

Advance

Healthy Animals | Healthy People | Healthy Planet

Improving the health
of animals and people
at home and around
the world.

A newsletter from the Washington State University College of Veterinary Medicine

Fall 2016

Saving Birds of Prey

WSU's Raptor
Rehabilitation
Program



*Nicky Finch,
WSU wildlife
veterinarian with
Amicus, a blind
Golden Eagle.*



College of

Veterinary Medicine

WASHINGTON STATE UNIVERSITY



Dean Bryan Slinker,
WSU College of
Veterinary Medicine

So, we start a new academic year and we just welcomed our latest generation of Cougar veterinarians—the class of 2020. 2020 already! I spent two and a half days in August with this wonderful group of talented, smart, funny, delightful, enthusiastic people. And I am here to tell you our future is in good hands.

For many years, we have conducted an off-site, multiday experiential learning and team building session as part of the Cougar Orientation and Leadership Experience, or COLE. It is a big part of our commitment to the wellness of each class of students. They learn how to help each other succeed over their four years in veterinary school, which also helps them prepare to stay well and succeed as they enter professional practice. We cultivate a sense of community that we hope spans from when someone first visits us as a potential applicant, through decades of connections as Cougar alumni. Building that community is fostered by the foundational experience of COLE. I always tell students that I am not sure how I would have reacted to this experience 40 years ago when I came off the farm to start veterinary school at WSU. But from my vantage point now, I see how critical it is to help get them off on the right foot for long-term wellness and mutual support. It is a foundation for their success as members of a profession with a strong community identity. And I so appreciate their willingness to engage. It is also the beginning of what we hope is a lifelong

exploration of what it means to be a professional and to develop what has been called a “professional self” who is reflective, ethical, committed to serving others, and relishes ongoing learning.

I know I am biased because I am a Cougar, but to witness the coming together of a highly diverse group of 130 individual students, and the beginning of their transformation into a cohesive community as part of the class of 2020 and our broader college family that encompasses alumni, friends, and others who are committed to WSU, makes me extremely proud of our college. I am especially proud and pleased to see this transformation expressed in the commitment of the 30 or so second and third year students who serve as peer mentors for the new class during COLE and on into the fall semester as we continue to work with them to build a strong professional identity. The engagement of these upper class students in this endeavor, and in so many other ways throughout their studies with us, is foundational for our sense of community.

Due to the commitment of our faculty, staff, and students I think we do this better than anyone else. And it all begins at COLE.

Go Cougs!

Dr. Bryan K. Slinker, Dean
WSU College of Veterinary Medicine



For more information about COLE,
visit www.vetmed.wsu.edu/COLE.

Advance
*Healthy Animals, Healthy
People, Healthy Planet*

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Meet the Paul G. Allen School for Global Animal Health's New Director:

FIVE QUESTIONS WITH DR. TOM KAWULA

Can you tell us a little about yourself?

For the past 34 years when anyone asked me this question all I had to do was say that I was born and raised in Idaho, and it was enough to launch an entire dinner conversation. I've enjoyed describing to people what it was like to grow up in the west, and the fact that Idaho borders Washington and Canada, not Illinois. I guess I'm going to have to find a new opening line. My wife Carol and I have lived the majority of our lives in North Carolina, and we have grown some deep roots and lifelong friendships. I have to confess that we have become accustomed to fall weather lasting through Christmas, winter ending in February, and thunder storms that will knock your socks off. Oh, and grits. Do any restaurants in Pullman sell slow cooked grits?

What excites you most about your new position as director of the Allen School?

The short answer is that the Allen School's mission and approach to improving global health and health disparities reflects my personal values and professional goals. Like most people I want to work at something that is meaningful and has lasting positive impact. At the heart of the school's mission is that most human health issues are inextricably linked with animal health, but it is more complicated than simply knowing some infectious agents can jump species. The school was launched with the understanding that individual disciplines cannot adequately address human or animal health. Collaborative research across disciplines is something I have advocated throughout my career. I am hopeful I can help to steer the school's developing culture to one of mutual respect, collaboration, and research excellence that will benefit animal and human health. Another big draw for me is WSU is launching a medical school, which represents a huge opportunity for creating efforts at solving complicated human and animal health issues.

Can you share a little about your career?

