

# Tiago Tomazi

Ruminant Technical Services Assistant Manager  
Merck Animal Health  
Sioux Falls, SD, USA

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## EDUCATION

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**2013 - 2017** **PhD in Animal Nutrition and Production**  
School of Veterinary Medicine and Animal Science  
Department of Animal Nutrition and Production  
University of Sao Paulo, Brazil

**Thesis title:** *"Etiological and molecular profile of pathogens causing clinical mastitis, and antimicrobial use in dairy herds"*

This was the first epidemiological study characterizing clinical mastitis in dairy herds of Brazil. The study described the incidence of CM, etiological profile, the antimicrobial resistance of major pathogens at the species and genotyping level, and the use of antimicrobials in dairy herds of Brazil.

**Scholarship:** Sao Paulo Research Foundation (FAPESP)

**2011 - 2013** **Master's degree in Animal Nutrition and Production**  
School of Veterinary Medicine and Animal Science  
Department of Animal Nutrition and Production  
University of Sao Paulo, Brazil

**Dissertation title:** *"Milk yield and composition of cows with subclinical mastitis caused by coagulase negative staphylococci"*

The focus of the study was to evaluate the effect of subclinical intramammary infection caused by coagulase negative staphylococci (CNS) on milk yield, somatic cell count and composition at mammary quarter level. In addition, this was the first study identifying at the species level CNS isolates recovered from bovine mastitis using the technique of matrix-assisted laser desorption ionization - time-of-flight - mass spectrometry (MALDI/TOF-MS).

**Scholarship:** Sao Paulo Research Foundation (FAPESP)

- 2004 - 2010      DVM in Veterinary Medicine**  
Class of 2010  
Universidade de Passo Fundo - UPF (University of Passo Fundo)  
Passo Fundo, RS, Brazil
- 1999 - 2001      High school for Agriculture Technician**  
Colégio Agrícola de Veranópolis – CAV (Veranópolis High School for Agriculture Technicians)  
Veranópolis, RS, Brazil

## **PROFESSIONAL EXPERIENCE**

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**June 2021 – current**

**Ruminant Technical Services Assistant Manager**  
Merck Animal Health  
I-29 corridor (States of SD, MN, IA)

Provide technical support for Ruminant products and programs, including response to product inquiries and adverse reports. Involvement in the development of new products. Development of vaccination programs and protocol for use of pharmaceuticals. Develop trial protocols, monitoring and summarizing clinical and marketing support trials specific to Ruminant animal health. Maintain contact with key industry professionals to include academic, veterinary related individuals or groups. Attend and give talks and trainings in prominent industry scientific meetings. Deliver a high level of technical expertise, service and support to the company's Animal Health Division Ruminant sales in North America.

**December 2018 – May 2021**

**Postdoctoral Associate**  
Department of Population Medicine and Diagnostic Sciences  
College of Veterinary Medicine  
Cornell University, Ithaca, NY, USA

Plan, design and conduction of clinical trials for treatment and prevention of infectious diseases, such as pneumonia and otitis in dairy calves, and mastitis and metritis in lactating cows. Support to graduate and undergraduate students in optimizing efficiency in ongoing projects, animal management and data analysis. Conduction of laboratorial analysis and support to students during laboratorial procedures, especially during bacteriological and molecular testing. Collaboration in writing scientific projects and grants submitted to funding institutions (USDA and private sector).

**August 2017 – November 2018****Temporary research fellow**

Laboratory of Research in Milk Quality (Qualileite-FMVZ/USP)  
School of Veterinary Medicine and Animal Science  
University of Sao Paulo, Brazil

Plan, design and conduction of epidemiological studies and clinical trials on prevention and control of bovine intramammary infection. Assistance to graduate students on conduction of sampling and data analysis. Assistance to students and performance of microbiological tests, such as milk culture and phenotypic tests, MALDI-TOF MS and techniques for identification of antimicrobial resistance.

**February 2016 – December 2016****Research internship abroad**

Quality Milk Production Services (QMPS)  
Department of Animal Health and Diagnostic Center  
Cornell University, Ithaca, NY - USA

Conduction of an epidemiological study for characterization of clinical mastitis in large dairy herds of New York state. Development of a molecular study for better understanding the epidemiology, antimicrobial resistance and transmission routs of *Klebsiella* spp. causing clinical mastitis. Participation in an epidemiology course at the School of Veterinary Medicine. Assistance in conducting surveys, development of strategies and training of farm employees with focus on udder health.

**January 2014 – November 2018****Consultancy on milk quality and mastitis control**

Dairy farms located in the states of Sao Paulo and Minas Gerais, Brazil

Development of projects and assistance to dairy farmers seeking to improve productivity and milk quality of herd. On-farm training for education of farm personnel about management practices and conduction of strategies for prevention and control of mastitis.

