

Percorso formativo e professionale

Nata a Dolo (VE) il 13/04/65. Laureata in Scienze Agrarie nel 1992, ha conseguito il titolo di dottore di ricerca in Scienze Zootecniche nel 1996. La formazione post-laurea è stata principalmente indirizzata alla valutazione del benessere degli animali da reddito e della qualità degli alimenti di origine animale. Durante il Corso di Dottorato di Ricerca ha effettuato un periodo di studio e ricerca presso il Department of Clinical Veterinary, Università di Cambridge (UK), gruppo di ricerca "Animal Welfare and Human Animal Interactions Group", coordinato dal professor Donald Broom. Nel novembre 1999 è diventata ricercatore presso la Facoltà di Medicina Veterinaria, Università degli Studi di Padova, nel settore scientifico-disciplinare AGR19 "Zootecnica Speciale". Dal 2006 è professore associato. L'attività di ricerca è documentata da oltre 150 pubblicazioni su riviste nazionali ed internazionali di cui 66 presenti nella banca dati scopus (h-index=15; Total citation=623). E' membro del collegio dei docenti della Scuola di Dottorato in Animal & Food Science ed è stata supervisore di quattro studenti di dottorato. È socia di diverse società scientifiche nazionali ed internazionali (ASPA, SoZooALP, ASDA, ASAS). Svolge attività di peer reviewer per importati riviste scientifiche del settore quali *Journal of Animal Science*, *Animal*, *Research in Veterinary Science*, *Livestock Science*. È inoltre sector editor della rivista *Italian Journal of Animal Science*. È stata coordinatore di unità operative in diversi progetti di ricerca finanziati dall'Ateneo o da enti e istituzioni a carattere locale (vedi Aree di Ricerca). Ha fatto parte del gruppo di ricerca dell'Università di Padova in alcuni progetti europei (vedi Aree di Ricerca). È attualmente impegnata nello studio di fattibilità per lo sviluppo di un sistema di allevamento del vitellone da carne a basse emissioni di gas serra in Veneto – LOWE MEAT, e nei progetti europei *Genomic Management Tools to Optimise Resilience and Efficiency across the Bovine Sector (GenTORE)*, come parte del gruppo di ricerca dell'Università di Padova, e *Increasing productivity, resource efficiency and product quality to increase the economic competitiveness of forage and grazing based cattle production systems (SusCatt)*, come coordinatore di una unità operativa.

Le principali tematiche di ricerca e docenza sono:

- "Benessere animale" degli animali da reddito (bovini e suini in particolare), considerando sia gli aspetti di protezione animale sia il miglioramento della sicurezza dei prodotti destinati all'alimentazione umana
- Conservazione della biodiversità in ambito zootecnico
- Sviluppo di tecniche di allevamento a basso impatto ambientale

Come esperto in tali ambiti svolge una intensa attività di aggiornamento di veterinari in scuole di specialità e corsi di formazione post-laurea nonché di divulgazione insegnando in corsi destinati ad allevatori e tecnici del settore zootecnico.

Didattica: Insegnamenti svolti nell'ambito del Settore Scientifico Disciplinare AGR19 Zootecnica speciale nel Corso di Laurea a Ciclo Unico in Medicina Veterinaria.

Educational and professional path

Flaviana Gottardo was born in Dolo (Venice) on April 13th 1965, graduated in Agricultural Science in 1992, obtained the PhD in Animal Science in 1996. The training and education have been mainly addressed to the evaluation both of welfare of farm animals and of quality of food of animal origin. During the Ph.D. in Animal Science she has completed a period of research and study in the United Kingdom at the Department of Clinical Veterinary, University of Cambridge, within the research group "Animal Welfare and Human Animal Interactions Group", coordinated by Professor Donald Broom. In November 1999 she became a

