

MSc Defence

THE EFFECTS OF *SACCHAROMYCES CEREVISIAE BOULARDII* CNCM I-1079 SUPPLEMENTATION ON
GUT BARRIER FUNCTION AND SYSTEMIC INFLAMMATION IN TRANSITION DAIRY COWS

Sophia Jantzi

Date: May 13th 2024 at 9:00am

The MSc Defence for Sophia Jantzi has been scheduled for May 13th, 2024 at 9:00am. The defence will be held online via Teams and in room 141: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZjRkYzgzMWEtNWRjZi00NDI3LWlxMzktMDQ1MTYzMmRkOTAz%40thread.v2/0?context=%7b%22Tid%22%3a%22be62a12b-2cad-49a1-a5fa-85f4f3156a7d%22%2c%22Oid%22%3a%22fbd28915-dda5-478f-8ecb-a3682dcf0c3a%22%7d

The exam committee will consist of:

Examining Chair: Dr. Wendy Pearson

Advisor: Dr. Mike Steele

Advisory Committee Member: Dr. Katie Wood

Additional Committee Member: Dr. Stephen Leblanc

Abstract:

The objectives of this thesis were 1) to determine the effects of *Saccharomyces cerevisiae var. boulardii* (SCB) CNCMI-1079 supplementation on gut permeability and systemic inflammation in transition dairy cows and 2) determine the effects of SCB supplementation on the inflammatory response following an acute systemic lipopolysaccharide (LPS) challenge. Overall, the first study found supplementing SCB tended to reduce gut permeability. The second study found the supplementation of SCB may have slightly reduced heart rate (HR) and respiratory rate (RR) and limited the increase in complete blood cell counts (CBC) following an intravenous (IV) LPS challenge. In summary, SCB supplementation may show promising benefits in decreasing gut permeability and reducing certain inflammatory response parameters following an endotoxin challenge however, further research is warranted.