

Universita' degli Studi di PADOVA

PIANO TRIENNALE DI SVILUPPO DELLA RICERCA (PTSR)

TRIENNIO 2019-2021 - prot. PTSR19PJ7A

Dipartimento

Dip. BIOMEDICINA COMPARATA ED ALIMENTAZIONE (BCA)

1. Ambiti di ricerca

Ambiti di ricerca già attivati (presenti nella SCRI-RD 2018)

Ambito di ricerca già attivato: 1

Ambito di ricerca

Anatomia Veterinaria

- 1.1 Neuroanatomia e sviluppo del sistema nervoso centrale.
- 1.2 Potenzialità terapeutiche delle cellule staminali.
- 1.3 Anatomia funzionale degli organismi acquatici (mammiferi, pesci e invertebrati).
- 1.4 Struttura, funzione e sviluppo del muscolo scheletrico.

SSD

1.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
2.	VET/02 - FISIOLOGIA VETERINARIA
3.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA

Settore ERC

1.	LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology, in plants and animals, or, where appropriate, in microorganisms - LS3_12 - Stem cell biology in development, tissue regeneration and ageing, and fundamental aspects of stem cell-based therapies
2.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_1 - Neural cell function, communication and signalling, neurotransmission in neuronal and/or glial cells

Ambito di ricerca già attivato: 2

Ambito di ricerca

Fisiologia ed Etologia veterinaria

- 2.1 Fisiologia dell'adattamento e risposta allo stress negli animali di interesse veterinario.
- 2.2 Fisiologia della riproduzione negli animali di interesse veterinario.

2.3 Integrazione degli animali domestici nella società umana.

2.4 Etologia applicata.

2.5 Percezione e cognizione animale.

SSD

1.	VET/02 - FISILOGIA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
4.	AGR/20 - ZOOCOLTURE

Settore ERC

1.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_1 - Organ physiology and pathophysiology
2.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_2 - Comparative physiology and pathophysiology
3.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_3 - Molecular aspects of endocrinology
4.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_4 - Fundamental mechanisms underlying ageing
5.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_4 - Sensation and perception (e.g. sensory systems, sensory processing, pain)
6.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_5 - Neural bases of cognitive processes (e.g. memory, learning, attention)
7.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_9 - Neurotrauma and neurovascular conditions (including injury, blood-brain barrier, stroke, neurorehabilitation)
8.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_1 - Innate immunity in animals and plants
9.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_4 - Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)
10.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
11.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)

Ambito di ricerca già attivato: 3

Ambito di ricerca

Patologia generale e anatomia patologica veterinaria

3.1 Patologie neoplastiche nel cane e nel gatto in medicina comparata (tumore mammario e cellule staminali tumorali; melanoma del cane).

3.2 Diabete felino.

3.3 Malattie delle specie acquatiche: tartarughe, pesci e invertebrati.

3.4 Malattie e patologia clinica dei mammiferi marini.

3.5 Patologia delle specie animali mantenute in ambiente controllato.

3.6 Immunità aspecifica negli animali da reddito.

3.7 Messa a punto di tecniche diagnostiche innovative.

SSD

1.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/02 - FISIOLOGIA VETERINARIA

Settore ERC

1.	LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology, in plants and animals, or, where appropriate, in microorganisms - LS3_1 - Morphology and functional imaging of cells and tissues
2.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_1 - Organ physiology and pathophysiology
3.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_2 - Comparative physiology and pathophysiology
4.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_3 - Molecular aspects of endocrinology
5.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_4 - Fundamental mechanisms underlying ageing
6.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_5 - Metabolism, biological basis of metabolism-related disorders
7.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_6 - Fundamental mechanisms underlying cancer
8.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_7 - Fundamental mechanisms underlying cardiovascular diseases
9.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_1 - Innate immunity in animals and plants
10.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_2 - Adaptive immunity
11.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_3 - Regulation and effector functions of the immune response (e.g. cytokines, interferons and chemokines, inflammation, immune signalling, helper T cells, immunological memory, immunological tolerance, cell-mediated cytotoxicity, complement)
12.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_4 - Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)
13.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_5 - Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
14.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_6 - Mechanisms of infection (e.g. transmission, virulence factors, host defences, immunity to pathogens, molecular pathogenesis)
15.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_7 - Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)
16.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
17.	LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_8 - Coevolution, biological mechanisms and ecology of species interactions (e.g. symbiosis, parasitism, mutualism, food-webs)
18.	LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_11 - Marine biology and ecology

