

## LUCIANA ROSSI

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### ● WORK EXPERIENCE

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#### DEPARTMENT OF VETERINARY MEDICINE AND ANIMAL SCIENCE (DIVAS), UNIVERSITY OF MILAN – LODI, ITALY UNIVERSITY ASSOCIATE PROFESSOR – 01/04/2020 – CURRENT

Since 2020, Luciana Rossi has served as an **Associate Professor of animal nutrition** at the Department of Veterinary Medicine and Animal Science, University of Milan, where she teaches in several Master's degree programs, including Veterinary Medicine, Animal Production, Animal Production Science and Biotechnology. From 2020 she delivers an average of **157 teaching hours per academic year** at the graduate level and is actively engaged in postgraduate and specialization training, including doctoral programs and advanced professional development courses.

From 2020: **responsible** of Teaching and Research Activities (RADRL) for the **Feed Analysis and Biotechnology Laboratory** within the Department of Veterinary Medicine and Animal Science, pursuant to Ministerial Decree No. 363/98, Article 2, paragraph 5.

Luciana **authored more than 103 papers** in peer-reviewed indexed journals. She actively engages with national and international audiences as an **invited speaker** at conferences, sharing her research findings and contributing to dissemination activities. Luciana Rossi has been actively involved in various **editorial activities**, including coordinating special issues for international journals, serving on editorial boards, and acting as a peer reviewer for numerous scientific publications.

Luciana is the inventor of two separate nationally **registered PATENTS** on edible vaccines against E. coli infections in pigs.

Currently leading a research group, she supervising 1 post-doctoral fellows, 4 Ph.D. students, and collaborators. She has served as supervisor for 5 PhD theses and is currently tutoring 4 PhD students. She has also been the advisor for 28 Master's degree theses.

Luciana is the **designated veterinarian for the University of Milan since 2018** in alignment with the Principle of the 3Rs.

She is member of the **Animal Welfare Body at the University of Milan**, actively involved in overseeing and promoting ethical standards for the care and use of animals in research (since 2018) and **Member of the National Coordination Committee of OPBA** (Animal Welfare Body), contributing to the development and harmonization of animal welfare policies at the national level (since 2025).

Veterinarian belonging to the large animal department at the **Veterinary Hospital of Lodi** (from 2022). Member of the **management committee of the Lodi Zootechnical Center** (from 2022) and responsible for the **rodent-lagomorph facilities** (from 2019).

Since June 9, 2023 (until October 23, 2027), included in the **EFSA shortlist of experts** and technical support staff (EOI/EFSA/2022/01).

From June 2021 – present: Appointed member of the **Evaluation Committee of the Lombardy Region as a technical-scientific expert for agricultural and food biodiversity** (Regional Decree No. 8554).

2020-2022: She was named member of the national **Group of Experts for the assessment of the quality of the outcomes of the research of the universities** (2020-2022, Area 07-Agricultural and Veterinary Sciences) by Italian national agency for the evaluation of universities and research institutes.

From 2021: member of **examination committee for national qualification for Veterinary practice**, Italy.

Luciana Rossi has served as a **reviewer and evaluator for numerous national and international funding programs**, including the Marie Skłodowska-Curie Actions (MSCA, 2024-2025), Fundação para a Ciência e a Tecnologia (FCT, Portugal, 2023), the Rita Levi Montalcini Fellowship (Italy, 2021), the Morris Foundation (2025), and the Caixa Foundation (2024-2025).

Luciana Rossi has actively **engaged in public dialogue events**: the 11th GBEP Bioenergy Week organized by FAO, she delivered educational courses on animal nutrition and food safety in the Bollate prison, and led hands-on workshops for high school students. Additionally, she has coordinated science outreach projects with local schools, participated in community energy events, and contributed to the European Biotech Week with seminars on veterinary green biotechnologies.

#### DEPARTEMENT OF HEALTH, ANIMAL SICENCE AND FOOD SAFETY (VESPA), UNIVERSITY OF MILAN – MILAN, ITALY

**Academic Qualifications:**

August 2018: **National Academic Qualification as Full Professor (Scientific Sector 07/G1: Science and Animal Production)**

August 2017: National Academic Qualification as Associate Professor (Scientific Sector 07/G1: Science and Animal Production)

**Teaching Activities:**

Delivered courses at both bachelor's and master's levels in Veterinary Medicine, Animal Science and Welfare, and Veterinary Biotechnology. Instructor at the Doctoral School of Nutritional Sciences, University of Milan.

Member of the PhD Teaching Board for the Veterinary and Animal Science PhD program (since 2017).

**Institutional Responsibilities:**

Since 2018: Member of the University Body for Animal Well-being (OPBA) and Veterinarian responsible for animal welfare in laboratory animal experiments at the University of Milan (D.lgs 26/2014).

Since 2019: Member of the Third Mission Committee of the Department VESPA.

Since 2019: Member of the Joint Commission for Improvement of Learning in the Animal Science Course.

Since 2012: Member of the University Commission of Open Science; Editor for The International Journal of Health, Animal Science and Food Safety on riviste.unimi.it.

**Research Activities:**

Supervisor of two PhD students and three postdoctoral fellows. Research funded through competitive grants and private partnerships. Primary research focus on innovative applied animal nutrition and animal nutrition ecology, integrating human health and environmental sustainability.

**Funded Projects:**

Principal Investigator (PI) for the "FOODTECH" project (2017–2020), funded by Regione Lombardia, POR FERS 2014–2020.

PI of "LOW METAL: Use of plants for phytoremediation of heavy metals in livestock" funded by MIPAAF (2016–2018).

Italian Tutor for IMMUNOFARM-ID 658701, funded by Marie Skłodowska-Curie Actions – Horizon 2020 (2016).

Coordinator of the study on bacterial gene expression effects on germinability of transgenic *Nicotiana tabacum* seeds as edible vaccine models (2014–2015), funded by PSR, LINEA B, University of Milan.

