Chemical and Biological News

NATIONAL AND INTERNATIONAL DEVELOPMENTS

U.S. Concludes Syria Used Chemical Weapons in May Attack

Lara Jakes, 26 September 2019

The United States has recently concluded that chlorine gas was used in an attack by Syria against rebels last May. It was the most recent instance of the use of chemical weapons by President Bashar al-Assad's government in the eight-year civil war but stopping short of threatening a military response.

Secretary of State Mike Pompeo warned Mr. Assad's government that "we're going to do everything we can reasonably do to prevent this kind of thing from happening again."

But he said that chlorine attacks amounted to a "different situation" than the suspected use of sarin, a nerve agent, that killed 80 people and provoked missile strikes against a Syrian air base by the Trump administration in April 2017.

One year later, in April 2018, at least 40 people died in a chemical attack that may have involved sarin or chlorine - or possibly elements of both. That galvanized the United States, Britain and France to launch airstrikes against Syrian chemical weapons storage facilities and military depots.

The May 19 rocket attack by the Syrian government near Latakia Province in northwest Syria wounded several civilians. It was "the latest instance in a long pattern of Assad's chemical weapons attacks that have killed or wounded thousands of Syrians," Mr. Pompeo said at a news conference in New York, where he was attending the United Nations General Assembly.

"The United States will not allow these attacks to go unchallenged, nor will we tolerate those who choose to conceal these atrocities," he said.

Asked how the United States would respond, Mr. Pompeo struck a measured tone. He noted that it took intelligence officials four months to confidently conclude that the attack was a chemical weapons strike and said, "This is different in some sense in that it was chlorine, so it's a bit of a different situation."

The production and possession of chlorine is not banned by the Organization for the Prohibition of Chemical Weapons. But it is illegal when it is used as a weapon of war. In 2013, Syria signed an international treaty banning the use and production of chemical weapons and agreed to eliminate its stockpiles. But Mr. Pompeo said the government in Damascus has violated it every year since, and he announced that the United States would provide the O.P.C.W. with an additional $4.5 million for its investigations in Syria.

Also, the Treasury Department imposed economic penalties against a subsidiary of a Russian shipping company, three of its executives, and five vessels accused of evading American sanctions to deliver jet fuel to Russian forces in Syria who are assisting Mr. Assad's government. The Russian shipping company, Sovfracht-Sovmortrans Group, faced sanctions in 2016 for operating in Ukraine.

Source: https://www.nytimes.com/2019/09/26/world/middleeast/syria-chemical-weapons-us.html

Salmonella detected in an Indian Masala brand MDH

12 September 2019

The U.S. Food and Drug Administration (USFDA) found the Salmonella bacteria in three batches of MDH's sambar masala.

The three lots with lot code 108, 47 and 48 have been manufactured by R-Pure Agro Specialities, sold by House of Spices (India) and was distributed in northern California retail stores, USFDA said in a release.

This product was tested by FDA through a certified laboratory to be positive for Salmonella, USFDA added in the release. It has now urged consumers to return the contaminated masala packets to the place of purchase for a full refund.

MDH, ubiquitous in Indian kitchens, is known for selling various spice mixes that are key to Indian cooking. "The recall was initiated after it was discovered by the FDA that the salmonella contaminated products were distributed," the statement said. It was not immediately clear if the recall was voluntary, or what the source of the contamination was.

Consumption of food contaminated with Salmonella can cause salmonellosis, one of the most common bacterial foodborne illnesses. The most common symptoms of salmonellosis are diarrhea, abdominal cramps, and fever within 12 to 72 hours after eating the contaminated product. The illness usually lasts 4 to 7 days, the USFDA has warned.

Source: https://economictimes.indiatimes.com /industry/cons-products/food/usfda-finds-salmonella-bacteria-in-mdh-samba r-masala/articleshow/ 71076094.cms

Resale of banned Glyphosate herbicide in Punjab Raises Concern

6 September 2019

In October 2018, government had banned the sale of herbicide Glysophate because of adverse health effects including cancer and liver disease. However, it has been found that Chemicals are still being sold by an e-commerce company. Showing an evident disregard of the law.