Ambito di ricerca già attivato: 4

Ambito di ricerca

Ispesione degli alimenti di origine animale e

Malattie infettive degli animali domestici

4.1 Studio e caratterizzazione di patogeni alimentari e comunità microbiche negli alimenti.

4.2 Autenticazione di prodotto alimentare di origine animale.

4.3 Utilizzo di ingredienti e tecniche di conservazione alternative.

4.4 Composizione nutrizionale e tutela del consumatore.

4.5 Microrganismi zoonotici, in particolare *Campylobacter*.

4.6 Antibiotico-resistenza di microrganismi zoonotici.

SSD

1.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
2.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI
3.	VET/07 - FARMACOLOGIA E TOSSICOLOGIA VETERINARIA
4.	AGR/20 - ZOOCOLTURE

Settore ERC

1.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_5 - Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
2.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_7 - Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)
3.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
4.	LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_1 - Imaging for medical diagnosis
5.	LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_8 - Epidemiology and public health
6.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)
7.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_8 - Biohazards (including biological containment, biosafety, biosecurity)

Ambito di ricerca già attivato: 5

Ambito di ricerca

Farmacologia e tossicologia veterinaria

5.1 Farmacogenetica e Tossicogenomica.

5.2 Espressione e regolazione genica (enzimi farmaco-metabolizzanti, proteine di afflusso/efflusso) nelle specie di interesse veterinario.

5.3. Nutrigenomica.

5.4. Terapia a bersaglio molecolare in oncologia veterinaria e comparata.

5.5 Effetti sub-letali di contaminanti ambientali su organismi dei diversi livelli trofici degli ambienti dulciacquicoli.

5.6 Analisi LC/MS-MS applicate per studi di sicurezza alimentare e per valutare il profilo ormonale in animali da produzione.

5.7 Studi di farmacocinetica.

5.8 Farmacoresistenza.

SSD

1.	VET/07 - FARMACOLOGIA E TOSSICOLOGIA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/02 - FISIOLOGIA VETERINARIA
4.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
5.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
6.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI

Settore ERC

1.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_1 - Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates
2.	LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_5 - Epigenetics and gene regulation
3.	LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_8 - Transcriptomics
4.	LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_12 - Bioinformatics
5.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_6 - Fundamental mechanisms underlying cancer
6.	LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_4 - Pharmacology and pharmacogenomics (including drug discovery and design, drug delivery and therapy, toxicology)
7.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)
8.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)

Ambito di ricerca già attivato: 6

Ambito di ricerca

Scienze Animali

6.1 Miglioramento genetico animale.

6.2 Strategie nutrizionali per migliorare la qualità del latte e ridurre l'impatto ambientale degli allevamenti.

6.3 Sistemi di allevamento, benessere e qualità dei prodotti nelle zooteculture (avicoltura, conigliocultura, acquacoltura).

SSD

1.	AGR/17 - ZOOTECNICA GENERALE E MIGLIORAMENTO GENETICO
2.	AGR/18 - NUTRIZIONE E ALIMENTAZIONE ANIMALE
3.	AGR/20 - ZOOCOLTURE
4.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
5.	VET/02 - FISIOLOGIA VETERINARIA
6.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
7.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI

Settore ERC

1.	LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_3 - Quantitative genetics
2.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)
3.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)

Ambito di ricerca già attivato: 7

Ambito di ricerca

Zoologia, Biochimica, Biologia Applicata

7.1 Genomica ambientale e acquacoltura.

7.2 Genomica e filogenomica mitocondriale.

7.3 Evoluzione e filogenesi dei pesci ossei.

7.4 Identificazione molecolare di specie animali.

7.5 Bionanotecnologie.

7.6 Food analysis.

7.7 Interazioni tra ospite e microbiota.

SSD

1.	BIO/05 - ZOOLOGIA
2.	BIO/10 - BIOCHIMICA
3.	BIO/13 - BIOLOGIA APPLICATA
4.	VET/02 - FISIOLOGIA VETERINARIA

Settore ERC

1.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_1 - Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates
2.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_2 - Biochemistry
3.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_5 - Protein synthesis, modification, turnover

4.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_8 - Molecular biophysics (e.g. single-molecule approaches, bioenergetics, fluorescence)</i>
5.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_10 - Molecular mechanisms of signalling pathways</i>
6.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_5 - Epigenetics and gene regulation</i>
7.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_6 - Genomics (e.g. comparative genomics, functional genomics)</i>
8.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_3 - Population biology, population dynamics, population genetics</i>
9.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_5 - Evolutionary genetics</i>
10.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_6 - Phylogenetics, systematics, comparative biology</i>
11.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_8 - Coevolution, biological mechanisms and ecology of species interactions (e.g. symbiosis, parasitism, mutualism, food-webs)</i>
12.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_10 - Microbial ecology and evolution</i>
13.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_11 - Marine biology and ecology</i>

Ambito di ricerca già attivato: 8

Ambito di ricerca

Filosofia morale - Bioetica veterinaria

8.1 Critical Reasoning and Decision Making Process.

8.2 Animal Welfare Ethics.

Conservation Ethics.

