

Monday, May 20th

- 13h00 INTRO-01 Introduction par le SGDSN (Secrétariat Général de la Défense et de la Sécurité Nationale) / SGDSN introduction / Introduction by the French state representative on protection & security (SGDSN)
- 13h20 INTRO-02 *Arnaud Fontanet* (Collège de France / Institut Pasteur) - Pandémies d'origine infectieuses, nouvelles approches pour y répondre / New strategies for infectious pandemia
- 13h40 INTRO-03 *Laurent Robert* (OPCW) - Défis actuels et priorités futures : l'OIAC à un tournant pour la mise en œuvre de la Convention d'Interdiction des Armes Chimiques / Current challenges and future priorities: the OPCW at a crossroad in implementing the Chemical Weapons Convention
- 14h00 INTRO-04 *Patrick Laclémence* (Université Technologique de Troyes) - Face au terrorisme : un équilibre entre vigilance et hypertension / How to balance vigilance and anxiety in front of terrorism
- 14h20 Coffee break, posters session, industrials & responders exhibition*
- 15h00 INTRO-05 *Bruno Bellier* (Agence de l'Innovation Défense) - Le hasard et la nécessité : essai d'une biologie de l'Innovation / Chance and necessity: essay on innovation biology
- 15h20 INTRO-06 *Emmanuel Houzé* (Ministère de la Transition Ecologique et Solidaire) - Décontamination des infrastructures : CISDI, la réponse française / Infrastructures decontamination: CISDI, the French response
- 15h40 INTRO-07 *Hélène Callon* (Ministère de l'Agriculture et de l'Alimentation) - Prévention et lutte contre l'agroterrorisme / Prevention and response to agroterrorism
- 16h00 Coffee break, posters session, industrials & responders exhibition*
- 16h40 INTRO-08 *Nathalie Faure* (DGSI) - Menaces sur les sites industriels / Threats on industrial sites
- 17h00 INTRO-09 *Raphaël Prenat* (UN1540 Committee) - Lutte contre la prolifération des armes biologiques et chimiques / Fight against the proliferation of BC weapons
- 17h20 INTRO-10 *Eric Schnell, Eric Fayemendy* (DGSCGC) - Les missions à caractère NRBC du Groupement d'Intervention du Déminage de la Sécurité Civile / CBRN missions of the civil protection demining intervention group
- 18h30 Cocktail*

Tuesday, May 21st

DETECTION – NRC

- 08h30 [DET-01](#) *Klaus Mayer* - Nuclear Forensics - Integrating Research and Application - Keynote
- 08h55 [DET-02](#) *Kylie Vongsanga* - The development of a modular, lightweight and adaptable miniaturised sensor for airborne chemical threats
- 09h07 [DET-03](#) *Genevieve Dennison* - Luminescence colour switching dyads for the detection of organophosphorus chemical warfare agents
- 09h19 [DET-04](#) *Noemi Colozza* - An origami-like wearable electrochemical sensor for Sulphur mustard detection in liquid and aerosol phase
- 09h31 [DET-06](#) *Guillaume Montémont* - Recent advances in gamma-ray imaging using NuVISION device
- 09h43 – 10h03 [Flash presentations](#)
- [DET-07](#) *Lukasz Szklarski* - Heterogeneous network of chemical sensors for improved situational awareness and reduced false alarm rate
- [DET-08](#) *Frédéric Progent* - Development of Micro-Time-Of-Flight mass spectrometer for Chemical Threat in situ detection
- [DET-09](#) *Ladislava Navratilova* - Integrated C-sampling kit for field sampling
- [DET-10](#) *Martijn de Koning* - Degradation and detection of the nerve agent VX by a chromophore functionalized zirconium MOF
- [DET-11](#) *Laure Duvauchelle* - Evaluation of two innovative portable Air Samplers in field conditions on the US military facility Dugway Proving Ground

