17 April 2009

Chem-Bio News

1. ESTIMATING THE LOCATION AND SPATIAL EXTENT OF A COVERT ANTHRAX RELEASE:
"Our analysis demonstrates that while estimates based on the first ten or 15 observed cases were more accurate and less sensitive to model misspecifications than those based on five cases, overall mortality is minimized by targeting prophylactic treatment early on the basis of estimates made using data on the first five cases."

2. TEXAS LABORATORY TRACKS DEADLY DISEASES WORLDWIDE: *"The Galveston laboratory has an in-house collection of most pathogens and works with collaborators around the world to identify and study new diseases."*

3. CHEMICAL AND BIOLOGICAL SENSOR INTERFERENT (CBSI) DATABASE: *"The Biodefense Group at Massachusetts Institute of Technology Lincoln Laboratory (MIT LL) participated in a Defense Threat Reduction Agency (DTRA)-funded program to document the abundance of naturally occurring materials that negatively impact the performance of deployed chemical and biological (CB) sensors."*

4. DTIC LAUNCHES DODTECHIPEDIA: *"The Under Secretary of Defense for Acquisition, Technology and Logistics (AT&L) announces the launch of DoDTechipedia, an initiative of the Defense Technical Information Center (DTIC®), at the direction of the Director of Defense Research and Engineering (DDR&E)."*

5. EXPERTS PREDICT PAKISTAN'S COLLAPSE: *"A growing number of U.S. intelligence, defense and diplomatic officials have concluded that there's little hope of preventing nuclear-armed Pakistan from disintegrating into fiefdoms controlled by Islamist warlords and terrorists."*

Chem-Demil News

1. UMATILLA CHEMICAL DEPOT - ANNUAL FULL-SCALE EMERGENCY EXERCISE IS NEXT TUESDAY: *"The Umatilla Chemical Agent Disposal Facility (UMCDF) and the Umatilla Chemical Depot will participate with county and state emergency management officials during an annual Chemical Stockpile Emergency Preparedness Program (CSEPP) drill next Tuesday, April 21."*

CB Daily Report

Chem-Bio News

ESTIMATING THE LOCATION AND SPATIAL EXTENT OF A COVERT ANTHRAX RELEASE
By Judith Legrand, Joseph R. Egan, Ian M. Hall, Simon Cauchemez, Steve Leach, Neil M. Ferguson
PLoS Computational Biology
April 10, 2009

"Rapidly identifying the features of a covert release of an agent such as anthrax could help to inform the planning of public health mitigation strategies. Previous studies have sought to estimate the time and size of a bioterror attack based on the symptomatic onset dates of early cases. We extend the scope of these methods by proposing a method for characterizing the time, strength, and also the location of an aerosolized pathogen release. A back-calculation method is developed allowing the characterization of the release based on the data on the first few observed cases of the subsequent outbreak, meteorological data, population densities, and data on population travel patterns. We evaluate this method on small simulated anthrax outbreaks (about 25–35 cases) and show that it could date and localize a release after a few cases have been observed, although misspecifications of the spore dispersion model, or the within-host dynamics model, on which the method relies can bias the estimates. Our method could also provide an estimate of the outbreak's geographical extent and, as a

consequence, could help to identify populations at risk and, therefore, requiring prophylactic treatment. Our analysis demonstrates that while estimates based on the first ten or 15 observed cases were more accurate and less sensitive to model misspecifications than those based on five cases, overall mortality is minimized by targeting prophylactic treatment early on the basis of estimates made using data on the first five cases. The method we propose could provide early estimates of the time, strength, and location of an aerosolized anthrax release and the geographical extent of the subsequent outbreak. In addition, estimates of release features could be used to parameterize more detailed models allowing the simulation of control strategies and intervention logistics."

The full article can be found at:
http://www.medpagetoday.com/upload/2009/4/10/journal.pcbi.1000356.pdf
Return to Top

TEXAS LABORATORY TRACKS DEADLY DISEASES WORLDWIDE
By Greg Flakus
VOANews.com
April 10, 2009

"New illnesses appear all the time around the world and are often found to be variations of illnesses already known. But to be sure, samples of the virus or bacteria thought to be causing the illness are sent back to Galveston.

They end up in a 52,000 square-meter building - The Galveston National Laboratory-on the campus of the University of Texas Medical Branch. The lab's deputy director, Jim LeDuc says the staff on hand is ready for whatever comes in.

"Our faculty [members] are experts in a number of different diseases-plague and anthrax, virus diseases, common ones like influenza and less common ones that you see around the world like dengue and some of the viral hemorrhagic fevers," he said.

The Galveston laboratory has an in-house collection of most pathogens and works with collaborators around the world to identify and study new diseases."

The full article can be found at: http://www.voanews.com/english/2009-04-10-voa45.cfm
Return to Top

CHEMICAL AND BIOLOGICAL SENSOR INTERFERENT (CBSI) DATABASE
By John Campo, CBRNIAC Information Systems Manager
CBRNIAC Newsletter, No. 1
2009

"The Biodefense Group at Massachusetts Institute of Technology Lincoln Laboratory (MIT LL) participated in a Defense Threat Reduction Agency (DTRA)-funded program to document the abundance of naturally occurring materials that negatively impact the performance of deployed chemical and biological (CB) sensors. In a joint venture, MIT LL teamed with the Chemical, Biological, Radiological and Nuclear Defense Information Analysis Center (CBRNIAC) to develop the Chemical and Biological Sensor Interferent
(CBSI) Database.

