# 12th Annual Back to School RVT/Vet Tech CE Seminar

In collaboration with the California Registered Veterinary Technician Association

**July 20-21, 2019**

Program chairs: Harmony Lindberg, BA, RVT, CVPM; Jodi L. Westropp DVM, PhD, DACVIM | Schedule subject to change

<table>
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<tr>
<th>July 20, 2019</th>
<th>Track 1: Emergency &amp; Critical Care</th>
<th>Track 2: UC Davis Advances &amp; Anesthesia</th>
<th>Track 3: Medicine</th>
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| **8:00 – 8:50 AM** | Initial Assessment of the Emergency Patient  
Harold Davis, BA, RVT, VTS (ECC) | UC Davis SVM Clinical Advances  
Joshua Stern, DVM, DACVIM | Common Upper Urinary Tract Diseases in Dogs  
Lucy Kopecky, BVSc, DACVIM |
| **9:00 – 9:50 AM** | Action Stat - Management of Emergency and Critical Care Cases, Part I  
Harold Davis, BA, RVT, VTS (ECC) | How Can Veterinary Clinical Trials Help Your Patients?  
Chrissy Kinkade, PhD | Common Lower Urinary Tract Diseases in Dogs  
Lucy Kopecky, BVSc, DACVIM |
Harold Davis, BA, RVT, VTS (ECC) | ASA Status: What It Is, How We Use It, Why It Is Important, and How It Affects Protocol Selection  
Joao Soares, MV, DSc, DACVAA | What’s Happenin’ in This Joint?  
Sandy Gregory, M Ed, RVT, CCRA |
| **11:30 AM – 12:20 PM** | Emergency and Critical Care Pharmacology  
Harold Davis, BA, RVT, VTS (ECC) | Basics of Mechanical Ventilation  
Joao Soares, MV, DSc, DACVAA | Ins and Outs of Bone Marrows and Joint Taps  
Valerie Walker, RVT |
| **12:20 – 1:30 PM** | **LUNCH** | **LUNCH** | **LUNCH** |
| **1:30 – 2:20 PM** | Mythbusters: Myths and Facts of ECC Nursing  
Ken Yagi, RVT, VTS (ECC, SAIM) | Management of Blood Pressure in Dogs/Cats  
Joao Soares, MV, DSc, DACVAA | Functional Anatomy  
Sandy Gregory, M Ed, RVT, CCRA |
| **2:30 – 3:20 PM** | Evidence-Based CPR: The RECOVER Guidelines  
Ken Yagi, RVT, VTS (ECC, SAIM) | How Our Animal Friends See! The Truth About Animal Eyes  
Bret Moore, DVM, PhD | Breed Specific Anatomical Differences and How they Affect out Patients  
Sandy Gregory, M Ed, RVT, CCRA |
| **4:00 – 4:50 PM** | Environmental Emergencies  
Kate Farrell, DVM, DACVECC | You’re Not Just Gonna Cut That Out? A Guide to the ‘Other’ Ophthalmic Surgeries  
Bret Moore DVM, PhD | Hospital Acquired Infections: What Can We Do to Stop Them?  
Krystle L. Reagan, DVM, PhD, DACVIM |
| **5:00 – 5:50 PM** | Evaluation of the Respiratory Distress Patient  
Kate Farrell, DVM, DACVECC | An Overview of IMHA, IMTP and IMPA  
Valerie Walker, RVT | Emerging Small Animal Infectious Diseases  
Krystle L. Reagan, DVM, PhD, DACVIM |

**Date**  
**Hands-On Lab**  
**SEPARATE REGISTRATION REQUIRED**  
**Room**

| July 20, 2019  
1:30-3:30 PM | Bone Marrow/Joint Tap Lab  
Valerie Walker, RVT  
Susan Cox, RVT, VTS (SAIM)  
Canceled 7/8/19 | TBD |

*As of 7/22/2019*
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<tr>
<th>Date/Time</th>
<th>Hands-On Lab</th>
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<tbody>
<tr>
<td>July 21, 2019</td>
<td>Hematology of Domestic Animals: Processing, Analyzing and Interpreting the CBC</td>
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<tr>
<td>10:00 AM-12:00 PM</td>
<td>Flavio Alonso, DVM, MSc</td>
<td>GVH 2030</td>
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<tr>
<th>Date/Time</th>
<th>CPR Certification Course*</th>
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<tr>
<td>July 21, 2019</td>
<td>RECOVER CPR Rescuer Certification - BLS and ALS</td>
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<tr>
<td>11:00 AM-5:00 PM</td>
<td>Ken Yagi, RVT, VTS (ECC, SAIM); Harold Davis, BA, RVT, VTS (ECC)</td>
<td>GVH 1047</td>
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*Attendees will be required to have taken the online BLS and ACLS training at [https://recoverinitiative.org](https://recoverinitiative.org) before attending the certification workshop.

