Vet Med III B Requires Bond Approval: Voters Decide November 7

Veterinary Medicine III B, an essential building block in the school’s $354 million long-range facilities plan, is poised for the next stage of construction.

Progress on this project, however, requires voter approval of California Proposition 1D on November 7, 2006.

A general obligation bond measure, Proposition 1D would provide critical funds in the Vet Med III B construction schedule.

Vet Med III B will house new research laboratories and offices for an estimated 55 faculty members now working in Haring Hall, with its outdated utilities and inadequate space.

John Pascoe, executive associate dean and principal overseer of the project, says, “Veterinary Medicine III B will be a focal point for research in both fundamental and clinical sciences. With its proximity to the Veterinary Medical Teaching Hospital, it will enhance collaboration among faculty members conducting investigations in the wide range of veterinary medical disciplines.”

Progress on this project… requires voter approval of California Proposition 1D.

Planners have already designed the building and outlined its electrical, plumbing, mechanical systems and utilities information. The design emphasizes a safe, secure workplace, energy-saving features, and flexible and efficient use of space.

“Laboratory space is designed to facilitate interaction and promote multi-disciplinary research to benefit animals, humans and the environment. The design promotes faculty-student research collaboration and will provide a stimulating, contemporary environment for discovery,” says Dr. Pascoe.

“This research building will bring the academic resources and research enterprise of the school together in one location, the Health Sciences District, for the first time in nearly 30 years.”

After the next planning phase begins in 2007, the project, estimated to cost

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School Enrolls 131 DVM Students in Class of 2010
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Dean Bennie Osburn welcomes Roxann Brooks, class of 2010, and her fellow DVM students with the school’s traditional White Coat Ceremony. Photos, Don Preisler; story page 3
more than $90 million, is scheduled for construction to begin in 2008. Campus officials estimate that, with approval of public funding and additional resources to come from private sources, Veterinary Medicine III B should be completed by 2011.

Veterinary Medicine III B will be a focal point for research in both fundamental and clinical sciences.

While opponents to the school bond measure argue against adding to the state debt, supporters—including the University of California Board of Regents and the Cal Aggie Alumni Association—say California needs to invest more in its education system.

Veterinary Medicine III B will foster new discoveries

Veterinary Medicine III B will bring together faculty members who carry out investigations in a wide range of scientific disciplines—in order to enhance animal, human and environmental health.

The school's faculty has repeatedly demonstrated how knowledge gained from basic and clinical research benefits humans and directly improves or saves the lives of countless animals:

Feline infectious peritonitis virus (FIP) and feline leukemia virus (FeLV) are isolated for the first time, leading to better understanding of the diseases and development of vaccines.

Neospora, the organism responsible for a high percentage of abortion in dairy cattle, is unknown and uncontrolled until discovered by a group of pathologists, parasitologists and epidemiologists.

Feline dilated cardiomyopathy, a fatal heart ailment, is shown through collaborative research to be due to dietary taurine deficiency. Further research in physiological chemistry and feline nutrition determines the taurine requirements of cats and defines the now recommended levels of taurine in commercial feline diets, saving thousands of lives.

A DNA probe is developed in the aquaculture laboratory to detect the parasite that causes whirling disease in trout.

The organism that causes human granulocytic ehrlichiosis, a sometimes fatal disease, is discovered to be a strain of the same rickettsial organism that causes Potomac horse fever and canine ehrlichiosis. In another collaborative study that includes entomologists, the ehrlichial agent is discovered to be transmitted by the black-legged tick, which also transmits Lyme disease bacteria.

The first canine elbow replacement, developed through orthopedic research, becomes available to patients.

Bartonella, the agent of cat scratch fever and a serious health threat to immunocompromised humans, is scientifically demonstrated to be transmitted to cats by fleas. Further studies indicate that ticks also carry Bartonella DNA.

A sling, collaboratively developed to protect horses during transport, provides skeletal support for horses recovering from injury or surgery such as leg fracture repair.