I went to the University of North Carolina at Chapel Hill for my doctorate because at the time it was one of the few places where faculty were applying new molecular biology approaches to understanding infectious disease processes. After a postdoc at North Carolina State College of Veterinary Medicine, I got my first faculty job at Cornell University College of Veterinary Medicine. In 1992, I returned to Chapel Hill where I was faculty until now. My research includes

understanding pathogenic mechanisms of infectious agents and how they relate to human health. I also learned very early on that I love, and am pretty good at, graduate student training and career development. During the six years I was the director of the Department of Microbiology and Immunology's graduate studies, we averaged 50 doctoral students in our program, and in the graduate school I developed interdisciplinary research and education programs. More recently I directed a National Science Foundation funded program to expose undergrads from underrepresented minorities to research in biological sciences.

What might our college be surprised to know about you?

I was a bacteriology and biochemistry major at the University of Idaho, but honestly, at that time, I was a little lost about what I might do for a career until I met professor Lois Miller. A world-renowned geneticist who, among other things, developed Baculovirus cloning and gene expression systems. She was tough, never smiled, and never gave any indication of what she thought of you. On the last day of class, she returned our final exams. She put mine on my desk and said, "Turn it over." On the back was a note that read: You are a talented fellow. You should consider going into research. "Think about it," she said. So I did. I saw Lois at a conference about 15 years later. I introduced myself, told her I was an assistant professor at UNC and thanked her for the encouraging note that gave me direction. She looked puzzled and said, "That doesn't sound like something I would do."

What is your vision for the Allen School over the next year? Five years?

The Allen School is stocked with talent in a lot of disciplines. One of my first goals is for us to recognize and strengthen the connections between our individual research interests and to take even more collective approaches to solving animal and human health issues. The real glue will come with graduate and post-graduate training programs in global animal health. Graduate training is the single most important factor for making strong interdisciplinary connections. The Allen School is poised to become an international leader in global health. The model established by Drs. Guy Palmer and Terry McElwain is innovative, and my goal is for WSU to be recognized as an international leader in establishing solutions to health problems and disparities.



Saving Birds of Prey

WSU'S RAPTOR REHABILITATION PROGRAM

by Marcia Hill Gossard '99, '04

"Amicus," a resident blind Golden Eagle, in his mew. He was brought to WSU in 2006 just months after he hatched. The cause of his blindness is unknown, but it is most likely from heavy metal poisoning, a birth defect, or injury.

Down a long, narrow, dim hallway is a door with a gold metal number 10. We stop outside and listen to an owl hooting. Dr. Nicky Finch, wildlife veterinarian at the WSU College of Veterinary Medicine, opens the door a crack, then slowly walks in. "Gus," a Great Gray Owl, is inside. He has strips of leather on his legs, called jesses. Dr. Finch puts on a leather gauntlet, which covers her forearm. She connects a short leather line to the jesses and Gus jumps from his perch to her arm. One large wing gracefully extends as he moves. The other wing, appears to only open part way.

Almost immediately, Gus, who has a round face and yellow piercing eyes, starts making a hissing sound and clacking his yellow beak, signaling to us that he is not very happy. "He doesn't like me very much," says Finch. Gus, like most wild birds, doesn't show gratitude to the woman who saved his life. He came to the WSU Veterinary Teaching Hospital in 2009 after someone found him in a yard near Spokane. His wing was so badly fractured Dr. Finch had to amputate below the elbow to save him.

Because Gus can no longer fly, he is now a permanent resident in the newly renovated WSU Stauber Raptor Facility, named for retired wildlife professor Erik Stauber who devoted 40 years to caring for raptors. The floor in Gus's mew, a

house for birds of prey, is lined with river rocks. There is a wood block perch and other perches made from natural branches. At the back of the mew, narrowly opened wood slats let in fresh air and light. On the ceiling, a round half globe glows. "Each mew has a skylight so they have a natural light cycle," says Finch. The natural lighting is also important for moulting, she says. Much like humans lose and regrow hair, birds naturally shed their feathers as new ones grow in. Natural light regulates moulting, which generally occurs once a year in most healthy birds.

Found in the northern United States, Canada, and Alaska, Great Gray Owls are one of the largest owls with the longest wingspan of any owl. They are also excellent hunters. "In the wild, Gus would be able to hear a mouse six to eight inches under the snow," says Finch.

Dr. Finch gently places Gus back on his perch, and we walk to mew number nine where "Sprite," a resident Great Horned Owl lives. Sprite was hit by a car. "Neurologically, he is not like a Great Horned Owl anymore," says Finch. While he can no longer care for himself in the wild, he can serve as a surrogate dad for baby Great Horned Owls brought to WSU. "Babies stay with him to imprint and learn how to be an owl," she says. To have a chance to be successfully released

back into the wild, Finch says it is important the babies do not imprint on humans. “We try hard to teach them people are not a food source and are not to be trusted,” she says.

