

ONE HEALTH REPORT

Howdy!

The One Health program at TAMU is up and running! So many things have happened or are in the process of happening since our inaugural TAMU One Health Report. I believe you will find this report interesting and, as always, your comments and suggestions are welcome.

In addition to the articles and updates you will find later in this report, I want to provide you some insight into a few others. Suzanne, Merrideth, and I visited both the University of California- Davis and University of Florida campuses this spring to learn about their successful One Health programs. The trips were very productive, and we came home with an understanding of how their programs progressed from concepts to successfully funded, transdisciplinary collaborative centers and institutes. Ideas were exchanged, and we are discussing with both of these universities several educational partnerships for TAMU students and faculty.

The three of us also visited Washington, DC in March where we visited with a number of veterinarians in One Health programs in the United States Department of Agriculture; Department of Homeland Security; Department of Health and Human Services, Food and Drug Administration, Center for Veterinary Medicine, Virginia-Maryland Regional College of

Veterinary Medicine, Center for Public & Corporate Veterinary Medicine. The purpose of these visits was to find educational opportunities in Washington, DC for teams of TAMU students from veterinary medicine, medicine, and other One Health disciplines. We will be working on making these opportunities a reality for the upcoming year.

Eleanor M. Green, DVM, DACVIM, DABVP, Carl B. King Dean of Veterinary Medicine, College of Veterinary Medicine & Biomedical Sciences, Texas A&M University formed a TAMU One Health Campus Council this spring and invited representatives from every school or college at TAMU to join. The charge for the council is “to ensure that One Health is a highly successful interdisciplinary initiative which exerts positive impact within our state, nation, and world.” The council is currently involved in developing the One Health Grand Challenge (see article on page xxx) and determining how best to leverage and utilize the many TAMU resources to focus on transdisciplinary One Health collaborative research areas involving all schools or colleges on campus to address the larger, societal issues.

If you are here on the TAMU campus or visiting the College of Veterinary Medicine & Biomedical Sciences, please stop by the One Health suite. We are located in room 88, College of Veterinary Medicine & Biomedical Sciences, Administration Building. Enjoy the rest of your summer!

Mike Chaddock, DVM, EML

Assistant Dean for One Health and Strategic Initiatives
College of Veterinary Medicine & Biomedical Sciences, Texas A&M University

**One
World
One
Health**

The One Health Initiative unites human, animal, plant and environmental health.



Mission and Vision Statements of Texas A&M University One Health:

In a leadership role, establish local, national, and global academic, public, private, and not-for-profit partnerships and collaborations for world class ecosystem educational, research, and service programs. The Texas A&M University One Health vision is improved health and well-being of the ecosystem.

The One Health Movement

Health is a state of being dependent on a wide range of social, economic, natural, man-made, and political elements that form a multifaceted and dynamic environment. Therefore, there is a great need for professionals with education and training that span human and animal health and wellbeing, as well as environmental health and all the contributing factors. One Health is the collaborative effort of multiple disciplines working locally, nationally, and globally to attain sustainable optimal health for the ecosystem (a biological community of living organisms [human, animals, plants, and microbes] and their physical environment interacting as a system).

It is contingent on factors of change such as globalization, deforestation, nutrition, agriculture, trade, urbanization, land management, wildlife encroachment, and climate change.

The One Health movement focuses on collaboration between diverse fields of study that include but are not limited to veterinary medicine, human medicine, nursing, public health, agricultural and animal science, wildlife biology, environmental science, architecture, engineering, socio-economics, public policy, global trade and commerce, archeology, and climatology to improve the health of our society.

Imagine, veterinary medical, human medical and public health professionals working with environmental scientists, ecologists, public health and policy makers, engineers, agricultural scientists, chemists, physicists, entrepreneurs and a myriad of other health related representatives to solve problems collaboratively and providing the best solutions for all global health challenges.

Why Texas A&M?

Texas A&M University is one of few institutions that have a College of Veterinary Medicine, a College of Medicine, Colleges of Engineering, Public Service, Public Health, Business, and Agriculture and Life Sciences giving them the unique opportunity to integrate the one health movement into their curriculum.

Texas A&M University is also one of few Universities with the triple distinction of land, sea, and space grant designations,

making excellence in research, teaching, and service an important part of the Texas A&M mission.”

The State of Texas is rich in cultural, environmental, and climatic diversity with abundant wildlife and exotic animal populations. Furthermore, Texas is a border and a gulf coastal state with the highest number of cattle, horses, and small ruminants in the nation and 36% of the nation’s beef are fed and housed in the Panhandle region.

