# LAUREN DUFFEE

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#### **EDUCATION**

## ACVAA Residency, July 2018

University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA

# VMD, VBMA Certificate Program, May 2014

University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA

# Bachelor of Arts, June 2010

College of the Holy Cross, Worcester, MA

## **CLINICAL EXPERIENCE**

## 2018-Present

## **Anesthesiologist**

Massachusetts Veterinary Referral Hospital, Woburn, MA

Create anesthetic protocols and supervise anesthetic procedures for all hospital departments including orthopedic, soft tissue, cardiothoracic, and neurologic imaging and surgical procedures

Participate in intern, resident and technician training through informal seminars and topic rounds

## 2015-2018

# **Anesthesiology Residency**

University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA
Broadened clinical and technical skills for perioperative anesthetic management,
loco-regional anesthesia techniques, and pain management

Developed skills managing and organizing an anesthesia team

## 2014-2015

# **Rotating Internship**

Peninsula Equine Medical Center, Menlo Park, CA

Equine private practice, rotations in ambulatory medicine and hospital case management, with a strong emphasis in sports medicine and lameness

## RESEARCH EXPERIENCE

#### 2016-Present

# **Department of Veterinary Medicine, Università degli Studi di Sassari, Sardegna, Italy** Faculty Advisor: Bernd Driessen, DVM, DACVAA

Contributed to all aspects of study design, data acquisition and analysis, manuscript

drafting and manuscript revisions of several studies examining the effects of inhalant anesthetics in sheep

### 2012-2014

# Department of Clinical Studies, New Bolton Center, PA

Faculty Advisor: Ashley Boyle DVM, DACVIM

Designed a retrospective study analyzing risk factors associated with *Streptococcus equi* subsp. *equi* infections and participated in data acquisition, statistical analysis, manuscript drafting and submission.

## 2011

## Department of Clinical Studies, New Bolton Center, PA

Laminitis Institute Lab, Faculty Advisor: Hannah Galantino Homer, DVM, Ph.D., DACT Participant in the NIH-Merial Summer Research Program which entails experimental development, project execution, drafting of research proposals, and oral presentation of results

Explored the significant parameters in the developmental phases of laminitis with histopathology preparations and investigated the role of macrophages in the pathogenesis of disease

## 2009-2010

# College of the Holy Cross, Worcester, MA

Protein splicing and Enzymology, Faculty Advisor: Kenneth Mills, Ph.D.

Measured the kinetics of intein splicing through the design of fusion proteins, protein purification, and western blot studies

## TEACHING EXPERIENCE

## 2019

# Narkovet Consulting LLC, VetBloom

Anesthesiologist

Presented a case-based webinar lecture series discussing the anesthetic management of equine cases for the veterinary technician and the general practitioner.

Topics included how to create an anesthetic plan, a review of acid-base abnormalities, anesthetic considerations of the draft horse, anesthetic considerations of a peri-parturient mare, and anesthetic considerations of a horse with severe cardiopulmonary compromise.

### 2018

# Massachusetts Veterinary Referral Hospital, Woburn, MA

Anesthesiologist

Presented a 1 hour RACE-approved lecture for general practitioner veterinarians

reviewing the pharmacology and clinical indications of alfaxalone, a new anesthetic induction agent, and of Nocita®, a novel local anesthetic suspension for prolonged post-operative pain control.

## 2015-2018

# **University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA**Anesthesiology Resident

Hosted 1-2 hour student topic rounds on various subjects including: anesthesia machines and breathing circuits, premedication and induction agents, inhaled anesthetic pharmacokinetics, treatment of hypotension, etc.

Supervised student participation in the anesthesia for daily clinical cases from anesthetic planning, induction, maintenance of anesthesia, and problem troubleshooting

Supervised third year student student surgical laboratory exercises for ovariohysterectomy of dogs and cats, orthopedic surgery of ponies, and exploratory laparotomy for ponies and sheep.

### 2017

Department of Veterinary Medicine, Università degli Studi di Sassari, Sardegna, Italy Visiting Anesthesiology Resident, "Anesthesia for the Emergency Patient"

## **PUBLICATIONS**

**Duffee, L.** "East Meets West: An Integrative Approach to Veterinary Medicine." *Woof Magazine*, 2019.

Columbano, N., A. Scanu, **L. Duffee**, V. Melosu, G. Sotgiu, B. Driessen. "Determination of Minimum Alveolar Concentration (MAC) and cardiopulmonary effects of sevoflurane in sheep." *Veterinary Anaesthesia and Analgesia*. (2018) 45: 487-95.

**Duffee, L.**, E. Sanna Passino, A. Scanu, N. Columbano. "MAC-sparing effect of transdermal fentanyl in sevoflurane-anaesthetized sheep." *Acta Veterinaria*. (2018) 68: 211-6.

K. Hopster, **L. Duffee**, C. Hopster-Iversen, B. Driessen. "Efficacy of an alveolar recruitment maneuver for improving gas exchange and pulmonary mechanics in anesthetized horses ventilated with oxygen or a helium-oxygen mixture." *American Journal of Veterinary Research.* (2018) 79: 1021-7.

**Duffee, L.,** N. Columbano, A. Scanu, V. Melosu, G.M. Careddu, G. Sotgiu, B. Driessen. "MAC-sparing effect of nitrous oxide in sevoflurane anesthetized sheep and its reversal with systemic atipamezole administration." *Plos One.* (2018) 13(1):e0190167.

