



# **WORLD CONGRESS OF VETERINARY ANAESTHESIA & ANALGESIA**

# **2025 Program**

*updated on 15/09*

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**September 15th to 19th, 2025  
Palais des Congrès – PARIS**



Precongress day/Resident Day  
*Alfort National Veterinary School in Maisons Alfort*

# Monday, September 15

08:30

## Welcome

Gwenola TOUZOT-JORDE (France), Patrick VERWAERDE (France)

09:00

## Pressure-Volume relationship in the respiratory system and its monitoring

Mathieu RAILLARD (Australia)

09:30

## Pulmonary gas-exchange and Ventilation-perfusion mismatch

Olivier LEVIONNOIS (Switzerland)

This session introduces the fundamentals of pulmonary gas exchange, explaining how oxygen and carbon dioxide move between air and blood. Attendees will learn the physiological basis of the ventilation-perfusion (V/Q) ratio, discover how mismatches arise, and understand their impact on oxygenation and CO<sub>2</sub> removal. The lecture clarifies the roles of shunt and dead space, describes typical lung V/Q distribution in animals, and highlights key compensatory mechanisms.

10:00

## Coffee break

10:40

## Ventilatory mode strategy

Mathieu RAILLARD (Australia)

11:20

## Comparative pathophysiology of the diseased lung and ventilation strategy

Olivier LEVIONNOIS (Switzerland)

This lecture compares how various lung diseases disrupt gas exchange and V/Q matching in different veterinary species. It reviews methods to evaluate ventilation-perfusion mismatch. Participants will explore the basic pathophysiology behind conditions such as pneumonia, pulmonary edema, and obstructive disease, and learn principles of ventilation strategies tailored to underlying defects. The session emphasizes practical approaches for optimizing oxygenation and minimizing ventilator-induced lung injury.

12:00

## Liquid ventilation: concept and application

Matthias KOHLHAUER (France)

Liquid ventilation represents an innovative experimental strategy in which the lungs are filled and ventilated with liquid perfluorocarbons that are able to dissolve a large amount of oxygen and carbon dioxide. Thanks to their unique physical properties, these liquids are able to deliver oxygen directly to the alveoli and to remove carbon dioxide, thereby sustaining normal gas exchanges for several hours. The use of such liquid as respiratory medium, instead of gas, presents several advantages: it eliminates the air-liquid interface within the alveoli, increases the recruitment of the lungs and improves the lung static compliance. Liquid ventilation has been developed for several decades in the setting of support of severe respiratory failure, ability to induce therapeutic hypothermia or improving intrapulmonary drug delivery.

This innovation is currently under investigation for the human applications but could also represent an interesting strategy in veterinary medicine.

13:00

## Lunch

14:00

## Alveolar recruitment strategy in the operating theatre

Mathieu RAILLARD (Australia)

14:40

## Use of selective lung ventilation

Olivier LEVIONNOIS (Switzerland)

Focusing on advanced airway management, this session covers the indications, physiology, and techniques for selective and one-lung ventilation in veterinary thoracic surgery. Key learning points include understanding the physiological challenges of one-lung ventilation, the impact on gas exchange, management strategies for hypoxemia, and practical guidance on airway devices and monitoring.

15:00

15:00

## Ultrasound for monitoring pulmonary ventilation?

*Belaid BOUHEMAD (France)*

Lung ultrasound (LUS) has become a cornerstone of respiratory assessment in critically ill patients, offering an immediate, radiation-free, and dynamic imaging modality at the bedside. This session will present the technical rationale of LUS, emphasizing its utility not only for diagnosis but also for ongoing monitoring and ventilator management.

A key concept is that the echographic image or pattern is directly related to the degree of lung aeration: the normal air–tissue interface reflects ultrasound waves, rendering the lung parenchyma invisible. In contrast, pathological conditions such as pulmonary edema or consolidation modify tissue acoustic properties, allowing ultrasound to penetrate and generate specific artifacts (A-lines, B-lines, dynamic air bronchograms) that reflect varying levels of aeration loss.

The session will explore how to use LUS for diagnosing pneumothorax, pleural effusion, alveolar-interstitial syndromes, and pneumonia; for titrating PEEP; predicting weaning failure. The lung ultrasound score (LUS score) will be introduced as a tool to semi-quantitatively assess and track changes in aeration. Attendees will gain practical knowledge on integrating ultrasound patterns into individualized care strategies, improving diagnostic precision.

### Learning Objectives:

- Explain the physiological and physical principles that underpin lung ultrasound, including how ultrasound patterns are determined by the degree of lung aeration.
- Recognize and interpret key sonographic findings, including A-lines, B-lines, dynamic air bronchograms, subpleural consolidations, pleural effusions, and pneumothorax, in critically ill patients.
- Apply the lung ultrasound score (LUS score) to assess and monitor changes in pulmonary aeration and evaluate response to therapeutic interventions.

15:45

## Coffee break

16:15

## Mechanical ventilation in intensive care

*Tom GREENSMITH (UK)*

Invasive mechanical ventilation in veterinary ICU is indicated for refractory hypoxemia, progressive hypercapnia, and patient fatigue. Other valid reasons include cardiovascular instability and the need for precise respiratory control. Proper instrumentation (central/arterial lines, monitoring) and tailored anaesthesia are critical. Mechanical ventilation carries risks such as lung injury, cardiovascular compromise, and infections. Careful nursing, airway management, and daily reassessments are essential. Ventilation strategies vary, with no single mode superior; safety relies on clinician experience. PEEP use must be cautious, especially in specific conditions. Weaning protocols are underdeveloped in veterinary medicine; daily spontaneous breathing trials are encouraged but must be adapted. Human-derived guidelines may not directly apply due to species differences and patient heterogeneity, emphasizing the need for individualized care.

### Learning Objectives:

- Recognise complications associated with mechanical ventilation in the ICU
- Understand the rationale behind approaches designed to mitigate ventilator-associated lung injury
- Demonstrate a basic understanding of lung management strategies (open and closed lung approaches), as well as the baby lung concept
- Understand the importance of spontaneous breathing trials and their use during weaning

17:00

**Fragonard Museum Visit**

18:00

**Historic Alfort School Visit**

19:00

**After work drink**

21:30

## Tuesday, September 16

09:00

### **Opening ceremony** Comparative medicine for the planet

Mireille BOSSY (France), Jean-Michel CONSTANTIN (France)

**Blue Amphitheater**

09:30

### **Zoobiquity: Connecting human and animal welfare through anesthesiology and analgesia**

Baptiste BALANÇA (France), Emmanuelle CANET-SOULAS (France)

**Chair:** Hervé BOUAZIZ (France)

**Blue Amphitheater**

In this session, we will examine the concept of Zoobiquity, the interconnectedness of human and animal health, through the lens of anesthesiology and pain management. We will begin by exploring the historical development of anesthesia education in both human and veterinary medicine, highlighting how each field has influenced and evolved the other. Through the study of translational research on cardiovascular and neurological diseases, we will explore how comparative models enhance our understanding of these conditions and the associated treatment approaches. Furthermore, we will discuss the evolution of perioperative care—pre-, intra-, and post-intervention—in both veterinary and human practice, emphasizing advances in patient safety, pain management, and personalized care.

Attendees will learn about the value of a multidisciplinary, comparative approach to anesthesiology. They will discover innovative ways in which veterinary and human practices can inform each other. They will also appreciate the potential of translational research and animal well-being in addressing these differences.