As of 7/22/2019
LEARNING OBJECTIVES

DAY 1: JULY 20, 2019

EMERGENCY AND CRITICAL CARE

Initial Assessment of the Emergency Patient: Harold Davis, BA, RVT, VTS (ECC)
- Discuss what information is gleaned from a variety of physical assessment parameters
- Understand how to localize the source of respiratory distress
- Know the normal values and reasons for abnormal values in commonly monitored parameters

Action Stat - Management of Emergency and Critical Care Cases, Part I: Harold Davis, BA, RVT, VTS (ECC)
- Discuss the pathophysiology of common emergent disease processes
- Recognize the clinical presentation of common emergencies
- Anticipate the care necessary to provide initial treatment and follow up care of common emergencies

Action Stat - Management of Emergency and Critical Care Cases, Part II: Harold Davis, BA, RVT, VTS (ECC)
- Discuss the pathophysiology of common emergent disease processes
- Recognize the clinical presentation of common emergencies
- Anticipate the care necessary to provide initial treatment and follow up care of common emergencies

Emergency and Critical Care Pharmacology: Harold Davis, BA, RVT, VTS (ECC)
- Use various resources to determine drug compatibility
- Use medical math to calculate constant rate infusions
- Know the indications and nursing concerns for commonly used emergency and critical care drugs

Mythbusters: Myths and Facts of ECC Nursing: Ken Yagi, RVT, VTS (ECC, SAIM)
- Learn the myths and facts of Premedicating to Reduce Chances of Reactions
- Learn the myths and facts of giving RBCs through an Infusion Pump
- Learn the myths and facts of the great choice between Nasogastric tube or nasoesophageal tubes

Evidence-Based CPR: The RECOVER Guidelines: Ken Yagi, RVT, VTS (ECC, SAIM)
- Rapidly recognize patients with cardiopulmonary arrest
- Provide mouth-to-snout or intubated ventilation according to current evidence-based guidelines
- Utilize effective communication and team skills that will improve your ability to manage emergent and critically ill patients

As of 7/22/2019
DAY 1: JULY 20, 2019

EMERGENCY AND CRITICAL CARE (CONT.)

Environmental Emergencies: Kate Farrell, DVM, DACVECC
- Review the causes of heat stroke, the secondary multi-organ derangements, and the fundamental mainstays of treatment
- Understand the main mechanisms of damage due to electrical and lightning injury, as well as the factors that affect the severity of that injury
- Identify treatment goals in the drowned patient and recognize poor prognostic indicators

Evaluation of the Respiratory Distress Patient: Kate Farrell, DVM, DACVECC
- Recall the normal anatomy and functions of the lungs
- Recognize the major anatomic localizations responsible for respiratory distress, as well as historical and physical exam findings that can differentiate these causes
- Identify fundamental techniques for stabilization and utilize simple diagnostic tools to help narrow the potential etiologies of respiratory distress

UC DAVIS ADVANCES & ANESTHESIA

UC Davis SVM Clinical Advances: Joshua Stern, DVM, DACVIM
- This lecture will highlight recent clinical advances that continue to make UC Davis a leader in veterinary medicine and clinical research.

How Can Veterinary Clinical Trials Help Your Patients?: Chrissy Kinkade, PhD
- Define veterinary clinical trials
- Identify the benefits of enrolling patients in a veterinary clinical trial
- Recall where to find information about ongoing veterinary clinical trials at UC Davis

ASA Status: What It Is, How We Use It, Why It Is Important, and How It Affects Protocol Selection: Joao Soares, MV, DSc, DACVAA
- Describe the definitions of the ASA status classification
- Learn how to use the ASA status on your cases
- Summarize the difference between ASA status and anesthetic risk

Basics of Mechanical Ventilation: Joao Soares, MV, DSc, DACVAA
- Indicate the indications of mechanical ventilation during anesthesia
- Identify the adverse effects and contraindications of mechanical ventilation during anesthesia
- Identify different types of ventilator
- Set up a mechanical ventilator
- Describe how to wean a patient off the ventilator

