

## CURRICULUM VITAE

June A. Boon MS, Honorary DACVIM(cardiology)  
Emeritus Clinical Instructor  
Colorado State University  
Veterinary Teaching Hospital  
300 W Drake Rd  
Ft. Collins, CO 80523  
(970) 581 5723 (cell)

### EDUCATION

- 1983** MS, Clinical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 1977** BA, Zoology, University of South Florida

### WORK EXPERIENCE

- 2016 - 2023** Clinical Instructor, Department of Clinical Sciences and Veterinary Teaching Hospital, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO 80523
- 1990-2015** Cardiology Services Coordinator, Echocardiographer, Department of Clinical Sciences and Veterinary Teaching Hospital, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO 80523
- 1988-1990** Instructor, Front Range Community College, Larimer County Center, 4616 S. Shields, Fort Collins, CO 80526
- 1988-1990** Applications Programmer, Department of Clinical Sciences and Veterinary Teaching Hospital, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO 80523
- 1979-1989** Echocardiographer, Department of Clinical Science and Veterinary Teaching Hospital, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO 80523
- 1978-1979** Research Technician, University of South Florida Medical School, Tampa, Florida

### PUBLICATIONS

#### Books

- Boon JA**, Doppler Echocardiography for the Small Animal Practitioner, Wiley-Blackwell, West Sussex, UK, 2023.
- Boon JA**, Two Dimensional and M-Mode Echocardiography for the Small Animal Practitioner, 2<sup>nd</sup> Edition, Wiley-Blackwell, West Sussex, UK, 2016.
- Boon, JA** Veterinary Echocardiography 2<sup>nd</sup> Edition, Wiley-Blackwell, West Sussex, UK, 2011

**Boon JA**, Two Dimensional and M-Mode Echocardiography for the Small Animal Practitioner, Teton New Media, Jackson, WY 2001.

**Boon JA**, Handy Reference – Veterinary Echocardiography, Two Dimensional and M-mode Imaging, Teton New Media, Jackson, WY 2001.

**Boon JA**, Manual of Veterinary Echocardiography, Williams and Wilkins, Baltimore, MD 1998.

## Chapters

**Boon JA**, Durham HE: Basic Cardiac Physiology. In Cardiology for Veterinary Technicians and Nurses. Durham HE (ed). Wiley Blackwell, West Sussex, UK, 2017.

**Boon JA**, Durham HE: Pathophysiology of Heart Failure. In Cardiology for Veterinary Technicians and Nurses. Durham HE (ed). Wiley Blackwell, West Sussex, UK, 2017.

**Boon JA**: Echocardiography in critical care medicine. In The Veterinary ICU Book, Wingfield WE, Raffe MR, (ed). Teton New Media, Jackson Hole, WY, 2002.

Orton EC, Monnet E, **Boon J**: Heart failure model for evaluation of skeletal muscle cardiac assist. In Cardiac Bioassist Carpentier AF, Chachques JC, Grandjean PA, (ed). Futura Publishing Co, Inc., Paris, France, 1997.

Paull K, Wingfield WE, Bertone JJ, **Boon JA**: Echocardiographic changes with endurance training. In Eq Ex Physiology 2, 34-40, 1987, ICEEP Pub, Davis, CA.

**Boon JA**, Knight AP, Moore DH: Llama cardiology. In Vet Clin North Am Food Animal Prac, 10(2):353-370, 1994, WB Saunders Co, Philadelphia, PA.

Wingfield WE, **Boon JA**: Echocardiography for the diagnosis of congenital heart defects in the dog. In Vet Clin North Am Small Animal Pract, 17(3):735-753, 1987, WB Saunders Co, Philadelphia, PA.

## Refereed Journals

Karn, M, Potter B, Scansen B, Boon J, Szatmari V. Right atrial thrombus formation in a dog after successful electrical cardioversion for atrial fibrillation. *J Vet Int Med* 2023; 1-6. doi:10.1111/jvim16799

Liu, W., Nguyen-Truong, M., Labus, K. M., **Boon, J. A.**, Easley, J. T., Monnet, E., Puttlitz, C. M., Wang, Z. Correlations between the right ventricular passive elasticity and organ function in adult ovine. *Journal of Integrative Cardiology*, 2020 6, 1-6.

