

ALESSANDRA PELAGALLI

CURRICULUM VITAE

Personal data

Name: Alessandra Pelagalli

Date of birth: 10/03/1970

Place of birth: Napoli

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Affiliation

1999-2012 University of Naples “Federico II”, School of Veterinary Medicine, Department of Structure, Functions and Biological Technologies, Via F. Delpino 1 80137 Napoli –ITALY

2012 up to now University of Naples “Federico II”, Department of Advanced Biomedical Sciences, Via Pansini 5 80131 Napoli

Actual Position

20 June 2022 Associate Professor in Animal Physiology, University of Naples “Federico II”,

Education

1993 Pharmacy Degree – University of Naples “Federico II”

1993-1997 Veterinary Pharmacology and Toxicology PhD

1997-1999 Post-doctoral research bursary

Attending Training Courses

16-21 September 1996 (41 hrs) Practical Course in Cell Culture for Toxicology Studies (Ist. Zoprofil, Brescia ITALY)

1996-1999 Attendance at the Laboratories of the Department of Biochemistry and Medical Biotechnologies, University of Naples Federico II (superv. Prof. N. Staiano)

24-25 November 1999 Course of Applications in Biotechnologies and bioengineering (Padova, ITALY)

6-7 October 2003 Training Course in Fluorescence Techniques (GIC) (Spoleto, ITALY)

Academic Appointment

1999-2012 Permanent Researcher in Veterinary Physiology (VET/02) at School of Veterinary Medicine, University of Naples, ITALY

2013-19 June 2022 Permanent Researcher in Veterinary Physiology at the Department of Advanced Biomedical Sciences, University of Naples, ITALY

2013 up to now Associate Researcher at Institute of Biostructures and Bioimages of National Research Council (CNR), Naples, ITALY

Teaching Activity

1999-2000 Professor of Veterinary Physiology I (School of Biotechnology)

2000 up to now Professor of Physiologic Methodologies and Biotechnology applied to Reproduction (School of Biotechnology)

2001-2002 Professor of Endocrinology of Domestic Animals

2003-up to 2010 Professor of Physiology of Fish species

2005-2008 Professor of Ethology of Exotic Animal Species for PhD in Biology, Pathology, and environmental Hygiene, University of Naples, ITALY (XIX-XIII cycle)

2007-2013 Component of the Academic Board of PhD in Equine Physiology, University of Messina, Italy

2008 up to now Professor of Physiology and animal welfare (Postgraduate course in Food Inspection), University of Naples Federico II

2010 up to now Professor of Animal Physiology in Biotechnology Course (veterinary curriculum), University of Naples Federico II

2019 up to now Professor of Biotechnology applied to Tissue Regeneration in the Animal field, Biotechnology Course, University of Naples Federico II

Technical skills and competence:

Blood derived preparations: preparations of platelet rich plasma (PRP), platelet poor plasma (PPP), platelet gel, washed platelets (sepharose gel separation), platelet aggregation assay, platelet adhesion assay

Blood cells count, Thick and thin blood smears, centrifuge operations

Culture of several cell lines and relative assays: mesenchymal and cancer cells cultures, Cell proliferation Assay, Cell Adhesion Assay, Cell Invasion Assay, ELISA assay

Biochemistry techniques: Total protein and subcellular fractions extraction; Protein Electrophoresis, Coomassie and Ponceau staining, Western blot, Immunoprecipitation and Co-Immunoprecipitation

Bioinformatics Tools: Image J

Fields of Research

Main current field of research:

1999-2012

Characterization of platelet function in animals of veterinary interest (aggregometry, adhesion assay, flow cytometry); secondary fields of interest: i) role of enzymes activity in colostrum and in milk of buffalo, goat and ewe, ii) activity of enzymes in seminal plasma of stallion and their correlations with fertility, evaluation of stress marker in buffalo (cortisol in hair, feces, saliva) in relation to animal welfare

2012 up to now

- Characterization of ovine and human mesenchymal stem cell; Analysis of expression of CXCR4 and aquaporin 1 (AQP1) in ovine mesenchymal stem cell; Role of AQP1 in migration and homing of mesenchymal stem cell; Study on leptin effect on H₂O₂ challenge in mesenchymal stem cells.
- Characterization of neuropeptides in gastrointestinal tract of different animal species.
- Studies on AQPs distribution and function in the gut of human and animal species; Study on AQPs function in animal models of hepatic steatosis;
- Studies on AQPs distribution and function in the male reproductive tract of animal species;