Research on the genetic basis for diseases leads to knowledge that can be used to prevent serious health problems in future generations:

- The first DNA test for hyperkalemic periodic paralysis in horses is developed, allowing HYPP carriers to be identified.
- The genetic mutation causing polycystic kidney disease in Persian cats is identified by collaborators in genetics and veterinary radiology, and a DNA screening test is developed to assist breeders in eliminating the gene from catteries.
- The spontaneous gene mutation in Maine Coon cats responsible for hypertrophic cardiomyopathy, a devastating heart disease in cats and a leading cause of sudden death in young human athletes, is identified through collaborative research.

A team of neuroscientists, immunologists, biochemists and physiologists shows for the first time that occasional exposure to the air pollutant ozone can change how the lungs of young rhesus monkeys develop, and can lead to a disease similar to childhood asthma in humans.
The class of 2010 crosses the threshold of Gladys Valley Hall, the instructional heart of the newly emerging veterinary campus in the Health Sciences District, to begin a week-long orientation program September 1.

Orientation included a class retreat—to focus on team building and leadership training—and introductions to academics, financial aid, clinical training, research opportunities and student activities. Instruction in the DVM program began September 11.

With the completion of Valley Hall, class size grew this year from 122 to 131 students, the full complement approved by the California Legislature in 1998. School officials welcomed the entering class with the traditional White Coat Ceremony. The coats identify students as members of the veterinary community and signify their transition into the profession.

Dean Bennie Osburn encouraged students to take advantage of the many opportunities that faculty and staff offer for academic and practical enrichment. He promised, “During the next four years, we will do our utmost to share our knowledge and clinical skills and provide you with the best veterinary education possible—it is the most important thing we do.”

Dale Moore, associate dean for student programs, introduced the class members. Jill Aschehoug Gallo, class of 2008 and president of the Student Chapter of the American Veterinary Medical Association (SCAVMA), placed a white coat on each.

Ms. Gallo said, “I challenge you to get to know one another. Your classmates will become your closest friends, a second family.” She acknowledged the difficult work ahead but advised, “Have fun. Don’t lose sight of the joy. Remember how excited you were today. You are walking the path you envisioned.”

Jan Ilkiw, associate dean for academic programs, emphasizing the responsibilities of the veterinary profession, said, “We are the stewards of ‘all creatures great and small.” In exchange for a lifelong commitment to competence, integrity, compassion, tolerance and other attributes of the profession, she said, society grants the profession considerable control and autonomy. However, veterinarians are always accountable to the society they serve.

To conclude the ceremony, Dean Osburn led the students in a recitation of the Veterinary Medical Student Oath, a pledge in which students dedicate themselves to their education and “the protection of animal health, the relief of animal suffering, the sustaining of animal resources, the promotion of public health and the advancement of medical knowledge.”

SCAVMA, Hills Pet Nutrition, Inc., and the School of Veterinary Medicine sponsor the White Coat Ceremony and related orientation activities. Merial and IAMS also support selected orientation events.

Dale Ann Moore, DVM, MPVM, PhD, was appointed associate dean last July to lead the Office of Student Programs. Dr. Moore administers pre-veterinary advising, admissions and academic advising programs for the school. She also oversees scholarships, student events and activities, career services and the Master of Preventive Veterinary Medicine degree program.

Dr. Moore joined the faculty in 1998 as a dairy veterinarian and epidemiologist based at the Veterinary Medical Teaching and Research Center in Tulare. She teaches students both in Tulare and Davis, and has conducted research on dairy epidemiology and educational outcomes assessments. Dr. Moore is a member of the USDA’s Advisory Committee on Foreign Animal and Poultry Diseases, and she will remain a collaborator in the National Center for Foreign Animal and Zoonotic Disease Defense, providing educational programs and engaging in research related to homeland security.

Meet the Class of 2010

In keeping with gender ratios in recent years, the class of 2010 includes 103 women and 28 men. The average age of the students at the time of admission was 26—the youngest student was 19 years old, and the oldest, 41.

