

BIOGRAPHICAL SKETCH

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NAME: Amara H. Estrada

eRA COMMONS USER NAME (credential, e.g., agency login): AESTRADA1

POSITION TITLE: Professor

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Florida, College of Veterinary Medicine, Gainesville, FL	B.S.	1989-1993	Zoology
University of Florida, College of Veterinary Medicine, Gainesville, FL	D.V.M.	1994-1998	Veterinary Medicine
University of Tennessee, College of Veterinary Medicine, Knoxville, TN		1998-1999	Small Animal Intern
Cornell University, College of Veterinary Medicine, Ithaca, NY		1999-2002	Cardiology Resident

A. Personal Statement

Amara H. Estrada, DVM, Diplomate American College of Veterinary Internal Medicine (Cardiology) is internationally recognized as a noted researcher in the field of comparative and veterinary clinical cardiology. For the past 18 years, she has focused her research on translational models of acquired and inherited cardiac disorders such as congenital cardiac disease, degenerative cardiac disorders and inherited cardiomyopathies. Many cardiac diseases that occur in infants, adolescents and adults also occur in naturally occurring veterinary models that offer unique collaborative opportunities. Dr. Estrada has been working and collaborating on understanding the pathophysiology of inherited cardioskeletal myopathies in naturally occurring veterinary cardiac disease models to help guide therapeutic strategies for clinical trials.

B. Positions and Honors**Positions and Employment**

1998-1999 Small Animal Intern, University of Tennessee, Knoxville, TN
 1999-2002 Cardiology Resident, Cornell University, Ithaca, NY
 2002-2003 Associate Cardiologist, Affiliated Veterinary Specialists, Maitland, FL
 2003-2010 Assistant Professor, University of Florida College of Veterinary Medicine, Gainesville, FL
 2010-2017 Associate Professor, University of Florida College of Veterinary Medicine, Department of Small Animal Clinical Sciences, Gainesville, FL
 2011-2014 Adjunct Associate Professor, Wake Forest School of Medicine
 2009-present Associate Chair for Instruction, University of Florida College of Veterinary Medicine, Department of Small Animal Clinical Sciences, Gainesville, FL
 2015-present Director, Teaching Academy, University of Florida College of Veterinary Medicine

2017-present Professor, University of Florida College of Veterinary Medicine, Department of Small Animal Clinical Sciences, Gainesville, FL

Other Experience and Professional Memberships

1998 Florida Veterinary Medical Association
1998 American Veterinary Association
2002 American College of Veterinary Medicine, Diplomate Cardiology
2011-2012 Advanced Leadership for Academics and Professionals, University of Florida Leadership Training Course
2014-2015 Medical Education Research Certificate Program, American Association of Medical Colleges
2017 Master Mentor, Mentor Academy, Clinical Translational Science Institute, University of Florida Health Science Center
2017-2018 AAVMC Leadership Academy, American Association of Veterinary Medical Colleges
2018 Lead Director, Inherited Cardiomyopathies and Translational Value International Conference, Clinical and Translational Science Award, One Health Alliance

Honors

2006 Clinical Investigator Award, Florida Association of Kennel Clubs
2008 CE Cornelius Young Investigator Award, College of Veterinary Medicine
2011 Clinical Investigator Award, Florida Veterinary Medical Association
2016 Educational Innovator Award, University of Florida Health Science Center and Clinical Translational Science Institute
2017 Educational Collaborator Award, University of Florida Health Science Center and Clinical Translational Science Institute
2017 Educational Researcher Award, University of Florida Health Science Center and Clinical Translational Science Institute

C. Contributions to Science

My role in the health science field as a veterinary cardiologist enables me to identify and develop naturally occurring translational models of cardiac disease. To this end, I have worked with both clinical and basic science researchers in creating novel approaches to cardiac disease for diseases that would not be possible in a human patient. This work has included (underlines = senior author):

