PhD DVM
Miel Hostens

Robert and Anne Everett
Endowed Associate Professor
Of Digital Dairy Management and Data Analytics

Department of Animal Science

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ORCID
GOOGLE SCHOLAR CITATIONS AND INDICES
LINKEDIN
MY MOTIVATIONAL INSIGHTS

CURRENT POSITION (2024 – NOW)

- Robert and Anne Everett **Associate Professor** of Digital Dairy Management and Data Analytics at department of Animal Science (2024 – now – Cornell University and at department of Laboratory for Animal Nutrition and Animal Product Quality (0.1 FTE – Ghent University) focusing on the creation of methodologies using precision dairy farming to monitor sustainable food production systems from a global perspective.

EDUCATION

- Enrolled in Master of Science in Computational Statistical Data Analysis, Ghent University.
- PhD in Veterinary Medicine, University of Ghent, 2013:
- "Health and Fertility Challenges in High Yielding Dairy Cows during the Transition Period and the Use of Dietary Fatty Acids as an Optimization Strategy"
- Master in Veterinary Medicine, University of Ghent, 2006 (*cum laude*).
- Bachelor in Veterinary Medicine, University of Ghent, 2003 (*cum laude*).

PHDS FINISHED

- **Jenne De Koster** (2016), PhD title: "Influence of body condition score of dairy cows at the end of pregnancy on peripheral tissue insulin response and metabolic properties of adipose tissue".
- **Peter Hut** (2022), PhD title: "Sense of Sensors – Monitoring Behaviour of Dairy Cows" focusing on using sensor technology in transition dairy cows.
- **Arno Liseune** (2022), PhD title: "Using deep learning for animal monitoring to improve animal welfare in dairy cattle".
- **Chen YongYan** (2024), PhD title: "Lactation curve modelling in dairy production – Applications at cow and herd level".

ONGOING PHD SUPERVISION

- **Matthieu Salamone**, a PhD focusing on "The transition period as time window to monitor the nutritional and metabolic resilience of high productive dairy cattle – Predictive milk production".
- **Kristof Hermans**, a PhD focusing on data quality in dairy cows as a follow up on the development of the DairyDataWarehouse.
- **Yara Sleghers**, a PhD focusing on the applying federated machine learning to disease data in poultry.
- **Saba Noor**, a PhD focusing on the use of semantic web technologies and federated learning to disease data in livestock.

PROFESSIONAL MEMBERSHIP AND COMMITTEES

- Member of the American Dairy Science Association.
- Member of the Dutch Veterinary Association.
- Member of the Flemish Veterinary Association.
- Co-organiser of the 2016 ADSA Discover Conference on Big Data for Dairy (Chicago, USA).
- Applied Data Science ambassador at Utrecht University (https://www.uu.nl/en/research/applied-data-science/about-us/ambassadors).
- Open Science Fellows FAIR data and software at Utrecht University (https://www.uu.nl/en/research/open-science/tracks/fair-data-and-software).
- Active member of the 'Dairy Cattle Milk Recording Working Group' of the International Committee for Animal Recording (https://www.icar.org/index.php/technical-bodies/working-groups/dairy-cattle-milk-recording-working-group/).
- Guest editor for the special issue 'Towards Machine Learning and Artificial Intelligence in the Farm-to-Fork Industry' in the Applied Science MDPI journal (https://www.mdpi.com/journal/applsci/special_issues/Artificial_Intelligence_Farm_Industry).
- Board member framework development of the Master in Veterinary Medicine – v2022 (https://students.uu.nl/sites/default/files/dgk_raamplan_masteropleiding_diergeneeskunde_def.pdf).
- Scientific reviewer for several academic journals (Journal of Dairy Science, Journal of Animal Science, Animal, Dairy Research, Theriogenology, Preventive Veterinary Medicine, Frontiers, PlosOne, Journal of Computer and Electronics in Agriculture, …)

PREVIOUS SCIENTIFIC AND PROFESSIONAL ACTIVITIES

- **Assistant Professor** at department of Population Health Sciences (Utrecht University) and at department of Laboratory for Animal Nutrition and Animal Product Quality (0.1 FTE – Ghent University) focusing on the creation of methodologies using precision dairy farming to monitor sustainable food production systems from a global perspective. *2018-2023*
- Post-doc assistant position at department of Reproduction, Obstetrics and Herd Health *2014-2018*
  - Senior research position focusing on the optimisation of productive and reproductive performances in small and large dairy herds.
    - Workpackage leader for 3 work packages with a focus on data management in EU FP7 project GplusE
    - Education of master students in Veterinary Medicine
    - Statistical training of PhD students in data management in the area of dairy cows

- Post academic and extension services in the area of herd health management in dairy cows.
- Active representative in the Faculty Committee for Internationalisation.

- Post-Doc assistant at department of Reproduction, Obstetrics and Herd Health   *2012-2014*
  - Industry sponsored senior research position focusing on data quality and its effect on productive and reproductive parameters through herd record analysis in small and large herds (in collaboration with Zoetis, Paris, France).
- Assistant at the Department of Reproduction, Obstetrics and Herd Health   *2010-2012*
  - Focus on optimisation of productive and reproductive performances of small and large herds with an emphasis on nutrition
- Junior researcher at the Department of Reproduction, Obstetrics and Herd Health   *2007-2010*
  - Project funded by the Institute for the Promotion of Innovation by Science and Technology in Flanders called "Induction of milk fat depression through specific fatty acids to reduce the negative energy balance after parturition of high yielding dairy cattle in relation to fertility"
- Veterinarian at Dierenkliniek Den Ham, The Netherlands   *2006-2007*
  - Dairy cattle and veal calve practice

TEACHING EXPERIENCE

GHENT UNIVERSITY – VETERINARY MEDICINE

- Bachelor of Science in Veterinary Medicine – Ghent University *(2020-present)*
  - Physiology and Pathophysiology I (https://studiekiezer.ugent.be/studiefiche/en/G000720/2022)
  - Physiology and Pathophysiology II (https://studiekiezer.ugent.be/studiefiche/en/G000862/2022)
- Master of Science in Veterinary Medicine – Main subject: Ruminants – Cluster Food Producing Animals – Courses in Ruminant and Porcine Herd Health Medicine, with Clinical Training I, II and III – Ghent University *(2007-2018)*
  - Theoretical courses for Courses in Ruminant and Porcine Herd Health Medicine, with Clinical Training II and III *(2015-2018)*.
  - Weekly practical training sessions on herd record interpretation for Courses in Ruminant and Porcine Herd Health Medicine, with Clinical Training III *(2014-2018)*.
  - Clinical training III during duties at the Veterinary Service of the Department of Reproduction, Obstetrics and Herd Health *(2007-2018)*.
  - Clinical training III during herd health service visits *(2008-2018)*.
- Institute for Continued Education at Faculty of Veterinary Medicine
  - A practical approach to risk factors for transition cows, *2010.*
  - Ration balancing for dairy cows, more than VEM and DVE, *2012.*
  - Factors influencing reproduction and production results in dairy cows, *2014.*

- o Data management in high yielding dairy cows, *2015.*
- o Transition cows disease, *2016.*
- o First results of the GplusE project, *2017.*
- o Key Performance Indicators on dairy herds, *2013.*
- o To synch or not to synch dairy cows, *2013.*
- Basic Summer Course on Veterinary Epidemiology, Ghent University, Belgium
  - o Big Data in Dairy Analytics (*2016*)

