

Università degli Studi di TORINO >> Sua-Rd di Struttura: "Scienze veterinarie"

B.1.b Gruppi di Ricerca

1. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Genetics Unit
	The research of scientific sector AGR/17 concerns the following thematic areas:
Descrizione	 -Relationship between milk protein polymorphism and milk composition and technological properties; -Analysis of polymorphic glycoproteins of the milk fat globule membrane; -Use of molecular markers in population genetics; -Study on candidate genes as potential markers in order to improve resistance to mastitis; -Investigation on genetic markers useful for breed allocation in poultry.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUGeneticsUnit.html
Responsabile scientifico/Coordinatore	SACCHI Paola (Scienze veterinarie)

Settore ERC del gruppo:

LS2_6 - Molecular genetics, reverse genetics and RNAi

LS2_7 - Quantitative genetics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
RASERO	Roberto	Scienze veterinarie	Prof. Associato	AGR/17
SOGLIA	Dominga	Scienze veterinarie	Ricercatore	AGR/17
SARTORE	Stefano	Scienze veterinarie	Ricercatore	AGR/17

Altro Personale

Bianchi Chiara, Gianatelli Roberto, Maione Sandra, Porporato Pier Carlo, Sterpone Lidia.

Nome gruppo*	Animal Nutrition and Feeding Unit
	The research of Scientific Sector AGR 18 is focused on: farm animals (especially poultry and rabbits), companion animals (horses, dogs, cats), wild birds and wild lagomorphs. Research activity concerns the following thematic areas:
	-Research on poultry: the research in poultry is focused on welfare and nutrition of broiler chicken and intermediate- and slow- growing chicken egg and meat type. The research on poultry nutrition aim to investigate the relationship between feed and meat quality and safety. The effect of mycotoxins contamination of feed on broiler chicken performance, welfare, and meat safety are studied. The effect of nutraceuticals feed (i.e. natural antioxidants, fatty acids, vegetable extracts) on broiler chicken welfare, performance and meat quality are investigated. The research in poultry nutrition also aims to investigate the effect of feed additive on digestibility and the use of innovative protein source (both of vegetable and animal origin). Recently the research group is studying the effect of genotype and rearing system on welfare and meat quality of intermediate- and slow-growing egg and meat type chickens.
Descrizione	consumption. The topics of greatest interest in this area relate to the use of vegetables rich in antioxidants and polyunsaturated fatty acids in the diet of animals. On the meat of animals are made studies on the modulation of the profile of polyunsaturated fatty acids ; are also examined the nutritional and organoleptic characteristics of the rabbit meat. -Research on wild birds and wild lagomorphs. In the context of projects aimed at the conservation and management of wildlife, studies have been performed regarding food preferences and diet composition of species of wild birds and

	lagomorphs. The study of animal behavior, the management, and the morphological surveys also characterize the research on these species. -Research on horses. Studies related to the equine species involved the research of nutritional strategies (use of antioxidants and polyunsaturated fatty acids) to improve the activity of the equine athlete. Also are made digestibility studies "in vivo" of diets for horses, using the direct methods (Ingesta / Egesta) and indirect methods with indicators. -Research on dogs and cats. With regard to companion animals has been made studies on the needs energy, water, minerals and vitamins of the dogs, either in conditions of maintenance that in athletes. was also developed a method for calculating the energy needs of dogs athletes that takes into account the following variables: 1) individual variables, behavioral variables of dogs (age, weight, breed, temperament), 2) environmental variables (climate, conditions of soil of race), 3) variables related to the type of competition (gait and duration sporting performance).
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUAnimalNutrition.html
Responsabile scientifico/Coordinatore	BERGERO Domenico (Scienze veterinarie)

LS8_11 - Species interactions (e.g. food-webs, symbiosis, parasitism, mutualism)

LS9_1 - Applied genetic engineering, transgenic organisms, recombinant proteins, biosensors

LS9_3 - Agriculture related to animal husbandry, dairying, livestock raising

LS9_6 - Food sciences

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MEINERI	Giorgia	Scienze veterinarie	Ricercatore	AGR/18
SCHIAVONE	Achille	Scienze veterinarie	Prof. Associato	AGR/18
VALLE	Emanuela	Scienze veterinarie	Ricercatore	AGR/18
VENDA DA GRACA NERY	Joana Maria	Scienze veterinarie	Ricercatore	AGR/18

Altro Personale

Bianchi Chiara, Maione Sandra, Sterpone Lidia.

Nome gruppo*	Animal Husbandry Unit
	Description of Research Activity The research activity of the scientific sector AGR 19 covers the following areas and topics: -Pet Nutrition and Feeding
	-Animal Welfare -Improvement of Livestock Production in Tropical Areas -Management of local wildlife
Descrizione	-Pet Nutrition and Feeding. Assessment of innovative technologies for pet food (cats and dog) production. Effects of some raw materials (e.g. cereals included in pet's food) on the onset of some emerging diseases in cats and dogs. Study of energy requirements in working dogs.
	-Animal Welfare. Welfare evaluation, conditions and strategies implementation in farm animals. Research of social perception on production of food of animal origin: according to the social theory of the Commons goods. The research line investigate the various utilities produced by food: as a cultural good as well as a material good generated in a context of animal welfare safeguard. Evaluation of pigs, cattle and goats welfare and its impact on productive performances. Religious slaughtering and animal welfare. Behavioural analysis of zoo animals under different zoo managements.
	-Improvement of Livestock Production in Tropical Areas. Livestock resources evaluation and management in tropical areas of Developing countries, focused on animal breeding, reproduction and production. Specific research activities are carried and focused on the following subjects; characterization of breeds productive traits, genetic improvement and preservation. In situ management and ex situ conservation of indigenous genetic resources, for maintenance of biodiversity. Evaluation of the impact of innovative animal health packages on livestock production and productivity. Livestock production systems investigated are: Intensified zero-grazing; urban and per-urban; mixed crop/livestock farming systems. Joint research activities are conducted with International Organizations, International Research and Development Centers, teams of International expert in conjunction with National stakeholders.

