Chemical and Biological News

DISARMAMENT

OPCW Director-General Visits The Russian Federation: New Chemical Weapons Destruction Facility at Leonidovka Commissioned

The Organisation for Prohibition of Chemical Weapons (OPCW) Director-General, Ambassador Rogelio Pfirter, paid an official visit to the Russian Federation from June 16-28, 2008 to attend the official event marking the commencement of the new Leonidovka chemical weapons destruction facility in the Penza region.

The Director-General welcomed the commissioning of the new facility, which will allow the Russian Federation to make further progress in fulfilling its obligations under the Chemical Weapons Convention (CWC). He highlighted the significance of the event as evidence of the Russian Federation's strong commitment to complete the destruction of its chemical weapons stockpiles by 2012, in accordance with the Chemical Weapons Convention (CWC).

Mr. Victor Kholstov, Deputy-Director of the Federal Industry Agency, Head of the Russian Chemical Weapons Destruction Program, highlighted the significance of the occasion and reiterated the commitment of the Russian Federation to fulfil its obligations under the CWC in a full and timely fashion and within the deadlines set by the Convention.

General Valery Kapashin, Head of the Federal Department for Safe Storage and Disposal of Chemical Weapons, stated that all the remaining destruction facilities in Russia will be built and commissioned on time.

The chemical weapons destruction facility in Leonidovka is the fourth chemical weapons destruction facility to have begun operation under the auspices of the Russian Federation's Federal Programme to destroy its total declared stockpile of 40,000 metric tons of chemical warfare agents, in accordance with the CWC. It will be used to destroy 6,884.794 MT of GB (sarin), GD (soman), GD viscous and VX nerve agents, which constitutes about 17.7 percent of Russia's declared chemical weapons stockpile. The Government of Switzerland has contributed CHF 3,000,000 to the Leonidovka facility.

During the destruction process, OPCW inspectors will maintain a 24 hour presence at the facility to ensure that all chemical weapons at the site are irreversibly destroyed.

OPCW implements the Chemical Weapons Convention. Under the Convention, all chemical weapons and their production capacity are to be completely eliminated within a stipulated timeframe and under international monitoring.

http://www.opcw.org/June 20, 2008

RECENT DEVELOPMENTS IN SCIENCE AND TECHNOLOGY

New technique can detect biological, chemical and explosive agents

Airplane passengers and baggage might be screened one day by a machine under development at Lawrence Livermore National Laboratory (LLNL) that can detect explosive, chemical and biological agents all at the same time.

A team of LLNL researchers has conceptually proven that a three-in-one machine, or "universal point detection system," can be achieved, said George Farquar, a postdoctoral fellow and physical chemist at the Lab's Glenn T. Seaborg Institute.

The team's latest advance, using its mass spectrometry system to detect the presence of minuscule particles of explosives, is described in the March 1 edition of Analytical Chemistry, a semi-monthly journal published by the American Chemical Society.

"We have found we can potentially detect an incredibly small quantity of material, as small as one dust-speck-sized particle weighing one trillionth of a gram, on an individual's clothing or baggage," Farquar said. "This is important because if a person handles explosives they are likely to have some remaining residue."

Using a system they call Single-Particle Aerosol Mass Spectrometry, or SPAMS, the Livermore scientists already have developed and tested the technology for detecting chemical and biological agents.

The new research expands SPAMS' capabilities to include several types of explosives that have been used worldwide in improvised explosive devices and other terrorist attacks.

"SPAMS is a sensitive, specific, potential option for airport and baggage screening," Farquar said. "The ability of the SPAMS technology to determine the identity of a single particle could be a valuable asset when the target analyte is dangerous in small quantities or has no legal reason for being present in an environment." The team conducted its explosives tests under laboratory conditions at LLNL last summer.

"The tests went well. They show the potential to identify explosives in a field setting," Farquar said. Besides Farquar, other LLNL researchers on the explosives detection team included the paper's lead author, Audrey Martin, an LLNL chemist and Michigan State University Ph.D. student, chemists Eric Gard and David Fergenson, and physicist Matthias Frank.