GHENT UNIVERSITY – BIOSCIENCE ENGINEERING

- Bachelor of Science in Bioscience Engineering Technology *(2020- present)*
    - Animal Physiology (https://studiekiezer.ugent.be/studiefiche/en/I700213/2023)
    - Reproductive Physiology of Animals
(https://studiekiezer.ugent.be/studiefiche/en/I700042/2023)
- Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (Plant and Animal Production) *(2020- present)*
    - Animal Production Systems (https://studiekiezer.ugent.be/studiefiche/en/I700259/2023)

UTRECHT UNIVERSITY – VETERINARY MEDICINE

- Bachelor of Clinical Sciences (https://www.uu.nl/bachelors/zorg-gezondheid-en-samenleving) *(2022-present)*
- Bachelor of Veterinary Medicine (https://www.uu.nl/bachelors/diergeneeskunde) *(2019-present)*
- Master of Veterinary Medicine (https://www.uu.nl/masters/diergeneeskunde) *(2019-present)*
    - Dairy Health Management
    - Veal Calf Management
    - International Dairy Study Trip
- Master of Bio-informatics and bio-complexity (https://www.uu.nl/en/masters/bioinformatics-and-biocomplexity/study-programme)
- Introductory course (*2019-present)*
- Life long learning course – Sustainable Ruminant Health *(2022)*
- (https://www.uu.nl/professionals/programmas/sustainable-ruminant-health)
- Dutch Dairy Student Innovation Challenge (https://ewuu.nl/en/education/challenges/dutch-dairy-challenge/) *(2021-present)*

UNIVERSITY COLLEGE DUBLIN

- Summer school – Professional Certificate in Bioinformatics, University College Dublin, Ireland (2017)
    - An introduction to scalable data analytics in animal science

FUNDING AND PROJECT ACQUISITION

PROJECT DESCRIPTION	BUDGET
GplusE was FP7 project funded by the European Union. It was a five-year project from 2014 and 2018 executed by 15 research and industry partners. The project covered the interaction between genotype and environment contributing to the sustainability of dairy cow production systems. This was achieved through the optimal integration of genomic selection and novel management protocols based on the development and exploitation of genomic data and supporting novel phenotyping approaches.	€9.000.000
DECIDE, is a five-year Horizon 2020 project running from 2021 to 2025. It will develop data-driven decision support tools that offer robust and early signals of disease emergence and options for diagnostic confirmation. Moreover, options will be provided for controlling the disease along with their implications in terms of disease spread, economic burden and animal welfare.	€10.000.000
In the SUMMERFAIR project (SUMmarizing 7ducation7ial transmission data to Enable data Reanalysis and predictions by FAIR data use) we tackle the issue of lack of a common terminology and need for repetition of costly experiments by developing a shared vocabulary (domain-ontology) and a workflow enabling reuse and combination of transmission data. The project running from 2021-2022 was granted by the dutch ZoNMW.	€250.000
VEERKRACHT/Resilience – The transition period as a window and metabolic resilience to monitor of dairy cattle, granted by national Belgian VLAIO 2018 is a project that aims at creating tools to monitor the transition success of dairy cows at individual level and herd level. These tools allow the farmer to monitor individual animals at risk, in addition to allow individualized preventive measures. This will reduce the development of transition associated problems, which will increase productivity and animal welfare.	€1.300.000
CLAWHEALTH.NL – A project sponsored by the Dutch Foundation WakkerDier to map the prevalence of leg and hoof problems in Dutch dairy cows, and to uncover the risk factors for leg and claw problems in the Netherlands using AI driven systematic reviews.	€100.000
PLAY BEHAVIOR CALVES – A project funded by the Dutch dairy organization ZuivelNL to detect play behaviour in relation to space allowance using accelerometer and video analytics in dairy calves.	€100.000
In 2014 and 2018, I was twice awarded a Microsoft Azure for Research grant of €150k and €25k to incorporate machine learning techniques in monitoring sustainable agriculture practices.	€175.000
Applied data science award from the Utrecht University to create the first LoraWAN network at the faculty of Veterinary Medicine.	€5.000

INTELLECTUAL PROPERTY AND KNOWLEDGE TRANSFER

In 2013, intellectual property created by my group on data processing and visualisation for dairy reproduction data, co-developed between Uniform-Agri (Assen, the Netherlands) and Ghent University, was transferred towards www.DairyDataWarehouse.com (2007-2013). Dairy Data Warehouse nowadays is a specialist dairy data company providing digital solutions for a sustainable, profitable future for dairy farmers and stakeholders throughout the dairy industry.

EXTENSION SERVICES

- National Institute for Agricultural Training (NCBL)
  - Multiple extension training sessions for dairy and beef herd managers on production, transition and reproductive management of dairy cows (2006-2022).
- Active involvement in extension services for several Belgian, European and global agricultural businesses. Some examples but not limited to
  - Feed industry
    - www.agrifirm.nl
    - www.aveve.be
    - www.forfarmers.nl
    - www.pahc.com
  - Milk recording organisations
    - www.lactanet.ca
    - www.crv4all.nl
    - www.uscdcb.com
  - Genetic companies
    - www.dhia.org
    - www.semex.com
    - www.altagenetics.com
  - Pharmaceuticals
    - www.zoetis.com
    - www.msd.com
    - www.elanco.com
  - Dairy cooperations
    - alsafidanone.com
  - Precision dairy farming technologies
    - www.delaval.com
    - www.lely.com
    - www.connecterra.io
    - www.mmmooogle.com

CONTRIBUTIONS TO CONGRESSES, SYMPOSIA AND WORKSHOPS

INVITED SPEAKER

- Fresh Cow – Risiken und chancen. Was Sie darüber unbedingt wissen sollten! 2011. Presentation on Rinder-Gesundheitstag, Giesen, Germany.

- Visualisation of fertility records in dairy herds. 2012. Preconference seminar for SIVAR, Cremona, Italy.

- The use of dairy data in herd health management. 2014. Northeast Dairy Production Medicine Symposium, New York, United States.

- The economics of breeding protocols in dairy cows. 2015. Consensus conference on breeding protocols. Nice, France.

- The past, the present and the future of bovine herd health management. 2015. 10th meeting of the European College of Bovine Herd Health Management, Maribor, Slovenia.

- Bovi-Analytics: an e-learning platform to educate veterinary students big data in dairy cows. 2015. Voorjaarsdagen. Amsterdam, The Netherlands.

- Challenges for data-intensive projects. 2016. EU Commission workshop on animal genomics and breeding for sustainable production, Brussels, Belgium.

- From Big Data to Decisions in Dairy Cows, 2016. Spark Summit, Brussels, Belgium.

- Big Dairy in Dairy Cows, 2016. ADSA Discovery Conference on Big Data in Dairy Cows, Chicago, United States.

- Visualisation and analysis of reproductive performance, 2017. Total Dairy Seminar, Keele, United Kingdom.

- Pitfalls in Dairy Analytics (advanced technical), 2017. Total Dairy Seminar, Keele, United Kingdom.

- Analysis of reproductive performance (farmer orientated), 2017. Total Dairy Seminar, Keele, United Kingdom.

- Transition management as a key to fertility success, 2017. Total Dairy Seminar, Keele, United Kingdom.

- How to monitor productive performance on a small vs large dairy, 2017. Anembe congress, Pamplona, Spain.

- Common analytical data pitfalls every practitioner should know about, 2017. Anembe congress, Pamplona, Spain.

