

PERSONAL INFORMATION Stefano Pallotti

WORK EXPERIENCE

May 2022 – May 2023 **Postdoctoral Researcher** - School of Biosciences and Veterinary Medicine - University of Camerino Via Gentile III III Da Varano s/n 62032 - Camerino (MC) Italy

Topic: Study of the Runs of Homozygosity in cashmere goats.

February 2020 – January 2022 **Technical support** in the estimation of breeding values for the genetic improvement project "Alashan Super-fine white Cashmere goat". Alashan, Inner Mongolia (China)

Academic year 2020 - 2021 **PROFESSORE A CONTRATTO (professor on contract)** Genetics and animal breeding (VE0007 - ZOOTECNICA GENERALE e MIGLIORAMENTO GENETICO). Anno Accademico 2020/2021 Corso: [LM-MV] MEDICINA VETERINARIA Percorso [PDS0-2017 - Ord. 2017] comune.

February 2020 – January 2022 **Postdoctoral Researcher** - School of Pharmacy - University of Camerino Via Gentile III Da Varano s/n 62032 - Camerino (MC) Italy

Topic: Study of the role of R-Spondin1,2,3,4 genes in telogen-to-anagen transition in cashmere goat skin biopsies and hair follicles.

January 2018 – June 2018 **Research activity:** Study of the candidate genes for the suri phenotype in alpaca (*Vicugna pacos*).

School of Bioscience and Veterinary Medicine, University of Camerino
Via Gentile III Da Varano, 62032 - Camerino (Italy)

Head of research team: Prof. Carlo Renieri

▪ Molecular biology research:
isolation of DNA, RNA and proteins from various biological sources, primers design, gene cloning and plasmid extraction, RNA reverse transcription, PCR, RT-PCR, 5' and 3' RACE-PCR, qPCR, DNA gel electrophoresis cDNA library preparation, Western-blotting analysis. Bioinformatic analysis of the nucleotide sequences.

January 2018 – May 2018 **Research activity:** Monitoring of the tenso-structures in the Upper Maceratese farms affected by the 2016 earthquake.

School of Bioscience and Veterinary Medicine, University of Camerino
Via Gentile III Da Varano, 62032 - Camerino (Italy)

Head of research team: Prof. Annette Habluetzel

▪ Animal health check, quantification of parasite burden, tenso-structures state check, interviews breeders.

March 2018 – April 2018

Coordinator for the rural development project: "Hemp network: hemp multipurpose in the agriculture no food field."

School of Bioscience and Veterinary Medicine, University of Camerino
Via Gentile III Da Varano, 62032 - Camerino (Italy)

December 2013 – February
2018

Veterinary physician

"Del Leone" Veterinary Ambulatory
Viale Giacomo Leopardi, 59, 62032 Camerino (Italy)

- Internal medicine of small animals, exotic animals and unconventional animals (rodents and reptiles)

EDUCATION AND TRAINING

- February 2022 **Internship**
SYNBIOTECH, Camerino (MC), Italy
 Training in genomic techniques: genomic library construction and illumina sequencing
- March 2019 – April 2019 **Technical management of the research project "Alashan Cashmere goat".**
 Alashan, Inner Mongolia (China)
- October 2018^a and October 2020^b **Nomination "Cultore della Materia"** (Subject Expert and Teaching Assistant) in **"s.s.d. ^aAGR/17: Zootecnica generale e miglioramento genetico"** (Genetics and animal breeding) and **"s.s.d. ^bVET/06 – Parassitologia e malattie parassitarie degli animali (Veterinary parasitology and Parasitic Diseases)**
 School of Bioscience and Veterinary Medicine - University of Camerino (Italy)
- Nov. 2014 - December 2017 **PhD in LIFE AND HEALTH SCIENCES: ECOSYSTEMS AND BIODIVERSITY MANAGEMENT**
 International School of Advanced Studies - University of Camerino (Italy)
 Thesis Title: Genetic of coat variation in alpaca, dog and cashmere goat: an approach by molecular, population and quantitative genetics studies.
 Vote: Very Good
- February 2017 – May 2017 **Internship**
 NordGen institute, Ås (Norway)
 Training in genomic techniques: use of high density 600K SNP genotyping array for chicken in order to carried out runs of homozygosity in five Norwegian laying hens breeds.
- November 2013 **Veterinary License**
 School of Bioscience and Veterinary Medicine - University of Camerino (Italy)
- October 2013 **Master degree in Veterinary Medicine**
 School of Bioscience and Veterinary Medicine - University of Camerino (Italy)
 Thesis Title: Genetic improvement of fiber production in the Inner Mongolia Cashmere Goat.
 Vote: 102/110
- September 2010 – September 2011 **Erasmus project**
 Facultad de Veterinaria UNEX , Avda. de la Universidad s/n, 10003 Cáceres (Spain).
- July 2005 **High school diploma (classical studies)**
 Liceo Classico "Costanza Varano" - Camerino (Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) Self-assessment	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C1	C2
Spanish	C1	C2	C2	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user Common European Framework of Reference for Languages

