

CENTER FOR EMERGING INFECTIOUS DISEASES RESEARCH NEWS

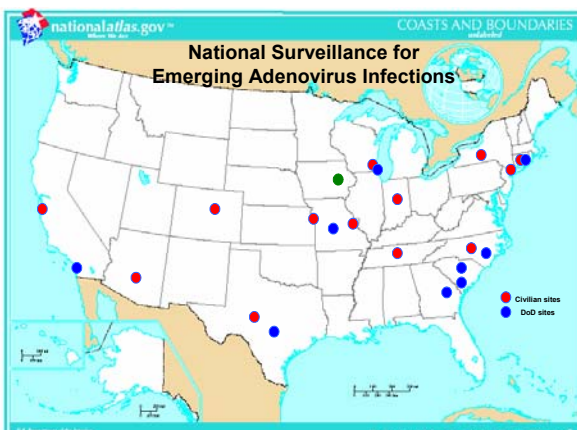
Avian influenza among Iowa's DNR workers and hunters – Dr. Jim Gill of the University Hygienic Laboratory (UHL), in collaboration with the Center and Iowa's Department of Natural Resources, is conducting a cross-sectional study for evidence of avian influenza infection among wildlife workers/hunters and Iowa's ducks. The study runs through the fall. Dr. Gil is looking for volunteer helpers (see opportunity section below).



Swine influenza infections in man – **Kendall Myers**, PhD student in the College of Public Health's (CPH's) Occupational and Environmental Health Dept, in pursuit of her dissertation, has helped to design and manage three cross-sectional studies of Iowans at risk of zoonotic influenza. Early laboratory results (conducted by the Emerging Pathogens Laboratory's Sharon Setterquist) indicate a **high proportion of veterinarians and rural farmers** have serological evidence of emergent swine influenza virus infections. Remarkably, as many as **53%** of the exposed have such serological evidence of infection. Kendall will be seeking CPH volunteers to serve as non-exposed controls this fall. Volunteers will be rewarded with a special CPH t-shirt.

Hemagglutination-Inhibition Serological Studies

	Percentage with titers =1:40					
	Swine H1N2	Swine H1N1	Human H1N1	Swine H3N2	Human H3N2 Panama	Human H3N2 Nanchung
University of Iowa personnel (n=4)	0%	0%	75%	50%	50%	100%
Non-swine veterinarians (n=9)	0%	11.1%	44.4%	88.9%	66.7%	88.9%
Meatpackers (n=97)	3.1%	8.3%	36.1%	39.2%	45.4%	76.3%
Swine veterinarians (n=64)	20.3%	45.3%	31.3%	51.6%	59.4%	62.5%
Keokuk County (n=178)	25.3%	53.4%	29.8%	55.1%	48.9%	66.3%



National Surveillance for Emerging Adenovirus Infections – Many of the US's leading adenovirus experts will meet in Iowa City, Oct 5-6 to discuss our progress in this new 5-year NIAID R01 grant. A key focus of the meetings will be to develop a new, efficient, molecular typing algorithms for human and possible animal adenoviruses. Thus far, we have been busy soliciting the collaborating sites you see in the figure on the left.

Poultry Handling Safety Study (Trojan Chicken Study) - Sandy Olson, a graduate student from the University of Wisconsin, spent her summer with the Center learning laboratory techniques and conducting her thesis project, **Poultry Handling Safety Study**. Sponsored by the Epidemiology Department, Sandy enrolled nearly 100 subjects at 2 county fairs, and dusting a chicken with a fluorescent powder surrogate for avian influenza, she documented the potential for avian to human transmission of avian influenza at these fairs.



Poultry Handling Safety Study images (From left to right top to down) Sandy Olson at the Johnson County Fair, her photographic box and recruiting poster, a judge handling poultry in a 4H competition, contaminated hands of a study participant

Iowa Beach Study – Investigators from UI's University Hygienic Laboratory, Iowa's DNR, the Center for Emerging Infectious Diseases, and the CPH's Department of Occupational and Environmental Health collaborated in conducting this prospective study this summer. The web-based study of lowans who frequent Iowa's fresh water beaches was our first use of TeleForm Software, an exciting, very flexible, data acquisition system. As enrollment was sparse due largely to inclement weather this summer, the study may be reopened next summer. Participants were offered an IBS t-shirt shown at the right.



