

RESEARCH UPDATE 7

Ongoing and recent projects funded by Grayson-Jockey Club Research Foundation

Dr. David Horohov of the University of Kentucky Discusses His Grayson Project on Promoting Immunity in Young Foals

Foals, like many neonates, exhibit increased susceptibility to infectious diseases. In particular, young foals less than 1 month of age are at great risk for developing bronchopneumonia caused by *Rhodococcus equi*. This increased susceptibility is likely due to the immaturity of the neonate's immune system. In particular, very young foals produce very little interferon-gamma, an important immune protein involved in resistance to *R. equi* and other pathogens. This deficiency in interferon-gamma production may be overcome by treating foals with immune stimulants. While the youngest foals, those less than a week of age, are resistant to such treatments due to the immaturity of their immune system, our research has shown that foals 7 days of age and older can respond to the treatment as well as adults.

