

Massachusetts Center for Agriculture

University of Massachusetts Amherst

Inflammatory Leukocytes and Equine Laminitis

Issue

Lameness in general and laminitis in particular have been identified as high priority concerns to the horse industry and there is a need for detailed research in this area. The project evaluates the contribution of pro-inflammatory leukocytes to the development of equine laminitis using the well-characterized black walnut toxin model.

Impact

Gelatinase purified MMPs were immunogenic in mice as was recombinant equine IL-8, both inducing high titered serum antibodies as determined by ELISA. Although 4 fusions were made, we have developed only one useful monoclonal antibody. The antibody can be used for Western blotting, immunoprecipitation, macrophages, other

granulocytes, fibroblasts, or other tissue components. We have used it to evaluate immigrant neutrophils in the digital laminae of horses with experimentally-induced laminitis. We anticipate that it will be useful in analyses of other inflammatory responses in horses.

Primary impact area (s)

- Research
- Education
- Extension

Funding sources

- Hatch

Topics

- Equine Laminitis
- Leukocyte Recruitment
- Immunohistology

Contacts

Samuel Black
Veterinary & Animal Sciences
413-545-2573

