



VETERINARY

executive report

"Crocodile Hunter" Comes to WSU

WSU's College of Veterinary Medicine
the REAL star.

Steve Irwin, known worldwide as the "Crocodile Hunter," came to Washington State's College of Veterinary Medicine this spring to shoot several episodes of his new television show "New Breed Vets."

The show focuses on cutting edge technology and the work performed by front line veterinarians in saving animals.

"Sensational, mate" said Irwin, "You have as fine a facility as you can get in the world. I know. I've traveled the world over. I think the people I've met here really grasp how to best use this state-of-the-art technology"

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Steve Irwin meets the new cubs.

Secret to Infant Heart Elasticity Discovered Body's Largest Protein Found

Titin is a giant, spring-like protein that helps give all muscles their elastic recoil. It also gives the heart its ability to retain its shape after each beat.

Exciting veterinary research conducted at Washington State University reveals an "unusually large" form of titin in nearly born and newborn children that makes their growing hearts more elastic than that of an adult.

Sunshine Lahmers, a veterinary cardiology resident and graduate student in Professor Henk Granzier's laboratory, made the discovery with a team of WSU researchers. The work was published in the March 2004 issue of *Circulation Research*, a top medical journal.

The work has been cited as a remarkable sustained collaboration, centered in WSU's College of Veterinary Medicine and funded by the American Heart Association and the National Institutes of Health. The goal is to understand differences and similarities in heart development and disease among species. The work shows promise for a greater understanding of heart disease and heart muscle maturation.

To learn more about WSU's research with titin, check out the complete story at www.vetmed.wsu.edu and click on "What's New?"



Sunshine Lahmers



Henk Granzier

Inside...

- ABC comes to WSU
- Congressman's dog treated
- WSU wins Veterinary Olympics!

From the Dean...



Dean Warwick Bayly

Graduation is an exciting time at the Washington State University College of Veterinary Medicine. Students shed their book bags and apartments, eager to enter the world as veterinary medicine professionals. Unlike previous classes, this year's DVMs will be taking something new with them.

Leadership is a skill we have been promoting in our DVM curricula, beginning with the first day of class. For us, this means teaching better communication skills, the value of effective teamwork, and compassion in all its various dimensions. The importance of listening with empathy, and speaking clear thoughts that are

easily understood is the core of the effort. It means developing and enhancing emotional intelligence with coping skills for handling the new stresses of an ever changing world. It means understanding why non-technical skills in these areas can be equally important to the critical knowledge base they have learned these past four years.

We think this is critical to developing better, brighter, more understanding veterinarians and scientists who serve society and its animals more effectively and for longer in their careers. As a college we include these skill sets within our benchmarking sessions, a method of self-assessment that sets high, yet attainable, goals that can be quantified. Benchmarking is critical to our strategic plan's success. Although much of what we do for students and the profession was developed in WSU's veterinary college, more peer veterinary and medical institutions are promoting these skill sets.

In many ways, these new non-technical competencies are following a model established by medical schools across the country. Many insurance carriers have learned that at the heart of most malpractice cases can be found a basic lack of communication skills. In recent years, medical schools have found that increasing scientific needs have been pushing out skills such as empathetic counseling, ethics, business ideology, and essential client communication skills. Veterinary schools must be cautious and continue to include these skills.



The benefits of these new leadership skills is boundless. With a changing dynamic in the way people treat their companion animals comes a new model in veterinary practice. New skills will help vets better determine if recommended treatment plans are being followed. Better understanding of the grieving process will help in the counseling of owners. Better skills in communication can lower "burnout factors" in the workplace, making the profession more efficient, more productive, and even more profitable.

WSU College of Veterinary Medicine is proud to be on the forefront of fully integrating these skills into our entire curricula. The class of 2005 leaves here as the first graduates exposed to this new way of critical thinking, communicating, and caring. We believe they represent the future of veterinary medicine.

Leadership Gift



Dr. Richard DeBowes

Washington State University's College of Veterinary Medicine has been awarded a \$300,000 grant by the American

Veterinary Medical Association to support its novel "Veterinary Leadership Program."

"The Veterinary Leadership Program is designed as an interactive learning experience that highlights the essential elements of leadership we know to be vital to success in the profession," said **Dr. Richard DeBowes**, chair of Veterinary Clinical Sciences. "We highlight the core leadership principles, including emotional intelligence and communication, that are critical for today's veterinarians to effectively serve society and our animals."

