1 Detailed Scientific Programme
CONTINUING EDUCATION IN CLINICAL TOXICOLOGY:
PRE-CONGRESS SYMPOSIUM

Natural Toxins
Session chair: Bob Hoffman, Rachida Soulaymani-Bencheikh

09.00 Keynote lecture: Plant toxicology

Hugo Kupferschmidt
Swiss Toxicological Information Centre, Associated Institute of the University of Zurich, Zurich, Switzerland

At the end of this session the audience should be able to:
• identify the most toxic plants and the mechanisms of toxicity of their toxic ingredients
• explain the risk assessment of toxic plants
• describe the medical management of toxic plant exposures and make a reasonable plan for the medical management of exposed patients

09.30 Keynote lecture: The “new” mushroom syndromes

Régis Bédry
Hospital Secure Unit, Pellegrin University Hospital, Bordeaux, France

At the end of this session the audience should be able to:
• list the main mushroom species that can result in "new" mushroom syndromes
• describe the clinical profile of the "new" mushroom syndromes
• describe the therapeutic management and follow-up of the "new" mushroom syndromes

10.00 Keynote lecture: New insights in marine toxicology (1)

Luc de Haro
Marseille Poison Centre, Hôpital Sainte Marguerite, Marseille, France

At the end of this session the audience should be able to:
• list the main emerging marine toxic syndromes present in the European coasts
• discuss the role of the European Poisons Centres in the alerting and management of poisoned or envenomed patients
• describe the European situation in global ecological and toxicological aspects at the world level, with a description of tropical emerging problems which may soon be present in Europe

10.30 – 11.00 Coffee
Tuesday 27 May 2014

Silver Hall

Session chair: Régis Bédry, Fekri Abroug

11.00  Keynote lecture: Influence of climate change on the epidemiology of poisonous animals and envenomings  
Max Goyffon  
**RDDM Department, National Museum of Natural History, Paris, France**

At the end of this session the audience should be able to:
- examine the relationship between seasonal proliferation and territorial expansion and current climate change
- compare the situation and territorial expansion of terrestrial fauna (Hymenoptera Aculeata, scorpions) and marine fauna (Medusozoa) with that of other venomous groups deliberately introduced by man into new territories (Hymenoptera, Amphibians)
- discuss whether human factors are more important in the conquest of new territories by venomous species (in particular in anthropic environments) than climatic factors

11.30  Pro/Con debate

**Mannitol for the treatment of ciguatera poisoning?**

**Pro:** Michael E Mullins  
*Emergency Medicine, Washington University, Saint Louis, USA*

**Con:** Robert S Hoffman  
*New York City Poison Control Center, New York, NY, USA*

At the end of this session the audience should be able to:
- describe the use of mannitol in ciguatera poisoning
- evaluate the literature on the efficacy of mannitol in ciguatera poisoning

12.15  Keynote lecture: Antivenom for snake envenoming: Efficacy, effectiveness and adverse reactions  
Ingrid Berling  
*Calvary Mater Newcastle, NSW, Australia*

At the end of this session the audience should be able to:
- explain the difference between antivenom efficacy and effectiveness
- discuss the importance of early indicators of envenoming and timing of antivenom
- describe the type of adverse reactions to antivenom

12.45 – 14.00 Lunch
Interactive case studies

Session chair: Knut Erik Hovda, Geoff Isbister

14.00 Case 1: Ricin poisoning
Fridtjof Heyerdahl  
Department of Acute Medicine, Oslo University Hospital, Ullevaal, Norway

14.30 Case 2: Herbal tea intoxication
Ming-Ling Wu  
Division of Clinical Toxicology, Taipei Veterans General Hospital, Taipei, Taiwan

15.00 Case 3: Spider toxicology
Julian White  
Toxinology, Women’s & Children’s Hospital, North Adelaide, Australia

At the end of this session the audience should be able to:
- recognise the features of ricin poisoning
- describe a case of herbal tea poisoning
- discuss the features and management of spider bites

15.30 – 16.00 Coffee

Session chair: Luc de Haro, Julian White

16.00 Case 4: Collective toxic fish poisoning
Man-Li Tse  
Hong Kong Poison Information Centre, United Christian Hospital, Hong Kong, China

16.30 Case 5: Exotic (non-native) snake poisoning
Fabio Bucaretechi  
Campinas Poison Control Center, State University of Campinas, Campinas, Brazil

At the end of this session the audience should be able to:
- describe a collective fish poisoning incident
- summarise the problems of poisoning with exotic (non-native) snakes

17.00 Pro/Con debate

Is supportive treatment for scorpion envenomation sufficient?