Member of the bilateral project "New perspectives for R&D in the feed sector (FEEDNEEDS)" (2014–2015), funded by the Italian Ministry of Foreign Affairs and International Cooperation.

Responsible for the Training Project contracted with Fondazione Parco Tecnologico Padano on AGRIFOOD (2015–2016).

Member of "Oral vaccines for swine against verocytotoxic *E. coli* strains" project funded by Miur-Regione Lombardia (2012–2015).

**Public Engagement:**

July 2019: Delivered science outreach seminars at Bollate prison.

April 2019: Member of the University commission for the event "Fuorisalone di Interni" — URBAN ISLANDS: affective maps to tell the story of Statale.

May 2017: Participated in Fascination of Plants Day with a stand presenting the "LOW METAL" project on low-cost phytoremediation of heavy metals from livestock effluents. Activities targeted at the general public including children and youth.

**Main Research Fields:**

By-products and innovative additives in animal nutrition; environmental sustainability in livestock farming; medical molecular farming and genetically modified plants; biotechnologies; nutraceuticals and nutrigenomics in food and feed; cell-based bioassays.

**DEPARTEMENT OF HEALTH, ANIMAL SCIENCE AND FOOD SAFETY (VESPA), UNIVERSITY OF MILAN – MILAN, ITALY**

**POSTDOCTORAL FELLOW RESEARCHER – 01/11/2006 – 31/10/2012**

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**Honorary Teaching Fellow in Animal Nutrition, Faculty of Veterinary Medicine, University of Milan**

Principal Investigator of the project "Evaluation of the Activity of an Innovative Zinc Additive on an Intestinal Cell Line", commissioned by a private company.

Principal Investigator of a study focused on the evaluation of tobacco seed cake by-product as an alternative protein source in pig nutrition.

Led four field trials commissioned by international feed additive companies aimed at registering new feed additives.

Principal Investigator and Scientific Coordinator of a multi-company project titled "Plants as Edible Vaccines Against Enteric Diseases in Pigs", funded by Regione Lombardia (Project ID 4053). Responsible for producing the final scientific report.

Veterinary Consultant in food safety research for several SMEs including Biotrack Srl (Lodi), Incura Srl (Lodi), and Plant techno Srl (Vicomascano, CR).

Collaborator of the University of Milan spin-off company Biotrack Srl, actively involved in research and innovation in food safety and molecular diagnostics.

Conducted studies on milk quality, hygiene, and dairy product safety.

**FARMACEUTICI GELLINI- INTERVET GROUP – PESCHIERA BORROMEO -MI, ITALY**

## **PRODUCT MARKETING MANAGER – 07/01/2003 – 05/01/2006**

Responsible for the pharmaceutical market analysis of a portfolio comprising over 50 veterinary drugs. Defined and implemented marketing strategies in coordination with sales management to ensure alignment of commercial objectives.

Maintained regular contact with national and international opinion leaders.

Planned promotional materials, including advertising campaigns, gadgets, technical brochures, and scientific articles.

Organized scientific congresses (CME-accredited events) featuring international speakers, with a focus on major animal and zoonotic diseases — including Dermatophytosis (Piacenza, April 2004) and Clostridiosis (Piacenza, April 2005).

Coordinated quarterly canvass meetings with the sales force and weekly regional commercial meetings.

Provided national veterinary technical support to the sales team in the field.

## **DEPARTMENT OF VETERINARY SCIENCE AND TECHNOLOGY FOR FOOD SAFETY (VSA), UNIVERSITY OF MILAN – MILAN, ITALY**

### **PH.D STUDENT – 01/11/1999 – 06/12/2002**

Doctoral research focused on the experimental development of genetically modified tobacco plants with seed-specific expression of antigenic proteins targeting Oedema disease and Salmonella typhimurium, with the goal of creating edible vaccines.

Conducted *in vivo* evaluation of antigenic tobacco seeds using a murine model.

From 2000 to 2001: research internship at the genetics laboratory of Prof. Corrado Fogher, Catholic University, Institute of Agronomy, Genetics, and Field Crops, Piacenza (Italy).

In 2001: six-month internship at Plantechno S.r.l., a plant biotechnology company.

Performed laboratory research at the Biotechnology Unit (VSA, University of Milan) on *in vitro* models (BME-UV1 cell line) and PCR-based detection of GMOs in food and feed.

## **FREELANCE – LOMBARDY REGION , ITALY**

### **VETERINARY PRACTITIONER – 09/03/2000 – 01/09/2010**

Main activities and responsibilities:

Freelance veterinary work in both livestock farms (pigs) and veterinary emergency clinics (pets: dogs and cats).

Responsible veterinarian for animal health and welfare management in the following farms:

Nerviano Group Livestock Farms

Caglioni Angelo Farm

Clinical and emergency veterinary services provided at:

San Michele Veterinary Clinic, Busto Arsizio (VA)

Veterinary Clinic Dr. Marco Banfi, Vittuone (MI)

## **EDUCATION AND TRAINING**

01/11/1999 – 06/12/2002 Milan, Italy

### **PH.D. IN BIOTECHNOLOGY APPLIED TO VETERINARY AND ZOOTECHNICAL SCIENCE** University of Milan

This multidisciplinary PhD project involved close collaboration with the Institute of Agricultural Genetics in Piacenza (Prof. Corrado Fogher) for the cloning of bacterial genes into plant expression vectors, and with the plant biotechnology company Plantechno (Vicomaschino, Cremona), where I completed an internship focused on plant genetic transformation. These activities allowed me to acquire strong skills in the application of recombinant DNA technologies and molecular biology. The genetically engineered tobacco seeds were subsequently tested in a murine model to assess their efficacy in stimulating a specific immune response following oral administration.

#### **Key skills and competencies developed:**

Molecular biology techniques: gene cloning, vector construction, transformation protocols, and PCR analysis.

Plant biotechnology: genetic transformation of tobacco plants, tissue culture, and plant regeneration.

Recombinant protein expression: production and detection of target proteins in plant tissues.