Communication skills During my PhD and post-doctoral experiences I gained good communication skills through lectures, seminars, writing papers and training more junior people.

Organizational / managerial skills In June, 2017 I was one of the main organizer for the 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals.
In 2018 I was coordinator for the rural development project: "Hemp network: hemp multipurpose in the agriculture no food field."

Job-related skills

- **Molecular biology techniques:**
Isolation of DNA, RNA and proteins from various biological sources, primers design, gene cloning and plasmid extraction, RNA reverse transcription, PCR, RT-PCR, 5' and 3' RACE-PCR, qPCR, DNA gel electrophoresis cDNA library preparation, Western-blotting analysis. Bioinformatic analysis of the nucleotide sequences.
- **Genomics and bioinformatics:**
Good competences in the WGS analysis through the use of the main softwares such as Plink, SRAToolkit, Samtools, IGV, GATK, SnpEff
- **Estimation of breeding values (EBV):**
Good competences in the estimation of breeding values through the use of the main softwares: MTDFREML and WOMBAT.
- **Genetics, genomics and population genetics software:**
(please see the software listed below in the "Digital skills" section)
- Good competences in **breeding, clinic and diagnostic techniques** including those applied for the identification of parasitic infections in small animals, exotic animals and unconventional animals (rodents and reptiles).
- Excellent skills in **microlivestock breeding and reproduction:** mainly terrestrial invertebrates (cockroaches, grasshoppers, crickets, reduviidae, beetles, phasmids, arachnids, ants, mealworm...). Owner of a small breeding of such species.
- Good competences in collection, classification and preparation of insects and arachnids specimen.
- Good skills in safely handling of poisonous insects and arachnids.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

▪ Operating system:

Excellent skills with Windows os., Mac os. and Unix o.s.

▪ General software and Genetic analysis software:

Microsoft office package; Geospiza FinchTV; GenAIEx; Excel microsatellite toolkit; PHYLIP software; STRUCTURE; Endog 4.8; GENEPOP.; ARLEQUIN; Plink software; R studio ; Admixture; SRAToolkit; Samtools; IGV; GATK; SnpEff; MTDFREML; WOMBAT.

