COMMUNITY OUTREACH

SURGERY ROTATION DEVELOPS CAPABLE HANDS

Practitioners need competent associates. Shelter pets need improved chances for adoption. Local veterinarians need a referral option for low-income clients when the choice is between surgery and euthanasia.

Jan Ilkiw, associate dean for academic programs, says, “The Community Surgery Program, a fourth-year clinical rotation for DVM students, addresses all these needs while fulfilling the school’s major mission—teaching essential, entry-level skills in surgery, anesthesia and patient management.”

Building on surgical instruction in the third-year curriculum, the Community Surgery Program offers students multiple opportunities to manage surgical cases from start to finish.

“I really liked the fact that we followed our cases throughout the process... and overall, treated the entire patient.”

California practitioners helped the faculty to develop a list of common surgical procedures a veterinary graduate should master. Typical cases include amputating a broken leg, removing an injured eye or repairing lacerations.

During the rotation in the Gourley Clinical Teaching Center, students act as the veterinarian responsible for decisions and surgical procedures under faculty supervision, led by Julia Larson, DVM.

On a course evaluation, one student commented, “This rotation not only involved mastering surgical skills, but also molding students into more effective and well-rounded clinical veterinarians. I really liked

Continued on page 3
FELINE RESEARCH
GENETIC DIVERSITY IN CATS

A new study confirms that domestication of the cat started in the Fertile Crescent and provides a warning for modern cat fanciers, says Monika Lipinski, doctoral candidate and lead researcher. The study, involving more than 11,000 animals, found that genetic diversity remained surprisingly broad among cats from various parts of the world. However, the data indicated that some loss of diversity is associated even with foundation cat breeds—those from which modern pure breeds were developed over a long period of time.

Renal, Cardio Services
Continued from page 1

“At the same time,” says Cowgill, “referral cases provide a direct and important contribution to our teaching mission.” In addition to student education, the San Diego clinical team is seeking input from local veterinary practices to plan continuing education seminars for professional and technical staff.

Cardiology

Leigh Griffiths, assistant professor of cardiology, has joined the cardiology program at the William R. Pritchard Veterinary Medical Teaching Hospital on the UC Davis campus. Griffiths is an expert in cardiac surgery with research interests in protein chemistry, immunology, and tissue engineering. He joins professors Mark Kittleson and William Thomas in the service, which provides cardiology consultations for small animal and large animal patients.

Joao Orvalho, a specialist in clinical cardiology, is the school’s first veterinary cardiologist based at the UCVMC—SD. New services include cardiac angiography and non-invasive tests such as echocardiography and electrocardiography. Treatments include pacemaker implantation, balloon valvuloplasty to widen a constricted blood vessel, and nonsurgical treatment of patent ductus arteriosus, a congenital heart defect in dogs. Equipment upgrades, notably an imaging tool that captures live, three-dimensional echocardiographs, support the latest techniques in the field and provide a new resource for referring veterinarians. Orvalho’s research focuses on pulmonary hypertension as well as interventional and medical therapies for heart disease.

The cardiology program expects to build on its record of advances in small animal health, such as the discovery of the need for taurine in the feline diet and identification of the genetic basis for hypertrophic cardiomyopathy.

Renal Medicine

With the addition of Sheri Ross to its hemodialysis faculty, the UCVMC—SD now offers consultation and management for all upper and lower urinary tract problems. Ross, who completed a fellowship in veterinary nephrology and hemodialysis offered only at UC Davis, has expertise in nutritional management of chronic kidney disease and prevention, and nonsurgical management of urinary stone disease.

Ross’s research interests include the influence of diet on kidney disease, renal transplantation, hemodialysis, feline acute ureteral obstruction and urolith management. Ross joins Larry Cowgill and Julie Fischer, DVM, ACVIM, who has served as the hemodialysis coordinator since the service opened in 2002. The hemodialysis unit, which contains two dialysis machines, is one of only four such facilities in the nation for cats and dogs.
HUMAN, ANIMAL AND ECOSYSTEM HEALTH

Collaborative Research in Africa Aims to Improve Water Quality

How does an African community protect the quality of a dwindling water supply shared by people, livestock and wildlife alike?

Deana Clifford, postdoctoral researcher at the school’s Wildlife Health Center, has investigated this broad question in Tanzania, East Africa, since 2006 as scientific coordinator of the Health for Animals and Livelihood Improvement program (HALI).