*In vivo* experimentation: use of murine models to evaluate immunological responses to orally administered antigenic proteins.

Data analysis and scientific reporting: collection and interpretation of experimental data, scientific writing, and presentation of results.

Interdisciplinary collaboration: coordination with academic and industrial partners (university research centers and biotech companies).

Project management: planning, executing, and troubleshooting complex experimental workflows.

Website [www.unimi.it](http://www.unimi.it) | Field of study Veterinary | Final grade Excellent | Level in EQF EQF level 8 |

Thesis Expression of recombinant bacterial proteins in tobacco seeds as edible vaccine models.

01/12/1999 – 01/01/2000 Milan, Italy

**POSTGRADUATE INTERNSHIP-NATIONAL LICENSING EXAMINATION FOR VETERINARY MEDICINE - ENROLLMENT PROFESSIONAL ASSOCIATION OF VETERINARIANS OF MILAN** University of Milan

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The qualification was achieved after completing a six-month postgraduate internship, during which I worked at the Institute of Pathological Anatomy focusing on cytology and autopsy diagnosis; at the Institute of Animal Nutrition assisting Dr. Giancarlo Selmini, a formulator at a feed company; and at the ATS of Monza conducting official animal health inspections at farms and the municipal kennel. Subsequently, I successfully passed the National Licensing Examination (November) and was then admitted to the Professional Association of Veterinarians of Milan.

Website [www.unimi.it](http://www.unimi.it) | Level in EQF EQF level 7

01/11/1993 – 09/03/1999 Milan

**DEGREE IN VETERINARY MEDICINE** University of Milan

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**Graduated on time with an experimental thesis entitled:** "Evaluation of the effect of piglet weaning at 21 and 28 days of age on stress conditions and performance."

Website [www.unimi.it](http://www.unimi.it) | Field of study Veterinary | Final grade 110/110 | Level in EQF EQF level 7 |

Thesis Weaning strategies in piglets at 21 and 28 days of age

11/07/1993

**SCIENTIFIC HIGH SCHOOL DIPLOMA** Liceo Scientifico Peano

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Level in EQF EQF level 4

● **LANGUAGE SKILLS**

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Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C2	C1	B2	C1

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Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **SKILLS**

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manage staff | medicines | Microsoft Excel | Microsoft Word | Microsoft Office | perform project management | Outlook | Zoom | Microsoft Powerpoint | Italian | animal therapy | Google Drive | veterinary terminology | Instagram | Skype | nutrition | assume responsibility | LinkedIn | Facebook | animal behaviour | Power Point | Good listener and communicator | Organizational and planning skills | Team-work oriented | Social Media | Motivated | Decision-making | Flexibility | Reliability | liaise with managers | Responsibility | WhatsApp | Presenting | Creativity | Critical thinking | Teamwork | Strategic Planning | Written and Verbal skills | Conflict resolution | Good time management | positive thinking | Ability to Work Under Pressure | Analytical skills | Detail-Oriented | flexible | Internet user | Efficient multi-tasking | Good at being proactive and efficient in high stress situations | Problem-solving | leadership | Empathic listener | Research and analytical skills | Friendly | Good Communication | Communications | Active listening | Excellent organizational planning and solving problems in short time

● **PUBLICATIONS**

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2025

**scientific production**

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Luciana Rossi's scientific production consists of over 200 full-length publications available on AUR (University of Milan's Repository), of which **103 are indexed in Scopus**. Scopus Author ID: 56713518600. Of these publications, 87 have been published in the last 10 years (2015-2025: 8,7 article/per year). Of the 103 publications indexed on Scopus, Luciana Rossi is listed as the first author, last author, or corresponding author in 61 of them. This indicates a substantial level of leadership and significant contribution to the research presented in these works. Her indexed publications have been cited by 1,297 documents, with an h-index of 23. (Compared to the reference medians for the AGR/18 sector as a committee member — 25 articles, 418 citations, and an h-index of 12 — she performs significantly better across all these metrics.)

## List of the 15 most significant recent publications

1. **Rossi L.**, ..., Reggi S. Exploiting Chestnut Biochar as a Functional and Circular Ingredient in Weaned Piglet Diets (2025) Agriculture (Switzerland) DOI: 10.3390/agriculture15101082
2. Reggi S., ..., **Rossi L.** Biochar's Adsorption of *Escherichia coli* and Probiotics *Lactiplantibacillus plantarum* and *Limosilactobacillus reuteri* and Its Impact on Bacterial Growth Post In Vitro Digestion (2025) Applied Sciences DOI: 10.3390/app15095090
3. Ferri I.,..., **Rossi L.** Valorization of Carob and Brewer's Spent Grain as Growth-Substrate Supplements in *Tenebrio molitor* Rearing (2025) Animals DOI: 10.3390/ani15121697
4. Ferri I., ..., **Rossi L.** Unravelling the Role of Chitin and Chitosan in Prebiotic Activity and Correlation with Cancer: A Narrative Review (2025) Nutrition Reviews DOI: 10.1093/nutrit/nuae168
5. Amini A., ..., **Rossi L.**, .., Turolla A. From cheese whey to single-cell protein production: By-product valorization through acidogenic fermentation and purple phototrophic bacteria (2025) Bioresource Technology DOI: 10.1016/j.biortech.2025.132894
6. Reggi S., ..., **Rossi L.** Metabolomic Insights into the Potential of Chestnut Biochar as a Functional Feed Ingredient (2025) Applied Sciences (Switzerland) DOI: 10.3390/app15031084
7. Frazzini S., , **Rossi L.** Chemical-functional characterization of *Ascophyllum nodosum* and *Phymatolithon calcareum* and dietary supplementation in post-weaning pigs (2024) Frontiers in Veterinary Science DOI: 10.3389/fvets.2024.1431091
8. Reggi S., , **Rossi L.** Metabolomic Profiling and Functional Characterization of Biochar from Vine Pruning Residues for Applications in Animal Feed (2024) Animals DOI: 10.3390/ani14233440
9. **Rossi L.**, ..., Frazzini S. In vitro evaluation of functional properties of extracts of *Fucus vesiculosus* obtained with different conventional solvents (2024) Algal Research DOI: 10.1016/j.algal.2024.103787
10. Dell'Anno M., ..., Rossi L. Evaluation of dietary supplementation of *Ascophyllum nodosum* and *Lithothamnium calcareum* as functional algae in F4+ *Escherichia coli* challenged piglets (2024) Frontiers in Veterinary Science DOI: 10.3389/fvets.2024.1430347
11. Frazzini S., ..., **Rossi L.** Chemical and functional characterization of the main bioactive molecules contained in hulled *Cannabis sativa* L. seeds for use as functional ingredients (2024) Journal of Agriculture and Food Research DOI: 10.1016/j.jafr.2024.101084
12. Frazzini S., ..., **Rossi L.** *Ascophyllum nodosum* and *Lithothamnium calcareum* and their prebiotic potential on *Lactobacillus* strains (2024) Journal of Functional Foods DOI: 10.1016/j.jff.2024.106257
13. Ferri I., ..., **Rossi L.** Metabolomic Profiling of *Tenebrio molitor* Reared on Chestnut Shell-Enriched Substrate Using NMR Spectroscopy (2024) Foods DOI: 10.3390/foods13233757
14. Reggi S., , **Rossi L.** Seed-specific expression of porcine verotoxigenic *Escherichia coli* antigens in tobacco plants as a potential model of edible vaccines (2024) Veterinary Research Communications DOI: 10.1007/s11259-024-10318
15. Frazzini S., , Rossi L. Effect of hulled *Cannabis sativa* L. seeds in a home-made diet for adult dogs (2023) Italian Journal of Animal Science DOI: 10.1080/1828051X.2023.22414