Researchers include: **Pete Weyer, Bill Field, Greg Gray, Sandy Olson, Nancy Hall, David Riley, Michael Wickhman, Janice Boekhoff, and Eric O'Brien.** Students recruiters included **Erin Abramsohn; Ernesto Ortiz; Jennifer Kuntz; Josiah Alamu; Karry Jannie; Obiora Onwuameze; Vijay Golla, Noelle Perry, and Omayra Ortega. Karla Hurley, Meghan Harris, and Mike Mueller** designed and managed the website and data collection instruments. See: www.iowabeachstudy.net



Josiah Alamu and Obiora Onwuameze wait for beach goers on a rainy afternoon at Backbone Park.

Studying CAFO Workers for Exposure to zoonotic influenza – **Karry Jannie**, graduate student in the CPH, dedicated her MPH practicum this summer to describing confined animal feeding operation (CAFO) workers. Her goal is to learn who they are, where they receive medical care and how we might in the future study them for evidence of zoonotic infections. She partnered with numerous state and county health workers, charity organization, and academicians in describing these workers and their access to health care. **Alex Ramirez, DVM** graduate student in the CPH will now take the baton and target CAFO workers in his MPH practicum project. He plans to conduct a cross-sectional serological study of their exposures to zoonotic influenza.

NEW PERSONNEL:

Tara Smith, PhD, will join the Epidemiology Department this December as a **Molecular Infectious Disease Epidemiologist** and promises to participate in our Center. In fact she will join us for the adenovirus investigator meeting October 5-6 in Iowa City. Tara earned her BS in Biology at Yale, her PhD in Microbiology at the Medical College of Ohio, and recently completed a postdoctoral fellowship at the Center for Molecular and Clinical Epidemiology of Infectious Diseases at the University of Michigan's School of Public Health. She has considerable research experience and interest in a number of bacteria including: Group A and Group B streptococci and *Haemophilus influenzae*.

We had 3 students working or volunteering in our Emerging Pathogens Laboratory this summer. **Sarah Starks** (PhD student, UI CPH), **Sandy Olson** (MS student, University of Wisconsin), and **Heather Gray** (undergraduate, Azusa Pacific University). **Sarah** will continue work as an RA during the fall semester and has been joined for much of the late summer/fall by **Kendra Grams** (photo at right an undergraduate at Coe College) who is working in the lab as an intern. All



are learning the various molecular, culture, and serologic techniques we use in studying adenovirus, human metapneumovirus, and zoonotic influenza infections.

TEACHING/TRAINING:

Tropical Infectious Disease training – Four of our CPH students (**Stacy Holzbauer, DVM, Kaitlin Rainwater, Mike Parker, DVM and Tina Parker, DVM**) invested much of their summer in the Peruvian Amazon region conducting tropical infectious disease research. Their training was mentored by our collaborators Drs. Stancil and Olson in the Navy laboratory in Lima and funded in part by UI's **Center for International Rural and Environmental Health** as well as our **Center for Emerging Infectious Diseases**. These students were praised by Navy



Captain and Officer-in-Charge, Gregory Martin (Lima Peru) as a pleasure to work with and opportunities exist for more students to receive such training next year. Mike and Tina Parker (photo above) will present an epidemiology seminar on October 4th. Stacy and Kaitlin will present their work as an epidemiology seminar on October 11th. Both seminars will be held at noon in 1117 MERF. Peru photos may be viewed at: <http://test.public-health.uiowa.edu/CEID/Photos.htm>

Epi of ID lecturers are now digitally recorded. This fall **Epidemiology of Infectious Diseases (173:255)** has a record number of students 28. Through Ray Bennett's work, the lectures are being broadcast via PolyCom to 9 distance learners in Ames and Des Moines. As two of the distance learners are taking the course retrospectively, Ray is also digitally recording each lecture such that each is available via the web.

Next spring Dr. **Mike Pentella** of the UHL has agreed to direct **Diagnostic Microbiology for Epidemiologists (173:155)**. While Iowa City students are most welcome to take this course which is held in the Oakdale Hall, Mike plans to again reach out to distance learners and offer the course over the Iowa Cable Network (ICN).