#### **Learning objectives:**

- History of anesthesia education
- Anesthesia practices in translational research
- Future perspectives in anesthesia and peri-intervention care

10:30

11:00

### **Coffee Break, Posters and Commercial Exhibition**

### **Conflict management and team building in the operating room**

Christelle CAHEN FOURNEL (France), Marc LILOT (France),

**Chair:** Tristan MERLIN (France)

**Blue Amphitheater**

This joint conference, featuring a human anesthesiologist-intensivist and a professional veterinary anesthetist, explores the complex human dynamics of conflict management and team cohesion in the operating room—a space where high stakes, strict time constraints, and life-or-death decisions are the norm.

The OR is a pressure cooker: the possible threat to patient life, the need for measured interprofessional risk-taking, and the urgency of decisions often heighten tensions. These stressors, combined with diverse personalities, hierarchical structures, and communication breakdowns, make the environment fertile ground for misunderstanding and conflict.

Drawing on both medical and veterinary experiences, the speakers will present frameworks such as the DISC behavioral model and the Big Five personality traits to better understand individual responses under stress. They will provide tools for emotional regulation, assertive and intergenerational communication, and the management of difficult dyadic dynamics, as well as strategies for working with high-conflict personalities or toxic interpersonal patterns. Techniques for de-escalation, setting healthy boundaries, and preserving psychological safety will also be discussed.

Time pressure will be analyzed not only as a technical constraint but as a psychological amplifier of latent tensions. The importance of functional compromise, clear role definition, and structured debriefings will be highlighted as key pillars for sustainable team performance.

This conference ultimately offers a message of hope and shared purpose: that despite the intensity of the OR, collaboration, mutual respect, and ethical commitment can turn conflict into growth, and stress into cohesion—reclaiming a common sense of meaning in care.

#### **Learning objectives:**

- Gain a better self-understanding and one's inter-individual ecosystem
- Understand the meaning and importance of working together in a complementary way
- Identify individual objectives and prioritise common objectives
- Inspire constantly and appropriately trust and deep respect
- Prevent conflicts and dealing with it professionally (same goes for crisis)

12:00

### **Anxiety in the perioperative period: Which drugs for which behaviors?**

Sarah HEATH (UK), Mikhail DZIADZKO (France)

**Chair:** Tristan MERLIN (France)

**Blue Amphitheater**

13:00

### **What for my patient? Protocols and cocktails**

Clara CONDE RUIZ (France)

Nurses/GPs Session

**Room 361**

ASA 2 is like music to my ears but, are they all the same? Three patients to illustrate that it is not always possible to follow a straight route in anaesthesia... even during standard procedures! Three patients: Granny, whose knees are not what they used to be anymore... Junior, the baby puppy, so cute and unstable! Demon, the uncooperative one (he loves vets, but not in the way you think...). A few protocols, tips, and cocktails to help clinicians and nurses to solve the situation with honour.

#### **Learning objectives:**

- Anaesthetic management of the geriatric patient
- Anaesthetic management of the paediatric patient
- Anaesthetic management of the aggressive patient

### **Climate Workshop ECOVETO**

Mannaig de KERSAUSON (France),

Emily FYFE (France)

Nurses/GPs Session

**Room 362+363**

Join us for an engaging and collaborative workshop designed to spark collective reflection on the environmental impacts of veterinary practice—and what we can do to reduce them. The *EcoVeto Veterinary Clinic Fresk* is a dynamic, interactive session built around a facilitated card game that helps participants visually map out the cause-and-effect relationships behind the environmental footprint of veterinary activities.

Through teamwork and guided discussion, participants will collaboratively identify key impacts and explore the links between them.

#### **In this workshop, you will:**

- Use collective intelligence and work as a team, guided by a facilitator, to identify and connect cause-and-effect relationships between veterinary practice and its environmental impacts.
- Identify levers of action and explore practical, easy-to-implement solutions that can be integrated into everyday veterinary work.
- Co-create a tree-structured “fresk” illustrating the interconnected system—decorated by participants—which can then be displayed in your clinic or organisation.

*This workshop is open to everyone—whether you're new to sustainability or already actively involved. Generalists, specialists, clinic leaders, and team members are all welcome.*

*Let's learn together and make a positive impact for animals, people, and the planet.*

12:00

## Anxiety in the perioperative period: Which drugs for which behaviors?

Sarah HEATH (UK), Mikhail DZIADZKO (France)

Chair: Tristan MERLIN (France)

### Blue Amphitheater

The perioperative period can be challenging for human and non-human surgical patients. Expression of anxiety is prevalent and entirely natural but when the emotional challenge is excessive or poorly managed by the individual it can alter the patient's experience and have potentially long-term consequences. Elevated anxiety can also create barriers between patients and caregivers, complicating care delivery and exposing professionals to emotional and operational challenges. This presentation will consider the perioperative challenge from both a human and veterinary perspective and discuss the similarities and differences across the species. It will discuss the challenges involved in assessing emotional health in surgical patients acknowledging the limitations of available tools and the importance of skilled observation and interpretation, and the species-specific considerations in relation to factors that can influence it.

The role of medication for patients with signs of perioperative anxiety will be reviewed alongside potential limitations. The concept of One Green Health will be introduced, promoting a holistic and sustainable approach that values emotional, physical, and ecological health across species.

Finally, the importance of individualised, multidimensional strategies for emotional management will be emphasised. Practical approaches will be suggested, including environmental modifications, patient education, preconditioning, non-pharmacological interventions, and targeted pharmacological support where appropriate. A respectful, thoughtful approach to perioperative anxiety has the potential to improve patient outcomes, enrich professional practice, and support a more compassionate and sustainable model of care for all living beings.

#### Learning objectives:

- Understand the potential for emotional responses to influence the patient's perioperative experience
- Appreciate the challenges in relation to measuring emotional impact on surgical patients
- Discuss the role of medication for anxious patients in the perioperative period
- Recognise the importance of individualised approaches to emotional management of perioperative patients

13:00

## Lunch, posters and Commercial Exhibition

14:00

### 5 Abstracts Small Animals

Chair : Ludovic PELLIGAND (UK)

#### Blue Amphitheater

The sedative and cardiovascular effects of oral transmucosal acepromazine in dogs.

**Madelyn Rollet**

Investigating the efficacy of pregabalin, compared to gabapentin, at facilitating intravenous access and producing anxiolytic effects in cats.

**Joe Simon**

Pharmacokinetics and pharmacodynamics of an extended duration transdermal buprenorphine in dogs.

**Tokiko Kushiro-Banker**

Evaluation of sedative and cardiovascular effects of medetomidine-vatinoxan and hydromorphone for premedication in dogs undergoing patent ductus arteriosus closure – Preliminary data.

**Andrea Dutra**

Comparison of gabapentin and carprofen for the treatment of acute orthopedic surgical pain in dogs undergoing tibial plateau leveling osteotomy.

**Julianna De Michele**

### 5 Abstracts Large Animals

Chair : Polly TAYLOR (UK)

#### Room 364

Prospective monitoring of post-anaesthetic morbidities in horses: Preliminary results from a CEPEF-4 satellite study.

**Janny de Grauw**

Prospective monitoring of post-anaesthetic morbidities in horses: Preliminary results from a CEPEF-4 satellite study.

**Janny de Grauw**

Standing sedation in horses and ponies: perioperative fatalities in a worldwide observational, prospective, multicentre cohort study.

**Gozalo-Marcilla Miguel**

Dexmedetomidine post-conditioning improves cardiovascular function and maintains normal renal parameters in anesthetized, experimentally endotoxemic horses.

**Lee Sera**

Clinical predictors of recovery quality in equine anesthesia: A retrospective review of 240 cases.