## ● CONFERENCES AND SEMINARS

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### Invited speaker

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WriteThroughout her career, Luciana Rossi has actively participated as a speaker at numerous national and international conferences and seminars.

#### Below is a selection of recent invited talks:

- **Invited Speaker**, "Cultured Meat: Let's Discuss," Sala della Regina, Montecitorio, Rome, Italy | July 25, 2025  
Invited to contribute to a high-level panel at the "Cultured Meat: Let's Discuss" conference held at the prestigious Sala della Regina, Montecitorio (**Chamber of Deputies**).
- **Invited Speaker**, 333 Experience Congress: Precision Feeding and Technology, Parc Hotel, Peschiera del Garda, Italy | June 18, 2025 Presented "Innovative Nutritional Solutions to Reduce Post-Weaning Anorexia in Piglets" 3tre3.it
- **Invited Speaker**, International Soil and Water Forum, Bangkok, Thailand | December 9–11, 2024 Delivered a talk titled "**Bioeconomy approaches for integrating livestock and soil health, including biochar, insects and algae**" in the thematic session "Valuing bioeconomy in integrated management strategies," organized by **FAO** and the **Royal Thai Government's Ministry of Agriculture and Cooperatives**.
- **Invited Speaker**, **ANIMALCARE UNIT** Seminar Series, University of Milan | July 9, 2024 Presented "Practical information for drafting Annex VI – PART III: The boundary between experimentation and routine zootechnical or veterinary practice."
- **Invited Speaker**, 11th GBEP Bioenergy Week – Sustainable Bioenergy for Climate and Development Goals, FAO Headquarters, Rome | June 17–21, 2024 Talk titled "**Biochar as a circular and valuable ingredient in animal feeding**" on June 19, 2024.
- **Chairperson**, ARNA session on Innovative Therapies in Precision Medicine: RNA Drugs, Nanoparticles, and Genomic Editing, 77th SISVET Congress, Parma | June 12, 2024
- **Invited Speaker**, Roundtable on Biochar Legislation, **BIOCHAR 350° Conference**, Padua | May 27, 2024 Talks on "Regulatory aspects related to the use of biochar in animal feed" and "Biochar as a functional ingredient to reduce antibiotic use in animal feed."

- **Invited Speaker**, Event on Edible Insects: From Farm to Fork, Association for Agriculture and Agri-food, Lodi | May 6, 2024 -Talk titled "EDIBLE INSECTS: from farm to fork," within the context of national and European challenges.
- **Invited Speaker**, Conference on **Biochar in Agriculture and Livestock**, University of Brescia | April 18, 2024Talk titled "Use of biochar as a nutritional additive for livestock."
- **Invited Speaker**, National Video Conference on Agrobiodiversity, Lombardy Region | March 6, 2024 Presentation on "Assessment of endangered native animal genetic resources" for the Regional Evaluation Unit for Agricultural and Food Biodiversity.
- **Invited Speaker**, ASPA 2023 Webinar Series III on Microbiome Research in Animal Sciences | March 30, 2023Talk titled "Association between microbiota and health status in piglets."
- **Invited Speaker**, 2020–2022: Introductory training seminars on animal experimentation organized by the Animal Welfare Body (OPBA) at University of Milan, focused on "From veterinary practice to animal experimentation: where are the boundaries?"
- **Invited Speaker**, "APERISTALLA" Event | July 15, 2021 Presentation on "Relationship between livestock farming and research: how scientific research supports the development of good farming practices," organized by Cynomys startup.