8.3 Veterinary Medical Ethics.

SSD

1.	<i>M-FIL/03 - FILOSOFIA MORALE</i>
2.	<i>VET/02 - FISIOLOGIA VETERINARIA</i>

Settore ERC

1.	<i>SH5 - Cultures and Cultural Production: Literature, philology, cultural studies, study of the arts, philosophy - SH5_10 - Ethics; social and political philosophy</i>
2.	<i>LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_10 - Health services, health care research, medical ethics</i>

Ambiti di ricerca nuovi (previsti nel triennio 2019-2021)

Ambito di ricerca nuovo: 1

Ambito di ricerca

Anatomia Veterinaria

- 1.1 Neuroanatomia e sviluppo del sistema nervoso centrale.
- 1.2 Potenzialità terapeutiche delle cellule staminali.
- 1.3 Anatomia funzionale degli organismi acquatici (mammiferi, pesci e invertebrati).
- 1.4 Struttura, funzione e sviluppo del muscolo scheletrico.

SSD

1.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
2.	VET/02 - FISIOLOGIA VETERINARIA
3.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA

Settore ERC

1.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_3 - DNA synthesis, modification, repair, recombination, degradation
2.	LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_5 - Protein synthesis, modification, turnover
3.	LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology, in plants and animals, or, where appropriate, in microorganisms - LS3_12 - Stem cell biology in development, tissue regeneration and ageing, and fundamental aspects of stem cell-based therapies
4.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_1 - Organ physiology and pathophysiology
5.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_1 - Neural cell function, communication and signalling, neurotransmission in neuronal and/or glial cells
6.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)
7.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_2 - Applied bioengineering, synthetic biology, chemical biology, nanobiotechnology, metabolic engineering, protein and glyco-engineering, tissue engineering, biocatalysis, biomimetics
8.	SH2 - Institutions, Values, Environment and Space: Political science, law, sustainability science, geography, regional studies and planning - SH2_6 - Sustainability sciences, environment and resources

Ambito di ricerca nuovo: 2

Ambito di ricerca

Fisiologia ed Etologia veterinaria

- 2.1 Fisiologia dell'adattamento e risposta allo stress negli animali di interesse veterinario.
- 2.2 Fisiologia della riproduzione negli animali di interesse veterinario.
- 2.3 Integrazione degli animali domestici nella società umana.
- 2.4 Etologia applicata.
- 2.5 Percezione e cognizione animale.

SSD

1.	VET/02 - FISIOLOGIA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
4.	AGR/20 - ZOOCOLTURE

Settore ERC

1.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_1 - Organ physiology and pathophysiology
2.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_2 - Comparative physiology and pathophysiology
3.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_3 - Molecular aspects of endocrinology
4.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_4 - Fundamental mechanisms underlying ageing
5.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_4 - Sensation and perception (e.g. sensory systems, sensory processing, pain)
6.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_5 - Neural bases of cognitive processes (e.g. memory, learning, attention)
7.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_9 - Neurotrauma and neurovascular conditions (including injury, blood-brain barrier, stroke, neurorehabilitation)
8.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_1 - Innate immunity in animals and plants
9.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_4 - Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)
10.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
11.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)

Ambito di ricerca nuovo: 3

Ambito di ricerca

Patologia generale e anatomia patologica veterinaria

3.1 *Patologie neoplastiche nel cane e nel gatto in medicina comparata (tumore mammario e cellule staminali tumorali; melanoma del cane).*

3.2 *Diabete felino.*

3.3 *Malattie delle specie acquatiche: tartarughe, pesci e invertebrati.*

3.4 *Malattie e patologia clinica dei mammiferi marini.*

3.5 *Patologia delle specie animali mantenute in ambiente controllato.*

3.6 *Immunità aspecifica negli animali da reddito.*

3.7 *Messa a punto di tecniche diagnostiche innovative.*

SSD

1.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/02 - FISIOLOGIA VETERINARIA