Most students (125) are California residents. Forty-six of the incoming students graduated from UC Davis, 29 from other UC campuses, 20 from California State Universities, and six from other California colleges. Thirty students attended out-of-state institutions.

Twelve students entered the professional program having already earned master’s or doctoral degrees. Five incoming students have been accepted into the Veterinary Scientist Training Program, which provides academic and financial support to students pursuing concurrent DVM/PhD degrees (see story, page 4).

Students reported the following areas of interest: small animal and avian/exotics (47), equine (25), research and academics/teaching (15), zoo or wildlife (11), mixed, large or food animal (20), small/equine (6), and laboratory animal (6).

Prior to admission, successful applicants completed an average of 3,500 hours of veterinary-related experience. Five of the incoming students gained practical experience and specialized training in a paid five-week externship, the Early Veterinary Student Bovine Experience Program, designed to encourage interest in food animal medicine practice.

The student body includes one African-American/black, 13 Asian, 78 Caucasian, 14 Hispanic/Mexican-American/other Spanish, and three multi-ethnic individuals. Twenty-two students did not report their ethnicity.
Veterinary Scientist Training Program

A Winning Combination: Clinical and Research Education

Veterinary student Brian Leonard possesses many talents—he sings and plays guitar. At the School of Veterinary Medicine, it’s Leonard’s ability to work in two scientific worlds that sets him apart.

Scheduled to graduate with his Doctor of Veterinary Medicine degree in 2010, Leonard is also working toward a doctorate in comparative pathology.

To prepare future faculty members and other researchers to fill a growing need in the workforce, the Veterinary Scientist Training Program (VSTP) began with four students in 2002.

The program provides financial support for up to seven years and a flexible course of study to students pursuing concurrent DVM and PhD degrees. Twelve veterinarian-scientists, including six accepted in 2006, are enrolled.

“We have a great pool of highly competitive applicants with a wide variety of experiences and backgrounds,” says Professor Fern Tablin, VSTP director.

Funding comes from several sources, according to Kent Lloyd, associate dean for research and graduate studies. “The school has been fortunate. We have been able to provide graduate support from government (NIH), industry and philanthropic individuals for veterinary students on the research path.”

Students may enroll in any graduate group and find mentors in more than 25 departments and centers. Leonard’s work involves studying viruses, specifically the herpes virus, in multiple animal species.

VSTP graduates are entering the workforce at the right time.

In addition to coursework and research, regularly scheduled colloquia and retreats promote interaction and insight, says Leonard. “The UC Davis collaborative environment provides a great opportunity to learn a tremendous amount just by knocking on someone’s door. I have gotten a chance to meet with emergency and critical care veterinarians, oncologists, pathologists, virologists, hematologists and wildlife veterinarians. All have provided unique and interesting points of view into my research in cats.”

With their mentors’ guidance, dual-degree students lay out their academic plans and switch DVM program tracks for the selected years during which they concentrate on their research.

As the program develops, Dr. Tablin notes that, besides identifying DVM candidates with research interests, program officials hope to recruit PhD students to enter the DVM program.

“With their demonstrated academic orientation, these are logical people to fill positions in veterinary schools in the basic sciences,” she says.

Several students have completed both degrees and moved on to clinics, research institutes and universities. For example, Cara Field, whose interest in marine mammals guided her research, is working at Mystic Aquarium in Connecticut.

Sarah Thomasy and Joyce Riehl, with their advanced training in pharmacology/toxicology, are now seeking clinical experience and academic positions, while both Joyce Riehl and Kristin Evans are directing their careers toward laboratory animal medicine.

Veterinarians choosing research careers… are increasingly in demand.

VSTP graduates are entering the workforce at the right time, says Dr. Lloyd. “A wave of veterinary faculty is retiring across the country. Many are leaders in research fields related to diseases shared by animals and humans. With many societal needs for solutions to complex health problems of people and animals, veterinarians choosing research careers as an alternative to private practice are increasingly in demand.”