The early history of the three-in-one detection system started at LLNL in 1999 with the development of what is called the Bioaerosol Mass Spectrometry (BAMS) system. This system can detect airborne biological pathogens and sound a warning in less than one minute.

In late 2005, Livermore researchers started work to expand the capabilities of BAMS to include chemicals and explosives, setting the stage for the new machine now called SPAMS.

"While this instrument started as a biological detector, we saw that it had the potential to do much more by detecting other threat agents, such as chemicals and explosives," Farquar said. The biological detection system underwent field testing for background studies at San Francisco International Airport in late 2005. Farquar describes the biological detection technology "as very solid."

In late 2005, the biological system underwent testing for several biological "surrogates" at the Applied Physics Laboratory at Johns Hopkins University. A second round of tests – with smaller releases and seven days of autonomous sampling – is planned for later this month.

Initial studies to test the performance of SPAMS with four chemical "simulants" were undertaken in 2006.

Future plans for SPAMS include a field test at a large public facility in the United States later this year, upgrading the technology for removing particles from luggage and clothing, and adding the capability of detecting narcotics, Farquar said. Research funds to add the capabilities of detecting explosives and chemicals have been provided by the Defense Advanced Research Projects Agency, the U.S. Department of Homeland Security and LLNL's Glenn T. Seaborg Institute, which is part of the Chemistry, Materials and Life Sciences directorate.

Founded in 1952, Lawrence Livermore National Laboratory has a mission to ensure national security and to apply science and technology to the important issues of our time. Lawrence Livermore National Laboratory is managed by the University of California for the U.S. Department of Energy's National Nuclear Security Administration.

http://rinf.com/alt-news/contributions/new-technique-can-detect-biological-chemical-and-explosive-agents/3963/
June 24, 2008

Plastic bottles are deadly for your brain

Plastic containers may be deadly for your brain. Canadian researchers have found that Bisphenol A (BPA), the chemical used in making plastic containers, might be responsible for impairing many brain functions such as learning and remembering.

They also fear that it could be a factor behind Alzheimer's, schizophrenia and depression.

BPA is globally used in making plastic water bottles, baby food bottles, food containers and dental prostheses.

In their study, the researchers at the University of Guelph found that BPA might be leaking into the solid or liquid foods kept in the plastic containers.

When these foods and liquids are consumed, they said, the chemical might be getting into the human system, disrupting communication between brain neurons which is vital in understanding and remembering.

According to researcher Neil MacLusky, the slow doses of this chemical badly impair the formation of synapses in the areas of the human brain linked to learning.

As part of their study, the researchers fed African green monkeys at St. Kitts Island with foods containing low levels of BPA for a month.

After that period, they found that the chemical had slowed down the synapses in the monkey brain.

MacLusky said this process was linked to the hormone oestrogen.

"Oestrogen enhances the rate at which some types of synapses are formed and is vital in maintaining normal neuronal structure in regions of the brain that control learning, memory and mood state," he said in a TV interview.

When monkeys had BPA in their system, he said, it seriously impaired this process, affecting their ability to remember.

http://timesofindia.indiatimes.com/articleshow/msid-3444053,prtpage-1.cms

Robot Has Biological Brain

Scientists have created a robot controlled by a biological brain made of rat neurons.

The robot, named Gordon, is not exactly an Einstein but represents a remarkable bridging of the gap between biology and technology. Gordon relies a dish with about 60 electrodes to pick up electrical signals generated by the brain cells.

The brain drives the robot's movements. Every time the robot nears an object, signals are directed to stimulate the brain by means of the electrodes, the researchers explained in a statement released by the University of Reading in England. In response, the brain's output drives the robot's wheels left and right, so that it moves around in an attempt to avoid hitting objects.

The robot has no additional control from a human or a computer, the scientists state. Its sole means of control is from its own brain.

"This new research is tremendously exciting as firstly the biological brain controls its own moving robot body, and secondly it will enable us to investigate how the brain learns and memorizes its experiences," said the university's Kevin Warwick of the School of Systems Engineering. "This research will move our understanding forward of how brains work, and could have a profound effect on many areas of science and medicine."