Settore ERC

1.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_1 - Organ physiology and pathophysiology
2.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_2 - Comparative physiology and pathophysiology
3.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_3 - Molecular aspects of endocrinology
4.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_4 - Fundamental mechanisms underlying ageing
5.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_5 - Metabolism, biological basis of metabolism-related disorders
6.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_6 - Fundamental mechanisms underlying cancer
7.	LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_7 - Fundamental mechanisms underlying cardiovascular diseases
8.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_1 - Neural cell function, communication and signalling, neurotransmission in neuronal and/or glial cells
9.	LS5 - Neuroscience and Neural Disorders: Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders - LS5_2 - Systems neuroscience and computational neuroscience (e.g. neural networks, neural modelling)
10.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_1 - Innate immunity in animals and plants
11.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_2 - Adaptive immunity
12.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_3 - Regulation and effector functions of the immune response (e.g. cytokines, interferons and chemokines, inflammation, immune signalling, helper T cells, immunological memory, immunological tolerance, cell-mediated cytotoxicity, complement)
13.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_4 - Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)
14.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_5 - Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
15.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_6 - Mechanisms of infection (e.g. transmission, virulence factors, host defences, immunity to pathogens, molecular pathogenesis)
16.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_7 - Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)
17.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
18.	LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology, in plants and animals, or, where appropriate, in microorganisms - LS3_1 - Morphology and functional imaging of cells and tissues
19.	LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_8 - Coevolution, biological mechanisms and ecology of species interactions (e.g. symbiosis, parasitism, mutualism,

	food-webs)
20.	LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_11 - Marine biology and ecology

Ambito di ricerca nuovo: 4

Ambito di ricerca

Ispezione degli alimenti di origine animale e Malattie infettive degli animali domestici

- 4.1 Studio e caratterizzazione di patogeni alimentari e comunità microbiche negli alimenti.
- 4.2 Autenticazione di prodotto alimentare di origine animale.
- 4.3 Utilizzo di tecnologie ed ingredienti alternativi per incrementare la sicurezza dei prodotti e la shelf life.
- 4.4 Composizione nutrizionale e tutela del consumatore.
- 4.5 Filiera animale/materia prima/prodotto trasformato e flusso dei composti bioattivi
- 4.5 Microrganismi zoonotici, in particolare *Campylobacter*.
- 4.6 Antibiotico-resistenza di microrganismi zoonotici.

SSD

1.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
2.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI
3.	VET/07 - FARMACOLOGIA E TOSSICOLOGIA VETERINARIA
4.	AGR/20 - ZOOCOLTURE

Settore ERC

1.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_7 - Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)
2.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_5 - Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
3.	LS6 - Immunity and Infection: The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases - LS6_8 - Infectious diseases in animals and plants
4.	LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_1 - Imaging for medical diagnosis
5.	LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_8 - Epidemiology and public health
6.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)
7.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_8 - Biohazards (including biological containment, biosafety, biosecurity)

Ambito di ricerca nuovo: 5

Ambito di ricerca

Farmacologia e tossicologia veterinaria

- 5.1 Farmacogenetica e Tossicogenomica.

- 5.2. *Espressione e regolazione genica (enzimi farmaco-metabolizzanti, proteine di afflusso/efflusso) nelle specie di interesse veterinario.*
- 5.3. *Nutrigenomica.*
- 5.4. *Terapia a bersaglio molecolare in oncologia veterinaria e comparata.*
- 5.5. *Effetti sub-letali di contaminanti ambientali su organismi dei diversi livelli trofici degli ambienti dulciacquicoli.*
- 5.6. *Analisi LC/MS-MS applicate per studi di sicurezza alimentare e per valutare il profilo ormonale in animali da produzione.*
- 5.7. *Studi di farmacocinetica.*
- 5.8. *Farmacoresistenza.*

SSD

1.	VET/07 - FARMACOLOGIA E TOSSICOLOGIA VETERINARIA
2.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
3.	VET/02 - FISIOLOGIA VETERINARIA
4.	VET/03 - PATOLOGIA GENERALE E ANATOMIA PATOLOGICA VETERINARIA
5.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
6.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI
7.	AGR/20 - ZOOCOLTURE

Settore ERC

1.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_1 - Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates</i>
2.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_8 - Transcriptomics</i>
3.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_5 - Epigenetics and gene regulation</i>
4.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_12 - Bioinformatics</i>
5.	<i>LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes - LS4_6 - Fundamental mechanisms underlying cancer</i>
6.	<i>LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_4 - Pharmacology and pharmacogenomics (including drug discovery and design, drug delivery and therapy, toxicology)</i>
7.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_11 - Marine biology and ecology</i>
8.	<i>LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)</i>
9.	<i>LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)</i>

Ambito di ricerca nuovo: 6

Ambito di ricerca

Scienze Animali

6.1 Miglioramento genetico animale.

6.2 Strategie nutrizionali per migliorare la qualità dei prodotti di origine animale e garantire la sostenibilità degli allevamenti.

