

**EAVPT
2015**

13th International Congress of the **European Association**
for **Veterinary Pharmacology and Toxicology**

19-22 July 2015 - Cité Nantes Events Center, Nantes, France



Sunday 19 July

16:30-17:00 **Opening Ceremony** *Auditorium 450*

Johanna Fink-Gremmels - EAVPT President

André Sobczak - Nantes Métropoles

*Jean-Claude Desfontis - Chairman Local Organizing
Committee EAVPT*

17:00-18:00 **Inaugural Plenary Lecture**

Chairs: J. Fink-Gremmels and J.-Y. Madec

*Antimicrobial Resistance in Animals - Which Significance
for Human Health? - Jean-Yves Madec - Lyon (FR)*

18:00 - Mezzanine - R2 Foyer Haut

Welcome cocktail



PARALLEL SESSIONS

08:30-10:15 Antimicrobials 1 & Antibiotic resistance

Chairs: T. Simon and M. Everett

Room 200

Antibiotics and antibiotic resistance in Veterinary Medicine - future challenges

Tony Simon - Zaventem (BE)

Development of antivirulence compounds as replacements or adjuncts to antibiotics in animal health

Martin Everett - Labège (FR)

Short oral communications

Characterization and prevention of fluoroquinolone resistance in *Escherichia coli* isolated from animals - M. Cengiz - Bursa (TU)

Evaluation of the influence of treatment time and antibiotic dosage regimen on bacterial burden and clinical outcomes in experimentally infected calves with *Mannheimia haemolytica* - G. Lhermie - Paris (FR)

Pharmacokinetics, pharmacodynamics and local tolerance at injection site of marbofloxacin administered via regional intravenous limb perfusion in standing horses - E. Lallemand - Toulouse (FR)

Pharmacodynamic/pharmacokinetic analysis of cephalexin activity on *Staphylococcus aureus* in a new *in vitro* model with and without macrophages - E. Lallemand - Toulouse (FR)

08:30-10:15 Pharmacokinetics 1

Chairs: J. Gabrielsson and A. Anadón

Auditorium 450

Dose-response-time data analysis: A poorly explored topic in pharmacokinetic and pharmacodynamic practice

Johan Gabrielsson - Upssala (SE)

Short oral communications

Pharmacokinetics of metoclopramide: intravenous, intramuscular, subcutaneous and per rectum administrations in rabbits - V. de Vito - Sassari (IT)

Flupirtine: pharmacokinetics and disposition in the horse - M. Giorgi - Pisa (IT)

Relation between age-dependent change in hemodynamics and metronidazole body clearance in turkeys - M. Switala - Wrocław (PL)

Pharmacokinetics of repeated sodium salicylate administration to laying hens: evidence for time dependent increase in drug elimination from plasma and eggs - B. Poźniak - Wrocław (PL)

08:30-10:15 Toxicology 1 - Clinical/farm animals & Regulatory

Chairs: M. Perez-Lopez and C. Nebbia

Rooms G-H

Ruminant toxicology diagnosis: How to proceed?

Marcos Perez-Lopez - Caceres (ES)

Short oral communications

Monitoring of milk, chicken meat eggs and feed for GMO's using PCR based microarray
G. Sarathchandra - Tamilnadu (IN)

ABCG2-pesticide interactions in the bovine mammary gland and pesticide-mediated induction of ABCG2 efflux activity by the arylhydrocarbon receptor - S. Halwachs - Leipzig (GE)

Comparison of the antithrombotic activity of ferulenol and ferprenin, two prenylated coumarins contained in *Ferula communis* - V. Lattard - Marcy-l'Etoile (FR)

Comparing User Risk Assessment - Veterinary Medicinal Products versus Biocides
D. Pfeifer - Munich (GE)

10:15-10:45 Coffee break - Poster session

[Mezzanine - R2 Foyer Haut](#)

