Welcome to the July issue of VMTH View. We devote this entire issue to the many and varied accomplishments of our staff, faculty, residents and students during the past year. Some—such as a new specialty board certification or prestigious award—represent individual accomplishments, but most reflect the collective efforts of many, working collaboratively and showing the great teamwork that epitomizes the VMTH.

Collectively, we have achieved a number of firsts this year. We topped 45,000 patient visits for the first time and set new records for revenues, which allowed us to finish in the black for the second consecutive year, despite further cuts in state funding support for clinical teaching. Patient visits increased by more than four percent in all three major areas of the VMTH—SAC, LAC and Field Services. In part because of increased activity in Equine Reproduction and Equine Surgery, outpatient numbers in the LAC were up more than 13 percent, whereas it will be no surprise to any of you who travel the crowded hallways and waiting rooms “upstairs,” that most of the growth in caseload in the SAC reflected an increase in inpatient numbers of more than 10 percent. It is remarkable—and a testament to the talent, dedication and work ethic of all who work and learn in the VMTH—that our overall caseload has increased more than 22 percent during the past five years, despite the serious challenges of the recession.

I look forward with excitement to what the new academic year will bring to our teaching hospital. If it is anything close to what the past year brought, the VMTH will continue to advance primary and specialty veterinary care for all animals and graduate some of the best-trained veterinarians and veterinary specialists in the world. One thing is certain – we will see more patients than ever before, and we will be able to meet the challenges those patients bring with the best-prepared and talented minds in veterinary medicine. Keep up the stellar work and have a great year.

Regards,

Dr. W. David Wilson, BVMS, MS, Hon DACVIM
Director, William R. Pritchard VMTH
Livestock Medicine

- Hosted successful Beef Improvement and Low Stress Cattle Handling Seminar, drawing an audience of more than 100 livestock veterinarians, practitioners and students. Seminar will now to be held annually at UC Davis.
- Performed the first-known thymoma removal in a goat via sternotomy. Performed successful CPR on same goat (no similar reported cases published).
- FARM Club (advised by Livestock Medicine) won portable ultrasound machine (valued at more than $10,000) in a national student competition.

Equine Surgery

- Drs. Sarah le Jeune and Jorge Nieto received board certification in the American College of Veterinary Sports Medicine and Rehabilitation.
- Dr. Julie Dechant received board certification in the American College of Veterinary Emergency and Critical Care.

Small Animal Orthopedic Surgery

- Expanded due to caseload and is running a second service 50-75 percent of the year.
- Now offering partial elbow replacement for dogs with elbow dysplasia that are chronically lame.

Dermatology

- Now offers owners of environmental allergic (Atopic) dogs the options of subcutaneous injections or oral drops for immunotherapy and is seeing increasing numbers of owners choosing the latter form of therapy for managing pollen and mold allergies; to date this year, the number of owners pursuing immunotherapy in their pets has increased by 30 percent.
- Video-otoscopy has become a commonly used mode of diagnostic testing for small animals with chronic ear inflammation/infection, showing continually increasing numbers, up 375 percent over the last two years and 600 percent over the last three years.
Small Animal Soft Tissue Surgery

- Innovated a number of new procedures and made them available to clients/patients, including:
  - several new laparoscopic & thoracoscopic surgical procedures such as stenting of obstructions in the urethra, ureter, colon, esophagus, trachea, nasopharynx, and blood vessels.
  - several new interventional oncology procedures aimed at relieving malignant obstructions and more novel techniques such as intravascular tumor therapies
  - ground-breaking intraoperative near-infrared fluorescence imaging to improve identification and surgical treatment of various diseases
  - a minimally-invasive procedure providing improved imaging of colonic disease
  - new skin flap procedure for wound reconstruction

- Drs. Michele Steffey and Bill Culp were inducted as American College of Veterinary Surgery Founding Fellows in Surgical Oncology (only 35 surgeons worldwide received this designation).

- Dr. Philipp Mayhew has recently been voted President-Elect of the Veterinary Endoscopy Society.