**Reza Seddighi**

### 5 Abstracts Other

Chair: Ioannis SAVVAS (Greece)

#### Room 361

Comparison of two volumes of bupivacaine-dye solution on ultrasound-guided sciatic and femoral injections in chickens.

**André Escobar**

Evaluation of low-dose medetomidine-vatinoxan and butorphanol combinations for sedation in canine radiographic procedures.

**Francesca Zanusso**

Modulation of joint inflammation and synovial repair by dipyrone versus carprofen in a rat early monoarthritis model.

**Denise Fantoni Tabacchi**

Evaluation of femoral nerve block in a multimodal approach during knee arthrotomy in rabbits.

**Cañón Pérez Ariel**

Effect of bupivacaine 0.25% and 0.5% on the nociceptive, motor and proprioceptive response in an ultrasound-guided sciatic nerve model in rats.

**Douglas Castro**

### What could go wrong during Anesthesia?

#### Understanding hypoventilation and hypotension

Perrine BENMANSOUR (UK)

Nurses/GPs Session

**Room 362-363**

In this session, you will learn how to troubleshoot and manage two common anaesthetic complications which happen under general anaesthesia in dogs and cats: hypoventilation and hypotension. You will gain the physiology and pharmacology knowledge needed to understand why hypoventilation and hypotension occur and how different treatment options can resolve these complications. We will explore how to decide which of the treatment options is most suitable to manage hypoventilation and hypotension.

After the session, you should feel more confident about clinical decision making relating to hypoventilation and hypotension in dogs and cats.

#### Learning objectives:

- Understand how hypoventilation and hypotension are defined
- Understand what contributes to hypoventilation and hypotension during anaesthesia
- Understand how to troubleshoot and manage hypoventilation and hypotension during anaesthesia

15:30

## Coffee Break, Posters and Commercial Exhibition

16:00

16:00

## 5 Abstracts Small Animals

**Chair :** *Tristan MERLIN (FR)*  
**Blue Amphitheater**

Anesthetic management and complications of transcatheter edge-to-edge repair for myxomatous mitral valve disease in dogs: 29 cases.

**Bonnie Gatson**

Population pharmacokinetics of IV paracetamol: Do all dog breeds process the drug similarly?

**Ludovic Pelligand**

Effects of helium/oxygen mixtures on inspiratory resistance to gas flow during volume-controlled ventilation: an "in vitro" simulation for cats.

**Francisco Teixeira-Neto**

Lumbosacral foraminal injections in dogs: assessing an ultrasound- and fluoroscopy-guided technique in a cadaveric model.

**Roger Medina-Serra**

Interventional pain management in dogs with lumbosacral stenosis: preliminary retrospective long-term clinical outcomes of combined foraminal and epidural injections with or without pulsed radiofrequency.

**Roger Medina-Serra**

## 5 Abstracts Large Animals

**Chair :** *Gwenola TOUZOT JOURDE (FR)*

**Room 364**

Comparison of the prevalence and location of trigger points in dressage and show-jumping horses.

**Camilla Schiesari**

Reliability of myotonometry in equine myofascial pain syndrome and effects of ischemic compression therapies.

**Camilla Schiesari**

Endoscopic evaluation of tracheal mucosal cuff site trauma following intubation with a 26.0 mm ID silicone endotracheal tube in adult horses – preliminary results.

**Jake Leech**

Evaluation of acepromazine's impact on tissue oxygen saturation in horses sedated with detomidine using near-infrared spectroscopy.

**Amanda James**

Total intravenous anaesthesia with remimazolam–ketamine–medetomidine in Thoroughbred horses.

**Yosuke Yamazaki**

## 5 Abstracts Other

**Chair:** *Delphine HOLOPHERNE(UK)*

**Room 361**

Dexmedetomidine versus clonidine as an adjuvant to lidocaine spinal anesthesia in ovine experimental model.

**Claudia Piemontese**

AM404, an active metabolite of acetaminophen provides local anesthesia in rats via nociceptor specific sodium channel blockade.

**Yishai Kushnir**

Chloroprocaine-lidocaine pain-selective local anesthesia in rats is interval dependent.

**Yishai Kushnir**

Evaluation of the analgesic efficacy of local infiltration of levobupivacaine and bupivacaine, with or without tramadol, in a rabbit femoral fracture model.

**Yanmaz Latif Emrah**

Evaluation of anesthetic effects of intramuscular administration of alfaxalone with ketamine or midazolam in Hy-Line W36 roosters.

**Josie N. Gamble**

## The Language of Pain: Learn to Hear What Isn't Said

*Latifa KHENISSI (UK)*

**Nurses/GPs Session**

**Room 362-363**

Understanding and promptly identifying perioperative pain is essential for ensuring optimal recovery and welfare in veterinary patients. This session, designed for veterinary nurses and first opinion practitioners, will focus on the practical and evidence-based identification of pain in dogs, cats, and horses, including during general anaesthesia, when behavioural cues are absent. Delegates will explore the latest guidelines and advances in pain assessment, learning to distinguish species-specific pain behaviours and physiological indicators. The session emphasises the use of validated pain assessment tools and the need for systematic, consistent monitoring to avoid under-recognition, which can lead to unnecessary suffering and delayed healing. Through interactive case discussions and practical examples, participants will gain confidence in recognising subtle and overt signs of pain, ensuring timely intervention and improved patient outcomes. This talk will equip attendees with the core skills and knowledge to make pain identification a cornerstone of their clinical practice, directly supporting patient welfare and recovery success.

### Learning objectives:

- Understand the challenges of pain identification in animals and why a systematic approach is vital.
- Recognise species-specific pain behaviours and clinical signs in dogs, cats, and horses.
- Interpret physiological indicators of pain, especially under general anaesthesia, and their limitations.
- Apply validated, species-appropriate pain assessment tools for objective and repeatable evaluation.
- Appreciate the critical impact of prompt and accurate pain recognition on recovery and animal welfare.

17:30

## End of the day

19:00



**Welcome party at Paris City Hall**

sponsored by **Mon Vêto**

21:00



# Anaesthesia for Greener Dreams

Palais des Congrès

## Wednesday, September 17

08:30

### Sustainability in Anaesthesia: where do we stand?

Ellie WEST (UK), Florence LALLEMANT (France),

**Chair:** Mathieu RAILLARD (Australia)

Blue Amphitheater

For several years, the French Society of Anesthesia and Resuscitation (SFAR) has become aware of its own environmental challenges : greenhouse gas emissions from halogenated gases, the use of fossil and mineral resources resulting from the significant consumption of single-use medical devices, significant production of healthcare waste, and significant medication waste. These numerous topics have given rise to practical eco-responsible care sheets and guidelines such as the one on clothing and the one on reducing the environmental impact of general anesthesia. Practices are therefore beginning to change and knowledge in this area is growing, with the ecological transition increasingly attracting the interest of caregivers. Notable developments are currently being noted, firstly with the authorization of the use of Desflurane constrained by European regulations relating to fluorinated gases from 2026. Furthermore, eco-responsibility in anesthesia goes beyond the care provided and also concerns the general environmental impact of hospitals. Thus, the SFAR warns about gas leaks from nitrous oxide administration networks and consequently calls for the closure of these networks, which provide significant GHG pollution. The eco-design of care continues to progress and is now focusing on prescriptions by favoring oral administration over intravenous administration, which emits much more GHGs and consumes devices. Finally, many other subjects remain to be investigated such as the evaluation and support for changes in practices, eco-responsible locoregional anesthesia and a better understanding of the potential ecotoxicity of our practices.

