

Large Animal Candidate Boot Camp
October 12-15, 2023
Michigan State University | East Lansing, MI



DAY 1 Thursday, October 12		
Time (Eastern Time)	Topic	Presenter(s)
7:30 am	Shuttle to MSU McPhail Center	
7:45-8:00 am	Registration	
8:00-8:10 am	Welcome & Introductions	<i>Dr. Hal Schott</i>
8:10-8:50 am	Thoracic and Abdominal Ultrasonography	<i>Dr. Michelle Barton</i>
8:50-9:30 am	Gastric and Colonic Ulcers	<i>Dr. Richard Hepburn</i>
9:30-9:50 am	Break	

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DAY 1 Thursday, October 12		
Time (Eastern Time)	Topic	Presenter(s)
9:50-10:40 am	Muscle Disorders – Examination	<i>Dr. Stephanie Valberg</i>
10:40-11:30 am	Muscle Disorders – Examination and Diagnostic Approach	<i>Dr. Stephanie Valberg</i>
11:30-12:20 pm	Neurologic Examination	<i>Dr. Carrie Finno</i>
12:20 – 1:00 pm	Lunch & Learn – Optimizing Ultrasound Imaging	<i>Dr. Scott Giebler</i>

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DAY 1 (continued) Thursday, October 12		
Time (Eastern Time)	Topic	Presenter(s)
1:00-3:00 pm	<p>Labs – 60 minutes each rotation</p> <p>Lab 1: Ultrasonography</p> <ul style="list-style-type: none"> Perform an advanced ultrasonographic examination of the equine thorax and abdomen. Identify thoracic (lung, diaphragm) and abdominal (stomach, small and large intestine, liver, spleen, and kidneys) structures. <p>Lab 2: Gastroscopy</p> <ul style="list-style-type: none"> Identify normal anatomy of the equine stomach: antrum, pylorus, and proximal duodenum. Perform gastroscopy and duodenoscopy on a standing, sedated horse. Obtain gastric and/or duodenal biopsies on a standing, sedated horse. <p>Lab 3: Muscular System Exam</p> <ul style="list-style-type: none"> Perform an advanced examination of the equine muscular system. Identify muscles from which to collect biopsy samples and how to prepare samples for shipment. <p>Lab 4: Neurologic Exam</p> <ul style="list-style-type: none"> Perform an advanced examination of the equine neurologic system. Identify and localize neurologic abnormalities of patients with neurologic deficits. 	<p><i>Dr. Michelle Barton, Dr. Richard Hepburn, Dr. Stephanie Valberg, Dr. Carrie Finno</i></p>
3:00-3:30 pm	Break	

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DAY 1 (continued) Thursday, October 12		
Time (Eastern Time)	Topic	Presenter(s)
3:30-5:30 pm	Labs – 60 minutes each rotation Lab 1: Ultrasonography Lab 2: Gastrosocopy Lab 3: Muscular System Exam Lab 4: Neurologic Exam	<i>Dr. Michelle Barton, Dr. Richard Hepburn, Dr. Stephanie Valberg, Dr. Carrie Finno</i>
5:30-5:45 pm	Break	
5:45-6:30 pm	Tour of MSU Large Animal Veterinary Teaching Hospital	<i>Dr. Hal Schott</i>
6:30-8:30 pm	Dinner – Career Paths in Large Animal Internal Medicine	<i>All</i>
8:30 pm	Shuttle to Hotel	

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DAY 2 Friday, October 13		
Time (Eastern Time)	Topic	Presenter(s)
7:45 am	Shuttle to MSU McPhail Center	
8:00-8:40 am	Liver – Evaluation and Biopsy	<i>Dr. Michelle Barton</i>
8:40-9:20 am	CVM Neurological Disorders	<i>Dr. Richard Hepburn</i>
9:20-10:00 am	C1C2/LS CSF Collection	<i>Dr. Ana Moreira</i>

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DAY 2 (continued) Friday, October 13		
Time (Eastern Time)	Topic	Presenter(s)
10:00-10:20 am	Break	
10:20 am - 12:20 pm	<p>Labs – 60 minutes each rotation</p> <p>Lab 5: Liver Biopsy</p> <ul style="list-style-type: none"> Identify landmarks for ultrasonographic imaging of the liver on the left and right sides of the abdomen. Perform a needle biopsy of the liver on the left and right sides of the abdomen in a standing, sedated horse. <p>Lab 6: LS CSF Collection</p> <ul style="list-style-type: none"> Know the materials needed for LS CSF collection in the horse. Identify the anatomical landmarks for performing a LS CSF collection. Perform LS CSF collection on a standing, sedated horse. <p>Lab 7 Muscle Biopsy – Client Horses</p> <ul style="list-style-type: none"> Identify the anatomical landmarks for performing gluteal and semimembranosus and sacrocaudalis dorsalis muscle biopsies. Perform muscle biopsies on clinical cases presented for the course. Perform muscle biopsies. <p>Lab 8: C1/C2 CSF Collection</p> <ul style="list-style-type: none"> Know the materials needed for C1/C2 CSF collection in the horse. Identify the anatomical landmarks for performing a C1/C2 CSF collection. Using ultrasonography, identify the site for performing a C1/C2 CSF collection. Perform C1/C2 CSF collection on a standing, sedated horse. 	<p><i>Dr. Michelle Barton, Dr. Richard Hepburn, Dr. Stephanie Valberg, Dr. Carrie Finno, Dr. Ana Moreira</i></p>



