




AO VET NA Course—Advanced Techniques in Small Animal Fracture Management with Wet Lab

 April 13, 2023 - April 16, 2023
Columbus, Ohio, USA

The **AO VET NA Advanced Techniques in Small Animal Fracture Management with Wet Lab** course expands upon the concepts presented in the **AO VET Principles in Small Animal Fracture Management** course and adds new subjects for discussion with both dry and wet lab experiences. Fractures, nonunions, arthrodesis, and orthopaedic complications are among topics covered. Faculty will present new techniques and innovative orthopaedic concepts. Participant interaction with the faculty is an important part of this program. The mobile wet lab experience will allow participants to perform approaches and stabilize fractures using a variety of implant systems and application techniques. Ample opportunity is provided in both the practical labs and the lectures to have your questions answered by some of the best veterinary orthopedists in the world. After completing the course, participants should be able to apply the principles and techniques they have learned to challenging small animal orthopaedic cases.



Target Audience:

Enrollment is open to veterinary residents, interns and practicing veterinarians.

Prior attendance at an **AO VET Principles in Small Animal Fracture Management** course is a course prerequisite

Event Summary

Tuition:

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

Level Name: Participant - Veterinary
Pricing Tier: Resident
Tuition: \$1,700.00

Venue:

Hilton Columbus at Easton
3900 Chagrin Drive
Columbus, OH, USA
Phone Number: 614-414-5000
www.columbusoh.hilton.com

Language(s):

English

Directly Provided by:

(No Sponsoring Organizations)

Professional Level Prerequisite(s):

No Prerequisites

Course Prerequisite(s):

- Principles of Small Animal Fracture Management

CME

Continuing Education Credit: 25.25

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

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:

- Integrate advances in the art and science of fracture repair into veterinary medicine, particularly as it pertains to small animals
- Apply new techniques and innovative concepts in fracture fixation to complicated cases in small animal surgical practice
- Discuss orthopedic complications and corrective osteotomies for small animals, particularly canines
- Define indications for internal fixation and the criteria for implant selection

Faculty



Kowaleski, Michael - Chairperson

DVM, DACVS, DECVS
Professor
Cummings School of Veterinary Medicine
Tufts University
North Grafton, Massachusetts

Dr. Kowaleski earned his DVM degree at the Tufts University School of Veterinary Medicine in 1993. After several years in general practice, he completed his residency training in small animal surgery at Tufts University in a joint program with the Angell Memorial Animal Hospital in 2002. He earned board certification by the American College of Veterinary Surgeons in 2003 and the European College of Veterinary Surgeons in 2010. He was an Assistant Professor of Small Animal Orthopedic Surgery at The Ohio State University from August 2002-August 2007 at which time he was promoted to Associate Professor with tenure. He returned to Tufts in 2007 and currently, he is a Professor of Small Animal Orthopedic Surgery at the Cummings Veterinary Medical Center at Tufts University. His areas of clinical and research interest include arthroscopy, enhancement of fracture healing, external skeletal fixation, fracture repair and orthopedic implants, total joint replacement, clinical and radiological assessment of limb alignment, osteoarthritis, peri-operative and chronic pain management, and the role of osteotomy in the management of joint disease.



Saunders, W. Brian - Co-Chairperson

DVM, PhD, DACVS
Professor - Orthopedic Surgery
College of Veterinary Medicine & Biomedical Sciences
Texas A&M University
College Station, Texas

Dr. Saunders is a professor of small animal orthopedics at Texas A&M and a Diplomate of the American College of Veterinary Surgeons. He publishes in the area of implant biomechanics, stem cell biology, tissue engineering, and total joint replacement. He is a Founding Fellow in Minimally Invasive Surgery as well as Joint Replacement Surgery. He performs minimally invasive orthopedic surgery (arthroscopy and trauma), joint replacement, sports medicine surgery, and limb deformity correction.



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.



Déjardin, Loic - Lecturer

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. Déjardin 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.

