



## AO VET NA Masters Course —Small Animal Minimally Invasive Osteosynthesis Traumatology

 August 14, 2022 - August 16, 2022  
Las Vegas, Nevada, USA

Minimally Invasive Osteosynthesis (MIO) has successfully improved human orthopedic outcomes for more than two decades. Yet, despite evidence of faster bone healing, lower morbidity, faster functional recovery, and fewer complications; MIO has not been fully embraced by the veterinary orthopedic community at large.

This 3-day AO VET NA Masters-level course is meant to help change this. It fills the current void in continuing education courses and allows veterinary orthopedic surgeons to learn the biological basis of MIO, its surgical techniques, new implants, advanced imaging and radioprotection techniques from the absolute top experts in this field today. Such exposure will undoubtedly lead to both improved management of fractures in companion animals and improved outcomes.

If you care about providing the best outcomes for your small animals, you should register for this course and begin applying MIO in your clinical practice.

In preparation for this course, it is **strongly recommended** you review the available pre-course material in order to help you better prepare for this educational event. You will access this material in our Learning Management System (LMS), Totara. This will only be available once you have registered for this course.

### Target Audience

This course is open to surgery residents and practicing veterinarians with orthopedic experience. Familiarity with locking implant instrumentation and techniques will be assumed.



### Prerequisites for Attendance:

**AO VET Small Animal Principles Course (Mandatory Requirement)**

**AO VET Small Animal Advanced Course (Highly Recommended)**

**AO VET Small Animal Masters Course (Desirable)**

## Event Summary

### Tuition:

Level Name: Participant - Veterinary  
Pricing Tier: Attending  
Tuition: \$2,200.00

Level Name: Participant - Veterinary  
Pricing Tier: Resident  
Tuition: \$2,200.00

### Course Prerequisite(s):

- Principles of Small Animal Fracture Management

### Venue:

Marriott Courtyard  
Henderson  
2800 N Green Valley  
Pkwy  
Henderson, Nevada,  
USA  
Phone Number: 702-  
434-4700

Viticus Group Eastern  
Campus  
5810 S. Eastern Ave.  
Las Vegas, Nevada, USA  
Phone Number: 702-  
739-6698  
[www.viticusgroup.org](http://www.viticusgroup.org)

### Language(s):

English

### Directly Provided by:



**Professional Level Prerequisite(s):**  
No Prerequisites

## CME

### Continuing Education Credit: 23.50

- AO North America is a Registry of Approved Continuing Education (RACE) Provider (Number 244).

#### Designation Statement

This program was reviewed and approved by the AAVSB RACE program for \_\_\_\_ hours of continuing education credit in jurisdictions which recognize AAVSB RACE approval. Please contact the AAVSB RACE program if you have any comments/concerns regarding this program's validity or relevancy to the veterinary profession.

**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 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 open reduction internal fixation (ORIF) and open but do not touch (OBDNT) technique is required
- Assess the impact of new technologies (implants and advanced imaging) in successfully performing MIO
- Evaluate the risk / benefit of intraoperative fluoroscopy during MIO
- Implement effective protective measures to decrease radiation exposure to the surgical team (ALARA -As Low As Reasonably Achievable )
- Recognize the importance of monitoring radiation exposure

## Faculty



### Dejardin, Loic - Chairperson

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

East Lansing, Michigan

Dr. Déjardin is the Wade Brinker Endowed Chair of Veterinary Surgery. He is Professor of Small Animal Orthopaedic Surgery at MSU and a Founding Fellow of the ACVS MIS SA Orthopaedic Surgery Fellowship. Dr. Déjardin graduated from Toulouse, France and completed his Surgical Residency then MS at MSU. Déjardin authored ~100 research proposals (~\$8M), nine inventions and holds five patents on an interlocking nail and a targeting device for minimally invasive osteosynthesis as well as an anatomic distal femoral locking plate and an ingress-egress suction device. 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 >250 peer-reviewed scientific papers and abstracts, 20 book chapters and ~550 presentations in the US, Europe, Latin America and Asia. As an AO Foundation International Faculty former Trustee committed to continuing education worldwide, Déjardin regularly speaks at national and international meetings and courses. Dejardin is a member of the AO Technical Commission and former member of the AO Small Animal Expert Group as well as the Veterinary Global Expert Group. 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. From 2009 to 2022, Déjardin created and chaired the first comprehensive AOVET Master Course on MIO. His clinical interests include traumatology, MIO, revision surgery and total joint replacements. His research activity focuses on biomechanics, implant and instrument design, development of new surgical techniques, elbow and ankle total joint replacement, as well as kinetics. Since 2015, Dr. Déjardin has taken a leadership role in advancing robotics and navigation in veterinary orthopaedics and traumatology.



### Perry, Karen - Co-Chairperson

BVMS, CertSAS, DECVS, MSc, FHEA, FRCVS  
Professor in Small Animal Orthopedics  
The Ohio State University  
Department of Veterinary Clinical Sciences  
Veterinary Medical Center  
601 Vernon L. Tharp Street  
Columbus, Ohio