CBSI links environmental measurements of abundances of naturally occurring materials that have been either confirmed or suspected to interfere with deployed DoD chemical and biological detection technologies. Entries have been culled from open sources and from subject matter experts in the DoD CBRN community. Citation information to primary sources of data and/or points of contact is provided for all entries.

CBSI users can navigate to information via five different paths – Sensor, Sensor Technology, Interferent, Location, and Eco-Region. Each of these entry points is represented by a tab on the upper left portion of the main page."

The full article can be found at: https://www.cbrniac.apgea.army.mil/Documents/vol10_num1.pdf
Return to Top

DTIC LAUNCHES DODTECHIPEDIA
CBRNIAC Newsletter, No. 1
2009

"The Under Secretary of Defense for Acquisition, Technology and Logistics (AT&L) announces the launch of DoDTechipedia, an initiative of the Defense Technical Information Center (DTIC®), at the direction of the Director of Defense Research and Engineering (DDR&E). A DoD scientific and technical wiki, DoDTechipedia is designed to increase communication and collaboration among DoD scientists, engineers, program managers and operational warfighters. This tool will enable DoD personnel to collaborate on technological solutions, reduce costs, add capability and avoid duplication.

DoDTechipedia will aid in the rapid development of technology and the discovery of innovative solutions to meet critical capability needs and gaps.

Creating a valuable source of information requires input. Share your knowledge, assist a colleague, ask a question, post an event, start a blog to and be part of the development of the DoD's first knowledge network. To ensure that the most advanced technologies reach the warfighter tomorrow, collaborate on DoDTechipedia today.

Visit DoDTechipedia at https://www.DoDTechipedia.mil."

The full article can be found at: https://www.cbrniac.apgea.army.mil/Documents/vol10_num1.pdf
Return to Top

EXPERTS PREDICT PAKISTAN'S COLLAPSE
By Jonathan S. Landay
KansasCity.com
April 16, 2009

"A growing number of U.S. intelligence, defense and diplomatic officials have concluded that there's little hope of preventing nuclear-armed Pakistan from disintegrating into fiefdoms controlled by Islamist warlords and terrorists.

"It's a disaster in the making on the scale of the Iranian revolution," said a U.S. intelligence official with long experience in Pakistan who requested anonymity.

Pakistan's fragmentation into warlord-run fiefdoms that host al-Qaida and other terrorist groups would have grave implications for the security of its nuclear arsenal; for the U.S.-led effort to pacify Afghanistan; and for the security of India, the nearby oil-rich Persian Gulf and Central Asia, the U.S. and its allies.

"Pakistan has 173 million people and 100 nuclear weapons, an army which is bigger than the American Army, and the headquarters of al-Qaida sitting in two-thirds of the country which the government does not control," said David Kilcullen, a counterinsurgency consultant to the Obama administration."

The full article can be found at: http://www.kansascity.com/136/story/1146830.html
Return to Top

UMATILLA CHEMICAL DEPOT - ANNUAL FULL-SCALE EMERGENCY EXERCISE IS NEXT TUESDAY
US Army Chemical Materials Agency News Release
April 15, 2009

"The Umatilla Chemical Agent Disposal Facility (UMCDF) and the Umatilla Chemical Depot will participate with county and state emergency management officials during an annual Chemical Stockpile Emergency Preparedness Program (CSEPP) drill
next Tuesday, April 21.

The drill won't start until after 5 p.m. Morrow and Umatilla counties in Oregon will sound their public sirens and alert people of the drill through test exercise messages via the tone alert radios and highway reader board messages. Emergency Alert System messages also will be supplied to local radio and television stations, and Highway advisory radio systems will be used.

The public will hear Westminster chimes in Umatilla and Morrow counties of Oregon and in Benton County, Wash., when the exercise begins. No schools will be involved in the drill. Out-of-sequence drills were conducted in Umatilla County schools last fall.

First responders in the CSEPP program will be involved in the evening drill.

The Joint Information Center (JIC) located at the Umatilla County Criminal Justice Building in Pendleton will be activated to respond to simulated public and media inquiries. Representatives of both the depot and UMCDF will respond to the JIC, and UMCDF also will support the Operations Center at the depot.

Evaluators will observe all aspects of the drill and provide their comments on how the performance of the exercise players could be improved.."

The full article can be found at: http://www.cma.army.mil/include/docrendition.asp?DocID=003680475
Return to Top

END of CB Daily Report.

Send subscription requests, unsubscribing requests, questions and comments to**:**

Steve Tesko: Steve.Tesko@anser.org

PRIVACY POLICY

Content provided in the *CB Daily Report* does not reflect the viewpoint(s) of Analytic Services Inc. Analytic Services Inc. does not share, publish, or in any way redistribute subscriber email addresses or any other personal information.