- Will semantics help disentangle the Gordian knot of Big Data in animal health, 2017. Semantics conference, Amsterdam, Belgium.

- Monitoring fertility control programs in small and large dairy herds , 2017, The 7th National & 1st International Congress of Veterinary Gynecology, Marmaris, Turkey

- Opening keynote: A novel approach to data mining and prediction modelling in dairy cows, 2017. Big Data Conference, Vilnius, Lithuania.

- Opening Keynote: BigData Moscow: A Novel Approach to Data Mining And Prediction Modelling in Dairy Cows, 2018. Moscow, Russia.

- Transforming Big Data into Value: Put Data to Work for Your Dairy, 2018. Connect Summit, Beaver Creek, USA.

- Transforming Big Data into Value: Put Data to Work for Your Dairy, 2018. CDCB – 10 years of genomics, Reno, USA.
- Metabolic clustering of dairy cows at early and peak lactation. Global Genetics Pathfinder Initiative, Rome, Italy, 2018.
- Dairy Intelligence and Turning Data Into Information. 2019. Connect Summit, Beaver Creek, USA.
- Predicting the Moment of Birth using Sensor Data in Dairy Cows. 2019. Big Data Conference, Vilnius, Lithuania.
- What makes a biomarker a good one? 2019. Tartu, Estonia.
- Put Data to Work for the Dairy Industry. 2020. National DHIA Leadership and Annual Meeting, Savannah, USA.
- Agricultural Genome to Phenome Initiative. AG2PI meeting 2020. Online meeting.
- Monitoring transition cows using novel techniques. ADSA 39th Discover meeting 2021. Online meeting.
- Using data to embrace excellence in hoof health – challenges and opportunities. 2022. 21st International symposium & 13th international conference on lameness in ruminants, Bloomington, USA.
- How to Make Sense of 24x7 Sensor Data. 2022. Dairy Cattle Improvement Industry Forum, Lactanet, Toronto, Canada.

ORAL CONFERENCE PRESENTATION

- The effect of marine algae supplementation in the ration of high yielding dairy cows during transition and its effect on metabolic parameters in the serum and follicular fluid around parturition. 2009. Oral presentation on the XI International Symposium on Ruminant Physiology, Clermont-Ferrand, France.
- On-farm evaluation of the effect of metabolic diseases on the shape of the lactation curve in dairy cows through the milkbot lactation model. 2012. Oral presentation on the 27th World Buiatrics Congress, Lisbon, Portugal.
- Potential for novel glycan measurements in milk as biomarker phenotypes for dairy traits. 2016. Oral presentation on 67th Annual Conference of the European Federation of Animal Science, Belfast, United Kingdom.
- MmmooOgle: From Big Data to Decisions for Dairy Cows. Data + AI summit 2016. Brussels. Belgium.
- Data Mining and Prediction Modelling in the Dairy Industry Using Time Series and Sliding Windows with Apache Spark 2. Data + AI summit 2016. Dublin. Ireland.
- Exploratory classification of multiparous dairy cows based on fertility related phenotypes. 2017. Oral presentation on 68th Annual Conference of the European Federation of Animal Science, Tallinn, Estonia.
- Investigating metabolic phenotypes in multiparous dairy cows by component analysis and clustering. 2017. Oral presentation on 68th Annual Conference of the European Federation of Animal Science, Tallinn, Estonia.
- The use of technologies in dairy innovation. 2018. European Regions Research and Innovation Conference – Food Safety 2020 - Seinäjoki, Finland.

- Can artificial intelligence be used on historical cow data to improve data quality and standardization of disease records. 2019. ICAR Annual meeting. Prague, Czech Republic.
- Predicting the next life event of cows by applying deep learning on sequential and pictorial data. 2019. 9th European Conference on Precision Livestock Farming Cork, Ireland.
- Big Data for Dairy and Monitoring Cow Health and Performance. Global Dairy Series Phibro Academy 2020. Online meeting.
- The veterinary toolbox for reproductive herd health management now and in the (near) future. Zoetis Poland 2020. Online meeting.
- Modern tools for milk recording management. ICAR Annual meeting. Leeuwarden, the Netherlands. 2021. Online meeting.
- The importance of sensor data in transition cow monitoring. Alta Vet-to-vet webinar 2021. Online meeting.
- Detecting the subclinical diseased transition cow: how novel phenotyping strategies can help. Elanco Scientific Symposium 2021. Rotterdam. The Netherlands.

EXTENSION WORKSHOPS

- How we practitioners should implement our nutrition knowledge to help our farmers? 2011. Workshop on the 6th European Congress of Bovine Health Management, Liège, Belgium.
- Technology in dairy. 2012. Masterclasses for Zoetis, Cremona, Italy.
- HACCP approaches for fertility management in livestock. 2013. Workshop on the 17th ESDAR Conference, Bologna, Italy.
- Herd Health Management: The future for bovine practioners: challenge or opportunity. 2013. Masterclasses for Zoetis, Germany.
- Visualisation of heat detection and conception rates in small and large dairy herds. 2013. Masterclasses for Zoetis, The Netherlands.
- Transition management and its influence on fertility. 2013. Presentation for Proveto, The Netherlands.
- Pitfalls in the analysis of reproductive records in dairy herds. 2013. Presentation for Proveto, The Netherlands.
- Subclinical ketosis during the transition period. 2013. Launch Events Exxit Ketose, Elanco, Belgium.
- Masterclasses reproductive management in dairy cows. 2014. Zoetis, The Netherlands.
- Visualisation and interpretation of reproductive herd records. 2014. International Cow Fertility Conference 'New Science – New Practices', Westport, Ireland.
- Masterclasses reproductive management in dairy cows. 2015. Zoetis, Belgium.
- Masterclasses Transition Management. 2015. Zoetis, The Netherlands.
- Transforming Big Data into real world evidence for SARA. 2016. DairyCare Workshop on Sub-Acute Ruminal Acidosis, Glasgow, United Kingdom.
- Bovine herd health management. 2016. Workshop on the 20th ESDAR Conference, Lisbon, Portugal.
- Dairy data management, where to start. 2017. Workshop on the ANEMBE Conference, Pamplona, Spain.

- How to monitor reproductive performance, 2017. Workshop on ANEMBE Conference, Pamplona, Spain.
- Multiple sessions for the Ruminant Specialisation 2017-2018, Merelbeke, Belgium.
  - General introduction to dairy data analytics
  - Common analytical data pitfalls every practitioner should know about
  - Monitoring production
  - Monitoring reproduction
  - Insemination strategy
  - Conception strategy
  - Improve dairy cow fertility
- The truth about transition disease in dairy cows, 2017. Dechra, Tielt, Belgium.
- First results of the GplusE project, 2017. Post-Education in Veterinary Medicine, Merelbeke, Belgium.
- Ruminant clinical cases, 2017. Institute for continued education at Ughent, Merelbeke, Belgium.
- Monitoring reproduction in high yielding dairy cows. Dyrlaeger & Ko, Vintermøde, 2018, Hovborg Kro, Denmark.
- Feeding the dairy cow – Basics of high yielding dairy cows. Vakdierenarts rund 2018-2019, Merelbeke, Belgium.
- Feeding the dairy cow –Feeding high intake and milk composition. Vakdierenarts rund 2018-2019, Merelbeke, Belgium.
- Zoetis Advanced Fertilitiy Consulting 2018-2019
- Act, think and work like a datascientist. Bio-Informatics Course 2018, UCD Dublin, Ireland.
- GplusE Training School, 2018. Bucarest, Roumania/ Madrid, Spain.
- Not only a success story: A workshop on lessons learned from the past and what is really needed to move from precision to smart dairy farming! Workshop on the 10th ECPLF conference. Vienna, Austria.