Venco L, Mihaylova L, **Boon JA**. Right pulmonary artery distensibility index (RPAD Index). A field study of an echocardiographic method to detect early development of pulmonary hypertension and its severity even in the absence of regurgitant jets for Doppler evaluation in heartworm-infected dogs. *Vet Parasitol*. 2014 Nov 15(206): 60-66.

Maclea HB, **Boon JA**, Bright JM. Doppler echocardiographic evaluation of mid ventricular obstruction in cats with hypertrophic cardiomyopathy. *J Vet Intern Med* 2013; Nov 27(6):1416-1420.

Jacobson JH, **Boon JA**, Bright JM. An echocardiographic study of healthy Border Collies with normal reference ranges for the breed. *J Vet Cardiol* 2013 Jun;15(2):123-130.

deAndrade JN, Orton EC, **Boon J**, Nishimori CT, Olivaes C, Camacho AA. Partial external mitral annuloplasty in dogs with myxomatous mitral valve degeneration and congestive heart failure: outcome in 9 cases. *J Vet Cardio* 2011 Sep 13(3):197-201.

Arai S, Griffiths LG, Mama K, Hackett TB, Monnet E, **Boon JA**, Carter L, Orton EC. Bioprosthesis valve replacement in dogs with congenital tricuspid valve dysplasia: technique and outcome. *J Vet Cardiol* 2011 Jun 13(2):91-99.

Sedacca CD, Bright JM, **Boon J**. Doppler echocardiographic description of double-inlet left ventricle in an Arabian horse. *J Vet Cardiol*. 2010 Aug;12(2):147-53. Epub 2010 Jul 14.

Disatian S, Bright JM, **Boon J**. Association of age and heart rate with pulsed-wave Doppler measurements in healthy, nonsedated cats. *J Vet Intern Med*. 2008 Mar-Apr;22(2):351-6

Disatian S, Bright JM, **Boon J**. The effects of age and heart rate on tricuspid annular motion velocities in healthy nonsedated cats. *J Vet Intern Med*. 2007 Jul-Aug;21(4):731-6.

Arai S, Wright BD, Miyake Y, **Boon JA**, Orton EC. Heterotopic implantation of a porcine bioprosthetic heart valve in a dog with aortic valve endocarditis. *J Am Vet Med Assoc*. 2007 Sep 1;231(5):727-30.

Orton EC, Hackett TB, Mama K, **Boon JA**. Technique and outcome of mitral valve replacement in dogs. *J Am Vet Med Assoc*. 2005 May 1;226(9):1508-11, 1500

Griffiths LG, Orton EC, **Boon JA**. Evaluation of techniques and outcomes of mitral valve repair in dogs. *J Am Vet Med Assoc*. 2004 Jun 15;224(12):1941-5

Martin JM, Orton EC, **Boon JA**, Mama KR, Gaynor JS, Bright JM: Surgical correction of double-chambered right ventricle in dogs. *J Am Vet Med Assoc*, 220(6):770-774, 2002.

Goncalves AC, Orton EC, **Boon JA**, Salman MD: Linear, logarithmic, and polynomial models of M-mode echocardiographic measurements in dogs. *Am J Vet Res* 63(7):994-999, 2002.

Orton EC, Herndon GD, **Boon J**, Gaynor JS, Hackett TB, Monnet E: Intermediate-term outcome in dogs with subvalvular aortic stenosis: influence of open surgical correction. *J Am Vet Med Assoc*, 216(3):364-367, 2000.

Johnson L, **Boon J**, Orton EC: Clinical characteristics of 53 dogs with Doppler-derived evidence of pulmonary hypertension: 1992-1996. *J Vet Intern Med* 13:440-447, 1999.

Cebra ML, Cebra CK, Garry FB, **Boon JA**, Orton EC: Atrioventricular septal defects in three llamas (*Llama glama*). *J Zoo Wildlife Med* 29:225-227, 1998.

Monnet E, Orton EC, Gaynor J, **Boon J**, Peterson D, Guadagnoli M: Partial atrioventricular septal defect: diagnosis and surgical repair in two dogs. *J Am Vet Med Assoc* 211:569-572, 1997.

Monnet E, Orton C, Gaynor J, **Boon J**, Wagner A, Linn K, Brevard S: Open resection of subvalvular aortic stenosis in dogs. *J Am Vet Med Assoc*, 209:1255-1261, 1996.

