



The Global Health Perspective

A newsletter from the Paul G. Allen School for Global Animal Health

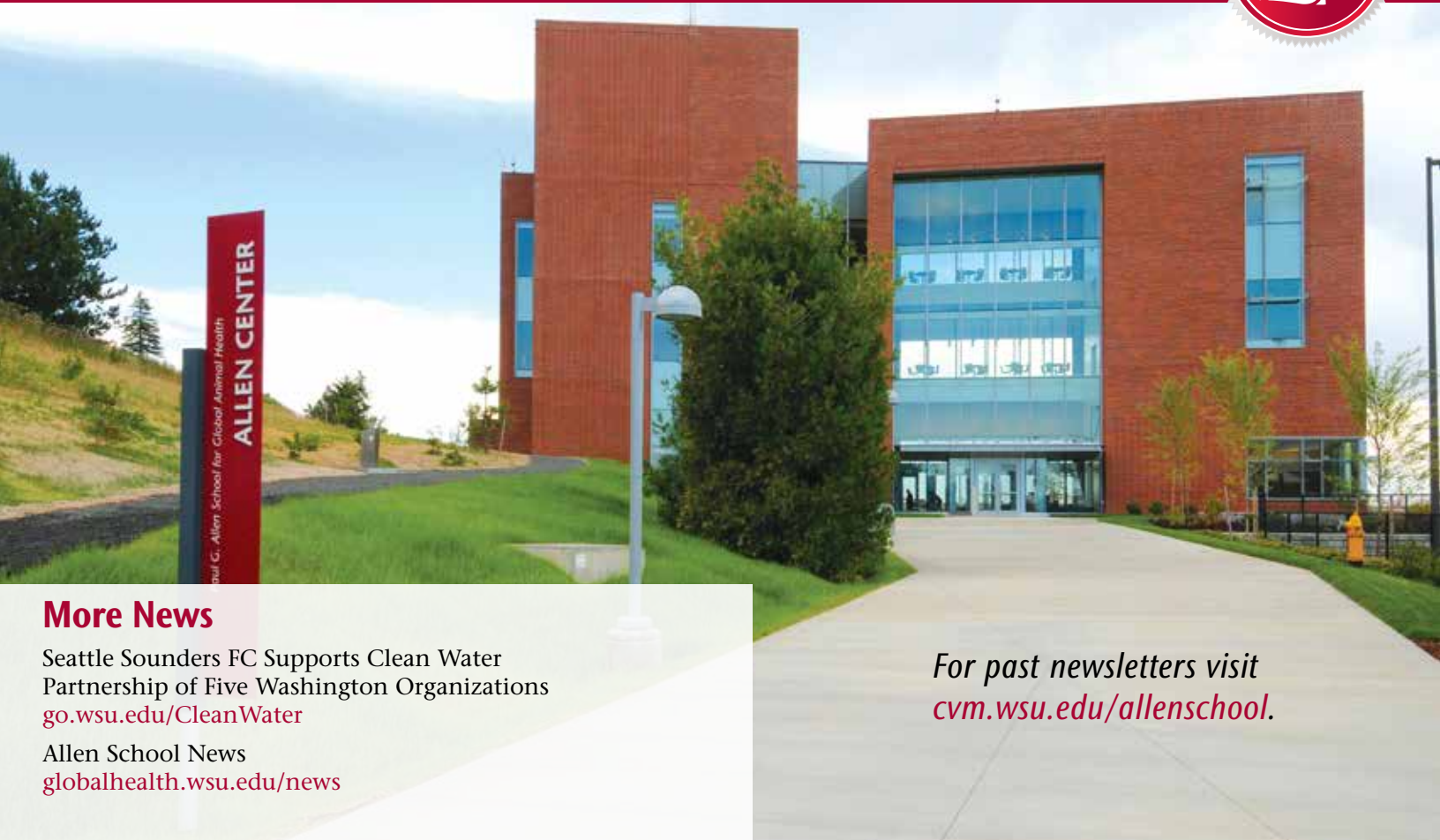
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SUMMER 2015



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The WSU rabies vaccination team sees firsthand how important vaccination is to dog owners. Although many in rural Africa may not be able to pay for the vaccine, they walk many miles to have their dog vaccinated.