Karen Perry graduated from The Royal (Dick) School of Veterinary Studies, Edinburgh in 2005. After a short period in mixed practice and an internship in small animal orthopedics Dr. Perry returned to the R(D)SVS to complete a residency in small animal surgery from 2007 to 2010. Following achievement of ECVS status in 2011, Dr. Perry joined the Royal Veterinary College (RVC), London as a lecturer in small animal orthopedics. During her tenure at the RVC, Dr. Perry completed a postgraduate certificate in veterinary education and became a Fellow of the Higher Education Academy. After four years at the RVC Dr. Perry moved to Michigan State University where she became a Tenured Professor in Small Animal Orthopedics. In 2022, Dr. Perry was also named the Pat Carrigan Professor of Feline Health. Dr. Perry's passion for veterinary education led her to pursue further qualifications in this ever-expanding field. In 2019, whilst at MSU, Dr. Perry completed her Masters of Science in Veterinary Education, the thesis of which focused on the importance of feedback during veterinary residency programs. Due to her knowledge in education, Dr. Perry was elected to serve on the AOVET NA education committee and is currently the chair of this committee. Dr. Perry has published widely in the veterinary literature with her main research interests being feline orthopedics, traumatology and the correction of limb deformities associated with patellar luxation. Dr. Perry, an International AO Faculty, created the first AO Master Course in Feline Orthopedics and has presented her work throughout the world including in Colombia, Brazil, Mexico, Russia, Italy, Spain, Poland and the UK. In 2026, Dr. Perry transitioned to The Ohio State University where she is currently a Tenured Professor in Small Animal Orthopedics.



### Agnello, Kimberly - Lecturer

DVM, MS, DACVS, DACVSMR  
Professor of Small Animal Orthopedic Surgery  
ACVS Founding Fellow, Minimally Invasive Surgery (Orthopedics)  
University of Pennsylvania School of Veterinary Medicine  
Department of Clinical Studies - VHUP  
Philadelphia, Pennsylvania

Dr. Agnello received her veterinary degree from Cornell University, School of Veterinary Medicine and completed a small animal surgery residency at the University of California. She is a Diplomate of the American College of Veterinary Surgeons and the American College of Veterinary Sports Medicine and Rehabilitation. She is currently faculty in small animal orthopedic surgery at University of Pennsylvania. Dr. Agnello's clinical and research interests include minimally invasive surgery, angular limb deformity correction, and clinical trials for the treatment of osteoarthritis.



### Barnes, Katherine - Lecturer

DVM, MS, DACVS  
Clinical Associate Professor  
Texas A&M University  
College Station, Texas

Dr. Barnes is currently a Clinical Associate Professor of Small Animal Orthopedic Surgery at Texas A&M University. She obtained her DVM from Oregon State University in 2011 followed by an internship at Cornell University, and a 3-year surgery residency at Virginia Tech. She is a diplomate of the American College of Veterinary Surgeons with research and clinical interests that include fracture repair, arthroscopy, 3D printing, and the role of rehab in the treatment and recovery of surgical patients.

**Guiot, Laurent - Evaluator, 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 Dejardin'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.

**Karlin, William. (Mike) - Table Instructor**

DVM, MS, DACVS  
Assistant Professor  
Orthopedic Surgery  
Department of Clinical Sciences  
Cummings School of Veterinary Medicine  
Tufts University  
North Grafton, Massachusetts

Dr. Karlin is currently an Assistant Professor in Small Animal Orthopedic Surgery at the Cummings School of Veterinary Medicine at Tufts University. He earned his DVM degree at Kansas State University College of Veterinary Medicine in 2006. He went on to complete a three-year residency program and Masters Degree at the University of Illinois in Equine Surgery in 2010. He then worked in private practice at two equine surgical referral centers for several years before completing the requirements for dual certification in Small Animal Surgery, at Lauderdale Veterinary Specialists. Dr. Karlin was the first surgeon to pass the requirements for dual certification through ACVS becoming a diplomate of the American College of Veterinary Surgeons (ACVS) in both small animal and large animal. His areas of clinical and research interest include arthroscopy, fracture healing, fracture repair, and orthopedic implants including minimally invasive methods, total joint replacement, osteoarthritis, and assessment and correction of limb deformity.

## AO NA Disclaimer Information

### Faculty Disclosure:

It is the policy of AO North America to abide by the Accreditation Council for Continuing Medical Education Standards for Commercial Support. Standard 2: "Disclosures Relevant to Potential Commercial Bias and Relevant Financial Relationships of Those with Control over CME Content," requires all planners, including course directors, chairs, and faculty, involved in the development of CME content to disclose their relevant financial relationships prior to participating in the activity. Relevant financial relationships will be disclosed to the activity audience. The intent of the disclosure is not to prevent a faculty with a relevant financial or other relationship from teaching, but to provide participants with information that might be of importance to their evaluation of content. All potential conflicts of interest have been resolved prior to the commencement of this activity.

### Off-Label / Experimental Discussions:

Some medical devices used for teaching purposes and/or discussed in AO North America's educational activities may have been cleared by the FDA for specific uses only or may not yet be approved for any purpose. Faculty may discuss off-label, investigational, or experimental uses of products/devices in CME certified educational activities. Faculty have been advised that all recommendations involving clinical medicine in this CME activity are based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients.

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.

### Disclaimer:

AONA does not endorse nor promote the use of any product/device of commercial entities. Equipment used in this course is for teaching purposes only with the intent to enhance the learning experience.

### Conflict of Interest Resolution Statement:

When individuals in a position to control or influence the development of the content have reported financial relationships with one or more commercial interests, AO North America utilizes a process to identify and resolve potential conflicts to ensure that the content presented is free of commercial bias.

### Liability Statement:

AO North America faculty and staff assume no personal liability for the techniques or the use of any equipment and accessories used for teaching purposes in the laboratory. The certificate provided pertains only to the participants' completion of the course and does not, in any way, attest to the proficiency of the participants' clinical experience.

### Laboratory Waiver:

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.

### Animal Anatomic Specimens:

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

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### 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.