#### Organizing Committee Memberships:

- Member, Organizing Committee, 3rd International Forum on Animal Science and Veterinary Medicine (ASVMFORUM2024), Madrid (2023–2024)
- Member, Organizing Committee, 8th International Feed Conference (FEED2023), Italy (2022–2023)
- Member, Organizing Committee, 21st Congress of Animal Science and Production Association (ASPA2015), Italy (2015)

#### Event Coordination:

- 2014: Proponent and coordinator, "From Animal Health to Human Health" event at EXPO 2015, Italy.
- 2015: Proponent and coordinator, "Scientific Innovation in Nutrition" event within the "La Statale per EXPO" project and Scientific Committee of Milan Municipality, EXPO 2015, Italy. [here the description...](#)

## ● NETWORKS AND MEMBERSHIPS

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### Scientific Societies

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#### Membership in Scientific Societies:

- The **Association for Animal Science and Production (ASPA)** aims to promote the advancement of sciences and technologies related to animals in livestock production, fish fauna, companion and sport animals, working animals, and wildlife. It also addresses environmental, landscape, ethological, and economic factors, as well as animal welfare, quality, safety, and utilization of products of animal origin.
- **SISVET - ARNA (Association of Researchers in Nutrition and Food)**: member of the communication working group.
- **SIPAS - Italian Society of Swine Pathology and Farming.**
- The **European Federation of Animal Science (EAAP)** promotes research, discussion, and dissemination of the most relevant discoveries related to animal production within the scientific community and broader society.
- The **International Society for Plant Molecular Farming** fosters peer and public communication of key achievements in the use of plants as production systems for medically and pharmaceutically relevant proteins, including edible vaccines.
- **ICHAR**: Italian Biochar Association.

[here the description...](#)

### Third Mission – Public Engagement and Science Communication

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Throughout her academic career, Luciana Rossi has actively contributed to numerous public engagement initiatives, aiming to counter misinformation and promote the value of scientific research.

Scientific Dissemination at FAO Headquarters (Rome, June 2024): Participated in the BIOENERGY CIRCUIT with an educational booth and workshop for international high school students as part of the 11th GBEP Bioenergy Week organized by FAO under the Global Bioenergy Partnership (GBEP).

Since 2023: Instructor for the course "Animal nutrition and food safety: between science and public opinion" offered at the Bollate correctional facility (24 hours), open to incarcerated individuals.

2021–2024: Active role in the "UniLodiHub: FROM FARM TO FORK" outreach project for high school students, including the module "Green technologies to reduce antibiotic use in animal nutrition" (4 hours annually).

Mentorship and PCTO Projects: Coordinated multiple high school–university transition projects (PCTO).

#### Community Events:

"Valuing chestnut processing by-products in livestock feeding", San Martino Vallata, Modena (July 2022),  
 "GMOs: Myth and Science", Middle School Carlo Porta, Milan (May 2022),

"The lab goes to school" initiative, elementary school Novaro-Ferrucci, Milan (Feb 2018).

Science Festivals and Exhibitions:

Time4Child educational fair (2020–2022), talk: "Lab-grown milk",

European Biotech Week (2020–2022), talks on edible vaccines, engineered probiotics, and biotech feed solutions,

Festival dello Sviluppo Sostenibile 2018: Workshop "LOWMETAL: How plants reduce livestock pollution",

Fascination of Plants Day 2017, stand on phytoremediation and metal recovery from livestock effluents.

Expo 2015 – Milan:

Scientific promoter and speaker at events within the La Statale per EXPO initiative, including:

"From Animal Health to Human Health" (2014),

"Scientific Innovation for Nutrition" (2015), with poster sessions, conferences, and guided visits at the University's experimental farm.

2014–2015: Expert contributor to Scienza Attiva®, a national program of scientific citizenship and education for secondary schools, coordinated by the Interuniversity Center Agorà Scienza and supported by the University of Turin and the EXPO 2015 Scientific Committee.

## Editorial Activities

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Luciana Rossi has been actively engaged in a range of editorial responsibilities, including coordination of special issues, participation in editorial boards, and peer-review duties. She has served on institutional editorial committees and held leadership roles in journal founding and Open Science initiatives.

Current and Recent Roles:

Editor-in-Chief & Founder (since 2014): The International Journal of Health, Animal Science and Food Safety, University of Milan. Indexed in DOAJ since 2015.

Editorial Committee Member: University of Milan's journal line-up since 2012.

Open Science Committee Member, University of Milan, for ten years.

Topic Editor for the Research Topic "Innovative Solutions in Animal Nutrition to Enhance the Sustainability of the Zootechnical Production System" in **Frontiers in Animal Nutrition and Metabolism** (2025)

Special Issues and Topic Editing:

Since 2024:

Guest Editor, Special Issue "Novel Antioxidants for Animal Nutrition – 2nd Edition", Antioxidants (Q1).

Topic Editor, "Functional Nutritional Strategies as Alternatives to Antimicrobials" in Frontiers in Veterinary Science, Animal Nutrition and Metabolism (Q1).

2023–2024:

Guest Editor, Special Issue "Novel Antioxidants for Animal Nutrition", Antioxidants (Q1).

2022–2023:

Topic Editor, Special Issue "Bio-accessibility of Functional Compounds and Nutrients of Animal Diets", Frontiers in Animal Science.

2021–2022:

Guest Editor, Special Issue "Plant-Based Alternatives to Antimicrobials in Animal Feed", Animals (IF ≈2.3).

Since 2021:

Guest Editor, Special Issue "Materials for Controlled Release of Drugs for Human and Animal Applications: Trends and Challenges", Applied Sciences (IF ≈2.5).

Editorial Board Memberships:

Czech Journal of Animal Science (Open Access, IF ≈0.835).

Extensive peer-review experience for numerous indexed journals, including Animals, Antioxidants, Vaccines, Plant Cell Reports, Foodborne Pathogens and Disease, Italian Journal of Animal Science, Czech Journal of Animal Science, and several others.

## National and International Collaborations

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Throughout her career, Luciana Rossi has established and consolidated numerous national and international collaborations with both research centers and industry partners. These collaborations have enabled the creation of transnational networks and participation in competitive funding initiatives. The most relevant are outlined below:

Since February 18, 2024, she has been a member of the European Network on Livestock Phenomics (EU-LI-PHE), COST Action CA22112. EU-LI-PHE is creating a multidisciplinary, interconnected, and inclusive expert community focused on

Europe. The initiative aims to enhance scientific collaboration, drive innovation, and promote the transfer of livestock phenomics concepts and applications to improve the sustainability and competitiveness of the European livestock sector.