The WSU Rabies Vaccination Program team vaccinates an average of 300 dogs each day in Tanzania and Kenya, creating a rabies free zone that can be used as a model for Africa and Asia.

World Rabies Day is Monday, September 28

Join us in the effort to eliminate rabies globally and help move us closer to a world where no child dies from canine rabies. Together we can make a difference. Visit EliminateRabies.wsu.edu

Partnering with Veterinarians and Clients to End Rabies

Beginning in the summer of 2015, the Allen School is partnering with veterinary clinics and their clients to eliminate rabies as a public health problem worldwide. The goal is zero human deaths by 2030.

“We are partnering with veterinary clinics around the country because together we can do more than we could ever do alone,” says Guy Palmer, WSU Senior Director of Global Health.

Each year more than 59,000 people die from rabies worldwide and about half of those deaths are children under the age of 16. In developed countries, such as the United States, rabies is quite rare because of access to vaccinations. But in many developing countries, rabies is not under control. Globally, more than 99% of human rabies deaths are caused by dog bites—almost all of these in Africa and Asia. Vaccinating 70 percent of the dog population will protect humans and wildlife, such as lions, from the disease.

“Rabies is easily preventable with regular dog vaccinations,” says Palmer.

One of the main reasons rabies continues to be so prevalent in many parts of the world is challenges in getting the vaccinations to the most vulnerable people in resource-poor countries, says Palmer. “In many parts of sub-Saharan Africa and Asia where the death rates are the highest, there is no reliable system to get vaccinations to where they are needed most.”

Many areas in rural Africa also do not have electricity; currently the vaccine needs to be stored at cold temperatures. And governments in many countries have historically put their resources into treating the disease with post-exposure prophylaxis, a series of post-bite inoculations that must be started

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Message from the WSU Senior Director of Global Health



Perhaps you noticed a change in the title of this column. On July 6, I stepped down as director of the Allen School to take on the broader global health role as WSU’s senior director of global health. This university-wide leadership position will catalyze new global health challenge initiatives and bring more breadth and depth of global health scholarship to all WSU academic units.

An expanding health vision for WSU and the Allen School is also the goal of other recently announced changes in leadership. We welcomed Dr. Tim Bazsler to our team as the head of global health surveillance. Dr. Terry McElwain has stepped down from his position as associate director to focus his time on program development and disease surveillance programs around the world. These leadership changes will provide us with the structures to move forward into our next growth phase.

Improving public health and human opportunity has always been at the core of the Allen School mission, largely focused around the animal-human interface. Through my service both within the National Academies and the Consortium for Universities in Global Health, I have become increasingly aware of the need to bring the full expertise of the university to bear on needed approaches to improve global health. Allen School faculty are already leaders with multidisciplinary expertise at WSU. Doug Call’s NSF-funded program in Tanzania is an excellent example. Together, anthropologists, economists, molecular epidemiologists, and sociologists are all working together to achieve the specific goals of improving global health. In my new role, I will be able to better foster and accelerate this type of multidisciplinary research and expand the work we do. My commitment, and that of the college and university, to the Allen School will remain without compromise.

Guy Palmer
Creighton Endowed Chair and
WSU Senior Director of Global Health

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within the first 24 hours after a person is bitten by a rabid dog. If it is not administered in time and symptoms appear, the disease is always fatal. Because of the narrow window for treatment and the treatment's high cost, post-exposure prophylaxis has not been effective in reducing deaths in resource-poor countries.

Research in Tanzania and other countries has now convinced the World Health Organization and national governing bodies that canine vaccination can be effectively used for global elimination, says Palmer. Vaccinations are also a much more cost effective option.

"The direct costs of post-exposure prophylaxis are 20 times higher than the amount spent on dog vaccination in affected countries," says Palmer. "Even the cost of the vaccine is too much for many families."

Together with global partners* the Allen School is already making a difference. Each year the vaccination team visits 180 villages in seven districts adjacent to the Serengeti National Park. Each day they vaccinate an average of 300 dogs. The result is that the vaccination zone—a cordon sanitaire—is now rabies free. The Allen School is confident that this rabies-free vaccination zone is an illustrative model for other parts of sub-Saharan Africa and south Asia.