As of 7/22/2019
DAY 1: JULY 20, 2019

ANESTHESIA & SPECIALTY

Management of Blood Pressure in Dogs/Cats: Joao Soares, MV, DSc, DACVAA
- Identify normal values of blood pressure in anesthetized dogs and cats
- Describe the pathophysiology of hypotension and hypertension during anesthesia
- Apply the pathophysiologic concepts on the treatment of low or high blood pressure in anesthetized dogs and cats
- Identify the options of treatment for low or high blood pressure in anesthetized dogs and cats

How Our Animal Friends See! The Truth About Animal Eyes: Bret Moore, DVM, PhD
- Instill an appreciation for the diversity of visual systems on Earth
- Describe how animals use their eyes to interact with the world differently than we do
- Illustrate the importance of considering visual differences in the animals we work with daily

You’re Not Just Gonna Cut That Out? A Guide to the ‘Other’ Ophthalmic Surgeries: Bret Moore DVM, PhD
- Provide exposure to the breadth of ophthalmic surgeries
- Understand the basic indications for ophthalmic surgical intervention of select diseases
- Develop an appreciation of how proper surgical management can provide maintenance of a visual and comfortable eye

An Overview of IMHA, IMTP and IMPA: Valerie Walker, RVT
- Review immune mediated hemolytic anemia, immune mediated thrombocytopenia, and immune mediated polyarthritis in regards to the disease process, symptoms of the patient, and diagnostic testing available for each disease.

MEDICINE

Common Upper Urinary Tract Diseases in Dogs: Lucy Kopecny, BVSc, DACVIM
- Understand the definition of chronic kidney disease and how to practically evaluate patients with chronic kidney disease, including blood pressure measurement.
- Understand use of feeding tubes in dogs with chronic kidney disease.
- Understand causes and management of dogs with acute kidney injury in hospital

Common Lower Urinary Tract Diseases in Dogs: Lucy Kopecny, BVSc, DACVIM
- Describe clinical signs associated with urinary tract infections, particularly how to determine whether clinical, and describe methods for urine collection.
- Be aware of types of uroliths in dogs, describe radiographic positioning when evaluating dogs for urolithiasis and understand methods of urolith removal.
- Describe causes of urinary incontinence and how to differentiate between these.
DAY 1: JULY 20, 2019

MEDICINE (CONT.)

What’s Happenin’ in This Joint?: Sandy Gregory, M Ed, RVT, CCRA
- Learn the basic structure of the joint, some ways to recognize the changes of cellular responses, diseases and conditions of the joints.
- Learn ways to assist our patients and educate clients on how to help their pets

Ins and Outs of Bone Marrows and Joint Taps: Valerie Walker, RVT
- Provide guidance and understanding regarding bone marrow aspirates, bone core biopsy, and joint taps in respect to: indications for, equipment needed, and technique used for obtaining good samples.

ANATOMY & INFECTIOUS DISEASE

Functional Anatomy: Sandy Gregory, M Ed, RVT, CCRA
- Knowing functional anatomy will improve diagnostic outcomes, better understand the orthopedic conditions and improve treatments of our patients.
- Understand some of the important anatomy and terminology, which will assist in communication among veterinary colleagues, provide the ability to interpret clinical notes, and minimize the potential of error in information

Breed Specific Anatomical Differences and How they Affect out Patients: Sandy Gregory, M Ed, RVT, CCRA
- Learn some of the anatomical breed variations and the conditions that can arise from them.
- Go beyond the basic knowledge of the Dachshund with the disc issues. Some of these differences can help how we look at our patients in the clinic setting

Hospital Acquired Infections: What Can We Do to Stop Them?: Krystle L. Reagan, DVM, PhD, DACVIM
- Understand what healthcare associated infections (HAI) are, why they occur and the impact they have on patients
- Be able to identify the most common HAIs in veterinary medicine and their risk factors
- Understand what practices can prevent health care associated infections

Emerging Small Animal Infectious Diseases: Krystle L. Reagan, DVM, PhD, DACVIM
- Understand how emergence of new pathogens can occur in dogs and cats
- Understand that changes in disease distribution can be due increased pet travel and interactions, changes within the environment, and increasing urbanization
- Recognize some key infectious diseases that are emerging in dogs and cats