The researchers aim to get the robot to learn, by applying different signals as it moves into predefined positions. That might allow them to witness how memories manifest themselves in the brain when the robot revisits familiar territory. They hope the work will eventually

lead to a better understanding of Alzheimer's, Parkinson's, stroke and brain injuries.

"One of the fundamental questions that scientists are facing today is how we link the activity of individual neurons with the complex behaviors that we see in whole organisms," said Ben Whalley, a pharmacist at the university and member of the team that built Gordon. "This project gives us a really unique opportunity to look at something which may exhibit complex behaviors, but still remain closely tied to the activity of individual neurons. Hopefully we can use that to go some of the way to answer some of these very fundamental questions. "

The project was funded by the UK Engineering and Physical Sciences Research Council.

http://www.livescience.com/technology/080814-robot-brain.html

New nano device detects immune system cell signaling

Scientists have detected previously unnoticed chemical signals that individual cells in the immune system use to communicate with each other over short distances.

The signals the researchers detected originated in dendritic cells – the sentinels of the immune system that do the initial detection of microscopic invaders – and were received by nearby T-cells, which play a number of crucial roles in the immune system, including coordination of attacks on agents that cause disease or infection.

The chemical signals cells exchange when they come into contact have been studied extensively. But it has not been possible to detect chemical messages that travel between cells that are nearby but not in contact – called paracrine signals – because they are highly localized and they are produced in concentrations that have been below detection levels. A new technology, called a multi-trap nanophysiometer, was required to demonstrate the existence of non-contact signaling. This is one of the first microfluidic devices that has been applied successfully to the study of cell-to-cell signaling in the immune system.

A detailed description of the multi-trap nanophysiometer (MTN) and how it enabled the accidental discovery of paracrine signaling has been published online by the Lab on a Chip journal. The new device was developed by a team of researchers at the Vanderbilt Institute for Integrative Biosystems Research and Education headed by John P. Wikswo, the Gordon A. Cain University Professor at Vanderbilt.

"This is an important advance and potentially very useful technology," says co-author Derya Unutmaz, now an associate professor of microbiology at New York University's School of Medicine. "The ability to study the behavior of single cells may not be as critical if you are studying the heart or muscles, which are mostly formed by uniform cells, but it is crucial for understanding how the immune system functions. The wide surveillance of the body that it conducts requires extensive communication between dozens of different kinds of immune cells."

The reason for this is that the dendritic cells, T-cells and B-cells in the immune system, which tend to concentrate in the lymph nodes spread throughout the body, function as individual, unattached cells. If dendritic cells detect invaders in the body, they rapidly migrate to lymph nodes and have to find the appropriate T-cells to alert them. But how dendritic cells attract the right T-cells among millions of cells within the lymph nodes remains an immunological puzzle.

Scientists have been trying to develop systems for single-cell analysis for a number of years. Because of the difficulty of keeping normal cells alive, they have been forced to use cells that have been genetically altered so they can be cultured indefinitely. Although the alteration "immortalizes" the cells, it also significantly limits their usefulness. The MTN is the first system that can monitor biochemical changes in large numbers of normal or primary cells at the single-cell level for prolonged periods, Unutmaz says.

The new device consists of a series of hair-sized channels molded in a special kind of plastic that is glued onto the bottom of a glass microscope coverslip. A shoebox-sized pump pushes fluid (normally the media used to culture cells) through one channel that opens up into a chamber filled with hundreds of tiny, three-sided wells small enough to trap individual cells. When cells are injected upstream, they are passively trapped in the wells and are held there solely by the fluid flowing out even smaller holes in the well bottoms. By precisely controlling the flow rate, the researchers can keep normal cells alive for longer than 24 hours.

The researchers monitor the cells with a digital camera attached to a standard microscope, typically snapping images every 30 seconds. They have written software that allows them to analyze the movements and reactions of individual cells. They can record various cell behaviors by injecting different fluorescent dyes into the cells. For example, when naive T-cells are primed for an immune response, the concentration of calcium ion in their cytoplasm jumps up. So when the cytoplasm contains a dye that fluoresces when it comes into contact with calcium, it glows brightly enough to be easily detected.