Monnet E, Orton EC, Salman M, **Boon J**: Idiopathic dilated cardiomyopathy in dogs: survival and prognostic indicators. *J Vet Int Med* 9(1):12-17, 1995.

Orton EC, Monnet E, Brevard SM, **Boon J**, Gaynor JS, Lappin M, Jacobs GB, Steyn P: Dynamic cardiomyoplasty for treatment of idiopathic dilatative cardiomyopathy in a dog. *J Am Vet Med Assoc* 205:1415-1419, 1994.

Traub-Dargatz JL, Schlipf JW, **Boon J**, et.al.: Ventricular tachycardia and myocardial dysfunction in a horse. *J Am Vet Med Assoc* 205(11):1569-1573, 1994.

Gillette SM, Gillette EL, Shida T, **Boon J**, Miller CW, Powers BE: Late radiation response of canine mediastinal tissues. *Radiotherapy and Oncology*, 23:41-52, 1992.

Henik, RA, Allen TA, Jones RL, Wingfield WE, **Boon JA**: Endocarditis caused by *Corynebacterium* sp in a dog. *J Am Vet Med Assoc* 100(11):1400-1401, 1989.

Wingfield WE, **Boon JA**, Wise LA, Paull KS: Diagnostic ultrasound unknown: Endocarditis in the dog. *J Am Vet Int Med* 3(3):175-177, 1989.

Gearhart, MA, Wingfield WE, Knight AP, Smith JA, Dargatz DA, **Boon JA**, Stokes CA: Real time ultrasonography for determining pregnancy status and viable fetal numbers in ewes. *Theriogenology* 30(2):323-337, 1988.

Bertone JJ, Paull KS, Wingfield WE, **Boon JA**: M-mode echocardiographs of endurance horses in the recovery phase of long-distance competition. *Am J Vet Res* 48(12):1708-1712, 1987.

**Boon JA**, Wingfield WE, Miller CW: Echocardiography in the veterinary patient. Supplement, *Journal of Ultrasound in Medicine* 3(9):190, 1984.

**Boon JA**, Wingfield WE, Miller CW: Echocardiographic assessment of mitral regurgitation in the dog. Supplement, *Journal of Ultrasound in Medicine* 3(9):160, 1984.

Wingfield WE, **Boon JA**, Miller CW: Thyroid function in congestive cardiomyopathy dogs: an echocardiographic assessment. Supplement, *Journal of Ultrasound in Medicine* 3(9):157, 1984.

Miller CW, **Boon JA**, Wingfield WE: Echocardiographic assessment of cardiac function in beagles with experimentally produced hypothyroidism. Supplement, *Journal of Ultrasound in Medicine* 3(9):157, 1984.

**Boon JA**, Wingfield WE, Miller CW: Hypertrophic cardiomyopathy: echocardiographic findings in 4 dogs. Supplement, *Journal of Ultrasound in Medicine* 3(9):156, 1984.

Wingfield WE, **Boon JA**, Miller CW: Echocardiographic alterations in 45 dogs with congestive cardiomyopathy. Supplement, *Journal of Ultrasound in Medicine* 3(9):155, 1984.

Miller CW, Wingfield WE, **Boon JA**: Veterinary echocardiography: past, present and future status. Supplement *Journal of Ultrasound in Medicine* 3(9):149, 1984.

Wingfield WE, **Boon JA**, Miller CW: Echocardiographic assessment of congenital aortic stenosis in dogs. *J Am Vet Med Assoc* 183(6):673-676, 1983.

**Boon JA**, Wingfield WE, Miller CW: Echocardiographic indices in the normal dog. *Vet Rad J* 24(5):214-221, 1983.

Soderberg SF, **Boon JA**, Wingfield WE, Miller CW: M-mode echocardiography as a diagnostic aid for feline cardiomyopathy. *Vet Rad J* 24(2):66-73, 1983.

Wingfield WE, **Boon J**, Miller CW: Echocardiographic assessment of mitral valve motion, cardiac structures, and ventricular function in dogs with atrial fibrillation. *J Am Vet Med Assoc* 181(10):46-49, 1982.

Wingfield WE, Miller CW, **Breukels J**: Echocardiography in assessing mitral valve motion in 3 horses with atrial fibrillation. *Eq Vet J* 12(4):181-184, 1980.

