

#### Monday, May 29<sup>th</sup>

12h30 - *Introduction by the French state representatives on protection & security*

#### Historical & legal aspects

13h00 – 13h30 *Olivier LYON, CBRNE Historical retrospective*

13h30 – 14h00 *Jean-Louis BRUGUIERE, Legal aspects*

#### Threats

14h00 – 14h20 *Alan GRIMMER (Interpol), C & B Threats*

14h20 – 14h40 *Augustin BAULIG (French General Secretary for Defence and national security, SGDSN/AIST)*

14h40 – 15h00 *Raymond LEVET (French MoD, DGA-MNRBC)*

*15h00 – 15h30 Coffee break, poster session, industrials & responders exhibition*

#### Responses to CBRNE crises

15h30 – 15h50 *Lionel LACHENAUD (French General Secretary for Defence and national security, SGDSN)*

15h50 – 16h10 *Fabrice JEAN (French General Directorate for civil protection and crises management)*

16h10 – 16h30 *Christophe LIBEAU (Paris Fire Brigade), CBRNE risks management*

16h30 – 16h50 *Adrien SAVIGNON (French General Police Directorate), CBRNE risks management: forensic investigations in a contaminated environment*

*16h50 -17h20 Coffee break, poster session, industrials & responders exhibition*

#### Technological Challenges

17h20 – 17h40 *Yannick MOREL (French MoD, DGA), CBRNE defense: technological challenges*

#### Economical issue

17h40 – 18h00 *Mark JOHNSON, Risk-Informed Demand for CBRN Medical Countermeasures*

#### Industrial responses

18h00 – 18h20 *Invited speakers*

18h20 – 18h40 *Invited speakers*

18h40 – 19h00 *Invited speakers*

*Cocktail*

**Tuesday, May 30<sup>th</sup>**

**MEDICAL COUNTERMEASURES – 1**

- 08h00 – 08h35 *Michael ABEND*, Establishing gene expression for prediction of the hematological acute radiation syndrome - Plenary
- 08h35 – 09h00 *Peter BLAIN*, Incapacitating Chemical Agents and other Less-lethal Technologies - Key Note
- 09h00 – 09h25 *Marti JETT*, Integration of systemic host responses to a lethal exposure with *Y. pestis* – Key note
- 09h25 – 09h40 *Thomas HENRY*, Challenges in antimicrobial research: the example of the class A bioterrorism agent *Francisella tularensis*
- 09h40 – 09h55 *Anissa BRAÏKI*, Tertiary amine-3-hydropyridine aldoxime conjugates as efficient uncharged reactivators for acetylcholinesterase inhibited by organophosphorus nerve agents
- 09h55 – 10h10 *Amélie ZAZA*, Development of bivalent vaccine candidates based on Z-deleted arenaviruses

*10h10 – 10h40 Coffee break, poster session, industrials & responders exhibition*

**DETECTION - Alert**

- 10h40 – 11h05 *Fabiana ARDUINI*, Paper-based devices for the detection of chemical warfare agents - Key Note
- 11h05 – 11h20 *Stéphanie SIMON*, Activities of the Laboratory for Immunoanalytical Researches in the french CBRNe program
- 11h20 – 11h35 *Véronique REBUFEL*, A single-cell Raman Spectroscopy device dedicated to fast and robust pathogen threat detection during in the field interventions
- 11h35 – 11h50 *Guillaume SANNIE*, The H2020 C-BORD project: advanced non-destructive techniques to improve control of cargo containers
- 11h50 – 12h05 *Emmanuel EGGER*, A vehicle for detection of neutron and gamma ray sources
- 12h05 – 12h20 *Romain VEROLLET*, Detecting Unknown Chemical Gas Clouds at Distance with Multispectral Imagery
- 12h20 – 12h35 *Guillaume MONTEMONT*, NuVision: a portable spectrometric imaging device for searching and identifying radioactive sources

12h35 – 14h00

*Lunch, poster session, industrials & responders exhibition*

*Philippe QUEVAUVILLER - Workshop on EU-Research on CBRN-E – How to ensure efficient science-policy-practitioners interactions in support of knowledge-based decisions?*

#### **DECONTAMINATION - Human**

14h00 – 14h35

*Robert CHILCOTT, Recent advances in mass casualty decontamination research - Plenary*

14h35 – 15h00

*Howard MAIBACH, Mechanisms of skin decontamination - Key Note*

15h00 – 15h25

*Jean-Ulrich MULLOT, Evaluating performances of materials and procedures by using CWA simulants - Key Note*