The surprise discovery of paracrine signaling was made by graduate student Shannon Faley, now a postdoctoral research associate at the University of Glasgow, Scotland. She filled up a nanophysiometer chamber with naive human T-cells and then added mature dendritic cells. She was looking for evidence of T-cell activation when the T-cells and dendritic cells were trapped in the same well and came into contact. This contact is part of the process that allows dendritic cells to convey information about potentially infectious invaders to the naive T-cells, which can then begin dividing to produce an army of effector T-cells custom-designed to attack the invaders.

Faley saw what she was looking for, but she also noticed something unexpected: some T-cells that were trapped in wells downstream of those with dendritic cells, which had never been in direct contact with them, were also lighting up. “My reaction when I saw them was, ‘What in the world is going on?’” she says.

“When she saw this, Shannon did a very clever thing,” says Wikswo. “She took one chamber and filled it with dendritic cells and took a second chamber and filled it with T-cells. Then she hooked the second chamber downstream of the first.” When she did so, the T-cells in the second chamber immediately began lighting up, demonstrating that the mature dendritic cells were releasing a chemical factor that activates naive T-cells without coming into contact.

“At this point we don’t know what this factor is or what its function is,” says Faley. According to Unutmaz, a logical function for this signal would be to attract T-cells to dendritic cells that have important information to give them. This supposition is strengthened by the observation that immature dendritic cells don’t produce this factor but mature immunogenic dendritic cells – those that have encountered a pathogen or danger signal – do.

When Faley tried to duplicate this result using standard immunological techniques, however, the result was negative. The standard method consists of growing a culture of dendritic cells in a culture flask, adding T-cells and looking for a reaction. If the cell density is too great, the cells begin poisoning each other, run out of food and die. So the standard practice is to keep the density at a low enough level that the cells remain healthy when the cell media is changed daily.

“This represents a dilution factor of 100 compared to the nanophysiometer,” says Wikswo. “So the factor produced by the dendritic cells was too dilute to activate the T-cells.” It wasn’t until Faley redid the standard test with cell densities 10 times higher than normal that she got the T-cells to activate.

“This represents one of the advantages of the nanophysiometer; it suspends cells in extremely small volumes that are much closer to what they experience in the body and uses slow fluid flow to keep the cells alive,” Wikswo says.

Not only is this capability important in improving our knowledge of how the immune

system works, but it may also be the key to understanding why the system fails, as it does in cases like cancer and HIV/AIDS, says Dana Marshall, associate professor at the Meharry Medical College. She and the Wikswo group have submitted a proposal to use the technique to study triple-negative breast tumors, one of the most deadly forms of breast cancer.

"The ability to look at the signaling among cancer cells and immune cells is extremely powerful," Marshall says. "According to the evidence, the immune system tries to suppress tumor cells but it fails to do so. It is not clear why it fails. If we can figure that out, then we should be able to develop more effective treatments."

In addition, the multi-trap nanophysiometer could provide a better way to identify the most effective forms of chemotherapy to use for each individual, Marshall suggests.

There are enough cells in a typical biopsy to load one chamber with tumor cells and a second chamber with immune-system cells from a patient, subject them to different chemotherapeutic agents and see how the two groups of cells respond. "Often, when therapy fails, the tumor responds to a chemotherapy treatment for a period of time and then it stops. This approach may let us figure out why that happens," Marshall says.

http://www.biologynews.net/archives/2008/09/03/new_nano_device_detects_immune_system_cell_signaling.html

Virus to wipe out malaria mosquitoes

In what could be deemed as a remarkable medical breakthrough, American researchers have discovered a virus which they claim is infectious to the Anopheles gambiae mosquito that is responsible for transmitting malaria.

According to them, the virus could someday be used to pass on new genetic information to the Anopheles mosquitoes as part of a strategy to control malaria, which kills over one million people worldwide each year. In fact, the virus, AgDNV, is a densonucleosis virus or "densovirus", which are very common to mosquitoes and other insects, but do not infect vertebrate animals such as humans.

Although the virus does not appear to harm the mosquitoes, the researchers at Johns Hopkins Bloomberg School of Public Health have determined that it is highly infectious to mosquito larvae and is easily passed on to humans.