## PROCEEDINGS, POSTERS AND PRESENTATIONS

**2024** Scil – Advanced Topics in Feline Heart Disease, Diastolic Function, Complex Congenital Heart Disease, Utrecht Netherlands

- 2023** Capacitacion Veterinaria, - Cardiology Master Seminar, Monterrey Mexico
- 2023** NAYA Cardiologia Veterinaria, Advanced Cardiology of the Dog and Cat. Sao Paulo Brazil
- 2023** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2021** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2019** Romanian Small Animal Veterinary Association - Advanced Veterinary Echocardiography, Timisoara, Romania
- Veterinary Practitioner Association of Thailand - Echocardiography Workshop. Faculty of Veterinary Medicine, Kasetsart University in Bangkok.
- Taiwan Academy of Veterinary Internal Medicine 2019 annual meeting - Introductory and Advanced Echocardiography. Taipei, Taiwan.
- National Association of Veterinary Small Animal Clinicians (ANCLIVEPA) - Brazil. Echocardiography in Congenital Heart Disease. Sao Paulo Brazil.
- Belgrade Veterinary Association - Introductory Echocardiography. Nova Sad, Serbia.
- 2018** Nguyen-Truong, M., Lui, W., Grey, E., Dunne, J., **Boon, J. A.**, Nelson, B. B., Easley, J. T., Monnet, E., Wang, Z. (in press). A revised pulmonary artery constriction model of right ventricle failure in adult ovine.: Experimental Biology Annual Conference., Peer Reviewed/Refereed
- Nguyen-Truong, M., Lui, W., Grey, E., Dunne, J., **Boon, J. A.**, Nelson, B. B., Easley, J. T., Monnet, E., Wang, Z. (2018). Right ventricle failure induced by graded pulmonary artery constriction in adult sheep.: American Heart Association Scientific Session., Peer Reviewed/Refereed
- Nguyen-Truong, M., **Boon, J. A.**, Dunne, J., Nelson, B. B., Easley, J. T., Monnet, E., Wang, Z. (2018). A New Pulmonary Artery Constriction Model to Investigate Right Ventricle Adaptation to Pressure Overload in Ovine.: BMES Annual Meeting., Peer Reviewed/Refereed
- Advanced Echocardiographic Concepts in Congenital Heart Disease, Scil Veterinary Academy - University of Utrecht, Holland, Scil.
- 2016** Introductory Veterinary Echocardiography, Romanian Small Animal Veterinary Association, Timisoara, Romania
- 2015** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2015** PEGD (Foundation for Lifelong Learning) Congenital Heart Disease. University of Utrecht, Netherlands.
- 2015** Introductory and Advanced Seminars in Veterinary Echocardiography. Milano Natura, Milan, Italy
- 2014** Pre-Conference Ultrasound Workshop. Federation of Asian Veterinary Associations Congress (FAVA), Singapore
- Subjective assessment of Echocardiographic Images. Federation of Asian Veterinary Associations Congress (FAVA), Singapore
- Fractional Shortening, not all it appears to be. Federation of Asian Veterinary Associations Congress (FAVA), Singapore

- Echocardiographic Features of Acquired heart disease Part 1. Federation of Asian Veterinary Associations Congress (FAVA), Singapore
- Echocardiographic Features of Acquired heart disease Part 1. Federation of Asian Veterinary Associations Congress (FAVA), Singapore
- Echocardiography workshop. University Veterinary Hospital, University Putra Malaysia
- Basic and Advanced Level Echocardiography Seminars. Croatian Small Animal Veterinary Section (CSAVS)
- 2013** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- PEGD (Foundation for Lifelong Learning), Intermediate Echocardiography with hands on sessions. University of Utrecht, Netherlands.
- 2012** Practical and Theoretical Echocardiography, AVIEC - Associazione Veterinaria Italiana Ecografia Clinica, Lecce, Italy
- 2011** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2010** Practical and Theoretical Echocardiography, AVIEC - Associazione Veterinaria Italiana Ecografia Clinica, Monticello, Italy
- 2009** Practical and Theoretical Echocardiography, AVIEC - Associazione Veterinaria Italiana Ecografia Clinica, Monticello, Italy
- 2008** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- Practical and Theoretical Echocardiography, AVIEC - Associazione Veterinaria Italiana Ecografia Clinica, Monticello, Italy
- 2006** A Look at Cardiac Function with Echocardiography.  
Echocardiography Wet Lab  
12<sup>th</sup> International Veterinary Emergency and Critical Care Symposium., San Antonio, TX
- 2005** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2004** Advanced Topics in Veterinary Echocardiography, Annual Cardiology Conference, University of Brazil, Sao Paulo, Brazil
- Echocardiography of Challenging Cases, Annual Conference of the American College of Veterinary Radiology, Montreal, Canada
- What's New and what's Coming in Echocardiography, Annual Conference of the American College of Veterinary Radiology, Montreal, Canada
- 2003** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 2002** Acquired and Congenital Heart Disease. 1<sup>st</sup> Annual International Veterinary Ultrasound Society conference, Tahoe, NV
- 2001** Doppler Echocardiography, Eickemeyer Industries, Tutlingen, Germany
- 1999** Echocardiography. 66th Annual Meeting American Animal Hospital Association, Colorado State University, Ft. Collins, CO.

