

One Health in ACTION!

Massachusetts Institute of Technology (USA) study explains why men are at higher risk for stomach cancer than women

Cancer research studies by MIT researchers demonstrated how the hormone estrogen protects women from gastric (stomach) inflammation that can lead to cancer. See MIT News item of July 13, 2011

<http://web.mit.edu/newsoffice/2011/gastric-cancer-0713.html>.

This “One Health” example highlights how utilizing co-equal multidisciplinary One Health principles can more expeditiously lead to potential life protecting and life saving acquisition of knowledge that is more likely to be efficacious.

Health scientists from three research institutions of higher learning in the U.S., including MIT, the University of North Carolina, Chapel Hill, North Carolina, and Columbia University, New York, NY participated. Moreover, a wide variety of health scientists holding degrees and having diverse expertise included outstanding researchers from disciplines including veterinary medicine and medicine. See list below including health scientists, veterinarians and a physician:

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The original scientific study referred to above is entitled “17 (lowercase beta)-estradiol and Tamoxifen prevent gastric cancer by modulating leukocyte recruitment and oncogenic cancer by modulating leukocyte recruitment and oncogenic pathways in Helicobacter pylori-infected INS-GAS male mice.” This was a product of *Cancer Prevention Research-American Association of Cancer Research* published OnlineFirst June 16, 2011.

The Director of (and professor in) the Division of Comparative Medicine at MIT in Cambridge, MA (USA), veterinarian **James G. Fox, DVM, MS** said, “The mouse models of Helicobacter pylori induced gastritis and gastric cancer, developed in our laboratory, are used by investigators worldwide and

have proven invaluable in dissecting the pathogenesis of Helicobacter pylori induced gastric cancer in humans". **Dr. Fox** is also a professor in MIT's Department of Biological Engineering. He currently serves on the One Health Initiative website's Honorary Advisory Board.

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