Since 2023, she has been collaborating with the INTERNATIONAL NATURAL PRODUCT SCIENCES TASKFORCE, specifically within the Zingiberaceae Collaborative Research Group (ZCRG) coordinated by Prof. Atanas G. Atanasov (Poland), focusing on the study of natural substances.

She was scientific tutor to Dr. Paloma Juarez in the framework of the IMMUNOFARM project (MSCA-Horizon2020), through which collaboration was established with Prof. Ann Depicker from Ghent University and the VIB Technology Park (Ghent, Belgium) (2016-2017).

She collaborates with Prof. Yanhong Liu, Department of Animal Science, University of California, Davis, on research related to the PhD project of Dr. Monika Hejna, which led to publications.

Prof. Eric Cox, Laboratory of Immunology, Ghent University, hosted PhD student Matteo Dell'Anno during his international research stay. A collaborative project is currently ongoing on the in vivo use of Lactobacillus strains in swine.

She initiated collaborations with Prof. Gaafar H.M. that resulted in joint publications: Gaafar H.M., Dell'Anno M., Rossi L., Mohsen M.K., Abdel-Raouf E.-S.M., El-Nahrawy M.M., Amer A.W. Evaluation of Beeswax Supplementation on Productive Performance of Growing Assaf Lambs (2023), Veterinary Sciences DOI: 10.3390/vetsci10090574.

The Olive Biotechnology Laboratory (LBO), located at the Centre de Biotechnologie de Borj-Cedria (CBBC), Tunisia, is an academic institution under the Tunisian Ministry of Higher Education and Scientific Research. Luciana Rossi collaborates with Prof.ssa Hédia Manai Djebali from LBO, a multidisciplinary research center dedicated to strengthening and modernizing the olive sector in Tunisia and the Mediterranean region. She will host Prof.ssa Djebali's PhD student as a visiting researcher.

Additional collaborations include research partnerships with groups in Romania, further strengthening international ties in animal science.

In addition, Luciana Rossi maintains strong collaborative relationships with both national and international companies, which have supported her research through commissioned projects and the co-financing of doctoral fellowships.

## ● PROJECTS

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### Research projects funded by competitive calls (principal investigator)

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Since the beginning of her career, Luciana ROSSI has been actively involved in applied research projects aimed at studying the most innovative aspects related to animal nutrition and the sustainability of animal production, often playing roles connecting with industry partners and managing animal trials.

#### RESEARCH GROUP RESPONSIBILITIES

She currently leads a research group composed of a postdoctoral researcher, Dr. Matteo Dell'Anno (who obtained his PhD in 2023 and was qualified as Associate Professor in 2014), and five PhD students with scholarships co-funded by companies.

#### SCIENTIFIC RESPONSIBILITIES IN RESEARCH PROJECTS

Since 2016, she has coordinated research units within projects funded by both competitive calls and private companies, demonstrating strong leadership and project management skills.

2025-2027: Coordinator of the project "PIGcast", funded by Regione Lombardia, focused on innovative approaches in pig production.

2024-2025: PI of Research Organization for the project titled "Ecological Digitalized Insect Breeding Modules - EcoDigInsect", involving partners such as Italian Cricket Farm (lead SME) and Opacmare. The project focuses on developing rearing systems for Tenebrio molitor to produce functional insect meal for piglet nutrition.

2020-2022: Coordinator and scientific lead of the project "LEGUPLUS", evaluating legume grains as soy alternatives in piglet diets, conducted in collaboration with CNR Milan and CREA Acireale. The study focused on functional and nutritional effects of beans with reduced antinutritional factors and lupins as alternative protein sources.

2021-2023: Winner of the "Seal for Excellence" call, coordinating the project "Algae-based alternatives to in-feed antibiotics in pig production - ASAP". This interdisciplinary project at the University of Milan explores the use of micro- and macroalgae in piglet diets as antibiotic alternatives.

2017-2020: Scientific lead of the VESPA Operational Unit within the Foodtech project "Innovative products in animal husbandry to reduce antibiotics," funded by Regione Lombardia. The multidisciplinary team included industrial and academic partners and focused on developing engineered and biotechnological functional additives to promote animal health. This collaboration led to several joint publications, events, and two patented inventions.

2018–2020 - ongoing: Co-responsible for a project evaluating the impact of innovative omega-3 dietary sources on the fertility of replacement heifers.

2017-2018: Lead of a project assessing immune response to maize seed proteins in weaned piglets, in collaboration with CNR Milan, aimed at understanding allergenic potential and intestinal health maintenance.

2016-2017: Scientific lead of a research contract between VIB Technology Park (Ghent University) and VESPA Department, University of Milan, investigating IgA-based oral therapy for protecting piglets against enterotoxigenic *E. coli* infection using genetically modified *Arabidopsis* seeds. This work complemented the Marie Skłodowska-Curie funded Immunofarm project.

2016-2018: Scientific lead and PI for VESPA unit in the project "LOW METAL", developing pilot phytoremediation systems to recover heavy metals from livestock effluents, collaborating with the Department of Biosciences. The project also included mineral integration optimization within the One Health framework.

2015: Lead of a project studying the effects of bacterial gene expression on *Nicotiana tabacum* seed germination as a model for edible vaccines, focusing on morphological, agronomic, and food safety aspects of genetically modified plants.

2011-2015: Responsible for animal experiments and procedures in the "Oral Vaccines for Swine" project funded by MIUR and Regione Lombardia, aimed at producing and testing genetically modified plants as edible vaccines against *Escherichia coli* strains causing post-weaning diarrhea in piglets.

### **Member of funded competitive project**

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2022–2023: Participant in the project "Canine splenic angiosarcoma: prognostic role of morphological, hematological, and molecular parameters, and expression analysis of therapeutic targets", coordinated by Prof. Roccabianca – Research Support Program – Line 2, Action A. The specific objective was to evaluate the use of dietary antioxidants as adjuvant therapy.

