Clermont-Ferrand, France *January 20th 2026*

Dear Selection Committee,

I am writing to express my motivation to apply for available positions as a postdoctoral research fellow or researcher in your group or laboratory. I am a veterinarian from Brazil, passionate about bovine research and currently based in France. Since my Doctor of Veterinary Medicine studies, I have had the opportunity to be involved in several ruminant research laboratories. These experiences motivated me to pursue a career in research, leading me to complete both Master's and PhD degrees.

I hold a Master's degree in Dairy Science from South Dakota State University (USA). During this period, I led five research projects focusing on the immunology, nutrition, and behaviour of dairy cows and calves. I gained extensive experience in on-farm trials and laboratory analyses, as well as training newly enrolled team members. After graduating, I joined a research laboratory at Texas Tech University (USA), where I conducted studies on the physiology and metabolism of adipose tissue in dairy cows.

Over the past three years, I was a graduate research assistant at the French National Research Institute for Agriculture, Food and Environment (INRAE, France), where I completed my PhD in Life and Health Sciences, with a specialisation in Health Biology, in collaboration with Université Clermont Auvergne (France). I recently defended my doctoral thesis, which focused on bovine free fatty acid receptors (FFARs). This work involved investigating the molecular signalling of these receptors through in vitro studies, as well as exploring their potential role in regulating bovine metabolism in vivo.

Based on my research background and long-term commitment to science, I am currently seeking a position as a postdoctoral research fellow or researcher in areas related to bovine physiology, nutrition, immunology, or closely related fields. I have solid experience in on-farm experimentation, laboratory techniques, and statistical analysis. I am confident that these skills, combined with my ability to collaborate effectively within multidisciplinary teams, would allow me to make a positive contribution to your research group.

If my background aligns with your research interests, I would be very happy to meet with you. Thank you for your consideration and sincerely,

Tamara Cristina Michelotti

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Education

PhD, Life and Health Sciences, specialization: Health Biology

National Institute for Agricultural, Food, and Environmental Research (INRAE, France)

Université Clermont Auvergne (UCA, France)

December, 2022 – November, 2025

Ms, Biological Sciences, specialization: Dairy Science

South Dakota State University (SDSU, USA)

September 2019 – October 2021

Veterinary Medicine

Universidade Federal do Paraná (UFPR, Brazil)

February 2013 – December 2018

Relevant Experience

Graduate Research Assistant

INRAE – UMRH, Université Clermont Auvergne | December 2022 – November 2025

- Research project focused on bovine free fatty acid receptors (FFARs) and their potential roles on the metabolism regulation of bovines. Project involved the characterization of FFARs from the pharmacological properties using cell lines models, to bovine primary cells studies (adipocytes and hepatocytes), and to *in vivo* studies that exanimated the expression of liver FFARs during the transition period of dairy cows.

Graduate Research Assistant

Texas Tech University | January 2022 – September 2022

- Research on dairy cows' adipose tissue physiology and metabolism with emphasis in depot specificities and their specific roles during lipid mobilization following parturition.

Graduate Research Assistant

South Dakota State University | 2019 – 2021

Conducted research projects on the following topics:

- Effects of supplementation with an immunomodulatory feed additive during mid-lactating on performance and immune parameters in dairy cows.
- Supplementation of rumen-protected methionine during a subclinical mastitis challenge in mid-lactating dairy cows on immune response, oxidative status, and performance.
- Effects of a rosemary antioxidant compound on health, performance and immunity of transition dairy cows.
- Behaviour activity derived from three-dimensional accelerations to monitor diarrhoea in neonatal dairy calves and to estimate dry matter intake in lactating and transition dairy cows.

Undergraduate Research Assistant

Universidade Federal do Paraná | 2015 - 2018

- Conducted research experiments with emphasis in the supplementation of rumen-protected methionine in transition dairy cows and its effects on health, performance, and metabolic parameters.
- Assisted graduate students in their research projects, mainly focused on dairy cattle nutrition and milk quality.

Research Scholar

University of Florida | August 2018 - November 2018

- Intern at the ruminant nutrition laboratory.
- Assisted in projects with the objective to improve sorghum and corn silage quality. Main activities involved: Bromatological analysis, digestibility assays, collection of sorghum, corn, and rumen samples.