- 1997** Echocardiography Part I - Methods and procedures. 69<sup>th</sup> Annual Western Veterinary Conference, Las Vegas, NV.
- Feline Cardiomyopathies - Typical and Atypical Cardiomyopathies. 69<sup>th</sup> Annual Western Veterinary Conference, Las Vegas, NV.
- Echocardiography Part II - Two dimensional and Doppler Echocardiography in the Cat. 69<sup>th</sup> Annual Western Veterinary Conference, Las Vegas, NV.
- Echocardiography in the Cat - Technician Program, 69<sup>th</sup> Annual Western Veterinary Conference, Las Vegas, NV.
- 1995** Veterinary Echocardiography. 62nd Annual Meeting American Animal Hospital Association, Colorado State University, Ft. Collins, CO.
- 1994** Advanced Veterinary Echocardiography. Colorado State University, Ft. Collins, CO.  
Electrocardiography and Interpretation Lab. 3rd Annual Conference for Veterinary Technicians. Colorado Veterinary Medical Association and Colorado State University, Ft. Collins, CO.
- 1993** Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- Basic Interpretation of Electrocardiograms. Association of Nebraska Certified Animal Technicians Annual Workshop, University of Nebraska - School of Technical Agriculture, Curtis, NE.
- 1992** Reflections of the heart: an introduction to cardiac ultrasound. 53rd Annual Conference for Veterinarians. Colorado Veterinary Medical Association and Colorado State University, Fort Collins, CO.
- Echocardiography in Emergency Medicine, Parts I & II. 3rd International Veterinary Emergency and Critical Care Symposium, San Antonio, TX.
- Recognition of Serious Cardiac Arrhythmias: Parts I & II. International Veterinary Emergency and Critical Care Symposium, San Antonio, TX.
- Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- 1991** Recognition of serious cardiac arrhythmias. 52nd Annual Conference for Veterinarians. Colorado Veterinary Medical Association and Colorado State University, Fort Collins, CO.  
Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- 1990** Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- 1989** Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- 1988** Diagnostic ultrasound of horses. Colorado Veterinary Medical Education, Colorado State University, Fort Collins, CO.
- Diagnostic ultrasound in small animals. Colorado Veterinary Medical Education, Colorado State University, CO.
- Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.
- 1987** Diagnostic ultrasound in small animals. Colorado Veterinary Medical Education, Colorado State University, Fort Collins, CO.
- Advanced Veterinary Ultrasonography. Colorado State University, Fort Collins, CO.