Pro: Fekri Abroug  
Intensive Care, CHU F. Bourguiba, Monastir, Tunisia

Con: Rachida Soulaymani-Bencheikh  
Centre Anti Poison et de Pharmacovigilance du Maroc (CAPM), Rabat, Morocco

At the end of this session the audience should be able to:
- evaluate specific treatments for scorpion envenomation
- debate the value of supportive treatment in scorpion envenomation

17.45 Close
08.30 Welcome and opening

Symposium: Where have we come from and where are we going? – Part 1

Session chair: Alex Campbell, Alex Proudfoot

08.35 PLENARY LECTURE
Ups and downs in clinical toxicology: A review from 1964 to 2014

Thomas Zilker
Department for Clinical Toxicology at II. Med. Klinik, TU München, Munich, Germany

At the end of this session the audience should be able to:
- describe the range of different intoxications during the last 50 years; which poisons are consistent throughout and which have emerged during this time?
- list therapeutic options that have developed during the last half century and what sorts of therapy have come and disappeared
- discuss how prevention of poisoning has improved since 1964

09.20 Keynote lecture: 50 years of progress in the care of the patient with a toxicologic emergency

Lewis Goldfrank
Emergency Medicine, New York University, New York, NY, USA

At the end of this session the audience should be able to:
- evaluate the rationale for the transition from high dose naloxone to low dose naloxone to home naloxone in the overdosed patient
- discuss the rationale for the transition in management of the patient with an agitated delirium from restraints and antipsychotics to sedation and cooling
- compare and contrast the use of public health approaches to unintentional kerosene poisoning in America in the 1960s and kerosene poisoning in Ghana in the 2000s to model collaborative global health approaches to toxicology

09.40 Keynote lecture: 50 years of paracetamol poisoning

D Nicholas Bateman
National Poisons Information Service (Edinburgh Unit), Edinburgh, UK

At the end of this session the audience should be able to:
- describe the history of the development of treatments for paracetamol
- discuss the issues in current management
- outline methods of assessing paracetamol poisoning

10.00 – 10.30 Coffee and Posters (19-120)
Mini-symposium: Emerging toxicities

Session chair: Kai Knudsen, Timothy Wiegand

09.20  Neurotoxicity of 1-bromopropane in workers: An outbreak reported to the National Poison Center in Taiwan (2)
TeHao Wang1,2, JouFang Deng1, ChengChang Yang1,2, MingLing Wu1,2
1Division of Clinical Toxicology, Taipei Veterans General Hospital, Taipei, Taiwan; 2Institute of Environmental and Occupational Health Sciences, National Yang-Ming University, Taipei, Taiwan

09.35  Arthroprosthetic cobaltism: Clinical features, management and chelating therapy of a 2012-2013 case series from Pavia Poison Control Centre (3)
Andrea Giampreti, Valeria M Petrolini, Sarah Vecchio, Davide Lonati, Anna Ronchi, Carlo A Locatelli
Poison Control Centre and National Toxicology Information Centre, Toxicology Unit, IRCCS Maugeri Foundation, Pavia, Italy

09.50  Computerized Early Warning System for emerging poisonings threatening public health (4)
Gerard A van Zoelen1, Tessa E van Riemsdijk1, Antoinette JHP van Riel1, Irma de Vries1, Jan Meulenbelt1,2,3
1National Poisons Information Center, University Medical Center Utrecht, Utrecht, The Netherlands; 2Department of Intensive Care Medicine, University Medical Center Utrecht, Utrecht, The Netherlands; 3Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands

At the end of this session the audience should be able to:
- discuss the neurotoxicity of 1-bromopropane in occupational use
- discuss the use of chelation for cobalt toxicity after hip replacement
- describe how a computerized early warning system can provide alerts for emerging poisonings

10.05 – 10.30 Coffee and Posters (19-120)

5Short-listed for Informa Best Scientific Presentation
Symposium: Where have we come from and where are we going? – Part 2

Session chair: Jan Meulenbelt, Lewis Goldfrank

10.30 Keynote lecture: From DDT to Bt: A brief history of insecticide toxicology
Martin F Wilks
Swiss Centre for Applied Human Toxicology, University of Basel, Basel, Switzerland

At the end of this session the audience should be able to:

- identify the most commonly used groups of insecticides and their properties
- describe typical toxidromes associated with insecticide poisoning
- discuss the major controversies with regard to insecticide toxicity in humans and the environment

10.50 Keynote lecture: 50 years of fungal poisoning and antidotes: Do we have progress?
Hans Persson
Swedish Poisons Information Centre, Stockholm, Sweden

At the end of this session the audience should be able to:

- describe the toxic mechanisms and symptoms, and discuss the treatment approaches after ingestion of fungi containing the extremely toxic amatoxins
- describe the effects of the toxin orellanine that occurs in certain Cortinarius spp
- discuss the toxicity and relevant treatment of morels (e.g. Gyromitra esculenta) and of fungi containing muscarine

11.10 Keynote lecture: 50 years of the EAPCCT
J Allister Vale
National Poisons Information Service (Birmingham Unit) and West Midlands Poisons Unit,
City Hospital, Birmingham, UK; University of Birmingham, UK

At the end of this lecture the audience should be able to:

- explain why the EAPCCT is a vibrant international scientific society and how it has played a major role in establishing the scientific credibility of the specialty of clinical toxicology
- recognize that to fulfil its Aims and Objectives the EAPCCT organizes state-of-the-art coverage of important toxicological topics at each International Congress so that the continuing professional development of its members is ensured
- recognize that to further its Aims and Objectives the EAPCCT co-sponsors the journal Clinical Toxicology, Position Statements and international guidelines, holds membership in IUTOX and partners the European Commission in the development of an alerting system for chemical health threats (ASHT II)

11.30 GENERAL DISCUSSION
Mini-symposium: Psychotropic drugs

Session chair: Donna Seger, Barbara Groszek

10.30  Retrospective analysis of poisonings with newer psychotropic drugs  
Jochen Stenzel, Leonie Ruhnau, Florian Ey"er  
Clinical Toxicology, Klinikum rechts der Isar, Munich, Germany

10.45 Pregabalin: An assessment of its toxicity  
Dagmar Prasa¹, Uwe Stedtler², Carola Seidel³, Petra Hoffmann-Walbeck⁴,  
Elja Heistermann⁵, Sonja Gros⁶, Cornelia Reichert⁶, Elke Färber⁷,  
Sabine Stoletzki⁶, Dieter Genser⁸, Gabriele Dostal⁹  
¹Poisons Information Centre Erfurt; ²Poisons Information Centre Freiburg; ³Poisons  
Information Centre Bonn; ⁴Poisons Information Centre Berlin; ⁵Poisons Information Centre  
Mainz, Germany; ⁶Poisons Information Centre Zurich, Switzerland; ⁷Poisons Information  
Centre Gö"ttingen, Germany; ⁸Poisons Information Centre Vienna, Austria; ⁹Poisons  
Information Centre Munich, Germany

11.00 Are selective serotonin reuptake inhibitors responsible for an excess of morbidity in acute  
poisonings admitted to the emergency department?  
Sébastien Beaune¹,², Emmanuel Curis¹, Philippe Juvin², Bruno Mégarbane¹  
¹INSERM U1144, Paris-Descartes University, Paris, France; ²Emergency Department,  
Georges Pompidou Hospital, Paris, France

11.15 Seizures after single-agent overdose with pharmaceutical drugs: Analysis of cases  
reported to a poison centre  
Cornelia Reichert, Alessandro Ceschi, Hugo Kupferschmidt,  
Christine Rauber-Lüthy  
Swiss Toxicological Information Centre, Associated Institute of the University of Zurich,  
Zurich, Switzerland

At the end of this session the audience should be able to:  
- describe the adverse effects of newer psychotropic drugs  
- assess the toxicity of pregabalin in overdose  
- discuss the assessment of serotonin syndrome in SSRI overdose in the emergency  
department  
- list the drugs which cause seizures in overdose

11.30 GENERAL DISCUSSION

¹Short-listed for Informa Best Scientific Presentation
**Symposium: Where have we come from and where are we going? – Part 3**

**Session chair: Herbert Desel, Marsha Ford**

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<tr>
<th>11.45</th>
<th>Round table: Poisons centre information delivery, from clay tablet to 2014 and beyond</th>
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<tr>
<td></td>
<td>Edward Krenzelok</td>
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<td><em>School of Pharmacy, University of Pittsburgh, Pittsburgh, PA, USA</em></td>
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<td>Kalle Hoppu</td>
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<td><em>Poison Information Centre, Helsinki, Finland</em></td>
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<td>Andreas Stürer</td>
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<td><em>Poisons Centre and Clinical Toxicology, University Medical Centre, Mainz, Germany</em></td>
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<td>Jou-Fang Deng</td>
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<td><em>Department of Internal Medicine, Taipei Veterans General Hospital, Taipei, Taiwan</em></td>
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<td>Naren Gunja</td>
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<td><em>NSW Poisons Centre, Sydney Childrens Hospital Network, Sydney, Australia</em></td>
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At the end of this session the audience should be able to:
- describe the changes that have occurred since the setting up of poisons centres
- examine the changes in information provision over the years, from paper to smartphone
- debate what new technologies may be important in the future.

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**12.45 – 13.45 Lunch and Posters (19-120)**
Mini-symposium: Severe illness from poisoning

Session chair: Sophie Gosselin, Ana Ferrer-Dufol

11.40 \(^5\) Fatal salicylate levels can be lower than expected (9)
Thomas G Martin
Utah Poison Control Center, University of Utah, Seattle, Washington, USA

11.55 Visual damage after acute methanol poisoning: prospective study in 50 patients (10)
Sergey Zakharov\(^1\), Tomas Navratil\(^2\), Pavel Diblik\(^3\), Pavel Urban\(^1\), Knut Erik Hovda\(^4\), Daniela Pelclová\(^1\)
\(^1\)Toxicological Information Center at General University Hospital, Charles University, Prague, Czech Republic; \(^2\)Department of Biophysical Chemistry, J. Heyrovský Institute of Physical Chemistry, Prague, Czech Republic; \(^3\)Department of Ophthalmology, General University Hospital, Prague, Czech Republic; \(^4\)Norwegian Center for NBC Medicine, Oslo University Hospital, Ullevaal, Norway

