

**(May 16, 2012 ☐☐ Stillwater, OK)** – The Oklahoma State University Chapter of the National Academy of Inventors (NAI) recognized 23 inductees during its inaugural induction ceremony earlier this month. Among those honored were Drs. Sahlu Ayalew and Katherine Kocan of OSU's Center for Veterinary Health Sciences.

Sahlu Ayalew, Ph.D., Assistant Research Professor, is part of a Veterinary Pathobiology team that studies *Mannheimia haemolytica*, a bacterium that is one of the causative agents of bovine respiratory disease (BRD). The team's goal is to develop protective vaccines against this bacterium. BRD costs the beef industry more than a billion dollars per year. The team's research involves, identifying immunogenic proteins of

*haemolytica*

by immunoproteomic methods, mapping regions (epitopes) of candidate proteins and genetically engineering single vaccines (chimeric or multivalent vaccines) that contain immunodominant epitopes from several proteins. Over the past few years, the team has secured two U.S. patents and the work is ongoing.

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Katherine Kocan, Ph.D., OSU Regents Professor, Walter Sitlington Endowed Chair in Food Animal Research and Fellow, Society for Tropical Veterinary Medicine, is known internationally for her work with ticks and tick-borne diseases. She leads a team that partnered with researchers at the University of Minnesota to develop a cell culture system (the first in vitro system of growing the pathogen outside of a tick or cow) for *Anaplasma marginale* (the organism that causes bovine anaplasmosis, a tick-borne disease of cattle). The patent involves the method of growing the rickettsia,

*Anaplasma marginale*

, in cultured tick cells and for the use of antigens generated from this system in vaccine formulations.

According to the NAI's information, the academy 'supports the systematic application of organized knowledge and information that can generate technology and produce creative solutions to existing problems. Inventors are the discoverers and creators of these solutions and, as such, are key contributors to the advancement of technology.'

“OSU’s Center for Veterinary Health Sciences is proud to have such forward thinking researchers,” says Dr. Jean Sander, dean of the veterinary center. “New technologies or inventions play a key role in the economic development of the world and the veterinary center’s researchers make an important contribution to that system.”

*The Oklahoma State University [Center for Veterinary Health Sciences](#) is the only veterinary college in Oklahoma and one of 28 veterinary colleges in the United States and is fully accredited by the Council on Education of the American Veterinary Medical Association. The center’s [Boren Veterinary Medical Teaching Hospital](#) is open to the public and provides routine and specialized care for small and large animals. It also offers 24-hour emergency care and is certified by the American Animal Hospital Association. For more information, visit [www.cvhs.okstate.edu](http://www.cvhs.okstate.edu) or call (405) 744-7000.*