	-Management of Wildlife. Implementation of innovative technologies to survey and manage local species of wildlife. Monitoring and restriction systems to limit ravages caused by wildlife to agricultural land and forestry.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUAnimalHusbandry.html
Responsabile scientifico/Coordinatore	MUSSA Pier Paolo (Scienze veterinarie)

Settore ERC del gruppo:	
LS8_2 - Population biology, population dynamics, population genetics	
LS8_7 - Animal behaviour	
LS9_3 - Agriculture related to animal husbandry, dairying, livestock raising	
LS9_6 - Food sciences	

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MATTONI	Mario	Scienze veterinarie	Ricercatore	AGR/19
PROLA	Liviana	Scienze veterinarie	Ricercatore	AGR/19
TARANTOLA	Martina	Scienze veterinarie	Ricercatore	AGR/19

Altro Personale

Bianchi Chiara, Gianatelli Roberto, Maione Sandra, Porporato Pier Carlo, Sterpone Lidia.

4. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Aquaculture Unit	
	Description of Research Activity The research of scientific sector AGR 20 concerns the thematic areas of Aquaculture and Freshwater Ecology:	
Descrizione	 -Aquaculture, rainbow trout and sturgeon nutrition in aquaculture. -Alternative feedstuffs to fish meal in farmed fish nutrition. -Environmental impact of freshwater aquaculture. -Integrated aquaculture and biorimediation. -Conservation Biology of autochthonous Italian salmonid species. -Biodiversity conservation in freshwater ecosystems. -Conservation Genetics of Endangered Freshwater species. -Applied Ecology, Supportive Breeding, Hatchery and Restoration of autochthonous freshwater fishes. -Fishing Management and endemic species preservation in Parks and Protected Areas. -Fish Telemetry and Radio Tracking. -Biostatistics, Statistic Analysis of Environmental, Genetic and Morphometric data. -Stress Molecular Markers and Gene Expression in Animal Welfare: Applications in Captive Breeding and Aquaculture. 	
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUAquacultureUnit.html	
Responsabile scientifico/Coordinatore	FORNERIS Gilberto (Scienze veterinarie)	

Settore ERC del gruppo:

LS8_2 - Population biology, population dynamics, population genetics

 $\label{eq:LS8_4} LS8_4 \mbox{ - Biodiversity, conservation biology, conservation genetics, invasion biology}$

LS9_4 - Aquaculture, fisheries

Cognome	Nome	Struttura	Qualifica	Settore
LUCARDA	Nazzareno, Alvise	Scienze veterinarie	Ricercatore	AGR/20

Benedetto

Scienze veterinarie

5. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Biochemistry Unit
Descrizione	Description of Research Activity Our scientific interest is mainly aimed at performing a structural and functional characterization of the ATP and Ubiquitin dependent proteolytic proteasomal system (UPS). For this purpose we utilize biochemical, molecular and cellular biology methods and approaches. Specifically, we investigate the role of the UPS in maintaining cellular homeostasis both in physiological (e.g. during plasmacells differentiation; in the context of Endoplasmic Reticulum Associated Degradation ERAD-; MHC class I antigen presentation; cooperation between UPS and autophagy and molecular chaperones; aging) and pathological conditions (e.g. haematological Multiple Myeloma and Systemic Amyloidosis and solid (e.g. Feline and Canine Fibrosarcoma, Osteosarcoma and Mammary Carcinoma) malignancies; Neurodegenerative diseases Parkinson and Amyotrophic lateral sclerosis).
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUBiochemistryUnit.html
Responsabile scientifico/Coordinatore	CASCIO Paolo (Scienze veterinarie)

Settore ERC del gruppo:
LS1_2 - General biochemistry and metabolism
LS1_5 - Protein synthesis, modification and turnover
LS3_4 - Apoptosis
LS6_2 - Adaptive immunity

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MIOLETTI	Silvia	Scienze veterinarie	Ricercatore	BIO/10
Altro Personale		Cerruti Fulvia.		

Nome gruppo*	Computational Epidemiology and Data Analysis Unit
Descrizione	Description of Research Activity The research activity of the Computational Epidemiology and Data Analysis Unit involves the use of computational, mathematical, and statistical approaches to model, simulate, visualize and, in general, understand phenomena in veterinary sciences, ranging from the analysis of genomic data both for animal and pathogen species, to the use of geographic information systems in ecology and epidemiology, and to the application of classical mathematical models combined with network science approaches to study epidemiological dynamics. The Unit intends to move beyond the traditional paradigm of ecological and epidemiologies can identify key agents and mechanisms of pathogen dynamics. In particular, the Unit interests and skills include network science modeling, evolutionary computation and machine learning techniques in biodata mining, Bayesian approaches for phylogenetic inference, and geographic information systems application. Overall, our research projects intend to have translational impact on the control and prevention of disease through better epidemiologic understanding of factors influencing disease risk. Although the principal research line aims to develop network-based approaches to model vector-borne pathogen dynamics, particularly by using bipartite and multipartite graphs, and to study both farm and wild animals trades and movements, we are particularly interested in integrating them with geographic and molecular data. We believe that the combination of these different approaches will result in a better understand of the phenomena under investigation, providing models and methods that could finally help in the management and prevention of eco-epidemiological phenomena.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUComputationalEpidemiology.html
Responsabile scientifico/Coordinatore	GIACOBINI Mario Dante Lucio (Scienze veterinarie)