6.3 Sistemi di allevamento, benessere e qualità dei prodotti nelle zooteculture (avicoltura, conigliocultura, acquacoltura).

SSD

1.	AGR/17 - ZOOTECNICA GENERALE E MIGLIORAMENTO GENETICO
2.	AGR/18 - NUTRIZIONE E ALIMENTAZIONE ANIMALE
3.	AGR/20 - ZOOCOLTURE
4.	VET/01 - ANATOMIA DEGLI ANIMALI DOMESTICI
5.	VET/02 - FISIOLOGIA VETERINARIA
6.	VET/04 - ISPEZIONE DEGLI ALIMENTI DI ORIGINE ANIMALE
7.	VET/05 - MALATTIE INFETTIVE DEGLI ANIMALI DOMESTICI
8.	VET/07 - FARMACOLOGIA E TOSSICOLOGIA VETERINARIA

Settore ERC

1.	LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_3 - Quantitative genetics
2.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)
3.	LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_5 - Food sciences (including food technology, food safety, nutrition)

Ambito di ricerca nuovo: 7

Ambito di ricerca

Zoologia, Biochimica, Biologia Applicata

7.1 Genomica ambientale e acquacoltura.

7.2 Genomica e filogenomica mitocondriale.

7.3 Evoluzione e filogenesi dei pesci ossei.

7.4 Effetti dei cambiamenti ambientali su specie acquatiche di interesse commerciale

7.5 Bionanotecnologie.

7.6 Food analysis.

7.7 Interazioni tra ospite e microbiota.

7.8 Evoluzione e genomica funzionale delle relazioni tra ospite e microbiota

7.9 Protein kinases as druggable targets in human and veterinary sciences

SSD

1.	BIO/05 - ZOOLOGIA
2.	BIO/10 - BIOCHIMICA
3.	BIO/13 - BIOLOGIA APPLICATA
4.	VET/02 - FISIOLOGIA VETERINARIA

Settore ERC

1.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_1 - Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates</i>
2.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_2 - Biochemistry</i>
3.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_5 - Protein synthesis, modification, turnover</i>
4.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_8 - Molecular biophysics (e.g. single-molecule approaches, bioenergetics, fluorescence)</i>
5.	<i>LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics: Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics signalling pathways - LS1_10 - Molecular mechanisms of signalling pathways</i>
6.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_6 - Genomics (e.g. comparative genomics, functional genomics)</i>
7.	<i>LS2 - Genetics, 'Omics', Bioinformatics and Systems Biology: Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology - LS2_5 - Epigenetics and gene regulation</i>
8.	<i>LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation and stem cell biology, in plants and animals, or, where appropriate, in microorganisms - LS3_5 - Cell signalling and signal transduction</i>
9.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_3 - Population biology, population dynamics, population genetics</i>
10.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_6 - Phylogenetics, systematics, comparative biology</i>
11.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_5 - Evolutionary genetics</i>
12.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_11 - Marine biology and ecology</i>
13.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_10 - Microbial ecology and evolution</i>
14.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_8 - Coevolution, biological mechanisms and ecology of species interactions (e.g. symbiosis, parasitism, mutualism, food-webs)</i>
15.	<i>LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_1 - Applied biotechnology (including transgenic organisms, applied genetics and genomics, biosensors, bioreactors, microbiology, bioactive compounds)</i>
16.	<i>LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_3 - Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)</i>
17.	<i>LS9 - Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental, and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards - LS9_8 - Biohazards (including biological containment, biosafety, biosecurity)</i>