**January 2011 – July 2017****Graduate research assistant (Master's degree and Ph.D.)**

Conducted and collaborated in studies on characterization of etiological and epidemiological profiles of clinical and subclinical mastitis in dairy herds, including surveys, prospective and retrospective descriptive studies and clinical trials.

Collaborated with colleagues performing studies on nutrition of dairy cows.

**September 2007 – June 2010****Laboratory of services and analysis for dairy herds (Serviço de Análises de Rebanhos Leiteiros – SARLE)**

Performance of analyzes of total bacterial count and somatic cell count of milk samples collected from dairy herds. Data management and report issuance to dairy farms and dairy industry.

**April 2005 – August 2007****Brazilian Milk Quality Council (Conselho Brasileiro de Qualidade do Leite – CBQL)**

As secretary of the institution, collaborated in consultancy and service to veterinary companies, dairy industries, producers, professionals of dairy sector and those interested in milk quality. Also, assisted in the organization of conferences and symposiums and worked disseminating information about dairy industry through newsletters and the institution's website.

**March 2002 – August 2003****On-Farm training course (Wisconsin, USA) - International Farmers Aid Association (IFAA)**

As the final practice for the high school for agriculture technicians, I expended 18 months as a trainee in a familiar dairy farm located in Saint Croix Falls, WI. The farm milked around 250 dairy cows two times a day. During the practical on-farm internship, I had the opportunity to learn about US culture and increase my knowledge on management of dairy animals, especially on areas such as milking routine, reproduction, nutrition and behavior of dairy animals.

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**MAJOR RESEARCH INTERESTS**

- Epidemiology of infectious and metabolic diseases of ruminants
- Host-microbe interactions and pathogen surveillance methods
- Immunology and Vaccinology
- Microbiology and microbiome
- Techniques of mass spectrometry
- Management of dairy herds

**JOURNAL REVIEWER**

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<b>2020 – Current</b>	Pathogens (MDPI)
<b>2020 – Current</b>	BMC Veterinary Research
<b>2018 - Current</b>	Journal of Dairy Science
<b>2016 - Current</b>	Archives of Microbiology
<b>2016 - Current</b>	Brazilian Journal of Veterinary Research and Animal Science
<b>2015 - Current</b>	Diagnostic Microbiology and Infectious Disease

**PEER REVIEWED PUBLICATIONS**

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1. Buckley, M. P., J. Bayne, **T. Tomazi**, B. E. Miller, S. M. Godden, G. S. Silva, and P. J. Gorden. 2023a. A randomized equivalence study evaluating the efficacy of two commercially available teat sealants in dairy cows. The Bovine Practitioner 27(2):36-50.
2. Buckley, M. P., J. Bayne, **T. Tomazi**, B. E. Miller, G. S. Silva, and P. J. Gorden. 2023b. Evaluation of internal teat sealant persistence in the mammary gland during the dry period. The Bovine Practitioner 27(2):51-59.
3. Crippa, B. L., M. X. Rodrigues, **T. Tomazi**, Y. Yang, L. de Oliveira Rocha, R. C. Bicalho, and N. C. C. Silva. 2023. Virulence factors, antimicrobial resistance and phylogeny of bovine mastitis-associated *Streptococcus dysgalactiae*. Journal of Dairy Research:1-6.
4. Freu, G., B. L. N. Garcia, **T. Tomazi**, G. S. Di Leo, L. S. Gheller, V. Bronzo, P. Moroni, and M. V. Dos Santos. 2023. Association between Mastitis Occurrence in Dairy Cows and Bedding Characteristics of Compost-Bedded Pack Barns. Pathogens 12(4):583.
5. Tomazi, A. C. C. H., **T. Tomazi**, L. Bringhenti, A. P. A. Vinhal, M. X. Rodrigues, T. R. Bilby, H. J. Huson, and R. C. Bicalho. 2023. Treatment with 2 commercial antibiotics reduced clinical and systemic signs of pneumonia and the abundance of pathogenic bacteria in the upper respiratory tract of preweaning dairy calves. Journal of Dairy Science 106(4):2750-2771.
6. Alanis, V. M., **T. Tomazi**, C. Santisteban, D. V. Nydam, and P. A. Ospina. 2022. Calculating clinical mastitis frequency in dairy cows: Incidence risk at cow level, incidence rate at cow level, and incidence rate at quarter level. Preventive Veterinary Medicine 198:105527.
7. Freu, G., **T. Tomazi**, A. F. Filho, M. B. Heinemann, and M. V. dos Santos. 2022. Antimicrobial Resistance and Molecular Characterization of *Staphylococcus aureus* Recovered from Cows with Clinical Mastitis in Dairy Herds from Southeastern Brazil. Antibiotics 11(4):424.
8. Silva, N. C. C., Y. Yang, M. X. Rodrigues, **T. Tomazi**, and R. C. Bicalho. 2021. Whole-genome sequencing reveals high genetic diversity of *Streptococcus uberis* isolated from cows with mastitis. BMC Veterinary Research 17(1):321.