PROFESSIONAL SUPPLEMENTARY TRAINING AND EDUCATION

LEADERSHIP DOMAIN

- University Teaching Qualification at Centre for Academic Teaching and Learning, Utrecht, The Netherlands   2019
- Research Leadership Development Programme for talented researchers at Centre for Academic Teaching and Learning, Utrecht, The Netherlands   2021

DAIRY SCIENCE DOMAIN

- Cursus rundveevoeding: recente ontwikkelingen en nieuwe inzichten, Wageningen Business School, The Netherlands   2007
- BASF, Tagungsveranstaltung, Haus Riswick, Germany   2007
- WIAS Seminar: Strategies to improve health and fertility in dairy cows, Wageningen, The Netherlands   2008

- ITB Schulung Februar, DSP Agrosoft, Verden, Germany — 2008
- 14th DISCOVER Conference: Lipids for Dairy Cattle: Today's Issues, Tomorrow's Challenges, Nashville, Indiana, United States — 2008
- 25th World Buiatrics Congress, Budapest, Hungary — 2008
- International symposium: Nutritional strategies to manage the challenges of today's dairy cows, Wageningen, The Netherlands — 2009
- International Symposium on Ruminant Physiology, Clermont-Ferrand, France — 2009
- Rindergesundheitstag – Milch und gute Fruchtbarkeit: Die besten Strategien, Leipzig, Germany — 2009
- ITB Schulung August, DSP Agrosoft, Verden, Germany — 2009
- 17th DISCOVER Conference: Dairy Herd Analytics, Nashville, United States — 2009
- 20th Discover Conference: The Transition Cow: Biology and Management, Champaign, United States — 2010
- Dairy Solutions Symposium – Rumen Health : A 360° Analysis, Utrecht, The Netherlands — 2010
- Alta Value Services Konferenz, Bremen, Germany — 2010
- 14th International Conference on Production Diseases in Farm Animals, Ghent, Belgium — 2010
- International Reproduction Conference, Anchorage, United States — 2010
- Bovine Professionals Meeting, Fertility and Rumen Health, Hofheim, Germany — 2010
- 21st Discover Conference: Improving Reproductive Efficiency of Lactating Dairy Cattle, United States — 2011
- 22nd Discover Conference: Milk Components: Opportunities for Maximizing Farm Gate Returns, Chicago, United States — 2011
- Rindergesundheitstag, Giesen, Germany — 2011
- European Buiatrics Forum, Marseille, France — 2011
- Meeting American Association for Bovine Practitioners, Louisville, United States — 2011
- 25th Discover Conference: New Developments in Immunity, Nutrition, and Management of the Preruminant Calf, Chicago, United States — 2012
- 27th World Buiatrics Congress, Lisbon, Portugal — 2012
- Meeting American Association for Bovine Practitioners, Toronto, Canada — 2012
- 14th international congress of sivar ,Cremona, Italy — 2012
- Bovine Professionals Meeting, Claw Health and Transition Management, Hofheim, Germany — 2012
- 26th Discover Conference: Dairy Feed Efficiency, United States — 2013
- Meeting of the European Society for Domestic Animal Reproduction, Milano, Italy — 2013
- Dairyland Initiative Meeting on Transition Cow and Positive Pressure Tube Ventilation, Madison, United States — 2013
- 28th Discover Conference: Starch for Ruminants, Chicago, United States — 2014
- National Mastitis Council, Ford Worth, United States — 2014
- Joint ASA-ADSA Annual Meeting, Kansas City, United States — 2014

- 65th Annual Conference of the European Federation of Animal Science, Copenhagen, Denmark   **2014**
- Blanca Reproduction Workshop, Barcelona, Spain   **2015**
- ICAR Technical meeting, Cracow, Poland   **2015**
- 66th Annual Conference of the European Federation of Animal Science, Warshau, Poland   **2015**
- 7th European Conference on Precision Livestock Farming, Milan, Italy   **2015**
- Large Dairy Herd Management Conference, Chicage, United States   **2016**
- 67th Annual Conference of the European Federation of Animal Science, Belfast, United Kingdom.   **2016**
- 68th Annual Conference of the European Federation of Animal Science, Tallinn, Estonia.   **2017**
- 70th Annual Conference of the European Federation of Animal Science, Ghent, Belgium.   **2019**
- ADSA Annual meeting, Cincinnati, Ohio   **2019**
- 9th European Conference on Precision Livestock Farming Cork, Ireland.   **2019**
- European Bovine Congress   **2019**
- Annual ICAR meeting, Prague, Czech Republic.   **2019**
- 9th European Conference on Precision Livestock Farming Cork, Ireland   **2019**
- 39th Discover Conference: The Transition Period – From physiology to management, online meetings   **2020**
- Annual ICAR conference, Leeuwarden, The Netherlands   **2021**
- Dairy InnovCongress, Namur, Belgium   **2022**
- Annual ICAR conference, Montreal, Canada   **2022**
- 10th European Conference on Precision Livestock Farming, Vienna, Austria   **2022**
- 43th Discover Conference: Dairy Cattle Reproduction – Lessons learned and future frontiers   **2022**
- Joint Committee for Dairy Diagnostics, Rome, Italy   **2022**

INFORMATICS, DATA SCIENCE AND STATISTICAL DOMAIN

- Post-graduate courses in applied informatics at Hogent (https://www.hogent.be/en/future-student/postgraduate-non-degrees/).   **2007-2010**
- EPI on the Island 2009: An introduction to multilevel modeling, Prince Edward Island, Canada   **2009**
- Introduction to SAS, Institute for Continued Education, Ghent, Belgium   **2009**
- Introductory Statistics. Basics of Statistical Inference, Institute for Continued Education, Ghent, Belgium   **2009**
- Analysis of Variance, Institute for Continued Education, Ghent, Belgium   **2009**
- Applied Linear Regression, Institute for Continued Education, Ghent, Belgium   **2010**
- Applied Logistic Regression, Institute for Continued Education, Ghent, Belgium   **2011**
- Multilevel Analysis for Grouped and Longitudinal Data, Institute for Continued Education, Ghent, Belgium   **2011**
- Design and Analysis of Clinical Trials, UGhent, Belgium   **2011**

- Survival Analysis, UGhent, Belgium   **2012**
- Introduction to R, Institute for Continued Education, Ghent, Belgium   **2013**
- Tech Transfer Skills Workshop, Institute for Continued Education, Ghent, Belgium   **2013**
- Multivariate data analysis, Institute for Continued Education, Ghent, Belgium   **2014**
- An Introduction to Big Data, Institute for Continued Education, Ghent, Belgium   **2015**
- Professional Certificate in Bioinformatics, University College Dublin, Ireland   **2016**
- Principles of Statistical Data Analysis, Ghent, Belgium   **2016**
- Statistical Modelling, Ghent, Belgium   **2016**
- Data + AI summit. Brussels. Belgium.   **2016**
- Big Data Science, Ghent, Belgium   **2017**
- Computer-intensive Statistical Methods, Ghent, Belgium   **2017**
- Databases, Ghent, Belgium   **2017**
- Programming and Algorithms, Ghent, Belgium   **2017**
- Statistical Computing, Ghent, Belgium   **2017**
- Data + AI summit. Dublin. Ireland.   **2017**