PARALLEL SESSIONS

10:45-12:30 Antimicrobials 2 & Antibiotic resistance

Chairs: J.-Y. Madec and P.-L. Toutain

Room 200

Methicillin-resistant *Staphylococcus pseudintermedius* - a problematic issue for companion animals
Jean-Yves Madec - Lyon (FR)

Short oral communications

Fluoroquinolones *in vitro* dynamic model to minimize emergence of resistant *Salmonella enterica* serovar Typhimurium - *S.-J. Lee - Dae-gu (KS)*

Comparative pharmacodynamics of ciprofloxacin, enrofloxacin and norfloxacin for *Escherichia coli* of diarrheic calves - *P. Sidhu - Punjab (IN)*

Demonstration of applicability of PK/PD concepts to determine a dosage regimen for tulathromycin in the calf - *P.-L. Toutain - Toulouse (FR)*

Protocols for the assessment of biofilm formation and sensitivity: Model experiments with *Staphylococcus epidermidis* - *J. Fink-Gremmels - Utrecht (NL)*

10:45-12:30 Pharmacodynamics 1 - General

Chairs: J. Elliott and Q. Mc Kellar

Auditorium 450

From isolated blood vessel to *in vivo* cardiovascular drug action - *Jonathan Elliott - London (UK)*

Specificity of pharmacokinetics and pharmacodynamics in old animals - *Petra Cagnardi - Milan (IT)*

Short oral communications

Developmental-related alteration of the cardiac β -adrenergic system in turkey poults
S. Hoffmann - Leipzig (GE)

Effect of nitric oxide synthase inhibition on blood pressure and nitric oxide concentrations in control and previously laminitic ponies - *J. Elliott - London (UK)*

First-in-class angiotensin receptor-neprilysin inhibitor LCZ696 markedly influences the dynamics of circulating cGMP and biomarkers of the renin-angiotensin aldosterone system in dogs
J. Mochel - Basel (SZ)

Effects of dexamethasone treatment on B-adrenergic receptors in target organs of veal calves
C. Vercelli - Grugliasco (IT)

Differential Expression of Skeletal Muscle Genes Following Administration of Clenbuterol to Exercised Horses - *H. Knych - Davis (US)*

Immunomodulatory effects of hyaluronan oligosaccharides in equine peripheral blood mononuclear cells - *J. Vendrig - Utrecht (NL)*

10:45-12:30 Drug residues

Chairs: T. Whittem and L. Letendre

Rooms G-H

New approach for modeling drug concentrations in milk and for calculation of withdrawal times
Ted Whittem - Melbourne (AU)

International Methods for Consumer Risk Assessment of Injectable Veterinary Medicines Lack of Harmonization Can Impact International Trade - *Laura Letendre - Duluth (US)*

Short oral communications

Understanding intra-mammary beta-lactam pharmacokinetics using a physiologically-based model - *A. Woodward - Werribee (AU)*

Monitoring of chloramphenicol residues in milk, chicken meat and eggs
G. Sarathchandra - Tamilnadu (IN)

Transcriptomic analysis of skeletal muscle from beef cattle exposed to illicit schedules containing dexamethasone: identification of new candidates and their comparison with proteomics data and samples from field monitoring - *R. Elgendy - Legnaro (IT)*

Pharmacokinetics and Tissue Residue of Toltrazuril in Broiler Chickens - *A. Soliman - Giza (EG)*

Monday 20 July - Afternoon

PARALLEL SESSIONS

14:00-15:45 Bayer Roundtable - Animal Farming & the Need for Innovation in the Mitigation of Infectious Diseases

Chairs: P.-L. Toutain and J.-C. Desfontis - **Moderator:** D. Veerman

Room 200

Perspectives from the Food Industry

Ignacio Blanco-Traba - Madrid (SP)

Immunomodulation as an approach for reduction of antibiotics - Stimulation of the innate immune response for an enhanced resistance against infections

Armin Saalmüller - Vienna (AU)

Mitigating infectious diseases in farm animals

Johanna Fink-Gremmels - Utrecht (NL)