10h03 *Coffee break, poster session, industrials & responders exhibition*

RISKS & CRISES MANAGEMENT – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

- 11h00 [RCM/ARW-01](#) *Peter Blain* - Threat Potential of Pharmaceutical Based Agents - Keynote
- 11h25 [RCM/ARW-02](#) *Ruth Milton* - An introduction to the revised edition of CBRN: Clinical management and health protection
- 11h37 [RCM/ARW-03](#) *David Russell* - Prioritising Public Health Risks Posed by the Accidental or Deliberate Release of Chemicals into the Atmosphere
- 11h49 [RCM/ARW-04](#) *Marian Kolencik* - CBRN Terrorist Planification - how to prevent an attack?
- 12h01 [RCM/ARW-05](#) *Grigore Havarneanu* - CBRNE Threat Management in the Railway and Public Transport Sector
- 12h13 [RCM/ARW-06](#) *Elif Surer* - Serious Gaming in CBRNe Domain: A Survey on Use Expectations, Concerns and Suggestions
- 12h25 - 12h45 [Flash presentations](#)
- [RCM/ARW-07](#) *Jacek Beldowski* - Decision Aid tool for marine munitions management
- [RCM/ARW-08](#) *Stéphane Le Floch* - An innovative experimental device to assess the behavior of a chemical under controlled environmental parameters
- [RCM/ARW-09](#) *Samantha Lim Thiebot* - Emergency Situation Support Cell (CASU): Expertise in real time for chemical accidents
- [RCM/ARW-10](#) *Axel Lambert de Rouvroit* - The Economic Impact of Crises
- [RCM/ARW-11](#) *Rachele Brancaleoni* - Evaluation and improvement of HDP (Hospital Disaster Plan) for CBRN events: Gemelli Hospital perspective

End of the NATO supported ARW session

12h45 – 14h00 *Lunch, poster session, industrials & responders exhibition*

MEDICAL COUNTERMEASURES – NRC – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

14h00 *Turmus Eyup* – Defence Against CBRN Agents as a SPS Key priority

14h15 [MCM/ARW-01](#) *Michael Abend* - Existing and developing triage tools to cope with a RN event - Keynote

14h40 [MCM/ARW-02](#) *Diane Riccobono* - RI-MODS/MOF: development of preclinical models and innovative therapies at IRBA

14h52 [MCM/ARW-03](#) *Christine Linard* - Stromal vascular fraction for the treatment of the radiation-induced gastrointestinal syndrome

15h04 [MCMARW-04](#) *Marloes Joosen* - Role of anticholinergics in nerve agent treatment efficacy

15h16 [MCM/ARW-05](#) *Kamil Musilek* - Novel butyrylcholinesterase reactivators for effective pseudo-catalytic scavenging of sarin and VX

15h28 - 15h48 [Flash presentations](#)

[MCM/ARW-06](#) *Marco Valente* - Retrospective biological dosimetry, adapting to different lifestyles

[MCM/ARW-07](#) *Nicolas Jullien* - Innovative strategy for muscular repair after high local dose radiations exposure: in vitro preliminary studies on a model of mouse myoblasts

[MCM/ARW-08](#) *Tanja Popp* - Bardoxolone (CDDO-Me), a potential radioprotector for normal cells

[MCM/ARW-09](#) *Julie Somkhit* - Role of microglia in seizure activity after organophosphate exposure

[MCM/ARW-10](#) *Fanny Caffin* - Cognitive and emotional impairments induced by CEES after cutaneous intoxication in mice

End of the NATO supported ARW session

15h48 [MCM-11](#) *Israel Silman* - Molecular Dynamics Simulations of the Interaction of Mouse and Torpedo Acetylcholinesterase with Covalent Inhibitors Explain Their Differential Reactivity: Implications for Drug Design

16h00 *Coffee break, poster session, industrials & responders exhibition*

EXPLOSIVES DETECTION

16h45 [DET-12](#) *Augustus W Fountain* - Chemical Fingerprint Identification System: Beyond Concept and Towards Applications for Field Expeditionary Military Forensic Analysis - Keynote

17h10 [DET-13](#) *Christoph Kölbl* - Sensitive laser based stand-off system for mid-infrared explosive detection

17h22 [DET-14](#) *Florent Christophe* - Imaging radar contributions to explosive detection