On this day, they are caring for three baby Great Horned Owls that were recently blown out of the nest, probably from wind, says Finch. When a bird is found on the ground, that’s when Dr. Finch will often get a call. Mother owls will take care of their babies on the ground and bring them food, she says, but sometimes the mother either isn’t around or isn’t feeding the baby owl. If possible they try to get them back in the nest, she says. On some occasions Avista, a regional electric utility company, returns babies to the nest using a cherry picker truck.

In another mew are two more baby Great Horned Owls that are almost ready to be released. “We have to finish creancing and live prey testing with them,” says Finch. Before releasing a bird, Finch and her team attach the raptor to a long leather creance line to make sure they are ready to fly. “We try to have them fly 150 feet,” says Finch. “Then we know they are ready to go back into the wild.” They also do live prey testing with the birds to make sure they can hunt for food on their own.

He knows he’s a bird and he knows he is different.

—Dr. Nicky Finch, WSU wildlife veterinarian on Amicus, a blind Golden Eagle.



“Gus,” a Great Gray Owl, with WSU Raptor Club member and zoology major, Mindy Lynn (’16 B.S.).



Before she was released back into the wild, "Morris," a two-year-old Bald Eagle, practiced flight using a creance with WSU Raptor Club president, Devin Schell. Morris was brought to the WSU Veterinary Teaching Hospital on January 21, 2016 ill with lead poisoning.



The WSU Raptor Club

Resident birds that are not able to be returned to the wild are cared for at the college and participate in public education programs through the WSU Raptor Club, a nonprofit volunteer organization founded in 1981. Raptors and club volunteers visit service organizations, fairs, summer camps, and schools to educate children and adults about raptor conservation and the lives of these magnificent birds. Public presentations have given thousands of people in the Pacific Northwest the opportunity to learn about their ecological importance, their biology, and their beauty. This year alone they have given around 100 presentations.

In between the mews are flights, big rooms where larger birds, like Gus, can spread their wings and smaller raptors, such as Screech Owls or Kestrels, can fly. "It can be used for little birds working on getting their conditioning back," says Finch. The first flight we visit has a covered roof, so it is completely shaded and stays dry during rain. It is ideal for birds wearing bandages that cannot get wet, but who still need to jump and move around. One of its regular visitors is "Amicus," a Golden Eagle who was brought to the WSU veterinary hospital when he was six months old. Amicus, or "Ami" as they affectionately call him, is completely blind. If put in a flight that wasn't fully shaded, he would run the risk of overheating. "He would know he is getting too warm," says Finch. "But he'd just have to walk around hoping to find the shade."

In Amicus's mew, which is at least twice as large as Gus's, none of his perches are ever moved so he knows where to find them. They hand feed Amicus, because while eagles have keen eyesight for hunting, their sense of smell isn't that acute. Because Amicus is blind he would have to stomp around to find his food, says Finch. Compared to some of the other raptors we visited, Amicus is extremely calm and not at all bothered by our presence. "He is very humanized," says Finch. But he is not imprinted on humans. "He knows he's a bird and he knows he is different," she says.

Further down the hall is flight number one, which is three times the size of a normal flight. Sunlight streams through the screened-in roof. "Hudson," a young Bald Eagle with an injured wing, is standing inside on the pebbled ground. The flight is large enough for Hudson to spread his wings, but when they test him for flight before he can be released they will take him outside and attach him to a long creance. Dr. Finch hopes one day the flights can be retrofitted with barn doors to create even larger flights so they can flight test larger birds indoors.

Renovations to this special facility began more than eight years ago. Because of funding, it was split into three phases. During the first phase, 10 mews and five flights were built in what was once a building that housed turkeys as part of the then Washington State College's world-renowned poultry husbandry program. Originally named the Carver Building Raptor Facility in June 2008 after John S. Carver, longtime chair of the poultry husbandry program, the building was renamed in 2013 to honor Dr. Stauber and his distinguished career at WSU.

A prominent "Stauber Raptor Facility" sign hangs on the right of the light gray metal sided building. On the left is a large set of windows next to the front door. The space through the door and behind the windows will soon be an education center, which is part of the third and final phase of the building renovation expected to be completed by the end of 2016. Adjacent to the education room will be a work station with an anesthesia cart, surgery table, and medical equipment so Dr. Finch and the wildlife veterinary technicians can give birds physical therapy, wound treatment, oxygen, bandaging, beak shaping, talon trimming, and other minor procedures at the raptor facility instead of transporting the birds to the WSU Veterinary Teaching Hospital for routine care.