Technical Competences

Laboratory Skills

mRNA and DNA isolation, RT-qPCR, flow cytometry, ELISA, bromatological analysis, digestibility assays, primary and cell line culture, bioluminescence resonance energy transfer (BRET), among others.

Statistics, Data and Bioinformatic Analysis

Experience in analysing data for scientific interpretation and hypothesis testing. Advanced knowledge in statistical analysis of data sets, with emphasis on Statistical Analysis Software (SAS), and intermediate knowledge of analysing using Rstudio software.

Communication & Project Management

Training and managing undergraduate and graduate students for farm and laboratory practices. Project organization.

Excellent written and verbal communication skills demonstrated through published papers/abstracts to scientific journals and delivering oral presentations.

On-Farm Experiments Skills

Experience in milking dairy cows, mixing and feeding diets, collecting samples (blood, urine, rumen fluid, milk, etc.), liver and adipose tissue biopsies, among others.

Published papers

Most relevant publications

- **T.C. Michelotti** et al. 2025. Subclinical ketosis in postpartum dairy cows alters the adipose tissue immunological profile in a depot-specific manner. Front. Immunol., https://doi.org/10.3389/fimmu.2025.1578669
- **T.C. Michelotti** et al. 2025. Endogenous ligands of bovine FFAR2/GPR43 display distinct pharmacological properties. Front. Cell Dev. Biol., https://doi.org/10.3389/fcell.2025.1645031
- **T.C. Michelotti** et al. 2025. Expression of free fatty acids receptors in the liver of periparturient dairy cows supplemented with essential fatty acids and CLA. JDS Communications, https://doi.org/10.3168/jdsc.2025-0867
- **T.C. Michelotti** et al. 2022. Single-nuclei analysis reveals depot-specific transcriptional heterogeneity and depot-specific cell types in adipose tissue of dairy cows. Front. Cell Dev. Biol., http://doi.org/10.3389/fcell.2022.1025240
- **T.C. Michelotti** et al. 2021. An Exploration of the Effects of an Early Postpartum Intravenous Infusion with Carnosic Acid on Physiological Responses of Transition Dairy Cows. Antioxidants, https://doi.org/10.3390/antiox10091478
- **T.C. Michelotti** et al. 2021. Effects of rumen-protected methionine supplementation on dairy cows during early postpartum, Journal of Applied Animal Research, https://doi.org/10.1080/09712119.2021.1942882
- Paz, A.; **Michelotti, T.C.**; Suazo, M.; Bonilla, J.; Bulnes, M.; Minuti, A.; Luchini, D.; Trevisi, E.; Lima, A.F.; Halfen, J.; Rovai, M.; Osorio, J.S. 2024. Rumen-protected methionine supplementation improves lactation performance and alleviates inflammation during a subclinical mastitis challenge in lactating dairy cows. Journal of Dairy Science, https://doi.org/10.1016/j.jods.2024.08.001
- Carpinelli, N.; Halfen, J.; **Michelotti, T.C.**; Rosa, F.; Trevisi, E.; Chapman, J.; Sharman E.; Osorio, J.S. 2023. Yeast Culture Supplementation Effects on Systemic and Polymorphonuclear Leukocytes' mRNA Biomarkers of Inflammation and Liver Function in Peripartal Dairy Cows. Animals, https://doi.org/10.3390/ani13020301
- Rosa, F.; **Michelotti, T.C.;** St-Pierre, B.; Trevisi, E.; Osorio, J.S. 2021. Early Life Fecal Microbiota Transplantation in Neonatal Dairy Calves Promotes Growth Performance and Alleviates Inflammation and Oxidative Stress during Weaning. Animals, https://doi.org/10.3390/ani11092704

Research Grants

Funded research grants

- South Dakota State University FY22 RSCA Challenge Fund. Title: "*Uncovering the systemic and molecular signals associated withimproved milk yield performance in dairy cows infused with a rosemary (Salvia rosmarinus) antioxidant compound".* Principal Investigator: J.S. Osorio; Co-Principal Investigator: **T.C. Michelotti**

Languages

- Portuguese – Native speaker
- English – Fluent
- French – Intermediate
- Italian – Intermediate