12.10 \(^5\) Intoxicated intensive care unit patients: Long-term mortality? (11)
Raya Brandenburg\(^1\), Sylvia Brinkman\(^2,3\), Nicolet de Keizer\(^2,3\), Jan Meulenbelt\(^1,4,5\), Dylan W de Lange\(^1,3,4\)
\(^1\)Department of Intensive Care and Emergency Medicine, University Medical Center Utrecht; \(^2\)Department of Medical Informatics, Academic Medical Centre Amsterdam; \(^3\)National Intensive Care Evaluation (NICE) Foundation, Academic Medical Centre Amsterdam; \(^4\)National Poisons Information Center (NPIC), University Medical Center Utrecht; \(^5\)Institute for Risk Assessment Sciences (IRAS), University of Utrecht, The Netherlands

12.25 \(^5\) S100B protein predictive value for neuropsychological sequelae in carbon monoxide poisoning (12)
Miran Brvar
Poison Control Centre, University Medical Centre, Ljubljana, Slovenia

12.40 GENERAL DISCUSSION
At the end of this session the audience should be able to:
- discuss the correlation between salicylate concentrations and fatalities after overdose
- describe visual sequelae after methanol overdose
- contrast in-hospital and long-term mortality after admission to an intensive care unit with overdose
- evaluate the value of S100 protein to predict neuropsychological sequelae in carbon monoxide poisoning

12.45 – 13.45 Lunch and Posters (19-120)

\(^5\) Short-listed for Informa Best Scientific Presentation
Wednesday 28 May 2014  
Copper Hall

13.45  Fellowship ceremony  
Simon Thomas  
*Past President, EAPCCT*

Session chair: Irma de Vries

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<th>Time</th>
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| 14.05 | LOUIS ROCHE LECTURE                                                                     | Michael I Greenberg  
*Department of Emergency Medicine, Drexel University College of Medicine, Philadelphia, Pennsylvania, USA*

**Symposium: Chemical warfare agents – Part 1**

Session chair: Horst Thiermann, Hossein Hassanian-Moghaddam

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| 15.00 | Keynote lecture: Chemical weapon risks to health in Syria – WHO Response                 | Joanna Tempowski, Catherine Smallwood  
*World Health Organization, Geneva, Switzerland* |

At the end of this session the audience should be able to:
- explain the role of WHO in a setting where chemical weapons may be used
- describe 3 types of activity engaged in by WHO for preparedness and response to the release of chemical weapons in Syria
- describe at least one challenge faced by WHO in the context of chemical weapon release in Syria

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| 15.20 | Keynote lecture: Process of verification of human exposure towards chemical warfare agents| Marc-Michael Blum  
*Organisation for the Prohibition of Chemical Weapons (OPCW), OPCW Laboratory, Rijswijk, The Netherlands* |

At the end of this session the audience should be able to:
- describe the foundations of the verification process as laid down in the Chemical Weapons Convention and the Verification Annex and the way the Organisation for the Prohibition of Chemical Weapons (OPCW) Technical Secretariat implements this process with respect to biomedical samples
- evaluate the current process followed by the OPCW laboratory to establish Proficiency Tests for analysis of biomedical samples by running a series of confidence building exercises
- list the areas where OPCW verification activities interface with practical work of (clinical) toxicologist; what information is of highest relevance for verification; how samples should be taken and documented; and how chain of custody issues are addressed

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<td>15.40</td>
<td>GENERAL DISCUSSION</td>
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15.45 – 16.15 Coffee and Posters (19-120)
Mini-symposium: History of poisons and poisons centres

Session chair: Kalle Hoppu, Edward Krenzelok

15.00  The art of poisoning: A history of toxicology through art and literature (14)  
        Naren Gunja  
        Toxicology Unit, Western Sydney, Australia

15.15  *50 years of the German National Committee for the Assessment of Poisonings (93)  
        Axel Hahn, Kathrin Begemann, Matthias Greiner  
        Federal Institute for Risk Assessment, Berlin, Germany

15.25  *The Ljubljana Poison Control Center 40 years on (94)  
        Miran Brvar, Marija Jamsek  
        Poison Control Center, University Medical Center, Ljubljana, Slovenia

15.35  *Setting up and stages of toxicological service work in the Sverdlovsk region: 40 years of toxicological service work in the Russian Federation (95)  
        Valentin G Sentcov¹, Konstantin M Brusin¹, Olga V Novikova¹, Sergey I Bogdanov¹, Andrey A Reutov¹, Dmitriy E Zhovtyak¹, Viacheslav U Misharin², Aleksey V Martinov³, Andrey A Masterkov²  
¹Toxicology Department, Ural State Medical University, Yekaterinburg, Russia; ²Sverdlovsk Regional Clinical Psychiatric Hospital №7, Nizhny Tagil, Russia; ³City Clinical Hospital №14, Yekaterinburg, Russia

At the end of this session the audience should be able to:
• contrast modern and historical poisons used in art and literature  
• describe the achievements of the German National Committee for the Assessment of Poisonings in the last 50 years  
• describe the development of the Ljubljana Poison Control Center over the last 40 years  
• describe the setting up of the toxicological service in the Sverdlovsk region in the last 40 years