Leonard says, “Through all of my education and experiences, becoming an academic veterinarian is the best career for me. I enjoy interacting with animals and their owners as well as investigating their ailments in a very involved fashion.”

Dr. Lisa Miller (left), human health scientist at the California Regional Primate Research Center, is VSTP faculty mentor to Debbie Chou (DVM 2005), who is working to complete a PhD in comparative pathology.

Dr. Chou’s doctoral studies focus on how asthma develops in infancy, when most lung development takes place, using the rhesus monkey as an animal model. She says, “I want to combine clinical and research work as a faculty member at a teaching hospital.”
Dietary Holiday Hazards

Protect Your Dog or Cat throughout the Holidays—and Year Round

While pets will not normally sample dangerous edibles like Christmas pudding doused with flaming brandy, there are still a number of dietary hazards—from toxic substances to everyday human foods—to avoid over the holidays and throughout the year.

Dr. Scott Campbell, WALTHAM Specialist in Clinical Nutrition at the Veterinary Medical Teaching Hospital, offers the following guide to protecting your dog or cat from hazardous substances:

**Hazardous Human Food Items**

The dangers of feeding your pet various human foods extend beyond the risk of expanding his or her waistline. A number of research studies have reported the toxic potential of many common ingredients when fed to dogs or cats.

Grape and raisin ingestion can cause kidney failure in both dogs and cats. Macadamia nut ingestion has been associated with weakness and tremors in dogs. Chocolate, tea, cola and cocoa beans contain theobromine, which dogs and cats do not metabolize efficiently. Ingestion of these ingredients can cause gastrointestinal upset, cardiac arrhythmias and seizures. Animals ingesting foods containing garlic or onion may develop anemia secondary to oxidative damage to the red blood cells and altered platelet function.

Food products containing xylitol or propylene glycol may also have detrimental effects in pets and should be avoided. Other potentially dangerous ingredients for dogs and cats include caffeine, salt and uncooked yeast dough.

**Harmful Household Items**

Access to items such as bones, candy wrappers, aluminum foil, plastic wrap or ribbons can also be a problem for dogs and cats, as such items may become lodged in the mouth, esophagus, stomach or intestine if eaten. Ingestion of prescription (anti-inflammatory agents, sedatives, diet pills, vitamins, etc.) or recreational drugs (alcohol, nicotine, marijuana, etc.) can be life threatening to pets.

Toxic plant material (lilies, castor beans, cycad palm, mold, toxic mushrooms, mistletoe, holly, oleander, etc.) or contaminated water from various sources can also pose a problem for your pet if ingested. Other household items (antifreeze, rat bait, slug or snail bait, herbicides, strong pesticides, lead paint, batteries, fertilizer, glue, etc.) can also pose a year-round risk to pets.

**Dietary Considerations**

Rapid alterations in the nutrient profile of the diet (the amount of fat, protein, carbohydrate or even moisture in the diet) can result in gastrointestinal upset manifesting as vomiting, diarrhea, gas or abdominal discomfort. In many cases these upsets may be resolved after a period of withholding food, but in the most dramatic occurrences, conditions such as pancreatitis or dehydration can occur, making the situation much more serious. Consistency of the feeding plan is particularly important in dogs and cats with existing diseases.

Proper food preparation is always important. Raw, undercooked or improperly stored meats can be a source of microbial infection. Raw egg white contains the glycoprotein avidin, which can create a biotin deficiency if fed regularly.

As a general rule, treats should supply less than 10 percent of the total daily calories ingested to prevent unbalancing the daily diet, to minimize undesired weight gain and to reduce the risk of a pet developing finicky eating habits.

