



Centre Prouve, 1 place de la République, F – 54000 NANCY

Programme

Wednesday 5 June 2019

Morning

8:30 *Registration and coffee*

10:00 - Opening session

10:00 - INRS

10:10 - **Louis LAURENT**, Director of Studies and Research, INRS

10:20 - **Philippe DUQUENNE**, co-president of the conference

10:30 - Introductory session

10:30 - **Keynote Speakers: Isabelle THAON**, Centre Hospitalier Régional Universitaire Nancy (France) and **Jean-François GEHANNO**, Centre Hospitalier Universitaire Rouen (France)
Biological risks in the workplace: health effects

11:20 - **Keynote Speaker: Caroline DUCHAINE**, Institut universitaire de cardiologie et de pneumologie de Québec (Canada)
Bioaerosols and microbiota: promises and challenges

12:10 - *Lunch*

Afternoon

Session 1 - Effects of biological agents on the health of workers

Chairpersons: *Isabelle THAON & Mylène TROTTIER*

13:30 - **Keynote Speaker: Caroline HERR**, Bavarian Health and Food Safety Authority, (Germany)
Relevance of exposure to infectious agents via inhalation and dermal contact at the workplace

14:20 - **Keynote Speaker: Elisabeth BOUVET**, Haute Autorité de Santé, Université Paris-Diderot (France)
Examination of risks to healthcare workers throughout the world: emerging viruses and other infectious agents

15:00 - **Dominique ABITEBOUL**, INRS (France)
CMV infection for early childhood jobs – state of progress



- 15:20 - **Gaëtan DEFFONTAINES**, CCMSA (France)
Medical monitoring of workers after exposure to bovine TB – recommendations 2018
- 15:40 - **Véronique CARON**, INRS (France)
Health effects of mould in the work environment
- 16:00 - *Coffee break*

Session 2 - Methods for qualitative and quantitative assessment

Chairpersons: Annette KOLK & Xavier SIMON

- 16:30 - **Keynote Speaker: Anne Mette MADSEN**, National Research Centre for the Working Environment (Denmark)
Methods and strategies for the qualitative and quantitative assessment of biological risks
- 17:20 - **Sarah BURZONI**, INRS (France)
Review of existing approaches for assessing biological risks in the workplace and a critical analysis
- 17:40 - **Stefan MAYER**, Berufsgenossenschaft Handel und Warenlogistik (Germany)
Assessment of health risks due to airborne bioaerosol exposure at workplaces – the new TRBA 400 of the German Federal Committee on Biological Agents (ABAS)
- 18:00 - **Corine DE SOUZA & Corinne Le-Caer**, Centre de recherche Sanofi (France)
Biological risk assessment methodology adapted to research and development activities
- 18:20 - **Stefanie KLAR**, Federal Institute for Occupational Safety and Health (Germany)
Measuring toxic effects of bacterial secondary metabolites on human lung cells – a link to the risk assessment of bioaerosol exposure in the workplace?
- 18:40 - End of the day
- 18:50 - *Icebreaker party*



Thursday 6 June 2019

Morning

08:30 - Registration

Session 2 (cont'd) - Methods for qualitative and quantitative assessment

Chairpersons: Caroline DUCHAINE & Sergey GRINSHPUN

09:00 - **Udo JAECKEL**, Federal Institute for Occupational Safety and Health (Germany)
Assessment of occupational risks related to biological agents. What can exposure analyses tell us?

09:20 - **Xavier SIMON**, INRS (France)
Measurement of microorganism concentrations in the work atmosphere: sampling by filtration vs collection in liquid

09:40 - **Clara POGNER**, Center for Health & Bioresources, (Austria)
Evaluation of novel quantitative bioaerosol detection systems under controlled conditions in a bioaerosol chamber

10:10 - Coffee break

Chairpersons: Anne Mette MADSEN & Anne OPPLIGER

10:40 - **Susanna VIEGAS**, Health & Technology Research Center (Portugal)
Assessment of occupational exposure to mycotoxins – Relevance of biomonitoring tools

11:00 - **Olivier SCHLOSSER**, SUEZ, (France)
Predicting endotoxin exposure by measuring dust concentration: a reliable approach?