9. Martins, L., J. L. Gonçalves, R. F. Leite, T. Tomazi, V. L. M. Rall, and M. V. Santos. 2021. Association between antimicrobial use and antimicrobial resistance of *Streptococcus uberis* causing clinical mastitis. *Journal of Dairy Science*. *J. Dairy Sci* 104:12030-12041. DOI: 10.3168/jds.2021-20177. 2021.
10. Bringhenti, L., M. Pallu, J. Silva, **T. Tomazi**, A. C. C. H. Tomazi, M. X. Rodrigues, M. Cruzado-Bravo, T. R. Bilby, and R. C. Bicalho. Effect of treatment of pneumonia and otitis media with tildipirosin or florfenicol + flunixin meglumine on health and upper respiratory tract microbiota of preweaned Holstein dairy heifers. *J. Dairy Sci* 104(9):10291-10309. DOI: 10.3168/jds.2020-19945. 2021.
11. Alanis, V. M., M. J. Zurakowski, D. A. Pawloski, **T. Tomazi**, D. V. Nydam, and P. A. Ospina. Description of the characteristics of 5 bedding materials and association with bulk tank milk quality on 5 New York dairy herds. 2021. *Front. Vet. Sci.* 8(334):1-13. DOI: 10.3389/fvets.2021.636833. 2021.
12. Bringhenti, L., M. Pallu, J. Silva, **T. Tomazi**, A. C. Tomazi, M. X. Rodrigues, L. M. Duarte, T. R. Bilby, and R. C. Bicalho. 2021. Effect of metaphylactic administration of tildipirosin on the incidence of pneumonia and otitis and on the upper respiratory tract and fecal microbiome of preweaning Holstein calves. *J Dairy Sci* 104(5):6020-6038. 2021.
13. **Tomazi, T.**, M. Sumnicht, A. Tomazi, J. C. C. Silva, L. Bringhenti, L. M. Duarte, M. M. M. Silva, M. X. Rodrigues, and R. C. Bicalho. 2021. Negatively controlled, randomized clinical trial comparing different antimicrobial interventions for treatment of clinical mastitis caused by gram-positive pathogens. *J Dairy Sci* 104(3):3364-3385. 2021.
14. **Tomazi, T.**, A. Tomazi, J. C. C. Silva, L. Bringhenti, M. Bravo, M. X. Rodrigues, and R. C. Bicalho. 2021. Immunization with a novel recombinant protein (YidR) reduced the risk of clinical mastitis caused by *Klebsiella* spp. and decreased milk losses and culling risk after *Escherichia coli* infections. *J Dairy Sci*. 104(4):4787-4802. 2021.
15. **Tomazi, T.** and Santos, M. V. Antimicrobial use for treatment of clinical mastitis in dairy herds from Brazil and its association with herd-level descriptors. 2020. *Preventive Veterinary Medicine*, v. 176:104937. 2020.
16. Freu, G.; **Tomazi, T**, Monteiro, C. P.; Barcelos, M. M.; Alves, B. G. Santos, M. V. Internal teat sealant administered at drying off reduces intramammary infections in the subsequent lactation of dairy cows. *Animals* 10(9):1-16, 2020.
17. **Tomazi, T.**; Freu, G.; Alves, B. G.; de Souza Filho, A. F.; Heinemann, M. B.; Santos, M. V. Genotyping and antimicrobial resistance of *Streptococcus uberis* isolated from bovine clinical mastitis. *PLoS One.*, v. 14 14(10):e0223719, 2019.
18. **Tomazi, T.**; Coura, F. M.; Gonçalves, J. L.; Heinemann, M. B.; Santos, M. V. Antimicrobial susceptibility patterns of *Escherichia coli* phylogenetic groups isolated from bovine clinical mastitis. *Journal of Dairy Science*, v. 101, p. 9406 - 9418, 2018.
19. **Tomazi, T.**; Ferreira, G. C.; Orsi, A. M.; Gonçalves, J. L.; Ospina, P. A.; Nydam, D. V.; Moroni, P; Santos, M. V. Association of herd-level risk factors and incidence rate of clinical mastitis in 20 Brazilian dairy herds. *Preventive Veterinary Medicine*, v. 161, p. 9 - 18, 2018.