Monsanto, recently bought by Bayer, is the biggest manufacturer of the herbicide across the world. Thousands of people who have become sick after using the chemical have filed cases against the company for failing to warn them of the harmful effects. The court in San Francisco had awarded USD289 million to a petitioner DeWayne Johnson.

Source: https://timesofindia.indiatimes.com /city/amritsar/farm-panel-chief-raises-concern-over-sale-of-banned-glyphosate-herbicide/articleshow/71004584.cms

First Ever Ebola Vaccine Discovered

18 October 2019

A major milestone for WHO (World Health Organisation) as the first ever vaccine has been discovered. The European Medicines Agency (EMA) announcement recommending a conditional marketing authorization for the rVSV-ZEBOV-GP vaccine, has been shown to be effective in protecting people from the Ebola virus. The European agency responsible for the scientific evaluation of medicines developed by pharmaceutical companies, is a key step before the European Commission decision on licensing. In parallel, WHO will move towards prequalification of the vaccine.

"The conditional authorization of the world's first Ebola vaccine is a triumph for public

health, and a testimony to the unprecedented collaboration between scores of experts worldwide," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "My deepest gratitude is to the studies' volunteers, researchers, health workers in Guinea, other countries and the Democratic Republic of the Congo who have put themselves at risk to ensure people are protected with this vaccine."

In the past five years, WHO has convened experts to review the evidence on various Ebola vaccine candidates, informed policy recommendations, and mobilized a multilateral coalition to accelerate clinical evaluations. The EMA review was unique in that WHO and African regulators actively participated through an innovative cooperative arrangement put in place by WHO, which will help accelerate registration for the countries most at risk.

A randomized trial for the vaccine began during the West Africa Ebola outbreak in 2015. When no other organization was positioned to run a trial in Guinea during the complex emergency, the government of Guinea and WHO took the unusual step to lead the trial.

A global coalition of funders and researchers provided the critical support required. Funders included the Canadian Government (through the Public Health Agency of Canada, Canadian Institutes of Health Research, International Development Research Centre, Global Affairs Canada); the Norwegian Ministry of Foreign Affairs (through the Research Council of Norway's GLOBVAC programme); the Wellcome Trust; the UK government through the Department for International Development; and Médecins Sans Frontières.

The trial was successfully run using an innovative ring vaccination design. In the 1970s, this ring strategy helped to eradicate smallpox, but this was the first time that an experimental vaccine was evaluated this way.

Background

Ebola virus disease (EVD) emerged at unprecedented epidemic levels in West Africa in 2014. Whereas previous EVD outbreaks were contained fairly quickly, this epidemic spread to crowded urban areas where transmissions continued unabated for many months. Retrospective analysis indicates that the first case of the disease may have occurred at the end of 2013. An 18-month-old boy in a small village in Guinea became ill and died in late December, and the disease began to spread. It wasn't until late March 2014 that the disease-causing agent was identified as Ebola virus. Through the fall of 2014, the epidemic was ongoing in Sierra Leone, Guinea, and Liberia. Nigeria and Senegal had small outbreaks related to importations from neighboring countries, but public health authorities there were able to contain spread of the disease. Several cases and deaths were reported from Mali, but spread was limited. In total, by the time the epidemic was over in March 2016, 11,325 confirmed, probable, and suspected deaths occurred. Total EVD cases numbered 28,652.

Transmission of the disease was limited to West African countries, with the exception of several transmissions in healthcare settings in Europe and the United States. Two U.S. nurses and one Spanish nurse became ill from contact with patients who acquired the disease in West Africa. The nurses recovered.

Ebola virus disease has no cure, but supportive care in a hospital setting can increase a patient's chance for survival. Additionally, plasma transfusions from convalescent patients and an experimental antibody preparation have been used to

treat certain patients. It is not possible to say at this time whether these treatments have had an effect on the course of the disease in the patients who received them.

