

# Christian Maltecca, Ph.D.



## Education background:

2008 University of Wisconsin-Madison Ph.D. Dairy Science.  
2005 Università degli studi di Milano Ph.D. Animal Science  
2000 Università degli studi di Milano BSc Animal Science

## Professional experience:

2021– CSIRO Brisbane McMaster Fellow visiting scientist  
2019 – Present North Carolina State University, Professor, Department of Animal Science  
2017 – Present CGIL. University of Guelph (CAN), Adjunct Faculty  
2017 – Present North Carolina State University, Member of Bioinformatic Research Program  
2015 – Present North Carolina State University, Member of Comparative Medicine Institute  
2015 – Present North Carolina State University, Member of Genetics Genomics Academy  
2014 Dep. of Economic Development, Jobs, Transport and Resources (AUS) Visiting Scientist  
2014–2019 North Carolina State University, Associate Professor, Department of Animal Science  
2008 – 2014 North Carolina State University, Assistant Professor, Department of Animal Science  
2003 – 2008 University of Wisconsin-Madison Research Assistant, Dairy Science Department.  
2000 – 2003 Università degli studi di Milano Research Assistant, VSA Department.

## Membership in professional organizations:

2006–Present Member American Society of Dairy Science (ADSA)  
2009–Present Member American Society of Animal Science (ASAS)  
2002–2009 Member Italian Society of Animal Science (ASPA)

## Scholarly and professional honors:

2022 LeClerg Rotary Lecture University of Maryland  
2021 Recipient of the Rockefeller Prentice Award in Animal Breeding  
2020 Recipient of the J.L Lush Award in Animal Breeding  
2020 Recipient of the NCSU CALS Outstanding Graduate Teacher Award  
2021 Recipient of the CSIRO (AUS) McMaster Fellowship  
2017-present Appointed adjunct faculty at U. of Guelph, 2017-present  
2015-present North Carolina State University. University Faculty Scholar  
2010 Appointed as Full member of the NCSU Graduate Faculty  
2009-present Adjunct member of the PhD school of Animal Science University of Padova (Italy)  
2009-present Adjunct member of the PhD school of Animal Science University of Milan (Italy)

Activity	Total
Supervision of post-doctoral scholars	4
PhDs completed	8
PhDs in progress	2
PhDs completed as Committee Member	13
PhDs in progress as committee member	8
Masters completed	2
Masters in progress	1
Masters completed as Committee Member	6
Supervision of visiting graduate students from other institutions	12 (from 9 institutions)
Invited Talks and Seminar	57 (32 International)
Books and books Chapters	6
Refereed Journal Articles	128
Proceeding Papers	12
Abstracts	>120

## Courses taught:

*Genetic Data analysis for Animals and Plants (short course):*  
2019 (Italy); 2017 (Canada); 2014 (Sweden); 2012 (Czech Republic); 2010 (United States)  
*Introduction to R for animal Breeders (short course)*  
2009 (Italy)  
*Quantitative genetics and Breeding (2009-2022)*

*Linear Mixes Models* (2010-2015)  
*Genetic Data analysis for Animals and Plants* (2016-2022)  
*Growth and Development of domestic animals* (2010-2020)

**Professional service (last 5 years):**

Member of the DSEC group, NAAB.  
Member of the genetic evaluation methods group, Council of Dairy Cattle Breeding USA (Chair).  
Member of the genetic advancement committee, Holstein Association USA.  
Scientific advisory Board DNA Genetics.  
Chair of Annual Meeting Symposia Program Committee for the Association of Dairy Science national meeting ADSA 2018  
Chair of six animal breeding and genetics sessions for the Association of Dairy Science national meeting ADSA 2016-2018  
Member of the Joint Annual Meeting Symposia Program Committee for the National Joint annual meeting of ADSA and ASAS 2016-2018

**Funding:**

**Ongoing**

2023-2026 Understanding the role of the genome, microbiome, and epigenome on the transgenerational effects of in utero heat stress in pigs. **USDA NIFA. PI. \$650,000**

2023-2026 A Unified Mixed-Model Method for Integrating Functional Annotations into Genome-to-Phenome Analysis. **USDA NIFA. CO-I. \$300,000**

2022-2023 Methods & Model Comparisons for Genomic Selection in Auto-Tetraploid Chipping Potato. Pepsico. **PI. \$76,000.**

2022-2025 Elucidating the biology of sow tolerance to heat stress at the intersection of the genome, microbiome and metabolome **USDA NIFA. PI. \$650,000**

2021-2022 Microbiome Characterization of the Sow-piglet Relationship. Elanco. **PI. \$60,094**

2022-2026 Optimizing Breeding Strategies for Native Korean Pigs at the Interface Between Host Genome and Its Microbiome. **NIAS. PI. \$552,000**

2021-2023 Genetic Mechanism of Reproductive Heterosis in Dairy Cattle. **USDA NIFA. PI (Subcontract) \$47,714.**

2021-2023 Big-data Genomic Investigation to Improve Dairy Cattle Health. **USDA NIFA. PI (Subcontract). \$71,529.**

2020-2023 Genomic Breeding Strategies to Preserve Genetic Diversity and increase robustness. Select Sires. **PI. \$105,000**

**Completed**

Twenty-two grants for a total of **\$1,639,455**

**Gift and Miscellaneous**

2010-2022 **>\$1,200,000** from various sources.