11:20 - **Verenna LIEBERS**, Institute for Prevention and Occupational Medicine (Germany)
Determination of endotoxin activity – Comparison of recombinant Factor C assay with chromogen kinetic Limulus amoebocyte lysate test

11:40 - **Annette KOLK**, Institute for Occupational Safety and Health of the German Social Accident Insurance (Germany)
Evaluation of 10 years measurement of endotoxin with LAL- and rfC-Test

12:00 - Lunch



Afternoon

13:00 - *Poster session and computer presentation*

Session 3 - Occupational exposures to biological agents

Chairpersons: Pierre LE CANN & Carla VIEGAS

14:00 - **Keynote Speaker: Philippe DUQUENNE**, INRS (France)

Characteristics of bioaerosols emitted at the workplace

14:50 - **Sigolène MORAND & Sarah MEMMI**, Inspection Médicale du Travail - Dares (France)

Occupational exposure to biological agents: results of the Sumer survey

15:10 - **Dierk-Christoph POTHER**, Federal Institute for Occupational Safety and Health (Germany)

Changes in the composition of bioaerosols of workplaces in biogas plants revealed by multiplex analyses

15:30 - **Patricia DIRRENBARGER**, INRS (France)

Occupational exposure to bioaerosols and ammonia in biogas plants

15:50 - **Sophie NDAW**, INRS (France)

Liquid chromatography – high resolution mass spectrometry method for monitoring mycotoxins in urine for exposure studies

16:10 - *Coffee break*

Chairpersons: Hélène HIRZEL & Maosheng YAO

16:40 - **Carla VIEGAS**, Health & Technology Research Center, (Portugal)

Nasal swab as a tool to assess occupational exposure to fungi in a cork industry

17:00 - **Anne STRAUMFORS**, National Institute of Occupational Health (Norway)

Airborne mycobiome in the Norwegian grain industry

17:20 - **Anne OPPLIGER**, Institut Universitaire Romand de Santé au Travail (Switzerland)

Airborne microbiota in pig farms and impact on farmer's nasal microbiota

17:40 - **Michèle TREMBLAY**, Direction régionale de santé publique de Montréal, (Canada)

Monitoring of accidental occupational exposure to biological liquids (Montreal, 1999-2018): analysis strategy and designing messages of prevention

18:00 - *End of the day*

19:15 - *Evening event*



Friday 7 June 2019

Morning

08:15 - *Registration*

Session 4 - Prevention of biological risks in the workplace

Chairpersons: Ronan LEVILLY & Beatrice SPOTTKE

- 09:00 - **Keynote Speaker: Sergey GRINSHPUN**, University of Cincinnati (United States)
Controlling exposure to bioaerosol particles: from air purification and microbial inactivation to respiratory protection
- 09:50 - **Alan BESWIK**, Health & Safety Laboratory (United Kingdom)
The testing of decontamination systems – cross sector approaches for dealing with microbiological hazards
- 10:10 - **Marie-Eve DUBUIS**, Université Laval (Canada)
Inactivation of airborne viruses using ozone
- 10:30 - **Isabelle BALTY**, INRS (France)
Prevention of dust exposure risk at hanging stations in poultry slaughterhouses
- 10:50 - *Coffee break*

Chairpersons: Isabelle BALTY & Alan BESWICK

- 11:20 - **Marie-Cécile BAYEUX-DUNGLAS**, INRS (France)
Implementation of airborne precautions in healthcare settings: the importance of choosing a well-adjusted respirator
- 11:40 - **Alex BIRRELL**, CleanSpace Technology Pty Ltd (Australia)
An inbuilt real time respirator protection check for healthcare workers and emergency responders
- 12:00 - **Brigitte FACON**, CRAMIF (France)
Exposure to bioaerosols in sorting centres for recyclable household waste. Observations and prevention measures
- 12:20 - **Christine DAVID**, INRS (France)
Exposure to potentially infectious risks in sorting centres for recyclable household waste
- 12:40 - Closing session**
- 13:00 - End of the conference**