These funds are in concert with the foundational support of Hills Pet Nutrition and a \$50,000 gift from the Group Health Life Insurance Trust.

The College of Veterinary Medicine's comprehensive, integrated curricula is among the first in the nation to support leadership cultivation and enhancement by making these essential skills available to students in a variety of courses.

For more information, see www.vetmed.wsu.edu/orgvle/.

“Lights, Camera...wait, catch that Grizzly Cub!”

Grizzly Bear Research Gains National Attention

An estimated 10 million viewers tuned in to watch WSU’s **Dr. Lynne Nelson** describe her groundbreaking cardiac research with grizzly bears. The stories aired on both *Good Morning America* and *World News Tonight*.

The real challenge came in trying to get the two newest additions to the study, Peek-a and Kio, a pair of 11-week-old grizzly bear cubs, to cooperate with the television crew. Fortunately, the other two young bears, Mica and Luna, have become seasoned pros at holding still for such critical steps as using an ultrasound to measure their heart function.

“We came here to video these cute bears, but it turns out the science behind this study is solid,” said ABC reporter Neal Karlinsky. Dr. Nelson’s work focuses on cardiac changes in bears during hibernation. “The anatomy of a grizzly bear is close to that of a human,” said Nelson. “If we can learn how the heart



ABC Reporter Neal Karlinsky

recovers from hibernation, then we may unlock secrets that will help human patients suffering from heart disease.”

“Crocodile Hunter” *continued from page 1*

Talks with Jay Leno

Irwin spent time in the WSU Bear Research Center with a pair of young grizzly bears, Mica and Luna, in a cardiac research project by WSU CVM’s **Dr. Lynne Nelson**. With a videographer in tow, Irwin watched as Dr. Nelson’s team performed an ultrasound on the groggy bears still deep in the slumber of their winter’s hibernation. Dr. Nelson’s work in understanding how the bear’s hearts naturally repair themselves when they wake in the spring could provide new insights into human heart disease. Going into the den, the bear team was apprehensive. But those fears disappeared quickly when Mica decided to crawl into Irwin’s lap, and went to sleep.

“It was amazing,” said Dr. Nelson, “There are really only one or two people Mica has warmed up to, and there she was lying in his lap, and sucking on her thumb.” The incident so moved Irwin that he spoke about it a few days later on the *Tonight Show*. “It was the most amazing thing,” Irwin told Leno.

Whirlwind tour

The video crew followed along as the CVM’s Avian and Exotic Animal Medicine and Surgery specialists, **Dr. Erik Stauber** and **Dr. Nikol Finch**, used the MRI to examine Snowy, a 3 year old bald eagle with an injured wing. The exam showed that the

raptor can never be released into the wild, but will now be used in a teaching program.

Later, Irwin was treated to the latest diagnostic and treatment programs available at WSU for horses. Equine Surgeon **Dr. Kelly Farnsworth** led the Irwin team through an MRI of a quarter horse suffering from chronic lameness, while soft tissue specialist **Dr. Claude Ragle** used a laparoscope on a Thoroughbred race horse while it was running at full speed on the college’s treadmill to diagnosis the equine athlete’s breathing problems.

People are the real asset

In all, Steve Irwin was in town less than 24 hours. Yet what impressed him the most was not the latest high tech developments in helping animals—it was the people he met. “For me, I’m on the outside,” said Irwin. “You have the best facility here, among the greatest in the world, but what really gets me is the people. You’ve got really passionate people.”

The visit to WSU’s College of Veterinary Medicine will soon be seen worldwide. The crew expects to see at least four segments that will air on the show *New Breed Vets* set to debut on the Discovery Channel or its subsidiary Animal Planet. “I reckon what we shot—the bears, the horses, the bald eagle—will all be shown,” said Irwin.

“Thanks for having me, thanks to everyone.”



Volunteer Kristi Ilyankoff shows Irwin “Piper.”