NATURAL LANGUAGES

Mother tongue : Dutch

Other:

	Understanding	Speaking	Writing
English	+++	+++	+++
French	++	+	±
German	±	±	-
Italian	±	±	-

DATASCIENCE SKILLS

COMPUTER LANGUAGES

- [R]
- Python
- Scala
- SQL
- SAS code
- Bash
- C++

STATISTICAL FRAMEWORKS

- SPSS
- SAS-Project
- R-Project

CLOUD

- Microsoft azure
- Google cloud
- Docker
- TheThingsNetwork

DATASCIENCE SOFTWARE

- SQL Server/warehouse
- Jupyter notebooks
- Jupyter lab
- Intellij
- Google colab
- Spark scala
- Tableau
- Docker
- TensorFlow
- Git & Github

HARDWARE

- IoT (eg LoraWAN)
- Arduino framework
- RaspberryPi

KEY OUTPUT

In my research domain, first, second and last authors have made significant contributions. Given the applied research perspective, a large international network and participation in consortia or advisory committees are acknowledged as important output. I consider the following papers as my personal best output, although I have other clinically important output due to collaborations within the veterinary domain. I have ordered and grouped output together given common projects or background.

The first paper from my PhD work extended the data warehouse architecture with the Milkbot lactation curve model and applied it to animal health. It was initiated by an international collaboration with Jim Ehrlich (NY, USA). This collaboration eventually led to the co-organization of the 31st Discover Conference on Big Data Dairy Management in 2016 (Chicago, USA). The paper has initiated other researchers to use the methodology on multiple veterinary domains leading to several co-authorships.

1. Hostens M, Ehrlich J, Van Ranst B, Opsomer G. 2012. On-farm evaluation of the effect of metabolic diseases on the shape of the lactation curve in dairy cows through the MilkBot lactation model. Journal of dairy science 95(6):2988-3007. https://doi.org/10.3168/jds.2011-4791

The paper had 2 subsequent papers re-using the same dataset using novel machine learning techniques. It illustrates I have been actively advocating and applying FAIR principles over the last decade, motivating other researchers to follow the approach:

2. Probo M, Pascottini OB, LeBlanc S, Opsomer G, Hostens M. 2018. Association between metabolic diseases and the culling risk of high-yielding dairy cows in a transition management facility using survival and decision tree analysis. Journal of dairy science 101(10):9419-29. https://doi.org/10.3168/jds.2018-14422

3. Pascottini OB, Probo M, LeBlanc SJ, Opsomer G, Hostens M. 2020. Assessment of associations between transition diseases and reproductive performance of dairy cows using survival analysis and decision tree algorithms. Preventive veterinary medicine 176:104908. https://doi.org/10.1016/j.prevetmed.2020.104908

The paper was however using a single dataset from a large farm which triggered me to create data pipelines on top of a larger number of small datasets. A collaboration with an industry partner (dairydatawarehouse.com) resulted in a final dataset of 90 herds which was published as the final paper of my PhD. Large studies combining heterogenous data from farms (in this case reproduction and milk tank results) were rare at the moment of publication.

4. Hostens M, Fievez V, Leroy JL, van de Burgwal EJ, Van Ranst B, Vlaeminck B, Opsomer G. 2013. Milk fat saturation and reproductive performance in dairy cattle. Animal reproduction science 141(3-4):116-23. https://doi.org/10.1016/j.anireprosci.2013.08.001

Soon after, the GplusE project started and eventually resulted in a large amount of peer reviewed articles. My team was responsible for the data intensive work packages integrating research data from heterogeneous farms and creating best practices for data pipelines within the project. Article 5 compared several biomarkers with a standardized prediction method for novel indicators for dairy cow resilience. Subsequently, the aforementioned method was translated, in collaboration with visiting researchers from Iran, into a genome wide association study involving multiple industry partners from the Netherlands in article 6:

5. De Koster J, Salavati M, Grelet C, Crowe MA, Matthews E, O'Flaherty R, Opsomer G, Foldager L, Hostens M. Prediction of metabolic clusters in early-lactation dairy cows using models based on

milk biomarkers. Journal of dairy science. 2019 Mar 1;102(3):2631-44.
https://doi.org/10.3168/jds.2018-15533

6. Atashi H, Salavati M, De Koster J, Crowe MA, Opsomer G, Hostens M. Genome-wide association for metabolic clusters in early-lactation Holstein dairy cows. Journal of dairy science. 2020 Jul 1;103(7):6392-406. https://doi.org/10.3168/jds.2019-17369

Meanwhile, I initiated the PhD of Kristof Hermans which focuses on potential pitfalls of data-driven project when neglecting the quality of the data. Driven by 'garbage in, garbage out' and supported by several industry collaborations, the need for automated data quality detection was discussed by me and Kristof in a book chapter in 'Animal Welfare in a Changing World':

7. Hermans K, Opsomer G, Van Ranst B, Hostens M. 2018. Promises and challenges of big data associated with automated dairy cow welfare assessment. Animal Welfare in a Changing World:199-207. https://dx.doi.org/10.1079/9781786392459.0199

Which followed the development of an algorithm to predict data quality in records coming from dairy herds:

8. Hermans K, Waegeman W, Opsomer G, Van Ranst B, De Koster J, Van Eetvelde M, Hostens M. 2017. Novel approaches to assess the quality of fertility data stored in dairy herd management software. Journal of dairy science 100(5):4078-89. https://doi.org/10.3168/jds.2016-11896

More recently, my appointment at Utrecht University boosted my key output from 4 PhD students towards precision dairy farming and the use of deep learning techniques to predict health in dairy cows:

9. Liseune A, Salamone M, Van den Poel D, Van Ranst B, Hostens M. 2020. Leveraging latent representations for milk yield prediction and interpolation using deep learning. Computers and Electronics in Agriculture 175:105600. https://doi.org/10.1016/j.compag.2020.105600

10. Liseune A, Salamone M., Van den Poel D, Van Ranst B, Hostens, M. 2021. Predicting the milk yield curve of dairy cows in the subsequent lactation period using deep learning. Computers and Electronics in Agriculture, 180:105904. https://doi.org/10.1016/j.compag.2020.105904

11. Liseune A, Van den Poel D, Hut PR, van Eerdenburg FJ, Hostens M. Leveraging sequential information from multivariate behavioral sensor data to predict the moment of calving in dairy cattle using deep learning. Computers and Electronics in Agriculture. 2021 Dec 1;191:106566. https://doi.org/10.1016/j.compag.2021.106566

12. Salamone M, Adriaens I, Vervaet A, Opsomer G, Atashi H, Fievez V, Aernouts B, Hostens M. Prediction of first test day milk yield using historical records in dairy cows. Animal. 2022 Nov 1;16(11):100658. https://doi.org/10.1016/j.animal.2022.100658

13. Hut PR, Scheurwater J, Nielen M, van den Broek J, Hostens MM. Heat stress in a temperate climate leads to adapted sensor-based behavioral patterns of dairy cows. Journal of Dairy Science. 2022 Aug 1;105(8):6909-22. https://doi.org/10.3168/jds.2021-21756

14. Hut PR, Kuiper SE, Nielen M, Hulsen JH, Stassen EN, Hostens MM. Sensor based time budgets in commercial Dutch dairy herds vary over lactation cycles and within 24 hours. Plos one. 2022 Feb 25;17(2):e0264392. https://doi.org/10.1371/journal.pone.0264392

15. Chen Y, Hostens M, Nielen M, Ehrlich J, Steeneveld W. Herd level economic comparison between the shape of the lactation curve and 305 d milk production. Frontiers in Veterinary Science. 2022;9. https://doi.org/10.3389%2Ffvets.2022.997962

A clear move and integration from the dairy towards the data science domain can be seen in all my output.