20. Gonçalves, J. L.; Kamphuis, C.; Martins, C. M. M. R.; Barreiro, J. R.; **Tomazi, T.**; Gameiro, A. H.; Hogeweene, H.; Santos, M.V. Bovine subclinical mastitis reduces milk yield and economic return. *Livestock Science*. v. 210, p. 25 - 32, 2018.
21. **Tomazi, T.**; de Souza Filho, A. F.; Heinemann, M. B.; Santos, M. V. Molecular characterization and antimicrobial susceptibility pattern of *Streptococcus agalactiae* isolated from clinical mastitis in dairy cattle. *PLoS One*, v. 13, p. e0199561 - 18, 2018.
22. **Tomazi, T.**; Lopes, T. A. F.; Masson, V.; Swinkels, J. M.; Santos, M. V. Randomized noninferiority field trial evaluating cephalpirin sodium for treatment of nonsevere clinical mastitis. *Journal Of Dairy Science*, v. 101, p. 7334 - 7347, 2018.
23. Braga, P. A. C.; Gonçalves, J. L.; Barreiro, J. R.; Ferreira, C. R.; **Tomazi, T.**; Eberlin, M. N.; Santos, M. V. Rapid identification of bovine mastitis pathogens by MALDI-TOF Mass Spectrometry. *Pesquisa Veterinária Brasileira*, v.38, p.586 - 594, 2018.
24. Gonçalves, J. L.; **Tomazi, T.**; Santos, M. V. Rotina de ordenha eficiente para produção de leite de alta qualidade. *Revista Acadêmica: Ciências Agrárias e Ambientais (PUCPR. Impresso)*, v.15, p.9 - 14, 2017.
25. Arcari, M. A.; Martins, C. M. M. R.; **Tomazi, T.**; Gonçalves, J. L.; Santos, M. V. Effect of substituting dry corn with rehydrated ensiled corn on dairy cow milk yield and nutrient digestibility.. *Animal Feed Science and Technology*, v .221, p. 167 - 173, 2016.
26. Arcari, M. A.; Martins, C. M. M. R.; **Tomazi, T.**; Santos, M. V. Effect of ensiling time of hydrated ground corn on silage composition and *in situ* starch degradability. *Brazilian Journal of Veterinary Research and Animal Science*, v.53, p.60 - 71, 2016.
27. Gonçalves, J. L.; **Tomazi, T.**; Barreiro, J. R.; Beuron, D. C.; Arcari, M. A.; Lee, S. H. I.; Araújo Jr, J. P.; Santos, M. V. Effects of bovine subclinical mastitis caused by *Corynebacterium* spp. on somatic cell count, milk yield and composition by comparing contralateral quarters. *The Veterinary Journal*, v. 209, p. 87 - 92, 2016.
28. Cortinhas, C. S.; **Tomazi, T.**; Zoni, M. S. F.; Moro, E.; Santos, M. V. Randomized clinical trial comparing ceftiofur hydrochloride with a positive control protocol for intramammary treatment of nonsevere clinical mastitis in dairy cows. *Journal of Dairy Science*, v. 99, p. 5619 - 5628, 2016.
29. **Tomazi, T.**; Gonçalves, J. L.; Barreiro, J. R.; Arcari, M. A.; Santos, M. V. Bovine subclinical intramammary infection caused by coagulase-negative staphylococci increases somatic cell count but has no effect on milk yield or composition. *Journal of Dairy Science*. , v. 98, p. 3071 - 3078, 2015.
30. Naves, J. R.; Jesus, E. F.; Martins, C. M. M. R.; **Tomazi, T.**; Freitas Junior, J. E.; Renno, F. P.; Santos, M. V. Efficiency of dietary nitrogen utilization and digestive metabolism of dairy cows fed different nitrogen sources and sugarcane. *The Journal of Animal and Plant Sciences*, v.25, p. 941 - 949, 2015.
31. **Tomazi, T.**; Gonçalves, J. L.; Barreiro, J. R.; Arcari, M. A.; Santos, M. V. Letter to the editor: A response to the comments of Silanikove et al. (2015). *Journal of Dairy Science*. , v.98, p. 7423 - 7425, 2015.

32. Martins, C. M. M. R.; Bermudes, R. F.; Cerutti, W. G.; Viegas, J.; Correa, M. N.; Muller, R. C.; **Tomazi, T.**; Santos, M. V. Morphological characteristics of maize plants in estimate the silage chemical composition. Brazilian Journal of Veterinary Research and Animal Science, v. 51, p. 233 - 241, 2014.
33. **Tomazi, T.**; Goncalves, J. L.; Barreiro, J. R.; Braga, P. A. C.; Silva, L. F. P. E.; Eberlin, M. N.; Santos, M. V. Identification of coagulase-negative staphylococci from bovine intramammary infection by matrix-assisted laser desorption ionization - time of flight mass spectrometry. Journal of Clinical Microbiology, v. 52, p. 1658 - 1663, 2014.
34. Gonçalves, J. L.; **Tomazi, T.**; Barreiro, J. R.; Braga, P. A. C.; Ferreira, C. R.; Araújo Junior, J. P.; Eberlin, M. N.; Santos, M. V. Identification of *Corynebacterium* spp. isolated from bovine intramammary infections by matrix-assisted laser desorption ionization-time of flight mass spectrometry. Veterinary Microbiology, v. 173, p. 147 - 151, 2014.
35. **Tomazi, T.**; Gonçalves, J. L.; Santos, M. V. Novas perspectivas e conceitos associados com a prevenção e controle de mastite em rebanhos leiteiros: revisão de literatura. Revista de Educação Continuada em Medicina Veterinária e Zootecnia do CRMV-SP, v. 12, p. 18 - 27, 2014.
36. Jesus, E. F.; Conti, L. H. A.; **Tomazi, T.**; Migliano, M. E. D. A.; Silva, L. F. P. E.; Renno, F. P.; Santos, M. V. Intake, nutrient digestibility and milk yield of dairy cows fed urea and two levels of crude protein in diets with sugar cane. Journal of Animal and Veterinary Advances, v. 11, p. 4135 - 4142, 2012.