While visiting “Dakota,” a resident Red-Tailed Hawk who came to WSU after she had been shot by a pellet gun, fell to the ground, and was then hit by a car, veterinary technician Ashley Varner walks towards us down the hall. In her arms is “Miller,” a baby Swainson’s hawk. She brings Miller to Dr. Finch. “She feels hot,” says Varner. Dr. Finch tenderly takes the hawk, who is about the size of a large parrot, and holds him up to her ear. “I want to listen to his heart and give him fluids,” says Finch. They get a box ready to transport him from the raptor facility to the veterinary hospital. “When the workroom is done we will be able to do that here,” she says. “And not have to take him up to the hospital.”

Miller, who was found out of the nest, alone and dehydrated, stays in a mew with another Swainson’s hawk to learn how to eat and behave like a hawk. The goal is to release Miller, says Finch, but for that to happen, Miller needs to imprint on another Swainson’s hawk and not on people. “Widget,” a Barn Owl in mew number eight, fell out of the nest and unfortunately imprinted on humans. Because he does not have typical bird behavior and shows no fear of people, he is a permanent resident.

On one of our last stops we see “Tundra,” a male Snowy Owl found in Lewiston, Idaho. Tundra came to WSU with a badly injured left wing. He had a fractured humerus, the bone in his upper wing, and a dislocated elbow. Finch believes he was likely hit by a car. The bone healed, but the dislocated elbow did not. Tundra can no longer fully extend his wing and is unable to fly. Snowy owls are found in Alaska and Canada, so Tundra likes temperatures much colder than the summers on the Palouse. To stay cool, both Tundra and Gus love ice in their mews. During the hottest summer months, Finch and her team carry gallon buckets of ice from the veterinary hospital to the mews. “We would love to have an automatic icemaker someday,” says Finch.

Finch estimates they treat 200 to 300 raptors at WSU every year. Some birds like the baby Great Horned Owls need only minimal care before they are released. Others, like Gus, need lifesaving surgeries. While some injured birds become permanent residents, many raptors they treat are released back into the wild. The renovations to the facilities has meant that Finch and her team can care for even more of these special birds.

“I won’t turn animals away,” she says.

 *For more information about the raptor program and resident birds, visit www.vetmed.wsu.edu/Raptors.*

Morris was successfully released in March 2016. Watch the release on the YouTube raptor playlist at www.youtube.com/WSUVetMedicine.



"Tundra," a resident Snowy Owl, was brought to the WSU veterinary hospital in 2011 with a broken wing. Because he can no longer fly, he is a permanent resident at WSU and participates in educational programs

Caring for Animals Great and Small

Fourth year veterinary student Holly Sawyer ('17 DVM) and Geoffrey McGee ('17 DVM) helped care for a 3-week-old zebra foal named "ZB." The zebra was admitted to the WSU critical care unit in August 2016. Dr. So Young Kwon, a WSU equine resident, treated her for pneumonia and diarrhea before releasing her back to her owners.





Lynne Haley,
Senior Director of
Development

As you read in our cover story, to be able to care for more birds we have made extensive renovations to the raptor facility thanks to the support of the Potlatch Corporation, Avista Utilities, the WSU Raptor Club, and countless other generous donors.

WSU has a long history of caring for raptors. Emeritus Professor Erik Stauber devoted four decades to caring for these birds and other wildlife. The WSU Raptor Club, which was founded in 1981, is a nonprofit volunteer organization whose members educate the public about raptor conservation. Club members not only visit schools, fairs, and other community events, they also spend countless hours raising money for these extraordinary birds. Now, because of the generosity of an anonymous foundation, we will be completing the third and final phase of the mews renovation.

The Raptor Rehabilitation Program relies entirely on the support of private individuals, public agencies, and businesses to provide raptor care, so we couldn't do what we do without you. From the individual donations made by people who drop off an injured raptor at the WSU Veterinary Teaching Hospital, to those who "Sponsor-A-Raptor," and those who have established endowments to support the program and the facility, we thank you!



For more information about the program or how you can sponsor a raptor, visit www.vetmed.wsu.edu/Raptors.



School children learn about raptors through educational programs by the WSU Raptor Club. Last year, club members gave 100 presentations around the area.