SCIENTIFIC OUTPUT (DESCENDING PUBLICATION DATE)

My current H-index is 30 as can be verified in the link (https://scholar.google.com/citations?user=fZ1xfdQAAAAJ&hl=en)

JOURNAL ARTICLES

Title	Year
Probo, M., H. Atashi, and M. Hostens. 2024. Lactation performances in primiparous Holstein cows following short and normal gestation lengths. Front Vet Sci 11.	2024
Salamone, M., I. Adriaens, A. Liseune, S. Heirbaut, X. Jing, V. Fievez, L. Vandaele, G. Opsomer, M. Hostens, and B. Aernouts. 2024. Milk yield residuals and their link with the metabolic status of dairy cows in the transition period. J. Dairy Sci. 107(1):317-330.	2024
van Schaik, G., M. Hostens, C. Faverjon, D. B. Jensen, A. R. Kristensen, P. Ezanno, J. Frössling, F. Dórea, B.-B. Jensen, and L. P. Carmo. 2023. The DECIDE project: from surveillance data to decision-support for farmers and veterinarians. Open Research Europe 3:82.	2023
Hostens, M., T. Lam, and G. Koop. 2023. Sustainable Ruminant Health at Utrecht University. Am. J. Vet. Res. 84(7). doi:10.2460/ajvr.23.05.0104.	2023
Zare, M., H. Atashi, and M. Hostens. 2022. Genome-Wide Association Study for Lactation Performance in the Early and Peak Stages of Lactation in Holstein Dairy Cows. Animals (Basel) 12(12). doi:10.3390/ani12121541.	2022
Chen, Y., W. Steeneveld, M. Nielen, and M. Hostens. 2023. Prediction of persistency for day 305 of lactation at the moment of the insemination decision. Front Vet Sci 10:1264048. doi:10.3389/fvets.2023.1264048.	2023
Chen, Y., H. Atashi, R. R. Mota, C. Grelet, S. Vanderick, H. Hu, E. C. Gplus, and N. Gengler. 2023. Validating genomic prediction for nitrogen efficiency index and its composition traits of Holstein cows in early lactation. J Anim Breed Genet 140(6):695-706. doi:10.1111/jbg.12819.	2023
Franceschini, S., C. Grelet, J. Leblois, N. Gengler, H. Soyeurt, and E. c. Gplus. 2022. Can unsupervised learning methods applied to milk recording big data provide new insights into dairy cow health? J. Dairy Sci. 105(8):6760-6772. doi:10.3168/jds.2022-21975.	2022
Chen Y, Hostens M, Nielen M, Ehrlich J, Steeneveld W. Herd level economic comparison between the shape of the lactation curve and 305 d milk production. Frontiers in Veterinary Science 2022;9:997962.	2022
Hut PR, Kuiper SEM, Nielen M, Hulsen J, Stassen EN, Hostens MM. Sensor based time budgets in commercial Dutch dairy herds vary over lactation cycles and within 24 hours. PLoS ONE. 2022;17(2):e0264392.	2022
Hut PR, Scheurwater J, Nielen M, van den Broek J, Hostens MM. Heat stress in a temperate climate leads to adapted sensor-based behavioral patterns of dairy cows. Journal of Dairy Science. 2022;105(8):6909-22.	2022

Kemel C, Salamone M, Van Loo H, Latour C, Vandeputte S, Callens J, et al. Unaffected semen quality parameters in Neospora caninum seropositive Belgian Blue bulls. Theriogenology. 2022;191:10-5.   2022

Salamone M, Adriaens I, Vervaet A, Opsomer G, Atashi H, Fievez V, et al. Prediction of first test day milk yield using historical records in dairy cows. Animal. 2022;16(11):100658.   2022

Zare M, Atashi H, Hostens M. Genome-Wide Association Study for Lactation Performance in the Early and Peak Stages of Lactation in Holstein Dairy Cows. Animals. 2022;12(12).   2022

Atashi H, Asaadi A, Hostens M. Association between age at first calving and lactation performance, lactation curve, calving interval, calf birth weight, and dystocia in Holstein dairy cows. PLoS ONE. 2021;16(1):e0244825.   2021

Atashi H, Hostens M, Gplus Ec. Genetic parameters for milk urea and its relationship with milk yield and compositions in Holstein dairy cows. PLoS ONE. 2021;16(6):e0253191.   2021

Atashi H, Hostens M. Genetic Aspects of Somatic Cell Count in Holstein Dairy Cows in Iran. Animals. 2021;11(6).   2021

Hut PR, Hostens MM, Beijaard MJ, van Eerdenburg F, Hulsen J, Hooijer GA, et al. Associations between body condition score, locomotion score, and sensor-based time budgets of dairy cattle during the dry period and early lactation. Journal of Dairy Science. 2021;104(4):4746-63.   2021

Liseune A, Salamone M, Van den Poel D, van Ranst B, Hostens M. Predicting the milk yield curve of dairy cows in the subsequent lactation period using deep learning. Computer and Electronics in Agriculture. 2021;180.   2021

Meyer A, Faverjon C, Hostens M, Stegeman A, Cameron A. Systematic review of the status of veterinary epidemiological research in two species regarding the FAIR guiding principles. BMC Veterinary Research. 2021;17(1):270.   2021

Scheurwater J, Hostens M, Nielen M, Heesterbeek H, Schot A, van Hoeij R, et al. Pressure measurement in the reticulum to detect different behaviors of healthy cows. PLoS ONE. 2021;16(7):e0254410.   2021

Tobolski D, Lukasik K, Baclawska A, Skarzynski DJ, Hostens M, Baranski W. Prediction of Calving to Conception Interval Length Using Algorithmic Analysis of Endometrial mRNA Expression in Bovine. Animals. 2021;11(1).   2021

Wathes DC, Cheng Z, Salavati M, Buggiotti L, Takeda H, Tang L, et al. Relationships between metabolic profiles and gene expression in liver and leukocytes of dairy cows in early lactation. Journal of Dairy Science. 2021;104(3):3596-616.   2021

Atashi H, Salavati M, De Koster J, Crowe MA, Opsomer G, Gplus Ec, et al. Genome-wide association for metabolic clusters in early-lactation Holstein dairy cows. Journal of Dairy Science. 2020;103(7):6392-406.   2020

Atashi H, Salavati M, De Koster J, Crowe MA, Opsomer G, Hostens M, et al. A Genome-Wide Association Study for Calving Interval in Holstein Dairy Cows Using Weighted Single-Step Genomic BLUP Approach. Animals. 2020;10(3).   2020

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Atashi H, Salavati M, Koster J, Crowe MA, Opsomer G, Hostens M, et al. Genome-wide association for metabolic clusters in early -lactation Holstein dairy cows. Journal of Dairy Science. 2020;103(7):6392-406.   2020

Bogado Pascottini O, Probo M, LeBlanc SJ, Opsomer G, Hostens M. Assessment of associations between transition diseases and reproductive performance of dairy cows using survival analysis and decision tree algorithms. Preventive Veterinary Medicine. 2020;176:104908.   2020