Columbano, N., L. Duffee, V. Melosu, A. Scanu, S. Dore, G. Sotgiu, B. Driessen, G.M. Careddu.

- "Determination of Minimum Alveolar Concentration (MAC) and cardiorespiratory effects of desflurane in positive-pressure ventilated sheep." *American Journal of Veterinary Research*. (2018) 79: 727-32.
- Chiavaccini, L., F. Micieli, L. Meomartino, **L. Duffee**, G. Vesce. "A novel supra-temporal approach to retrobulbar anaesthesia in dogs: preliminary study in cadavers." *Veterinary Journal.* (2017) 223: 68-70.
- **Duffee, L.**, D. Clarke, M. Mison, L. Chiavaccini. "A Case of Post-operative Supraventricular Tachycardia after Pneumonectomy in a Dog." *Journal of the American Veterinary Medical Association*. (2016) 251: 515-9.
- **Duffee, L..**, D. Stefanovski, R. Boston, and A. Boyle. "Predictor Variables for and Complications Associated with Streptococcus Equi Subsp Equi Infection in Horses." *Journal of the American Veterinary Medical Association* (2015) 247: 1161-168.
- Engiles, J., **L. Duffee**, S. Megee, C. Pollitt, A. Van Eps, M. Robinson, and H. Galantino-Homer. "An Up-close and Early Look at Lamellar Pathology Characteristic of Oligofructose-induced Laminitis." *Journal of Equine Veterinary Science* (2011) 31: 589-90.
- Galantino-Homer, H., R. Linardi, R. Carter, M. Senoo, J. Engiles, S. Megee, S. Mainardi, V. Shekk, and **L Duffee**. "Ground Zero for Laminitis: The Lamellar Keratinocyte in Health and Disease." *Journal of Equine Veterinary Science* (2011) 31: 582-83.

## ABSTRACTS, POSTERS, AND PRESENTATIONS

- **L. Duffee**, N. Columbano, A. Scanu, V. Melosu, G. M. Careddu, G. Sotgiu, B. Driessen. "MAC-sparing effect of nitrous oxide in sevoflurane anaesthetised sheep and its reversal with systemic atipamezole administration." Abstract presentation at: Association of Veterinary Anaesthetists; 2017 November 9-11; Berlin, Germany.
- K. Hopster, **L. Duffee**, C. Hopster-Iversen, B. Driessen. "Comparison of alveolar recruitment efficiency in horses using Heliox (an oxygen-helium-mixture) or pure oxygen as fresh gas." Abstract presentation at: Association of Veterinary Anaesthetists; 2017 November 9-11; Berlin, Germany.
- **L. Duffee**, F. Miceli, L. Chiavaccini, G. Vesce, G. Gianotti. "Evaluation of a combination of alfaxalone and methadone, with or without midazolam, for premedication in healthy dogs." Abstract presentation at: International Veterinary Emergency and Critical Care Symposium; 2017 September 13-17; Nashville, TN.
- **L. Duffee**, S. Megee, C. Pollitt, A. van Eps, M. Robinson, J. Engiles, and H. Galantino-Homer. "The role of macrophages and the inflammatory response in the development of acute laminitis in oligofructose induced model." Poster presented at: 62nd Annual Meeting of the American College Veterinary Pathology; 2011; Nashville, TN.

- **L. Duffee**, D.J. York, D.M. Dorval, J.N. Reitter, and K.V. Mills, K.V. A kinetic analysis of each step of protein splicing of the *Pyrococcus abyssi* PolII intein. *FASEB J.* 24, 463.5 2010.
- **L. Duffee**, D.J. York, D.M. Dorval, J.N. Reitter, and K.V. Mills, K.V. A kinetic analysis of each step of protein splicing of the *Pyrococcus abyssi* PolII intein. Invited presentation at: 23rd Symposium of the Protein Society; 2009 July 24-29; Boston, MA.

## **SEMINARS**

## 2019

Certification Course in Veterinary Acupuncture, International Veterinary Acupuncture Society, Corpus Christi, TX. Sep 2018-Feb 2019

Online and live-session course focusing on traditional Chinese veterinary medicine (TCVM) and its application to principles of pain management and the treatment of varied systemic illnesses in dogs and horses.

## 2016

Veterinary Regional Anesthesia Boot Camp, Cornell University College of Veterinary Medicine, Ithaca, NY. Oct 28-30.

An intensive, small-group workshop focusing on ultrasound-guided peripheral nerve blocks of the head, thoracic and pelvic limbs, abdomen, and thoracic wall.

## PROFESSIONAL MEMBERSHIPS

American College of Veterinary Anesthesia and Analgesia (ACVAA), Diplomate & member American Veterinary Medical Association (AVMA), Member American Academy of Veterinary Acupuncture (AAVA), Member

#### HONORS AND AWARDS

### 2014

American College of Veterinary Anesthesia and Analgesia Clinical Proficiency Student Award

Thoroughbred Education and Research Foundation Opportunity Scholarship

Awarded to students with a strong dedication to the care of horses and research in
equine medicine

## 2013

Zoetis/AVMF Veterinary Scholarship

Awarded to "outstanding veterinary students who can help address the diversity of our changing world and the health, food and welfare needs of the U.S. veterinary community"