Ambito di ricerca nuovo: 8

Ambito di ricerca

Filosofia morale - Bioetica veterinaria

8.1 Critical Reasoning and Decision Making Process.

8.2 *Animal Welfare Ethics.*

8.3 *Conservation Ethics.*

8.4 *Veterinary Medical Ethics.*

SSD

1.	<i>M-FIL/03 - FILOSOFIA MORALE</i>
2.	<i>VET/02 - FISIOLOGIA VETERINARIA</i>

Settore ERC

1.	<i>SH2 - Institutions, Values, Environment and Space: Political science, law, sustainability science, geography, regional studies and planning - SH2_6 - Sustainability sciences, environment and resources</i>
2.	<i>SH2 - Institutions, Values, Environment and Space: Political science, law, sustainability science, geography, regional studies and planning - SH2_7 - Environmental and climate change, societal impact and policy</i>
3.	<i>SH5 - Cultures and Cultural Production: Literature, philology, cultural studies, study of the arts, philosophy - SH5_10 - Ethics; social and political philosophy</i>
4.	<i>LS7 - Applied Medical Technologies, Diagnostics, Therapies and Public Health: Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health - LS7_10 - Health services, health care research, medical ethics</i>
5.	<i>LS8 - Ecology, Evolution and Environmental Biology: Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology - LS8_3 - Population biology, population dynamics, population genetics</i>

2. SWOT analysis

Punti di forza

P - Produzione scientifica

Ranking Dipartimento nella VQR 2004-2010 confermata e rafforzata nella VQR 2011-2014.

Distribuzione prodotti per score e classificazione Scimago 2015-2018: prodotti in Q1 e Q2 96%; numero di prodotti valutabili e numero di prodotti Q1 per docente 2.

Linee di ricerca consolidate.

Forte multidisciplinarietà della ricerca e aggregazioni fra diversi SSD all'interno del Dipartimento.

Commissione VQR.

Coinvolgimento di tutti gli SSD nel progetto ECCE AQUA.

Programmazione dell'uso del BIRD 2018-2022 funzionale al sostegno delle attività di ricerca di tutte le aree in maniera coordinata con la gestione delle risorse del progetto ECCE AQUA.

Presenza di personale tecnico di laboratorio altamente qualificato che svolge funzioni strettamente associate all'attività di ricerca e in tutte le sue fasi.

I - Internazionalizzazione

Attrattività stage/visiting in entrata.

MoU e MIT già attivi.

Corsi di laurea Animal Care e BAL in inglese.

Progetto di eccellenza ECCE AQUA.

F - Fund raising

Capacità e attività di progettazione (1,90 progetti con coordinamento per docente nel triennio 2016-2018).

Successo di finanziamento sui bandi competitivi nazionali/internazionali (40%/20%).

Successo di finanziamento sui bandi europei (15,4%).

Presenza in BCA della multidisciplinarietà richiesta dai bandi competitivi.

Numerosità del personale in mobilità negli anni 2016-2018 (progressioni e reclutamento).

Punti di debolezza

P - Produzione scientifica	<p><i>Esigenze di pubblicazione per linee di ricerca dei settori VET (elevato impact factor, riviste mediche, score limitato).</i></p> <p><i>Elevato sbilanciamento "strutturale" della posizione bibliometrica (H index) dei settori VET rispetto ai settori delle scienze biomediche umane nell'assegnazione dei fondi competitivi e in ambiti di ricerca collaborativi (vedi One Health).</i></p> <p><i>Le pubblicazioni in collaborazione con altri SSD del Dipartimento e con altri dipartimenti dell'Ateneo richiedono una gestione puntuale per l'attribuzione ai fini della VQR.</i></p> <p><i>Eventuale penalizzazione BIRD di Ateneo in funzione di risultati PTSR 2016-18.</i></p> <p><i>Variabilità della composizione (pensionamenti, trasferimenti, acquisizioni) e dimensione delle aree.</i></p> <p><i>Limitato o non possibile coinvolgimento di alcune linee di ricerca nel progetto ECCE AQUA.</i></p> <p><i>Forti limiti negli spazi e nei laboratori di Dipartimento per l'attività di docenti, tecnici, personale in formazione.</i></p> <p><i>Limiti alla disponibilità di personale tecnico amministrativo (per progettazione e rendicontazione) e di laboratorio.</i></p>
I - Internazionalizzazione	<p><i>Variabilità attività dei docenti entro area.</i></p> <p><i>Dimensioni e attività diversificate fra le aree e relativi limiti all'impegno del personale strutturato sulla mobilità in uscita.</i></p>
F - Fund raising	<p><i>Dimensione limitata dei gruppi di ricerca.</i></p> <p><i>Minore visibilità dei docenti partecipanti all'attività di progettazione (visibile solo il coordinatore).</i></p> <p><i>Copertura diretta dei costi della ricerca con fondi di altri enti (es. Fondazione Vicenza, IZS).</i></p> <p><i>Scarsa capacità di cofinanziamento su fund raising.</i></p> <p><i>Disponibilità di PTA dedicato a fund raising e rendicontazione nazionale e internazionale.</i></p>

