



## Small Animal - Minimally Invasive Osteosynthesis in Veterinary Traumatology



December 15, 2011 - December 16, 2011

Las Vegas, Nevada, USA

Minimally Invasive Osteosynthesis (MO) has been successfully implemented in human orthopedics for more than 2 decades. Unfortunately, despite evidence that, compared to traditional osteosynthesis, MO is associated with faster bone healing, lower morbidity, faster functional recovery and fewer complications, this philosophy has yet to be fully embraced by the veterinary orthopedic community at large.

To date, while MO has been successfully used to treat diaphyseal, metaphyseal, epiphyseal and articular fractures as well as sacro-iliac luxation, surgeons' exposure to this relatively new field in veterinary orthopedics has been limited to few presentations at meetings (mainly ACVS and ECVS) and few clinical papers. We believe that this new philosophical approach to trauma needs to be addressed and taught on a broader scale. The establishment of an AOVet Masters course would fill the current void in continuing education programs and allow veterinary orthopedic surgeons to learn about the biological basis for MO, surgical techniques, new implants as well as advanced imaging techniques and radioprotection. Such exposure will undoubtedly lead to improved management of fractures in companion animals and hopefully generate interest in clinical research so that the relative benefits of traditional, OBDNT and MO techniques may be objectively compared.

**Tuition: \$1,500**

### Event Summary

**Tuition:**

Level Name: Participant - Veterinary

Pricing Tier: Attending

Tuition: \$1,500.00

**Course Prerequisite(s):**

- Principles of Small Animal Fracture Management
- Advanced Techniques in Small Animal Fracture Management

**Venue:**

Embassy Suites - Las Vegas

4315 Swenson Street

Las Vegas, NV, USA

Phone Number: 1-702-795-2800

Western Veterinary Conference -

Oquendo Center

2425 E. Oquendo Road

Las Vegas, NV, USA

Phone Number: 866-800-7326

**Language(s):**

English

**Directly Provided by:**



**Professional Level Prerequisite(s):**

No Prerequisites

## CME

### Continuing Education Credit: 12.00

- Activity will be certified for continuing education.

The Continuing Medical Education (CME) mission of AO North America (AONA®) is to provide comprehensive multidisciplinary needs based education to surgeons, fellows, and residents in the specialties of orthopedic, hand, craniomaxillofacial, spine, neurosurgery, and veterinary surgery in the areas of trauma (i.e.), operative reduction and fixation), degenerative disorders, deformities, tumors, and reconstruction.

Expected results of AONA's CME activities for surgeons, fellows, and residents are to:

- Increase their knowledge base and surgical skill level
- Improve competence by applying advances of knowledge in patient care in the areas of trauma, degenerative disorders, deformities, tumors, and reconstructive surgical techniques
- Address practice performance gaps by improving management of aspects of traumatic injuries and musculoskeletal disorders (i.e., pre-operative planning to post-operative care)

## Learning Objectives

Upon completion, participants should be able to:

- Define and explain MIO principles
- Describe and integrate new reduction and fixation techniques used to reduce one's surgical footprint
- Differentiate indirect from direct fragment manipulation and assess their effect on the soft tissue envelope
- Associate the biological benefits of remote percutaneous plate osteosynthesis and the need to provide adequate mechanical stability at the fracture site
- Recognize MIO challenges and limitations and realize when a shift to ORIF (OBDNT) techniques is required
- Assess the impact of new technologies (implants and advanced imaging) in successfully performing MIO
- Evaluate the risk / benefit of intra-operative fluoroscopy during MIO; implement effective protective measures to decrease radiation exposure to the surgical team (ALARA); recognize the importance of monitoring radiation exposure

## Faculty



### Dejardin, Loic - Co-Chairperson

DVM, MSc, DACVS, DECVS  
Wade O. Brinker Endowed Chair of Veterinary Surgery  
Professor – Small Animal Orthopaedic Surgery  
ACVS Founding Fellow – MIS Orthopaedics SA  
College of Veterinary Medicine  
Michigan State University  
East Lansing, Michigan