Grizzly Bear Hibernation and Heart Function Study

By **Dr. Lynne Nelson**

Luna and Mica, two hand-raised grizzly bears, have been participating in a study designed to evaluate a bear's heart function during hibernation. The cubs routinely have echocardiograms performed to assess the heart rate and rhythm, how much blood the heart chambers are pumping, and how well the heart muscle contracts and relaxes. The bears are studied once a month in the summer and three times during the hibernation period (from mid-October to March). They have just completed their second winter in the project. We also have two new cubs, Kio and Peekka, born this spring, that will be joining the project.

The research has shown that the bears have a decrease in their heart rates from around 90 beats per minute in the summer to about 18 beats per minute in the winter (a range of 8-24 beats per minute). In people, heart rates this slow would cause congestion and heart failure to occur, usually within a matter of weeks. The bears show no signs of congestion even after 4 or 5 months of slow heart rates.



Even though heart muscle contraction appears normal, the heart muscle's ability to relax and accept blood volume appears enhanced. This adaptation may help the bears' heart chambers cope with the increased stress on the muscle that likely develops



Dr. Nelson performs an ultrasound on a grizzly bear.

during the long pauses between heart contractions during slow heart rates. The enhanced relaxation of the muscle could help avoid congestion and congestive heart failure. In addition, early protein analysis suggests that the heart muscle becomes stiffer, which may help the muscle avoid excess stretching during the slow heart rate period.

In people, it is well recognized that the symptoms of heart failure occur more frequently due to abnormalities in heart relaxation, rather than contraction or pumping. Heart failure is also often accompanied by changes in heart muscle stiffness or elasticity. We are evaluating the mechanisms by which bears can adapt to the hibernation period and believe that these adaptations may be applicable to treatment for humans and animals with heart disease.



Dr. Guy Palmer

WSU Veterinary College Lands \$1.8 Million Grant

Disease researchers in Washington State University's College of Veterinary Medicine have been awarded more than \$1.8 million from the Wellcome Trust.

The funding will be used to continue vaccine development for animal diseases that severely limit health, nutrition, and economic growth in poorer countries.

The Wellcome Trust is the world's second largest non-governmental supporter of biomedical research. Only Bill and Melinda Gates' foundation gives more.

Professor Guy Palmer, based in the Department of Veterinary Microbiology and Pathology, is the \$1,805,004 grant's principal investigator.

Palmer's research group for the grant will include faculty and staff at WSU, the University of Florida, and at two international institutions in Mexico and Argentina.

Palmer's work is one part of an extraordinary vaccine research effort at WSU's veterinary college that has been building for more than two decades. The group's efforts are directed toward vaccine development for animal diseases caused by tick-borne parasites. Currently, the global cost of tick-borne diseases is estimated to range between \$13.9 and \$18.7 billion annually.

Palmer's group and his international colleagues are focusing on a novel and potentially more effective way to produce better vaccines without many of the risks and trade restrictions.

To read more about the Wellcome Trust funding of WSU's remarkable vaccine research, read the entire story online at www.vetmed.wsu.edu/execreport.

Message from the Director of Development



Norma Fuentes

After working on our new strategic plan, we have a new dynamic concept:

"We're listening."

Many of you have expressed concerns about responding to development opportunities on the west side of Washington, when all of our resources are centered in Pullman. This is all about to change.

Beginning in June 2005, I am relocating my office to WSU West. This will establish our first key presence in the Puget Sound to provide better access and bet-

ter response to opportunities when they arise.

This is part of the Dean's new outreach plan to better connect the College to the state's largest population center. Currently, we are undergoing a marketing campaign review to answer several troubling questions we have often faced, including *"Do most people on the west side know that the WSU College of Veterinary Medicine exists?"* A review of clinical cases shows we receive

more referrals from Montana than from western Washington. We are also developing new and innovative ways to better get our message out.

We are excited about the Dean's leadership position in this matter. It takes a proactive stance, rather than a reactive stance, a necessary position for the College.

The evidence is clear. State support of higher education continues to fall to record lows. We must take aggressive measures to ensure our viability for the future. The first step is providing better access. The next is to seize opportunities as they arise.

My fellow development colleagues will continue to be housed in Pullman. However, effective June 30, this will be my new contact information:

College of Veterinary Medicine—Norma Fuentes

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Tucker Treated for Cancer

Golden Retriever owned by Rep. George Nethercutt



In the middle of his campaign bid for the U.S. Senate, Congressman George Nethercutt received bad news. His family's five year old Golden Retriever, Tucker, had been diagnosed with cancer. A tumor the size of your thumb had appeared above the teeth in his upper jaw. The news hit the family hard, coming on the heels of

the recent loss of Chestnut, an eight year old Golden Retriever who suffered from cancer in his shoulder. Chestnut was featured prominently in television ads during Rep. Nethercutt's reelection campaign two years ago. "We were very surprised and disappointed," wrote Nethercutt.