1. Implantation of biventricular pacemakers, designed for cardiac resynchronization therapy in adults with heart failure, for protection of development of heart failure in patients with complete atrioventricular block.
 - **Estrada AH**, Maisenbacher HW, Jones AE, Prosek R, Kleman ME, Bryant RM. Transvenous Placing Implantation: Techniques, Tips and Lessons Learned Along the Way, *Journal of Veterinary Cardiology* Special Pacing Issue, (22):51-64; April 2019.
 - Jones AE, **Estrada AH**, Pariaut R, Mincey B, Shih A, Moise NS. Atrial Septal Pacing in Small Dogs: A Pilot Study. *Journal of Veterinary Cardiology*, 16(3): 163-171, 2014.
 - Genovese D, **Estrada AH**, Maisenbacher HW, Heatwole, B, Powell M. Single versus dual chamber pacemakers in dogs: A comparison of implantation times, complication rates and survival time (2004-2009). *Journal of the American Veterinary Medical Association*, 242 (2): 230-236, 2013.
 - **Estrada AH**, Pariaut R, Moise NS. Atrial Based Pacing for Sinus Node Dysfunction: Initial Results. *Journal of Veterinary Internal Medicine*, 26: 558-564, 2012.
 - **Estrada AH**. Leading edge - Cardiac Pacing Site Optimization. *Compendium: Continuing Education for Veterinarians*, 2011; 33 (12): E1-4.
 - **Shih A**, Maisenbacher HW, Bandt C, Ricco C, Bailey J, Rivera J, **Estrada AH**. Assessment of cardiac output measurement in dogs by transpulmonary pulse contour analysis. *Journal of Veterinary Emergency and Critical Care*, 21: 321-327, 2011.

- **Estrada AH**, Maisenbacher HW, Prosek R, Schold J, Powell M, Van Gilder JM. Evaluation of Pacing Site in Dog with Naturally Occuring Complete Heart Block. *Journal of Veterinary Cardiology*, 11: 79-88, 2009.
2. Stenting of the right ventricular outflow tract for congenital pulmonary valve dysplasia and use of a cutting balloon for the treatment of severe subaortic stenosis.
 - **Sosa I**, Swift S, Jones AE, **Estrada AH**, Fudge JC. Stent Angioplasty for Treatment of Canine Valvular Pulmonic Stenosis, *Journal of Veterinary Cardiology*, (21): 41-48. February, 2019
 - Kleman ME, **Estrada AH**, Maisenbacher HW, Prosek R, Pogue B, Shih A, Paolillo JA. How to perform combined cutting balloon and high pressure balloon valvuloplasty in dogs with severe subaortic stenosis, *Journal of Veterinary Cardiology*, 14: 351-361, 2012.
 - **Estrada AH**, **Moise NS**, Erb H. Determination of the Balloon/Annulus Ratio for Valvuloplasty for the Treatment of Pulmonic Stenosis in the Dog. *Journal of Veterinary Internal Medicine*, 20: 82-87, 2006.
 - **Estrada AH**, Maisenbacher H. Calculation of Stenotic Valve Area, *Journal of Veterinary Cardiology*, 8: 49-53, 2006.
 - **Estrada AH**, **Moise NS**, Renaud-Farrell S. When, How and Why to Perform a Double Ballooning Technique for Dog with Valvular Pulmonic Stenosis, *Journal of Veterinary Cardiology*, 7:41-51, 2005.
 3. Use of stem cell and AAV mediated cardiac regeneration for inherited/familial dilated cardiomyopathy in the Doberman Pinscher. Stem cell papers/abstracts, PDK4 papers and abstracts
 - Taggart K, **Estrada AH**, Thompson P, Lourenco F, Kirmani S, Suzuki-Hatano S, Pacak CA. PDK4 Deficiency Induces Intrinsic Apoptosis in Response to Starvation in Fibroblasts from Doberman Pinschers with Dilated Cardiomyopathy. *Biores Open Access*. 2017 Dec 1;6(1):182-191
 - Sosa I, **Estrada AH**, Winter BD, Erger KE, Conlon TJ. Mitochondrial dysfunction in Doberman Pinschers with Dilated Cardiomyopathy (DCM) and pyruvate dehydrogenase 4 (PDK4) mutation; Potential application of gene therapy. *American Journal of Veterinary Research*, 77 (2): 156-161; 2016.
 - Bolfer L, **Estrada AH**. Regenerative therapy for canine myocardial disease. *Clinician's Brief Cutting Edge* August 2015, p 35-38.
 - Pogue B, **Estrada AH**, Sosa IS, Maisenbacher HW, Shih A, Conlon TW. Stem Cell Therapy for Dilated Cardiomyopathy: A Pilot Study Evaluating Retrograde Coronary Venous Delivery, *Journal of Small Animal Practice*, 54(7):361-366, 2013.