Foldager L, Gaillard C, Sorensen MT, Larsen T, Matthews E, O'Flaherty R, et al. Predicting physiological imbalance in Holstein dairy cows by three different sets of milk biomarkers. Preventive Veterinary Medicine. 2020;179:105006. — 2020

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De Koster J, Salavati M, Grelet C, Crowe MA, Matthews E, O'Flaherty R, et al. Prediction of metabolic clusters in early-lactation dairy cows using models based on milk biomarkers. Journal of Dairy Science. 2019;102(3):2631-44. — 2019

De Koster J, Salavati M, Grelet C, Crowe MA, Matthews E, O'Flaherty R, et al. Prediction of metabolic clusters in early-lactation dairy cows using models based on milk biomarkers. Journal of Dairy Science. 2019;102(3):2631-44. — 2019

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Bogado Pascottini O, Hostens M, Sys P, Vercauteren P, Opsomer G. Cytological endometritis at artificial insemination in dairy cows: Prevalence and effect on pregnancy outcome. Journal of Dairy Science. 2017;100(1):588-97. — 2017

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De Koster J, Van Eetvelde M, Hermans K, Van den Broeck W, Hostens M, Opsomer G. Short communication: Limitations of glucose tolerance tests in the assessment of peripheral tissue insulin sensitivity during pregnancy and lactation in dairy heifers. Journal of Dairy Science. 2017;100(3):2381-7. | 2017

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Dini P, Bogado Pascottini O, Ducheyne K, Hostens M, Daels P. Holding equine oocytes in a commercial embryo-holding medium: New perspective on holding temperature and maturation time. Theriogenology. 2016;86(5):1361-8. | 2016

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Meganck V, Goddeeris BM, De Campeneere S, Hostens M, Van Eetvelde M, Piepers S, et al. Effect of beta-hydroxybutyric acid, parity, and body condition score on phenotype and proliferative capacity of colostral mononuclear leukocytes of high-yielding dairy cows. Journal of Dairy Science. 2015;98(10):6782-91.	2015
Pascottini OB, Dini P, Hostens M, Ducatelle R, Opsomer G. A novel cytologic sampling technique to diagnose subclinical endometritis and comparison of staining methods for endometrial cytology samples in dairy cows. Theriogenology. 2015;84(8):1438-46.	2015
Cools S, Van den Broeck W, Bossaert P, Hostens M, Opsomer G. A field study to unravel factors that are significantly associated with the secretory activity of the corpus luteum during the first three postpartum cycles in high yielding dairy cows, based on the amount of steroidogenic and endothelial cells present in the luteal tissue. Reproduction in Domestic Animals. 2014;49(6):881-93.	2014
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Kamal M, Van Eetvelde M, Depreester E, Hostens M, Vandaele L, Opsomer G. Age at calving in heifers and level of milk production during gestation in cows are associated with the birth size of Holstein calves. Journal of Dairy Science. 2014;97(9):5448-58.	2014
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Verschave SH, Vercruysse J, Forbes A, Opsomer G, Hostens M, Duchateau L, et al. Non-invasive indicators associated with the milk yield response after anthelmintic treatment at calving in dairy cows. BMC Veterinary Research. 2014;10:264.	2014
Cools S, Van den Broeck W, De Vliegher S, Piepers S, Hostens M, Opsomer G. Topographic distribution of the different cell types, connective tissue and vascular tissue/lumina within a functional bovine corpus luteum and its association with breed, type of fixation protocol and stage during the cycle. Reproduction in Domestic Animals. 2013;48(4):627-35.	2013
Hostens M, Fievez V, Leroy JL, van de Burgwal EJ, Van Ranst B, Vlaeminck B, et al. Milk fat saturation and reproductive performance in dairy cattle. Animal Reproduction Science. 2013;141(3-4):116-23.	2013
Pardon B, Hostens M, Duchateau L, Dewulf J, De Bleecker K, Deprez P. Impact of respiratory disease, diarrhea, otitis and arthritis on mortality and carcass traits in white veal calves. BMC Veterinary Research. 2013;9:79.	2013
Pardon B, Hostens M, Duchateau L, Dewulf J, De Bleecker K, Deprez P. Impact of respiratory disease, diarrhea, otitis and arthritis on mortality and carcass traits in white veal calves. BMC Veterinary Research. 2013 Dec;9(1):1-4.	2013
Pardon, B., Hostens, S. Stuyvaert, J. Maris, B. Sustronck, J. Dewulf, and P. Deprez. Seroepidemiology of respiratory infections in white veal calves under antimicrobial coverage and associations with respiratory disease and carcass traits. 2013. BMC Veterinary Research 9.1:1.	2013
Charlier J, Hostens M, Jacobs J, Van Ranst B, Duchateau L, Vercruysse J. Integrating fasciolosis control in the dry cow management: the effect of closantel treatment on milk production. PLoS ONE. 2012;7(8):e43216.	2012
Hostens M, Ehrlich J, Van Ranst B, Opsomer G. On-farm evaluation of the effect of metabolic diseases on the shape of the lactation curve in dairy cows through the MilkBot lactation model. Journal of Dairy Science. 2012;95(6):2988-3007.	2012

Hostens M, Fievez V, Leroy JL, Van Ranst J, Vlaeminck B, Opsomer G. The fatty acid profile of subcutaneous and abdominal fat in dairy cows with left displacement of the abomasum. Journal of Dairy Science. 2012;95(7):3756-65.	2012
Hostens M, Fievez V, Leroy JLMR, Van Ranst J, Vlaeminck B, Opsomer G. The fatty acid profile of subcutaneous and abdominal fat in dairy cows with left displacement of the abomasum. Journal of Dairy Science. 2012;95(7):3756-65.	2012
Hostens M, Opsomer G, editors. Interaction Of Metabolic Challenges And Successful Fertility In High Yielding Dairy Cows. Review. 27th World Buiatrics Congress; 2012; Lisbon, Portugal.	2012
Pardon B, Catry B, Dewulf J, Persoons D, Hostens M, De Bleecker K, et al. Prospective study on quantitative and qualitative antimicrobial and anti-inflammatory drug use in white veal calves. Journal of Antimicrobial Chemotherapy. 2012;67(4):1027-38.	2012
Pardon B, De Bleecker K, Hostens M, Callens J, Dewulf J, Deprez P. Longitudinal study on morbidity and mortality in white veal calves in Belgium. BMC Veterinary Research. 2012;8:26.	2012
van Knegsel AT, Hostens M, de Vries Reilingh G, Lammers A, Kemp B, Opsomer G, et al. Natural antibodies related to metabolic and mammary health in dairy cows. Preventive Veterinary Medicine. 2012;103(4):287-97.	2012
van Knegsel ATM, Hostens M, Reilingh GD, Lammers A, Kemp B, Opsomer G, et al. Natural antibodies related to metabolic and mammary health in dairy cows. Preventive Veterinary Medicine. 2012;103(4):287-97.	2012
Wullepit N, Hostens M, Ginneberge C, Fievez V, Opsomer G, Fremaut D, et al. Influence of a marine algae supplementation on the oxidative status of plasma in dairy cows during the periparturient period. Preventive Veterinary Medicine. 2012;103(4):298-303.	2012
Hostens M, Fievez V, Vlaeminck B, Buyse J, Leroy J, Piepers S, et al. The effect of marine algae in the ration of high-yielding dairy cows during transition on metabolic parameters in serum and follicular fluid around parturition. Journal of Dairy Science. 2011;94(9):4603-15.	2011
Pardon B, Stuyven E, Stuyvaert S, Hostens M, Dewulf J, Goddeeris BM, et al. Sera from dams of calves with bovine neonatal pancytopenia contain alloimmune antibodies directed against calf leukocytes. Veterinary Immunology and Immunopathology. 2011;141(3-4):293-300.	2011
Hostens M, Bossaert P, Cools S, de Kruif A, Opsomer G. Het gebruik van glucogene precursoren in de voeding van hoogproductief melkvee. Vlaams Diergeneeskundig Tijdschrift. 2010;79(4):247-58.	2010
Ververs C, Hostens M, Caluwaerts T, de Kruif A, Opsomer G. Is er een verband tussen het verloop van de aanvangsfase van de lactatiecurve en het optreden van de eerste oestrus post partum bij hoogproductieve melkkoeien? Vlaams Diergeneeskundig Tijdschrift. 2010;79(4):381-8.	2010
Bossaert P, Leterme L, Caluwaerts T, Cools S, Hostens M, Kolkman I, et al. Teaching transrectal palpation of the internal genital organs in cattle. Journal of Veterinary Medicine and Education. 2009;36(4):451-60.	2009
Cools S, Bossaert P, Caluwaerts T, Hostens M, Opsomer G, de Kruif A. De economische gevolgen van een verlenging van de tussenkalftijd bij hoogproductief melkvee. Vlaams Diergeneeskundig Tijdschrift. 2008;77:402-9.	2008
Dehkordi SK, Vlaeminck B, Hostens M, Opsomer G, Fievez V. In vitro rumen biohydrogenation of trans-10, cis-12 conjugated linoleic acid in a lipid-encapsulated (LE-CLA) supplement incorporated or not in a processing pellet. Communincation in Agriculture on Applied Biology Science. 2008;73(1):119-22.	2008