**Dyce, Jonathan - Lecturer**

MA, Vet. MB, MRCVS, DSAO, DACVS
Associate Professor Small Animal Orthopaedics
ACVS Founding Fellow, Joint Replacement Surgery
OSU Veterinary Medical Center
Hospital for Companion Animals
The Ohio State University
Columbus, Ohio

Jon Dyce graduated from University of Cambridge (UK) in 1989 and remained there to train as an orthopaedic surgeon. In 1997 he joined the surgery faculty at The Ohio State University Veterinary Medical Center, and is currently associate professor of small animal surgery. He is a regular speaker at national and international meetings on the topics of small animal orthopedics and total hip replacement. Among other continuing education responsibilities, he has been the chairperson for the OSU-BioMedtrix Canine Total Hip Replacement Workshop since 2002. Clinical research interests include failure mechanisms and the refinement of canine total hip replacement.

**Filliquist, Barbro - Lecturer**

DVM, MAS, DACVS, DECVS
Associate Professor in Small Animal Orthopedic Surgery
Department of Surgical & Radiological Sciences
School of Veterinary Medicine
University of California - Davis
Davis, California

Dr. Filliquist received her DVM from UC Davis School of Veterinary Medicine in 2006. She completed an internship at the University of Pennsylvania, Philadelphia 2006-2007 and her residency at UC Davis School of Veterinary Medicine from 2007-2010. Following completion of the residency, she spent 7 years in private practice and during 5 of those years, she practiced in Sweden. Dr. Filliquist has been at University of California, Davis School of Veterinary Medicine since 2017. She is a Diplomate of the American and European Colleges of Veterinary Surgeons.

**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 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.

**Jha, Shantibhushan - Lecturer**

DVM, DACVS
Assoc. Professor, Orthopedics
Oregon State University
Corvallis, Washington

Dr. Shanti Jha, earned a Bachelor of Veterinary Science and Animal Husbandry (BVSc&AH) with honors from Nagpur Veterinary College, Maharashtra, India in 2001. After BVSc, he did an MS from Oregon State University in 2005. Dr. Jha was a general small animal veterinarian for one and a half years in Syracuse, NY after completing an ECFVG certification from Tufts Cummings School of Veterinary Medicine. He then completed a surgical internship at Veterinary Specialists of Northern Colorado, Loveland in 2009. Following this, he completed a Small Animal Surgery Residency at Tufts Cummings School of Veterinary Medicine in July 2012. In 2013 Dr. Shanti Jha became a Diplomate of the American College of Veterinary Surgeons (board-certified small animal surgeon). He is an Associate Professor of Orthopedics at Oregon State University, Corvallis, OR. Apart from general orthopedic and soft tissue surgeries, Dr. Jha has also been heavily trained in minimally invasive surgery (MIS) techniques. He has been doing minimally invasive fracture repairs and arthroscopic correction of joint abnormalities for the last ten years. Dr. Jha is also an AO VET faculty and enjoys teaching orthopedic courses in the US and abroad. His orthopedic areas of expertise include arthroscopy, fracture management of limbs and spine, angular limb deformity correction and joint surgeries.

**Kerwin, Sharon - Evaluator, Lecturer**

DVM, MS, DACVS, DACVIM
Professor and Department Head
Tom and Joan Read Chair
Small Animal Clinical Sciences
College of Veterinary Medicine & Biomedical Sciences
Texas A & M University
College Station, Texas

Dr. Kerwin received her DVM from Texas A&M University, completed a small animal rotating internship at Louisiana State University and completed a small animal surgery residency at LSU along with a Master of Science degree in veterinary physiology. She is a diplomate of both the American College of Veterinary Surgeons and the American College of Veterinary Internal Medicine (neurology). Her clinical and research interests involve orthopedics and neurology, with a special interest in fracture repair and spinal surgery, as well as feline orthopedics and neurology.