POSTERS: specific session (6 June from 1:00 pm to 2:00 pm)

Session 2 - Methods for qualitative and quantitative assessment

- A. AFANOU**, National Institute of Occupational Health (Norway)
Use of TLR2 and TLR4 transfected cells to study the immuno-activation properties of mixtures of fungal and bacterial particles
- J. BAUDE**, CONIDIA (France)
Impact of microbiological air quality on sewer workers
- K. DRUCKENMUELLER**, Institute for Occupational Safety and Health (Germany)
MALDI-TOF mass spectrometry for qualification of the microbial fraction in environmental samples
- I.E.U. ELORDUY URIBARRI**, Basque Institute for Occupational Health and Safety (Spain)
Biological risk level in a waste treatment plant due to the presence of Coxiella burnetti, the biological agent which causes Q fever. Use of the qualitative method "BIOGAVAL"
- M.W. FREDERIKSEN**, National Research Centre for the Working Environment (Denmark)
Occupational exposure to airborne Staphylococcus aureus and other bacterial species as measured using different sampling methods
- A. GRUNBERG**, Federal Institute for Occupational Safety and Health (Germany)
Dead or alive: cultivation-independent methods for quantification of airborne bacteria
- N. HEUBACH**, Federal Institute for Occupational Safety and Health (Germany)
Reactivity of workplace relevant bacteria in endotoxin and pyrogen detection assays
- A. KOLK** Institute for Occupational Safety and Health of the German Social Accident Insurance (Germany)
Production of reference samples for proficiency tests of endotoxin measurements
- A. KOLK** Institute for Occupational Safety and Health of the German Social Accident Insurance (Germany)
Progresses of the CEN/TC 137/WG5 "Biological Agents" in the revision of the European standards dealing with bioaerosol
- P. LE CANN**, Université de Rennes, Inserm, EHESP, Irset (France)
Characterization of indoor dust bacterial and eukaryote microbiota in homes of asthma and non asthma patients: a pilot study using next generation sequencing
- I. LAUFER**, Federal Institute for Occupational Safety and Health (Germany)
Improvement of DNA extraction in bioaerosol assessment and analyses of outdoor air after filter sampling
- G. LINSEL**, Federal Institute for Occupational Safety and Health (Germany)
Measurement of airborne endotoxins according to German occupational health regulations – problems and opportunities



- H. NICULITA-HIRZEL**, Institut Universitaire Romand de Santé au Travail (Switzerland)
Does the use of water-saving showers present a biological risk for users?
- K. TENDAL**, National Research Centre for the Working Environment (Denmark)
NGS and MALDI-TOF species identification of bioaerosols from exposure sampled from a greenhouse worker over six years
- C. VIEGAS**, Health & Technology Research Center (Portugal)
Electrostatic dust cloth to assess occupational exposure to bioburden in primary health care centers
- C. VIEGAS**, Health & Technology Research Center (Portugal)
Effect of microbiome from waste sorting industry in THP-1 cell homeostasis and inflammatory responses
- J.K. WHITE**, The National Research Centre for the Working Environment (Denmark)
Viability, survivability, and biofilm forming capacity of Staphylococcus aureus after aerosolisation with and without dust over time