Zoonotic Disease Summer Course – Dr. Greg Gray, Dr. Jim Gill, and other faculty are developing an intensive summer short course that would introduce students to many practical aspects of studying zoonotic diseases. The goal is to help students gain not only knowledge regarding the diseases but also to introduce them to public health field activities regarding these diseases. Field activities are likely to include mosquito larvae and adult capture/speciation; tick collection and speciation; and tours of confined animal feeding operations/ meat processing plants. Watch for this course to be offered during the summer of 2005.



JOB / TRAINING OPPORTUNITIES

Data Analysts/Epidemiologists Sought for US Infectious Disease Research in Egypt

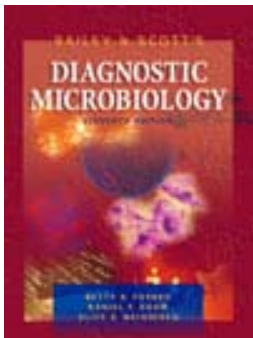
- If you are in training or have Masters or PhD level in epidemiology or biostatistics then this unique opportunity may be for you. Dr. Jim Torner has been working with Navy Captain John Sanders of the Navy Laboratory in Cairo, Egypt. They are seeking part-time or full-time help in analyzing epidemiological data. Depending upon the nature of the arrangements, **salary, housing, transportation, and other benefits are available.** Participants would help to coauthor numerous research publications and enjoy some very interesting travel. The multi-disciplined team is located in a very large, well-established laboratory with BL-3 capabilities (see <http://www.nmrc.navy.mil/namru3.htm>).

If you are interested, send your resume and the date you would be available to Drs Jim Torner (james-torner@uiowa.edu) and John Sanders (sandersj@namru3.org). NAMRU3 was an excellent first research position for me (Greg Gray).



NIAID funded post-doc positions in Iowa City – Each year, **Jack Stapleton** of UI's College of Medicine has NIAID funded post-doc positions in pathogenesis of **bacterial, viral or parasitic diseases**. Candidates must be a US citizen or have a green card. Jack may be contacted via Jack-Stapleton@uiowa.edu.

Emerging Infectious Diseases (EID) Laboratory Fellowships or Post-Doctoral Laboratory Research Fellowships - Students or postdocs interested in these positions should contact Beth Hochstedler, the University Hygienic Laboratory's Training and Outreach Coordinator at 319-335-4303 or e-mail: beth-hochstedler@uiowa.edu. **These programs offer an annual stipend, medical insurance, funds to travel to host laboratory and funds for travel to professional or scientific meetings.**



Student teaching assistant needed spring semester – Dr. Mike Pentella of the UHL is seeking someone to assist him in teaching the Diagnostic Microbiology for Epidemiologists (173:155) course next spring. Ideally, the teaching assistant (TA) should have some microbiology experience. The TA would assist with managing the course web site, video taping lectures, and perhaps working with Mike in the laboratory. The course meets from 3:30-4:50PM on Mondays and Wednesdays. Interested students should send Dr. Pentella their resume via email (Michael-pentella@uiowa.edu).

Avian Influenza Field Study Opportunity - The Center for Emerging Infectious Diseases and the UHL are collaborating in studying avian influenza transmission. One IRB-approved project involves culturing wild ducks and geese found in Iowa to see if they carry influenza virus. The same study calls for studying humans in close contact to these birds.



On Saturday and Sunday, **October 16 and 17**, we will be collecting samples from wild ducks taken during a controlled hunt at Lake Odessa Wildlife Management Area near Wapello, IA. In addition we will obtain blood samples from these hunters. Study activities will be conducted in a fully enclosed DNR check station at the site.

We seek volunteers to help us enroll hunters and culture ducks. Help is needed from 8:00AM until shortly after dark on both days. We can use most anyone but persons with **phlebotomy skills** are especially needed. If you are interested in helping, please contact Dr. Jim Gill, MD, PhD, of the UHL, tel 319 335-4581, james-gill@uiowa.edu

NEW RESEARCH PROJECTS:

Sandy Olson (graduate student) Gregory C. Gray (PI) 7/25/04-6/30/05

Poultry Handling Safety Study

Epidemiology Department funds

Pilot study of occupational risks for avian influenza at county fairs

Peter Weyer (PI) 8/20/04 - 6/30/05

Iowa Beach Study

Center for Health Effects of Environmental Contamination University of Iowa & Iowa Department of Natural Resources

Prospective web-based study of fresh water beach contamination and self-reported gastrointestinal illness

See: www.iowabeachstudy.net

Alex Ramirex (graduate student) Gregory C. Gray (PI) 10/15/04-5/31/05

Cross-sectional pilot study to Identify Prevalence of Zoonotic Influenza among Swine and Poultry Confinement Workers

Center funds

Pilot study of occupational risks for avian influenza.

