

**BIOMEDICAL & VETERINARY SCIENCES
GRADUATE PROGRAM**



ANNOUNCES

The Master of Science Seminar and Examination of

Anastacia Marie Davis

**“Preoperative Tibial Plateau Leveling Osteotomy
Planning Using the Conventional and Common
Tangent Methods: A Cadaveric Study”**

**Monday, May 11th, 2020
9:30 AM
Zoom Seminar**

Bio



I grew up as an Air Force brat moving around the world with my family but we are originally from the West Coast (Northern California and Seattle) and I went to veterinary school in Washington State University graduating in 2014. I am planning on moving to Southern California for a surgical position at California Veterinary Specialists in the Fall. I am a huge Disney fan, a passionate crafter and artist (sketching and painting) and I love playing videogames. I enjoy spending time with my husband Tim and my dog Perdita hiking, running, and watching movies and TV weekly. My primary surgical interests include oncologic surgery and I look forward to working with a large oncology team at CVS very soon.

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Lay Language Abstract

Cranial cruciate ligament disease is one of the most common diseases of the stifle in dogs, and causes great discomfort. The tibial plateau leveling osteotomy (TPLO) procedure is designed to change the geometry of the tibia's articular surface, such that the femur no longer slides in a caudal direction during weight bearing. Conventional methods of planning do not consider the curved anatomical surface of the tibial condyles, but rather treat the condyles like a flat surface. The goal of this study was to compare the current conventional planning methods with a new technique, the common tangent method, and to evaluate if the common tangent method improves accuracy and tibial translation after surgery.

Results of this study show that there was no statistically significant difference in rotation and tibial position between the two planning groups. However, it was found that the common tangent method consistently required less rotation of the tibial articular surface than the conventional method, but still achieved similar postoperative tibial translation. This implies that there may be overcorrection when performing the TPLO under the current conventional method, which could predispose the patients to strain on the caudal cruciate ligament and patellar ligament leading to discomfort. The common tangent method is a feasible way of planning for a TPLO procedure, and shows potential utility in cases where excessive tibial rotation would otherwise cause increased risk for complications or necessitate a more complex procedure.

Publications

Grimes, JA. **Davis, AM.** Wallace, ML. Serman, AA. Thieman-Mankin, KM. Lin, S. Scharf, VF. Hlusko, KC. Matz, BM. Cornell, KK. Vetter, CAM. Schmiedt, CW. Long-term outcome and risk factors associated with death or the need for revision surgery in dogs with permanent tracheostomies. *J Am Vet Med Assoc.* 2019 May 1; 254(9): 1086-1093

Brown, CA. Rissi, DR. Dickerson, VM. **Davis, AM.** Brown, SA. Schmiedt, CW. Chronic renal changes after a single ischemic event in an experimental model of feline chronic kidney disease. *Vet Pathol.* 2019 Jul; 56(4): 536-543

Davis, AM. Grimes, JA. Wallace, ML. Vetter, CAM. Serman, A. Mankin, KT. Hlusko, KC. Matz, BM. Lin, S. Scharf, VF. Cornell, KK. Schmiedt, CW. Owner perception of outcome following permanent tracheostomy in dogs. *J Am Anim Hosp Assoc.* 2018 Sep/Oct; 54(5): 285-290.

Davies, JA. Fransson, BA. **Davis, AM.** Gilbertsen, AM. Gay, JM. Incidence of and risk factors for postoperative regurgitation and vomiting in dogs: 244 cases (2000-2012). *J Am Vet Med Assoc.* 2015 Feb 1; 246(3): 327-35

Presentations

From the Operating Room to the ICU: Work Conflict in the Medical Field

Virginia-Maryland College of Veterinary Medicine. *Biomedical and Veterinary Graduate Seminar, April 2019.*

The Utility of the Common Tangent Method and its Effect on Tibial Translation: A Cadaveric Study.

Virginia-Maryland College of Veterinary Medicine. *Intern-Resident Seminar, December 2018.*

How to Make the Cut: TPLO Planning for Cranial Cruciate Ligament Disease in Dogs.

Virginia-Maryland College of Veterinary Medicine. *Intern-Resident Seminar, January 2018.*

Outcomes of Permanent Tracheostomy in Dogs: A Retrospective Study.

Virginia-Maryland College of Veterinary Medicine. *Intern-Resident Seminar, August 2017.*

Awards and Academic Achievements

Best Poster Presentation: UGA Annual Science of Veterinary Medicine Symposium. *Oct. 2016*

WSU CVM Dean's List: Awarded to the top 15 Percent of the Class – *Semesters 1-3, 5-6*

Iota Chapter of Phi Zeta Veterinary Honor Society: *Admitted Spring 2014*
POGO 4th year Veterinary Student Surgical Scholarship: Awarded by surgical faculty. *Spring 2014*

Novartis Small Animal Ethicon Surgical Excellence Scholarship: *Spring 2014*

Jody Deering Nyquist Public Speaking Award – 3rd place. *May 2009*
University of Washington Dean's List: Awarded for GPA > 3.5. *Eight quarter terms 2005-2009*

Examination Graduate Committee

Major Advisor/Chair:

Otto Lanz, DVM, DACVS
Associate Professor
Small Animal Surgery
Department of Small Animal Clinical Science

Graduate Advising Committee Members:

Noelle Muro, DVM, MS, DACVS
Clinical Associate Professor
Small Animal Surgery
Department of Small Animal Clinical Science

Dominique Sawyere Hansford BVSc, MS, DACVS-SA
Clinical Assistant Professor
Small Animal Surgery
Department of Small Animal Clinical Science



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