Leadership and Achievement

Bernie I. Osburn has led the School of Veterinary Medicine with distinction for 15 years. An energetic proponent of the profession, Osburn has raised awareness of the broad role of veterinarians in the areas of food animal medicine and food safety as well as environmental health and One Health.

Upon his retirement, Osburn leaves the school with eight new facilities, new and expanded programs of regional service and international stature, more than 700 students, 300 faculty members, a robust research enterprise, a budget of $150 million and a scholarship endowment of more than $40 million.

Increased Capacity at Veterinary Schools

Osburn’s 41-year scholarly career has been filled with teaching, research and public service contributions.

As an educator, Osburn is proud to have mentored 50 graduate students. As dean, his dedication broadened to serve all the school’s professional students and residents.

After leading a university assessment of the health workforce, Osburn was instrumental in raising the number of DVM students from 108 to 131 per class and specialty residents from 60 to more than 100 to address existing and projected shortages.

Cattle Breathing Easier?

A UC Davis research team has been awarded $2.6 million by the U.S. Department of Agriculture to carry out integrated research, education and Cooperative Extension outreach aimed at reducing the incidence of bovine respiratory disease, or pneumonia, the leading cause of death in beef and dairy cattle. BRD is responsible for the deaths of more than 1 million animals per year and the loss of $692 million. Researchers will work to improve diagnostics and develop cost-effective genomic and management approaches through several collaborations.

The funding is part of a 5-year, $9.2 million USDA Coordinated Agricultural Project, involving researchers at Texas A&M University, UC Davis, Washington State University, University of Missouri, Colorado State University and New Mexico State University.

Terry Lehenbauer, a veterinary epidemiologist at the Veterinary Medicine Teaching and Research Center, Tulare, will lead a project at a calf ranch for discovering the genetic components for BRD resistance and the interaction of pathogens and other factors that influence the risk of disease in young Holstein.

IN THIS ISSUE

Human Virus in Gorillas .......... 2
2011 Alumni Awards .......... 3
Real-time PCR Service .......... 4
Reunion Weekend .......... 7
Human Virus Linked to Deaths of Endangered Gorillas

For the first time, a virus that causes respiratory disease in humans has been linked to the deaths of wild mountain gorillas. The finding confirms that serious diseases can pass from people to these endangered animals.

The researchers are from the nonprofit Mountain Gorilla Veterinary Project (MGVP), the Wildlife Health Center, the Center for Infection and Immunity at Columbia University, and the Rwanda Development Board.

Their study reports the deaths in 2009 of two mountain gorillas infected with a human virus.

“Because there are fewer than 800 living mountain gorillas, each individual is critically important to the survival of their species,” said Mike Cranfield, executive director of the MGVP and a UC Davis wildlife veterinarian. “But mountain gorillas are surrounded by people, and this discovery makes it clear that living in protected national parks is not a barrier to human diseases.”

The potential for disease transmission between humans and mountain gorillas is of particular concern because over the past 100 years, they have come into increasing contact with humans. The national parks where the gorillas are protected in Rwanda, Uganda and the Democratic Republic of Congo are surrounded by the densest human populations in continental Africa.

Also, gorilla tourism — while helping gorillas survive by funding the national parks that shelter them — brings thousands of people from local communities and around the world into contact with mountain gorillas each year.

The Mountain Gorilla Veterinary Project veterinarians, who monitor the health of the gorillas and treat individuals suffering from life-threatening or human-caused trauma and disease, have observed an increase in the frequency and severity of respiratory disease outbreaks in the mountain gorilla population in recent years.

The study’s UC Davis authors are Cranfield, Linda Lowenstine, veterinary pathologist for the MGVP since 1986, and Kirsten Gilardi, co-director with Cranfield of the Mountain Gorilla One Health Program.

The study is available online: www.cdc.gov/eid/content/17/4/711.htm.
Congratulations to the School of Veterinary Medicine’s students, who hosted the national 2011 Student American Veterinary Medical Association Symposium March 24-26, 2011. Roughly 1500 attendees from U.S. and international veterinary schools took part in wet labs, lectures, guest presentations, field trips and social events. Almost 200 volunteers contributed to the event’s success.