Source: https://www.who.int/news-room/detail/18-10-2019-major-milestone-for-who-supported-ebola-vaccine

https://www.historyofvaccines.org/index.php/content/articles/ebola-virus-disease-and-ebola-vaccines

Biochemist and a notorious terrorist freed in Malaysia

21 November 2019

Convicted Malaysian terrorist Yazid Sufaat, who acquired 4 tonnes of ammonium nitrate in 2000 in preparation for a foiled bombing plot in Singapore, has been freed from prison. The 55-year-old US-trained biochemist, who once attempted to produce weapons of mass destruction for Al-Qaeda, was released from Simpang Renggam Prison, two years after serving the maximum period allowed under the Prevention of Terrorism Act (Pota). "He will be under police surveillance for two years and will need to wear an electronic monitoring device (EMD). If he wishes to travel outside of Ampang, Yazid would need to alert the Ampang police chief," Datuk Ayob (Malaysian police counter-terrorism chief Ayob Khan Mydin Pitchay) said, referring to a district in Selangor state, where Yazid is residing.

Mr Ayob added that although Yazid is allowed to use a phone, he is barred from having any access to the Internet.

"He's also not allowed leave home between 8pm and 6am but is free to accept visitors. After two years, the authorities will re-evaluate everything again before deciding," he said.

Source: https://www.straitstimes.com/asia/se-asia/malaysian-terrorist-with-9-11-links-released-on-electronic-tagging-device

https://www.businessinsider.my/malaysia-has-freed-a-terrorist-notorious-for-making-biological-weapons-heres-what-we-know/

Lyme Disease or Military Weapon?

Aristos Georgiou, July 2019

One of the books that Smith refers to-called Bitten: The Secret History of Lyme Disease and Biological Weapons-was published earlier this year, authored by Stanford University science writer and former Lyme suffer Kris Newby. It features interviews with late Swiss-born scientist Willy Burgdorfer-the man credited with discovering the bacterial pathogen that causes Lyme disease-who once worked for the DoD as a bioweapons specialist.

"Those interviews combined with access to Dr. Burgdorfer's lab files suggest that he and other bioweapons specialists stuffed ticks with pathogens to cause severe disability, disease-even death-to potential enemies," Smith said during the debate on the House floor.

"With Lyme disease and other tick-borne diseases exploding in the United States-with an estimated 300,000 to 437,000 new cases diagnosed each year and 10-20 percent of all patients suffering from chronic Lyme disease-Americans have a right to know whether any of this is true," he said. "And have these experiments caused Lyme disease and other tick-borne diseases to mutate and to spread?" Smith asked.

Despite the passing of the recent bill (requiring the Inspector General of the

Department of Defense (DoD) to conduct a review into whether the Pentagon experimented with ticks and other blood-sucking insects for use as biological weapons between 1950 and 1975) by the House, the American Lyme Disease Foundation's (ALDF) Phillip Baker says Smith's claims are unfounded and continues to state it as unfounded conspiracy theory. There were epidemics of Lyme disease but they were due to reforestation, suburbanization and a failure to manage deer herds.

Source: https://www.newsweek.com/pentagon-weaponized-ticks-lyme-disease-investigation-1449737

https://www.newsweek.com/pentagon-weaponized-ticks-lyme-disease-investigation-1449737

The Army biowarfare lab that tests pathogens like Ebola reported 2 containment breaches this year

Heather Mongilio, 25 November 2019

The Army's premier biological laboratory on Fort Detrick reported two breaches of containment earlier this year, leading to the Centers for Disease and Control halting its high-level research.

The U.S. Army Medical Research Institute of Infectious Diseases announced Friday that it would restart its operations on a limited scale. As it works to regain full operational status, more details about the events leading to the shutdown are emerging. An inspection findings report, obtained by the News-Post through a Freedom of Information Act request, details some of the observations found during CDC inspections as well as by USAMRIID employees who reported the issues.

The two breaches reported by USAMRIID to the CDC demonstrated a failure of the Army laboratory to "implement and maintain containment procedures sufficient to contain select agents or toxins" that were made by operations in biosafety level 3 and 4 laboratories, according to the report. Biosafety level 3 and 4 are the highest levels of containment, requiring special protective equipment, air flow and standard operating procedures.