## **BOOK CHAPTERS**

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1. **Tomazi, T.**; Santos, M. V. Métodos de identificação de agentes causadores de mastite (*Methods for identification mastitis-causing agents*). In: Controle da mastite e qualidade do leite: desafios e soluções.1 ed. Pirassununga: Edição independente dos autores, 2019, p. 78-97.
2. Alves, B. G.; Freu, G.; Gonçalves, J .L.; **Tomazi, T.**; Fidelis, C. E.; Santos, M.V. Diversidade genotípica de patógenos causadores da mastite bovina (*Genotypic diversity of pathogens causing bovine mastitis*). In: Novos desafios da pesquisa em nutrição e produção animal. 13 ed. Pirassununga:5D Editora, 2019, p. 242 - 267.
3. **Tomazi, T.**; Alves, B. G.; Gonçalves, J. L.; Santos, M. V. Perfil etiológico da mastite clínica, e uso de antimicrobianos em rebanhos leiteiros (*Etiological profile of clinical mastitis and use of antimicrobials in dairy herds*). In: Novos Desafios da Pesquisa em Nutrição e Produção Animal.1 ed.Pirassununga: Editora 5D, 2017, v.1, p. 204-233.
4. Gonçalves, J. L.; Barreiro, J. R.; Martins, C. M. M. R.; Arcari, M. A.; Alves, B. G.; **Tomazi, T.**; Gameiro, A. H.; Santos, M. V. Mastite subclínica reduz produção e altera composição do leite: comparação entre quartos contralaterais (*Subclinical mastitis reduces milk production and alters composition: comparison between contralateral mammary quarters*). In: X Simpósio de Pós-Graduação e Pesquisa em Nutrição e Produção Animal - Novos

- desafios da pesquisa em nutrição e produção animal.1 ed.Pirassununga: 5D Editora, 2016, v.10, p. 228-249.
5. Arcari, M. A.; Martins, C. M. M. R.; Alves, B. G.; Fonseca, D. C. M.; Orsi, A. M.; **Tomazi, T.**; Gonçalves, J.L.; Santos, M. V. Uso de silagem de milho reidratado em dietas de vacas leiteiras (*Use of rehydrated corn silage in dairy cow diets*). In: Novos Desafios da Pesquisa em Nutrição e Produção Animal.1 ed.Pirassununga: 5D Editora, 2015, v.2015, p. 300-322.
  6. **Tomazi, T.**; Goncalves, J. L.; Barreiro, J. R.; Braga, P. A. C.; Ferreira, C. R.; Araujo Junior, J. P.; Santos, M. V. Produção e composição do leite em vacas com mastite causada por patógenos secundários (*Milk production and composition in cows with mastitis caused by secondary pathogens*). In: Novos desafios da pesquisa em nutrição e produção animal.1 ed.Pirassununga, SP: 5D Editora, 2012, v.6, p. 197-222.
  7. Jesus, E. F.; Conti, L. H. A.; **Tomazi, T.**; Migliano, M. E. D. A.; Barreiro, J. R.; Naves, J. R.; Renno, F. P.; Santos, M. V. Teores de proteína bruta e fontes nitrogenadas em dietas com cana-de-açúcar na alimentação de vacas leiteiras (*Crude protein and nitrogen sources in sugarcane diets for dairy cows*). In: Novos desafios da Pesquisa em Nutrição e Produção Animal. 5 ed.Pirassununga: Editora 5D, 2011, p. 190-211.
  8. Durr, J. W.; Luiz, V.; **Tomazi, T.** Pagamento do leite por qualidade no Brasil (Quality based milk payment in Brazil). In: Estratégia e Competitividade na Cadeia de Produção de Leite. 1 ed. Passo Fundo: Grafica Editora Berthier, 2005, p. 54-73.