Driving licence B

ADDITIONAL
INFORMATION

Publications

- Pallotti, S.**, Pediconi, D., Valbonesi, A., Renieri, C., Haizhou, S., Junwen, Z., & Antonini, M. (2023). Phenotypic Correlation between Guard Hair and Down Hair in Chinese Alashan Left Banner White Cashmere Goat: A Preliminary Study. *Animals*, 13(8), 1295.
- Pallotti, S.**, Piras, I. S., Marchegiani, A., Cerquetella, M., & Napolioni, V. (2022). Dog-human translational genomics: state of the art and genomic resources. *Journal of Applied Genetics*, 63(4), 703-716.
- Huang, J., Liang, Z. S., **Pallotti, S.**, Ranson, J. M., Llewellyn, D. J., Zheng, Z. J., King, D. A., Zhou, Q., Zheng, H., & Napolioni, V. (2021). PAGEANT: personal access to genome and analysis of natural traits. *Nucleic acids research*, gkab1245. Advance online publication. <https://doi.org/10.1093/nar/gkab1245>.
- Napolioni, V., Bianconi, F., Potenza, R., Carpi, F. M., Ludovini, V., Picciolini, M., Tofanetti, F.R., Bufalari, A., **Pallotti, S.**, ... & Vannucci, J. (2021). Genome-wide expression of the residual lung reacting to experimental Pneumonectomy. *BMC genomics*, 22(1), 1-15. DOI: 10.1186/s12864-021-08171-3
- Saravanaperumal, S. A., **Pallotti, S.**, Pediconi, D., Renieri, C., & La Terza, A. (2021). Exon-1 skipping and intron-1 retaining by alternative splicing of the c-KIT gene encodes a novel splice variant in the skin of Merino sheep (*Ovis aries*). *Molecular Biology Reports*, 48(5), 4987-4994. <https://doi.org/10.1007/s11033-021-06486-8>
- Huang J., **Pallotti S.**, Zhou Q., Kleber M., Xin X., King D., Napolioni V.
PERHAPS: Paired-End short Reads-based HAPlotyping from next-generation Sequencing data.
Briefings in Bioinformatics, 2020 Dec 8:bbaa320. doi: 10.1093/bib/bbaa320. Epub ahead of print. PMID: 33285565.
- Pallotti S.**, Chandramohan B., Pediconi D., Nocelli C., La Terza A., Renieri C.
Interaction between the Melanocortin 1 Receptor (MC1R) and Agouti Signaling Protein Genes (ASIP), and their association with black and brown coat color phenotypes in Peruvian alpaca.
Italian Journal of Animal Science, 19:1,1508-1512, DOI: 10.1080/1828051X.2020.1850216
- Pallotti, S.**, Pacheco, C., Valbonesi, A., & Antonini, M. (2020). A comparison of quality of the fleece and follicular activity between sheared and non-sheared yearling alpacas (*Vicugna pacos*). *Small Ruminant Research*, 106243.
- Pallotti, S.**, Riganelli, S., Antonini, S., Valbonesi, A., & Renieri, C. (2020). Estimates of non- genetic effects for measures of hunting performance in short-haired and rough-haired Italian hound. *Italian Journal of Animal Science*, 19(1), 439-446.
- Pallotti, S.**, Valbonesi, A., Yujie, L., Jiyuan, Y., Peirong, T., & Antonini, M. (2020). Postnatal development of the skin follicle population in the chinese alashan left banner white cashmere goat. *Small Ruminant Research*, 106087.
- Pallotti, S.**, Valbonesi, A., Yujie, L., Peirong, T., Sarti, F. M., Mancinelli, A. C., & Antonini, M. (2020). Changes in fleece characteristics of yearling Chinese Alashan Left Banner White Cashmere goat. *Small Ruminant Research*, 182, 1-4.
- Pazzaglia, I., Mercati, F., Antonini, M., Capomaccio, S., Cappelli, K., Dall'Aglio, C., ... **Pallotti, S.**, Pediconi, D., & Renieri, C. (2019). PDGFA in Cashmere Goat: A Motivation for the Hair Follicle Stem Cells to Activate. *Animals*, 9(2), 38.

Esposti, R., Habluetzel, A., Matricardi, G., **Pallotti, S.** (2019) Dai pascoli alla tavola. la redditività della filiera zootecnica locale, tra differenziazione e diversificazione, in: NUOVI SENTIERI DI SVILUPPO PER L'APPENNINO MARCHIGIANO DOPO IL SISMA DEL 2016, *Ancona. ISSN 1721-5269; ISBN 978 88 3280 083 8*

Pallotti, S., Pediconi, D., Subramanian, D., Molina, M. G., Antonini, M., Morelli, M. B., ... & La Terza, A. (2018). Evidence of post-transcriptional readthrough regulation in FGF5 gene of alpaca. *Gene*. DOI: 10.1016/j.gene.2018.01.006

Pallotti, S., La Terza, A., De Cosmo, A., Pediconi, D., Pazzaglia, I., Nocelli, C., & Renieri, C. (2017). Genetic variability of the short-haired and rough-haired Segugio Italiano dog breeds and their genetic distance from the other related Segugio breeds. *Italian Journal of Animal Science*. DOI: 10.1080/1828051X.2017.1317221