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DAY 2 (continued) Friday, October 13		
Time (Eastern Time)	Topic	Presenter(s)
12:20-1:00 pm	Lunch	
1:00-1:50 pm	Non-CVM Neurological Disorders	<i>Dr. Carrie Finno</i>
1:50-2:40 pm	Vitamin E Related Disorders	<i>Dr. Carrie Finno</i>
2:40-3:30 pm	Unusual Gait Deficits – Neurologic or Not?	<i>Dr. Stephanie Valberg</i>
3:30-3:50 pm	Break	

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DAY 2 (continued) Friday, October 13		
Time (Eastern Time)	Topic	Presenter(s)
3:50-5:50 pm	Labs – 60 minutes each rotation Lab 5: Liver Biopsy Lab 6: LS CSF Collection Lab 7: Muscle Biopsy Lab 8: C1/C2 CSF Collection	Dr. Michelle Barton, Dr. Richard Hepburn, Dr. Stephanie Valberg, Dr. Carrie Finno, Dr. Ana Moreira
5:50-6:00 pm	Break	
6:00-8:00 pm	Dinner – Discussion: Surviving a LAIM RTP	All
8:00 pm	Shuttle to Hotel	

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DAY 3 Saturday, October 14		
Time (Eastern Time)	Topic	Presenter(s)
7:45 am	Shuttle to MSU McPhail Center	
8:00-8:40 am	Cervical Imaging Interpretation	<i>Dr. Richard Hepburn</i>
8:40-9:20 am	CSF Analysis and Interpretation	<i>Dr. Ana Moreira</i>
9:20-10:00 am	Urinary Tract Imaging	<i>Dr. Hal Schott</i>
10:00-10:20 am	Break	

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DAY 3 (continued) Saturday, October 14		
Time (Eastern Time)	Topic	Presenter(s)
10:20 am - 12:20 pm	<p>Labs – 60 minutes each rotation</p> <p>Lab 8: C1/C2 CSF Collection</p> <ul style="list-style-type: none"> • Know the materials needed for C1/C2 CSF collection in the horse. • Identify the anatomical landmarks for performing a C1/C2 CSF collection. • Using ultrasonography, identify the site for performing a C1/C2 CSF collection. • Perform C1/C2 CSF collection on a standing, sedated horse. <p>Lab 9: Cervical Imaging</p> <ul style="list-style-type: none"> • Identify normal and abnormal radiographic findings in the cervical vertebral column of the horse. • Perform measurements of cervical radiographs. • Compare utility of cervical radiographs to CT cervical images, including myelographic studies. <p>Lab 10: Cystoscopy</p> <ul style="list-style-type: none"> • Know the materials needed for urethroscopy and cystoscopy in in the male horse. • Obtain urine from the bladder of a male horse. • Perform urethroscopy and cystoscopy in a gelding. <p>Lab 11: Sacrocaudalis Muscle Biopsy</p> <ul style="list-style-type: none"> • Identify the anatomical landmarks for performing a sacrocaudalis dorsalis muscle biopsy. • Perform muscle biopsies. 	<p><i>Dr. Ana Moreira, Dr. Richard Hepburn, Dr. Hal Schott, Dr. Lauren Bookbinder</i></p>
12:20-1:00 pm	Lunch	



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DAY 3 (continued) Saturday, October 14		
Time (Eastern Time)	Topic	Presenter(s)
1:00-1:40 pm	Enterocolitis and IBD	Dr. Richard Hepburn
1:40-2:20 pm	Upper Urinary Tract Disorders – AKI and CKD	Dr. Hal Schott
2:20-3:00 pm	Lower Urinary Tract Disorders	Dr. Hal Schott
3:00-3:30 pm	Break	
3:30-5:30 pm	Labs – 60 minutes each rotation Lab 8: C1/C2 CSF Collection Lab 9: Cervical Imaging Lab 10: Cystoscopy Lab 11: Sacrocaudalis Muscle Biopsy	Dr. Ana Moreira, Dr. Richard Hepburn, Dr. Hal Schott, Dr. Lauren Bookbinder
5:30-6:00 pm	Break	
6:00-11:00 pm	Shuttle to MSU Pavilion – Michigan Great Lakes International Draft Horse Show (dinner on own at MSU Pavilion)	

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DAY 4 Sunday, October 15		
Time (Eastern Time)	Topic	Presenter(s)
7:45 am	Shuttle to MSU McPhail Center	
8:00-8:30 am	Myelography	<i>Dr. Richard Hepburn</i>
8:30-9:00 am	Alternatives to Pentobarbital Euthanasia	<i>Dr. Lauren Bookbinder</i>
9:00-9:20 am	Break	
9:20-11:50 am	Labs – All Attendees Participate Lab 12: Miscellaneous Procedures <ul style="list-style-type: none"> Perform AO CSF Collection/Myelogram Demonstration, IV Anesthesia, Intrathecal Lidocaine Euthanasia, IV KCl Euthanasia, Post-Mortem Renal Biopsy, Tracheotomy, Thoracotomy and Other Procedures 	<i>Dr. Richard Hepburn, Dr. Hal Schott, Dr. Lauren Bookbinder, Dr. Ana Moreira</i>
11:50-12:10	Break	
12:10-1:10 pm	Lunch and Course Wrap Up	