## **CONFERENCE ARTICLES**

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1. Tomazi T. What Can I Expect from a Teat Sealant in Mastitis Control? In: **2023 NMC Regional Meeting Proceedings**. Visalia, CA, USA: National Mastitis Council, 2023.
2. Ospina, P. A.; Alanis, V.; Vasquez, A. K.; Welcome, F. L.; **Tomazi, T.**; Marely, K.; Nydam, D. V. Heifer Mastitis – What About it? In: 58th National Mastitis Council Annual Meeting, 2019, Savannah, USA. **2019 NMC Annual Meeting Proceedings**. New Prague, MN, USA: National Mastitis Council, 2019. v.58. p.27 – 53.
3. Santos, M. V.; **Tomazi, T.** Atualizações e últimas tendências no controle e tratamento de mastites (*Updates and latest trends for mastitis control and treatment*). In: Simpósio Brasil Sul de Bovinocultura de Leite, Chapecó. **ANAIIS DO VI SIMPÓSIO BRASIL SUL DE BOVINOCULTURA DE LEITE E 1º BRASIL SUL MILK FAIR**. Chapecó, SC: Associação Catarinense de Medicina Veterinária - Núcleo Oeste, 2016. v.1. p.147 - 165
4. Santos, M. V.; Ferreira, G. C.; **Tomazi, T.** Perfil etiológico da mastite clínica em rebanhos leiteiros (*Etiological profile of clinical mastitis in dairy herds*). In: VI Congresso Brasileiro de Qualidade do Leite, 2015, Curitiba. **Anais VI Congresso Brasileiro de Qualidade do Leite**. , 2015. v.6. p.85 – 95.
5. Santos, M. V.; **Tomazi, T.**; Goncalves, J. L. Novas estratégias para o tratamento da mastite bovina (*New strategies for treatment of bovine mastitis*) In: IX Congresso Brasileiro de Buiatria, 2011, Goiânia. **Os Desafios da Buiatria do Século XXI**. Botucatu: Veterinária e Zootecnia, 2011. v.18. p.131 – 137.

## CONFERENCE PRESENTATIONS

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To date, Tiago Tomazi presented **16 studies** in congresses, symposiums and workshops. The main ones are described below:

1. Tomazi, A.C.C.H.; Vinhal, A.P.A.; **Tomazi, T.**; Bringhenti, L.; Rodrigues, M.X.; Huson, H.J.; Bilby, T.R.; Bicalho, R.C. Treatment of pneumonic preweaning dairy calves with two commercial antibiotics reduced systemic inflammatory signs and the relative abundance of bacterial genera associated with the disease. 2022 ADSA Annual Meeting. June 19-22, 2022. Kansas City, MO, USA (Oral presentation).
2. **Tomazi, T.**; Ferreira, G. C.; Orsi A. M.; Santos, M. V. Associação entre características de rebanho e a frequência de uso de antimicrobianos para tratamento de mastite clínica. (*Association between herd-level characteristics and antimicrobial use for treatment of clinical mastitis*). VII Brazilian Congress on Milk Quality. September, 28 – 29, 2017. Curitiba, PR, Brazil (Poster presentation).
3. **Tomazi, T.**; Gioia, G.; Ospina, P. A.; Virkler, P. D.; Santisteban, C. G.; Santos, M. V.; Nydam, D. V.; Moroni, P. Distribution of *Klebsiella pneumoniae* in a dairy farm: from clinical point of view to the molecular characterization. Mastitis Research Workers. October 2016. Chicago, IL (Oral presentation).
4. **Tomazi, T.**; Orsi A. M.; Ferreira, G. C.; Bernardes, E. B.; Henrique, A. C. C.; Martins, C. M. M. R.; Gonçalves, J. L.; Santos, M. V. Association between etiology and severity of clinical mastitis in Brazilian dairy herds. 55<sup>th</sup> National Mastitis Council. Jan. 31 – Feb. 2, 2016. Glendale, AZ (Poster presentation).
5. **Tomazi, T.**; Leite, R. F.; Orsi A. M.; Ferreira, G. C.; Gonçalves, J. L.; Santos, M. V. Prevalence of pathogens and severity of clinical mastitis in dairy herds of southeast Brazil. 54<sup>th</sup> National Mastitis Council. Feb. 1 – 3, 2015. Memphis, TN (Poster presentation).
6. **Tomazi, T.**; Cortinhas, C. S.; Gama, R. D.; Moro, E.; Dos Santos, M.V. Eficácia do Cloridrato de Ceftiofur para tratamento de mastite clínica não-grave em vacas leiteiras (*Efficacy of ceftiofur hydrochloride for treatment of non-severe clinical mastitis in dairy cows*). VI Brazilian Congress on Milk Quality. Sep. 24 – 26, 2015. Curitiba, PR, Brazil (Poster presentation).
7. **Tomazi, T.**; Bernardes, E. B.; Ferreira, G. C.; Martins, L.; Orsi, A. M.; Henrique, A. C. C.; Gonçalves, J. L.; Santos, M. V. Sensibilidade a antimicrobianos de *Staphylococcus aureus* isolados de mastite clínica em vacas leiteiras (*Antimicrobial sensitivity of Staphylococcus aureus isolated from clinical mastitis in dairy cows*). VI Brazilian Congress on Milk Quality. Sep. 24 – 26, 2015. Curitiba, PR, Brazil (Poster presentation).
8. **Tomazi, T.**; Goncalves, J. L.; Barreiro, J. R.; Santos, M. V. Produção e composição do leite de quartos mamários com mastite subclínica causada por *Staphylococcus* coagulase negativa (*Milk production and composition of mammary quarters with subclinical mastitis caused by coagulase negative Staphylococcus*). V Brazilian Congress on Milk Quality. Jun. 10 – 12, 2013. Águas de Lindoia, SP, Brazil (Poster presentation).