14:00-15:45 PK/PD Modeling

Chairs: J. Mochel and P. Lees

Auditorium 450

Chronopharmacology of the renin-angiotensin aldosterone system in dogs: the value of pharmacokinetic/pharmacodynamic modeling

Jonathan Mochel - Basel (SZ)

Short oral communications

PK/PD evaluation of the novel atypical opioid tapentadol in yellow-bellied slider turtles (*Trachemys scripta scripta*) - M. Giorgi - Pisa (IT)

A PK/PD study in trachemis turtles after single intracoelomic injection of Marbofloxacin at different doses - C. Vercelli - Grugliasco (IT)

Efficacy of florfenicol and gamithromycin in an *Ornithobacterium rhinotracheale* infection model in turkeys: A pharmacokinetic-pharmacodynamic approach - A. Watteyn - Merelbeke (BE)

Pharmacokinetics and clinical efficacy of meloxicam in Italian Mediterranean Buffalo calf (*Bubalus bubalis*) - P. Cagnardi - Milano (IT)

Pharmacodynamic and pharmacokinetic (PK/PD) pooled modelling of the antihypertensive response to amlodipine in hypertensive cats - L. Pelligand - Hatfield (UK)

14:00-15:45 Endocrine Disruptors

Chairs: C. Viguié and B. Le Bizec

Rooms G-H

Endocrine disruptors toxicology: what can domestic species bring to the table?

Catherine Viguié - Toulouse (FR)

Short oral communications

In vitro toxicity of some pesticides on goat and dog spermatozoa - B. Yurdakok Dikmen - Ankara (TU)

Bisphenol A-glucuronide hydrolysis in the ovine fetal compartment prolongs the fetal exposure to Bisphenol A - G. Gauderat - Toulouse (FR)

Evaluation of Antropogenic Ecotoxicity in Ankara River Using RTG2 Cell line B. Yurdakok Dikmen - Ankara (TU)

Bisphenol A: comparison of the pharmacokinetics profiles obtained after 3 routes of administration - D. Guignard - Toulouse (FR)

15:45-16:15 Tea break - Poster session

[Mezzanine - R2 Foyer Haut](#)

Monday 20 July - Afternoon

PARALLEL SESSIONS

16:15-18:00

Workshop - Pharmacovigilance

Chairs: P. Sanders and E. Motschwiller

Auditorium 450

Perspectives for applied pharmacology in veterinary pharmacovigilance

Cédric Colmar - Fougères (FR)

Pharmacovigilance surveillance over the life cycle of the Product

Edelgard Motschwiller et Corinne Tzanavaris - Paris (FR)

Point of view of pharmacologist about pharmacovigilance surveillance

Michel Laurentie et Pascal Sanders - Fougères (FR)

Short oral communications

Interactions of clay-based feed additives with orally administered veterinary drugs

T. De Mil - Merelbeke (BE)

Trilostane drug safety surveillance: a retrospective study of 103 cases - D. Rochel - Nantes (FR)

16:15-18:00

Applied biostatistics

Chairs: L. Pelligand and R. Servien

Room 200

Monte Carlo simulations and their application in veterinary medicine

Ludovic Pelligand - Hatfield (UK)

Multivariate analysis of clinical scores: A population PK/PD approach

Remi Servien - Toulouse (FR)

Short oral communications

Effect of furosemide on diuresis and renin-angiotensin aldosterone activation in dogs: a model-based dose-response approach - J. Mochel - Basel (SZ)

Impact of early antimicrobial prevention on broiler flocks performances - a propensity score analysis - C. Chauvin - Ploufragan (FR)

A kinetic of effects study: an attempt to model intracellular mechanisms generated by drug-receptor interaction - C. Thorin - Nantes (FR)

16:15-18:00

Contaminants

Chairs: P. De Backer and B. Le Bizec

Rooms G-H

Mycotoxins - True natural toxins

Johanna Fink-Gremmels - Utrecht (NL)

Short oral communications

Effects of Deoxynivalenol on intestinal barrier functions: a comparative *in vitro/in vivo* assessment - S. Braber - Utrecht (NL)