Increased irrigation and intensive livestock grazing of wetlands threaten the supply and quality of water supporting pastoralist and agricultural tribes in the Great Ruaha River ecosystem. For the last 15 years, the normally perennial river has dried up for longer periods each year.

A team of health professionals, economists and conservationists from UC Davis, Sokoine University of Agriculture, the Wildlife Conservation Society’s Ruaha Landscape Program and the University of Vermont are the project’s collaborators. Led by Jonna Mazet, co-director of the Wildlife Health Center, they are assessing the effects of zoonotic disease and water management on public health, community livelihoods, and disease transmission between livestock and wildlife.

Bovine tuberculosis, brucellosis and water-borne pathogens—which can infect both humans and animals—are under study. Water problems and diseases also impact wildlife species that come into more frequent contact with livestock as water sources diminish.

HALI’s mission includes the training of Tanzanian veterinarians and other scientists to diagnose zoonotic disease problems, design disease prevention programs and conduct research for the improvement of human health, livestock productivity and wildlife health.

Clifford says, “By providing training opportunities for Tanzanians of all educational levels, we are building local capacity to address complex health problems and ensuring that our work has a positive and sustainable outcome for local communities.”

Funding comes from the Global Livestock Collaborative Research Support Program/United States Agency for International Development.

COMMUNITY SURGERY

Continued from page 1

the fact that we followed our cases throughout the process—performed skin scrapings when needed, stained eyes for ulcers—and overall, treated the entire patient.”

Students find that individual coaching provides an opportunity to perfect their surgical skills and technique. Another student remarked, “Supervision during surgery was outstanding. I learned many great tips and techniques that I would never have learned outside the rotation.”

Ilkiw says, “Working with local shelters, the teaching hospital, and referring veterinarians allows us to develop a diverse patient population for the students.

“The Community Surgery Program enables us to give back to the community while providing a wonderful training opportunity.”

Student Enhances Research Experience as HALI Volunteer

In addition to its main educational aims, HALI provided an unusual learning opportunity for Eline Britz, class of 2010. Through the Office of International Programs and the Students Training in Advanced Research (STAR) program, Britz worked in Tanzania in summer 2007 examining survey data from area tribes regarding risk factors for diarrhea.

“I also analyzed beliefs concerning health and zoonoses—like where they think illness comes from in livestock, and reasons why they don’t treat their drinking water,” she says. “My experience gave me a deeper understanding of how history and culture contribute to local beliefs regarding health and the environment. The project demonstrates respect and sensitivity with regard to local beliefs by hiring local Tanzanians and working closely with village councils.”

In addition to her STAR project, Britz assisted with livestock sampling and water quality testing as a HALI volunteer.

“We had a ‘mobile lab’ in the Land Rover where we did all the blood and fecal work from the cattle, goats and sheep,” she says. “The village kids were always very interested in the centrifuge and all the test tubes, so I would give them ‘mini’ science lessons.”
Deidre Puaoi checks heart and lung sounds of a patient recovering from a pulmonary infection in Critical Patient Care, while discussing cardiological aspects of the case with Matthew Mellema, assistant professor.

In addition to working with dogs and cats as owner of a veterinary hospital, Williams has also worked since 1978 with the Monterey Bay Aquarium and has conducted research with the California Department of Fish and Game and U.S. Fish and Wildlife Service.

“The environment for learning and engaging in veterinary medicine is just amazing.”

He has developed protocols for anesthesia to be able to dart and remove 30 fish from a large aquarium tank, or surgically implant transmitters for telemetry of animals such as sea otters, fish, wild mustangs and elk.

When Williams first became aware of the Low fellowship program, 20 days seemed like a long time. “But,” he says, “the environment for learning and engaging in veterinary medicine is just amazing. I not only get to take the information back to improve my practice, but also to improve my research.

“The students have tremendous compassion for the animals and passion for learning. The instructors have passion for teaching—I can ask the experts anything I want, and the students are able to ask me questions about practice. The only problem with the fellowship is that it ends!”

For more information, visit www.vetmed.ucdavis.edu/ce/low.html. The application deadline is May 16, 2008, for the academic year that begins in September.
DEPARTMENT OF UNIVERSITY ADVISORY HOSPITAL

In February, Dean Bennie Osburn announced a new “road map” for the William R. Pritchard Veterinary Medical Teaching Hospital to improve client and referral services and create increasingly effective teaching programs. A review committee of faculty and staff members outlined several priority areas in teaching, small animal surgery, time management, organizational structure, finances and the hospital’s culture and morale.