According to the study's lead author Jason Rasgon, the discovery came about serendipitously while the research team was conducting experiments to determine whether Wolbachia bacteria could be used to infect An. gambiae mosquito cells. During the analysis, they noticed an "artifact" that appeared as a prominent band in the gel used to detect the bacteria.

"Finding artifacts such as this one during experiments isn't uncommon, but we decided to investigate this one further since we kept observing it over and over. When we sequenced it we're surprised to learn that we found a new virus," he said.

"In theory, we could use this virus to produce a lethal toxin in the mosquito or instruct the mosquito to die after 10 days, which is before it can transmit the malaria parasite to humans. However, these concepts are many years away," he said.

http://timesofindia.indiatimes.com/articleshow/msid-3404923,prtpage-1.cms

NATIONAL AND INTERNATIONAL DEVELOPMENTS

Patil warns about threat of bio-terrorism

Warning about the threat of bio- terrorism, Home Minister Shivraj Patil today said there

was a need for better coordination between the Centre and states to meet such a challenge as he unveiled guidelines for biological disaster management.

The guidelines prepared by the National Disaster Management Authority (NDMA) focus on issues related to health, immediate trauma and suffering, mental health and psychological support, identification of vulnerable groups and creation of community awareness to meet the challenges.

After releasing the National Guidelines on Biological Disaster Management, the Home Minister cautioned that biological disasters could spread like wild fire and said biotechnology can be used for causing harm to human beings and genetics can be used as a weapon.

"It is very difficult to predict natural as well as manmade disasters. Therefore, constant vigilance is necessary. And, preparedness is all the more necessary," he said.

Patil favoured proper cooperation between the Centre and the states, and said coordination between the district and local bodies was all the more necessary to handle biological disasters.

Describing the task of managing such disasters as very difficult, he said a lot of money and vision would be needed. "While there will be no shortage of funds, the cooperation and coordination (at various levels) should be better than what we are doing now," he said.

Patil also sought cooperation from non-government organisations for better results.

http://www.ptinews.com/pti/ptisite.nsf/$All/B172955E09AB6654652574AD0032E615?Open Document

New nerve cells needed for smelling, memory: study

Mature brains need a continuous supply of new nerve cells to sustain functions like smelling and memory, an experiment with mice in Japan has shown.

While the adult brain can make new nerve cells, experts have never been sure of their roles until now. These findings may explain why some stroke survivors never recover certain faculties because their brains no longer generate new cells. In an article published in Nature Neuroscience, the researchers said they found a way to insert a fluorescent protein into adult mice, which helped identify new brain cells.

Over the course of a year, they found that nearly all nerve cells in the olfactory bulb — responsible for smelling — had been replaced with new ones. New nerve cells were also seen in the hippocampus, which is linked to memory.

"These mice were normal and we could tell which were new nerve cells ... and they should be functional," Ryoichiro Kageyama, director and professor at the Institute for Virus Research in Kyoto University told Reuters.

"We believe those neurons are very important for olfactory system (sense of smell)." In another group of adult mice, the researchers blocked their ability to grow new brain nerve cells.

"Normal mice quickly learn which hole to get to where it's dark and has bedding. For the mutants, they learn where to hide, but after a week, they totally forget, they completely lose their memory," said Kageyama.

However, this group of mice continued to be able to smell four months into the experiment. The researchers are waiting to see if that faculty might be affected further out.

"We are waiting a while more to see if there could be loss of the sense of smell," Kageyama said. He added that the findings had implications for people suffering brain damage.

"In some damaged brains, like after a stroke, there is no neurogenesis (generation of new brain cells). We are interested in knowing

where nerve cells come from, and whether we can stimulate neurogenesis," he said.

http://news.yahoo.com/s/nm/20080831/hl_nm/brain_cells_dc_1

Guinea-Bissau Designates OPCW National Authority

On 19 June 2008 Guinea-Bissau became the 184th State Party to the Chemical Weapons Convention (CWC). In compliance with its obligations as a new State Party to the CWC, Guinea-Bissau has informed the OPCW that it has designated the Ministry of Foreign Affairs as its National Authority.