Due to redactions to protect against notification of the release of an agent under the Federal Select Agent Program, it is unclear the result of the two breaches. Breach is a "loaded word," said Col. E. Darrin Cox, commander of USAMRIID. While there was a breach, there was no exposure, he said. No one was exposed to any of the agents or toxins. Anytime USAMRIID determines there is a breakdown of requirements, employees have to do a report, Cox said.

What went Wrong

The CDC, in its inspection findings, noted six departures from the federal regulations for handling select agents and toxins. One of those departures was the two breaches.

Another departure was that the military laboratory systematically failed to implement biosafety and containment procedures. In one instance, personnel deliberately propped open the door to the autoclave room while the employee removed biohazard waste.

“This deviation increases the risk of contaminated air from room [redacted] escaping and being drawn into the autoclave room, where individuals do not wear respiratory protection," according to the report.

The report includes a large section redacted to protect against the release of a report or inspection of a specific registered person that would endanger public health or safety.

Propping the door open was an "incident," Cox said, not one of the breaches. It was noted by the CDC during one of its inspections.

The person who propped the door open did not have mal intent, he said. "They weren't doing it to openly flout the rules," Cox said. "They were doing it for a reason that they thought was reasonable. But I mean, it still was not in compliance with [standard operating procedures]."When the breaches were reported, USAMRIID's commander at the time issued a cease and desist to all work being done at the laboratory so that personnel could do a safety pause. It was a voluntary stop, Cox, who was not commander then, said.

Source: https://taskandpurpose.com/army-fort-detrick-containment-breaches

Blackberries are a probably the Cause of Hepatitis A Outbreak in the US

Tom Karst

3 December 2019

The number of hepatitis A illnesses potentially linked to fresh conventional (non-organic) blackberries from the grocery store Fresh Thyme Farmers Market has increased. On 3 December 2019, the Centers for Disease Control and Prevention updated their case counts to 16 illnesses, with the most recent illness onset date on Nov. 15. On Nov. 26, the CDC had counted 14 illnesses in the outbreak.Illnesses in the multi-state outbreak have been reported in Indiana, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin, according to a news release.

However, the release said traceback information to date shows that these berries came from a distribution center that ships fresh berries to Fresh Thyme Farmers Market stores in 11 states, including Iowa, Illinois, Indiana, Kentucky, Michigan, Missouri, Minnesota, Nebraska, Ohio, Pennsylvania and Wisconsin. "As this investigation continues, the FDA will work with our federal and state partners to obtain additional information during the traceback investigation and will update this advisory as more information becomes available," the release said.

The FDA is urging consumers to not eat any fresh conventional blackberries if purchased between Sept. 9 and Sept. 30 from Fresh Thyme Farmers Market stores in the 11 states receiving berries from the distribution center.Shoppers who purchased the fresh blackberries and then froze those berries for later consumption should not eat these berries and instead throw them away, according to the release.

An official statement from Fresh Thyme Farmers Market, issued Dec. 3, said that the FDA, the CDC, and several state agencies have contacted the chain about the outbreak affecting individuals in six states.

Fresh Thyme Farmers Market said in the statement that there is "no reason to believe that any of the product was contaminated via handling in our stores."

"In addition, the agencies are only concerned with product purchased between September 9 and September 30; product purchased or consumed outside of these dates are not subject to the investigation," the chain said in the statement. "We are working with these agencies to identify our suppliers and isolate the source of this contamination."

Source: https://www.thepacker.com/article/updated-hepatitis-outbreak-linked-blackberries-count-increases#:~:targetText=UPDATED%3A%20Hepatitis%20A%20outbreak%20linked%20to%20blackberries%20count%20increases,-Tom%20Karst&targetText=On%20Nov.%2026%2C%20the%20CDC,according%20to%20a%20news%20release.