2021–2022: Participant in the project "Development of an ex vivo intestinal model to assess the absorption of metabolites for the characterization of innovative functional ingredients and/or xenobiotics" – Research Support Program – Line 2, Action A.

2020-2022: Participation in the project "MiND FoodS Hub – Improvement of agrifood system for health and sustainability" – funded by Lombardy REGION (D.G.R. N. 727 of November 5, 2018).

2012-2015: Participation and responsibility for in vivo experiments (authorization from Health Ministry, Prot. 102/2015) of the project "Oral vaccines for swine against verocytotoxic *E. coli* strains" (funded by Miur-Regione Lombardia 2011).

2012-2015: Participation in the project "MASTFLOW" (funded by Miur-Regione Lombardia 2011).

2014-2015: Bilateral project entitled "New perspective for R&D in the feed sector (FEEDNEEDS)" (funded by the Italian Ministry of International Cooperation).

2008-2010: Participation in the project "Oral vaccines against enteric diseases" funded by Regione Lombardia, Metadistetti 2008, iD 4053. Partners: PLANTECHNO S.r.l., BIOTRACK S.r.l., FATRO S.p.A., FERRARONI S.p.A.

2008: Participation in the project "New markers for milk quality and health status", funded by Regione Lombardia, Bando competitività, Voucher 2007. Partners: BIOTRACK S.r.l., INCURA S.r.l., CASEIFICIO ZUCHELLI S.p.A., University of Milan and IZSLER.

### **Research activities commissioned by private companies or by research groups**

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From the beginning of her career, she has conducted several studies and consulting activities commissioned by enterprises focused on animal nutrition, gut health, and innovative feed additives.

## **HONOURS AND AWARDS**

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### **RESEARCH ACHIEVEMENTS AND PEER RECOGNITION**

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## Research achievements

From 2023 she is included in the shortlist of expert for the European Food Safety Authority (EFSA) board of Scientific and Technical Support, European Union (The list will remain valid until maximum 23/10/2027).

Luciana ROSSI is also the inventor of two patented inventions:

-“Mixture of Lactococcus lactis Strains as an Oral Vaccine against Escherichia coli Infections in Piglets” – Patent No. 102021000006506, granted by the MINISTRY OF ENTERPRISES AND MADE IN ITALY – GENERAL DIRECTORATE FOR THE PROTECTION OF INDUSTRIAL PROPERTY – UIBM on 04/05/2023 for 20 years. Authors: Luciana ROSSI (60%) and Serena REGGI (40%).

-“Mixture of Engineered Tobacco Seeds as an Oral Vaccine against Escherichia coli Infections in Piglets” – Patent No. 102021000006461, granted by the MINISTRY OF ENTERPRISES AND MADE IN ITALY – GENERAL DIRECTORATE FOR THE PROTECTION OF INDUSTRIAL PROPERTY – UIBM on 04/05/2023 for 20 years. Authors: Luciana ROSSI (40%), Serena REGGI (30%), Antonella BALDI (30%).

## NATIONAL AND INTERNATIONAL AWARDS AND RECOGNITIONS FOR RESEARCH ACTIVITIES

SIPAS Prof. Casimiro Tarocco Award 2024:

Dell’Anno M., Rossi L. (2024). Functional feed additives for animal health. Proceedings of the Italian Society of Swine Pathology and Breeding. ISBN: 978-88-943304-2-7. <https://www.sipas.org/wp-content/uploads/2024/04/SIPAS-BOOK-2024-ok-2.pdf>

Best Poster Award SISVET 2024 granted by ARNA:

Dell’Anno M., Frazzini S., Ferri I., Scaglia E., Reggi S., Inglesi A., Riva F., Pasquariello R., Rossi L. Effect of Dietary Supplementation of Functional Seaweeds in F4+ Escherichia coli Challenged Piglets. 77th SISVET Conference, June 12-14, 2024, Parma.

Best Scientific Presentation Award SISVET 2016:

For the presentation “Piglets fed seed-based oral vaccine against verocytotoxic Escherichia coli – in vivo study” by L. Rossi, J. Filipe, A. Lombardi, D. Gottardo, E. Demartini, G.L. Alborali, S. Reggi, A. Crotti, A. Baldi, SISVET Congress; Palermo, June 2016.

## INSTITUTIONAL RESPONSIBILITIES

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### INTERNATIONAL AND NATIONAL POSITIONS

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Luciana ROSSI was appointed as an expert evaluator in the Panel "Animal and Veterinary Sciences and Agro-Food Biotechnology" by the Portuguese public funding agency for R&D (FCT; 2023), as well as for the MSCA (Marie Skłodowska-Curie Actions 2024), Morris Foundation (2025), Caixa Foundation (2025), and the National Science Centre (Poland, 2025).

03/28/24 – Successfully passed eligibility evaluation and selection criteria for the EFSA expert list (EFSA/E/2023/01) for the EFSA Scientific Committee and scientific panels. This list serves for future appointments of members of the Scientific Committee and scientific expert panels and can also be used for the future appointment of members of EFSA working groups. It will be valid from July 1, 2024, until June 30, 2029.

06/09/2023: Admission to the EFSA expert shortlist for Scientific and Technical Support - Various Scientific and Communication Profiles (EOI/EFSA/2022/01).

Regional Competition Commissioner (A052 Animal Science, Technology & Techniques), appointed by MIUR/Regional Education Office for Lombardy — August 2022 (extraordinary competition, DL 25 May 2021, n.73, art.59, comma 9-bis)

Regional Competition Commissioner (Same Class A052), MIUR/Lombardy Regional Office — May–June 2022

Protocol number: 15335398 (Circular MIUR 7707, 23.02.2022 – Ordinary teacher recruitment competition)

Expert for Draft Review, Canadian guidelines on the protection of farm animals used in scientific purposes, appointed by the Canadian Council on Animal Care (CCAC) — since 2024

MSCA Doctoral Networks Project Reviewer, Horizon-MSCA-2024-DN Call – Marie Skłodowska-Curie Actions (HORIZON) — since 2024

Member of the ARNA Communications Working Group (SISVET – researchers in animal nutrition and feed communication) — since 2024

Member of the Gender Equality Workgroup, ASPA (Association for Animal Science and Production) — since 2023

## RESEARCH QUALITY EVALUATION ACTIVITY

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Luciana ROSSI is registered in REPRISE (register of scientific experts established at MIUR) for the following sections: Basic Research, Competitive Industrial Research and Social Development, Dissemination of Scientific Culture, Economic-Financial Evaluation.