LS2_14 - Biological systems analysis, modelling and simulation

PE6_11 - Machine learning, statistical data processing and applications using signal processing (e.g. speech, image, video)

PE6_12 - Scientific computing, simulation and modelling tools

PE6_13 - Bioinformatics, biocomputing, and DNA and molecular computation

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERTOLOTTI	Luigi	Scienze veterinarie	Ricercatore	VET/05
TIZZANI	Paolo	Scienze veterinarie	Ric. a tempo determ.	VET/06

7. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Anatomy of Domestic Animals Unit
Descrizione	1) Functional Neuroanatomy of nociceptive pathways in spinal cord. We are interested in understanding the functional neuroanatomy of the spinal nociceptive pathways, with emphasis on the biological effects of neuropeptides and growth factors on synaptic transmission at the interface between first and second order sensory neurons in lamina II (substantia gelatinosaSG) of dorsal horn.
	2) Cellular and molecular mechanisms of naturally occurring neuronal death in central neurons. We currently work on the cellular and molecular mechanisms regulating naturally occurring neuronal death (NOND) in post-natal brain, with particular attention on cerebellum.
	3) Adult neurogenesis in Mammals: cellular, molecular and neuroanatomical correlates of the genesis of new neurons in the adult mammalian brain. Study of neural stem cells and progenitors within the mature nervous tissue with particular reference to comparative aspects of structural plasticity among mammalian species.
	4) Morpho-functional studies on the cardiovascular system and on the animal organs and synthetic materials that can be used in artificial organs for man created the competence that lead to the establishment of the academic spin-off Life and Device which is a service provider, specialized in studies on cardiovascular implantable prosthesis, artificial organs and, more widely, on biological interfaces. Life and Device operates in the industry of analysis laboratories, and provides customers with a wide range of services:
	 Assists manufacturers of biological and syntetic prostheses in compliance and safety controls both in preclinical development and in clinical diagnosis phases. Performs biocompatibility studies.
	 Analyses explanted devices carrying on the most appropriate procedures. Offers the implementation and reporting of histopatological slides from biopsies and autopsies performed by veterinarians
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUAnatomyUnit.html
Responsabile scientifico/Coordinatore	MERIGHI Adalberto (Scienze veterinarie)

Settore ERC del gruppo:
LS3_1 - Morphology and functional imaging of cells
LS3_12 - Stem cell biology
LS3_3 - Cell cycle and division
LS3_4 - Apoptosis
LS3_7 - Cell signalling and cellular interactions
LS3_8 - Signal transduction
LS5_1 - Neuroanatomy and neurophysiology
LS5_2 - Molecular and cellular neuroscience
LS5_5 - Mechanisms of pain

LS5_6 - Developmental neurobiology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BELLARDI	Sergio	Scienze veterinarie	Ricercatore	VET/01
BONFANTI	Luca	Scienze veterinarie	Prof. Associato	VET/01
CASTAGNA	Claudia	Scienze veterinarie	Ricercatore	VET/01
FERRINI	Francesco	Scienze veterinarie	Ricercatore	VET/01
GALLONI	Marco Rodolfo Pietro	Scienze veterinarie	Prof. Associato	VET/01
LOSSI	Laura	Scienze veterinarie	Prof. Associato	VET/01
SALIO	Chiara	Scienze veterinarie	Ricercatore	VET/01

Altro Personale

Aimar Patrizia, Vignolini Cristina.

8. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Physiology of Domestic Animals Unit
	1) Mammary stem cells in farm animals. The aim is to identify surface molecules that permit to easily identify and sort mammary cells with stem properties and to understand molecular mechanisms underlying the properties of the different mammary compartments (stem, luminal, basal). Finally, by using genetically reprogrammed stem cells, we are trying to repopulate a mammary gland in order to drive the expression of the reprogrammed factor.
	2) IPSc (Induced Pluripotent Stem Cells): the laboratory is interested in obtaining bovine IPSc by reprogramming cultured cells obtained in different tissues and manipulating these differentiated cells with the appropriate transcription factors.
Descrizione	3) Mammary gland biology and morphogenesis: the aim is to provide new clues on genes essential for normal mammary development. Those factors often play an important role in disease progression of the same organ. Understanding normal development of the mammary gland is thus instrumental for understanding cancer and for developing new therapeutics.
	4) Skeletal muscle hypertrophy is defined as an increase in muscle mass, which in the adult animal comes as a result of an increase in size of skeletal muscle fibers. The aim of the laboratory is to understand and unravel new mediators causative in muscle hypertrophy (postratcriptional regulators, miRNAs, etc). These molecules might be of great interest as selection markers to improve muscular hypertrophy of livestock.
	5) Behaviour and welfare; reproductive physiology: the aim is to identify and quantify ethological, physiological and biochemical indicators of welfare in small animals, in livestock animals in different housing conditions and also in animals employed in Animal Assisted Activities (AAA) and Animal Assisted Therapy (AAT). The laboratory is also interested in the eco-ethological, physiological and endocrine evaluation of reproductive biology and welfare in wild species.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUPhysiologyUnit.html
Responsabile scientifico/Coordinatore	BARATTA Mario (Scienze veterinarie)

Settore ERC del gruppo:	
LS3_12 - Stem cell biology	
LS3_3 - Cell cycle and division	
LS3_5 - Cell differentiation, physiology and dynamics	
LS4_1 - Organ physiology and pathophysiology	
LS4_3 - Endocrinology	

ACCORNERO	Paolo	Scienze veterinarie	Prof. Associato	VET/02
MACCHI	Elisabetta	Scienze veterinarie	Ricercatore	VET/02
MARTIGNANI	Eugenio	Scienze veterinarie	Ricercatore	VET/02
MIRETTI	Silvia	Scienze veterinarie	Ricercatore	VET/02

Cecere Cristina.