- Completed two clinical investigations into treatment of liver shunts, looking at the capacity of the liver to regenerate following surgery, the pathology of liver disease in these patients, and the effect of autologous stem cells on regeneration and repair of liver injury.

Equine Field Service

- Janette Barrango, Field Service coordinator, celebrates 35 years of outstanding service to UC Davis clients, students, staff and faculty.

- Dr. Johanna Watson appointed Head of the Department of Medicine and Epidemiology.

- Dr. Tania Kozikowski-Nicholas joined faculty, bringing unique blend of practical experience, advanced dentistry skills, critical care and intensive medicine skills to Field Service.

- Dr. Sharon Spier performed volunteer equine work and education (general medicine, hoof care, castrations, deworming, vaccination, nutrition and saddle/harness fit) at the American Fondouk in Fez, Morocco and with the AAEP Equitarian Initiative in Golfo Dulce, Costa Rica.

Hemodialysis and Blood Purification

- Initiated a prototype virtual Hemodialysis/Nephrology Training Program with Penn, NC State and Pisa (Italy). Currently, there is only one training program other than UC Davis’ for extracorporeal therapies in the world.

- Successfully expanded delivery of therapeutic plasma exchange to adult horses for the management of immune-mediated diseases.

- Envisioned and invented an adaptor for our conventional hemodialysis machines, collaborated with College of Engineering and UC Health System’s Clinical and Translational Science Center to construct a marketable prototype.

Oncology and Radiation Oncology

- More than 150 patients have now been treated with Stereotactic Radiosurgery.

- Plans advancing for installation of new linear accelerator machine in the fall of 2013.

- Dr. Katherine Hansen successfully completed residency and has accepted a position as an Assistant Professor of Clinical Radiation Oncology.

Pathology

- Jennifer Luff, adjunct faculty, submitted her PhD thesis in May.

- Provided histopathology support to the Mountain Gorilla Veterinary Project, California Department of Fish and Wildlife, VM:CPL, CNPRC, and a variety of other researchers in SVM.

- Provided necropsy support through MOUs with a variety of organizations (CVS, Individual Fish Owners, Folsom Zoo, Micke Grove Zoo, Monterey Bay Aquarium, Oakland Zoo, Paws, Sacramento Zoo, Six Flags, The Marine Mammal Center).

- Hosted the West Coast Veterinary Pathology Conference, which was attended by about 60 veterinary pathologists.
Dentistry & Oral Surgery

- Implemented a regenerative clinical and research program in collaboration with the Biomedical Engineering Department; projects such as reconstruction of mandibular critical size defects are yielding exciting results and revolutionizing the field of mandibular reconstruction in dogs.
- Collaboration with the Biomedical Engineering Department has led to the use of 3-D printing of skulls for the treatment planning of challenging maxillofacial cases.
- An ongoing research program in comparative dental pathology and temporomandibular joint pathology in domestic animals and other mammals (in collaboration with the California Academy of Sciences) has resulted in three publications.
- Nine full-length publications based on VMTH clinical case material were published in top-notch journals and covered topics in oral pathology, oral surgery and oral radiology.
- All residents who have finished the residency program in Dentistry and Oral Surgery are now board-certified.

Diagnostic Imaging

- Diagnostic Imaging residency program has expanded to seven residents and remains the largest imaging residency and clinical service in the world.
- Large Animal Ultrasound hosted intensive AAEP 360 Course on Musculoskeletal Ultrasound; hugely popular, drew participants from all over the world, and sold out within 7-10 days.
- Dr. Mary Beth Whitcomb received her MBA in June.
- Dr. Mary Beth Whitcomb directed “In-Depth Session on Thoracic and Abdominal Ultrasound” at 2012 AAEP Annual Convention.

Behavior

- Dr. Liz Stelow won the 2013 R.K. Anderson Resident Research Award presented by the American College of Veterinary Behaviorists for her research on “The Relationship Between Coat Color and Behaviors in the Domestic Cat.”

Clinical Diagnostic Laboratory

- Regenerative Medicine Laboratory collaborated on three stem cell clinical trials.
- Blood Bank increased community awareness through events and increased donor appointments by 52 percent.
- Central Lab Receiving transitioned to online ordering for all samples.
- Central Lab Receiving increased research study registration tests by 18 percent.
- Microbiology Laboratory purchased MALDI-TOF spectrometer unit.