Family turns to WSU's CVM

The Nethercutts turned to WSU's College of Veterinary Medicine for answers. Veterinary oncologist **Dr. Janean Fidel** recommended a vigorous radiation treatment using the college's linear accelerator.

"This is the same equipment used in human medicine," said Dr. Fidel. "He's a sweet dog. It really seems like it's the nice dogs that get bad tumors."

A mild anesthesia was used to keep Tucker still so that the photon beams could be specifically targeted into the tumor. At the end of his therapy, the tumor had been shrunk down to



Dr. Fidel prepares Tucker for treatment.

smaller than the size of a pea. "His type of tumor is one that has a good probability of responding well to the treatment," Dr. Fidel said.

Tucker is one of 130 animals to receive treatment from the linear accelerator this calendar year. This service is rare at veterinary institutions. "We are so grateful for the services of the College of Veterinary Medicine," writes Nethercutt. "Tucker is a good dog with lots of personality, and we are committed to his good health, and hopefully a long life."

Awards



Dr. Roger O. McClellan ('60) has been awarded the 2005 Highest Merit Award by the Society of Toxicology for his outstanding scientific career. He is a leader in directing and advancing key issues in toxicology and human health risk analysis. Just six years after graduating from the WSU CVM, **Dr. McClellan** assumed leadership of the Lovelace Inhalation Toxicology Research Institute. He currently chairs the WSU CVM Dean's Advisory Council.



Dr. Matt Mickas ('97) has accepted a clinical track appointment at the Community Practice Center in WSU CVM's Teaching Hospital. He will fill the position vacated by Dr. Veronica Kiklevich who had been his mentor while attending college here. "It just seemed that when I arrived, I had returned home," said Dr. Mickas.



Dr. Robert Schneider has been awarded the prestigious four-year Robert B. McEachern Distinguished Professorship in Equine Medicine. Schneider is the immediate past president of the American College of Veterinary Surgeons. "I'm honored to be recognized with such a prestigious distinguished professorship," Schneider said, adding "We'll use the financial support from the McEachern professorship to train a resident veterinarian in equine sports medicine."



Dr. Harmon Rogers, clinical director for the WSU College of Veterinary Medicine's Teaching Hospital, has been honored with the prestigious Innovative Veterinary Diets Award from the American Association of Animal Hos-



pitals. The award is granted to someone who has "...been in the forefront of the veterinary profession during the last five years by giving of this individual's self and knowledge to the betterment of the veterinary profession."

Dr. Ahmed Tibary has been chosen by the Class of 2005 as this year's recipient of the Carl Norden Distinguished Teacher Award.



Dr. Fletcher Hahn ('64) has been honored with the WSU CVM 2005 Distinguished Veterinary Alumnus Award for Excellence in Teaching and Research. His research has made outstanding contributions to understanding the pathogenesis of pulmonary diseases produced by inhaled radioactive and chemical agents. He is considered an international expert on evaluating pathological changes in critical studies used to evaluate human health risks.



Dr. Thomas Newland ('54) has been honored with the WSU CVM 2005 Distinguished Veterinary Alumnus Award for Excellence in Veterinary Practice. Through the years, his "hospital in the round" designs have been described as "revolutionary" and have been incorporated by veterinary architects for years.



Dr. Marvin Prentice ('51) has also been honored with the WSU CVM 2005 Distinguished Veterinary Alumnus Award for Excellence in Veterinary Practice. His groundbreaking work in the field of doctor-patient communications became a standard that has helped lead to new veterinary licensing requirements in several states.

WSU Dominates Veterinary School Olympics

Washington State University veterinary students recently brought home the 2005 gold medal for overall team competition in the national Veterinary School Olympics.

"WSU consistently places well in the academics, but this time the points counted toward an overall winner" said student competitor Tony Parsons. "Not bad for a WSU team with less than half of the team members from competing institutions." The competition involves both mind and muscle in a number of academic and athletic competitions. WSU's lone athletic point



Chadwick Hunt and Hattie Kugler in Anatomy Competition.

came from a second place finish in darts.