**Torres, Bryan - Lecturer**

DVM, PhD, DACVS, DACVSMR
Associate Professor
Orthopedics and Sports Medicine
College of Veterinary Medicine
University of Georgia
Athens, Georgia

Dr. Bryan T. Torres is an Associate Professor of Orthopedics and Sports Medicine at the University of Georgia. He is board-certified by the American College of Veterinary Surgeons (DACVS) and the American College of Veterinary Sports Medicine and Rehabilitation (DACVSMR). Previously, he served as an Associate Professor of Orthopedic Surgery and the Director of the Motion Analysis Laboratory at the University of Missouri. He received his DVM from the University of Georgia (UGA) and after graduating he stayed at UGA for an internship and then worked as a small animal general practitioner for several years before returning to UGA to complete a research fellowship, a surgical residency, and a PhD in Physiology. He has research interests in gait analysis, musculoskeletal and joint biomechanics, sports medicine and rehabilitation, and osteoarthritis and pain management.

Day 2

Friday, April 14, 2023 - 08:00 - 18:15 - (includes breaks, travel-time and meals)

Activity	Area
AO Office	Regent 1
Breakfast	Easton Foyer
Coffee Break	Easton Foyer
FRC	Regent 1
Lab	Easton B
Lecture	Regent 3
Lunch	Easton Foyer
Registration	Easton Foyer
Reception	Easton Foyer

Schedule	Title	Moderator	Faculty	Room
08:00 - 10:00	SESSION III: COMPLEX FRACTURES OF THE PELVIC LIMB	Kerwin, S		
08:00 - 08:05	Presentation of Fireside Discussion Case-Complex Shaft Fractures		Saunders, W	
08:05 - 08:30	Proximal Femoral Fractures in Young Animals		Dejardin, L	
08:30 - 08:50	Complex Fractures of the Stifle Joint - Dogs and Cats		Torres, B	
08:50 - 09:10	Complex Distal Tibial and Malleolar Fractures		Guiot, L	
09:10 - 09:50	Radiographic Review of MIPO Radius / Ulna Cases		Saunders, W	
09:50 - 10:00	Discussion and Questions		Agnello, K	
10:00 - 10:20	Coffee Break			Easton Foyer
10:20 - 10:50	Techniques and Clinical Applications of Plate-Rod Constructs for Fixation of Complex Shaft Fractures		Dyce, J	
10:50 - 11:20	Interlocking Nailing of Complex Shaft Fractures		Saunders, W	
11:20 - 11:50	Approach to the Humerus - Tips and Tricks		Saunders, W	
11:50 - 12:00	Discussion and Questions		Agnello, K	
12:00 - 13:00	Lunch / Change into Scrubs			Easton Foyer
13:00 - 18:15	SESSION III (Continued): COMPLEX FRACTURES OF THE PELVIC LIMB	Kowaleski, M		
13:00 - 14:50	Wet Lab B: 2. T/Y Fracture of the Distal Humerus	Kowaleski, M		
14:50 - 15:00	Change out of Scrubs / Travel to Firesides			
15:00 - 16:05	Fireside Discussion of Case of the Day - Complex Shaft Fractures			
	Group	Room		
	Group A	Juniper A		
	Group B	Juniper B		
	Group C	Juniper C		
	Group D	Magnolia		
16:05 - 16:15	Travel to Dry Lab			
16:15 - 18:15	PRACTICAL EXERCISES - LAB B: 3. Interlocking Nail Femur Fracture, Plate / Rod Femur Fracture		Saunders, W	

Day 3

Saturday, April 15, 2023 - 08:00 - 18:00 - (includes breaks, travel-time and meals)

Activity	Area
AO Office	Regent 1
Breakfast	Easton Foyer
Coffee Break	Easton Foyer
FRC	Regent 1

Lab	Easton B
Lecture	Regent 3
Lunch	Easton Foyer
Registration	Easton Foyer
Reception	Easton Foyer