Pallotti, S., Wang, J., Tang, P., Antonini, M., Lou, Y., Pieramati, C., Valbonesi, A., & Renieri, C. (2017). Variability of fibre quality on Chinese Alashan Left Banner White Cashmere goat. *Italian Journal of Animal Science*. DOI: 10.1080/1828051X.2017.1350121

- Peer reviewer for: *Frontiers in Genetics - Livestock Genomics*
BioTechniques
Journal of Agricultural Science and Technology (Tarbiat Modares University, Faculty of Agriculture)
Scientific Reports
- Presentations and Conferences
- Seminar speaker: INTRODUCTION TO DOG GENOMICS.
 Veterinary Medicine Department- School of Bioscience and Veterinary Medicine – University of Camerino (February 12, 2021).
- Seminar speaker: POPULATION GENETICS IN DOG.
 Veterinary Medicine Department- School of Bioscience and Veterinary Medicine – University of Camerino (May 31, 2018).
- LOCAL ORGANIZERS for 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals.
 Assisi, Italy (June 2017).
- BIOLOGY AND GENETICS OF THE DOG'S COAT: COLOR AND STRUCTURE.
 Theatre presentations: *inheritance of the color of the coat*.
 Carried out in Chiaravalle(Italy), Auditorium Croce Gialla - via F.lli Cervi, 1/A on 06 september 2014
- GENETICS AND CLINIC OF THE DOG
 Theatre presentation: *Genetic variability of the Segugio Italiano*.
 carried out in Abitalia Tower Plaza Hotel - San Rossore – PISA (Italy) on 03 june 2016
- Conference papers
- Pallotti S., Pediconi D., Subramanian D., Molina M.G., Antonini M., Renieri C. and Laterza A.
 Molecular characterization of fibroblast growth factor 5 (fgf5) gene in alpaca.
 Book of Abstracts of the 66th Annual Meeting of the European Federation of Animal Science (2015) – 21, 396.
 DOI: 10.3920/978-90-8686-816-2
- Pallotti S., De Cosmo A. M., La Terza A., Pediconi D., Pazzaglia I., Nocelli C., Gubbiotti M. and Renieri C.
 Genetic variability of the short-haired and long-haired Segugio Italiano.
 Book of Abstracts of the 67th Annual Meeting of the European Federation of Animal Science (2016) – 22, 595.
 DOI: 10.3920/978-90-8686-830-8
- Pallotti S., Pediconi D., Dharaneedharan Subramanian, Molina M.G., Antonini M., Renieri C., La Terza A.
 Alpaca FGF5: Post-transcriptional Readthrough regulation in Skin Biopsies.
 Book of abstracts of the 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals (June 2017) – 59.
- Pallotti S., Wang J., Tang P., Antonini M., Lou Y., Pieramati C., Valbonesi A., Renieri C.
 Variability of fiber quality on Chinese Alashan Left Banner White cashmere goat.
 Book of abstracts of the 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals (June 2017) – 62.
- Pazzaglia I., Mercati F., Antonini M., La Terza A., Nocelli C., Pallotti S., Pediconi D., Renieri C.
 Genetic basis of early activation of hair follicle in cashmere goat: an approach with candidate genes.
 Book of abstracts of the 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals (June 2017) – 73.
- Chandramohan B., Nocelli C., Pazzaglia I., **Pallotti S.**, Pediconi D., La Terza A., Renieri C.
 Interaction of ASP and MC1R in black and brown alpaca.
 Book of abstracts of the 7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals (June 2017) – 58