17h34 [DET-15](#) *Guillaume Thomas* - Nanostructured and Functionalized Microcantilevers for Fast Detection of Explosives and Chemical Warfare Agents

17h46 - 18h06 [Flash presentations](#)

[DET-16](#) *Emanuela Gallo* - UV Raman Spectroscopy for Explosives Detection

[DET-17](#) *Lara Hettmanczyk* - Molecularly Imprinted Polymers (MIPs) as Sensor Elements for the Gas Phase Detection of Explosives

[DET-18](#) *Chrystel Ambard* - Particles sampling for explosives detection with the prototype device SYMOPREPTM

[DET-19](#) *Liliana Martelo* - Low-Cost Device for Detection of Explosives Vapours

[DET-20](#) *Céline Frenois* - Development of trace explosive detector: Issues around test and end-users evaluation

[DET-21](#) *Laurence Jeunieau* - Influence of the Synthesis Process of TATP and HMTD on their Sublimation Rate

Wednesday, May 22nd

MEDICAL COUNTERMEASURES – NRC – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

08h30 [MCM/ARW-12](#) *Zrinka Kovarik* - Nerve agent bioscavengers based on an efficient oxime- assisted reactivation of cholinesterases - Keynote

08h55 [MCM/ARW-13](#) *Brenda Marrero-Rosado* - Antiepileptic combination therapy to treat pharmacoresistant seizures in soman-exposed carboxylesterase knockout mice

09h07 [MCM/ARW-14](#) *C. Linn Cadieux* - A novel genetically modified mouse model for evaluating nerve agent countermeasures

09h19 [MCM/ARW-15](#) *José Dias* - Design synthesis and in vitro evaluation of a promising new class of bifunctional uncharged hybrid reactivators for nerve agent-inhibited human acetylcholinesterase

09h31 [MCM/ARW-16](#) *Dennean Lippner* - Dimethyl trisulfide as an intramuscular cyanide medical countermeasure

09h43 [MCM/ARW-17](#) *Matthias Port* - Radionuclide decorporation strategies and required MCM resources after a “dirty bomb” attack

09h55 - 10h15 [Flash presentations](#)

[MCM/ARW-18](#) *Alain Chapel* - Generation of hematopoietic stem cells from non-hematopoietic iPS in patients with acute irradiation syndrome an innovative therapeutic strategy of hematopoietic syndrome

[MCM/ARW-19](#) *Julie Bensimon Etzol* - DosiKit, a new portable assay for fast external irradiation biodosimetry

[MCM/ARW-20](#) *Leslie Dubrana* - New testing and screening in vivo zebrafish based methods to identify potential treatments for organophosphorous poisoning

[MCM/ARW-21](#) *Sabine François* - Second effects of organophosphorus poisoning: Alteration of the hematopoietic compartment

[MCM/ARW-22](#) *Julia Herbert* - COPD and asthma therapeutics for supportive treatment in organophosphate poisoning

End of the NATO supported ARW session

10h15 Coffee break, poster session, industrials & responders exhibition

DETECTION – B – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

11h00 [DET/ARW-22](#) *Brigitte G. Dörner* - Botulinum neurotoxins: new findings on receptor binding and how they translate into innovative detection approaches - Keynote

11h25 [DET/ARW-23](#) *Christine Rasetti-Escargueil* - Development of innovative BoNT antibodies and progress toward harmonization of the detection of BoNT toxins

11h37 [DET/ARW-24](#) *Sylvia Worbs* - European programme for the establishment of validated procedures for the detection and identification of biological toxins (EuroBioTox)

11h49 [DET/ARW-25](#) *Duarte Gouveia* - Phylopeptidomics: optimization for fast detection of cellular organisms in complex samples without any a priori

12h01 [DET/ARW-26](#) *Stéphanie Simon* - Development of field Enzyme Immunoassays

12h13 [DET/ARW-27](#) *Thomas Bordy* - Field tool for fast & sensible detection of B Agent

12h25 - 12h45 [Flash presentations](#)

