

Personal data

Surname: D'Andrea
First name: Mariasilvia
Contact address: via De Sanctis snc 86100 Campobasso

Email: dandrea@unimol.it
Tel: 0874404671

CURRENT ACADEMIC POSITION

- Full Professor AGRI-06/A – Agricultural Genetics.

ACADEMIC APPOINTMENTS

- 2014–2019: Delegate for Student Orientation and School–Work Alternation Projects at the Department of Agricultural, Environmental and Food Sciences.
- Since 2015: Member of the Academic Board of the International PhD Program in Agricultural Technologies and Biotechnologies.
- Since 2018: Coordinator of the Welfare, Biotechnology and Quality of Animal Production curriculum within the same PhD program.
- Since 2020: President of the Degree Program Council in Food Sciences and Culture (Scienze e Culture del Cibo – LGastr).
- 2020–2025: Member of the Executive Board of the Unimol Management Center for Advanced Education and Public and Private Sector Management.
- 2022–2025: Member of the University Quality Assurance Board (Presidio di Qualità di Ateneo).
- 2022–2025: Rector's Delegate for Third Mission and Public Engagement.
- Since 2024: President of the Degree Program Council of the Master's Program in Nutrition and Food Biosafety.
- Since 2025: Vice Rector for Strategic Plan Implementation and Monitoring.

UNIVERSITY QUALIFICATIONS

- 14/02/2008-28/02/2014. Researcher in Animal Breeding and Genetics - AGR/17.
- 4/04/2017 national scientific qualification to function full professor (art.16 of the law 30 December 2010, n.240) in the Disciplinary Area “Animal science and technology” Code “07/G1”.
- 25/10/2018 national scientific qualification to function full professor (art.16 of the law 30 December 2010, n.240) in the Disciplinary Area “Agricultural chemistry, agricultural genetics and pedology” Code “07/E1”.

EDUCATIONAL BACKGROUND

-26/10/2000. Master's degree in Agriculture Science with specialization in “Optimisation of crop productions” awarded by the Faculty Agriculture of “Università degli Studi del Molise”

Campobasso (Italy), with the final score 110/110 “cum laude”. *Title*: “Molecular genetics characterisation of a new allele in the goat alpha s₂-casein.

-9/3/2004. PhD in “Biochemical and chemical applied” at the Faculty Agriculture of “Università degli Studi del Molise” Campobasso (Italy). *Title*: Pig Expression analysis and genomics.

SUMMARY OF RELEVANT WORKING EXPERIENCE

-14/03/2001 - 14/11/2002. Collaboration as a scientific advisor for the “Parco Scientifico e Tecnologico del Molise” in the project “Improvement and treatment of swine meat”.

-15/11/2002 - 6/02/2004. Grant by “Università degli Studi del Molise” for young student for stage abroad.

-1/3/2004 - 31/10/2006. Post - doctoral position in “Candidate Genes analysis in Pork Quality”, in the “Università degli Studi del Molise” Campobasso (Italy).

-01/04/2005 - 15/08/2005. Collaboration as a scientific advisor for the “Università degli Studi del Molise” in the project “Food traceability and safety”.

-18/11/2005 – 05/11/2005, 05/03/2006 – 28/03/2006, 22/05/2006 –08/06/2006, 26/02/2007–23/03/2007. Stage in the Department of Biology and Genetics in the University of Trieste working on “Expression analysis in muscle and adipose tissues in pig using the microarray technologies”.

-01/12/2006 - 31/01/2007. Collaboration as a scientific advisor for the “Università degli Studi del Molise” in the project “Food traceability and safety”.

-20/12/2006-20/12/2007. Post - doctoral position in “Candidate Genes analysis in livestock species”, in the “Università degli Studi del Molise” Campobasso (Italy).

-07/01/2008-07/02/2008. Collaboration as a scientific advisor for the “Università degli Studi del Molise” in the project “Beef Electronic and Genetic Traceability applied in farms from Molise”.

- 22/06/2011 – 06/07/2011 Stage - INRA, Jouy-en-Josas, unità di "Génétique Animale et Biologie Intégrative".

- 11/03/2012 – 16/03/2012 visiting researcher - Llandrillo college, Llandudno, Gales. “Education of the Future (Lifelong Learning Programme) “Metodologie di e-learning”.

- 1/3/2014- 30/9/2014 Post - doctoral position in “Analisi dell’espressione genica per la qualità del latte bovino” in the “Università degli Studi del Molise” Campobasso (Italy).

