



Who's Who in One Health

Saint Louis Zoo Institute for Conservation Medicine (ICM)

stlzoo.org/conservationmedicine/



<https://www.youtube-nocookie.com/embed/YCShyfNhrNE?rel=0&hd=1&autoplay=1>

1. Organization Name

Saint Louis Zoo Institute for Conservation Medicine (ICM) stlzoo.org/conservationmedicine/

2. Narrative Description

The ICM leads scientific projects that address diseases that are shared between animals and humans, challenge the conservation of wildlife species, and threaten public health. ICM research projects fit into one of the key roles that zoological institutions play in conservation medicine. These roles of zoos in One Health include: (1) conducting studies to improve that healthcare of zoo wildlife, thus ensuring successful zoo breeding programs that contribute to the sustainability of biodiversity; (2) conducting studies of diseases of conservation concern; (3) understanding diseases in zoo wildlife so they may serve as sentinels for emerging diseases of humans and animals in urban areas; (4) surveillance of disease in wild animals where they mix with domestic animals and humans; (5) utilizing comparative medicine; (6) the discovery of all life forms from the macro to micro levels; and (7) determining health benefits to humans from interactions with nature.

3. Purpose

The ICM takes a holistic approach to research on wildlife, public health, and sustainable ecosystems to ensure healthy animals and healthy people.

4. Type of Organization

Zoological Institution. Private, Non-Profit Organization

5. Scope

The ICM works both within the USA and globally. Our work includes health and disease studies of both collection and free-living wildlife populations. A strong focus of our work is on health issues that threaten wildlife conservation and/or have public health implications. In addition to research, the ICM is committed to turning research into conservation action and to educating students of all ages on conservation medicine/One Health so that they may better participate in solutions to the pressing conservation and health challenges of the 21st century.

6. Country and State and City St. Louis, Missouri USA

7. Primary Funders

The ICM is an institute within the Saint Louis Zoo. We receive funding from multiple sources including grants, philanthropy, and core zoological operating funds.

8. One Health Courses being taught

Veterinary preceptorships, internships, and externships are offered through the ICM.

Contact person's name and email: Dr. Sharon L. Deem. deem@stlzoo.org

Link to Course informational web page: <http://www.stlzoo.org/conservationmedicine>

Current in development phase of a One Health course for undergraduate students at Washington University in St. Louis

Fontbonne University: One Health minor and certificate programs. Visit <https://www.fontbonne.edu/academics/departments/biological-and-physical-sciences-department/one-health-certificate/>

9. Other One Health Activities/Initiatives

A full list of our on-going projects can be found at our website at <http://www.stlzoo.org/conservationmedicine>

10. One Health Certificate or Training Programs

<https://www.fontbonne.edu/academics/departments/biological-and-physical-sciences-department/one-health-certificate/>

11. Organization Website <http://www.stlzoo.org/conservationmedicine>

12. Participants and Key Collaborators

Staff

Sharon L. Deem, DVM, PhD, Dipl ACZM, deem@stlzoo.org
Director

Jamie Palmer, MS, Technician

Kathleen Apakupakul, MS, MA, Researcher

Keri Lammering, Education specialist

Key collaborators

Fontbonne University

University of Missouri-Columbia, College of Veterinary Medicine

University of Missouri-Columbia, Masters of Public Health

University of Missouri-Saint Louis

Washington University in Saint Louis School of Medicine

Tyson Research Center, Washington University

Westminster College

United States Geological Survey (USGS)

Mpala Research Centre

International Livestock Research Institute (ILRI)

Saint Louis University School of Medicine

Forest Park Forever

Little Creek Nature Center

University of Illinois College of Veterinary Medicine

Charles Darwin Foundation

Galápagos National Park

Ecology Project International (Galápagos)

Houston Zoo

13. Brief History of Your Organization's One Health Involvement

The Saint Louis Zoo Institute for Conservation Medicine was launched in 2011. We are building on a solid foundation of 20+ years of conducting One Health studies globally. Before the ICM was established, many of these studies had been conducted as part of the Saint Louis Zoo WildCare Institute <http://www.stlzoo.org/wildcare>. Additionally, much of the health care and research of our collection animals include collaborative teams that represent a number of disciplines so that we may best address health needs and challenges. The ICM, through its research projects, is moving the Saint Louis Zoo further to expand its footprint in the fields of conservation medicine / One Health. In spring of 2017, the ICM hosted the 4th annual One Health Fair at the Saint Louis Zoo, where veterinary students, human medical students and ecologists collaborated to share information with the public on a number of One Health issues (e.g., palm oil, water quality, vulture declines).

14. Additional Information

The ICM is always looking to further relationships and collaboration with colleagues working within the fields of conservation medicine and One Health. We are also working to partner with institutions that have shown a desire for the development of a Midwestern Regional Consortium of Conservation Medicine. Through partnerships with Universities in Missouri and medical schools at both Saint Louis University and Washington University, the ICM is furthering its mission by introducing the concept of One Health and Conservation Medicine to those in the training phases of their public health and human medicine careers.

Some of our current projects include:

- Health and movement studies of both Missouri native box turtles and giant Galápagos tortoises. These “sister” projects have strong outreach components connecting kids in the US and Ecuador to nature and the wildlife around them.
- Infectious diseases at the wildlife, human, domestic animal interface in northern Kenya. Domestic camels as a source of protein for local populations and threats to human/animal health.
- The effects of endocrine disrupting chemicals on sex determination across taxa in Missouri wildlife.

- Humboldt penguin health assessments at Punta San Juan, Peru. One Health approach to management of an ecosystem through capacity building (training of a Peruvian veterinarian).
- Studies on human health benefits associated with visiting zoological institutions.