HANDS-ON LAB

Bone Marrow/Joint Tap Lab: Valerie Walker, RVT; Susan Cox, RVT, VTS (SAIM) CANCELED
- Learn how to perform these diagnostic procedures in a “hands-on” laboratory with an emphasis on techniques and the supplies needed to obtain a viable sample
DAY 2: JULY 21, 2019

ANESTHESIA

Advanced Drug Calculations: Melissa Bartholomew, MS, RVT; Danielle Randall, RVT
Review the following applicable veterinary math skills and topics:
- Dosage Calculations
- Advanced Dosage Calculations
- CRI
- Fluid and Solution Calculations

Local Blocks You Can Do In Practice: Christine Crick, CVT, RVT, LVT, VTS (A/A)(ECC)
- Multimodal analgesia doesn't just mean conventional application of IM or IV drugs.
- Learning which blocks you can master in practice with little to no specialized equipment but good technique can make all the difference to your patient.

Anesthetic Monitors: Review of Capnography, ECG and SpO2: Christine Crick, CVT, RVT, LVT, VTS (A/A)(ECC)
- A review of the uses and misapplications of the common monitoring devices we have in practice as applied to anesthesia and critical care uses. The difference of a wealth of knowledge or a goose chase is all in how they are applied.

Preparing for Anesthesia in the Geriatric Patient (*changed from the original program): Christine Crick, CVT, RVT, LVT, VTS (A/A)(ECC)
- As anesthetists, it is important to remember there is potential for subclinical physiology to manifest as complications in the geriatric patient due to decreases in organ system function +/- immunosuppression.
- Objectives: Drug pharmacology in the older patient; Physiologic differences in the aging pet vs the young; Creating a plan to offset a longer recovery phase

CLINICAL PATHOLOGY & AVIAN

Hematology of Domestic Animals: Processing, Analyzing and Interpreting the CBC: Flavio Alonso, DVM, MSc
- Understand the pre-analytical, analytical and post-analytical aspects of the CBC of domestic species.

Canine Blood Collection Techniques: Julie Burges, MS, PhD
- Techniques for canine sitting donation
- Techniques for lateral recumbency donation
- Techniques for standing or sternal recumbency donation

Blood Bank Equipment: It's more than just bags of blood!: Julie Burges, MS, PhD
- Items needed for blood collections
- Items needed for processing
- Items needed for storage
- Auxiliary or nice items to have

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CLINICAL PATHOLOGY & AVIAN (CONT.)

Physical Examination of the Companion Avian Patient: Kristina Palmer, RVT, VTS (CP –Exotic)
- Capture and restraint techniques used for birds
- Techniques to obtain a quality detailed history from the client
- Recognize normal and abnormal findings during a physical examination
- The importance of a visual examination prior to handling
- Recognize signs that the patient is too critical to handle

The Tooth about Dental Disease in Rabbits and Rodents, Part I: Kristina Palmer, RVT, VTS (CP –Exotic)
- Understand normal lagomorph and rodent dental anatomy
- Signs and symptoms of dental disease syndrome
- Gain an understanding of different stages of dental disease
- The meaning of the words: elodoont, aradicular, hystricomorph, and monophyodont
- Diagnostics required when evaluating and treating dental disease

The Tooth about Dental Disease in Rabbits and Rodents, Part II: Kristina Palmer, RVT, VTS (CP –Exotic)
- How to position for and perform an occlusal adjustments and extractions
- How to treat abscesses with a marsupialization
- How to provide appropriate analgesia and anesthesia for the dental patient
- Provide sedation and anesthesia for patients undergoing dental procedures

Overview of Endoscopy of the GI Tract: Susan Cox, RVT, VTS (SAIM)
- Learn what instrumentation is needed to successfully perform a diagnostic endoscopy of the GI tract.
- Review GI tract anatomy and discuss biopsy techniques to obtain diagnostic samples.
- Become familiar with patient preparation before, during and after a GI endoscopy.