Possible Carcinogen detected in Metformin

9 December 2019

After the presence of a carcinogen prompted recalls of several blood pressure medications and Zantac, the FDA is now looking into the possibility of the same carcinogenic impurity in a widely prescribed diabetes drug. Low levels of N-nitrosodimethlyamine (NDMA) have been found in metformin medicines in other countries. The medication is widely used to treat diabetes.

Some regulatory agencies outside of the U.S. have already started recalling metformin, but there are not currently any active metformin recalls in the U.S.

According to a release by the FDA, the levels of NDMA seen in metformin drugs abroad are within the range that is naturally occurring in food and water. The FDA is currently investigating whether the metformin used in the U.S. contains NDMA, and if it is present in levels higher than the acceptable daily intake.

NDMA is a common contaminant found in water, dairy products, vegetables and foods like cured and grilled meets. It does not cause harm when ingested at low levels, but may increase risk of cancer if one is exposed to it above acceptable levels over long periods of time.

Metformin is a prescription drug used to control high blood sugar in type 2 diabetes patients.

The FDA is urging people who use metformin not to discontinue taking the drug without talking to a health care professional. "These investigations take time," Janet Woodcock, director of FDA's center for Drug Evalaliatoin and Research said. "We understand that these issues affect patients' health and well-being in many ways, and the FDA's goal is to provide patients and health care providers as much clarity and as many answers as possible to inform their health care decisions."

Source: https://www.wthr.com/article/fda-probes-diabetes-drug-metformin-possible-carcinogen

DISARMAMENT

Boston Is Using a Chemical Warfare Device To Help Fight Fentanyl

Martha Bebinger, 10 October 2019

MX908- a mass spectrometer, initially used by the military and the hazmat crews fighting bioterrorism or explosion, would be used to fight fentanyl. The machine can identify 70 specific types of fentanyl and alert users about the presence of more than 2000 not yet named fentanyl analogs. It also detects stimulants including cocaine and meth.

Drug checking offers an evidence-based warning for drug users, a warning that the Boston Public Health Commission can help spread.

So this improvement in consumer knowledge and confidence in what they're getting, and how to use it can improve the safety of the larger supply.

Source: https://www.wbur.org/commonhealth/2019/10/10/mx908-opioid-crisis-drug-testing

Finland's Chemical Warfare Drills To Have Real Lethal Gases

18 September 2019

The Pori Brigade, a unit of the Finish Army, will begin using actual chemical warfare agents during their defence trainings. The main idea behind this move is to equip

soldiers with the combat skills required in an authentic environment. This is the first in the history of drills, previously only substitute chemicals were being used. This defense training will be held in three hectares of land beginning in January 2020. Instructions on chemical warfare will also be provided to other authorities, according to the army.

The Finnish army has assured that while these chemicals are lethal to the humans and hazardous to the environment extra precaution would be taken to ensure that the drill poses no threat to either humans or the surroundings.

Till date, Finland has not used any Chemical substance that fall under the UN Chemical Weapon Convention. However, the Convention does allow the use of Chemical Weapons to be used in military exercises. An opportunity often exploited by many nations.

Source: https://www.defenseworld.net/news/25493/In_a_First__Finland___s_Chemical_Warfare_Drills_To_Have_Real_Lethal_Gases#.XabdTdIzbIU

https://sputniknews.com/military/201909181076829662-finnish-army-to-pioneer-real-mustard-gas-sarin-in-chemical-warfare-drills/

INTERNATIONAL COOPERATION

Chemical Industry and National Authorities Meet in Doha and Pledge Stronger Cooperation

OPCW News, 28 November 2019

Representatives from National Authorities and their chemical industry counterparts from 25 OPCW Member States met in Doha, Qatar, from 15-17 October 2019, for the Sixth Annual Meeting of Representatives of the Chemical Industry and National Authorities of States Parties to the Chemical Weapons Convention. A total of 44 international and over 20 national participants exchanged experiences and practices around the implementation of the industry verification regime.