Five Receive Alumni Achievement Award, School’s Highest Honor

**Linda L. Blythe** (DVM 1974, internship 1975, PhD 1979), a founding faculty member of the Oregon State University College of Veterinary Medicine, is recognized for excellence in teaching and dedication to the veterinary medical profession and all the animals it serves.

**Robert Hardy** (DVM 1969), a professor at the University of Minnesota College of Veterinary Medicine, is recognized for contributions to veterinary education and small animal internal medicine.

**Dwight C. Hirsh III** (DVM 1966), a retired professor from the UC Davis School of Veterinary Medicine, is honored for outstanding contributions to veterinary medical student education and clinical diagnostic services, particularly in the field of veterinary microbiology.

**Kereng Victor Masupu** (MPVM 1990), founding executive secretary of Champions for an HIV/AIDS-Free Generation, Gaborone, Botswana, is acknowledged for leadership in the prevention and control of HIV/AIDS in Botswana, a country severely impacted by the epidemic.

**Paul D. Pion**, (residency 1987), president and co-founder of Veterinary Information Network, Inc., is honored for his role in the discovery of taurine insufficiency, which causes feline dilated cardiomyopathy, and for connecting the veterinary community through the Veterinary Information Network, thereby impacting contemporary veterinary medicine.

**Bank Foals’ Umbilical Cords for Future Stem Cell Treatment**

Horse owners may now collect umbilical cord tissue immediately after a foal is born and save it as a future source of therapeutic stem cells. An owner or veterinarian can order a kit from the school to collect umbilical cord tissue — a non-invasive procedure — and send it to the Regenerative Medicine Laboratory for minimal processing and storage. Cord-tissue collection kits are available at (530) 754-0400 or regenlab@ucdavis.edu. More information: www.vetmed.ucdavis.edu/vmth/regen_med/services.cfm.

**Referrals Needed for Tumor Studies**

Faculty surgeons are seeking referrals for a canine bone tumor study, a canine lung tumor study, a canine urethral tumor study, and a canine anal sac carcinoma study. For enrollment requirements and other information, please visit the following website, www.vetmed.ucdavis.edu/vmth/small_animal/surgery/clin_studies_soft.cfm. Contact: Michele Steffey, DVM, DACVS, masteffey@ucdavis.edu, (530) 752-3799.
Specialized Diagnostics

Laboratories that originated in the research mission also serve referring veterinarians and clients. The California Animal Health and Food Safety Laboratory System and the Veterinary Genetics Laboratory have long service histories, as do labs in the William R. Pritchard Veterinary Medical Teaching Hospital.

Personnel in other specialized labs also provide services, among them the Real-Time PCR Research and Diagnostic Core Facility.

Real-time PCR is the most sensitive technique for nucleic acid detection via the generation of a fluorescent signal. Faculty established this laboratory to help researchers to detect infectious agents and gene expression in many species and to analyze nucleic acids.

About 80% of the output supports researchers, while 20% of the work involves diagnostic services to UC Davis clinicians and other veterinarians. During this year’s equine herpesvirus outbreak, for example, the lab offered an EHV-1 series to help veterinarians distinguish the neurotropic type of the virus from its non-neurotropic form. The team at this laboratory, led by Emir Hodzic, DVM, PhD, has developed more than 4,000 assays on diseases and genes.

Four fully equipped molecular biology laboratories allow sample preparation, extraction, laser capture microdissection, Real-time PCR assay generation, storage and analysis. The facility combines semi-automated throughput extraction systems and state-of-the-art, laser-based equipment. Experienced veterinarians also help interpret results and consult on canine, feline and equine infectious diseases.

Diagnostic technician Cara Wademan prepares samples for DNA extraction.

The personnel of this facility pride themselves on adhering to the highest quality standards and developing new methods relevant to wildlife, lab animals, humans, livestock and pets. In 2011, tests have been developed for bird sexing and for detection of Mycoplasma contamination in tissue culture; the group is now working on development of multiplex qPCR for foodborne pathogens.

More information is available at (530) 752-7991 or http://www.vetmed.ucdavis.edu/vme/taqmanservice.

Cattle Breathing Easier? Continued from page 1

calves prior to weaning. He will also manage a case-control study to distinguish genetic differences in calves with and without clinical BRD caused by common viral and bacterial pathogens. Grant funding will also support a 12-month veterinary internship in Tulare focusing on BRD clinical experience and research opportunities.