"We have all the tools needed to eliminate rabies, we only need to deploy them," says Palmer. "One major challenge is creating a reliable vaccine bank that would provide a consistent and affordable vaccine supply for countries to draw on and then replenish."

Palmer has set a goal to raise \$10 million to develop a reliable vaccine bank and improved distribution in high-risk area of Africa and Asia. Through partnerships with veterinary clinics and others committed to eliminating rabies, Palmer knows they can make an even bigger difference for communities and for the people who live with rabies as a reality every day.

"We have all the tools needed to eliminate rabies, we only need to deploy them."

—Guy Palmer
WSU Senior Director of Global Health

"When I am in Africa working with our vaccination team, I see firsthand how important vaccination is to dog owners," says Palmer. "Although they may not be able to pay in cash for the vaccine, they will walk many miles just to be able have their dog vaccinated."

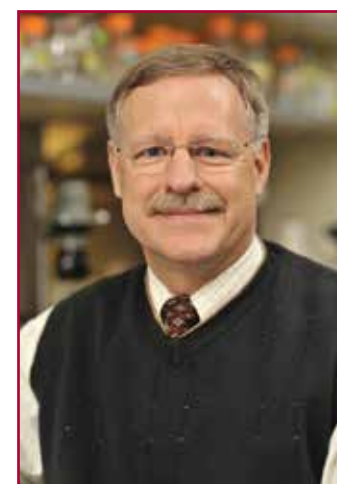
**The Allen School has partners around the world including the Global Alliance for Rabies Control as an umbrella organization, the World Health Organization, the World Organisation for Animal Health, and the Food and Agriculture Organization. Our research in Tanzania is in cooperation with the Serengeti Health Initiative and the University of Glasgow.*

Learn how you can help support the WSU Rabies Vaccination Program at EliminateRabies.wsu.edu.

**Faculty News**

and validation, and biomedical laboratory accreditation.

Dr. Timothy Baszler has joined the Allen School as head of global health surveillance. Dr. Baszler, executive director of the Washington Animal Disease Diagnostic Lab, is also a professor in the WSU microbiology and pathology department. His research includes infectious disease diagnosis and surveillance, new test method development



to develop and implement disease surveillance programs around the world. He will work closely with Dr. Tim Baszler, now the head of global health surveillance in the Allen School.

Dr. Terry McElwain has stepped down from his position as associate director in the Allen School to focus his time on program development. He played a major role in developing the Allen School East Africa program and in the school's efforts to increase global biosafety and biosecurity. He will continue as a full-time faculty member working



eliminate rabies will improve the coverage and impact of both programs and make the delivery of rabies vaccinations more cost effective.

Dr. Felix Lankester received a \$100,000 Bill & Melinda Gates Foundation Grand Challenges Exploration Grant. Lankester will use the fund to learn whether supplementing a Tanzanian school-based drug administration program—aimed at reducing neglected tropical diseases—with a popular dog rabies vaccination campaign to

Student and Fellow News

Congratulations to **Victoria Olsen-Mikitowicz**, **Barbara Panata**, and **Melissa Steinmetz** of the DVM Class of 2015 who earned professional certificates in global animal health. All three will be joining private veterinary practices immediately after graduation to hone their clinical veterinary skills before returning to global health interests.

Over the summer six newly accepted certificate students conducted their major projects around the world.

Julia Vanderford ('17 DVM) and **Sarah Eichler** ('17 DVM) worked with Dr. Thumbi Mwangi on aspects of the PBASS program in Kisumu, Kenya.

Trisha Paulos ('17 DVM) and **Cassie Eakins** ('16 DVM) joined Dr. Felix Lankester to evaluate parasitism in dogs in the rabies program.

Kat Reardon ('17 DVM) will be working in the lab in Pullman with Allen School faculty member Dr. Hector Aguilar-Carreño on Nipah virus.

Lance Kidder ('18 DVM) worked in Pullman in Jennifer Zambriski's lab helping to understand *Cryptosporidium* infections in calves.

Kelsey Brown ('18 DVM) traveled to Kibera, a part of Nairobi, Kenya, to study antimicrobial resistance under the direction of Dr. Doug Call.