Thanks go to all committee participants and interim director of the hospital, David Wilson, who is already taking steps to implement recommendations, which include the following:

- Improve communications with clients, referring veterinarians and hospital staff
- Adjust receiving schedules to ease case flow and shorten client waiting time
- Make it easier to set appointments by telephone
- Provide animal holding areas, extend hours, and add other client-friendly services
- Conduct a fiscal review to identify ways to meet client needs and student training goals in light of impending budget reductions
- Review administrative options and develop an organizational structure that supports and strengthens hospital leadership

Transfusion Medicine Section Delivers Clinical Service, Education and Research

More than 600 transfusions per year take place at the William R. Pritchard Veterinary Medical Teaching Hospital.

A new Transfusion Medicine Section will serve rising demand for blood products for dogs, cats, horses, cows, llamas, sheep, goats, pigs and other animals. Laboratory personnel will be able to test blood and cross-match it for patients. The veterinary blood bank will also be able to process and store cord blood for future use, process adult stem cells from equine patients and participate in research team is also investigating how adult stem cells might help veterinarians treat ligament, tendon or joint injuries and promote the healing of some fractures.

Students who elect a rotation through the laboratory will gain substantial knowledge of transfusion medicine and, says Owens, “They will learn about its applications in their future veterinary practices.”

Faculty researchers are collaborating to improve the processing, storage and use of animal blood products. One group has already developed a rapid blood-typing technique for horses that is available only through the teaching hospital. The research team is also investigating how adult stem cells might help veterinarians treat ligament, tendon or joint injuries and promote the healing of some fractures.

Canine Community Blood Donor Program Begins

Calli is a lively, healthy, young dog. So why is she in the clinic for a blood test? The dog and her owner, class of 2008 veterinary student Allen Page, are among the first to participate in a program to innovate the field of transfusion medicine.

“...your dog may save another dog’s life.”

“We are reaching out to area dog owners to develop a community-based canine blood donor program at the School of Veterinary Medicine,” says Sean Owens, assistant professor and veterinary pathologist.

Starting with volunteers from UC Davis, Owens and his team are developing the new approach, which eliminates the need for dogs to live at the school for the sole purpose of providing safe blood transfusions for hospital patients.

“We have begun identifying police dogs as potential blood donors,” says Owens. “Blood donation is minimally invasive for dogs. K-9 officers, in addition to facing a higher risk of injury than many dogs, are healthy, well-trained and large enough to donate adequate amounts of blood safely.”

In the coming months, veterinarians will screen 1,200 pets to develop a group of dogs able to donate one to three times per year, beginning in summer 2008. Pet owners living within 100 miles of Davis may sign up healthy dogs 1–5 years old as potential blood donors. The animals will receive regular health screenings, access to blood products and “thank you” gifts.

Owens says that the Community Blood Donor Program provides an opportunity to become involved in the veterinary community: “It’s a cool thing to know that you and your dog may save another dog’s life.”
**NEW FACULTY**

Introducing

THE SCHOOL’S NEWEST FACULTY MEMBERS

**BEATE CROSSLEY**
Assistant professor of clinical diagnostic virology, Veterinary Medicine and Epidemiology; California Animal Health and Food Safety Laboratory

**EDUCATION**
MPVM, UC Davis, 2001
D. med. vet. (virology), Free University of Berlin (in collaboration with University of Wisconsin), 1997
Tenoarztin (DVM), Free University of Berlin Veterinary School, 1994

**EXPERIENCE**
Specialist, California Animal Health and Food Safety Laboratory System (CAHFS), UC Davis, 2003–2008
Postdoctoral researcher, CAHFS, UC Davis, 2002–03

**SPECIALTY**
Infectious diseases, epidemiology, molecular virology

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**BRIAN MURPHY**
Assistant professor of anatomic pathology, Pathology, Microbiology and Immunology

**EDUCATION**
Diplomate, American College of Veterinary Pathologists, 2007
PhD (veterinary pathology), Washington State University, Pullman, 2006
DVM, Washington State University, 1992

**EXPERIENCE**
Senior pathologist, Washington Animal Disease Diagnostic Laboratory, WSU, 2007
Residency (pathology), College of Veterinary Medicine, WSU, 2000–07
Associate veterinarian, Fair Oaks Veterinary Hospital, Sacramento, CA, 2000
Small animal surgery intern, Sacramento Animal Medical Group, 1999–2000
Associate veterinarian, Peninsula Pet Hospital, Gig Harbor, WA, 1996–99
Associate veterinarian, Covington Veterinary Hospital, Covington, WA, 1992–96