- 1986** Diagnostic ultrasound in small animals, Colorado Veterinary Medical Education, Colorado State University, Fort Collins, CO.
- Diagnostic ultrasound. 80th Annual Convention of the Colorado Veterinary Medical Association. Snowmass Village, CO.
- Diagnostic ultrasound of horses. Colorado Veterinary Medical Education, Colorado State University, Fort Collins, CO.
- Bertone JJ, Paull K, Wingfield WE, **Boon JA**: M-mode echocardiograph measurements and indices of endurance trained horses pre- and post-long-distance competition. ACVIM Scientific Meeting.
- 1985** Electrocardiography, The 10th Annual Regional Conference for Veterinary Technicians.
- Introduction to Ultrasound, the 10th Annual Regional Conference for Veterinary Technicians.
- Cardiac ultrasound in veterinary medicine, Association of Nebraska Certified Animal Technicians Annual Workshop, University of Nebraska - School of Technical Agriculture, Curtis, NE.
- 1984** 13th Annual Convention of the Society of Diagnostic Medical Sonographers, Kansas City, MI. Echocardiography in the veterinary patient. Abstract #622.
- Miller CW, Wingfield WE, **Boon JA**: Applications of ultrasound to veterinary diagnostics in a veterinary teaching hospital. Proc 26th Annual Conference, American Inst. Ultrasound in Med, San Francisco, CA, p80.
- 29th Annual Convention of the American Institute of Ultrasound in Medicine, Kansas City, MO. Hypertrophic cardiomyopathy: echocardiographic findings in 4 dogs. Abstract #602.
- 29th Annual Convention of the American Institute of Ultrasound in Medicine, Kansas City, MO. Echocardiographic assessment of mitral regurgitation in the dog. Abstract #605.
- Emergency Medicine, Colorado Veterinary Medical Association, Fort Collins, CO (cardiac arrhythmias).
- 1983** Cardiac Evaluation, Colorado Veterinary Medical Association, Fort Collins, CO (echocardiography).
- Emergency Medicine for Animal Health Technicians, Colorado Veterinary Medical Association, Fort Collins, CO (lecture - Recognition of serious cardiac arrhythmias; wet lab - ECG unknowns).
- 1982** Electrocardiography for the Animal Health Technician, Eastern Wyoming College, Torrington, Wyoming, lecture and wet lab.

## CLASS LECTURES

- 2019** Post Graduate Program in Veterinary Echocardiography. January, National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.
- Post Graduate Program in Veterinary Cardiology. April, National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.
- 2017** Post Graduate Program in Veterinary Echocardiography. January, National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.
- Post Graduate Program in Veterinary Cardiology. April, National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.



<b>2016</b>	Junior Practicum, VM 786A – Cardiology
<b>1999-16</b>	Rotations in Cardiology for FRCC Veterinary Technician Program
<b>2015</b>	Thoracic and Cardiovascular Surgery, VS 673 (Equine echocardiography)
<b>2014</b>	Post Graduate Program in Veterinary Cardiology. National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.
<b>2009</b>	Post Graduate Program in Veterinary Cardiology. National Association of Small Animals Veterinarians Clinicians of São Paulo State. Sao Paulo, Brazil.
<b>1983 - 2002</b>	Principles of Biomedical Ultrasound, PS455 (echocardiography).  Cardiovascular Diseases - Postgraduate Medicine, VS707 (echocardiography).  Cardiovascular Physiology, PS620 (echocardiography)
<b>2000 – 2004</b>	Diseases of the Cardiovascular System, VM747 (echocardiography).
<b>1992 – 1994</b>	Diseases of the Cardiovascular System, VM747 (echocardiography).
<b>1984 – 1988</b>	Diseases of the Cardiovascular System, VM747 (echocardiography).
<b>1985 - 1986</b>	Perspectives in Comparative Medicine II, VM605 (echocardiography).
<b>1981</b>	Cardiovascular - Postgraduate Medicine, VS796J (echocardiography).

## **COURSES COORDINATED AND TAUGHT**

### **Colorado State University**

<b>2022</b>	Advanced Topics in Veterinary Echocardiography, VS655B
<b>2022</b>	Veterinary Echocardiography, VS655A
<b>2003-2020</b>	Echocardiography in Veterinary Medicine, VS 655  Echocardiography in Veterinary Medicine, VS655 – lab
<b>1987 - 98</b>	Cardiology - Special Elective - Echocardiography, VM 786D
<b>1995</b>	Cardiology - Special Project - Echocardiography, VM 786

### **Front Range Community College**

<b>1988-90</b>	General College Biology, BIO 111
<b>1989-90</b>	Anatomy and Physiology I, BIO 121
<b>1989</b>	Anatomy and Physiology II, BIO 122 Human Biology, BIO 108

## **HONORS AND MEMBERSHIPS**

Honorary founding member, Academy of Internal Medicine for Veterinary Technicians - Cardiology Specialty.(June 2006 - Present).

Committee Member, American Society of Echocardiography Veterinary Task Force, NA. (February 2019 -Present).

Honorary diplomate ACVIM – Cardiology specialty. 2023