Research Assignments

2000-2001 Scientific responsible for a project for young researcher entitled "Aggregation and adhesion studies in different animal species and evaluation of the effects of natural peptides containing the RGD sequence" financed by University of Napoli

2001-2003 Scientific responsible for a project for young researcher entitled "Characterization of physiologic, biochemical and pharmacological aspects of platelet function in different animal species" financed by National Research Council (CNR)

2012-2015 Component of PON Project - Smart Health Cluster OSDH Smart FSE – Staywell

2018-2020- Component of PRIN (Research Projects of National Relevance) Project "Control of Neuroinflammation by PPAR ligands in Epilepsy, Autism and their comorbidity" Project Coordinator Prof. De Sarro G. Local Coordinator Prof. Meli R.

Prizes

June 1997 - Winner of a prize for the scientific contents of the poster entitled "Structural changes and functional fibrinogen induced by free radical generating systems," presented at the Scientific Days of the Faculty of Medicine, Pharmacy and Veterinary Medicine

July 1997 - Winner of a travel bursary for participation in the "7th International Congress of the European Association for Veterinary Pharmacology and Toxicology, Madrid" assigned by the Veterinary Pharmacology Trust

December 2019 - Winner of a travel grant by Int. J. Mol. Sci. (MDPI) for the participation to the STEMNET2020 (6-8 May, Padua- ITALY).

November 2020 - Cover person for the latest issue of World Journal of Stem Cells (WJSC), based upon important academic contributions offered by Dr. A. Pelagalli

in the field of Stem Cells as well as in her high-quality record of peer-reviewed manuscripts.

Professional Scientific Membership

1995 up to now - Member of Italian Society of Veterinary Sciences (SISVET)
2001 up to now - Member of the Italian Society of Veterinary physiologists (SOFIVET)
2013 up to now Membership in the Italian Group of Mesenchymal Stem Cell (GISM)

Other relevant activities

2003-2007 Component of the Academic Board of the PhD in "Biology, pathology and environmental hygiene in Veterinary Medicine (University of Naples, Italy)
2010-2012 Coordinator of Education at School of Specialization in "Animal Welfare" (University of Naples, Italy)
2007-2012 Component of the Academic Board of the PhD in Equine exercise Physiology (University of Messina, Italy)
2010 up to now Component of teaching staff (for Physiology and Animal welfare) at School of Specialization in Food Inspection of animal origin (University of Naples, Italy)

Editor and reviewer activity

2016- up to now Editorial Board component for:
- PHILIPPINE JOURNAL OF VETERINARY MEDICINE
- AUSTRAL JOURNAL OF VETERINARY SCIENCES
- ACTA VETERINARIA HUNGARICA
- VETERINARIA,
- OPEN VETERINARY JOURNAL,
- WORLD JOURNAL OF STEM CELLS
- VETERINARY MEDICINE INTERNATIONAL
2018- Component of Advisory board of Journal of Veterinary Research and Current Regenerative Medicine
2021 Section Editor (Physiology) of Kafkas Universitesi Veteriner Fakultesi Dergisi
2012- up to now Reviewer of Journal of Dairy Science
2016- up to now Reviewer of Journal of Veterinary Sciences
2016- up to now Reviewer of Global Journals Inc. (US)
2016- up to now Reviewer of International Journal of Molecular Medicine
2016- up to now Reviewer of BMC Veterinary Sciences
2016- up to now Reviewer of Molecules
2017- up to now Reviewer of Acta Veterinaria Hungarica
2017- up to now Reviewer of Frontiers in Veterinary Sciences
2017- up to now Reviewer of Frontiers in Nutrition
2018 - up to now Reviewer of Veterinarni Medicina
2018 - up to now Reviewer of Czech Journal of Animal Science
2018 - up to now Reviewer of Veterinary and Animal Science
2018 - up to now Reviewer of Animal Science
2018 - up to now Reviewer of Journal of the Hellenic Veterinary Medical Society
2018 - up to now Reviewer of Journal of Medical Biomedical and Applied Sciences
2018 - up to now Reviewer of Journal of Dairy Science, Veterinary and Animal Husbandry
2019 - up to now Reviewer of Animals

2017- Guest Editor for a Special Issue entitled "Emerging Roles in Animal Socio-Cognition in Relation to Ethics, Behavior and Welfare" in Behavioural Sciences,

MDPI Journals.