Altro Personale

Nome gruppo*	Veterinary Pathology Unit
	Research activities involve several areas of interests, by means of histology, histochemistry, immunohistochemistry, immunofluorescence, morphometric analysis and electron microscopy. Other techniques include cell biology (primary and cell line cultures, viability and toxicity assays, cryopreservation), protein assays (immunoprecipitation, Western blot), molecular biology (PCR, real-time PCR, gene cloning) and immunoenzymatic assays.
	The main research topics are summarized below:
Descrizione	 -Prof. Enrico Bollo and Dr. Frine Scaglione are investigating pathology of wild and exotic animals, Salmonellosis in pigs, Tuberculosis of domestic and wild animals and setup and validation of immunodiagnostic tests. -Dr. Raffaella De Maria and Dr. Selina lussich, supported by a PhD student and a post-doc fellowship are investigating the pathogenesis of tumors of domestic animals. At present their research activities are focused on the role of Tyrosine Kinases Receptors (TKRs) in canine and feline mammary carcinomas and osteosarcomas, on the expression of Tumor Associated Antigen (TAAs) in canine melanomas, and on the role of epithelial and myoepithelial cellular types in the progression of feline and canine mammary carcinomas. -Prof. Bartolomeo Biolatti, dr. Francesca Tiziana Cannizzo, two post-doc researchers and a PhD student are focused mainly on reproductive pathology, molecular pathology applied to food safety, and evaluation of immune system in animal welfare. Main topics are gross and histological lesions induced by anabolics in target organs; biomarkers investigation to prevent the use of growth promoters in farm animals; resistance gene determinants in livestock. -Dr. Massimiliano Tursi is interested in cardiovascular diseases of domestic animals, with special reference to morphological aspects of canine mitral valve lesions, and feline myocardial pathology, identifying the anatomical and clinical correlations of diseases. -Dr. Maria Teresa Capucchio, supported by one PhD student and one post doc fellowship, are involved in neuromuscular pathology (pathogenesis of zoonosis; listeriosis, encephalitozoonosis, intervertebral disks pathology and degenerative myelopathy of dogs; brain tumour pathology; aging) and host-pathogenesis oin target
	animals (small ruminants pulmonary retroviruses; mastitis).
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUPathologyUnit.html
Responsabile scientifico/Coordinatore	BIOLATTI Bartolomeo (Scienze veterinarie)

Settore ERC del gruppo:
LS2_2 - Transcriptomics
LS3_1 - Morphology and functional imaging of cells
LS3_4 - Apoptosis
LS3_5 - Cell differentiation, physiology and dynamics
LS3_7 - Cell signalling and cellular interactions
LS4_1 - Organ physiology and pathophysiology
LS4_2 - Comparative physiology and pathophysiology
LS4_6 - Cancer and its biological basis
LS5_11 - Neurological disorders (e.g. Alzheimer's disease, Huntington's disease, Parkinson's disease)
LS5_3 - Neurochemistry and neuropharmacology
LS6_13 - Veterinary medicine and infectious diseases in animals
LS7_9 - Public health and epidemiology
LS9_6 - Food sciences

Cognome	Nome	Struttura	Qualifica	Settore
BOLLO	Enrico	Scienze veterinarie	Prof. Ordinario	VET/03
CANNIZZO	Francesca Tiziana	Scienze veterinarie	Ricercatore	VET/03
CAPUCCHIO	Maria Teresa	Scienze veterinarie	Ricercatore	VET/03
DE MARIA	Raffaella	Scienze veterinarie	Ricercatore	VET/03
SCAGLIONE	Frine Eleonora	Scienze veterinarie	Ric. a tempo determ.	VET/03
IUSSICH	Selina Alessandra	Scienze veterinarie	Ricercatore	VET/03
TURSI	Massimiliano	Scienze veterinarie	Ricercatore	VET/03

Altro Personale

Amedeo Stefano, Arnulfo Daniele, Chiappino Laura, Pregel Paola, Sereno Alessandra, Vanni Renato.

10. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Food Hygiene Unit
	Research activities involve several areas of interests in food hygiene by means of traditional microbiology, molecular biology and chemical analysis.
	Current research activities are focused on:
	development of innovative biomolecular techniques for animal species identification in dairy products, raw and canned food; study of the microflora in milk and dairy products by means of metagenomics approach;
	development of biomolecular techniques for the traceability of poultry chain;
Descrizione	detection of mycotoxins and biogenic amines in food of animal origin and bromatological composition;
	development of novel biomolecular tests for the identification of major zoonotic parasites, foodborne pathogens, spoilage and beneficial bacteria;
	determination of the major risk factors involved in the dissemination of zoonotic parasites among animals at farm level; study of the prevalence of persistent bacterial strains and zoonotic parasites in animals, food and food production environments:
	investigation of the distribution of pathogenic and spoilage bacterial across different sources by means of biomolecular subtyping methods;
	determination of bacterial genetic determinants for resistance to sanitizers and their link with antimicrobial resistance.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUFoodHygieneUnit.html
Responsabile scientifico/Coordinatore	CIVERA Tiziana (Scienze veterinarie)