**SPECIALTY**
Anatomic pathology and diagnostic medicine; pathogenesis of infectious diseases; virus-host cell interaction

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**CHRISTINA SIGURDSON**
Assistant professor of anatomic pathology, Pathology, Microbiology and Immunology

**EDUCATION**
Diplomate, American College of Veterinary Pathologists (anatomic pathology), 2002
PhD (pathology), Colorado State University, 2001
DVM, UC Davis, 1994

**EXPERIENCE**
Adjunct assistant professor, Colorado State University, Fort Collins, 2002–2008
Residency (veterinary pathology), Colorado State University, 2001
Veterinary clinician, Sacramento Veterinary Surgical Services, 1995–96

**SPECIALTY**
Biology of prion diseases, spongiform encephalophathies, chronic wasting disease

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**MARTIN VIDAL**
Assistant professor of equine surgery; Surgical and Radiological Sciences

**EDUCATION**
Diplomate, American College of Veterinary Surgeons, 2008
PhD (veterinary medical science), Louisiana State University, Baton Rouge, 2008
BVSc (veterinary medicine), University of Liverpool, UK, 2000
MS (meat and animal science), University of Wisconsin, Madison, 1995

**EXPERIENCE**
Residency (equine surgery), Louisiana State University, Baton Rouge, 2003–06
Intern/associate veterinarian, Goulburn Valley Equine Hospital, Victoria, Australia, 2001–03
Veterinary inspector, Newcastle Disease Emergency Control Center, Dept. of Environment, Food & Rural Affairs; Newcastle Upon Tyne, UK, 2001
Associate veterinarian, The Meister Equus Veterinary Clinic, York, UK, 2000–01

**SPECIALTY**
Stem cell biology, equine lameness and orthopedic surgery

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**MPVM PROGRAM**

Veterinarians Tailor Careers with Master’s Degree Options

New course options have broadened the scope of the Master of Preventive Veterinary Medicine degree program to help veterinarians shape careers in emerging fields of veterinary and environmental health,” says Bruno Chomel, interim director.

The MPVM program for veterinary students and practitioners focuses on epidemiology, biostatistics, information management, data analysis, epidemiologic research methods and communication. With this core curriculum, students choose from several areas of emphasis:

- Animal Population Health and Epidemiology—Health and productivity of animal herds and populations such as livestock, laboratory animals and aquaculture populations
- Food Safety—Pre- and post-harvest food safety; integrating animal health, public health and environmental health
- Public Health and Zoonoses—Quantitative epidemiology, public health and zoonoses; in collaboration with the California Department of Health Services
- Wildlife and Disease Ecology—A multidisciplinary approach to the health of free-ranging and captive terrestrial and aquatic wild animals; in conjunction with the Wildlife Health Center
- Ecosystem Health—Analyses and solutions to environmental health and sustainability problems that transcend regional boundaries; in conjunction with the Wildlife Health Center
- Peace Corps Masters International—Integration of human and animal health, well-being and productivity in a global setting; in collaboration with the United States Peace Corps
- Independent—Course work tailored to individual career goals

MPVM candidates also conduct a laboratory or field research project and present a thesis. The program moved from the main campus to Gladys Valley Hall in 2006. The new classroom suite contains 60 computer workstations, offices, a student lounge, audiovisual facilities, and teleconferencing capabilities.

www.vetmed.ucdavis.edu/mpvm
Dean Bennie Osburn, faculty, staff and student ambassadors introduced 60 friends of the school to its newest facility, Veterinary Medicine III A, during an event March 19.

In conjunction with the open house, the Department of Pathology, Microbiology and Immunology held its first annual awards ceremony, presenting fellowships that honor the memory of faculty members Donald Cordy, Peter Kennedy and Donald Dungworth. The department also announced other funding support, including several sponsorships, the C.L. Davis DVM Foundation Scholarship and the IDEXX program, begun in 2002, that fully funds a resident in clinical pathology.

Guests learned about the influence of science on global health policy in Professor James MacLachlan's keynote talk. He described the school's extensive bluetongue virus research, its economic impact on the cattle industry, and the school's potential to use bluetongue as a model for the study of related viruses. MacLachlan, who moved from Haring Hall to Veterinary Medicine III A, also cited the benefits of co-locating basic researchers with clinical faculty to accomplish translational research, which he described as “one foot in the lab and one foot in the clinic.”

“There is no intellectual isolation—all that expertise and enthusiasm is right there in the room.”