Laurel Gershwin, a veterinary immunologist and microbiologist, will be working with seven agents of bovine respiratory disease as part of the project. She will also collaborate on a case-control study to evaluate the effect of pain-controlling medication on the signs and behavior of cattle with and without BRD.

Cooperative Extension outreach activities and educational materials will relate to best management practices for beef and dairy cattle BRD control and prevention.

Genetic research, case-control studies and clinical training are aspects of the BRD project.
Leadership and Achievement
Continued from page 1

Ninety new ladder-rank faculty and more than 150 other scientists and lecturers have been recruited during Osburn’s three terms.

Osburn navigated through a rocky period of limited accreditation due to aging facilities and successfully guided the school back to full accreditation in 2004. He set a precedent for the university when he oversaw the planning, fundraising and construction of eight facilities designed to unite faculty and students and to promote research collaborations.

Osburn led efforts to secure new sources of funding, including a $2.5 million permanent state augmentation in 1998 and $200 million in donor funding. The school’s budget has now grown to $150 million per year.

Osburn was instrumental in starting the combined DVM/PhD degree program, a graduate student support program, and programs to encourage veterinary students to explore food animal medicine and research careers. He helped found the Master of Public Health degree program at UC Davis.

While president of the Association of American Veterinary Medical Colleges 2003-2005, Osburn launched national initiatives to build capacity at veterinary schools, establish veterinary loan repayment programs and increase federal research funding.

Most recently, he served as chair of the North American Veterinary Medicine Education Consortium board, focused on the nationwide coordination of veterinary curricula, resources, testing and licensing.

Marguerite Pappaioanou, executive director of the Association of American Veterinary Medical Colleges, says, “Dr. Osburn is one of academic veterinary medicine’s most important and influential visionaries. His leadership and tireless advocacy have had tremendous impact on veterinary education and the profession overall.”

Promoting Discovery

“Bennie Osburn leaves a remarkable record of research leadership in several areas, most notably bluetongue virus infection of livestock,” states N. James MacLachlan, faculty member and a former graduate student. “He also leaves a distinguished legacy of former graduate students who have risen to the upper echelons of academic institutions, government and the private sector throughout the world.”

Osburn completed his DVM degree at Kansas State University, a PhD in comparative pathology from UC Davis and a research fellowship at Johns Hopkins University. In 1970, he returned to the school as a faculty member and made key discoveries about food animal viruses, developmental immunology, congenital infections and food safety. He has published more than 280 peer-reviewed publications about health in sheep, primates, dairy cattle and other species.

Fostering research, Osburn led the infectious diseases unit of the California National Primate Research Center 1974-1980, served as associate dean for Research and Graduate Education 1976-1996 and as acting director of the Veterinary Medicine Teaching and Research Center 1985-1989.

Under Osburn’s leadership, the school’s research funding rose from $46 million in 1996 to $109 million in 2010. He helped launch joint ventures such as the UC Veterinary Medical Center – San Diego, the Western Institute for Food Safety and Security, and the FDA Western Center for Food Safety. Osburn was also instrumental in nurturing centers of excellence in comparative medicine, vectorborne diseases, animal welfare, regenerative medicine, wildlife, shelter pets, companion animals and horses.

Expertise and Experience

Osburn has frequently contributed expertise to universities, government agencies and professional organizations. For 35 years he has traveled to the U.S. Capitol to advocate for funding of veterinary research and education.

Osburn has also been invited to participate around the world in scientific collaborations, veterinary school planning, strategy development for the prevention and control of infectious livestock diseases, and discussions about how to apply biotechnology in agriculture and veterinary medicine. Among the more than 30 countries he has visited are Italy, Mexico, Brazil, India, Egypt and other African nations, Malaysia, Australia and Thailand. He has also cultivated international cooperation on educational projects in Iraq, Afghanistan and China.

“It has been my pleasure and privilege to serve as dean,” Osburn told faculty, staff and students when he announced his retirement late in 2010. “Leading this school has been one of the most rewarding challenges I have ever experienced, and together we have accomplished a great deal in a short amount of time.”
Ceremonial Groundbreaking for Veterinary Research Building

A ceremonial groundbreaking was held on April 29 at the School of Veterinary Medicine for a new four-story, 76,000-square-foot research building that will be dedicated to protecting and improving the health of animals, people and the environment.