Settore ERC del gruppo:

LS7_9 - Public health and epidemiology

LS9_6 - Food sciences

LS9_9 - Applied biotechnology (non-medical), bioreactors, applied microbiology

Cognome	Nome	Struttura	Qualifica	Settore
BOTTERO	Maria Teresa	Scienze veterinarie	Prof. Associato	VET/04
CHIESA	Francesco	Scienze veterinarie	Ric. a tempo determ.	VET/04
DALMASSO	Alessandra	Scienze veterinarie	Ricercatore	VET/04
GRASSI	Maria Ausilia	Scienze veterinarie	Prof. Associato	VET/04
LOMONACO	Sara	Scienze veterinarie	Ricercatore	VET/04
PATTONO	Daniele	Scienze veterinarie	Ricercatore	VET/04

11. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Infectious Diseases Unit
	This unit covers different research fields, including microbiology, immunology, and epidemiology. Cellular and molecular biology methods are used to characterize animal pathogens, including zoonotic ones, and to investigate interactions between pathogens, their hosts and vectors. On the other hand, recombinant technology is used to develop diagnostic tests, especially ELISA tests, for the surveillance and the characterization of animal diseases. Moreover, epidemiological techniques, mathematical modeling, as well as computational and molecular epidemiology approaches are used to better understand diseases dynamics and risk factors at the population level. In details, we are currently involved in projects regarding:
	-Genotypic and phenotypic characterization of pathogenic and commensal E. coli, with particular reference to virulence factors and antimicrobial resistance.
	-Occurrence and dissemination of extended-spectrum beta-lactamases (ESBL)-producing E. coli, focusing on new emerging epidemiological clones (e.g. ST131).
	-Antibacterial activity of composites (e.g. chitosan-silver) and honey-based biomaterials against representative Gram positive and Gram negative strains.
	-Development of biomolecular methods for the identification of causal agent of Proventricular Dilatation Disease of psittacines.
	-Genetic and pathogenic analysis of beak and feather disease virus (BFDV) isolated in Italy from African grey parrots.
Descrizione	-Molecular detection and genotyping of BFDV, Herpes-virus, Chlamydia psittaci in free-living wild birds from South America.
	-Genetic and antigenic characterization of Small Ruminant Lentivirus strains and evaluation of hosts innate immunity mechanisms.
	-Identification and characterization of immunodominant proteins of ruminants herpesviruses (Caprine, Bovine and Bubaline herpesvirus), pestivirus (Bovine Viral Diarrhea virus 1, 2 and 3), flaviviruses (Tick-borne Encephalitis, West Nile and USUTU viruses) and Mycoplasma agalactiae and M. meleagridis.
	-Development of recombinant antigens for serological diagnostic in both prokaryotic and eukaryotic systems.
	-Development and application of phylogenetic methods for describing and understanding RNA viruses evolution.
	-Analyses of New Generation Sequencing data from both eukaryotic and prokaryotic genomes -Tropical animal health and production, and public health in the less developed countries of the (sub-) tropics, with special reference to Africa.
	-Study of the transmission cycles and of the spatial and temporal trends of vector-borne diseases, with particular reference to tick-borne infections (Lyme borreliosis, Rickettsiosis).
	-Application of mathematical modeling and network sciences to the eco-epidemiology of animal and zoonotic
	pathogens.
	-Application of GIS approaches and spatial statistic to the epidemiology of infectious diseases. -Use of social science techniques/approach in infectious disease research (i.e. zoonoses and avian influenza)
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUInfectiousUnit.html
Responsabile scientifico/Coordinatore	ROSATI Sergio (Scienze veterinarie)

Settore ERC del gruppo:
LS2_9 - Genetic epidemiology
LS6_13 - Veterinary medicine and infectious diseases in animals
LS6_7 - Microbiology
LS6_8 - Virology
LS7_2 - Diagnostic tools (e.g. genetic, imaging)
LS7_9 - Public health and epidemiology

Cognome	Nome	Struttura	Qualifica	Settore
BERTOLOTTI	Luigi	Scienze veterinarie	Ricercatore	VET/05
CERRUTI SOLA	Susanna	Scienze veterinarie	Prof. Ordinario	VET/05
DE MENEGHI	Daniele	Scienze veterinarie	Ricercatore	VET/05
GREGO	Elena	Scienze veterinarie	Ricercatore	VET/05
MANNELLI	Alessandro	Scienze veterinarie	Prof. Associato	VET/05

NEBBIA	Patrizia	Scienze veterinarie	Prof. Associato	VET/05
ROBINO	Patrizia	Scienze veterinarie	Ricercatore	VET/05
TOMASSONE	Laura	Scienze veterinarie	Ricercatore	VET/05
Altro Personale	Profiti	Margherita, Stella Maria Cristina.		

12. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Parasitology Unit
	The unit conducts research in a variety of areas dealing with the parasitic organisms (including fungi) that cause diseases in domestic, wild and synanthropic animals, with repercussions on public health, livestock production and animal welfare. Starting from the study of transmissible agents and the fundamentals of animal parasitology and mycology, the research activities aim at clarifying aspects regarding etiology, epidemiology, diagnosis and control of parasitic diseases of animals, including zoonoses. Moreover, mathematical modeling, as well as computational and molecular epidemiology approaches are used to study the transmission dynamics and risk factors at the population level. GIS (Geographic Information System) instruments, remote sensing techniques and environmental geo-databases are used to understand the relationship host-parasites-environment.
	The main topics being currently developed are:
Descrizione	 -epidemiology and molecular epidemiology of sarcoptic mange -epidemiology of emerging and re-emerging macroparasites in native and introduced wildlife (Ruminants, Lagomorphs, Carnivores) -epidemiology of micro - and macroparasites of free-ranging wildlife -the role of wildlife species as reservoir of zoonotic vector-borne pathogens -epidemiology and molecular epidemiology of dermatophyte fungi -new diagnostic tools for dermatophyte infections in cats and dogs -susceptibility testing of Malassezia pachydermatis -epidemiology and molecular epidemiology of Leishmania infantum, Toxoplasma gondii, Neospora caninum and Babesia spp. -new diagnostic tools for Leishmaniosis in dogs -ecology of euthermic wild hosts of micro- and macroparasites.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUParasitologyUnit.html
Responsabile scientifico/Coordinatore	ROSSI Luca (Scienze veterinarie)

Settore ERC del gruppo:

LS6_10 - Parasitology
LS6_13 - Veterinary medicine and infectious diseases in animals
LS7_9 - Public health and epidemiology
LS8_4 - Biodiversity, conservation biology, conservation genetics, invasion biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FERROGLIO	Ezio	Scienze veterinarie	Prof. Associato	VET/06
MENEGUZ	Pier Giuseppe	Scienze veterinarie	Prof. Associato	VET/06
PEANO	Andrea	Scienze veterinarie	Ricercatore	VET/06
RAMBOZZI	Luisa	Scienze veterinarie	Ricercatore	VET/06
TIZZANI	Paolo	Scienze veterinarie	Ric. a tempo determ.	VET/06

Altro Personale

Molinar Min Anna Rita.

Nome gruppo*	Pharmacology and Toxicology Unit
Descrizione	Description of Research Activity The main research areas of the Division of Veterinary Pharmacology and Toxicology of the Department of Veterinary Sciences can be summarized as follows: -Illicit treatments in livestock: identification of biomarker of illicit treatments in food producing animals through traditional (e.g. changes in biochemical and endocrine parameters), biological (e.g. in vitro methods) and biomolecular assays (proteomics and genomics); -Pharmacodynamics: -quantification and characterization of adrenergic receptors, steroid hormone receptors, serotonergic receptors and vanilloid receptors (binding and competition assays, Western blotting) -study of ligand receptor interaction and signaling pathways -measurement of hormones, neurotransmitters and blood biochemical parameters (RIA, ELISA) -pharmacodynamics of non steroidal antiinflammatory drugs (NSAIDs) in different animal species (in vitro and ex vivo evaluation of cyclooxygenase inhibition); -Drug metabolism: -in vitro study of metabolism of drugs, additives, environmental contaminants and growth promoters -in vitro and in vivo study of drug drug interaction -Toxicology: study of the effects induced by environmental contaminants in food producing animals (evaluation of protein profiling by MALDI-TOF, gene expression analysis using Real Time PCR) -Animal Welfare: identification of peripheral markers of stress in different animal species
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUPharmacologyUnit.html
Responsabile scientifico/Coordinatore	GIRARDI Carlo (Scienze veterinarie)

Settore ERC del gruppo:
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_3 - Proteomics
LS5_5 - Mechanisms of pain
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
LS7_5 - Toxicology
LS8_7 - Animal behaviour
LS8_9 - Environmental toxicology at the population and ecosystems level
LS9_6 - Food sciences

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BADINO	Paola	Scienze veterinarie	Ricercatore	VET/07
ODORE	Rosangela	Scienze veterinarie	Prof. Associato	VET/07
GIROLAMI	Flavia	Scienze veterinarie	Ricercatore	VET/07
NEBBIA	Carlo	Scienze veterinarie	Prof. Ordinario	VET/07
RE	Giovanni	Scienze veterinarie	Prof. Ordinario	VET/07

Altro Personale

Carfora Immacolata, Gardini Giulia.

	Below are shown the main lines of research of the Section:
	-Cardiology
	Acquired heart disease in dogs (chronic degenerative mitral valve disease and dilated cardiomyopathy): natural history, electrocardiography and echocardiography. Evaluation of performances and markers of exercise-induced stress in horses Viral myocarditis in dogs
	-Clinical Pathology
	Application of flow cytometric methods in veterinary field (livestock, pets and laboratory animals) Hematopoietic neoplasms: morphologic, molecular and flow cytometric characterization. Cytological classification, PARR and immunophenotype, proliferative activity, DNA content /ploidy and apoptosis are studied in leukemias and lymphomas in order to evaluate their usefulness in diagnosis, staging and prognosis Cytological approaches in veterinary oncology
	Study of coagulation disorders in some animal species (dog and cow) by using the Thromboelastometry
	-Emergency and Critical Care
	Study of changes in oncotic pressure in dogs and therapeutic effectiveness of colloidal solutions in different pathologies
	-Internal Medicine
Descrizione	Clinical and clinico-pathological characterization of dogs affected by protein-losing enteropathy Comparison among different canine populations suffering from adverse reaction to food, antibiotic-responsive enteropathy and steroid-responsive enteropathy Feline chronic enteropathies Clinical and clinico-pathological features of dogs affected by deep systemic mycosis
	Metabolic consequences of intermittent hypoxia in brachycephalic dogs Development of diagnostic diagram for rapid field assessment of acidosis severity in diarrheic calves Clinical, diagnostic and therapeutic approach to canine leishmaniosis
	-Neurology
	Transmissible Spongiform Encephalopathy in Bovine Transmissible Spongiform Encephalopathy in Small Ruminants Bovine Cerebrospinal fluid storage technic Bovine Seizures disorders
	Otitis Media-Interna in calves
	-Ultrasound
	Ophtalmic echography in small animals eye diseases Morphologic and dimensional aspects of normal and pathologic adrenal gland in the dog
	-Welfare and Behavioural Medicine
	Assessment of welfare in cows housed in compost-bedded pack Clinical pharmacologic correlation in aggressive dogs treated with fluoxetine
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUClinicalMedicine.html
Responsabile scientifico/Coordinatore	CAGNASSO Aurelio (Scienze veterinarie)

