Visit of Chinese delegation to the University of Padova Research in rabbit science and production in China and Italy Monday, September 13, 2010

FACULTY OF VETERINARY MEDICINE: teaching courses and main research activities Lucia Bailoni



UNIVERSITÀ DEGLI STUDI DI PADOVA



Very brief history

UNIVERSITÀ degli STUDI di PADOVA

Founded on 1222

"Collegium Zooiatricum" 1773

Veterinary Faculty re-opened on 1992







UNIVERSITÀ DEGLI STUDI DI PADOVA



Full approuvment

European Association of Establishments for Veterinary Education (EAEVE) 2010

Website: www.veterinaria.unipd.it

24-hr service

Clinical Lecture hall

Clinical Dept.

Stables for animals



Public health Dept.



Large animals Surgery

130

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Small animals Surgery

TIGER in the Computed Tomography (CT)

Dunence





Degree courses offered by the Faculty

5-years degree course

• Veterinary Medicine

3-years degree courses



- Safety and hygiene of food products
- Health biotechnologies (in collaboration with other faculties)
- Animal science and technology (in collaboration with other faculties)



2-years degree course

• Biotechnology applied to food safety and nutrition (in collaboration with other faculties)



Veterinary Medicine Degree Course

Academic	Students	Available places	
year	present at the	("numerous	
-	admission test	clausus")	
2009/2010	547	63+7	



Academic year 09/10	Male	Female	Foreign (from non EU countries)	Total
Students n.	157	353	14	524
Percentage	30%	67%	3%	100%



The "Y" configuration of the Veterinary Medicine course 300 ULC

Beginning from 2° year the student must choice between 2 curricula

45 ULC = "Tirocinio" or practical training supervised activity



SOCRATES/ERASMUS

- Barcellona (Spagna)
- Caceres (Spagna)
- Madrid (Spagna)
- Murcia (Spagna)
- Lisbona (Portogallo)
- Berna (Svizzera)
- Zurigo (Svizzera)
- Gent (Belgio)
- Kosice (Slovacchia)
- Ankara (Turchia)
- Ondokuz (Turchia)



PROJECTS OF LEARNING, RESEARCH AND DEVELOPMENT

- Oslo (Norway)
- Iowa (USA)
- Texas A&M (USA)
- San Paolo (Brasil)
- Antananarivo (Madagascar)
- La Molina (Perù)





...and after the Degree ...?

UNIVERSITY

Schools of PhD

- Veterinary Science

Public Health and Comparative Pathology Veterinary and Comparative Biomedical Science Clinical Veterinary Science

- Animal Science

Animal production, feeding, quality of products and welfare Animal genetics, biotechnology and conservation of genetic resources

Post Degree Schools

- Breeding, Hygiene, Pathology of fishes
- Animal derived food Hygiene
- Animal Health





MASTER di Ist level in VETERINARY INTERNATIONAL COOPERATION

MASTER di IInd level in VETERINARY PUBLIC HEALTH

MASTER di IInd level in APPLIED ETHOLOGY AND ANIMAL WELFARE (in collaboration with Bologna University)









Research topics

Departments of the VET Faculty

• Dept. of Experimental Veterinary Science www.sperivet.unipd.it



- Dept. of Public Health, Comparative Pathology and Veterinary Hygiene www.sanitaveterinaria.unipd.it
- Dept. of Clinical Science www.veterinaria.unipd.it
- Dept. of Animal Science (DSA) (MED VET and AGR faculties) <u>www.dsa.unipd.it</u>









Department of Experimental Veterinary Science

VETERINARY ENDOCRINOLOGY AND BEHAVIOUR Endocrine system of domestic animals Embryo and fetal changes in the nervous system Reproductive efficiency in farm animal and pets Neuro endocrine control of behaviour Animal-owner interactions



ACQUATIC ORGANISMS Marine mammals, fish and invertebrates Bank of marine mammal tissue Differentiation, development and welfare of fish and invertebrates