A National Authority is crucial to ensuring the effective implementation of the CWC within each State Party's national jurisdiction. Article VII, paragraph 4 of the Convention states: "In order to fulfil its obligations under this Convention, each State Party shall designate or establish a National Authority to serve as the national focal point for effective liaison with the Organisation and other States Parties. Each State Party shall notify the Organisation of its National Authority at the time that this Convention enters into force for it."

The National Authority has the responsibility of implementing the provisions of the CWC at the national level. To meet its basic obligations each State Party must be able to submit all the required declarations, communicate with the OPCW, cooperate with other States Parties, facilitate OPCW inspections, respond to OPCW requests for assistance, protect the confidentiality of classified information, monitor and enforce national compliance, and cooperate in the peaceful uses of chemistry. States Parties are also obliged to declare and to eliminate all chemical weapons stockpiles and chemical weapons production facilities. The National Authority plays an indispensable role in all of these activities.

As at 24 June 2008, 177 (96%) of the 184 States Parties to the CWC have established or designated National Authorities.

http://www.opcw.org/

Al-Qaeda has confirmed one of its top chemical and biological weapons experts died in an air strike

Abu Khabab al-Masri was killed with three other militants in a suspected US strike in Pakistan.

Masri, who carried a $5 million bounty on his head, was identified by Pakistani officials as the likely target of the attack on a house in a tribal area bordering Afghanistan.

An Al-Qaeda statement posted on Islamist websites said Masri, referred to as the "expert", had left behind him a generation of students who would avenge his killing.

The statement, attributed to Al-Qaeda's leader in Afghanistan, Mustafa Abu al-Yazid, named three other militants killed alongside Masri on July 28.

But the terror group has denied reports that Al-Qaeda's number two, Ayman al-Zawahri, was killed in the same missile attack.

Masri, a 55-year-old Egyptian chemist, was regarded as one of the group's top bomb makers.

Police in Kenya said one of Africa's most wanted Al-Qaeda operatives, Fazul Abdullah Mohammed, narrowly escaped capture.

Mohamed left an address in the Indian Ocean resort of Malindi just minutes before officers crashed through the door.

The United States has offered a $5 million reward for information leading to the capture of the Comorian, who speaks five languages and is said to be a master of disguise, forgery and bomb making.

He is accused of playing a lead role in the 1998 embassy attacks in Nairobi, Kenya, and Dar es Salaam, Tanzania, which killed 240 people.

http://www.channel4.com/news/articles/world/alqaeda+bombmaker+killed/2374977

Former Sri Lankan rebel commander says LTTE may use chemical weapons as last resort

Former leader of the Liberation Tigers of Tamil Eelam (LTTE) in the Eastern Province and the current leader of the political party TMVP, Vinayagamoorthy Muralitharan alias Karuna Amman said that military defeat is inevitable for the LTTE as it does not have a proper commander.

Speaking at a media briefing in Welikanda, he said the Tigers had lost 60% of their power after his split with them. He added that this is the main reason that the Sri Lankan security forces can now achieve success in the North, and the present trend will not be stopped until the fall of the LTTE.

Speaking further, he argued it was he who had commanded all successful battles fought by the LTTE, and its chief V. Prabhakaran had never faced a single battle during his time in the outfit. Karuna Amman added that Prabhakaran would not be able to come before the public but is now planning to use civilians in the Wanni region as a human shield to save his life.

During the briefing, he also warned that the Tigers may use chemical weapons as their last resort. He confirmed that the Tigers have the weapons but said he was not aware about the exact substance used. He confidently said that Prabhakaran would choose to use the chemical weapons as the last measure to avoid defeat.

http://www.colombopage.com/archive_08/August12171914JR.html

VX supply destruction completed at Indiana depot

An Army contractor has finished destroying a deadly nerve agent stored in Indiana and will dismantle equipment built for the project.

The final container of VX nerve agent was destroyed at the Newport Chemical Depot.

Army site manager Jeff Brubaker says that means elimination of the last of about 275,000 gallons of the nerve agent the site had stored.