She has been selected as an expert evaluator of research projects within the following programs:

UNIVERSITY CALL FOR RESEARCH 2023, University of Parma

"Rita Levi Montalcini" Young Researchers Program 2017 (Ministerial Decree no. 1006 of 20/12/2017, published in Official Gazette General Series no. 47 of 26/02/2018)

Strategic departmental project evaluation campaign of the University of Udine (particularly the peer review campaign of the Department of Agro-food, Environmental and Animal Sciences).

Since 2020, member of the National Expert Evaluation Group (GEV) Area 7, Agricultural and Veterinary Sciences of the National Agency for the Evaluation of the University and Research System (ANVUR).

## Academic responsibilities

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Since 2018: Member of the Animal Welfare Body (OPBA) of the University of Milan. OPBA is a governing body of the University of Milan whose main task is to provide opinions on ethical profiles related to non-experimental scientific activities involving only animals and biological materials derived from them, and to provide opinions, when requested, for scientific publications in accordance with Legislative Decree 26/2014.

Since 2018: Veterinary Medical Officer designated under article 24 of Legislative Decree 26/2014, Ministry of Health, DGSAF no. 15890 of 28/06/2018 (Milan animal facilities), for the University of Milan aimed at monitoring the protection and welfare of animals used for scientific or educational purposes (Directive 2010/63/EU on the protection of animals used for scientific purposes). Species: rodents, lagomorphs, aquatic animals.

Since May 28, 2019: Veterinary Medical Officer designated under article 24 of Legislative Decree 26/2014, Ministry of Health, DGSAF no. 14088 of 27/05/2019 (Lodi animal facilities), for the University of Milan. Species: rodents and lagomorphs.

June 2021 - november, 2024: Rectoral appointment as member of the Exam Commission for the Veterinary Medical Licensing State Exam (2 sessions/year: subcommissions for animal husbandry I and II / subcommission for animal production and livestock medicine).

Member of the technical evaluation committee G00234 - SGa 21\_383 - Open procedure tender, divided into two lots, for the management of University animal user facilities (cleaning and care of animals and environments, supply of diets and litter and other materials, additional services for genetically modified rodent colonies, animal transport) and sanitary monitoring for five years (three guaranteed and two optional). Lot 1 CIG 89676166D3; Lot 2 CIG 8967632408; CUI S8001265015820200024. Authorized by Board of Directors resolution of 10/26/2021.

Since 2022: Scientific contact person for EFSA at UNIMI for the following fields: 4.6 products or substances used in animal feed; 4.3 genetically modified organisms (GMOs); 4.7 animal health and/or welfare. (Revision of competent organization requirements, pursuant to art. 36 of Regulation (EC) No. 178/2002.)

Since 2019: Member of the commission responsible for the admission test to the single-cycle master's degree in Veterinary Medicine for academic years 2019/2020, 2022/2023, 2023/2024, 2024/2025.

2012-2022: Member of the University Commission for Open Access, Open Research Data and Open Science at the University of Milan.

Since 2012: Member of the editorial boards of University journals, serving as Editor in Chief of the open access journal Diamont HAF. Editorial representatives meet annually to review results, share best practices, and exchange information on adopted strategies.

April 2019: Participation in the University Commission for the Interni-Fuori Salone event "UrbanIslands", a UniMi event within the FuoriSalone exhibition.

2008-2009: Member of the Equal Opportunities Committee of the University of Milan as representative of research fellows.

Member of the electoral commissions for the Rector elections in 2018 and the Rectoress elections in 2024.

## Departmental responsibilities

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Since 2020: Head of Teaching and Research Activities in the Laboratory (RADLR) for animal nutrition and feeding laboratories, metabolic studies and biotechnologies applied to animal nutrition. Facilities: 2039, 2040, 2033, 2034, 2031, 2032, 2035, 2036, 2038, 2041, 2043, 2044, 3032. (Art. 37 paragraph 7 Legislative Decree 81/2008 - State-Regions Agreement 21/12/2012). Training certificate code: MM15-211005-

Since March 2023: Member of the Coordinating Committee of the Teaching and Experimental Animal Husbandry Center of Lodi, the body responsible for monitoring the management and operation of the CZDS and its structures, and proposing interventions to optimize management and resources to the Department Director and Department Council.

Elected Member of the Department Council (DIVAS), University of Milan — since 2024

Appointed Member of the "Third Mission" Committee, Department of Veterinary Medicine and Animal Science (DIVAS), University of Milan — since 2024

Former Member of the Third Mission Committee, Department VESPA — 2018–2022

2022-2024: Member of the Research Committee of the DIVAS Department.

Since 2021: Member of the transfer committee of the veterinary medicine degree course.

January 2019 - 2023: Member of the review committee of the master's degree course in Veterinary Biotechnological Sciences.

October 2019 - January 2021: Member of the joint committee for the degree course in Animal Science and Production Technologies.

December 20, 2018 - 2022: Member of the Departmental Third Mission Committee of the Department of Veterinary Sciences for Health, Animal Production and Food Safety "Carlo Cantoni" (VESPA).

Member of the Open Science Committee, University of Milan — 2012–2022

Member of the Review Committee, Degree Programme in Biotechnology, University of Milan — 2019–2024

Scientific Liaison at UNIMI for EFSA in the following fields (under Art. 36 Regulation (EC) No 178/2002):

4.6: products or substances used in animal feed

4.3: genetically modified organisms (GMOs)

4.7: animal health and welfare — since 2022