Comparative toxicokinetics, absolute oral bioavailability and biotransformation of zearalenone in different poultry species - M. Devreese - Merelbeke (BE)

Fates and tissue dispositions of deoxynivalenol and zearalenone in broilers

A. Poapolathep - Bangkok (TH)

Stachybotryotoxicosis in cattle - About a case - M. Kammerer - Nantes (FR)

18:00-19:00

General Assembly ECVPT

Room 200

Tuesday 21 July - Morning

PARALLEL SESSIONS

08:30-10:15 Antiparasitics internal & external

Chairs: C. Lanusse and D. Larsen

Rooms G-H

Pharmacology-based strategies to optimize drug activity against resistant helminth parasites in ruminants

Carlos Lanusse - Tandil (AR)

An overview of the Pharmacokinetics of an Isoxazoline: a New Class of Parasiticide for Dogs

Diane Larsen - North Brunswick (US)

Short oral communications

Evaluation of the tolerance of a permethrin-dinotefuran-pyriproxyfen combination (Vectra®3D) after topically repeated overdosed administration in young puppies

E. Coussanes - Libourne (FR)

ABCG2-mediated transport of anthelmintic drugs in the mammary gland of dairy cows

S. Halwachs - Leipzig (GE)

On the mode of action of emodepside and diethylcarbamazine - R. J. Martin - Ames (US)

Not just GluCl_s (Glutamate-gated Chloride channels): Abamectin has potent effects on nicotinic acetylcholine receptors of nematode parasites - R. J. Martin - Ames (US)

08:30-10:15 Pharmacokinetics 2

Chairs: M. Martinez and J. Mochel

Auditorium 450

Use of in silico models to support drug and drug product understanding

Marilyn Martinez - Rockville (US)

Short oral communications

Pharmacokinetics of the angiotensin receptor-neprilysin inhibitor LCZ696 in furosemide-treated dogs - J. Mochel - Basel (SZ)

Simultaneous intravenous and subcutaneous population modelling of robenacoxib disposition kinetics in cats - L. Pelligand - Hatfield (UK)

Preliminary results of potential lateral distribution of permethrin over horse skin
A. Werners - St. George (GD)

08:30-10:15 Drug transporters & biotransformation 1

Chairs: M. Dacasto and K. Mealey

Room 200

Pharmacogenetics Of Cytochromes P450 In Veterinary Species: An Update

Mauro Dacasto - Legnaro (IT)

Short oral communications

Comparative study on the expression and activity of hepatic enzymes responsible for dioxin-like compound biotransformation in sheep and cows - F. Girolami - Grugliasco (IT)

Interaction of the bovine mammary ABCG2 efflux transporter with AFB1 and the modulation of its activity by PCB126 - L. Manzini - Grugliasco (IT)

The ontogeny of hepatic CYP3A, CYP2C and CYP2E enzyme activity in conventional pigs
J. Millecam - Merelbeke (BE)

Correlation between Dextromethorphan and Debrisoquine metabolism and CYP2D50 genotype in Thoroughbred horses - H. Knych - Davis (US)

10:15-10:45 Coffee break - Poster session

[*Mezzanine - R2 Foyer Haut*](#)

PARALLEL SESSIONS

10:45-12:30 Antimicrobials 3 & Antibigrams

Chairs: D. Mevius and A. Bousquet-Melou

Rooms G-H

The consequences of generic marketing on antibiotic consumption and the spread of antimicrobial resistance: the need for new antibiotics

Alain Bousquet-Melou - Toulouse (FR)

Veterinary Committee on Antimicrobial Susceptibility Testing (VetCAST)

Dik Mevius - Lelystad (NL)

Short oral communications

The revised draft of the EMA/CVMP 'Guideline for the demonstration of efficacy for VMPs containing antimicrobial substances': Requirements to field studies - K. Hellmann - Munich (GE)