Opportunità

P - Produzione scientifica	<p><i>Progetto di eccellenza ECCE AQUA per avviare nuove linee e rafforzare linee di ricerca esistenti.</i></p> <p><i>Risorse infrastrutturali in fase di acquisizione con il progetto ECCE AQUA e trasversali a quasi tutto il Dipartimento.</i></p> <p><i>Disponibilità di fondi/bandi di Ateneo per la partecipazione a bandi per formazione alla ricerca e promozione ingresso ricercatori stranieri (ECCE AQUA, fondi Ateneo Internazionalizzazione didattica).</i></p> <p><i>Partecipazione a bandi competitivi su fondi regionali, nazionali e internazionali per progetti di ricerca e formazione alla ricerca.</i></p>
I - Internazionalizzazione	<p><i>Bandi LLP/Cooperazione universitaria per mobilità dei docenti BCA (visibilità).</i></p> <p><i>Bandi visiting/cooperazione universitaria per stage/seminari presso BCA (attrattività).</i></p> <p><i>Bandi internazionalizzazione Ateneo.</i></p>
F - Fund raising	<p><i>Servizi di Ateneo di Padova (Servizio Relazioni Internazionali, EU Research Hub).</i></p> <p><i>Eventi Commissione europea presentazione bandi.</i></p> <p><i>Partecipazione a gruppi stakeholder e orientamento (es. APRE, EFFAB).</i></p> <p><i>Incentivare la partecipazione piuttosto che il coordinamento perché può far entrare i docenti del Dipartimento in "cordate" più competitive anche negli ambiti delle Life Sciences non comparate.</i></p>

Rischi

P - Produzione scientifica	<p><i>Rispetto alle altre Università: difficile migliorare la qualità della produzione scientifica di BCA in un contesto nazionale molto competitivo in cui tutte le Università spingono verso il miglioramento della posizione attuale.</i></p> <p><i>Rispetto all'Ateneo: richiesta di miglioramento risultati su didattica e terza missione.</i></p> <p><i>Riduzione del budget totale disponibile per la ricerca e del numero di bandi annuali.</i></p> <p><i>Limitata spendibilità di alcune linee di ricerca del Dipartimento con riferimento ai bandi disponibili per progetti di ricerca.</i></p> <p><i>Riduzione nella disponibilità di fondi per la formazione alla ricerca (borse di dottorato, assegni di ricerca) successivi ad ECCE AQUA (nel medio periodo).</i></p> <p><i>Variabilità delle linee guida nazionali (ANVUR) e di Ateneo per la valutazione della produttività scientifica, che complica la definizione di politiche di Dipartimento. Incertezza su prossime politiche VQR per criteri di valutazione della qualità dei prodotti (score, numero autori, posizione autore).</i></p> <p><i>Riduzione del turn over di personale docente e tecnico di laboratorio.</i></p> <p><i>Politica di Ateneo sugli investimenti infrastrutturali.</i></p>
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- I - Internazionalizzazione** *Disponibilità di spazi e laboratori per attrarre e ospitare ricercatori stranieri, ulteriormente influenzata dall'espansione fisiologica del Dipartimento.*
Competizione su bandi internazionalizzazione.
- F - Fund raising** *Riduzione del budget totale disponibile per la ricerca e del numero di bandi annuali.*
Procedure amministrative per l'accesso ai bandi internazionali.
Competizione dei settori VET con i settori delle scienze biomediche umane nell'assegnazione dei fondi competitivi.
Partecipazione a progetti di altri Enti che non prevedono trasferimento di budget a BCA.