We have heard about the problems, and now we will hear some solutions. We will hear about sustainability work in veterinary clinics within the Mars Vet Health's global network of 3,000 clinics, demonstrating that sustainability practices and approaches can positively impact quality of care, resource savings and staff satisfaction. We will see some practical tools which can be taken away and used in clinics straight away. We will use real-life examples to learn how we can bring sustainability to life in our day-to-day practice. We will learn about some of the barriers to sustainable practices, and how they can be overcome. Most importantly of all, we will be introduced to some of the members of the community who are doing this work, so that we can remain connected to promote best practices for sustainability in France, and around the world.

#### Learning objectives:

- To be aware of what is being done for sustainability already in veterinary clinics
- To know which practical tools can help with changing behaviours
- To understand the main barriers in practice to transforming to sustainability

09:30

### 100% Green : Hypnosis

Anne Claire GAGNON (France), Philippe CUVILLON (France)

**Chair:** Mathieu RAILLARD (Australia)

Blue Amphitheater

Hypnosis is a physiological activity of the mind characterised by focused attention, absorption, dissociation and plastic imagination. Over the last two decades, a growing number of studies on hypnosis have demonstrated its ability to modify the activity of the cortex. This activity is characterised by localised hypersignalling in the prefrontal, anterior cingulate cortex, amygdala, thalamus, insula and somatosensory cortex. In surgery, hypnosis can be used on its own for minor surgical procedures and invasive manoeuvres and/or in selected patients or as an adjunct to anaesthesia (local, regional and/or sedation). In this context, there is a green gain in terms of product and consumable savings. Administered by humans, it is free, has no proven adverse effects and promises to help improve the cost/benefit ratio. However, a number of immersive techniques (virtual reality) can break this compromise, moving away from green and towards consumables.

#### Learning objectives:

- To gain a better understanding of the cortical connections that explain the physiological mechanisms of hypnosis
- To define a clinical application strategy incorporating green anaesthesia
- Propose pathways integrating hypnosis and green economy and define the limits in surgery

Animal magnetism has been in 1766 the first name of techniques that became hypnosis around 1830 in human medicine. Many tools and techniques were used for centuries to restrain animals during procedures, with one of the first described in chicken in 1636. Dorsal immobility response (DIR) is done by grasping the animal by the neck, lifting feet above the ground, unethical today. Most of data are related to tonic immobility response (TIR), done by contact restraint, on laboratory animals (chicken, rabbits, dogs, cats, opossum). Subcortical brain structures are involved in both DIR and TIR. Despite data on EEG and comparison with human hypnosis, TIR doesn't allow any surgery under this modified conscious state. Then non invasive procedure (blood sample) could be made easier under akinetic hypnosis (clipnosis) for cats, cows. Acupressure, used in T Touch and Emotional Freedom Techniques, is based on polyvagal theory, for which touch and speech are operant. These practices could be beneficial for all vet patients to decrease fear and stress before surgery and improve recovery after, which could participate to reduce the amount of anaesthetic drugs injected to vet patients, as well as their well-being.

#### Learning objectives:

- To know more about history of animal hypnosis
- To understand the differences with medical hypnosis in human anaesthesia and how polyvagal theory applies to animals and humans
- To use animal hypnosis, clipnosis and EFT as tools for a green pre-anaesthesia

10:30

### Everything you always wanted to know about anesthesia machines and circuits but were afraid to ask

Anya STHYM (Sweden)

Nurses/GPs Session

Room 362-363

Whether you're a veterinary nurse or a practicing clinician, you've likely worked with an anaesthesia machine hundreds of times — but how well do you really understand how it works?

This is something we typically learn very well for the exam and then forget about most of it again.

In this engaging and practical session, we'll take a deeper dive into the inner workings of veterinary anaesthesia machines, demystifying components like flowmeters, vaporizers, pressure gauges, oxygen flush systems, and scavenging setups.

#### We'll explore :

- How gas flows through the machine, and what happens when it doesn't
- Commonly used machines -pros and cons
- Common equipment errors and how to troubleshoot them
- Best practices for daily checks, maintenance, cleaning and safety

*Designed to empower veterinary professionals, this talk will strip away the jargon and build confidence around using and understanding anaesthesia machines — once and for all. We will share practical experiences and questions.*

10:30

Coffee Break, Posters and Commercial Exhibition

11:00

Loco Regional Anaesthesia-Neuromodulation: Keep a Green Clear Consciousness

Jaime VISCASILLAS (Spain), Xavier CAPDEVILA (France),

Chair : Ludovic PELLIGAND (UK)

Blue Amphitheater

Surgical activity is highly resource-intensive, and anaesthesia makes a disproportionate contribution to healthcare's carbon footprint. Volatile anaesthetics are exhaled unchanged and differ widely in environmental persistence: sevoflurane (1–5 years), isoflurane (3–6), desflurane (9–21), and nitrous oxide (>100). Within hospitals, inhaled agents may represent up to 5% of total emissions and nearly half of perioperative emissions in high-income countries. In human medicine, important progress has been achieved. NHS Scotland and NHS England removed desflurane in 2023 and 2024 respectively, without adverse patient outcomes. Clinicians are also encouraged to adopt low-flow techniques and total intravenous anaesthesia (TIVA). In contrast, veterinary anaesthesia still relies heavily on inhalants; low-flow is inconsistently implemented due to equipment and monitoring limitations, while nitrous oxide has been largely abandoned. Loco-regional anaesthesia (LRA) offers both clinical and environmental opportunities. In human practice, LRA within enhanced recovery protocols reduces opioid use and complications. Sustainability, however, depends more on the overall set of practices—minimal flows, reduced oxygen waste, and fewer disposables—than simply choosing RA over GA. TIVA also produces fewer CO<sub>2</sub> equivalents compared with high-flow inhalation. In veterinary practice, ultrasound-guided LRA is expanding, with evidence of better analgesia, smoother recoveries, and reduced volatile use. Neuromodulation further widens the opioid-sparing toolbox, though veterinary evidence is still limited. Pilot studies of radiofrequency ablation and peripheral nerve stimulation are promising, but robust trials are required. Moving forward, anaesthesia must eliminate high-impact gases, implement safe low-flow, expand LRA, and critically explore neuromodulation. Clinical excellence and environmental stewardship should progress together, embodying a "Green Clear Consciousness".

Learning objectives:

- Understand the environmental impact of anaesthetic agents by comparing the atmospheric lifetimes and carbon footprints of commonly used inhalants in human and veterinary medicine.
- Recognise current strategies to reduce anaesthesia-related emissions in both human and veterinary contexts, including low-flow techniques, TIVA, and the shift away from desflurane and nitrous oxide.
- Evaluate the role of loco-regional anaesthesia (LRA) and neuromodulation as opioid-sparing and potentially more sustainable options, considering both clinical outcomes and environmental trade-offs.
- Compare where veterinary anaesthesia currently stands in relation to human anaesthesia, and the steps we can take moving forward

12:00

Learn to Flight without Volatile

Enzo MINGHELLA (UK), Valérie BILLARD (France),

Chair : Ludovic PELLIGAND (UK)

Blue Amphitheater

Total Intra-Venous Anaesthesia (TIVA) represents a safe and effective method for administration of general anaesthesia in both humans and companion animals. This presentation elucidates some of the principles of TIVA and its application in clinical practice, employing airplane flight analogy.

**Pre-Flight Phase: Background.** Since the 1970s, TIVA took off due to the introduction of drugs with wide therapeutic windows, including propofol and specific opioids. To avoid awareness and side effects associated with under- and over-dosing, pharmacokinetic (PK) and pharmacodynamic (PD) models (Marsh, Schnider and Eleveld for propofol in humans and Beths and Cattai for propofol in dogs and cats) have been developed and implemented into software to guide drug infusions: this marks the beginning of TCI (Target Controlled Infusion).