PATHOGENIC MECHANISMS INVOLVED IN GENETIC AND NEURODEGENERATIVE DISEASES Selected protein involved in relevant diseases





Department of Experimental Veterinary Science

PARASITIC DISEASES AND PUBLIC HELATH Epidemiological features of some parasitic diseases

Emerging vector-borne parasitic diseases

Protozoan infections

Isolation of species and strains with zoonotic potential Identification of risk factors for each kind of disease Development and validation of diagnostic tools



SKELETAL MUSCLE: STRUCTURE, FUNCTION AND DEVELOPMENT Influences of myosin heavy chain isoform and myogenic factors expression on different kind of striated muscle





Department of Public Health, Comparative Pathology and Veterinary Hygiene

APPLIED DIAGNOSTICS Study of new diseases or new morphological aspects of lesions Gross and histopathology in small and large animals Imaging Analytic lab exams Cytology Molecular biology



MOLECULAR EVOLUTION AND APLLIED GENOMICS (MEAG) Study on animal diversity by molecular markers Study of the evolution of gene families (TLR an MHC) A micro-array technology to study expression profiling in different epocies

TRACEABILITY OF SPECIES AND ANIMAL PRODUCTS DNA based test Expression profiling of target tissues





Department of Public Health, Comparative Pathology and Veterinary Hygiene

FOOD SAFETY Microbiological risk assessment of food of animal origin **Detection of pathogenic and/or spoiling microorganisms** in food and feed Early detection of residue of illegally administered growth-promoting agents

ANIMAL HEALTH Infectious diseases of domestic and wild animals and zoonoses

ANIMAL MODEL Research on tumour pathologies Survey of genetically-based pathologies in domestic animals Identify similarities and differences for mammary tumours between animals and human Xenotransplantation (mechanisms involved in xenograft rejection, role of genetic engineering)







Università **DEGLI STUDI** DI PADOVA

Department of Clinical Science

EXPERIMENTAL CLINIC

Use of stem cells (repopulation of heart valves in swine and ovines) Xenotransplantation between transgenic pigs and non-human primates

SMALL ANIMLAS AND NON CONVENTIONAL ANIMALS CLINIC Improvement of fertility in dogs and cats Articular diseases and liver function in dogs **Clinical application of multi-layer tomography techniques** Metabolic bone disease in some species of reptile Use of radiographic/densitometric techniques to determine age in cetaceans Tomography anatomy of the rabbit **Development of innovative techniques of imaging diagnostics Emerging diseases (particularly those of endocrine system) Animal welfare** Acquisition of new surgical techniques





Department of Clinical Science

CLINIC AND BREEDING OF PRODUCTION ANIMALS Welfare and health of farm animals Reproductive status Health of newborn





Department of Animal Science (DSA)

FEEDING AND NUTRITION

Development of chemical and nutritional procedure to evaluate animal feeds In situ and in vitro techniques to estimate rumen degradation of feeds In vivo and in vitro techniques to estimate digestibility of feeds Nutritive value of diets for athletic horses Dietetic role of the fibre in monogastric animals Estimation of energy requirements in obese in dogs and cats Estimation of energy requirements in hospitalized dogs Developments of diets for companion rabbits Feeding strategy to reduce environmental pollution

Department of Animal Science (DSA)

ANIMAL HUSBANDRY

Methods for the evaluation of physical traits in diet for beef and dairy cattle; Management in dairy and beef cattle and relationship with quality of production; Relationship between type of floor and health status of beef cattle ANIMAL WELFARE Housing systems and diets address to meet behavioural needs of farm and companion animal; Rearing strategies address to avoid mutilation in farm animal (pig tail docking and cattle dehorning); Welfare assessing tools to apply at the farm level and at the shelters; **RABBIT AND POULTRY SCIENCE Relationships between nutrition and health in poultry and rabbits Energy and protein metabolism in rabbits** Effect of rearing systems and management on performance and welf rabbits, poultry and fish Factors affecting meat quality in rabbits, poultry and fish

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Università degli Studi di Padova

Thank you very much for your attention