researcher at the Faculty of Veterinary Medicine in the scientific-field “Animal Husbandry”. Since 2006 she has been an associate professor in the same faculty and in the same scientific field. The teaching and research activities have always focused on welfare of farm animals (particularly beef cattle, dairy cows, veal calf and pigs) together with conservation of biodiversity within the livestock sector and development of environmentally friendly rearing techniques. As an expert on these topics she has also an active teaching activity for veterinarian continuing education and for the update of farmers and technicians of the livestock sector. The research activity is documented by over 150 publications in national and international journals, 66 of them belonging to the scopus database (h-index=15; Total citation=623). She is a peer reviewer for important scientific journals of the sector such as *Journal of Animal Science*, *Animal*, *Research in Veterinary Science*, *Livestock Science*. She is also a sector editor for the *Italian Journal of Animal Science*. She has been coordinator of research units in several projects funded by the University or other institutions such as Istituto Zooprofilattico delle Venezie, Veneto Agricoltura, Farmers Federation of Trento (see Aree di ricerca). She took part in several European projects as a member of the team of the University of Padova (see Aree di Ricerca). She is currently involved in several Italian and European projects: LOWEMEAT, on the development of a low-emission rearing system for cattle, *Genomic Management Tools to Optimise Resilience and Efficiency across the Bovine Sector (GenTORE)*, as part of the research team of the University of Padova, and *Increasing productivity, resource efficiency and product quality to increase the economic competitiveness of forage and grazing based cattle production systems (SusCatt)*, as work package coordinator.

The research topics that have occupied more recently have included:

1. Feeding plans and welfare of veal calves;
2. Development of systems for assessing welfare at the farm level for calves, beef cattle and dairy cows;
3. Animal welfare issue in relation to the practice of dehorning in cattle;

Flaviana Gottardo is a member of the Italian Scientific Association of Animal Production (ASPA)

Teaching activity: it is developed within the scientific-field “Animal Husbandry” during the Master’s Degree in Veterinary Medicine.

Research areas

Work Package coordinator (Coordinatore di unità operative) in projects granted by the University of Padova or other local institutions:

- LEBA Leader Esperti nel Benessere Animale: project funded by Ministry of Health (Ministero della Salute) and coordinated by Istituto Zooprofilattico delle Venezie (2012-2014).
- Check of possible tail bites in pigs reared according to D.Lgs. 20 febbraio 2004 n.53.: Biennial project (2011-2013) funded by Veneto Region (Regione Veneto) through DGRV 2967/2009.
- Welfare assessment of calves and heifers on dairy farms: Research project funded by Ministry of Health (Ministero della Salute) and coordinated by Istituto Zooprofilattico delle Venezie (2014-2016).
- Monitoring of the use of antibiotics in the bovine species and connections with Animal Welfare: Research project funded by Ministry of Health (Ministero della Salute) and coordinated by Istituto Zooprofilattico delle Venezie (2016-2018).

Principal Investigator (Coordinatore) of the following projects:

- STALLE A STELLE (2007-2010): Project aimed at enhancing dairy farmers' virtuous behaviour in Trentino Region – Project funded by Autonomous Province of Trento (Provincia Autonoma di Trento) and farmers' Federation of Trento (Federazione Allevatori di Trento).
- SPAI.VIT (2007-2010), project funded by Veneto Region, aimed at developing innovative feeding plans for veal calves.
- GHGE (2012-2014), project funded by Veneto Region (Regione Veneto) aimed at studying measures for reducing greenhouse gas and nitrogen emissions in the atmosphere by dairy and beef farms.
- Project aimed at preparing a scientific external report for EFSA (European Food Safety Authority): "The use of animal-based measures to assess animal welfare in the EU – state of art of the last 10 years of activities and analysis of the gaps. Preparatory work". (anno 2015).
- Athenaeum project (PRAT 2016-2017): "Use of animal based measures taken at the slaughterhouse as indicators of welfare at the farm: a retrospective approach".

Taken part in the following European projects as part of the research team of the University of Padova:

Chain Management of Calf Welfare (FAIR-CT96-2049);

WELFARE QUALITY (6 ° frame work program);

AL.CAS.DE. (tender for call DG SANCO).

Currently involved:

- LOWE MEAT: on the development of a low-emission rearing system for cattle – funded by the Rural Development Program for Veneto Region (Programma di sviluppo rurale per il Veneto) 2014-2020.
- European project *Genomic Management Tools to Optimise Resilience and Efficiency across the Bovine Sector (GenTORE)* (2017-2022) funded within the European Union's H2020 Research and Innovation Program, as part of the research team of the Università of Padova.
- European project *Increasing productivity, resource efficiency and product quality to increase the economic competitiveness of forage and grazing based cattle production systems (SusCatt)* funded by MIPAAF (Ministero delle Politiche Agricole Alimentari e Forestali) through the European project ERANET-SusAn (2017-2020), as work package coordinator.