**ABSTRACTS PUBLISHED IN CONFERENCE ANNALS**

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To date, Tiago Tomazi published **79 abstracts** in national and international conferences. Some of them are listed below:

1. Buckley, M.P.; Bayne, J.; Silva, G. S.; **Tomazi, T.**; Miller, Gorden, P.J. Characterization of internal teat sealant behavior throughout the dry and post-fresh periods. In: **62<sup>nd</sup> Annual Meeting of National Mastitis Council Proceedings**. Atlanta, EUA, v.58, p. 131 – 132, 2023.
2. Buckley, M.P.; Bayne, J.; Silva, G. S.; **Tomazi, T.**; Miller, B.E.; Godden, S.; Gorden, P.J. A randomized equivalence study evaluating the efficiency of two commercially available teat sealants in dairy cows. In: **62<sup>nd</sup> Annual Meeting of National Mastitis Council Proceedings**. Atlanta, EUA, v.58, p. 149 – 150, 2023.
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## TECHNICAL ARTICLES

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To date, Tiago Tomazi was author and co-author of more than **65 technical articles** published in relevant agriculture & farming magazines and websites of Brazil and USA. Some of them are listed below.

1. **Tomazi, T.** Is it time to sharpen your dry-off practices? **Progressive Dairy**, p. 64 – 65, Issue 9, September 2023.
  2. **Tomazi, T.** When BRD occurs, diagnose and treat early for best results. **Dairy Business**, available online, September 2022.
  3. **Tomazi, T.** What's the real cost of treating clinical mastitis? **Progressive Dairy**, p. 102-103, October 2021.
  4. Ospina, P. A.; Alanis, V. M.; Vasquez, A. K.; **Tomazi, T.**; Nydam, D. V. **Why do we care about heifer mastitis?** Hoard's Dairyman, p. 136-136, March 2019.
  5. Alanis, V. M.; **Tomazi, T.**; Ospina, Paula A.; Nydam, D. V. **These eight farms shed light on mastitis.** Hoard's Dairyman, p. 554-554, September 2018.
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**AWARD AND SCHOLARSHIPS**

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- 2022** Circle of Excellence Award by Merck Animal Health.
- 2018** Top 100 Journal of Dairy Science Author – The study “Bovine subclinical intramammary infection caused by coagulase-negative staphylococci increases somatic cell count but has no effect on milk yield and composition” was among the 100 most highly cited papers published in JDS since 2015.
- 2017** Acknowledge from the City Hall of Pirassununga, SP (Brazil) for the services provided to the city in the areas of research and extension related to the dairy industry.
- 2017** Second best Ph.D. Student with defense in 2017 - Award Professor Felix Ribeiro de Lima - Department of Nutrition and Animal Production - FMVZ / USP
- 2016** Scholarship from the São Paulo Research Foundation (FAPESP) for conduction of 10-months research internship at Cornell University (USA).
- 2015** Best Expanded Abstract - VI Brazilian Congress on Milk Quality, Brazilian Milk Quality Council
- 2014-2017** Scholarship from the São Paulo Research Foundation (FAPESP) for conduction of studies during the doctorate graduation program.
- 2014** Teaching assistant scholarship in the courses “Animal Breeding and Genetics” and “Technology and Inspection of Animal Products” provided to the School of Veterinary and Animal Science of University of São Paulo.
- 2013** Best Master's Student with defense in 2013 - Award Professor Felix Ribeiro de Lima - Department of Nutrition and Animal Production - FMVZ / USP
- 2012** Teaching assistant scholarship in the course “Technology and Inspection of Animal Products” provided to the School of Veterinary and Animal Science of University of São Paulo.
- 2011-2013** Scholarship from the São Paulo Research Foundation (FAPESP) for conduction of studies during the master's graduation program.

## **TEACHING, MENTORSHIP, AND LEADERSHIP EXPERIENCE**

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While graduate student had the opportunity to participate as teaching assistant (TA) in courses provided to veterinary students, such as "Technology and Inspection of Animal Products", "Beef cattle production and management" and "Animal Breeding and Genetics". In addition, was invited to give practical classes of milking equipment and milking routine in the course of "Dairy production and management".