[DET/ARW-28](#) *Julien Enche* - Identification of Ricin by Immunocapture Extraction and LC-MS/MS or LC-MS/HRMS Analysis

[DET/ARW-29](#) *Rómulo Aráoz* - Bioassays for detection and identification of marine neurotoxins

[DET/ARW-30](#) *Fabienne Gas* - Recombinase Polymerase Amplification combines with Lateral Flow Strip for detection of Biothreat agents

[DET/ARW-31](#) *Jean-Maxime Roux* - An automated microfluidic cartridge for field multiplex preparation and identification in a biological threat detection chain

[DET/ARW-32](#) *Berivan Boran* - Organization of a Proficiency Test to Evaluate the Ability of International Laboratories to Detect Staphylococcal Enterotoxin Type B (SEB)

End of the NATO supported ARW session

12h45 – 14h15 Lunch, poster session, industrials & responders exhibition

EPIDEMIOLOGY & DIAGNOSIS

14h15 [EPI-01](#) *Alexandra Mailles* - The surveillance of infectious diseases and its application to early detection of biological threats - Keynote

14h40 [EPI-02](#) *Lionel Koch* - Outbreaks and bioterrorism: two sides of the same threat

14h52 [EPI-03](#) *Emmanuelle Billon-Denis, Jean Nicolas Tournier* - Vaccine for biodefense: back to the future

15h04 [EPI-04](#) *Toscane Fourié* - Tracking Rift Valley fever in French Forces: from Mali to Europe, 2016

15h16 [EPI-05](#) *Stéphanie Watier-Grillot* - Challenging Investigation of a foodborne disease outbreak caused by phytohaemagglutinin, a bean lectin - 2018, Brittany, France

15h28 [EPI-06](#) *Håkan Wingfors* - Characterization and assessment of military smoke and health implications

15h40 - 16h00 [Flash presentations](#)

[EPI-07](#) *Frédéric Ducancel* - Development of a preclinical non-human primate model of ricin intoxication, assays for plasmatic dosage of ricin, and identification of a transcriptomic signature for exposure to ricin.

[EPI-08](#) *Olivier Ferraris* - Distribution of orthopoxvirus circulation, 2012-2018

[EPI-09](#) *Hervé Volland* - Innovative Point-of-Care device for the Direct Detection of Antibiotic Resistance

[EPI-10](#) *Maellys Kevin* - Hierarchical classification of *Francisella tularensis* ssp. *holarctica*: a One-Health approach for epidemiological surveillance of tularemia in France

16h00 Coffee break, poster session, industrials & responders exhibition

PROTECTION - DECONTAMINATION

16h45 [PRODEC-01](#) *Robert Chilcott* - Decontamination and management of hair following a CBRN incident - Keynote

17h10 [PRODEC-02](#) *Anne Van der Meeren* - Ex vivo model for skin decontamination following actinide external contamination

17h22 [PRODEC-03](#) *Masaru Watanabe* - Hydrothermally synthesized lignocellulose-derived flexible carbon functionalized for protein decomposition and ion adsorption

17h44 [PRODEC-04](#) *Greta Camilla Magnano* - The Nanoceria - a new strategy for skin decontamination of Organophosphorus compound

17h56 [PRODEC-05](#) *Marie-Laure Cointot* - Efficiency protection assessment of protective clothes against organophosphates liquid contaminations

18h08 [PRODEC-06](#) *Diana Ferreira* - CBRNe military protection: the potential of natural fibres and metal oxide nanoparticles

18h20 - 18h45 [Flash presentations](#)

[PRODEC-07](#) *Julien Claudot* - Modelling of the adsorption of contaminants in activated carbons

[PRODEC-08](#) *David Farrusseng* - Innovative MOF adsorbent at scale for performing protective filters

[PRODEC-09](#) *Laurent Verdier* - Thermal destruction of toxics



PRODEC-10 *Lina Thors* - Skin penetration and decontamination following in vitro human skin exposure to fentanyl

PRODEC-11 *Marie-Theres Pfalzgraf* - FLED2 - The Forward Light Element for Decontamination of Patients and Personnel