Publications

Vitello a carne bianca (veal calf):

1. Brscic M et al. (2011). Prevalence of gastrointestinal disorders recorded at postmortem inspection in white veal calves and associated risk factors. J Dairy Sci, 94: 853-863.
2. Prevedello P et al. (2012). Effects of the provision of large amounts of solid feeds to veal calves on growth and slaughter performance and intravital and postmortem welfare indicators. J Anim Sci, 90: 10, 3538-46.
3. Leruste H et al. (2012). The relationship between clinical signs of respiratory system disorders and lung lesions at slaughter in veal calves. Prev Vet Med, 105: 93-100.

4. Brscic M et al. (2014). Nutrient digestibility of veal calves fed large amounts of different solid feeds during the first 80 days of fattening. *Ital J Anim Sci* <http://hdl.handle.net/11577/303390310.4081/ijas.2014.3520>
5. Brscic M et al. (2014). Effects of the provision of solid feeds enriched with protein or nonprotein nitrogen on veal calf growth, welfare, and slaughter performance. *J Dairy Sci*, 97(7):4649-57.

Bovino da carne (beef cattle):

1. Cozzi G et al. (2005). The use of coarse maize silage as a dietary source of roughage for finishing Limousin bulls: effect on growth performance, feeding behaviour and meat quality. *Anim Sci*, 80: 111-118.
2. Cozzi G & Gottardo F (2005). Feeding behaviour and diet selection of finishing Limousin bulls under intensive rearing system. *Appl Anim Behav Sci*, 91: 181-192
3. Cozzi G et al. (2009). Growth, slaughter performance and feeding behaviour of young bulls belonging to three native cattle breeds raised in the Alps. *Livest Sci*, 125: 308-313.
4. Cozzi G et al. (2010). Comparison of two feeding finishing treatments on production and quality of organic beef. *Ital J Anim Sci*, 9: 4. E77, doi:10.4081/ijas.2010.e77
5. Lora I et al. (2014). Survey on mortality rate of young stock on dairy farms of the Province of Padova. *Acta Agraria Kaposváriensis*, 18: Supp. 1, 69-74.
6. Brscic M et al. (2015). Assessment of welfare of finishing beef cattle kept on different types of floor after short- or long-term housing. *Animal*, 9: 1053-1058.
7. Rumor C et al. (2015). Assessment of finishing beef cattle mortality in a sustainable farming perspective. *Livest Sci*, 178: 313-316.

Bovina da latte (dairy cow):

1. Cozzi G et al. (2011). Short communication: Reference values for blood parameters in Holstein dairy cows: Effects of parity, stage of lactation, and season of production. *J Dairy Sci*, 94: 3895-3901.
2. Cozzi G et al. (2015). Dehorning of cattle in the EU Member States: A quantitative survey of the current practices. *Livest Sci*, 179: 4–11.
3. Brscic M et al. (2015). Short communication: Reference limits for blood analytes in Holstein late-pregnant heifers and dry cows: Effects of parity, days relative to calving, and season. *J Dairy Sci*, 98: 11, 7886-7892.

Suini (pigs):

1. Di Martino G et al. (2013). Continuous straw provision reduces prevalence of oesophago-gastric ulcer in pigs slaughtered at 170 kg (heavy pigs). *Research in Veterinary Science*, 95: 1271-1273.
2. Lonardi C et al. (2015). Can novel methods be useful for pain assessment of castrated piglets? *Animal*, 9: 871-877.

3. Scollo A et al. (2016). Frequency of tail lesions and risk factors for tail biting in heavy pig production from weaning to 170 kg live weight. *The Veterinary Journal*, 207:92-98. doi: 10.1016/j.tvjl.2015.10.056.
4. Gottardo F et al. (2016). Pain alleviation during castration of piglets: a comparative study of different farm options. *J Anim Sci*, 94: 1-12.