Session 3 - Occupational exposures to biological agents

- M. CYPROWSKI**, Central Institute for Labour Protection - National Research Institute (Poland)
Exposure assessment to bioaerosols in municipal waste incineration plants using nasal swabs techniques
- H-L. DAAE**, National Institute of Occupational Health (Norway)
Occupational exposure during treatment of offshore drilling mud
- U. JAECKEL**, Federal Institute for Occupational Safety and Health (Germany)
Occupational exposure to airborne microorganisms in different poultry hatcheries
- R. LU**, School of Environmental Science and Engineering, Chang'an University (China)
Environmental factors affect the PM_{2.5} microbial concentration and the bacterial community structures differently
- H-D. MOSSORO-KPINDE**, Complexe Pédiatrique de Bangui (Central African Republic)
Occupational blood exposure (OBE), seroconversion and coinfection HIV/HBV in CAR
- S. PACHURA**, ASIST57 (France)
Biological risk: difficulties in assessing it in occupational situations. A case study in a butcher's department
- J. REBUFFAUD**, CARSAT Normandie (France), & **D. JARGOT**, INRS (France)
Exposure of metal polishers to mycotoxins
- B. SAVARY**, INRS (France)
Bioaerosols: the COLCHIC database in support of risk prevention
- A. STRAUMFORS**, , National Institute of Occupational Health (Norway)
The mycobiome in personal inhalable aerosol samples from Norwegian sawmills and the impact of differences in fungal diversity for occupational risk assessments



- D. TRAVERSI**, University of Torino (Italy)
Airborne microbiome and health risk assessment in composting plants
- J.K. WHITE**, National Research Centre for the Working Environment (Denmark)
Occupational exposure to microbes found in settling dust in pig farms
- C. WILHELM**, Groupe CARSO (France)
Exploratory study of sanitation workers' exposure to biological agents
- C. YAN**, School of Environmental Studies, China University of Geosciences (China)
Assessment of bioaerosols emission from a wastewater treatment plant in Wuhan, China
- M. YAO**, State Key Joint Laboratory of Environmental Simulation and Pollution Control (China)
Time-resolved antibiotic resistance genes in highly polluted air

Session 4 - Prevention of biological risks at the workplace

- S. ALLIX-LE GUEN**, LABSCIENCE (France)
Comparative study of the effectiveness of the hydrogen peroxide vapor and fog in airborne disinfection
- E. BOILAN**, CESI (France)
Case study: Increase in accidental blood exposure accidents following introduction of safety-engineered devices
- B. FACON**, CRAMIF (France)
Characterisation of Paris sewer workers' exposure to biological pollutants within the framework of a research and development agreement between ANSES and the Biocontaminants laboratory of the Île de France health insurance fund (CRAMIF)
- B. FACON**, CRAMIF (France)
Example of assistance provided by the Biocontaminants laboratory of the Île de France health insurance fund (CRAMIF): fungal contamination of workers' quarters: observations and recommendations
- B. FACON**, CRAMIF (France)
Example of an intervention by the Biocontaminants laboratory of the Île de France health insurance fund (CRAMIF): exposure of onion packers to inhalable dust and bioaerosols: metrology and prevention measures
- H.D. MOSSORO-KPINDE**, Bangui Paediatric Complex (Central African Republic)
Implementation of an infectious risk prevention policy in resource-limited countries: example of the Bangui Paediatric Complex in the Central African Republic
- G. PELLISSIER**, GERES, UFR de Médecine Bichat (France)
Prevention of blood-exposure accidents: a database on safety-engineered devices for helping health professionals to choose the right material
- M.TREMBLAY**, Direction régionale de santé publique de Montréal, (Canada)
Pneumococcal vaccination and workers exposed to welding fumes. The approach for recommending it



Computer presentations (6 June from 13:00 to 14:00)

M.C. BAYEUX-DUNGLAS, INRS (France)

EFICATT – Online advice about the procedure to adopt in the event of occupational exposure to an infectious risk

C. DAVID, INRS (France)

BAOBAB – a tool for biological risk assessment

J. HACHET, INRS (France)

Biosafety training for future professionals and OSH practitioners

B. SPOTTKE, Berufsgenossenschaft Rohstoffe und chemische Industrie (Germany)

The GESTIS Biological Agents Database – compact information for occupational safety and health protection!