BOOK CHAPTER

Title	Year

Hermans, K., Van Ranst B., Opsomer G. And M. Hostens. 2018. Promises and challenges of big data associated with automated dairy cow welfare assessment. In A. Butterworth (Ed.), Animal Welfare in a Changing World (pp. 199–207). CAB International.   2018

OTHER PUBLICATIONS

Title	Year
Bokma, J., I. Santman-Berends, G. Vidal, M. Hostens, S. Ribbens, J. Evrard, S. Theuns, C. Sánchez-Miguel, G. van Schaik, and B. Pardon. 2023a. European veterinary barometer for bovine respiratory diseases: a comprehensive tool for mapping diagnostic test results and geolocation for respiratory tract samples from cattle. in Proc. 5th International Conference Of The European College Of Veterinary Microbiology.	2023
Bokma, J., I. Santman-Berends, G. Vidal, M. Hostens, S. Ribbens, J. Evrard, S. Theuns, G. van Schaik, and B. Pardon. 2023b. European Veterinary Barometer for Bovine Respiratory Diseases: a tool showing diagnostic test results and geolocation of respiratory tract samples from cattle. in Proc. European Buiatrics Congress and ECBHM Jubilee Symposium 2023.	2023
Kemel C, Salamone M, Van Loo H, Latour C, Vandeputte S, Callens J, Hostens M, Opsomer G. The influence of a natural Neospora caninum infection substantiated by serum antibody levels on the semen quality of Belgian Blue bulls. 2022. In the 31st World Buiatrics Congress (WBC 2022) (pp. 355-356). World Association for Buiatrics (WAB). Madrid, Spain.	2022
Slavco, E., M. De Vos, M. Hostens, J. Top, and E. A. Fischer. 2022. Infection Transmission Ontology: Standardization of Infection Transmission Data. Pages 65-73 in Proc. 2022 IEEE 18th International Conference on e-Science (e-Science). IEEE.	2022
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Chen Y, Hostens M, Nielen M, Ehrlich J, Steeneveld W. 2022. An empirical analysis of economic herd performance in relation to herd lactation curve characteristics. In: Dair'Innov congress. p. 35. Namur, Belgium.	2022
Chen Y, Hostens M, Nielen M, Ehrlich J, Steeneveld W. 2021. An Empirical Analysis on the Association between Persistency of Dairy Cows and Economic Herd Performance. In: Isessah. p. 72.	2021
Salamone, M., Adriaens, I., Hostens, M., & Aernouts, B. 2021. The Individual Transition index: the development of a new window inside the transition period. Presented at the Precision Livestock Farming workshop seminar; Leuven, Belgium (virtual).	2021
M. Salamone, I. Adriaens, G. Opsomer , B. Aernouts, M. Hostens. 2021. Machine-learning based prediction of test day milk yield using historical data of the previous lactation. Presented at the 44th ICAR Annual Conference (virtual).	2021
Lietaer L., E. Hernandez Sanabria, M. Hostens, L. Vlaminck, A. Van Soom, T. Van de Wiele and G. Opsomer. 2019. Presented at the 23rd Annual Conference of the European-Society-for-Domestic-Animal-Reproduction (ESDAR).	2019
M. Salamone, H. Atashi, M. Salavati, J. De Koster , M.A. Crowe, G. Opsomer, M. Hostens. 2019; Genome-wide association for metabolic adaptation in early lactation dairy cows. Presented at: the 70th Annual Meeting of the European Federation of Animal Science; Ghent, Belgium	2019
M. Salamone, H. Atashi, J. De Koster, G. Opsomer , M. Hostens. 2019. Genetic parameters for lactation curve traits in Holstein dairy cows. Presented at: the 70th Annual Meeting of the European Federation of Animal Science; Ghent, Belgium.	2019

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Hermans K., J. Laureyns, G. Opsomer, B. Van Ranst, J. De Koster, M. Van Eetvelde, S. Moerman, H. Bogaert, E. Depreester, J. Vandepitte, O. Pascottini, Hostens. 2016. The consequences of a bovine viral diarrhoea virus outbreak on herd level production parameters, a case study. In. Proc. 29th Congress of the World Association For Buiatrics, Dublin, Ireland:321. — 2016

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Pascottini, O.B., Hostens, and G. Opsomer. 2016. New perspectives of subclinical endometritis diagnosis in dairy cows. European Veterinary Conference: Voorjaarsdagen, The Hague, The Netherlands. — 2016

Pascottini, O.B., Hostens, P. Dini, J. Vandepitte, R. Ducatelle, and G. Opsomer. 2016. Distribution of inflammation within the endometrium of dairy cows. World Buiatrics Congress, Dublin, Ireland. — 2016

Bogado Pascottini, OA, Hostens, M., Dini, P., Van Eetvelde, M., Vercauteren, P., & Opsomer, G. (2016). Prevalence and effect of subclinical endometritis on the pregnancy outcome of nulliparous dairy heifers. REPRODUCTION IN DOMESTIC ANIMALS (Vol. 51, pp. 76–77). Presented at the Joint meeting of the 20th Annual conference of the European Society for Domestic Animal Reproduction (ESDAR). — 2016

Pascottini, O.B., Hostens, P. Dini, B. Atanasov, P. Vercauteren, and G. Opsomer. 2016. Subclinical endometritis at artificial insemination in dairy cows: prevalence and effect on pregnancy outcome. International Congress of Animal Reproduction, Tours, France. — 2016

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(Vol. 51, pp. 52–52). Presented at the Joint meeting of the 20th Annual conference of the European Society for Domestic Animal Reproduction (ESDAR).

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