3. Piano 2019-2021

P - Produzione scientifica

n°	Descrizione degli obiettivi specifici di dipartimento	Indicatori quantitativi per verifica raggiungimento obiettivi	Baseline - dato di partenza	Target - valore obiettivo	Azioni previste per raggiungimento obiettivi
1.	<i>Perseguimento dell'eccellenza</i>	<i>Pubblicazioni ai fini VQR</i>	<i>(inserire NP se non pertinente)100% dei docenti con 2 pubblicazioni in Q1 esclusive* BCA nel triennio 2016-2018</i> <i>* Esclusività valutata sulla base dei criteri VQR 2011-2014</i>	<i>70% dei docenti con almeno 3 pubblicazioni in Q1** esclusive* BCA nel triennio 2019-2021;</i> <i>30% dei docenti con almeno 2 pubblicazioni in Q1** esclusive* BCA nel triennio 2019-2021</i> <i>* Esclusività valutata sulla base dei criteri VQR 2011-2014</i> <i>** Per i settori non bibliometrici: pubblicazioni in Q1 nelle riviste scientifiche o in Fascia A (come da elenchi ANVUR)</i>	<i>Mantenimento e implementazione Piano ripartizione BIRD 2018-2022.</i> <i>Valutazione ex post assegnazioni BIRD.</i>
2.	<i>Perseguimento dell'eccellenza</i>	<i>Produzione scientifica del personale in mobilità (neo-assunti, passaggi di ruolo) nel triennio 2016-2018</i>	<i>(inserire NP se non pertinente)Numero medio di pubblicazioni in Q1 non esclusive/docente nel triennio 2016-2018 (6,4/docente)</i>	<i>Percentuale di docenti in mobilità che produce un numero di pubblicazioni in Q1** non esclusive/docente >= 50% del numero medio di pubblicazioni in Q1** non esclusive del Dipartimento nel triennio 2019-2021 = 100%</i> <i>** Per i settori non bibliometrici: pubblicazioni in Q1 nelle riviste scientifiche o in Fascia A (come da elenchi ANVUR)</i>	<i>Mantenimento e implementazione Piano ripartizione BIRD 2018-2022.</i> <i>Valutazione ex post assegnazioni BIRD.</i>

I - Internazionalizzazione

n°	Descrizione degli obiettivi specifici di dipartimento	Indicatori quantitativi per verifica raggiungimento obiettivi	Baseline - dato di partenza	Target - valore obiettivo	Azioni previste per raggiungimento obiettivi
1.	<i>Consolidamento della visibilità dei docenti BCA</i>	<i>Numero di attività (lectures/cicli di lezione presso Università e Istituti di ricerca internazionali; mobilità in uscita con durata >= 5 giorni per attività e collaborazioni di ricerca presso Università e istituti di ricerca internazionali)</i>	<i>18 attività nel</i>	<i>>= 21 attività nel</i>	<i>Offrire un cofinanziamento alla mobilità di docenti (in/out).</i>

triennio triennio
2016-2018 2019-2021 *Stimolare partecipazione a bandi per mobilità (es. LLP)*

2. *Consolidamento dell'attrattività internazionale.* *Numero di ricercatori junior e senior stranieri che frequentano BCA come visiting e per attività di ricerca.* 45 attività nel triennio 2016-2018 *>= 46 attività nel triennio 2019-2021* *Programmazione utilizzo fondi a disposizione (fondi internazionalizzazione, progetto ECCE AQUA, bandi LLP Erasmus, bandi visiting Ateneo, etc.)*

F - Fund raising

n°	Descrizione degli obiettivi specifici di dipartimento	Indicatori quantitativi per verifica raggiungimento obiettivi	Baseline - dato di partenza	Target - valore obiettivo	Azioni previste per raggiungimento obiettivi
1.	<i>Consolidamento della capacità di progettazione dei docenti BCA</i>	<i>Numero di domande presentate da docenti BCA come coordinatore o responsabile di unità operativa/numero docenti BCA</i>	<i>1,9 nel triennio 2016-2018</i>	<i>>= 2 nel triennio 2019-2021</i>	<i>Cofinanziamento di Dipartimento alla mobilità di docenti (in/out) e PTA per rafforzare coordinamento e collaborazioni finalizzate alla presentazione di progetti internazionali e per la formazione alla presentazione/gestione progetti internazionali.</i>
2.	<i>Sviluppo della capacità di progettazione dei docenti BCA in mobilità</i>	<i>Docenti BCA in mobilità negli anni 2016-2018 che presentano progetto come coordinatore o responsabile di unità operativa o partecipanti a progetto su bando competitivo non coordinato da altro docente BCA dello stesso SSD</i>	<i>Non disponibile.</i>	<i>Percentuale di docenti in mobilità che presenta/partecipa a un progetto su bando competitivo nel triennio 2019-2021 = 100%</i>	<i>Cofinanziamento di Dipartimento alla mobilità di docenti (in/out) e PTA per rafforzare coordinamento e collaborazioni finalizzate alla presentazione di progetti internazionali e per la formazione alla presentazione/gestione progetti internazionali.</i>

Il direttore del dipartimento Prof. Bruno COZZI

Data 20/12/2019 11:02