Dr. Déjardin is the Wade O. Brinker Endowed Chair of Veterinary Surgery. He is Professor and head of Small Animal Orthopaedic Surgery at Michigan State University and a Founding Fellow of the ACVS Minimally Invasive Small Animal Orthopaedic Surgery Fellowship. Dr. Déjardin graduated from Toulouse Veterinary School (France) and completed his Surgical Residency then MSsc with Dr. Arnoczky at MSU. Dr. Déjardin authored ~90 research proposals (~\$7M), eight inventions and holds three patents on an interlocking nail and a targeting device for minimally invasive osteosynthesis. He received several prestigious awards in both veterinary and human medicine as well as in engineering, including the O'Donoghue Sports Injury Research Award (AOSSM), the Zandman Award (Soc. Exp. Mechanics), Distinguished Postdoctoral Veterinary Alumnus Award (MSU) and the Pfizer-Zoetis Award for Excellence in Research. His publications include >160 peer-reviewed scientific papers and abstracts, 20 book chapters and ~475 presentations in the US, Europe, Latin America and Asia. As an AO Foundation International Faculty and former Trustee committed to continuing education worldwide, Dr. Déjardin regularly speaks at national and international meetings and courses. He started a Minimally Invasive Osteosynthesis (MIO) program at MSU in the early 2000s' and developed a novel interlocking nail suited for MIO, well as a new technology devised for the MIO of sacroiliac luxations. Since 2009, Dr. Déjardin created and chaired the first comprehensive AOVET Master Course on MIO. His clinical interests include comparative orthopaedics, traumatology, MIO, revision surgery, as well as total joint replacement. His current research activity focuses on biomechanics, implant and instrument design, total joint replacement (elbow, hip, knee, ankle), as well as robotics and kinetics.



### Hughes, James - Evaluator

MD, FACS  
Prof  
Professor Emeritus  
Department of Orthopaedic Surgery  
UMMC  
Medical Director BMHT  
Jackson, Mississippi



### Fox, Derek - Lecturer

DVM, PhD, DACVS  
Professor, Small Animal Orthopedic Surgery  
Veterinary Health Center  
University of Missouri  
Columbia, Missouri

Dr. Fox is a Professor of Small Animal Orthopedic Surgery and Chief of the Small Animal Surgery Service at the University of Missouri's Veterinary Health Center. He graduated from veterinary school at Michigan State University in 1998, after which he completed an internship, surgical residency and PhD at the University of Missouri, becoming faculty in 2004. He teaches courses and lectures on a variety of topics regarding small animal orthopedic surgery both nationally and internationally. Dr. Fox's special research interest is in limb alignment and deformity correction. He has authored or co-authored over 60 peer reviewed papers, 8 text book chapters and numerous abstracts. He adapted the use of the Center of Rotation of Angulation methodology for the quantification and pre-surgical planning of angular limb deformities in dogs. He is a member of the American College of Veterinary Surgeons, Veterinary Orthopedic Society and AO.



### Guiot, Laurent - Lecturer

DVM, DACVS, DECVS  
Orthopedic Surgeon  
ACCESS Bone & Joint Center  
ACCESS Specialty Animal Hospital - Los Angeles  
Los Angeles, California