VX destruction began at Newport in May 2005 under an international treaty requiring the U.S. to destroy its chemical weapons stockpile.

The Army signed a contract with Veolia (vee-OH'-lee-uh) Environmental Services to ship the waste some 900 miles to a plant in Port Arthur, Texas, for incineration.

Brubaker says the last of the hydrolysate will be shipped to Port Arthur by the end of September.

http://www.kten.com/global/story.asp?s=8822791&ClientType=Printable

Sri Lanka: Use of chemical weapons, regardless of place, user and context, is an act of terrorism

Prime Minister Rathnasiri Wickremanayake has assured that the Government of Sri Lanka does not have any chemical weapons or mass destructive weapons in its possession and expressed doubts that the LTTE terrorist outfit might adopt into such military tactics now or later. Mr. Wickramanayake said that he said he was certain of one thing: the LTTE was on its last legs.

'Our security forces have cornered them in their holes in a stretch of wilderness in the North of the country. We expect to be rid of this menace soon, weapons and all, but life must go on and people must always be alert,' the Prime Minister

said inaugurating the regional meeting of Asian Parliamentarians to discuss the national implementation of the Chemical Weapons Convention in Colombo where he was the Chief Guest.

He said that paying attention to such threats should not be evaded as there is a need to guard against possible evil intentions harboured by others now or in the future.

Recalling the Central Intelligence Agency (CIA) describing the LTTE as the most ruthless terrorist outfit in the world, the Prime Minister said "We have to be prepared and alert".

He stressed the need to unite under one umbrella to combat the scourge of terrorism.

"Chemical weapons are weapons of terrorism; there are no peaceful uses for them", he said adding that when the British used gas to kill hundreds of Kurdish people in their wars in West Asia early last century it was terrorism.

"The arch imperialist Churchill justified it saying that `It is alright to kill niggers`. That was the white man's attitude, a lack of feeling for people of a different colour that accompanied the dropping of atomic bombs which massacred hundreds of thousands of Japanese civilians in Hiroshima and Nagasaki during the World War II and those were weapons of mass destruction and that was terrorism. That was by the Americans, who were later to accuse Iraq's Saddam Hussein of possessing weapons of mass destruction, despite the testimony of their own inspectors that there were no weapons of mass destruction in Iraq."

The Prime Minister also questioned the right such people now have to interfere with human rights issue in Sri Lanka when the country is deeply threatened by the 'World s most ruthless terrorist outfit'.

http://www.isria.info/RESTRICTED/D/2008/AUGUST_28/diplo_27august2008_29.htm

Kingdom signs treaty against chemical weapons

Saudi Arabia, along with 186 countries, signed the Chemical Weapon Convention (CWC) treaty prohibiting the use of chemical weapons in Colombo.

We discussed many issues before signing the treaty. The Kingdom's role is to support peace and stand against violence," said Dr. Khalil Al-Khalil, member of the Shoura Council and head of the Security Affairs Commission and the Saudi delegation in Colombo.

Members of the Shoura Council arrived in Colombo early on Aug 25 for the two-day meeting of the Organisation for the Prohibition of Chemical Weapons (OPCW). Major Mohammed Abu-Sak and Saeed Al-Amri, arbitrator member of the Ministry of Foreign Affairs were among other dignitaries.

"This treaty includes many conditions that must be followed by Arab and international countries to ensure world safety," Al-Khalil said. "The treaty prohibits the use of chemical weapons in war and puts a restriction on weapon factories.

All countries that have signed the treaty must declare the number of the chemical weapons they have."

"All countries should be inspected by the (OPCW) authority to make sure they are free of such weapons", he added.

The Kingdom has earlier signed a treaty prohibiting the use of chemical weapons in 1993.

Five prominent countries – Russia, US, Israel, Egypt and Syria – did not take part in the event. Bahrain, Kuwait and Oman from the GCC also did not participate.

http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentID=2008082915763

Colorado suing for quicker destruction of mustard gas

Colorado is filing suit against the Department of Defense, hoping to force the Army to destroy obsolete chemical weapons stored in the state by 2017.