Complete List of Published Work in MyBibliography:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/amara.estrada.1/bibliography/48885797/public/?sort=date&direction=ascending>

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

ACVIM, Specialty of Cardiology Research Funding Pluripotent stem cell derived-cardiomyocytes for metabolic profiling in a genetic canine model of heart failure	Estrada (PI)	6/1/19 – ongoing
IDEXX Research Funding Validation and Assessment of a Computer Generated Algorithm for Companion Animal ECGs	Estrada (PI)	2/1/19-ongoing
Cooper's Canine Fund Cardiac Research In vitro evaluation of AAV-PDK4 gene therapy in Doberman Pinschers with the PDK4 mutation June 28, 2016.	Estrada (PI)	11/1/14 – ongoing
Doberman Pinscher Club Of America Study of Stem Cell Therapy for Dilated Cardiomyopathy in Doberman Pinschers	Estrada (PI)	11/1/09 – ongoing

Completed Research Support

Boehringer Ingelheim Vetmedica Evaluation of pimobendan in dogs with cardiomegaly caused by preclinical mitral valve disease- EPIC, Study	Estrada (PI)	10/1/11 – 10/31/17
ACVIM, Specialty of Cardiology Research Funding The Role of the Pyruvate Dehydrogenase Kinase 4 (PDK4) Mutation in Doberman Pinschers with Dilated Cardiomyopathy and Potential Application of gene Therapy	Estrada (PI)	2/1/14 – 2/28/16
Boehringer Ingelheim Vetmedica Evaluation of pimobendan in dogs with cardiomegaly caused by preclinical mitral valve disease- EPIC, Study	Estrada (PI)	10/1/11 – 10/31/17
ACVIM, Specialty of Cardiology Research Funding The role of the pyruvate dehydrogenase kinase 4 (PDK4) mutation in Doberman Pinschers with Dilated Cardiomyopathy and potential application of gene therapy	Estrada (PI)	1/1/13 – 1/31/16
ACVIM, Specialty of Cardiology Research Funding Atrial Septal Pacing in Small Dogs: A Pilot Study	Estrada (PI)	1/1/12 – 1/31/15
ACVIM, Specialty of Cardiology Research Funding Heart Rate Turbulence in boxers with Ventricular Arrhythmias	Estrada (PI)	1/1/15 – 1/31/16
IDEXX grant Variability of NT proBNP in Healthy Cats	Estrada (PI)	9/1/13-9/1/16
Boehringer-Ingelheim Clinical & Survival Benefit of Pimobendan in Preclinical Dilated Cardiomyopathy in the Doberman Pinschers: the PROTECT multicenter study	Estrada AH (PI)	1/1/10-1/1/14
American Kennel Club Canine Health Foundation Safety and Feasibility of Cutting Balloon Valvuloplasty in Dogs with Subaortic Stenosis	Estrada (PI)	10/1/08 – 10/1/11
Morris Animal Foundation Comparative Effects of Pacing Site in Dogs with Complete Heart Block	Estrada (PI)	7/1/06-7/1/10
ACVIM, Specialty of Cardiology Research Funding Determination of the Balloon/Annulus Ratio for Valvuloplasty for the Treatment of Pulmonic Stenosis in the Dog	Estrada (PI)	10/1/02 – 10/1/05