2020 - Guest Editor for a Special Issue entitled “Novel MSC Perspectives: From Cell Regulation to Tissue Regeneration” (1.0) (Int. J. Mol. Sci. MDPI)

2019 - Guest Editor for a Special Issue entitled “Novel MSC Perspectives: From Cell Regulation to Tissue Regeneration (2.0) (Int. J. Mol. Sci. MDPI)

2020 up to now - Guest Editor for a Special Issue entitled: “Novel advances in Aquaporin water channels in male reproductive tract of Animals. Morpho-functional Aspects”(Animals, MDPI Journals)

2019 –Editorial Member in the field of Mesenchymal Stem Cells (MSCs) for Int. J. Mol. Sci.

Papers in international Conferences (last 5 years)

1. DIATOM TEST AND INTRAPULMONARY AQUAPORINS EXPRESSION AS NEW TOOLS FOR THE DIAGNOSIS OF DROWNING IN VETERINARY FORENSIC PATHOLOGY. Piegari G., **Pelagalli A.**, D’Acquino I., De Biase D., Prisco F., Paciello O. Proceedings of Joint Congress of Veterinary pathology and Veterinary Clinical Pathology, 25-28 Settembre 2019, Burgers’ Zoo Arnhem, the Netherlands.
2. POSSIBLE ROLE OF LYSOPHOSPHATIDIC ACID TO MEDIATE OVINE BONE MARROW MESENCHYMAL STEM CELLS AUTOCRINE SIGNALING ON PROLIFERATION AND ADHESION TO EXTRACELLULAR MATRIX PROTEINS. Piscitelli, F., Zannetti, A., Nardelli, A., Brunetti, A., **Pelagalli A.** STEMNET 2021 Congress Padua, ITALY.

Papers in Journals (last 5 years)

Published papers (1999-2022)=58, total citations= 826, H-index=17 (Scopus)

1. Meli R., Pirozzi C., Pelagalli A. New perspectives on the potential role of aquaporins (aqps) in the physiology of inflammation. **Front. Physiol. 9, 101, (2018) DOI: doi: 10.3389/fphys.2018.00101. (IF 4.134)**
2. **Pelagalli, A.**, Nardelli, A., Lucarelli, E., Zannetti, A., Brunetti, A. Autocrine signals increase ovine mesenchymal stem cells migration through aquaporin-1 and cxcr4 overexpression. **J. Cell. Physiol. 233(8):6241-6249 (2018) (IF 4.080)**
3. Liguori G., Squillacioti C., Assisi L., **Pelagalli A.**, Costagliola A., Mirabella N. Potential role of orexin a binding the receptor 1 for orexins in normal and cryptorchid dogs. **BMC Veterinary Research, 2018, 14(1):55. (IF 1.750)**
4. Liguori G, **Pelagalli A.**, Assisi L, Squillacioti C, Costagliola A, Mirabella N. Effects of orexins on 17 β -estradiol synthesis and P450 aromatase modulation in the testis of alpaca (Vicugna pacos). **Anim Reprod Sci. 2018 192:313-320. DOI: 10.1016/j.anireprosci.2018.03.032. (IF 1.605)**
5. **Pelagalli A.**, Squillacioti C, Ali' S, Liguori G, Mirabella N. Cellular distribution of aquaporins in testes of normal and cryptorchid dogs: A preliminary study on dynamic roles. **Anim Reprod Sci. 2019, 204:22-30. DOI: 10.1016/j.anireprosci.2019.03.001. (IF 1.605)**
6. Lama A, Annunziata C, Coretti L, Pirozzi C, Di Guida F, Nitrato Izzo A, Cristiano C, Mollica MP, Chiariotti L, **Pelagalli A.**, Lembo F, Meli R, Mattace Raso G. N-(1-carbamoyl-2-phenylethyl) butyramide reduces antibiotic-induced intestinal injury, innate immune activation and modulates microbiota composition. **Sci Rep. 2019, 9, 4832. DOI: 10.1038/s41598-019-41295-x (IF 4.122)**
7. Squillacioti, C, **Pelagalli, A.**, De Luca, A, Liguori, G, Alì, S, Mirabella, N. Urocortinergic system in the epididymis of the normal and cryptorchid dogs. **Reproduction in Domestic Animals, 2019, 54, 956-963. DOI:**