15.45 – 16.15 Coffee and Posters (19-120)

*Short poster oral - see page 41
Symposium: Chemical warfare agents – Part 2
Session chair: Michael Greenberg, Alan Woolf

16.15 Keynote lecture: Biomarkers for nerve agent and mustard exposure  
Daniel D Noort  
*CBRN Protection, TNO, Rijswijk, The Netherlands*

At the end of this session the audience should be able to:
- explain the basic chemistry involved in the interactions between nerve agents/mustards and bio-macromolecules
- describe which biomarkers result after an exposure to nerve agents and mustard agents
- outline how these biomarkers can be used for retrospective exposure assessment

16.35 Keynote lecture: Treatment of mustard gas poisoning: Results and long term consequences (13)  
John Jenner  
*Biomedical Sciences Department, Dstl, Porton Down, Salisbury, UK*

At the end of this session the audience should be able to:
- identify the key signs and symptoms of sulphur mustard (SM, mustard gas) injury
- list the current treatments for SM eye, lung and skin injury
- distinguish the short and long term effects of SM poisoning

16.55 Keynote lecture: Treatment of nerve agent poisoning: General principles  
Horst Thiermann  
*Bundeswehr Institute of Pharmacology & Toxicology, Munich, Germany*

At the end of this session the audience should be able to:
- distinguish toxicological properties and effects of G-type nerve agents and V-type nerve agents
- describe adequate methods for protection of medical personnel, patients and medical equipment as well as for personnel and patient decontamination
- perform appropriate life saving therapy as well as explaining the principles of maintaining patient oriented therapeutic measures
Mini-symposium: Antidotes – Part 1

Session chair: Benoit Bailey, Kim Dalhoff

16.15 Uridine triacetate: Antidote for 5-fluorouracil overexposure (15)
Michael Bamat, Robert Tremmel, Joan Helton, Reid von Borstel
Wellstat Therapeutics LLC, Gaithersburg, MD, USA

16.30 Pyridoxine is still useful in isoniazid poisoning? (16)
Monia Aloise, Valeria M Petrolini, Emanuela Cortini, Davide Lonati, Marta Mazzoleni, Giulia Scaravaggi, Sarah Vecchio, Andrea Giampreti, Carlo A Locatelli
Poison Control Centre and National Toxicology Information Centre, IRCCS Maugeri Foundation and University of Pavia, Pavia, Italy

16.45 Modified-release paracetamol (Panadol Osteo®) poisoning: Is the Australasian management guideline being followed? (17)
Andis Graudins
Toxicology and Addiction Medicine Service, Monash Health and Southern Clinical School, Melbourne, Victoria, Australia

17.00 Effects of initial acetylcysteine infusion rates on adverse reactions in paracetamol overdose: A cohort study (18)
D Nicholas Bateman¹, Janice M Pettie¹, Robert Carroll¹, Margaret A Dow¹, Judy Coyle², Kristina R Cranfield², Alisdair Gray², Christopher Hook², Euan A Sandilands¹, Aravindan Veiraiah¹, David J Webb³, James W Dear¹,³, Michael Eddleston¹,³
¹NPIS Edinburgh, Royal Infirmary of Edinburgh, Edinburgh, UK; ²Emergency Medicine Research Group, Royal Infirmary of Edinburgh, Edinburgh, UK; ³Pharmacology, Toxicology & Therapeutics, University/BHF Centre for Cardiovascular Science, Edinburgh, UK; ⁴School of Social and Community Medicine, University of Bristol, Bristol, UK

At the end of this session the audience should be able to:
- evaluate the efficacy of uridine triacetate as an antidote for 5-fluorouracil overexposure
- evaluate the efficacy of pyridine as an antidote in isoniazid overdose
- describe the Australian management guideline for overdose with modified-release paracetamol
- discuss the effects of the recent UK change in initial acetylcysteine infusion rates on adverse reactions in paracetamol overdose

Short-listed for Informa Best Scientific Presentation
Symposium: Chemical warfare agents – Part 3

17.15 Keynote lecture: Which oxime should be used for the treatment of nerve agent poisoning?  
Franz Worek  
Bundeswehr Institute of Pharmacology & Toxicology, Munich, Germany

At the end of this session the audience should be able to:
- distinguish the pharmacological properties of relevant oximes
- contrast the advantages and limitations of oxime therapy in poisoning by different nerve agents
- select appropriate oximes, to determine effective doses, dosing intervals and duration of oxime therapy

17.35 Keynote lecture: Diagnosis and therapy of poisoning by incapacitating agents  
Paul Rice  
Dstl, Porton Down, Salisbury, UK

At the end of this session the audience should be able to:
- describe the major categories of agents regarded as incapacitating agents
- recognise the typical clinical presentations associated with poisoning by these agents
- describe the medical management of cases due to poisoning by these agents