PRODEC-12 *Célia Lepeytre* - BioChemGEL-Sys® RBC gel for the infrastructure decontamination

Thursday, May 23rd

MEDICAL COUNTERMEASURES – BC – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

- 08h30 [MCM/ARW-23](#) *Sina Bavari* - Emerging viral diseases: viral replication to vaccines and therapeutics - Keynote
- 08h55 [MCM/ARW-24](#) *Daniel Gillet* - Retro-2, broad-spectrum inhibitor of intracellular pathogens: in vivo POC, improved analogues and intracellular target
- 09h07 [MCM/ARW-25](#) *Mitali Sarkar-Tyson* - Evaluation of novel inhibitors against the macrophage infectivity potentiator in biowarfare agents
- 09h19 [MCM/ARW-26](#) *Sonia Mion* - Quenching bacterial communication in order to decrease their virulence and increase their sensitivity to antimicrobial treatments
- 09h31 [MCM/ARW-27](#) *Rasha Hammamieh* - Systems Biology Approaches to characterize host responses to Soman
- 09h43 [MCM/ARW-28](#) *Emilie David* - Purification of human butyrylcholinesterase from frozen Cohn fraction IV-4 by ion exchange and Hupresin affinity chromatography
- 09h55 [MCM/ARW-29](#) *Amanda McGuire* - Clinical efficacy and pharmacokinetics of intranasal or intramuscular naloxone in working dogs
- 10h07 - 10h30 [Flash presentations](#)

[MCM/ARW-30](#) *Frédéric Rivière* - Toward a better comprehension of the physiopathology of a potential biological weapon through characterization of pulmonary immune mechanisms following infection of murine model with Influenza virus

[MCM/ARW-31](#) *Clémence Rougeaux* - Early detection of active edema and lethal factors during pulmonary anthrax

[MCM/ARW-32](#) *Laura Cochrane* - The Trobigard™ auto-Injector atropine/obidoxime co-formulation is efficacious against sarin exposure in guinea pigs

[MCM/ARW-33](#) *Lionel Koch* - The role of efflux pumps in biofilm's synthesis in *Yersinia pestis*

[MCM/ARW-34](#) *Jessica Denis* - High specificity and sensitivity of Zika EDIII-based ELISA diagnosis highlighted by a large human reference panel

[MCM/ARW-35](#) *Irène Pitard* - Interaction of Edema factor from *Bacillus anthracis* with thiophen ureidoacids

10h30 *Coffee break, poster session, industrials & responders exhibition*

DETECTION – FORENSICS – Session part of the NATO-supported Advanced Research Workshop on “CBRN Exposure Assessment and Medical Countermeasures”

- 11h00 [DET/ARW-33](#) *Marcel Van der Schans* - Time of Flight Mass spectrometry for chemical detection - Keynote
- 11h25 [DET/ARW-34](#) *Graeme Clark* - Toxin detection; capabilities and challenges for agent identification and attribution
- 11h37 [DET/ARW-35](#) *Anne Puustinen* - sample preparation and analysis of saxitoxin from human urine
- 11h49 [DET/ARW-36](#) *Daan Noort* - Point-of-care diagnostics for exposure to low volatility nerve agents
- 12h01 [DET/ARW-37](#) *Fabien Suchaud* - The CBRNE Forensic Response Team of the French Gendarmerie: the GRID
- 12h13 [DET/ARW-38](#) *Sheena Young* - Gas Chromatography Tandem Mass Spectrometry Monitoring of Sulfur Mustard Exposure in Humans through the Conversion of Protein Adducts to Free Sulfur Mustard
- 12h25 [DET/ARW-39](#) *Florine Hallez* - Development of immobilized-trypsin reactors coupled to liquid chromatography and tandem mass spectrometry (LC-MS/MS) for the analysis of long-lived adducts of sulfur mustard with hemoglobin in blood samples

End of the NATO supported ARW session



12h37 [DET-40](#) *Li Xiao Sen* - A New Evidence for Detection of Tabun Adducts to Human Serum Albumin Via Fluoride Reactivation by Gas Chromatography tandem mass spectrometry

12h50 *Farewell lunch*