Texas A&M University can utilize its diverse but advantageous environment to leverage interdisciplinary knowledge, resources, and relationships to create collaborative One Health opportunities for students to learn, faculty to carry out research, and for Texas citizens to benefit from this knowledge through extension.

However, to successfully develop and implement a one health movement, you must establish a one health mentality in which the question asked must be “where do we go from here?” as opposed to “what must I do?”

One Health at TAMU will build on local, state, national, and world-wide partnerships between scientists and professionals in human, animal, and environmental health in addition to other health related disciplines to improve the livelihood of each. This partnership will be planned, implemented, cultivated, and evaluated over the next few years by “thinking big, starting small, and growing fast!”

Furthermore, the administration at Texas A&M University recognized One Health as one of the many areas of focus that present an opportunity for the university and exemplify the foundation of the land grant philosophy of education, research, and outreach.

Texas A&M Grand Challenges

- 1) ‘One Health’ targeting human, animal, and ecological problems-One Health, One World, One Future: the solution for a world at risk,
 - 2)Energy- Power the future of our nation and the world,
 - 3)Democracy- achieve a secure nation and safer world,
 - 4)Entrepreneurship- create entrepreneurs and opportunity for the nation and the world,
 - 5)Stem Education-cultivate quality STEM education to promote educational achievement for all, and
 - 6)Natural and built environments- create structures and systems that interact with the natural world sustainably.
- The College of Veterinary Medicine & Biomedical Sciences has agreed to take the lead role in the initiation and development of the **One Health Grand Challenge**. The grand

challenge is incorporating and putting into action the concept of multidisciplinary collaboration for the improvement of our society. This means that as a University, we will practice interdisciplinary partnerships in order to fulfill future outcomes and successes from the programs and methodologies established now by our One Health department.

Achievements

We are happy to present many of the achievements our Core One Health Team has accomplished thus far. Stay tuned for updates as we continue our journey in making the proper impact necessary to improve our global health.

The One Health movement is taking off and we want you to jump aboard. The theme for the **2014 Association of American Veterinary Medical Colleges Annual Conference** to be held in Alexandria, Virginia from March 14-16, 2014 is One Health in Veterinary Medical Education. There is an exciting opportunity for faculty and students to share session proposals and poster abstracts to be displayed at the conference. Three student submissions, where the student is listed as the first author, have the chance to win a \$500 stipend upon review by a panel of judges during the conference. We are pleased to announce that a number of faculty and students are submitting their work for this year's conference.

The **One Health Certificate Program** is making its way to all students within Texas A&M University. The need for interdisciplinary collaboration between animal, human, and environmental health professionals is very important for global health and Texas A&M University is pleased to be a part of the movement. This certificate program provides a unique opportunity for graduate and professional students to broaden their knowledge about global one health concerns at the university level so they can understand, develop, and implement these concepts as they start their careers. Certificate requirements included taking two core curriculum courses and an option for research or additional course work. The program must be completed within one full academic year with the exception of veterinary or medical students that would have up to four years for program completion. Please direct any questions to Merrideth Holub at mholub@cvm.tamu.edu.

The **One Health Learning Community** is a one of a kind opportunity for Texas A&M University undergraduate students. The learning community concentrates on introducing One Health concepts and broad-spectrum exposure to learning techniques that will provide a full understanding of the interdisciplinary collaborations of environmental, human, and animal health.

This leaning community will help to bring students from vast backgrounds together for shared learning, development, and the implementation of knowledge. The program will consist of an in depth look at the global impacts of One Health as well as hands on learning in the simulation center at the Health Science Center, behind the scenes work at the College of

Veterinary Medicine & Biomedical Sciences, and educational field trips. For additional information regarding requirements and enrollment please visit onehealth.tamu.edu or contact Merrideth Holub at mholub@cvm.tamu.edu.

What's New to One Health?

Our One Health Team is growing to meet your needs. New to our staff are....



Camryn Stoll

Camryn is a senior Texas A&M University Animal Science (production/industry) major from Taylor, TX pursuing a certification in Meat Science. She is our new clerical student worker in the office. Every day in the office has something new for her. She does everything from scheduling and setting up for meetings to running errands and organizing documents for the office. She is also the

Vice President of the Texas A&M University Women's Chorus. When she isn't in the office working she loves to spend time with her family and work on her grandparent's ranch raising grass-fed cattle, ranged pigs, and free range chickens and turkeys.