While your companion animal may beg for that last bit of your dinner, show your love with a hug or some dedicated play time instead. Making the additional effort to keep your dog or cat’s diet and surroundings free of hazards will help to ensure that your pet also enjoys a happy holiday!
Introducing...
The School’s Newest Faculty Members

Robert Brosnan
Assistant professor, Surgical and Radiological Sciences
Education
PhD, physiology, UC Davis, 2002
DVM, UC Davis, 1999
Experience
Diplomate, American College of Veterinary Surgeons
Resident, veterinary anesthesia and critical patient care, UC Davis, 2000–01
Intern, small animal medicine, Tufts University, 1999–2000
Specialty
Anesthesia

Kei Hayashi
Assistant professor, Surgical and Radiological Sciences
Education
PhD, comparative biomedical sciences, University of Tokyo, 1997
MS, veterinary science, University of Wisconsin, 1994
DVM, BVMS, University of Tokyo, 1993
Experience
Diplomate, American College of Veterinary Surgeons
Resident in small animal surgery, University of Wisconsin, 2000–03
Specialty
Small animal orthopedic surgery

R. Scott Larsen
Assistant professor, Medicine and Epidemiology
Education
MS, clinical sciences, epidemiology, Colorado State University, 1999
DVM, Colorado State University, 1995
Experience
Diplomate, American College of Veterinary Surgeons
Resident and clinical fellow, small animal surgery, UC Davis, 2000–04
Intern, small animal surgery, Colorado State University, 1999–2000
Specialty
Small animal orthopedic surgery

Sarah Puchalski
Assistant professor, Surgical and Radiological Sciences
Education
DVM, Western College of Veterinary Medicine, University of Saskatchewan, Canada, 1999
Experience
Diplomate, American College of Veterinary Radiology
Resident in radiology, UC Davis, 2001–05
Specialty
Diagnostic imaging

Allison Zwingenberger
Assistant professor, Surgical and Radiological Sciences
Education
DVM, Ontario Veterinary College, University of Guelph, Canada, 1995
Experience
Diplomate, European College of Veterinary Radiology
Resident in radiology and lecturer, M.J. Ryan Veterinary Hospital, University of Pennsylvania, 2001–04
Specialty
Diagnostic imaging

Rachel Pollard
Assistant professor, Surgical and Radiological Sciences
Education
PhD, comparative pathology, UC Davis, 2005
DVM, Washington State University, 1999
Experience
Diplomate, American College of Veterinary Radiology
Consulting radiologist, Berkeley Dog & Cat Special Veterinary Services, Bay Area Veterinary Specialists and Carson-Tahoe Veterinary Hospital, 2001–04
Resident in radiology, UC Davis, 1997–2001
Intern in small animal medicine and surgery, Animal Medical Center, NY, 1996–97
Specialty
Diagnostic imaging

Betsy Vaughan
Assistant clinical professor, large animal ultrasound, Surgical and Radiological Sciences
Education
DVM, Colorado State University, 2002
Experience
Resident, large animal ultrasound, UC Davis, 2003-05
Intern, Peterson and Smith Equine Hospital, Ocala, FL, 2002–2003
Specialty
Equine ultrasonography, large animal abdominal ultrasonography, and soft tissue injuries in horses

Margo Mehl
Assistant professor, Medicine and Epidemiology
Education
DVM, Washington State University, 1999
Experience
Diplomate, American College of Veterinary Surgeons
Resident in small animal medicine and surgery, Animal Medical Center, NY, 1996–97
Specialty
Diagnostic imaging

Zwingenberger
Assistant professor, Surgical and Radiological Sciences
Education
DVM, Western College of Veterinary Medicine, University of Saskatchewan, Canada, 1999
Experience
Diplomate, American College of Veterinary Radiology
Resident in radiology, UC Davis, 2001–05
Resident, intern, field service and sports medicine, New Bolton Center, University of Pennsylvania, 2001–04
Associate veterinarian, People’s Dispensary for Sick Animals, Nottingham, England, UK, 1997–98
Large animal intern, College of Veterinary Medicine, University of Georgia, 1996–97
Associate veterinarian, Murdock Veterinary Services, Prince George, British Columbia, Canada, 1995–96
Specialty
Diagnostic imaging
A Celebration of Alumni—Five Decades

Alumni of the School of Veterinary Medicine classes of 1956, 1966, 1976, 1981, 1986 and 1996 and their families returned to UC Davis September 16 to celebrate Alumni Day, followed by the school's Fall Symposium on Recent Advances in Clinical Veterinary Medicine September 17 and 18.