**Take-Off Phase: Safety and Induction.** Induction of anaesthesia defines the transition from an awake to an unconscious state combining immobility, reduced response to noxious stimuli and amnesia. As a smooth climb is ideal for a plane taking off, TCI allows the anaesthetist to gradually adjust doses to maintain cardiovascular stability and, when necessary, spontaneous ventilation. TCI can be provided using a pump (syringe driver) incorporating a software with selected PKs or using an external simulation software. Familiarity with the instrumentation (syringes, pumps, TIVA sets, etc.), and safety protocols contribute to the minimise human errors in TIVA.

**Cruise Phase: Anaesthesia Maintenance.** Dose requirements vary with interventional or surgical stimulations. Sudden 'turbulences' necessitates a methodical approach by adjusting drug concentrations.

**Landing Phase: Recovery from TIVA.** Although often well tolerated, TIVA may cause drug accumulation and delay recovery. Using lower target concentrations, employing a multimodal approach and considering species- and patients-specific factors can help to reduce the risk of an unpleasant landing.

**Post-Landing Phase: TIVA indications, side effects and benefits.** TIVA/TCI can be advantageous for many clinical scenarios. A few side effects, however, have been described. If used appropriately, it has the potential of reducing environmental pollution and prevent staff exposure to volatiles.

Learning Objectives:

- Understand the underlying principles and safety considerations of TIVA and TCI in human and veterinary anaesthesia

13:00

Lunch, posters and Commercial Exhibition

14:00

Feline Stress

Management

Tasha Mc NERNEY (USA),

Katherine ZATROCH (USA)

Nurses/GPs Session

Room 362-363

This lecture focuses on the unique challenges of managing stress and sedation in feline patients. We will delve into the behavioral and physiological aspects of feline stress, discuss effective stress-reduction techniques, and review the sedation options available.

Practical tips and case studies will be presented to help veterinary professionals improve the care and comfort of their feline patients.

Learning Objectives:

- Understand the behavioral and physiological indicators of stress in feline patients.
- Review the sedation options available for feline patients and their appropriate uses.
- Develop comprehensive stress management plans to improve patient outcomes.



13:00

**Lunch, posters and Commercial Exhibition**

14:00

**Not just crosses and numbers...how to optimize my anesthetic monitoring***Alexandre CHEBROUX (France)*Nurses/GPs Session**Room 362-363**

Anaesthesia records are believed to have existed since 1895. Their general design has remained relatively unchanged since these early days. They display a combination of numerical data, graphs, and textual notes to allow the most accurate and complete documentation of all treatments and events occurring during the perioperative period. Over the years, they have become a pillar of patient safety but their scope of use has expanded considerably. They improve communication among the surgical and hospitalisation team, ensure compliance with legal, local, or international standards, and streamline administrative and statistical tasks. Recently the development of more affordable and portable technological solutions has allowed, mostly in the human anaesthesia field, the transition from paper-based anaesthetic record to electronic ones. Electronic records can be integrated in the anaesthesia workflow at different levels: from basic digital forms to fill in manually on a tablet, to fully integrated Anaesthesia Information Management Systems (AIMS) which interface with all hospital systems and patient information databases. To improve completeness and accuracy of data input, several systems now automatically capture physiological parameters and medication administration data directly from bedside devices, such as multiparameter monitors, anaesthesia machines, ventilators and infusion systems. In veterinary medicine, despite many scientific organisations encouraging the use of anaesthesia records (paper or electronic), adoption remains poor in general practice unless obligated by law. This presentation will detail good practice for anaesthesia record creation and implementation. Barriers existing in veterinary medicine that prevent a wider adoption of these tools will be identified and discussed.

In a second part, the author will provide an overview of the advantages of electronic records compared to the paper version, while also listing some of the limitations associated with their use. Many initial criticisms and shortcomings about these IT solutions have been studied or improved through randomised clinical trials and technological improvements. Moreover, some specific drawbacks of monitoring anaesthetised animals can be mitigated with a better use of equipment and acute clinical sense.

Finally, the increasing accessibility, automation capabilities, and adaptability of electronic systems present a promising opportunity to bridge the current gap in veterinary anaesthesia record adoption. By reducing the burden of manual data entry, improving the accuracy and consistency of documentation, and enabling better integration with other clinical systems, electronic records have the potential to make anaesthesia monitoring more efficient and appealing to practitioners in everyday clinical settings.

**References:**

Bailey K, Briley J, Duffee L, Duke-Novakowski T, Grubb T, Love L, Kruse-Elliott K, Martin-Flores M, McKune C, Oda A, Pang D, Posner L, Reed R, Sager J, Sakai D, Schultz A, Shih ST, The American College of Veterinary Anesthesia and Analgesia Small Animal Anesthesia and Sedation Monitoring Guidelines 2025, Veterinary Anaesthesia and Analgesia 2025 (article in press) <https://doi.org/10.1016/j.vaa.2025.03.015>, Gravenstein J, The uses of the anesthesia record, Journal of Clinical Monitoring 1989;5:256-265, <https://doi.org/10.1007/BF01618258> Grubb T, Sager J, Gaynor J, Montgomery E, Parker J, Shafford H, Tearney C, 2020 AAHA anesthesia and monitoring guidelines for dogs and cats, Journal of the American Animal Hospital Association 2020; 56:2, 1-24, <https://doi.org/10.5326/JAAHA-MS-7055>, Riebold T, Anesthetic Records, Veterinary Anesthetic and Monitoring Equipment, First Edition 2018. Edited by Kristen G. Cooley and Rebecca A. Johnson; 24, 323-333 Robertson S, Gogolski S, Pascoe P, Sager J, Griffenhagen G, AAFP Feline Anesthesia Guidelines, Journal of Feline Medicine and Surgery 2018; 20, 602-634 <https://doi.org/10.1177/1098612X18781391>, Rozental O, White R, Anesthesia information management systems: evolution of the paper anesthetic record to a multisystem electronic medical record network that streamlines perioperative care, Journal of Anaesthesia History 2019; 5, 93-98 <https://doi.org/10.1016/j.janh.2019.04.001> 2352-4529 Taylor S, Benney H, Beaumont G, Bortolami E, Ford-Fennah V, Mcfadzean W, The Association of Veterinary Anaesthetists' guidelines for safer anaesthesia, first edition, website.

**Learning objectives:**

- Acknowledge the importance of monitoring and recording vital parameters and perioperative events during animal anaesthesia
- Identify barriers to use of anaesthesia records and reflect on your current practice for possible improvements
- Learn several tips to improve accuracy of instrumental monitoring
- Discover the possibilities offered by electronic records and new information technologies to improve efficiency and safety

15:30

**Coffee Break, Posters and Commercial Exhibition**

16:00

**Perioperative pain: drugs and treatment modalities***Perrine BENMANSOUR (France)*Nurses/GPs Session**Room 362-363**

In this session you will learn about multimodal analgesia options for the management of perioperative pain in dogs and cats. You will gain the physiology and pharmacology knowledge needed to understand how drugs and other treatment modalities can provide pain relief before, during and after anaesthesia. We will explore how to create and implement the most suitable perioperative analgesia plan. After the session, you should feel more confident about designing a tailored perioperative pain management plan for dogs and cats.

**Learning objectives:**

- Learn about systemic drug options available to provide multimodal analgesia during the perioperative period
- Learn about locoregional anaesthesia options available to provide multimodal analgesia during the perioperative period
- Learn about non-pharmaceutical options available to provide pain relief during the perioperative period

17:30

**End of the day**

14:00

**4 Abstracts Small Animals****Chair :** Sébastien BAUQUIER (USA)**Blue Amphitheater**

Addition of adrenaline to irrigation fluid in diagnostic and therapeutic arthroscopy in dogs: an anesthetic approach.