"Working in One Health is an amazing experience for me. I have met a lot of outstanding people, and I'm continually amazed at what the One Health program has to offer. It's truly a wonderful program, and I can't wait to see what's to come."



Courtney Smith, B.S., M.B.A.

Courtney is a third year Texas A&M University veterinary medical student who wants to specialize in small animal medicine. She received her undergraduate Bachelor of Science degree and M.B.A. at Texas A&M University-Commerce. When not working or studying, Courtney enjoys reading, traveling and spending time with her husband and family. She had a blue

heeler mix puppy and is currently fostering two kittens through Aggie Feral Cat Alliance of Texas.

"I knew I wanted to become a veterinarian at a young age and attempted to save anything from the stray dog down the street to a snapping turtle in the middle of the road. I decided to start working in the One Health department to learn more about the importance of One Health to the future of global health and how veterinarians play into their unique role." At the office, Courtney works closely with fellow newcomer

Dr. Taliat Fawole to develop programs that exemplify the One Health interdisciplinary collaboration and how students working together can foster improvements in philosophy.



Taliat Fawole, M.D.

Taliat is a second year graduate student at the Department of Environmental and Occupational Health at the School of Rural Public Health where he is pursuing a Master's degree in Public Health (MPH). He trained as a physician in Nigeria and practiced for about three years before coming to the United States for his Master's Degree. During the course of his practice as a physician, he

realized the big impact of the environment on human health which formed the basis of his interest in a public health degree in Environmental Health.

"As a growing child in rural Nigeria, where malaria is endemic, I have seen that maintaining a healthy environment can help reduce the transmission and spread of infectious diseases because of the correlation between human and environmental health. Working with the One Health movement has enabled me to realize how a collaborative effort among various disciplines can bring about the desired perfect and healthy ecosystem"

He enjoys working with One Health because he has the opportunity to garner experience on the interaction between human, animal and environmental health. He plans to pursue a Ph.D. degree in Environmental Health Toxicology through the Interdisciplinary Faculty of Toxicology at the College of Veterinary Medicine & Biomedical Sciences-Texas A&M University.

MISSING... 5.5 MILLION CATS

In August 2012, the American Veterinary Medical Association (AVMA) reported that the number of households owning a cat had declined by 6.2 percent from 2006 to 2011, a reduction of 5.5 million cats. Likewise, a study from the American Pet Products Association reported a decline in household cats, while the number of dogs remained stable. The most important concern that needs to be addressed by the veterinary medical profession is "Where did 5.5 million cats go?" Was there a decrease in the number of new cat ownership, a change in the way people define ownership or are our feline friends being abandoned or surrendered to shelters? One thing we know is that cats have a unique disposition different from that of our other household companion animals and therefore require diverse solutions to address the problems that arise. The American Humane Association hopes to understand and

address the missing cat issue by sponsoring a One Health team of students from Texas A&M University in veterinary medicine, human medicine, psychology, marketing and business fields. This study concentrates on the ability for students to use their knowledge and creativity to find diverse solutions to common problems. The sponsorship will also allow us to develop and test new theories to increase the acquisition and retention of pet cats in homes, provide insight for the welfare, wellness and well-being of cats and allow for cross-discipline collaborative work between students. The study will be completed by the end of September. The reports and recommendations from the study will be highlighted in the next edition of the One Health Report.

"From my perspective, AHA is attempting to determine why cats are America's Most Popular pet (more cats in US households than dogs), yet they get less care, many are feral/wild/outdoor cats, less research is funded on their unique health issues and most cats who enter shelters do not find homes. AVMA recently reported that cats are less likely to go to veterinary clinics and owners spend less on cats, while dog intake and euthanasia in shelters has been trending downwards. Scientists looking at both regional and national trends worry that trends are in the wrong direction for cats. Thus, AHA is looking for new paradigms to address this issue and believes such might be found with young professionals who are not encumbered with old ideas. Texas A&M University seemed like the perfect partner for this endeavor, considering the One Health Initiative directed by Dr. Michael Chaddock and with support of the college's dean, Dr. Eleanor Green."

Dr. Patty Olsen's quote from the American Humane Association; Chief Veterinary Advisor of Animal Health and Research

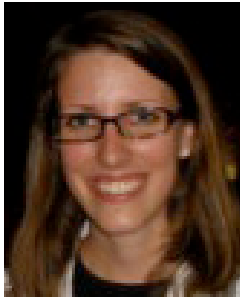
Meet the Cat Research Project team...