Dr. Laurent Guiot is a world-class orthopedic surgeon with a passion for excellence. He obtained his degree in veterinary medicine from the University of Liege (Belgium) in 2004 and completed a general internship in small animal medicine and surgery at the same institution. Laurent then worked for one year in Paris where he was in charge of the general surgery program. He rejoined academia in 2006 as an international surgical fellow at Michigan State University where he also completed a three-year residency program with a strong emphasis in orthopedic surgery and focus in minimally invasive osteosynthesis under Dr. Loic Déjardin's mentorship. He became boarded by the American and European Colleges of Veterinary Surgeons in 2011. Following his residency, Laurent became an assistant professor of orthopedic surgery in the Department of Small Animal Clinical Sciences and an attending orthopedic surgeon at the Veterinary Teaching Hospital at Michigan State University. He was then recruited to lead the creation of a new orthopedic surgery facility for the Ohio State University in Dublin, Ohio. In 2016, he created the Bone & Joint Center at ACCESS in Los Angeles with Dr. Reunan Guillou. This center is establishing itself as one of the prime location for advanced orthopedics and includes a comprehensive total joint replacement center, a strong minimally invasive orthopedic surgery program, and a tertiary referral service for revision cases. Dr. Guiot's major interest is orthopedic trauma and minimally invasive orthopedic surgery. He routinely presents his work internationally and is an active member of major national and international orthopedic programs including the Veterinary Orthopedic Society, the AO, and the Orthopedic Research Society. Laurent is committed to the improvement of patient care through the development of surgical techniques, instrumentation, and implants used for the treatment of orthopedic patients.

**Johnson, Kenneth - Lecturer**

MVSc, PhD, DACVS, DECVS  
Professor of Orthopaedics  
Sydney School of Veterinary Science  
The University of Sydney  
Sydney

Professor Kenneth Johnson is a graduate of the University of Sydney where he also obtained a Masters and PhD degrees. He completed residency training in surgery at Colorado State University, and since then has worked in academia as an orthopaedic specialist in the USA, UK and Australia. He has specialist qualifications in surgery as a Diplomate of American College of Veterinary Surgeons, a Diplomate of European College of Veterinary Surgery, as well as being a Fellow of Australian College of Veterinary Scientists. Recently, Ken was visiting professor in the Surgical Discovery Centre at Cambridge from June 2017 till January 2018. During this time, he worked on research on greyhound stress fractures, as well as computer navigation in orthopaedic surgery. In addition, Prof Johnson organizes the AO courses on fracture treatment in Columbus Ohio and Sydney and is a past president of AO VET. Research on osteoarthritis, locked nailing of fractures, greyhound stress fractures and locking implants are among his interests. He is the author of over 110 clinical and research publications on orthopaedics, 30 book chapters, as well as several books including the new fifth edition of Piermattei's Surgical Approaches to Bones and Joints. In addition he is Editor-in-Chief of the journal Veterinary and Comparative Orthopaedics and Traumatology. Recently he was given the WSAVA/Hills Pet mobility award for his contributions to clinical research in orthopaedics in dogs and cats.

**Tomlinson, James - Co-Chairperson, Lecturer**

BSc, DVM, MVSc, DACVS  
Professor Emeritus of Small Animal Orthopedic Surgery  
Department of Veterinary Medicine and Surgery  
College of Veterinary Medicine  
University of Missouri  
Columbia, Missouri

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All scientific research referred to, reported or used in this CME activity in support or justification of a patient care recommendation conforms to the generally accepted standards of experimental design, data collection and analysis.

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To participate in this surgical skills course, you will be required to sign a waiver of liability prior to the course. In order to participate, AONA's policy mandates that every individual must wear appropriate protective garments provided by AO NA during the lab sessions. Participants who do not sign the waiver and wear protective garments will not be allowed to participate in the laboratory sessions.

### Human Anatomic Specimens:

This course will involve exposure to and contact with human anatomic specimens. These specimens are being utilized for purposes of teaching and learning and are to be treated with the utmost respect. Participants should be familiar with and understand the potential risks involved and will be required to observe all customary safety procedures.

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This course will involve exposure to and contact with animal anatomic specimens. These specimens are being utilized for purposes of teaching and learning and are to be treated with the utmost respect. Participants should be familiar with and understand the potential risks involved and will be required to observe all customary safety procedures.

## Acknowledgment

### In-Kind Support

AO North America gratefully acknowledges in-kind support for equipment and technical staff from J&JMedTech.

### Educational Grant

AO North America gratefully acknowledges funding for its education activities from the AO Foundation. The AO Foundation receives funding for education from Synthes GmbH.