LS3_3 - Cell cycle and division

LS3_4 - Apoptosis

LS5 - Neurosciences and Neural Disorders: Neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, neurological and psychiatric disorders

LS6_13 - Veterinary medicine and infectious diseases in animals

Cognome	Nome	Struttura	Qualifica	Settore
BELLINO	Claudio	Scienze veterinarie	Ricercatore	VET/08
BORRELLI	Antonio	Scienze veterinarie	Ricercatore	VET/08
D'ANGELO	Antonio	Scienze veterinarie	Prof. Associato	VET/08
GIANELLA	Paola	Scienze veterinarie	Ric. a tempo determ.	VET/08

MINISCALCO	Barbara	Scienze veterinarie	Ricercatore	VET/08
RIONDATO	Fulvio	Scienze veterinarie	Ricercatore	VET/08
TARDUCCI Alberto		Scienze veterinarie	Prof. Ordinario	VET/08
ZANATTA Renato		Scienze veterinarie	Prof. Associato	VET/08

15. Scheda inserita da questa Struttura ("Scienze veterinarie"):

Nome gruppo*	Clinical Veterinary Surgery Unit
Nome gruppo*	Clinical Veterinary Surgery Unit Research Activity of the Surgery Section -Large animals surgery (Prof. L. Zarucco, Dr. A. Bertuglia, Dr. M. Gandini). Ongoing research focuses currently on: New treatments of idiopathic flexural limb deformilies in foals including minimally invasive procedures. This orgoing project includes: the validation of 3D muscle outloue estimates with different diagnostic modalities, studies on muscle architecture in forelimb muscles of normal and pathological foals and the development of a musculoskeletal computer modeling of the foal forelimb for leaching and research purposes. Equine othopedics and biomechanics: currently the group is working on many specific topics on joint pathology (early detection of osteoarthmits with cytokines, cross-talk between sub-chondral bone and carliage during joint pathology, (early detection of osteoarthmits with cytokines, cross-talk between sub-chondral bone and carliage during joint pathology, therefuekin Receptor Antagonits threaping and tendor regenerative-growth-factors to repair collagen injuries). Lameness investigation researches focus on hamess Standardbred racehorses. Equine colic surgery: research on new techniques in abdominal open and minimally invasive (laparoscopic) surgery in domestic animalsSmall animal soft tissue surgery and oncology (Prof. Paolo Buracco, Dr. M. Martano, Dr. E. Morello, Dr. Cordero, Dr. Gattino) Small animal oncology: the group is currently working on the development of a vaccine against canine oral malignant metanoma, and a clinical trial in cooperation with the Molecular Bulecton-site sacromas, in collaboration with the Dipatiment of Scienze Anatomiche Umane Fisiopatologia del/Aparato Locomotore - Fisiopatologia Jondowing on the treatment of canine appendicular osteosarcoma for the lata? Queers, especially on limb salvage techniques. In the field of soft thus surgery the research is oriented mainly on reconstructive and oncologic surgerySmall animal orthopedics (Prof. B. Peirone, Dr. A. Boero, Dr. M. Olimpo, D
	sarcomas (in collaboration with Dr. M. Martano), and a study on the development of solid lipid nanoparticles (SLN) as vehicles of antineoplastic drugs to improve the pharmacological glioblastoma therapy in collaboration with Dr. M. T.
	Identification of anesthetic/analgesic protocols for diagnostic/surgical procedures or field immobilization of exotic and wild animals (mammals, birds, reptiles). The research is aimed at the setting of anesthetic protocols helpful in the remote drug delivery for chemical immobilization of free-ranging terrestrial mammals.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUClinicalSurgery.html
Responsabile scientifico/Coordinatore	BURACCO Paolo (Scienze veterinarie)

Settore ERC del gruppo:

LS4_6 - Cancer and its biological basis

LS7_2 - Diagnostic tools (e.g. genetic, imaging)

LS7_4 - Analgesia and Surgery

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERTUGLIA	Andrea	Scienze veterinarie	Ricercatore	VET/09
GANDINI	Marco	Scienze veterinarie	Ricercatore	VET/09
MORELLO	Emanuela Maria	Scienze veterinarie	Ricercatore	VET/09
MARTANO	Marina	Scienze veterinarie	Ricercatore	VET/09
MAUTHE DEGERFELD	Mitzy	Scienze veterinarie	Ricercatore	VET/09
PILONE	Annamaria	Scienze veterinarie	Ricercatore	VET/09
PIROMALLI	Giuseppe	Scienze veterinarie	Ricercatore	VET/09
PEIRONE	Bruno	Scienze veterinarie	Prof. Associato	VET/09
VALAZZA	Alberto	Scienze veterinarie	Prof. Associato	VET/09
ZARUCCO	Laura	Scienze veterinarie	Prof. Associato	VET/09

Altro Personale

Poletto Maria Grazia.