Regulation and guidelines of veterinary antimicrobial therapy and animal welfare in the Netherlands - from a small animal perspective - L. Schipper - Utrecht (NL)

Zoonotic disease control: collaboration to control infectious diseases affecting multiple species - L. Reeve-Johnson - Brisbane (AS)

10:45-12:30 Drug transporters & biotransformation 2

Chairs: M. Dacasto and K. Mealey

Room 200

Clinical relevance of ABC transporter polymorphisms in the dog and cat

Katrina Mealey - Pullman (US)

Short oral communications

Use of liver slices to assess metabolic drug-drug interactions in cattle - G. Virkel - Tandil (AR)

Transcriptomic characterization of Marby Darby Bovine Kidney (MDBK) cell line and its comparison with cattle primary hepatocytes and liver tissue - R. Elgendy - Legnaro (IT)

Regulation Of Bovine CYP3A28 Promoter By Pregnane X Receptor (PXR) And Constitutive Androstane Receptor (CAR) - M. Giantin - Legnaro (IT)

Bovine liver slices as a model to evaluate metabolic interactions between flukicidal (triclabendazole) and nematocidal (oxfendazole, fenbendazole) molecules - P. Viviani - Tandil (AR)

Exonic Polymorphisms Of Cytochrome P450 3As (CYP3As) In Piedmontese Cattle Breed
M. Giantin - Legnaro (IT)

10:45-12:30 Pharmacodynamics 2 - Pain/Inflammation

Chairs: B. Ranheim and J.-C. Desfontis

Auditorium 450

Quantification of pain and nociception in inflammation models

Olivier Levionnois - Bern (SZ)

Pain models in domestic animals

Birgit Ranheim - Oslo (NO)

Short oral communications

Synergistic interaction between tapentadol and flupirtine in the rat orofacial formalin test

H.-K. Lee - Daejeon (KS)

Topically Administered Janus-Kinase Inhibitors Tofacitinib and Oclacitinib Display Anti-Pruritic and Anti-Inflammatory Responses in a Mouse Model of Allergic Dermatitis

T. Fukuyama - Raleigh (US)

Hepatic microsomal stability of human CYP2C9 substrates between marsupials and the rat: a preliminary study - M. Govendir - Sydney (AS)

Evaluation of the anti-inflammatory properties of ketoprofen in bovine and porcine *in vivo* models using a HPLC-MS/MS multi-method - P. De Backer - Merelbeke (BE)

Local tolerance assessment of two Ketoprofen based solutions for injection at 15 and 10% administered by intramuscular route in swine - M. Salichs - Barcelona (ES)

Tuesday 21 July - Afternoon

PARALLEL SESSIONS

14:00-15:30 Evidence-based veterinary medicine & Innovative learning

Chairs: L. Schipper and V. Fajt

Room 200

How best to integrate EBVM into veterinary curricula

Virginia Fajt - College Station (US)

Veterinary pharmacologists' responsibilities in supporting the practice of evidence-based veterinary medicine

Virginia Fajt - College Station (US)

Developing a virtual learning environment for veterinary pharmacology and toxicology

Jérôme Del Castillo - Saint-Hyacinthe (CA)

14:00-15:30 Toxicology 2 - Clinical/small animals

Chairs: J. N. Edwards and H. Pouliquen

Rooms G-H

New trends in poisoning treatment - lipidotherapy

John Nick Edwards - London (UK)

Short oral communications

Acute hepatotoxicity of nano- and micro-sized iron particles in adult albino rats

G. Hasabo - Cairo (EG)

Presumptive mycotoxicosis in dog after eating mouldy walnuts

M. Kammerer - Nantes (FR)

Non-convulsive status epilepticus – translational research cases: humans and dogs

L. Reeve-Johnson - Brisbane (AS)

15:30-16:00 Tea break - Poster session

[Mezzanine - R2 Foyer Haut](#)

16:00-17:00 Plenary Lecture

[Auditorium 450](#)