Dr. Erik Stauber, emeritus WSU veterinary professor, devoted 40 years caring for raptors. The facility was renamed the Stauber Raptor Facility in 2013 to honor Dr. Stauber who retired in 2011.

[Awards and Achievements]



Congratulations to **Mushtaq Memon** (far left) and **Wendy Brown** who retired in July 2016. Dr. Memon, whose professional work included complementary and alternative veterinary medicine, held a joint appointment in the Department of Veterinary Clinical Sciences and the Paul G. Allen School for Global Animal Health. He was at WSU for 25 years. Dr. Brown, a regents professor in the Department of Veterinary Microbiology and Pathology, focused her research on bovine T lymphocyte responses to tick-borne pathogens of cattle. She was at WSU for 21 years.

Your Gifts in Action



A WSU Veterinary Alumna Helps a Student Travel to Tanzania

by Marcia Hill Gossard '99, '04

As they entered a village in Tanzania, Cassie Eakins ('16 DVM) and members of the rabies team announced over a loudspeaker that there would be a rabies vaccine clinic coming to town the next day. At another village, they tossed posters from their vehicle. Once the team started to drive away, the village children gathered them up to be posted. The next day a crowd was lined up to have their dogs vaccinated. People traveled many miles by bike or motorcycle, but most walked, says Eakins. Each owner received a rabies vaccination certificate.

"We sometimes vaccinated 300 dogs in a day," says Eakins, a WSU veterinary student who spent five weeks in Tanzania as part of the Global Animal Health Certificate program. "They understand really well the danger of rabies."

Rabies is the deadliest zoonotic disease on the planet. Each year more than 59,000 people die from rabies worldwide and about half of those deaths are children under the age of 16. Globally, more than 99 percent of human rabies deaths are caused by dog bites—almost all in Africa and Asia. The WSU Rabies Vaccination Team and its partners from the Serengeti Health Initiative visit 180 villages in seven districts adjacent to the Serengeti National Park. The result of these efforts is that the vaccination zone is now rabies free. Eakins says one of the reasons it is so effective is because the team members are from Tanzania so they understand the culture and the people.

"Being fully exposed to the culture was helpful for me because it is a way to understand people that much better," says Eakins. "And if you know the people better then you are able to make a difference."

WSU alumna Susan Bradish ('97 DVM) had a similar experience after spending four weeks in India while she was

earning her veterinary degree at WSU. She started the Susan Bradish Travel Grant in 2010 because she recognized the need for veterinary expertise in developing nations, and she wanted other students to gain an understanding of the daily challenges people face in most of the world.

"The death of a single animal can mean the difference between living and dying," says Bradish. The one and only water buffalo owned by a family she met in India died while giving birth. The calf also died. The local veterinarian explained to Bradish, a young veterinary student at the time, that this loss would likely mean starvation for some of the 20 extended family members. "That was a sobering and profound realization," she says.

You can learn about it in textbooks, but it is no replacement for hands-on experience.

—Cassie Eakins ('16 DVM) who spent five weeks in Tanzania during the fall of 2015

While Eakins was in Tanzania, she also had the opportunity to work with Allen School Clinical Assistant Professor Felix Lankester to design her own research project. She wondered if there was a correlation between the number of parasites a dog has, such as ticks, fleas, or lice, and the health of the dog. Eakins is still working on the results, but she says collecting data in the field is not something she would have been able to do had she not had this opportunity. For Eakins, receiving the Bradish travel grant helped defray some of the costs and made the trip possible.

"You can learn about it in textbooks, but it is no replacement for hands-on experience," says Eakins. "I want to use the resources I have to help other people."



For more information about the WSU Rabies Vaccination Program, visit go.vetmed.wsu.edu/Rabies.

To learn more about how your gift can make a difference, please visit www.vetmed.wsu.edu/GiftsinAction.

Look for Gatherings of WSU Alumni, Friends,
and Students at these Upcoming Events!

Mark your calendars

- October 8** College hosts reception at the Pacific Northwest Veterinary Conference in Spokane, Washington
- October 15** College hosts Homecoming BBQ in Pullman (vs. UCLA)
- December 13** Alumni reception at the American Association of Equine Practitioners Conference in Orlando, Florida
- March 6** Alumni reception at the Western Veterinary Conference in Las Vegas, Nevada
- April 8** College of Veterinary Medicine Open House in Pullman
- July 24** Alumni reception at AVMA in Indianapolis, Indiana

CE courses at WSU and online are offered year round; visit www.vetmed.wsu.edu/CE for more information.

For more information about upcoming events visit www.vetmed.wsu.edu/Events.