



2020-107: Towards 1-step testing – rapid identification of bovine respiratory disease (BRD) viruses to inform vaccine use &

Researcher: Cheryl Waldner

Funding: \$25,000

Bovine respiratory disease is a complex that mostly affects incoming feedlot calves. While a great deal of research has focused on the bacterial contributions, viral contributions are equally important.

Automate sequencing and bioinformatics will be used for viral BRD to reduce time and costs. The research team will also note potential of sequencing infections on arrival at feedlots, then evaluate the effectiveness of cow/calf vaccines arriving at feedlot. This in turn will help them determine the need for vaccine/protocol updates.

Ultimately, this research team, lead by Cheryl Waldner, hopes to provide 1-step rapid identification of known and emerging BRD viruses, in order to quickly and effectively treat this disease complex. Treating animals for the right infection at the right time ultimately will help reduce costs, and improve animal welfare.