As part of the celebration, some 15 talented dogs and their human handlers demonstrated their skills on an agility course. Katy Robertson of the Veterinary Genetics Laboratory organized and led the demonstration. Robertson and her dogs hold national agility championship titles.

Vision

Like the work of the agility teams, Veterinary Medicine 3B is the culmination of many working together to achieve a vision. The $58.5 million facility is the capstone for the first phase of the school’s ambitious building program. The new building, initially to be known as Veterinary Medicine Research Facility 3B, is being constructed in the health sciences district northeast of the teaching hospital.

“The location and design of Veterinary Medicine 3B will enhance student education and promote research collaboration and discovery,” said Dean Bennie Osburn.

“Researchers will focus on critical areas that are important to California and beyond.”

The facility design includes laboratories where researchers will explore a variety of animal-health issues such as environmental pollution; food safety; public health; and infectious diseases, including those that can be passed between animals and humans. It also will house Veterinary Medicine Extension specialists, food-safety monitoring and diagnostic systems, and biosecurity programs.

“When completed in December 2012, Veterinary Medicine 3B will provide modern, innovative research facilities and a platform for the School of Veterinary Medicine to continue rising to even greater heights,” said UC Davis Chancellor Linda P.B. Katehi.

Philanthropic Support Instrumental

Construction would not have been possible without the philanthropic support of generous donors who contributed $12 million toward this project.

The Wayne and Gladys Valley Foundation of Oakland, California helped launch the effort with a lead gift of $5 million. Other major contributors to the building include the S.D. Bechtel, Jr. Foundation, Frank H. and Eva B. Buck Foundation, Foster Poultry Farms and individual members of the School of Veterinary Medicine Dean’s Advisory Council.

On Friday, September 30, the Class of 1961 will start celebrating its 50th Anniversary Reunion with dinner at the Putah Creek Lodge. Each of the other classes will host a special gathering tailored just for them.

Tours of the newest education and research facilities and informal class gatherings will take place on Saturday, October 1, followed by a wine tasting at the new Robert Mondavi Institute of Food and Wine Science and an all-class celebration dinner.

On Sunday, October 2, the William R. Pritchard Veterinary Medical Teaching Hospital will offer the Third Annual Veterinary Practitioners Seminar, a continuing professional education event.

To learn about specific plans for your class and other information, visit http://www.vetmed.ucdavis.edu/alumni/reunions or call the Office of Development at (530) 752-7024.
 Veterinary Continuing Education
(530) 752-3905, Fax: (530) 752-6728
center4cpe@ucdavis.edu, www.vetmed.ucdavis.edu/ce

August 10, 2011
Behavior Webinar – Access anywhere the Internet is available.

October 2, 2011
3rd Annual Veterinary Practitioner Seminar, Davis. 
Presented by the faculty of the William R. Pritchard 
Veterinary Medical Teaching Hospital

October 22, 2011
Veterinary Minimally Invasive Procedure Symposium, 
UC Irvine.

November 2-9, 2011
George H. Muller Veterinary Dermatology Seminar, 
The Big Island, Hawaii. Contact: Sherry Cooper, 
(530) 752-1581, slcooper@ucdavis.edu

November 5-6, 2011
Practical Ultrasonography – Beginning/Review, Davis.

November 29 – December 6, 2011
Veterinary Endocrinology & Internal Medicine Seminar, 
Maui, Hawaii. Contact: Sherry Cooper, 
(530) 752-1581, slcooper@ucdavis.edu

December 10-11, 2011
Practical Ultrasonography – Beginning/Review, Davis.

February 4-5, 2012
Practical Ultrasonography – Beginning/Review, Davis.

New Funding for Poultry Vet

The California Poultry Industry Federation and the Pacific Egg and Poultry Association have pledged to provide half the funding for a full-time faculty position dedicated to poultry health. The faculty member to be hired will teach veterinary students about health and well-being in poultry of large commercial operations, smaller producers and hobbyists. The veterinarian will be experienced with the prevention and control of infectious diseases and food safety. He or she will design a collaborative research program emphasizing viral and other infectious diseases and perform clinical duties at the teaching hospital.