Translational Pharmacokinetics/Pharmacodynamics (PKPD) and Systems

Pharmacology in Drug Discovery and Development

Piet van der Graaf - Leiden (NL)

17:00-18:00 General Assembly EAVPT

[Room 200](#)

Congress Dinner

19:00

Bus departure from the congress center

19:15

Boarding for the evening cruise and aperitif

20:15

Arrival by boat at the Château de la Poterie

Wednesday 22 July - Morning

PARALLEL SESSIONS

08:30-10:15

Pharmacodynamics 3 & Recent and innovative advances

Chairs: G. Abraham and M. Y. Mallem

Auditorium 450

Oncology: new pharmacological targets

Catherine Ibisch - Nantes (FR)

Short oral communications

The Use of Synovial Fluid Biomarkers to Study Corticosteroid Pharmacodynamics in Exercised Thoroughbred Horses

H. Knych - Davis (US)

Prevention of new bacterial infections of the mammary glands in dairy cows during the dry period using topical administration of chlorhexidine sustained release formulation

E. Lavy - Jerusalem (IL)

Intramammary propolis formulation for prevention and treatment of mastitis in dairy ruminants

L. Radin - Zagreb (HR)

08:30-10:15

Workshop Analgesics

Chairs: P. Flecknell and M. Gogny

Rooms G-H

New developments in cage-side assessment of pain in laboratory species

Paul Flecknell - Newcastle (UK)

Short oral communications

Covariate identification of propofol pharmacokinetics in maturing guide dogs

J. Del Castillo - Saint-Hyacinthe (CA)

Ultrasound monitoring protocol of intestinal motility in healthy horses after systemic morphine administration

C. Tessier - Nantes (FR)

Cranial spread of 3 volumes of procaine 2% for caudal epidural analgesia in adult dairy cows

O. Topie-Nikolayenkova - Nantes (FR)

Comparison of xylazine and detomidine for caudal epidural analgesia in cattle

G. Touzot-Jourde - Nantes (FR)

Comparison of methadone and morphine sedation and analgesia in the NZW rabbit

G. Touzot-Jourde - Nantes (FR)

10:15-10:45

Coffee break - Poster session

[Mezzanine - R2 Foyer Haut](#)

Wednesday 22 July - Morning / Afternoon

PARALLEL SESSIONS

10:45-12:30

Ecotoxicology

Chairs: P. Berny and C. Nebbia

Auditorium 450

Monitoring unintentional effects of plant protection products and other environmental contaminants on non-target species: how can we manage?

Philippe Berny - Marcy-l'Etoile (FR)

Biomarkers of the exposure to dioxin-like compounds in mammalian species

Carlo Nebbia - Grugliasco (IT)

Potential of essential oils in medical and veterinary pest management: Efficacy and modes of action

Olivier Sparagano - Coventry (UK)

Short oral communications

The transdermal permeation of oil at seabirds – a research to estimate the prognosis of rehabilitation to establish a triage after an oil catastrophe

A. Willmes - Niedersachsen (GE)

Resistance to antivitamin K rodenticides: from wild rodents to humans

E. Benoit - Marcy-l'Etoile (FR)

10:45-12:30

Experimental design and Translational Medicine

Chairs: M. Kietzmann and J.-C. Desfontis

Rooms G-H

Experimental design and the three Rs

Manfred Kietzmann - Hannover (GE)

3R(evolution)s in Toxicological Research

Francesca Caloni - Milan (IT)

Translational medical research: The imperative for One Health Collaborations in pharmacology and toxicology

Lloyd Reeve-Johnson - Brisbane (AS)

12:30-13:15

Plenary Lecture

Auditorium 450

From cure to care - the changing landscape of veterinary medicine

Johanna Fink-Gremmels - Utrecht (NL)

13:15-14:00

Lunch

Restaurant - R2

14:00-14:30

Awards and best posters

Auditorium 450

14:30-15:30

Closing ceremony and invitation to Wroclaw, Poland

Auditorium 450

15:30-17:00

Tour to the Veterinary College Oniris with registration on meeting place