Perhaps the biggest boost came from first year students Hattie Kugler and Chadwick Hunt who placed 2nd and 3rd respectively in anatomy, despite not having taken that course.

"We couldn't be prouder of our students, even without this competition," said Warwick Bayly, dean of the college and a fixture at WSU Cougar athletic events. "Collectively they are fine young adults by any measure. It provides tangible proof of the effort our students and faculty put into the DVM curricula. But I love it especially when WSU wins any competition."

In all, 49 students from WSU's College of Veterinary Medicine made the trip. The annual event, sponsored by the Student Chapters of the American Veterinary Medical Association, invites all of North America's 32 accredited veterinary colleges to send students for the competition.

Hands-on Alpaca Clinic

A birthing seminar for Alpacas brought in the largest crowd of animal owners in years to the WSU College of Veterinary Medicine. This is not surprising given the importance of the subject to many breeders. Presented by theriogenology specialist **Dr. Ahmed Tibary**, resident **Dr. Cheryl Fite**, and lead Ag Animal Instructional Technologist **Shirley Sandoval LVT**, the clinic focused on making sure the birthing process goes smoothly. Dr Tibary says one of the biggest problems is making sure the animal is pregnant in the first place. "You'd be surprised," said Dr. Tibary. "We often see owners waiting and waiting for a cria (young alpaca) that is never coming."

Models were used to give owners a realistic "hands-on feel" to make sure the birthing process goes smoothly. The emphasis was on how to recognize that there is a problem and call for veterinary help. The clinic came about at the request from the Palouse Alpaca Cooperative Association who saw a need in this area for additional expertise.

"One of the best things we can teach is recognizing problems to help catch a birthing emergency in its early stages," said Dr. Tibary.

The event was so popular that future such clinics are now being considered.



Dr. Tibary demonstrates new hands-on techniques.



Dr. Lindsay Oaks

Vulture update

India has moved to phase out a painkiller used to treat livestock that has been linked to the catastrophic decline of vulture populations. The connection was first made by **Dr. Lindsay Oaks** of the WSU College of Veterinary Medicine.

Evidence shows that the vultures died of a kidney ailment known as visceral gout caused by the painkiller diclofenac. The birds ingest the painkiller when they feed on the carcasses of animals treated with the drug, said Dr. Oaks.

Diclofenac, a non-steroidal anti-inflammatory drug sold over the counter, is widely used by farmers to treat ailing livestock. "This is an exciting development," said Dr. Oaks of the move to ban the drug. "It means India has accepted our findings. I only hope that the decision is not too late."

Populations of three species of vulture have plummeted by more than 95 percent in the past decade, placing the birds on the critically endangered list and causing great concern among environmentalists.

South Asia once provided a haven for tens of millions of vultures, especially in India where cattle are not eaten by humans and carcasses are left out for the birds.

"In 1987–88, there were 353 pairs of vultures nesting in the Bharatpur Sanctuary and by 1998 to 1999 they had come down to 20 pairs," said Dr. Vibhu Prakash in a recently published interview. He is the principal scientist at the Vulture Care Centre in Pinjore. "Right now, our information says there are none there. The sooner the drug is banned, the better it is for the vultures."



Erica Cantamessa competes in the Veterinary Olympics. Details inside!

Important Dates to Remember

AVMA–WSU CVM Alumni Reception, July 17, Minneapolis, Minnesota
WSU Equine Sports Day at the Races, August 27, Seattle, Washington
Dean's Reception, September 15, Seattle, Washington
Annual Conference, March 31–April 2, Pullman, Washington

Football Schedule 2005

University of Idaho, in Pullman, September 1
University of Nevada, in Reno, September 9
Grambling State, in Seattle, September 17
Oregon State, in Corvallis, October 1
Stanford, in Pullman, October 8

*CVM Pre-game

*CVM Class Reunions 1965, 1980 October 7–8

UCLA (Homecoming), in Pullman, October 15

California, in Berkeley, October 22

USC, in Los Angeles, October 29

Arizona State (Dad's Day), in Pullman, November 5

Oregon (Armed Forces Day), in Pullman, November 12

*CVM Pre-game

Washington (Apple Cup), in Seattle, November 19

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