**Ana Zapata**

Differences in distribution of ventilation between lateral and sternal recumbency in common Hippopotami measured by Electrical Impedance Tomography.

**KN Kuek**

Pharmacokinetics and postoperative analgesic efficacy of intravenous acetaminophen in dogs undergoing laparoscopic ovariohysterectomy.

**Maria del Mar Granados Machuca**

A retrospective study of propofol requirements for induction of anaesthesia in paediatric and geriatric dogs and cats.

**Vasileios Zapridis****5 Abstracts Large Animals****Chair :** Morgane DEBUIGNE (France)**Room 364**

Cardiorespiratory and anesthetic effects of morphine or dexmedetomidine in sheep undergoing videolaparoscopic ovariectomy.

**Ana Clara Barreto Pinheiro**

Efficiency of isoflurane capture from anaesthetised experimental sheep.

**Flo Hillen**

Ultrasound-guided transversus abdominis plane block in pigs undergoing laparoscopic ovariectomy: a preliminary clinical study.

**Chiara Cipollini**

Five-minute exposure to EMLA cream reduces pain response to intravenous catheterisation in calves.

**Dogukan Polat**

Single-site ventral distal paravertebral block results in successful paralumbar fossa anesthesia in steers.

**Madeline Butterfield****5 Abstracts Other****Chair:** Mandoline CHESNEL (France)**Room 361**

Preliminary study of the use of butorphanol-midazolam or methadone-midazolam to sedate rabbits.

**Patricia Ruiz Lopez**

Sedative and analgesic effects of intramuscular methadone in rabbits undergoing ovariohysterectomy: preliminary results.

**Mario Arenillas**

Pharmacokinetics of a high oral dose of a compounded tramadol hydrochloride suspension in domestic rabbits (*Oryctolagus cuniculus*).

**Claire Vergneau-Grosset**

Pharmacokinetics of a single dose of oral tramadol in brook trout (*Salvelinus fontinalis*).

**Claire Vergneau-Grosset**

Effects of temperature on sedation induced by midazolam in bearded dragons (*Pogona vitticeps*).

**Renata Pinho**

15:30

**Coffee Break, Posters, and Commercial Exhibition**

16:00

**5 Abstracts Small Animals****Chair :** Patrick VERWAERDE (USA)**Blue Amphitheater**

Mass balance, methaemoglobin and metabolite study of [<sup>14</sup>C]paracetamol after IV and oral administration in dogs.

**Ludovic Pelligand**

Efficacy, pharmacokinetics and safety of liposomal synthetic cannabidiol injected subcutaneously in dogs: A randomized, blinded, placebo-controlled, crossover clinical trial.

**Yael Shilo-Benjamini**

Treatment of abnormal pain or unpleasant sensation with constant rate infusion of ketamine in cats - a case study.

**Tokiko Kushiro-Banker**

Evaluation of risk factors leading to poor anesthetic recovery after ocular surgery in academic small animal practice.

**Adrianna Sage**

Cardiovascular effects of intramuscular medetomidine-vatinoxan with or without methadone in dogs anesthetised with sevoflurane.

**Turunen Heta****5 Abstracts Large Animals****Chair :** Latifa KHENISSI (UK)**Room 364**

Effect on mechanical nociceptive threshold of intravenous or intramuscular morphine in healthy donkeys.

**Ronan JJ Chapuis**

Effect of the rectus abdominal sheath block with 0.2% bupivacaine in anesthetized horses on anesthesia recovery.

**Stéphanie Dantino**

Assessment of the pharmacokinetics and selected physiological and behavioral effects of three doses of orally administered tapentadol in horses.

**Khursheed Mama**

To determine the effect of the application of ice to the skin overlying the infraorbital canal on conscious equine patient compliance to infraorbital nerve block placement under standing sedation.

**Shane Mart**

Antinociceptive effects of the abdominis rectus sheath block with 0.2% bupivacaine in anesthetized horses.

**Eutalio Pimenta****5 Abstracts Other****Chair:** Caroline DIDIER (France)**Room 361**

Inducing hypoxaemia in experimental adult pigs by varying FiO<sub>2</sub> with nitrogen.

**Kate White**

Concordance between rectal temperature and a core temperature measuring device with Zero Heat Flux technology in guinea pigs (*Cavia porcellus*) anesthetized with isoflurane: preliminary results.

**José I Redondo**

Morbidity and mortality related to anaesthesia for experimental myocardial infarction induction: lessons learnt from minipigs.

**Daniela Casoni**

Creation of digital and 3D printed models to teach the mechanisms of action and functions of benzodiazepines (BZD) in veterinary anesthesiology.

**Yuri Karaccas Carvalho**

Simulator for training ultrasound-guided thoracic locoregional blocks in dogs.

**Yuri Karaccas Carvalho**

17:30

**End of the day**

20:00

**Gala Cocktail Dinner at La Coupole, le Dancing***sponsored by the* **Association of Veterinary Anaesthetists (AVA)**

01:00

# Thursday, September 18

09:30

## 5 Abstracts Small Animals

**Chair :** *Géraldine JOURDAN (France)*

**Room 362-363**

Reliability and initial validation of SIESTA-II, A short form of SIESTA (SEAAV Integrated Evaluation Sedation Tool for Anaesthesia) for dogs.

**Fernando Martinez Taboada**

A retrospective analysis of a single veterinary private practice canine population, treated with bedinvetmab (LibrelaTM).

**Luca Zilberstein**

Ultrasound-guided motor-sparing block of the distal tibia and peroneal nerves in dogs: anatomical study and preliminary clinical results.

**Patricia López Abradelo**

Attitudes of veterinarians in the Republic of Ireland towards acute pain assessment and management in cats and dogs.

**Cipollini Chiara**

Effects of increased resistance to gas flow on the tidal volume delivered by pressure-controlled ventilation: an in vitro simulation for cats.

**Francisco J. Teixeira-Neto**

## 5 Abstracts Large Animals

**Chair :** *Sabine KÄSTNER (Germany)*

**Room 364**

Effect of early discontinuation of lidocaine infusion on accelerometry-based equine recovery from isoflurane general anesthesia: a randomized clinical trial.

**Megan Sha**

Flow-control expiration (FLEX) for large animals achieved by a gate valve.

**Joao Soares**

Evaluating capture of isoflurane from anaesthetised horses.

**Kate White**

Association between surgical duration, intraoperative hypothermia, and recovery quality in equine anaesthesia.

**Charlotte Sandersen**

Can the Nose Outperform the Muscle? Pharmacokinetic Insights into the Use of Ketamine in Pigs.

**Isabela Peixoto Rabelo**

## 5 Abstracts Other

**Chair:** *Delphine LE CHEVALIER (UK)*

**Room 361**

Comparison of medial and lateral ultrasound-guided approaches to RUMM (radial, ulnar, median, and musculocutaneous) nerve injections in rats.

**Douglas Castro**

Pharmacodynamics of subcutaneous hydromorphone administration in bearded dragons (*Pogona vitticeps*).

**Colleen Elzinga**

Enhanced post-capture activity in urban red foxes (*Vulpes vulpes*) following alfaxalone-midazolam versus medetomidine-midazolam immobilisation: preliminary findings.

**Patricia Romero**

Sedative and antinociceptive effects of xylazine vs dexmedetomidine in New Zealand white rabbits.

**Daniela Casoni**

The Effects of Canine ABCB1-1Δ Mutation on Common Pre-anesthetic Medication Combinations.