Assembly member Lois Wolk presented Dean Osburn with a proclamation attesting to the value of Veterinary Medicine III A in promoting veterinary education and animal health. Among the guests were Elly Fairclough from the office of Congressman Mike Thompson; Richard Rominger, former deputy secretary of the USDA and former secretary of the CDFA; Christopher Cabaldon, Mayor of West Sacramento; Ria di Grassi of the California Farm Bureau Federation; Provost and Executive Vice Chancellor Barbara Horwitz; and numerous emeritus faculty members.

Facility tours and chats with student researchers followed the formal program. Patricia Pesavento, assistant professor of clinical anatomic pathology, commented, “VM III A is beautifully done, but for all of us, the impact extends far beyond the aesthetics of a new building. It’s great for new faculty. There is no intellectual isolation—all that expertise and enthusiasm is right there in the room.”

FOUNDED DEAN’S LEGACY: PERPETUAL STUDENT SUPPORT

George H. Hart, first dean of the School of Veterinary Medicine, created a legacy that provides financial assistance to more than 40 students each year.

An endowed fund to support student scholarships and graduate student fellowships, established through his estate plans in 1983 with a gift of $71,000, is now valued at $2.2 million.

Dr. Hart’s endowment will continue to help students in perpetuity, just like many of the planned gifts being created by members of the school’s Heritage Society for Animals.

Contact the development office at (530) 752-7024 to learn more about how to make similar plans for a future gift to the school.

READERS RESPOND TO VET MED NEWS SURVEY

Thank you to everyone who responded to the reader survey in the fall issue of Veterinary Medicine News.

Respondents indicated an interest in more clinical news, and slightly more research, faculty, development and public service news. Most wanted about the same number of stories about students and teaching programs.

Two to one were interested in expanded Web-based articles (see www.vetmed.ucdavis.edu for “What’s New” at the school), and comments indicated an interest in more stories about staff, alumni, unusual clinical cases, the student admissions process and little-known programs in the School of Veterinary Medicine.

Professor Fern Tablin gives UC Davis Provost and Executive Vice Chancellor Barbara Horwitz a comparative look at skeletons in the gross anatomy laboratory.

Richard Rominger, Professor Alex Ardans and Professor Emeritus Harvey Olander talk with Alissa Blum, class of 2011, who will begin the Students Training in Advanced Research program in June.
Center for Continuing Professional Education

Programs for Veterinarians

**Practical Ultrasonography: Beginning/Review**
May 3–4, 2008—UC Davis (Registration is full!)

**Fall Symposium on Recent Advances in Clinical Veterinary Medicine**
September 14, 2008—UC Davis

**George H. Muller Veterinary Dermatology Seminar in Hawaii**
October 29–November 5, 2008
The Big Island, Hawaii

**Practical Ultrasonography: Beginning/Review**
November 15–16, 2008—UC Davis

**Veterinary Endocrinology & Internal Medicine Seminar**
December 2–9, 2008—St. Thomas, U.S. Virgin Islands

Programs for RVTS, Veterinary Technicians, Veterinary Assistants

**Back to School Veterinary Technician CE Seminar**
July 19–20, 2008—UC Davis

**Fall Symposium on Recent Advances in Clinical Veterinary Medicine**
September 14, 2008—UC Davis

Center for Comparative Medicine
10 Years, One Medicine

David Baltimore, who shared a 1975 Nobel Prize for the discovery of reverse transcriptase, the enzyme essential for the replication of retroviruses, is the featured speaker at the Center for Comparative Medicine’s 10th anniversary celebration.

Members of the public are invited to the free talk at 3 p.m. June 10, 2008, in Gladys Valley Hall, followed by a reception at 5 p.m. in the Center for Comparative Medicine. Distinguished guests include Lieutenant Governor John Garamendi, author of the California bond act that helped establish funding to construct the center.

The School of Veterinary Medicine and the School of Medicine opened the Center for Comparative Medicine in 1998 to address fundamental questions about diseases shared by animals and humans. The “One Medicine” concept, promoted by UC Davis School of Veterinary Medicine Professor Calvin W. Schwabe in the 1960s, emphasizes biological similarities between humans and other animals.

Center researchers investigate viruses such as influenza and human immunodeficiency virus; bacterial diseases including Lyme disease, Helicobacter gastritis and tuberculosis; and cancers. They also develop animal models of disease and train veterinarians, physicians and other scientists for careers in comparative medical research and mouse biology.

For more information, contact Anita Moore, assistant director, (530) 752-1245, afmoore@ucdavis.edu.