Danny Brown- B.S. in Neuroscience, M.B.A., fourth year Veterinary Medical student, Project Manager



Anne Romeo-B.S. in Biology, M.Sc. in Cell and Structural Biology, third year Veterinary Medical student



Kaitlin Janning- B.S. in Biology, second year Medical student



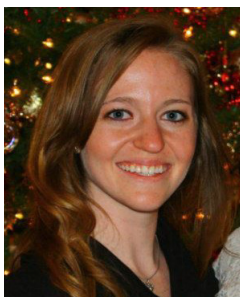
Lauren Pluhar- B.S. in Animal Science, M.Sc. in Marketing graduate student



Samantha Darling- Senior Psychology and Biomedical Sciences student



Sofia Agudelo- B.S., M.Sc., Ph.D. candidate, Wildlife Ecology graduate student



Sarah Shaffell- Senior Finance business student

Vet School Open House

The **20th Annual Vet School Open House** went off without a hitch this year bringing thousands of people to visit the College of Veterinary Medicine & Biomedical Sciences in April. New to participants was the One Health Room which incorporated animal, human and environmental health. Veterinary medicine, human medical, and PEER (Partnership for Environmental Education and Rural health) students worked together to educate the public about One Health and how it plays into everyday life when humans and animal interact. Presentations about vector borne diseases were displayed throughout the room to highlight zoonotic and/or infectious diseases that may be transmissible between humans and animals as well as those that are not transmissible but are commonly believed to be. The concerns about human diabetes were presented along with information about pet obesity and the importance of how proper nutrition plays a large role in both disease processes.

The successful launch of the One Health room will continue to allow for the education and enrichment of the public for many years to come as a prospective annual attraction in the Vet School Open House. The veterinary medicine, medical, and one health students enjoyed working with each other and hope to continue to do so in the future. Third year veterinary medical student Nicole Wright said, "It's really important that veterinary medical students and medical students understand each other and the training and education the other gets in order to effectively work towards common goals in our later professions." The brainstorming process led to many discoveries about the similarities and differences between the curriculums, and a new found appreciation between both colleges. The One Health Room was a great opportunity to showcase one health in action; join us next year for a snapshot of what One Health means to Texas A&M University!





One Health Suite Open House

The One Health Open House went off without a hitch July, 8th 2012. Faculty, staff and students from around the university joined us in the One Health Suite to chat about our expanding program and the opportunities for university-wide collaboration. As we move forward we anticipate using these contacts and the relationship built to foster future ideas and programs that will progress our One Health movement throughout Texas A&M University.



Time-Line

Our team has developed a time-line of activity in support of the One Health mission and vision. There will be several short-term “low hanging fruit” goals for which to celebrate early successes and longer-term goals that will set the stage for bearing results for years to come. Below are just a few bullet points of things we have accomplished and things to look forward to over the next year or so:

Completed

- Visits to the CVM departments and several of the colleges around the campus
- Visit to USDA, DHS, and HHS in Washington D.C.
- Two sessions of the One Health Seminar Lectures Series
- The One Health website is up and running at onehealth.tamu.edu

What to Look Forward to

- Visits to other Universities with strong One Health ties
- Visits to the remaining departments and Colleges throughout the University
- One Health Research, Education, and Outlook Survey which will be sent to all the colleges university-wide to identify if the university understands the concept of one health, to garner interest throughout the university and gain a sense of the One Health atmosphere here at TAMU.
- Approval of the One Health Certificate Program
- One Health Lecture Series which is an on-going lecture series featuring six guest lecturers presenting different topics about One Health throughout the year.

One Health Core Committee:

Dr. Mike Chaddock, *Assistant Dean for One Health and Strategic Initiatives, CVM*

Mrs. Merrideth Holub, *One Health Program Coordinator, CVM*

Dr. Bhanu Chowdhary, *Professor and Associate Dean for Research and Graduate Studies, CVM*

Dr. Suzanne Yandow, *Professor of Surgery, College of Medicine and Clinical Professor, Department of Veterinary Physiology and Pharmacology, CVM*



Mike Chaddock, DVM, EML



Merrideth Holub, MS



Suzanne Yandow, MD



Bhanu Chowdhary,
BVSc & AH, MVSc, PhD

The One Health initiative is by definition a collaborative program. Your suggestions for research proposals and educational & outreach programs will be instrumental to our success. Please feel free to contact us if you have any questions, recommendations, and/or ideas that support the mission and vision.

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