Pharmacy/Central Services

- New VMTH pharmacy opened, with more space, easier access to shipping/receiving and better client-focused environment.
- Central Service moved to new window adjacent to the Inpatient Pharmacy.
- Sterile Processing (sterile surgical packs and instruments) expanded into old Central Service space.
Cardiology
- Added new faculty cardiologist Dr. Joshua Stern, who has completed an internship and residency in cardiology and also holds a PhD focused on genetics of familial subvalvular aortic stenosis in dogs.

Zoological Medicine
- Provided state-of-the-art care for captive and free-ranging wildlife, including an adult lion from Ringling Brothers with generalized weakness and a sea lion from The Marine Mammal Center with hemorrhagic cystitis.

Communications and Marketing
- Garnered worldwide acclaim for the VMTH with coverage of the Kabang hero dog story in more than 1,000 media outlets on six continents.
- Secured monthly, UC Davis-penned articles in Pulse, California Veterinarian and Progressive Cattleman magazines.
- Increased Facebook and Twitter followers by nearly 100 percent, making both the largest-followed social media sites of any veterinary college.
- Launched VMTH View and VMTH Heartbeat newsletters.
- Successfully promoted VMTH at AAEP, Western Veterinary, Pacific Veterinary and Western States Horse Expo conferences.

- Trained future leaders in a world-renowned residency program as part of a collaboration with Sacramento Zoo, San Diego Zoo, San Diego Safari Park and SeaWorld San Diego.
- Faculty and residents published seven peer-reviewed manuscripts.
- Created a “Quarters for Conservation” exhibit at the Sacramento Zoo which raised over $80,000 for wildlife conservation in its first year.
Shelter Medicine

- Launched the UC Davis Virtual Consultant, an online tool to self-assess management practices and receive feedback immediately in order to implement life-saving changes. More than 250 shelter managers, staff, and veterinarians have signed on to use the software tool in its first month.
- Director Dr. Kate Hurley continues to serve as co-chair for the organizing committee of the specialty of Shelter Medicine.
- Drs. Kate Hurley, Sandra Newbury, Denae Wagner and Cindy Karsten were featured speakers at more than a dozen national/international veterinary conferences.
- Researchers completed a nationwide study of feline upper respiratory infection to establish the most important environmental factors in this leading cause of shelter cat illness and euthanasia.

Companion Avian and Exotic Pets

- Technician Kristina Palmer-Holtry won the 2013 Rachel Smith Award.
- American Association of Zoo Veterinarians Award for post-DVM research presentation at their annual conference was awarded to CAPE residents two years in a row: Olivia Petritz in 2011 and Krista Keller in 2012.
- Parrot Wellness & Welfare Program near to reaching its goal of matching $800,000 of donor gifts.

Equine Reproduction

- Added two full-time faculty members, Drs. Bruce Christensen and Ghislaine Dojuvne.
- Started full-service embryo transfer program as a new service.
- Started new residency program in comparative theriogenology.
- Patient visits to the Equine Reproduction Service are up 428 percent over last year.

Information Technology

- Handled 5,839 tickets and 288 change requests (both record highs).
- Replaced more than 150 computers and printers.
- Implemented online laboratory ordering system and changes to support central lab receiving.
- Implemented tool for generating estimates on both the VMTH and San Diego systems.
- Implemented a real-time inventory system for Pharmacy and Central Services.
- Created a system to automate client reminders based on billed procedures for Community Practice.
- Had the VMTH moved to the top of the campus data rewire project and had all cabling brought up to CAT5 and 100Mbs speed with campus matching funds.
Streamlined credit card processing and helped the VMTH pass stringent PCI audit.

Implemented PDF printing of VMACS invoices and payment transactions.

Created a report for the Dean on the feasibility of merging the IT operations of the VMTH and CATS.

Created an interface to send Kronos data to PPS eliminating most key entry for Payroll processing.

Modified Kronos processing to accommodate move of non-exempt employees to bi-weekly pay.