17.55 GENERAL DISCUSSION

18.00 Close
Mini-symposium: Antidotes – Part 2

Session chair: Michael Mullins, Fridtjof Heyerdahl

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<tr>
<td>17.15</td>
<td>Pro/Con debate</td>
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<tr>
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<td>Hydroxocobalamin as first-line antidote for smoke inhalation?</td>
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<td><strong>Pro:</strong> Kurt Anseeuw</td>
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<td><em>Emergency Department, ZNA Stuivenberg, Antwerpen, Belgium</em></td>
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<td><strong>Con:</strong> John P Thompson</td>
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<td><em>All Wales Therapeutics &amp; Toxicology Centre, Cardiff University, Cardiff, UK</em></td>
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At the end of this session the audience should be able to:
- discuss the antidotes for cyanide poisoning
- evaluate whether hydroxocobalamin is the appropriate first-line antidote after smoke inhalation and for which patients

18.00 Close
Symposium: Main challenges for the future – Part 1

Session chair: Sally Bradberry, Lewis Nelson

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<th>Time</th>
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<tr>
<td>09.00</td>
<td>PLENARY LECTURE</td>
<td>Evidence based treatments</td>
<td>Nicholas A Buckley</td>
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<td>At the end of this session the audience should be able to:</td>
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<td>• discuss why some treatments are regarded as more ‘evidence-based’ than other treatments</td>
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<td>• examine the relevance to toxicology of the more recent variations in hierarchies of evidence, including increased recognition of ‘mechanistic evidence’ and ‘all or nothing’ evidence.</td>
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<td>• recognise some of the common pitfalls in design of clinical trials in toxicology that lead to ‘failure’ to create stronger evidence; in particular lack of careful consideration of interventions, doses, primary outcomes, inclusion criteria, sample size and trial termination</td>
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<td>09.45</td>
<td>Keynote lecture: Nanotoxicology: where are we now?</td>
<td>Dominique Lison</td>
<td>Louvain Centre for Toxicology and Applied Pharmacology, Université catholique de Louvain, Brussels, Belgium</td>
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<td>At the end of this session the audience should be able to:</td>
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<td>• define a nanomaterial</td>
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<td>• explain why progress has been (is) slow in defining health risks of nanomaterials</td>
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<td>10.05</td>
<td>Keynote lecture: What's new in analytical Toxicology</td>
<td>Jean-Claude Alvarez</td>
<td>Pharmacology &amp; Toxicology, APHP and Versailles University, Garches, France</td>
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<td>At the end of this session the audience should be able to:</td>
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<td>• outline how new technology like mass spectrometry can be helpful when analyzing blood after suspicion of acute intoxication</td>
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<td>• describe the value of hair analysis in the detection of acute or chronic intoxication, or in drug facilitated sexual assault</td>
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<td>• examine the possibility of identifying and quantifying new drugs such as designer drugs responsible for acute or chronic intoxications</td>
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<td>10.25</td>
<td>GENERAL DISCUSSION</td>
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10.30 – 11.00 Coffee and Posters (132-233)
Symposium: Poisonings from animals – Part 1

Session chair: Dabor Rézière, Andreas Stürer

09.45 Ciguatera outbreak in Germany in 2012 (122)
Martin M Ebbecke, Andreas Schaper, Herbert Desel
GIZ-Nord Poisons Centre, University Medical Center Göttingen, Göttingen, Germany

10.00 Measurement of venom and clotting function in patients with Russell’s viper coagulopathy and response to antivenom (123)
Kalana Maduwage¹, Fiona Scorgie², Mohamed Fahim³, Harindra Karunathilake⁴,
Chandana Abeyasinghe⁴, Margaret A O’Leary¹, Christeine A Ariaratnam⁵,
Geoffrey K Isbister¹
¹School of Medicine and Public Health, University of Newcastle, Newcastle, Australia; ²Hunter Haematology Research Group, Calvary Mater Newcastle, Newcastle, Australia; ³South Asian Clinical Toxicology Research Collaboration, Peradeniya, Sri Lanka; ⁴Chilaw Hospital, Sri Lanka; ⁵Department of Medicine, University of Colombo, Colombo, Sri Lanka

10.15 Negative predictive value of excluding embedded snake foreign body by ultrasound (124)
William F Rushton¹, Priyanka Vakkalanka¹, James H Moak², Nathan P Charlton¹
¹Division of Medical Toxicology, University of Virginia School of Medicine, Charlottesville, VA, USA; ²Department of Emergency Medicine, University of Virginia School of Medicine, Charlottesville, VA, USA

At the end of this session the audience should be able to:
• describe a recent outbreak of ciguatera poisoning in Germany
• discuss which factor may be a good marker of venom activity in Russell’s viper poisoning
• evaluate the usefulness of ultrasound as a viable option to rule out embedded foreign body following a snake bite

10.30 – 11.00 Coffee and Posters (132-233)

¹Short-listed for Informa Best Scientific Presentation
Symposium: Main challenges for the future – Part 2