15h25 – 15h40

*Stacey WIKE, Optimising existing and novel decontamination techniques for hair and skin (PHOENIX project)*

15h40 – 15h55

*Navneet SHARMA, Topical Formulation for Radiological and Nuclear decontamination*

15h55 – 16h10

*Alicia SALERNO, Model-based optimization of parameters for degradation reaction of an organophosphorus pesticide, Paraoxon, using CeO<sub>2</sub> nanoparticles in water media*

16h10 – 16h25

*Carole DOUGNAC, DECPOOL® (new emergency decontamination mitt) Decontamination and neutralization performance overview on real agents*

16h25 – 17h00

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

#### **RISKS MANAGEMENT**

17h00 – 17h25

*Kai KEHE, CBRN Medical Defence in Germany: New Challenges - Key Note*

17h25 – 17h50

*Richard AMLOT, Psychological First Aid: mitigating against long-term psychosocial effects of CBRNe incidents - Key Note*

17h50 – 18h05

*Rebecca HOILE, Global Bioterrorism Preparedness activities*

18h05 – 18h20

*Emma-Jane GOODE, Project 54 : Enhancing the systems in place in the MIE region (Iraq, Jordan, Lebanon) for medical preparedness and medical emergency response to CBRN incidents*

18h20 – 18h35

*Sébastien BEAUME, Management of the initial response against CBRN threats in an Emergency Medical Fire Department*

20h30

*Gala evening and dinner*

**Wednesday, May 31<sup>th</sup>**

**DETECTION - Identification**

- 08h00 – 08h25 *Dan NOORT*, Development of methods for assessment of chemical exposures within the framework of the Generic Integrated Forensic Toolbox (GIFT) project - Key Note
- 08h25 – 08h50 *Jean ARMENGAUD*, Return of experience for Phylopeptidomics: from biotox-piratox national network exercises to microbiota feces - Key Note
- 08h50 – 09h05 *Ladislava NAVRATILOVA*, Methodology for on site identification of solid and liquid chemicals
- 09h05 – 09h20 *Julie BENSIMON-ETZOL*, DosiKit, a new portable assay for fast external irradiation biodosimetry
- 09h20 – 09h35 *Céline BIGOT*, PathoTRACK project: Identification of microbial pathogens through NGS approaches
- 09h35 – 09h50 *Conrad WEICHBRODT*, Next level toxicity screening: from single channel to overall cell behavior
- 09h50 – 10h05 *Vincenzo MAZZARACCHIO*, An impedimetric aptasensor for the detection of *Bacillus anthracis* spores
- 10h05 – 10h20 *Jesús ZUECO CRUZ*, Development of reagents for the detection of spores of *Bacillus thuringiensis* var. *kurstaki*. A comparison between latex slide agglutination, slide co-agglutination and ELISA
- 10h20 – 10h50 *Coffee break, poster session, industrials & responders exhibition*

**PROTECTION - Depollution**

- 10h50 – 11h15 *Masaru WATANABE*, Production of flexible carbon in hydrothermal condition: Functionalized carbon for applications in radioactive cleanup prepared with hydrothermal treatment of lignocellulose - Key Note
- 11h15 – 11h30 *Pauline JACQUET*, Improvement of hyperthermostable enzyme for external decontamination of organophosphorus chemicals
- 11h30 – 11h45 *Thomas HOFMAN*, Interactions, dynamics and removal of caesium from building materials: dirty bomb & decontamination
- 11h45 – 12h00 *Esther LE TOQUIN*, New sporicidal form for biological decontamination of facilities
- 12h00 – 12h15 *Pauline BARROIS*, Toward smart textile: new coatings for photocatalytic decontamination

12h15 – 12h30 *Marie VANDESTEEN*, Smart technical textiles for decontamination of chemical warfare agents

12h30 – 12h45 *Mark BARRETT*, Experimental derivation of chemical evaporation rates from unclothed and clothed sebum-coated discs under various exposure conditions

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

*Roberto MUGAVERO and Frédéric DORANDEU, Workshop on education & training*

## **MEDICAL COUNTERMEASURES – 2**

14h15 – 14h50 *Frédéric DORANDEU*, 100-Years Anniversary of Sulfur Mustard Military Grand Debut – Has Research Improved Medical Management of Casualties? - Plenary

14h50 – 15h25 *Sina BAVARI*, Ebola virus disease: Implications and treatments - Plenary

15h25 – 15h50 *Jean-Nicolas TOURNIER*, Medical counter-measure at the age of bioterror: from anthrax to emerging diseases - Key Note

15h50 – 16h15 *John MIKLER*, Efficacy of scopolamine and epinephrine in simulating respiration following soman exposure - Key Note

16h15 – 16h30 *Diane RICCOBONO*, Cell therapy for skin and muscles damages in cutaneous radiation syndrome: overview of present and future strategies

16h30 – 16h45 *Jiri CASSA*, The influence of modulators of acetylcholinesterase on the resistance of mice against soman and on the efficacy of antidotal treatment of soman poisoning in mice

16h45 – 17h00 *Benjamin BACCUS*, Acute organophosphorus pesticide poisoning: a paraoxon-ethyl model in mice.