10.1111/RDA.13443. (IF 1.422)

8. Cortese L, Terrazzano G, **Pelagalli A.** Leptin and Immunological Profile in Obesity and Its Associated Diseases in Dogs. **Int. J. Mol. Sci.** **2019**, **20**, **10**. **Review. (IF 4.183)**
9. Squillacioti C, **Pelagalli A.**, Liguori G, Mirabella N. Urocortins in the mammalian endocrine system. **Acta Vet Scand.** **2019**, **61**, **46**. **DOI: 10.1186/s13028-019-0480-2. Review. (IF 1.509)**
10. Abdelrazik H, Giordano E, Barbanti Brodano G, Griffoni C, De Falco E, **Pelagalli A.** Substantial Overview on Mesenchymal Stem Cell Biological and Physical Properties as an Opportunity in Translational Medicine. **Int. J. Mol. Sci.** **2019**, **20**, **21**. **DOI: 10.3390/ijms20215386. Review. (IF 4.183)**
11. Assisi L, **Pelagalli A.**, Squillacioti C, Liguori G, Annunziata C, Mirabella N. Orexin A-mediated modulation of reproductive activities in testis of normal and cryptorchid dogs: possible model for studying relationships between energy metabolism and reproductive control. **Front. Endocrinol.** **2019**, **10**:816.
12. Cortese L, Christopherson PW, **Pelagalli A.** Platelet Function and Therapeutic Applications in Dogs: Current Status and Future Prospects. **Animals** **2020**, **10(2):201 (IF 1.832)**
13. **Pelagalli A.**, Musco N, Trotta N, Cutrignelli MI, Di Francia A, Infascelli F, Tudisco R, Lombardi P, Vastolo A, Calabrò S. Chemical Characterisation and in Vitro Gas Production Kinetics of Eight Faba Bean Varieties. **Animals** **2020**, **10(3):398. (IF 1.832)**
14. Lamagna B, Ciaramella P, Lamagna F, Di Loria A, Brunetti A, **Pelagalli A.** Aquaporin 1 (AQP1) Expression in Healthy Dog Tears. **Animals** **2020**, **10(5):E820. (IF 1.832)**
15. Avagliano A, Fiume G., **Pelagalli A.**, Sanità G., Ruocco M.R., Montagnani S., Arcucci A. Metabolic plasticity of melanoma cells and their crosstalk with tumour microenvironment. **Front. Oncol.** **2020**, **10**, **722 (IF 4.45)**
16. Zannetti A., Benga G., Brunetti A., Napolitano F., Avallone L., **Pelagalli A.** Role of Aquaporins in the physiological functions of mesenchymal stem cells. **Cells**, **2020**, **9(12) (IF 4.366)**
17. Mirabella N, **Pelagalli A.**, Liguori G, Rashedul MA, Squillacioti C. Differential abundances of AQP3 and AQP5 in reproductive tissues from dogs with and without cryptorchidism. **Anim. Reprod. Sci.** **2021**, **11**, **228:106735. (IF 1.660)**
18. Squillacioti C, Mirabella N, Liguori G, Germano G, **Pelagalli A.** Aquaporins Are Differentially Regulated in Canine Cryptorchid Efferent Ductules and Epididymis. **Animals (Basel).** **2021 May 25;11(6):1539. doi: 10.3390 (IF 2.333)**
19. Annunziata C., Pirozzi C., Lama A., Senzacqua M., Comella F., Bordin A., Monnolo A., **Pelagalli A.**, Ferrante M.C., Mollica M.P., Iossa A., De Falco E., Mattace Raso G., Cinti S., Giordano A. Palmitoylethanolamide protects against obesity promoting white-to-brite conversion and metabolic reprogramming of adipocytes. **Pharmaceuticals**, **2022**, **14(2)**, **338. (IF 5.68)**
20. Squillacioti, C. **Pelagalli, A.**, Assisi, L., Costagliola, A., van Nassauw, L., Mirabella, N., Liguori, G. Does orexin b-binding receptor 2 for orexins regulate testicular and epididymal functions in normal and cryptorchid dogs? **Front in Vet. Sci.** **accepted 2022.**