Session chair: Nick Bateman, Martin Caravati

11.00 Keynote lecture: Is there a risk of systemic metal poisoning from prosthetic hips?

Sally M Bradberry, J Mark Wilkinson, Robin E Ferner

West Midlands Poisons Unit, City Hospital, Birmingham, UK; Department of Human Metabolism, University of Sheffield, Sheffield, UK; West Midlands Centre for Adverse Drug Reactions, City Hospital, Birmingham, UK

At the end of this session the audience should be able to:
- explain the reasons for the recent increased concern regarding possible heavy metal toxicity from prosthetic metal hips
- describe the circumstances in which cobalt poisoning might arise in recipients
- appreciate the problems encountered in assessing the risk of cobalt poisoning

11.20 Keynote lecture: Aluminum toxicity in infants & children: What’s known & what isn’t

Alan D Woolf

Pediatric Environmental Health Center, Boston Children’s Hospital, Boston, USA; Harvard Medical School, Boston, USA; Region I New England Pediatric Environmental Health Specialty Unit (PEHSU), Boston, USA

At the end of this session the audience should be able to:
- name three groups of infants and children who are most vulnerable to aluminum toxicity
- list three organ systems often adversely affected in aluminum overload states
- describe research needs in the assessment of a child’s aluminum body burden

11.40 GENERAL DISCUSSION

11.50 Keynote lecture: How safe is food? Threats with unexpected toxic substances

Robin E Ferner

West Midlands Centre for Adverse Drug Reactions, City Hospital, Birmingham, UK

At the end of this session the audience should be able to:
- explore the global span and length of the food chain
- describe what toxicological problems have arisen in the past
- identify the key indicators of a food-related incident

12.10 Keynote lecture: Social network research methodology involving the Internet

Alex F Manini

Division of Medical Toxicology, Icahn School of Medicine at Mount Sinai, New York, USA

At the end of this session the audience should be able to:
- contrast the advantages and disadvantages of survey research versus social media research
- describe the concept of toxicovigilance and how it may be applied to social media research
- list three analytic techniques which may be applied to social media research for the purposes of toxicovigilance

12.30 GENERAL DISCUSSION
Symposium: Poisonings from animals – Part 2

Session chair: David Wood, Max Goyffon

11.00 Predicting the severity of common krait envenomation at presentation: What signs to trust? (125)
Ashish Bhalla, Mayank Singhal, Surjit Singh, Navneet Sharma, Sushil Kumar
Department of Internal Medicine, PGIMER, Chandigarh, India

11.15 Scorpion envenomation management at King Khalid General Hospital Al Majmaah, Saudi Arabia: A study of 254 cases (126)
N Ben Salah¹, Youssef Blel², Hafedh Thabet²
¹Emergency Department, King Khalid General Hospital Al Majmaah, Saudi Arabia;
²Anti Poison Center, Tunis, Tunisia

11.30 Clinical consequences of scorpion stings in Campinas, Sào Paulo State, Southeastern Brazil (127)
Fabio Bucaretchi¹,², Eduardo M De Capitani¹,³, Stephen Hyslop¹,⁴, Ronan J Vieira¹,³,
Luciane CR Fernandes¹, Carla B Fernandes¹, Maira M Branco¹, Camila C Prado¹,
¹Campinas Poison Control Center; ²Department of Pediatrics; ³Department of Clinical Medicine; ⁴Department of Pharmacology, State University of Campinas, Campinas, Brazil

11.45 The knowledge of receiving antivenom is more effective than antivenom or analgesia for treating latrodectism (128)
Geoffrey K Isbister¹, Nicholas A Buckley², Simon GA Brown³
¹Department of Clinical Toxicology, Calvary Mater Newcastle, NSW, Australia; ²Medical Professorial Unit, University of New South Wales, NSW, Australia; ³Centre for Clinical Research in Emergency Medicine, Royal Perth Hospital, WA, Australia

At the end of this session the audience should be able to:
• predict the severity of common krait envenomation from presentation
• describe the features of scorpion envenomation in Saudi Arabia and Brazil
• evaluate whether the fact that the patient knows that they have received antivenom after spider bite affects outcome

12.00 Pro/Con debate

Session chair: Carlo Locatelli, Christopher Yates

Gastric lavage should be stopped totally vs gastric lavage is sometimes useful

Pro: Sophie Gosselin
Emergency Medicine, McGill University Health Centre & Centre Antipoison du Québec, Québec, Canada

Con: Lewis Nelson
Emergency Medicine, New York University School of Medicine, New York, NY, USA

At the end of this session the audience should be able to:
• discuss situations in which gastric lavage might be useful
• evaluate whether gastric lavage could be totally abandoned

12.45 – 14.00 Lunch and Posters (132-233)

*Short-listed for Informa Best Scientific Presentation
Symposium: Revisiting the challenges posed by new recreational drugs – Part 1

Session chair: Paul Dargan, Matthias Liechti

### PLENARY LECTURE

**Novel psychoactive substances - understanding the pharmacological basis of their clinical effects and toxicity**

**Bryan L Roth**

*Pharmacology, UNC Chapel Hill Medical School, Chapel Hill, NC, USA*

At the end of this session the audience should be able to:
- discuss the NIMH Psychoactive Drug Screening Programme and how this can be used to investigate the mechanism of action of novel psychoactive substances
- list examples of the pharmacological profiles of NPS that have been characterised
- describe the power of genomic technology to discover molecular targets responsible for drug side-effects