The military said it could take until 2020 under current funding and staffing levels to eliminate about 2,600 tons of mustard gas stored at the Pueblo Chemical Weapons Depot near Pueblo.

The military says the weapons are outdated and have no military use. The state says the gas is still highly toxic and can cause severe skin and lung inflammation, cancer and birth defects.

The Colorado Department of Public Health and Environment said it had submitted the suit in Denver federal court, but court officials said it had not yet been filed by the end of business. Department of Defense spokeswoman Kathy DeWeese said the military's attorneys had not yet seen the lawsuit.

DeWeese said the military's current timetable calls for starting to destroy the Pueblo stockpile in 2015, finish in 2020 and close the plant in 2024.

State health officials said Colorado regulations bar long-term storage of hazardous waste unless additional quantities are being accumulated for proper treatment, or an alternative schedule has been approved.

The state health department says it has regulatory power over the Army's plans to destroy the weapons, and in June the state issued an administrative order calling for the Defense Department to destroy the weapons by 2017.

Officials said they decided to sue in federal court because the military plans to appeal the order. "We believe the 2017 deadline is more than reasonable to complete treatment and destruction of the chemical weapons," said Gary Baughman, director of the Hazardous Materials and Waste Management Division of the Colorado health department.

The Army also has chemical weapons stored at the Blue Grass Army Depot in Kentucky.

http://www.examiner.com/printa-1567064~Colo._suing_for_quicker_destruction_of_mustard_gas.html

China urges Japan to remove chemical weapons abandoned during WWII

China urged Japan to accelerate the process of removing chemical weapons it abandoned in China during the Second World War.

"We expect Japan to do its utmost to quicken the process of removing abandoned chemical weapons and wipe out the related threats at an early date," Foreign Ministry spokesman Qin Gang told a regular press briefing.

Qin's comments came after a court in Tokyo heard the case concerning two school boys from northeastern China's Jilin Province, who were in 2004 injured by chemical weapons left by Japanese troops in the war and filed a suit early this year.

Qin said abandoned chemical weapons were one of the crimes that the Japanese aggressors committed during the World War II and still posed severe threats to the peoples' life, property and local environment.

"We hope Japan can carry out the Chemical Weapons Convention, honor the commitment in the memorandum it signed with China and take responsibility," the spokesman said.

http://news.xinhuanet.com/english/2008-08/26/content_9716566.htm

Chemical exposure at plant sickens 8

One of two Missouri hospital emergency rooms reopened, a day after being shut down under

quarantine when eight people sickened by a dangerous chemical's release sought treatment.

Price McCarty, an FBI spokesman in Springfield, said the chemical release at the Ro-Corp. plant caused no deaths, countering a statement by an East St. Louis city official that two people had died.

The chemical, which authorities said was likely the highly toxic material nitroaniline, was released when a barrel was dropped at the Ro-Corp. plant.

The eight people sickened - identified by the FBI as mostly Ro-Corp. workers - remained hospitalized.

http://www.washingtontimes.com/news/2008/sep/01/american-scene-89354153/

All workers involved in Metro East toxic chemical spill released from hospitals

The eight workers involved in a toxic chemical spill over the weekend at an East St. Louis packaging facility have been released from area hospitals, the plant's parent company said.

Two of them have returned to work and the rest are expected to return to work shortly, according to a statement from G.S. Robins, the parent company of RoCorp, which operates the plant.

The RoCorp site is being cleaned and tested for reopening.

Previous reports of terrorist activity and the death of two involved individuals were false, the company said.

Plant workers were transferring a product known as para-nitroaniline from drums into other packaging when they fell ill. The toxic powder, which is used to make dyes and also acts as a corrosion inhibitor, attacks the respiratory system.

St. Anthony's Medical Center and DePaul Health Center, where some of the workers were treated, quarantined and closed their emergency rooms as a precautionary measure and have since reopened.

http://www.bizjournals.com/stlouis/stories/2008/09/01/daily24.html?t=printable

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Countering bio-threats: EU instruments for managing biological materials by FridaKuhlau, Solna, 2007.

Light at the end of the tunnel: the sixth review conference of the biological weapons, Una Becker, Frankfurt, 2007.

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