Nome gruppo*	Clinical Veterinary Obstetrics and Gynecology Unit
	Research in this Unit is conducted both on small and large animals. The fields of interest can be summarized as follows:
	-Large animals (Prof. L. Vincenti, Prof. G. Quaranta, Dr. A. Ricci).
	Bovine endometritis with special focus on sub clinical endometritis. Methods of estrous synchronization and pregnancy diagnosis, in cooperation with the Dairy Science University of Wisconsin. Bovine gynaecological surgery, in cooperation with the University of Montreal. Semen analysis and preservation. Computer Assisted Analysis. Cooperation projects in different countries of sub-Saharan Africa, South and Central America, Ethiopia: reproductive pathologies and reproductive technologies, cross-breeding and milk processing.
	-Equine (Dr. T. Nervo)
	Causes of mare infertility: endometritis, diagnosis and treatment. Semen analysis and cryopreservation; Computer Assisted Analysis. Equine neonatology, in cooperation with Equus srl (Vigone, Torino).
	-Small animals (Prof. A. Rota, Dr. P. Ponzio, Dr. A. Starvaggi Cucuzza)
	Canine reproductive physiology and clinics: oestrous induction, luteal functionality, effect of thyroid functionality on reproduction. Perinatal mortality; diffusion and meaning of resistant bacteria colonizing breeding dogs and their puppies (in cooperation with the Istituto Zooprofilattico Sperimentale delle Venezie). Dog andrology: comparison of different methods of semen freezing; semen quality assessment, both in vitro and in vivo. Feline reproductive physiology and clinics: semen collection and analysis, assisted reproduction.
Descrizione	-Reproductive biotechnologies (Prof. L. Vincenti, Dr. T. Nervo)
	Superovulation and embryo-transfer, in bovine also as a means of genetic rescue of endangered breeds, with the financial support of the Regional Office of Agriculture. Artificial Insemination and Embryo Transfer in bovine and equine. In vitro production and manipulation of bovine and equine gametes (oocytes and sperm) and embryos: oocyte and embryo cryopreservation (vitrification). In vitro sperm capacitation and hyperactivation. Bovine and equine umbilical cord stem cells.
	-Birds, exotic and wild animals (Prof. G. Quaranta, Dr. P. Ponzio, Dr. A. Starvaggi Cucuzza, Dr. A. Dogliero)

	Semen collection and analysis Computer Assisted Analysis; evaluation of different extenders and cryoprotective agents; semen freezing for genetic rescue of endangered species. Assisted reproduction. Marine mammals: reproductive physiology and clinics: reproduction management, endocrine monitoring of reproductive activity. Wild boar: reproductive physiology and monitoring of reproductive activity.
	-Other researches (Prof. A. Rota, Dr. P. Ponzio)
	The anti-Müllerian hormone (AMH) in the bovine: serum concentration in males, females and freemartins from birth to puberty; expression of AMH in foetal freemartin gonads. Sexual functional differences in bovine hypothalamic nuclea (in cooperation with the University of Padua). Hormonal patterns and behavioural aspects in different animal species (dog, cat, horse and donkey), during Animal-assisted activities and animal-assisted therapy.
Sito web	http://www.veterinaria.unito.it/do/home.pl/View?doc=D108_RUClinicalObstetrics.html
Responsabile scientifico/Coordinatore	VINCENTI Leila (Scienze veterinarie)

LS3_12 - Stem cell biology LS3_9 - Development, developmental genetics, pattern formation and embryology in animals

LS4_3 - Endocrinology

LS6_13 - Veterinary medicine and infectious diseases in animals

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
NERVO	Tiziana	Scienze veterinarie	Ricercatore	VET/10
PONZIO	Patrizia	Scienze veterinarie	Ricercatore	VET/10
QUARANTA	Giuseppe	Scienze veterinarie	Prof. Ordinario	VET/10
RICCI	Alessandro	Scienze veterinarie	Ricercatore	VET/10
ROTA	Ada	Scienze veterinarie	Prof. Associato	VET/10
STARVAGGI CUCUZZA	Alessandro	Scienze veterinarie	Ricercatore	VET/10

Altro Personale	Poletto Maria Grazia, Pregel Paola.

17. Scheda inserita da altra Struttura ("Neuroscienze "Rita Levi Montalcini""), tra i componenti risultano persone afferenti a questa Struttura:

Nome gruppo*	Museologia e Paleoantropologia
Descrizione	Studio di tecniche di comunicazione museale. Ricerche sulle collezioni museali e sulla loro storia e sui personaggi che le hanno raccolte. Studio anatomico di resti umani fossili. Analisi tecnologica di manufatti preistorici con significato estetico e simbolico. Studio di testimonianze di rituali funerari.
Sito web	http://neuroscienze.campusnet.unito.it/do/gruppi.pl/Show?_id=zlem
Responsabile scientifico/Coordinatore	GIACOBINI Giacomo (Neuroscienze "Rita Levi Montalcini")

Settore ERC del gruppo:

SH5_7 - Museums and exhibitions

SH6_10 - History of ideas, intellectual history, history of sciences and techniques

SH6_2 - Prehistory and protohistory

Cognome	Nome	Struttura	Qualifica	Settore
GALLONI	Marco Rodolfo Pietro	Scienze veterinarie	Prof. Associato	VET/01
MANGIAPANE	Gianluigi	Neuroscienze Rita Levi Montalcini	Assegnista	BIO/16
MONTALDO	Silvano	Studi storici	Prof. Associato	M-STO/04