**Kristen Deom**

11:00

11:30

## Coffee Break, Posters and Commercial Exhibition

## 5 Abstracts Small Animals

**Chair :** *Nicolas GIRARD (France)*

**Room 362-363**

Epidural catheter tip location and its potential adverse events in relation to cranial advancement in dog cadavers.

**Martinez Taboada Fernando**

Standardised anaesthetic protocol and complications during transcatheter occlusion of patent ductus arteriosus in dogs: A retrospective cohort study of 24 cases (2024).

**Mayara Lima Travalini**

Anesthetic mortality in canine patients in a veterinary teaching hospital in Spain: a retrospective study.

**Patricia Cantero Campos**

Comparison of atracurium administered as a variable rate infusion or as intermittent boluses in dogs undergoing ophthalmic surgery.

**Borja Sanchez Martinez Conrado**

Comparison of pain in ovariectomy: laparoscopy vs midline celiotomy under an opioid-free protocol (OFA) in dogs.

**Mariela Goich**

## 5 Abstracts Large Animals

**Chair :** *Charlotte SANDERSEN (Belgium)*

**Room 364**

Pulsed radiofrequency treatment for the management of trigeminal-mediated headshaking syndrome in a horse.

**Martina Amari**

Onset and duration of action of escalating doses of rocuronium in anesthetized healthy goats.

**Latchmi Baba**

Reverse Trendelenburg attenuates hemodynamic depression during anesthesia in late-gestation mares.

**Carlos Valadao**

Use of adrenaline to facilitate surgical management of nephrosplenic entrapment in anaesthetized horses: A case series.

**Maha Abunemeh**

Intraoperative Complications In Anaesthetised Horses: A Comprehensive Prospective Study.

**José I Redondo**

## 5 Abstracts Other

**Chair:** *Luca ZILBERSTEIN (France)*

**Room 361**

Profile identification of brazilian anesthetists.

**Maria Raquel Almeida**

Development of a novel ensemble machine learning model for predicting post-anesthetic hypoxemia in mechanically ventilated dogs.

**Son Won-gyun**

Evaluation of laryngeal obstruction and edema using the endotracheal tube cuff leak test in dogs: clinical trials.

**Son Won-gyun**

Owner's understanding of anaesthetic risks - Preliminary data.

**Beatriz Soares**

The impact of pharmacopuncture with lidocaine on perioperative analgesic requirements and systemic inflammatory response in dogs with pyometra.

**Renata Cassu**

13:00

14:00

## Lunch, posters and Commercial Exhibition

14:00

## Veterinary and Medical Research in Liverpool

Eddie CLUTTON (UK), Jennifer HUNTER (UK),

**Chair:** Sébastien BAUQUIER (USA)

**Blue Amphitheater**

The influence of the University Department of Anaesthesia in Liverpool, UK which consisted of both veterinary and medical anaesthetists on the development of laboratory and clinical research across several animal species including man over 40 years will be detailed. In particular, the leadership of Professor RS Jones over many years in guiding academic lecturers from both professions in research studies on several neuromuscular blocking drugs and reversal agents will be revealed. The highest standards of neuromuscular transmission monitoring and the pharmacology of all related drugs were taught in detail. Other contributions included the multidisciplinary teaching of medical and veterinary under- and post-graduates on all aspects of anaesthesia. The extensive contributions of the academic department to veterinary and medical journal editorial work will also be discussed. The mutual and long-term benefits of such academic teamwork both professional and personal will be acknowledged.

### Learning objectives:

- To demonstrate that both laboratory and clinical research by veterinary and medical anaesthetists working together is mutually beneficial
- To promote the highest standards of neuromuscular monitoring across all animal species
- To encourage understanding of the comparative pharmacology of neuromuscular blocking drugs and reversal agents across all animal species
- To demonstrate the benefits of multidisciplinary teaching of undergraduates and postgraduates in both medicine and veterinary medicine
- To demonstrate the benefits of veterinarian expertise in the editing of laboratory animal research in medical journals.

15:00

## Anesthesia and Analgesia in Wartime

Jérôme ARNAULD DES LIONS (France), Pierre PASQUIER (France),

**Chair:** Sébastien BAUQUIER (USA)

**Blue Amphitheater**

War brings with it many traumas and combat wounds, often causing severe suffering. Relieving and caring for the patient then become the priorities of the clinician, whether doctor or veterinarian. These periods of intense suffering were an important driving force in learning how to relieve pain and avoid exacerbating it through therapeutic acts. The discovery and development of anesthesia and analgesia represented a real step forward in improving the safety and comfort of the injured, and the quality of care with the surgery. Progress in these fields is closely linked to experimentation, and historical analysis shows a particularly strong link between man and animal in this field. It is rare to observe such rapid application of discoveries made in one species to another, in both directions, from the earliest times to the present day. Advances in science on the one hand, and the globalization of trade and war on the other, have favored the widespread use of new techniques, transforming anesthesia and analgesia into common therapeutic means for the benefit of all patients, including our faithful four-legged companions.

### Learning Objectives:

- Review the broad outlines of the evolution of anesthesia techniques and protocols.
- Highlight the strong links between the development of human and animal anesthesia.
- Understand the specific challenges of anesthesia and analgesia, drawn from past armed conflicts: limited resources, harsh environmental conditions and the specific needs of war-wounded animals and humans.
- Understand the management strategies for war trauma casualties: acute pain, hemodynamic stabilization, and postoperative care.

16:00

## Coffee Break, Posters, and Commercial Exhibition

16:30

## Changes in Analgesia Practice over a Career

Kursheed MAMA (USA), Frédéric AUBRUN (France),

**Chair:** Delphine HOLOPHERNE (UK)

**Blue Amphitheater**

This shared presentation will provide an overview of changes in perioperative small animal and human medical analgesia practices over the course of a veterinary and medical career. The presentation will highlight the evolution of medications, techniques and approaches over a span of 30 plus years. The attendee will gain insight to how small changes can positively impact patients and learn when it may be warranted to go back to historical experiences in management of patients. Similarities and differences between the human medical and veterinary approaches will also be highlighted.

### Learning Objectives:

- Understand the reasons for the evolution of analgesic practice
- Assess whether these changes have been of benefit to patients
- Decide which changes should be incorporated into their practice

Pain can be fatal and must be treated quickly and without restriction. Here are four questions:

**How can you get fast pain relief?** The pain level should be assessed before, during and after the administration of the painkiller, preferably using a unidimensional method such as a visual analogue pain scale, numerical rating scale or verbal rating scale. The best regimen for achieving acute pain relief in a PACU and in the ED is intravenous morphine titration.

**How can the risk of severe pain be predicted?** Severe pain is associated with an increased likelihood of experiencing chronic pain. We can use a clinical prediction rule that takes into account factors such as the type of surgery, incision size, psychological vulnerability, gender and age. For example, women tend to experience more severe pain and require a higher dose of painkillers. Conversely, morphine consumption and pain levels are lower in the elderly.

**How can the risk of hyperalgesia be reduced?** Hyperalgesia can occur after trauma or surgery. This risk increases with higher doses of opioids. Similarly, there are a number of risk factors for the transition from acute to chronic pain, such as depression or preoperative opioid consumption. Ketamine is probably the most effective anti-hyperalgesic drug for preventing and treating the consequences of hyperalgesia.

**We can improve multimodal analgesia** by introducing regional anaesthesia and analysing pain trajectories, as well as by removing opioids during surgery. This reduces the risk of adverse events and hyperalgesia.