- Poster
- Pallotti S., Pediconi D., Subramanian D., Molina M.G., Antonini M., Renieri C. and Laterza A.
Molecular characterization of fibroblast growth factor 5 (fgf5) gene in alpaca.
66th Annual Meeting of the European Federation of Animal Science (2015). Warsaw, Poland .
- Pallotti S., De Cosmo A. M., La Terza A., Pediconi D., Pazzaglia I., Nocelli C., Gubbiotti M. and Renieri C.
Genetic variability of the short-haired and long-haired Segugio Italiano.
67th Annual Meeting of the European Federation of Animal Science (2016) Belfast, U.K.
- Pallotti S., Pediconi D., Dharaneedharan Subramanian, Molina M.G., Antonini M., Renieri C., La Terza A.
Alpaca FGF5: Post-transcriptional Readthrough regulation in Skin Biopsies.
7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals
(June, 2017). Assisi, Italy.
- Pallotti S., Wang J., Tang P., Antonini M., Lou Y., Pieramati C., Valbonesi A., Renieri C.
Variability of fiber quality on Chinese Alashan Left Banner White cashmere goat.
7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals
(June, 2017). Assisi, Italy
- Chandramohan B., Nocelli C., Pazzaglia I., Pallotti S., Pediconi D., La Terza A., Renieri C.
Interaction of ASP and MC1R in black and brown alpaca.
7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals
(June, 2017). Assisi, Italy.
- Pazzaglia I., Mercati F., Antonini M., La Terza A., Nocelli C., Pallotti S., Pediconi D., Renieri C.
Genetic basis of early activation of hair follicle in cashmere goat: an approach with candidate genes.
7th European Symposium on South American Camelids and 3rd European Meeting on Fibre Animals
(June, 2017). Assisi, Italy.
- Memberships
- ASPA - Associazione per la Scienza e le Produzioni Animali (2021) (Animal Science and Production Association)*
SIVAE - Società Italiana Veterinari Animali Esotici (2017) (Italian Exotic Animal Veterinary Association)
SCIVAC - Società Culturale Italiana Veterinari per Animali da Compagnia (2017) (Italian Companion Animal Veterinary Association)
SIVAR - Società Italiana Veterinari Animali da Reddito (2017) (Italian Large Animal Veterinary Association)
EAAP - European federation of animal science (2016)
- Courses and workshop
- ADVANCED COURSE OF STATISTICAL ANALYSIS FOR LIVESTOCK SCIENCE A.S.P.A.(Scientific Association of Animal Production).
Carried out in Environmental and Agricultural Science Department of Pisa University, Pisa (Italy), from 06 february to 10 february, 2017
- Workshop: Communication, Collaboration, and Career Readiness.
Carried out at School of Advanced Studies - University of Camerino, May 22 to 25, 2017
- STATISTICS AND DATA MANAGEMENT
Carried out at School of Advanced Studies - University of Camerino, from October 3 to 6, 2016
- Genetic analysis of population structure using ENDOG programme.
carried out in School of Bioscience and Veterinary Medicine - University of Camerino, May 13, 2016.
- Horizon 2020: workshop for young researchers
carried out at University of Camerino april 01,2016
- BASIC COURSE OF STATISTICAL ANALYSIS FOR LIVESTOCK SCIENCE A.S.P.A.(Scientific Association of Animal Production).
Carried out in Environmental and Agricultural Science Department of Pisa University, Pisa (Italy), from 14 september to 18 september 2015

Seminars attended
2015 - 2017

Computer modeling of RNA structures and their biological functions
Construction and functional evaluation of a shuttle plasmid vector for Lactococcus lactis delivery genes into mammalian cells
My Genomics in Unicam.
DNA G-Quadruplexes: From Nucleic Acid Aptamers to Highly Ordered Supramolecular Structures.
The molecular genetics of hereditary colorectal cancers: a growing complexity.
Functional role of physical exercise on reactivation of adult neural stem cells.
Entomology seminars.
Traditional Medicine in Tanzania: The role of research to assure effective and safe practices in human and animal health care
How to present scientific results to the general public
How to write a scientific article for the general public
English for writing research papers.
How to get published.
Comportamento citazionale e valutazione della ricerca.
Proprietà intellettuale e comunicazione scientifica nella società dell'informazione.

Other academic contributions

CO-SUPERVISOR FOR THE MASTER DEGREE THESIS: "Inheritance of Suri in Alpaca"
Course: Master degree in Veterinary Medicine
candidate: Andrea Pio Sollazzo.
Supervisor: Prof. Carlo Renieri
academic year 2016/2017

Training of more junior people in the molecular biology laboratory.

Date and Signature

28/04/2023