In his opening remarks, the Chairman of the Qatar National Committee for the Prohibition of Weapons, H.E. Brigadier Hassan Saleh Al-Nesf, highlighted the significance of this annual meeting, stating that it "brings together representatives of two important pillars underpinning the optimal implementation of the Chemical Weapons Convention", referring to the National Authorities on the one hand and the chemical industry on the other.

The meeting agreed a final report, which summarised key elements of the national practices presented, as well as outcomes of group discussions on "risk-based approaches" to verification. The report also summarised the ideas generated around tools to support National Authorities' engagement with the chemical industry. The participants' diverse backgrounds, and their experiences of Article VI implementation enriched the discussion.

The meeting was organised with voluntary contributions of the State of Qatar and through close cooperation between the OPCW Technical Secretariat and the Doha Regional Centre for CBRN Training.

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experiences of Article VI implementation enriched the discussion.

Source: https://www.opcw.org/media-centre/news/2019/10/chemical-industry-and-national-authorities-meet-doha-and-pledge-stronger

Conference of the States Parties Adopts Decisions to Amend Chemical Weapons Convention Annex

OPCW News, 27 November 2019

The Chemical Weapons Convention (CWC), banning the development, production, use, stockpiling and transfer of chemical weapons, entered into force in 1997. Today, the Twenty-Fourth Session of the Conference of the States Parties to the CWC has adopted two decisions to amend for the first time the Annex on Chemicals to the Convention.

The two decisions adopted reflect proposals that were submitted in the context of an evolving threat from chemical weapons and their recent use, which require the OPCW to continually adjust its ability to respond. Such conditions have led to the need to update the Schedules of the Annex on Chemicals. The first decision was jointly proposed by Canada, the Netherlands, and the United States of America while the second decision was proposed by the Russian Federation. Both decisions call for Technical Changes to Schedule 1 of the Annex on Chemicals to the CWC.

The Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW), H.E. Mr Fernando Arias, recognised the importance of these amendments: "This is the first time in its history that the Chemical Weapons Convention's Annex on Chemicals has been updated. This is an important development that demonstrates the adaptability of the Convention to changing threats while enhancing the OPCW's ability to remain vigilant, agile, and fit for purpose."

The Annex on Chemicals includes three Schedules that list toxic chemicals and their precursors. For the purpose of implementing the Convention, these Schedules identify chemicals for the application of special verification measures according to the provisions of the Convention's Verification Annex.

As required under subparagraph 5(f) of Article XV of the CWC, the Director-General will notify all States Parties and the Convention's Depositary, the United Nations Secretary-General, of the decisions adopted by the Conference. This notification will include the merged text of the proposals, which will be prepared by the Secretariat for inclusion in the Annex on Chemicals. The changes to the Schedule of the Annex on Chemicals will enter into force for all States Parties 180 days from the date of the notification sent by the OPCW Director-General.

Source: https://www.opcw.org/media-centre/news/2019/11/conference-states-parties-adopts-decisions-amend-chemical-weapons

Indian experts to visit Afghanistan to further partnership under OPCW mentorship programme

27 November 2019

Addressing a conference of State Parties of the Organization for the Prohibition of Chemical Weapons (OPCW) on Tuesday, India's ambassador to the Netherlands and Permanent Representative of India to OPCW Venu Rajamony said India condemns the use of chemical weapons under any circumstances.

Further adding, he said that a team of Indian experts will soon visit Afghanistan to

advance the ongoing cooperation between the two countries under the world chemical weapons watchdog's mentorship and partnership programme. The Indian authorities have already shared knowledge, skills and experience with their Afghan counterparts in the first round of the programme which was held in New Delhi from April 29 to May 3 this year.

Source: https://economictimes.indiatimes.com/news/defence/indian-experts-to-visit-afghanistan-to-further-partnership-under-opcw-mentorship-programme/articleshow/72257408.cms?from=mdr#:~:targetText=Indian%20experts%20to%20visit%20Afghanistan%20to%20further%20partnership%20under%20OPCW%20mentorship%20programme,-PTI%20%7C%20Nov%2027&targetText=A%20team%20of%20Indian%20experts,watchdog's%20mentorship%20and%20partnership%20programme.