Schedule	Title	Moderator	Faculty	Room
08:00 - 09:25	SESSION III (Continued): COMPLEX FRACTURES OF THE PELVIC LIMB	Kerwin, S		
08:00 - 08:30	Radiographic Review of T/Y Fracture Cases		Kowaleski, M	
08:30 - 08:50	Open But Do Not Touch Fracture Fixation of the Femur - Tips and Tricks		Kerwin, S	
08:50 - 09:10	Minimally Invasive Nail Osteosynthesis of the Femur - Tips and Tricks		Dejardin, L	
09:10 - 09:25	Change into Scrubs / Travel to Wet Lab			
09:25 - 12:00	WET LAB C: 3. OBDNT FEMUR Plate Rod and MINO FEMUR I-Loc ILN	Dejardin, L Dyce, J		
12:00 - 13:00	Lunch			Easton Foyer
13:00 - 14:00	WET LAB C: 3. OBDNT Femur Plate Rod and MINO FEMUR I-Loc ILN (continued)	Dejardin, L Dyce, J		
14:00 - 16:10	SESSION IV: DISTAL EXTREMITY INJURIES	Jha, S		
14:00 - 14:10	Travel to Lecture			
14:10 - 14:30	Fractures of the Carpal and Metacarpal Bones		Filliquist, B	
14:30 - 14:50	Arthrodesis of the Carpus		Torres, B	
14:50 - 15:10	Tarsal Fractures and Luxations - Cats		Kowaleski, M	
15:10 - 15:30	Complex Fractures of the Tarsus - Dogs		Jha, S	
15:30 - 15:50	Tarsal Luxation and Arthrodesis in Dogs		Guiot, L	
15:50 - 16:10	Discussion and Questions		Agnello, K	
16:10 - 16:30	Coffee Break			Easton Foyer
16:30 - 18:00	SESSION V: RADIOGRAPHIC REVIEW OF FEMUR FRACTURE CASES	Dejardin, L Dyce, J		
16:30 - 18:00	Radiographic Review of Femur Fracture Cases		Dejardin, L Dyce, J	

Day 4

Sunday, April 16, 2023 - 08:00 - 12:00 - (includes breaks, travel-time and meals)

Activity	Area
AO Office	Regent 1
Breakfast	Easton Foyer
Coffee Break	Easton Foyer
FRC	Regent 1
Lab	Easton B
Lecture	Regent 3
Lunch	Easton Foyer
Registration	Easton Foyer
Reception	Easton Foyer

Schedule	Title	Moderator	Faculty	Room
08:00 - 10:10	SESSION VI: COMPLEX PELVIC FRACTURES	Agnello, K		
08:00 - 08:20	Complex Acetabular Fractures		Guiot, L	
08:20 - 08:40	Complex Iliac Fractures		Dyce, J	
08:40 - 09:00	Traumatic Hip Luxation		Filliquist, B	
09:00 - 09:20	SI Luxation: Open Approach		Agnello, K	
09:20 - 09:40	SI Luxation: Minimally Invasive Approach		Dejardin, L	

09:40 - 10:00	Distal Radial Fracture in Toy Breed Dogs	Jha, S
10:00 - 10:10	Discussion and Questions	Agnello, K
10:10 - 10:25	Coffee Break	Easton Foyer
10:25 - 12:00	SESSION VII: COMPLICATIONS	
10:25 - 10:50	Nonunion of Fractures - Old and New	Agnello, K
10:50 - 11:10	Open Fractures	Jha, S
11:10 - 11:30	Infection of Bone and Implants	Dyce, J
11:30 - 11:50	Gunshot Fractures	Saunders, W
11:50 - 12:00	Discussion and Questions	Agnello, K
12:00 - 12:00	End of Course	

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.

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.

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

AO North America gratefully acknowledges in-kind support for equipment and technical staff from DePuy Synthes, BioMedtrix, LLC and Vet Clarity.

Educational Grant

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