As Ph.D. at University of São Paulo actively assisted students of veterinary medicine while conducting research associated with undergraduate research programs. Also welcomed and trained several visiting students that have worked in the laboratory.

As invited lecturer, talked about mastitis concepts, management and control in Veterinary Medicine courses of private universities in Brazil (e.g., Universidade Paulista, Instituto Federal de Educação, Ciência e Tecnologia Bragança Paulista - São Paulo, Max Planck Institute of Indaiatuba-SP).

As postdoctoral associate at Cornell University actively assisted and trained and supervised several graduate and visiting students in laboratorial assays, data collection and analysis, and writing scientific papers (graduate students).

Participated in seminars of the Postdoc Leadership Development Program at Cornell University.

As Dairy Technical Services Veterinary with Merck Animal Health actively assist the sales force on the field. Performs educational trainings on animal health and prevention of cattle diseases to herdsmen, farm managers, veterinarians and cattle practitioners.

## **OUTREACH EXPERIENCE**

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- Produced 58 technical articles about dairy production focused on reaching milk producers, technicians and professionals in the dairy industry.
- Collaborated in the organization of conferences, symposia and workshops related to animal production:
  - ✓ **2015** – IX Simpósio de Pós-Graduação e Pesquisa em Nutrição e Produção Animal (*IX Symposium on Graduate Studies and Research in Nutrition and Animal Production*) - VNP "Novos desafios da Pesquisa em Nutrição e Produção Animal. University of São Paulo (Brazil).
  - ✓ **2014** - IV International Symposium on Advances in Research Techniques in Ruminant Nutrition. University of São Paulo (Brazil).
  - ✓ **2013** - Hipra: International Mastitis Course. University of São Paulo (Brazil).
  - ✓ **2013** - VII Simpósio de Pós-Graduação e Pesquisa em Nutrição e Produção Animal (*VII Symposium on Graduate Studies and Research in Nutrition and Animal Production*) - VNP "Novos desafios da Pesquisa em Nutrição e Produção Animal. University of São Paulo (Brazil).

*Production)- VNP "Novos desafios da Pesquisa em Nutrição e Produção Animal 2013". University of São Paulo (Brazil).*

- ✓ **2011** - Workshop - Como produzir leite com contagem de células somáticas <400.000 cells/mL? (*How to produce milk with somatic cell count <400,000 cells/mL?*). Brazilian Council on Milk Quality.
- ✓ **2006** - II Congresso Brasileiro de Qualidade do Leite (*II Brazilian Congress on Milk Quality*). Brazilian Council on Milk Quality.
- As invited speaker, performed several talks in regional and national conferences (in Brazil) about dairy production, especially on nutrition of cows and on economic impact and control of intramammary infections in dairy cattle.
- As temporary researcher in the Laboratory of Research on Milk Quality (Qualileite-FMVZ/USP) assisted dairy producers in the states of São Paulo and Minas Gerais, Brazil, performing on-farm trainings about disease control, milking routine, collection of milk samples for culturing, and performance of on-farm culture.

## RELEVANT SKILLS

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### Language spoken

Portuguese	Fluent Native language
English	Fluent Lived in US: 2002-2003, 2016, 2018-current
Spanish	Fluent Experience communicating with cattle workers on dairy farms and Spanish speakers bovine practitioners.

### Data analysis

Experience using on-farm dairy management software program such as DairyCOMP 305. Acquainted to command line data analysis using statistical software packages such as SAS and JMP. Has experience in model building, repeated measure data, and descriptive, regression, survival and non-inferiority analysis.

### Laboratory

Trained in microbiologic techniques, aerobic bacterial cultures and antimicrobial resistance testing. Has performed mass spectrometry analysis (MALDI-TOF MS), DNA isolation, PCR, electrophoresis, and microbiome and qPCR methods. Participated in two studies evaluating the whole genome sequencing of mastitis-causing pathogens.

**On-farm experience and field work**

- Grew up on a small dairy farm in the South region of Brazil, where milked and handled cows since from an early age.
- After high school, performed an 18-month practical internship on a dairy farm in the state of Wisconsin (Bergmann's Dairy), where worked handling dairy animals (milking, breeding, feeding, etc.).
- While researching, collected thousands of blood, secretions and milk samples from bovines; helped collect and analyze vaginal swabs, and administered treatments in randomized clinical trials.
- As consultant, supported dairy farmers on management of dairy herds, especially regarding nutrition, milking routine, milk quality, control of mastitis and other infectious diseases, on-farm culturing, and housing management. Has experience on several dairy production systems, including grazing system, paddocks, free-stalls and compost-bedded pack barns used in Brazil and USA.

**REFERENCES**

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