- 21/11/2016 – 25/11/2016 Visiting professor - Department of Animal Sciences & Division of Nutritional Sciences - University of Illinois (Urbana, IL – USA) invited by Prof. Juan Llor head of Nutrition, Genomics, and Bioinformatics group. Talk title: “Animal Breeding and Genetics: a walk in Molise’s landscape”.

TEACHING POSITIONS

- aa 2006/2007 e 2007/2008 “Animal Genetics” (2 CFU CdL Animal Production Science and Technology) – Agriculture Faculty, University of Molise;

- aa 2006/2007, 2007/2008 e 2008/2009 “Animal Breeding and Genetics” (3 CFU CdL Agriculture Science and Technology; 2 CFU CdL Forestry and Environmental Technology) – Agriculture Faculty, University of Molise;
- aa 2008/2009 e 2009/2010 “Animal Genetics” (4 CFU CdL Agriculture Science and Technology/Animal Production field) – Agriculture Faculty, University of Molise;
- aa 2008/2009 2009/2010 2010/2011 “Plant Breeding” (5 CFU Agriculture Science and Technology/Biothechnology field; 2 CFU Agriculture Science and Technology/Agriculture field) - Agriculture Faculty, University of Molise;
- aa 2011/2012 e 2012/2013 “Genetics” (8 CFU) Department of Agriculture, Environmental and Food, University of Molise;
- aa 2013/2014, 2014/2015, 2015/2016, 2016/2017 “Agricultural Genetics” (8 CFU) Department of Agriculture, Environmental and Food, University of Molise;
- aa 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2023/2024, 2023/2025 “Introduction to Genetics”, (8 CFU) Department of Agriculture, Environmental and Food, University of Molise.
- aa 2021/2022, 2022/2023, 2023/2024 “Genetics and Sustainable Animal Production”, (6 CFU) Department of Agriculture, Environmental and Food, University of Molise.
- aa 2023/2024, 2024/2025 “Genomics of primary productions and biotechnological applications”, (6 CFU) Department of Agriculture, Environmental and Food, University of Molise.
- aa 2024/2025 “Plant breeding”, (6 CFU) Department of Agriculture, Environmental and Food, University of Molise.

RELEVANT RESEARCH PROJECTS

- PRIN 2001 prot. 2001078783_002: "Analisi della struttura e dell'espressione di geni candidati per la qualità del latte in piccoli ruminanti"
- FIRB 2001 prot. RBNE01MMHS_005: "Identificazione e analisi dell'espressione dei geni nel suino per lo studio e il miglioramento della produzione e della qualità della carne"
- PRIN 2006 prot. 2006078891_004: "Studio dell'espressione e della struttura dei geni candidati UCPs e Adiponectina nei suini di razze Casertana e Large White"
- PRIN 2010-2011 prot. 2010KTAK43_003: "Ricerca delle basi genetiche di nuovi fenotipi legati al benessere, all'efficienza ed alla sostenibilità ambientale delle produzioni dei bovini da latte - GEN2PHEN"
- dal 01/10/2016 al 31/01/2020 - Project manager "Analisi genomica e trascrittomiche in specie di interesse zootecnico per il monitoraggio della biodiversità, l'analisi GWAS e del profilo di espressione" - Departmental project - Dep. Agricultural, Environmental and Food Sciences - Università degli Studi del Molise.
- 2019 - Responsible for research and study activities under the agreement stipulated with ASSONAPA - PSRN-Biodiversità - CHEESR “Conservation, Health and Efficiency Empowerment

of Small Ruminant” - Programma di Sviluppo Rurale Nazionale 2014/2020, sottomisura 10.2
“Sostegno per la conservazione, l’uso e lo sviluppo sostenibili delle risorse genetiche in agricoltura”

- from 01/08/2018 to 31/03/2023 - Responsible for genetic research and study in LIFE Nat.Sal.Mo.
“Recovery of *S. macrostigma*: Application of innovative techniques and participatory governance tools in rivers of Molise (LIFE Nat.Sal.Mo)”.

SUMMARY OF PROFESSIONAL SKILLS AND EXPERTISE

The main research focus is on genetic association studies and quantitative genomics. The research efforts include the identification of chromosomal regions and candidate genes related to novel traits by performing studies at the DNA and RNA level and taking the advantage of modern multi-omic approaches for complex traits like high-throughput genotyping, whole genome sequencing, whole genome expression analysis etc.

The purpose is to gain knowledge about biological mechanisms underlying the expression of complex (quantitative) traits, to give insight into the origin and impact of genetic variation and to explore the genomics opportunities for the long-term selection strategies. In this perspective, also the development of computational-bioinformatic tools is a considerable part of the research work.