lack of genetic diversity and their inability to differentiate between their own cells and foreign cells is one of the main reasons that they cannot combat the disease. The rate at which the disease is transmitted is high when the devils engage in biting during play or mating. In this talk, we will discuss the contact rate of the disease among the devil population, the immunology/pathology and a possible model to help explore different vaccination methods for the disease.