Jerry Kaneko ('56), Barry Rathfon ('66), Lynn McEwan ('76), Joe Thibedeau ('81), Joie Watson ('86), and Mary Beth Whitcomb ('96) led the reunion planning committees for their respective classes. Alumni Day festivities included local and campus tours, lunch with the dean and a barbecue dinner.

Members of the class of 1956, celebrating 50 years since earning their DVM degrees, attended a special dinner in their honor and carried on the tradition of the Rose Ceremony, a solemn reflection in celebration of their veterinary careers and in memory of their deceased classmates. The class has been holding annual reunions for the last 25 years.

Because the School of Veterinary Medicine and the profession have been such an important part of their lives, several alumni organized class gifts to the school to foster continued excellence in educating veterinarians and veterinary scientists.

The class of 1956 presented Dean Osburn with a gift of $35,000, directed toward construction of the new Gladys Valley Hall and its MPVM computer lab. The class of 1966 presented the school with a class gift of $15,000 directed toward completion of the new group study room in Valley Hall.

PHYSICAL REHABILITATION

K-9 OFFICER TAZ WALKS AGAIN AFTER INJURY

Taz, a K-9 officer for the Sacramento Police Department until an on-the-job fall last April paralyzed his hind legs, is now walking unaided, says Jackie Woelz, MS, PT, who heads the school’s Physical Rehabilitation Service in the Center for Companion Animal Health.

The 7 1/2-year-old German shepherd, who has exhibited his skills at Picnic Day the last two years, had surgery April 18 at the school’s Veterinary Medical Teaching Hospital to relieve pressure on his spinal cord caused by a herniated disc. The dog, along with his human partner, Officer Hans Merten, then began working with Ms. Woelz, a licensed physical therapist who specializes in animal rehabilitation.

“Taz is doing much better, and is walking independently,” says Ms. Woelz. “He had a very serious injury. At first he had to be held up to stand, and needed assistance with every step—at one phase walking with the aid of a cart to support his hindquarters. He has steadily progressed through a program of training and strengthening. He’s redeveloped great muscles for strength and balance, and appears to be really happy.”

Taz is now in therapy with the underwater treadmill, training against resistance and working to develop good postural control.
A School of Veterinary Medicine and Center for Companion Animal Health program dedicated to improving the health and well-being of shelter animals received a $1 million grant in July from Koret Foundation Funds of San Francisco.

The UC Davis Koret Shelter Medicine Program—as it will be known during the course of Koret's five-year funding commitment—is the nation's first program to emphasize shelter medicine as a veterinary specialty.

"This grant from Koret Foundation Funds will allow us to expand our shelter outreach and consultation services while training veterinary students and residents in this emerging specialty," says Kate Hurley, director of the program. "Koret's support comes at a pivotal time. We are training more students and residents than ever, and as shelters from across the country learn of our services and special expertise, their shelter staffs are seeking help with their critical animal health and management issues. This past year we responded to more than 500 consultation requests."

In addition to preparing veterinarians for careers in shelter medicine, Koret's support will provide expanded consultation services nationwide and allow shelter medicine specialists to pursue scientific research that will improve the welfare of animals in shelters.

The Koret Foundation and the Koret Fund are private philanthropic organizations run by independent boards of directors. Since 1979, the boards have directed more than $355 million toward projects that reflect a new philanthropic vision for Northern California.

Koret has previously supported the Center for Companion Animal Health to create the Koret Foundation Center for Veterinary Genetics as well as the veterinary student exchange program with the Koret School of Veterinary Medicine at the Hebrew University of Jerusalem in Israel.

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