Care and Cleaning of Endoscopy Equipment: Susan Cox, RVT, VTS (SAIM)
- Learn to care for your endoscope the right way. We will discuss endoscope anatomy, proper handling techniques and how to establish an effective cleaning and disinfection protocol for the flexible endoscopes in your inventory before, during and after procedures. Together we can keep your endoscope out of the repair shop.
DAY 2: JULY 21, 2019

PRACTICE FOUNDATIONS

Nutrition Basics: Patient Assessment and Diet Plans: Rae Sires, DVM
- Review basic patient assessment including body condition scoring, muscle condition scoring, and energy requirements
- Discuss foundations of diet formulation and relationship to the American Association of Feed Control Officials (AAFCO) and the National Research Council (NRC)
- Construct a basic feeding plan

Home-Cooked Diets: Rae Sires, DVM
- Review indications for feeding a home-cooked diet
- Be able to discuss advantages and disadvantages of feeding a home-cooked diet
- Understand concerns for using generic home-cooked diet recipes and become familiar with resources to provide a complete and balanced home-cooked diet recipe for owners

Canine Emotional Health: The Impact of Trainer recommendations: Michelle Borchardt, RVT, KPA-CTP
- Training establishes protocols to help dogs navigate the human world. This learning should be fun, exciting, and cause no harm. Unfortunately, dog training is an unregulated profession where practices can vary between beneficial to catastrophic. Force free methods leverage the dog’s ability to make good choices without fear, pain, or anxiety.

Problems and Solutions for Multi-Cat Households: Michelle Borchardt, RVT, KPA-CTP
- Managing a multi-cat household can be a balancing act. Understanding the needs of a cat to feel safe, have privacy, social interaction, and exercise is important to keep the peace. Creating a house of plenty along with a few tips and tricks can prevent behavioral blow ups in the future.

Regional Parasite Trends: Ilana Halperin, DVM
- Understand factors affecting range of parasites
- Become able to list diseases in dogs and cats which are vectored by the Western black-legged tick and the mosquito
- Become familiar with methods to minimize risk of spread of these diseases

End of Life Care: Ilana Halperin, DVM
- Understand the definition of a “senior” pet
- Become familiar with a quality of life scale
- Understand goals of hospice care
DAY 2: JULY 21, 2019

PRACTICE FOUNDATIONS (CONT.)

Tragedy to Triumph: Understanding the Basics of Grief and How to Move Through It, Part I: Florence Soares-Dabalos, MS, LMFT
- How to recognize the different types of grief (including pet loss)
- How to recognize the symptoms of grief
- How different grief theories explain the grieving process
- How attachment and bonding impacts the grieving processes

Tragedy to Triumph: Understanding the Basics of Grief and How to Move Through It, Part II: Florence Soares-Dabalos, MS, LMFT
- How to support one’s self or others through the grief process (including pet loss)
- How to talk to children about loss (including pet loss)
- How helping professionals can assess and improve their self-care practices

PERSONAL DEVELOPMENT

Medication Jeopardy: Melissa Bartholomew, MS, RVT; Danielle Randall, RVT
Review the useful world of anesthetic drugs in a veterinary setting and elaborate on six anesthetic medication categories which will include the following:
- Indications
- Common Side Effects
- Contraindications/precautions
- Classification
- Controlled Substances
- Hodge Podge (Misc.)

Taking the Lead: Creating Standard Operating Procedures & Training Programs: Harmony Lindberg, BA, RVT, CVPM
- Learn the difference between a Standard Operating Procedure (SOP) and Training Programs and how they work together to build an effective team.
- Systems and Protocols that benefit most from an SOP regardless of practice size or type.
- How to create a training program that ensures excellent patient care and supports your team.

Why Can’t We be Friends: Navigating Conflict & Drama: Harmony Lindberg, BA, RVT, CVPM
- Conflict management and the myth of resolution.
- Learn how to turn conflict into productive communication and improvement in job satisfaction, systems and teamwork in your practice.
- Why it’s OK to not be ‘friends’ at work, but better to be aligned to a common purpose and goal.

Check Yourself: Managing Personal Expectations in the Workplace: Harmony Lindberg, BA, RVT, CVPM
- Identify habits and thought processes that contribute to job satisfaction and compassion fatigue.
- How to differentiate between expectations of yourself and the expectations of others.
- Learn how to manage your thoughts and why it’s OK to do less sometimes.

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DAY 2: JULY 21, 2019

**HANDS-ON LAB**

Hematology of Domestic Animals: Processing, Analyzing and Interpreting the CBC: Flavio Alonso, DVM, MSc

- How to interpret CBC data towards diagnosis

**RECOVER CPR RESCUER CERTIFICATION - BLS AND ALS**

- Rapidly recognize patients with cardiopulmonary arrest
- Properly administer high-quality chest compressions using the most up-to-date approaches in dogs and cats
- Provide mouth-to-snout or intubated ventilation according to current evidence-based guidelines
- Utilize effective communication and team skills that will improve your ability to manage emergent and critically ill patients