17:30

Thursday, September 18

17:30

## Is Laboratory Animal Anesthesia Still Prehistory?

Eddie CLUTTON (UK), Christine BALL (France),

**Chair:** Delphine HOLOPHERNE (UK)

Blue Amphitheater

Before the advent of anaesthesia, much research was conducted on restrained, conscious animals. Vivisection was seen by many as a necessary way to advance scientific knowledge. By others, it was perceived as torture and therefore rejected as a means to gain knowledge.

The development of anaesthesia in the mid nineteenth century required some experimentation on animals, but even once anaesthesia was established for human surgery, it was not universally administered to animals. As the nineteenth century progressed, scientific research accelerated, demanding greater access to experimental animals. At the same time, society was changing, becoming less tolerant of suffering generally.

Legislation eventually became inevitable. In 1876, Britain became the first country to pass an Act (The Cruelty to Animals Act) specifically protecting laboratory animals, and doing so by means of a licencing system. It was extremely controversial, being poorly enforced and driving much research out of Britain. Other countries were reluctant to follow suit and, while many researchers were treating animals humanely, it was only in the second half of the twentieth century that legislation became widespread.

This paper will explore the early history of animal experimentation and the various attempts at legislation, before moving on to recent advances with the development of standards, training and education to promote excellence in animal anaesthesia and research.

### Learning objectives

- To define the role of animal experimentation in science and medicine before the development of anaesthesia
- To examine the effect of the discovery of anaesthesia on the treatment of experimental animals
- To investigate the legal challenges that developed in the nineteenth century as the rapid growth in scientific discovery led to more animal research just as society was demanding a more humane treatment of animals
- To define and explain the current state of animal experimentation and its regulation.
- To bring all of this information together to answer the question of whether the situation has really improved for the research animal

18:30

End of the day

19:00



## SFAR EVENT at le Palais des Congrès

Organised event by the **French Society of Anesthesia and Reanimation**

23:00



## Friday, September 19

08:30

**Depth of Anaesthesia Monitoring: where do we stand?***Olivier LEVIONNOIS (Switzerland), David CHARIER (France)***Chair:** *Gwenola TOUZOT-JOURDE (France)***Blue Amphitheater**

Accurately assessing anaesthetic depth is essential for patient safety, yet traditional methods often rely on subjective clinical signs. This keynote will review both foundational concepts and the latest methodologies for monitoring anaesthetic depth, drawing on advances from both veterinary and human anaesthesia.

We will focus on electroencephalography (EEG) and its derived variables, exploring how real-time EEG monitoring enables precise titration of hypnotics, reduces the risk of intraoperative awareness, and supports optimal recovery. Practical guidance will be provided for interpreting EEG waveforms, processed indices, and real-time spectrograms, now available on most modern monitoring devices. Other methodologies will also be discussed to provide up-to-date knowledge.

Additionally, we will address the balance between nociception and antinociception, and how real-time monitoring can individualize opioid dosing, minimizing intraoperative hypotension and postoperative pain. The synergistic interaction between hypnotics and opioids in balanced anaesthesia will be highlighted, emphasizing the significant reduction in hypnotic requirements when even low concentrations of opioids are used.

Monitoring the depth of hypnosis is more complex with agents such as ketamine or dexmedetomidine, which are widely used today in human anaesthesia. Their use relies on mathematical modeling of plasma or brain concentrations. Spectral analysis of the EEG signal allows us to assess the effects of these drugs on cerebral electrical activity, reflecting their concentration at the site of action.

**Learning objectives:**

- Define depth of anaesthesia and contrast traditional monitoring methods with advanced approaches, including EEG.
- Analyze the principles, interpretation, and limitations of key monitoring methodologies in anaesthesia.
- Evaluate the clinical application of EEG and nociception monitoring for optimizing anaesthetic and opioid delivery.
- Apply practical strategies for individualized patient care based on real-time monitoring.

09:30

**The contribution of music therapy to Anesthesia and Analgesia.***Apostolos GALATOS (Greece), Gérard MICK (France),***Chair:** *Gwenola TOUZOT-JOURDE (France)***Blue Amphitheater**

Music has been proposed as an anxiety and stress reduction method in companion animals. Lately, research has extended to its potential effect during the perioperative period. Physiological stress has been associated with the release of catecholamines, increasing anaesthetic risk in companion animals and further affecting wound healing and postoperative pain. Recent guidelines recommend the use of multimodal approaches in veterinary surgical cases, with growing interest in non-pharmacological therapies such as music, as an adjunct to conventional pharmacological approaches. Classical music or music specifically designed for dogs or cats has been reported to promote behavioral and physiological responses associated with reduced stress levels.

The literature in companion animals regarding perioperative music implementation is limited; nevertheless, music-induced improvement in sedation levels, reduction in propofol requirements for intubation, intraoperative haemodynamic stability promotion, intraoperative anaesthetic and analgesic sparing effects and positive effects on postoperative pain and anxiety have been reported. However, the components of the music intervention should be standardized for a successful perioperative outcome in dogs and cats. Music type (genre, tempo, pitch, instrumentation), volume, method of music delivery, previous music experience, duration, timing and frequency of music application, seem to be important features of a music intervention. Considering that music treatment is a safe, low cost, low-risk, easy to deliver, noninvasive and potentially effective intervention, the current presentation will focus on the incorporation of music, as a non-pharmacological adjunct, into a multimodal approach in dogs and cats and furthermore aims to provide directional guidance for music implementation in a clinical setting.

**Learning objectives**

- Existing evidence regarding music's effect during the perioperative period in companion animals.
- Which are the basic components to be considered, when designing a perioperative music therapy intervention in dogs and cats.
- How to manage each component of the music intervention, in order to create an optimal music therapy protocol.
- What to anticipate when incorporating a music intervention into the perioperative period.

10:00

**Coffee Break, Posters, and Commercial Exhibition**

10:30

11:00

## AI and ChatQpt in Anesthesiology

Sacha ROZENWAJG (France)

**Chair:** Latifa KHENISSI (UK)

Blue Amphitheater

Artificial intelligence has reached its peak of hype and is now taking root in the practice of anesthesiology. But where and how? After defining what AI is and its latest development, we will map real-world, high-impact AI applications – from perioperative decision support to predictive analytics, educational transformation, and its future scientific review.

We will focus on practical integration, medico-legal responsibility, and the fine line between assistance and automation: a pragmatic look at where we stand and where we must draw the line. All this with, of course, some provocative lines along the way

### Learning Objectives:

After this lecture, you will be able to:

- Understand the principles of machine learning, deep learning, and generative medicine
- Have insights into their current use in (human) anesthesiology
- Have a critique eye regarding the interaction between AI and human

12:00

## Closing Ceremony

Blue Amphitheater

12:00 - 12:20

Closing speech | *Karine PORTIER*

12:20 - 12:25

AVA Oral presentation award ceremony | *Louise CLARK, Loannis SAVVAS*

12:25 - 12:30

ECVAA Poster presentation award ceremony | *Polly TAYLOR, Eddie CLUTTON*

12:30 - 12:40

ACVAA President's Award | *Sébastien BAUQUIER*

12:40 - 12:50

Liverpool AVA Spring meeting 2026 presentation | *Ian SELF (recorded video)*

12:50 - 13:00

Toronto WCVAA 2028 presentation | *Flavio FREITAG*

13:00

**End of the Congress.**

**If you are registered to one of the afternoon activities,  
enjoy your free time before the beginning of your Parisian adventure.**

14:00

**DISCOVERING PARIS**

17:00

Friday, September 19

## CONTACT US

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# WORLD CONGRESS OF VETERINARY ANAESTHESIA & ANALGESIA

September 15th to 19th, 2025  
Palais des Congrès – PARIS