Completed UC Ready disaster planning for IT Services.

Integrative Medicine

Launched the service with initial goal of providing VMTH patients with physical rehabilitation and acupuncture. Long term goals for the service include collaborating with other VMTH services to develop new multidisciplinary treatment initiatives and moving toward a comprehensive academic program.

Established two veterinarians in the service, Drs. Marilyn Koski and Lauren Frank.

Small Animal Emergency & Intensive Care

Dr. Karl Jandrey named director of Veterinary Medical Continuing Education.

Drs. Matt Mellema and Guillaume Hoareau launched the Bulldog Health Initiative (BHI) at UC Davis. The BHI is an ambitious program that seeks to improve bulldog health and extend their life-expectancy by two years over the next two decades. Dr. Hoareau also received an AKC fellowship for research funding of brachycephalic dogs (which include bulldogs).

Ophthalmology

Numerous clinical trials now being conducted, including the investigation the efficacy of mesenchymal stem cells for the treatment of canine dry eye.

Published more than 20 peer-reviewed studies in the first half of 2013.

Performed cataract surgery on a hornbill at Sacramento Zoo.

In conjunction with faculty from UC Davis Medical School, Drs. Chris Murphy and Sara Thomasy are creating an innovative microsurgical training course for both physician and veterinary ophthalmology residents.

Nutrition

Nutrition residents presented their research at the 13th Annual AAVN Clinical Nutrition & Research Symposium Seattle. Dr. Jonathan Stockman presented the results of the study “Evaluation of Published recipes for Home-prepared Canine Maintenance Diets.” The full paper describing those results was published in the Journal of the American Veterinary Medical Association. Dr. Stockman also presented that research at the VMTH House Office Seminar Day and won the award for Outstanding Small Animal Research Study and Presentation. Dr. Tammy Owens presented the results of the study “Total Dietary Fiber and Oligosaccharides in Feline Diets for Obesity and Diabetes Mellitus.” The full results of that study will be submitted for publication in the fall of 2013.
Administration

- Acquired or committed to several new capital purchases totaling $4.6 million, including: new linear accelerator, CT, upgraded MRI, anesthesia machines, equine x-ray and ultrasound machines, incubator. Also purchased computer equipment totaling $150,000.
- Hired a Research and Development Manager (Danielle Carrade, PhD) for implementation of GLP for the clinical diagnostic laboratories.
- Conducted satisfaction survey for input from referring veterinarians.
- Completed reorganization of Diagnostic Clinical Laboratory management.
- Implemented Kronos automated timekeeping system.

Client Services

- Checked in more than 45,000 appointments and logged more than 120,000 phone calls between three reception areas of SAC, LAC and CCAH.
- Several staff members participated in advanced training courses through the American Animal Hospital Association to become Certified Veterinary Receptionists, as well as courses through the American Institute of Health Care Professionals.
- Worked in conjunction with Information Technology to implement Estimate Generator software to create greater documentation of services offered to clients.

Outpatient Medicine

- Played leading, integral role in Kabang the hero dog case, coordinating multiple service visits, communications efforts, outpatient visits and travel certification/vaccination requirements over 8-month period that garnered VMTH worldwide acclaim.
- Provides a variety of services to VMTH clients by a board-certified general practitioner, including minor dentistry procedures, spay/neuters, lameness diagnosis and others.

Small Animal Internal Medicine

- Continues to make great strides and advances in better understanding and evaluating the cause of swallowing disorders in dogs, including disorders of the esophagus.
- Can now perform high-resolution manometry and esophageal pH impedance testing with new, state-of-the-art equipment.
- G.V. Ling Urinary Stone Analysis Laboratory was featured in an exhibit at the national Urologic History Museum.

Community Practice

- Increased number of spay and neuters by 13 percent.
- Added Dr. Blythe Jurewicz as a part-time staff veterinarian.
- Dr. Tami Pierce expanded the community dentistry section of Community Practice.
- Increased overall caseload by 17 percent.

Neurology/Neurosurgery

- Technician Kathy Pinkston is completing her specialists training in neurology.
- Increased overall caseload by 36 percent.