GRANTS:

Center grant / contract activity may be found at the Center web site:

<http://www.public-health.uiowa.edu/CEID/Projects.htm>

ANNOUNCEMENTS

We recognize and welcome three new Iowa Department of Public Health Professionals:
Dr. Aileen Buckler - Deputy State Epidemiologist
Dr. Susan Brockus - State Public Health Veterinarian.
Dr. Gianluca Flamigni - Epidemiology Intelligence Officer

NEW PUBLICATIONS / MANUSCRIPTS:

Gray GC, Setterquist SF, Jirsa SJ, DesJardin LE, Erdman DE. An emergent strain of human adenovirus has become endemic in Iowa. Emerg Infect Dis. In press

PRESS COVERAGE:

Our Center was highlighted via email by the College Of Public Health Weekly News Digest on August 27th, 2004

UPCOMING EVENTS:

Sep 29, 2004 - Center for Emerging Infectious Diseases investigator informal dinner meeting (6-8:00PM, The Vine, 303 2nd St., Coralville, 354-4459)

Oct 2, 2004 - Kevin Ault MD (Obstetrics and Gynecology, Epidemiology) will be giving a talk entitled "Human Papilloma Virus Vaccines" at the annual meeting of the **Infectious Diseases Society of America in Boston**. This lecture will be part of a session entitled "Bridging the Generation Gap in Vaccines." <http://www.idsociety.org/>

Oct 4, 2004 – 12-1PM (1117 MERF) Epidemiology Seminar **Six weeks in Peru: Developing an Active Febrile Surveillance Project and More**, Mike Parker, DVM, and Tina Parker, DVM

Oct 5-6, 2004 – National Surveillance for Emerging Adenovirus Infections Investigator meeting, Iowa City

Oct 11, 2004 – 12-1PM (1117 MERF) Epidemiology Seminar regarding their **Summer Research in the Amazon region of Peru**, Kaitlin Rainwater, MPH and Stacy Holzbauer, DVM.

Oct 13, 2004 – 12-1PM Epidemiology Seminar, **Circulating Nucleic Acids: A Laboratory Marker for BSE-Susceptibility**, Dr. Brenig

October 14-16, 2004 – a meeting of researchers and public health officials regarding TSEs "**Animal Prion Diseases and the Americas**" will take place on October 14-16, 2004, in Ames, Iowa. See: <http://www.ustse2004.com>

October 22, 2004 – **Public Health and Terrorism Preparedness: Cross-Border Issues Roundtable**, Renaissance Savery Hotel, Des Moines, IA

October 22-23, 2004 – **The Third Biennial All Iowa Virology Symposium** at Reiman Gardens and the Gateway Center in Ames, IA. <http://www.ent.iastate.edu/iowavirology/>

October 27, 2004 – **Center for Emerging Infectious Diseases investigator informal dinner meeting** with Dr. David Brown, senior science reporter for the Washington Post, (6-8:00PM, Bonehead's Bar and Grill - formerly Mondo's Downtown, 212 S. Clinton St)

October 28, 2004 – Center for Preparedness Grand Rounds by **Dr. David Brown, a senior science reporter for the Washington Post. Risk Communications: How to Communicate Science to the Public.** 12:00 – 1:00 p.m. at room 20 Nursing Building

October 28, 2004 – 2-3PM Dr. Brown to meet with CPH graduate students in the Isacson Conference Room, C225GH.

November 18, 2004 – **Human Prion Disease Epidemiology**, Grand Rounds presentation from 12:00 – 1:00 p.m. at room 20 Nursing Building, by Dr. James Torner, Professor and Head, Department of Epidemiology, College of Public Health, University of Iowa.

July 10-13 2005 - International Society for STD Research Amsterdam, Netherlands July 10-13 2005. <http://www.isstdr.org/>

The Center for Emerging Infectious Diseases greatly appreciates your collaboration.

Please help us make the Center useful to you. Let me know if you have ideas to share, grant proposals to draft with others, opportunities for students, or email news that would be appropriate for such periodic email messages such as this. Please also let me know if you have recommendations to improve our Center web site.

My best,

Greg

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