17h00 – 17h15 *Marlos JOOSEN*, Application of intraosseus countermeasure administration in a guinea pig model

17h15 – 17h30 *Nicolas BAILLET*, Study of the early pathogenic events during Lassa fever in cynomolgus monkeys and its correlation with the outcome

*17h30 Industrials session & show room - aperitif*

**Thursday, June 1<sup>st</sup>**

**MEDICAL COUNTERMEASURES – 3**

- 08h00 – 08h35      *Wyndham LATHAM*, Drug resistances in highly pathogenic bacteria such as *Y. pestis*: a concern - Plenary
- 08h35 – 09h00      *Michel DROUET*, New paradigms of the treatment of Acute Radiation Syndrome - Key Note
- 09h00 – 09h15      *Alain CHAPEL*, Generation of hematopoietic stem cells from non-hematopoietic iPS in patients with acute irradiation syndrome an innovative therapeutic strategy of hematopoietic syndrome
- 09h15 – 09h30      *Jérôme GABARD*, Phage therapy to treat respiratory tract infection
- 09h30 – 09h45      *Arnaud AVRIL*, Strategy for the development of recombinant human-like antibodies against rare diseases for biodefense.

*09h45 – 10h15      Coffee break, poster session, industrials & responders exhibition*

**DETECTION – Post-crisis analysis and forensics**

- 10h15 – 10h50      *Steven SCHUTZER*, Microbial Forensics - Plenary
- 10h50 – 11h15      *Håkan WINGFORS*, Exposure assessments of air pollutants in the occupational environment of deployed soldiers - Key Note
- 11h15 – 11h30      *Marco VALENTE*, Radiation exposure biomarkers: results and perspectives of the French Armed Forces Biological Dosimetry Laboratory
- 11h30 – 11h45      *Olivier GORGE*, Pathogenic bacteria DNA's half-life in environment: a mouse study
- 11h45 – 12h00      *Robert DITARGIANI*, Developing an Automated Method for the Verification of Human Exposure to the Chemical Warfare Agents

*12h00 – 13h30      Lunch, poster session, industrials & responders exhibition*

**DETECTION – Explosives**

- 13h30 – 14h05      *Jimmie OXLEY*, Issues with Analysis of Homemade Explosives - Plenary
- 14h05 – 14h30      *Pierre CHARRUE* – Key Note
- 14h30 – 14h45      *Joachim TABARY*, Baggage imaging system by x-ray diffraction combining opened collimations with spatially- and energy-resolved CdZnTe detectors

14h45 – 15h00 *Didier POULLAIN*, New developments for explosives detection at CEA: answering to field needs

15h00 – 15h15 *Céline FRENOIS*, Vapor explosives detector: from multi-sensor prototype development to an industrial device

*15h15 – 15h45 Coffee break*

#### **MEDICAL COUNTERMEASURES - 4**

15h45 – 16h20 *Lucille LUMLEY*, Efficacious treatment of soman-induced status epilepticus with synergistic drug combinations - Plenary

16h20 - 16h45 *Felicia PRADERA*, The Australian government medical countermeasures initiatives - Key Note

16h45 – 17h00 *Elizabeth POSILLICO*, Development of Obiltoximab for Prophylaxis and Treatment of Inhalational Anthrax

17h00 – 17h15 *Kelly BASI*, Dimethyl trisulfide (DMTS) is an effective treatment in an inhalation model for cyanide poisoning using unanesthetized mice

17h15 – 17h30 *Julia HERBERT*, Precision cut lung slices as test system for candidate therapeutics in organophosphate poisoning

17h30 – 17h45 *Michel POPOFF*, Atypical outbreaks of *Clostridium baratii* botulism in France and antibiotic resistance in *Clostridium botulinum*

17h45 – 18h00 *Fabrice BIOT*, The Diagnosis of Melioidosis Outside Endemic Areas: a French Experience

18h00 – 18h15 *Matthias PORT*, Prediction and medical management of acute radiation syndrome using clinical signs and symptoms : from statistical tool development to training of first responders

*End of the conference - Conclusions*