### 14.45 Keynote lecture: Toxicosurveillance of novel psychoactive substances – European Monitoring Centre for Drugs and Drug Addiction perspective

**Michael Evans-Brown**

*Supply Reduction and New Trends Unit, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Lisbon, Portugal*

At the end of this session the audience should be able to:
- describe the European Union Early Warning System on new psychoactive substances which provides a fast-track mechanism for the information-exchange and rapid response to new drugs
- list examples and case studies describing the objectives, functioning and recent outputs of the Early Warning System
- discuss the challenges in monitoring and responding to new psychoactive substances

### 15.05 Keynote lecture: Toxicosurveillance of novel psychoactive substances: A poisons centre perspective

**Simon L Hill**

*National Poisons Information Service UK (Newcastle Unit), Royal Victoria Infirmary, Newcastle-upon-Tyne, UK*

At the end of this session the audience should be able to:
- describe the challenges associated with recording the possible harms of novel psychoactive substances (NPS) and list the other sources of information available
- compare the type and detail of data generated by poisons centres regarding NPS with that from other sources, discuss the limitations of each
- list examples where poisons centre data have been used in conjunction with other data sources to identify possible harms associated with NPS

### 15.25 GENERAL DISCUSSION

**15.30 – 16.00 Coffee and Posters (132-233)**
Symposium: New insights in mechanisms of toxicity and their clinical relevance – Part 1

Session chair: Vincent Danel, Andis Graudins

14.00 Keynote lecture: Role of epigenetics in toxicity: State of the art and clinical implications

Wilhelm Bloch

Department of Molecular and Cellular Sport Medicine, German Sport University, Cologne, Germany

At the end of this session the audience should be able to:
- describe how chromatin packages may be epigenetically regulated by modification of histones and how DNA may be altered by methylation and/or acetylation
- discuss how epigenetic modulation allows long-term regulation of gene activity and how it explains the long-term effects of toxic agents
- identify how detection of epigenetic modifications could be considered in prediction of future disease risk in order to determine the effective countermeasures to prescribe as well as to set up toxicity safety assessments

14.20 Keynote lecture: miRNA in toxicology

James W Dear

National Poisons Information Service (Edinburgh Unit), Royal Infirmary of Edinburgh, Edinburgh, UK

At the end of this session the audience should be able to:
- discuss what microRNA do inside and outside the cell
- describe the strengths and weaknesses of microRNA as toxicity biomarkers in blood and urine
- list how microRNA could mediate toxicity in a variety of tissues

14.40 Keynote lecture: Integrating mechanistic research for management of toxic alcohol poisoning

Kenneth E McMarten, Greg Landry, Corie Robinson, Taylor Conrad

Louisiana State University Health Sciences Center, Shreveport, Louisiana, USA

At the end of this session the audience should be able to:
- describe the basic mechanistic work that has shown that diglycolic acid is the nephrotoxic metabolite of diethylene glycol poisoning
- discuss the importance of intracellular transport of diglycolic acid and how inhibitors of such transport might be useful new therapies for the renal toxicity of diethylene glycol
- discuss the mechanisms by which diglycolic acid can reduce mitochondrial oxidative phosphorylation leading to cell death

15.00 DNA-adducts and DNA repair after alkylation: Relevance for clinical toxicology

Kai Kehe¹, Horst Thiermann²

¹Military Medical Research and Development, Bundeswehr Medical Academy, Munich, Germany; ²Bundeswehr Institute of Pharmacology and Toxicology, Munich, Germany

At the end of this session the audience should be able to:
- describe the molecular action of DNA alkylating agents e.g. sulfur mustard and link it to the clinical picture
- predict the clinical course of sulfur mustard burns (acute toxicology) and link it to late effects
- recommend diagnostic tools and treatment

15.20 GENERAL DISCUSSION

15.30 – 16.00 Coffee and Posters (132-233)
Symposium: Revisiting the challenges posed by new recreational drugs – Part 2

Session chair: Peter Hultén, Michael Holland

16.00 Keynote lecture: Toxicsurveillance of novel psychoactive substances: An emergency department perspective and the role of the European Drug Emergencies Network (Euro-DEN) project (129)

David M Wood1,2, Paul I Dargan1,2

1Clinical Toxicology, Guy's and St Thomas' NHS Foundation Trust and King's Health Partners, London, UK; 2King's College London, London, UK

At the end of this session the audience should be able to:
- describe the limitations of currently available sources of acute toxicity (harm) related to the use of novel psychoactive substances (NPS)
- describe how data on presentations to Emergency Departments with acute toxicity related to the use of NPS can be collected and the usefulness of this information
- describe the development of the European Drug Emergencies Network (Euro-DEN) and what information on acute toxicities of recreational drugs and NPS this project aims to add to that already available

16.20 Keynote lecture: International overview of prescription drug misuse

Richard C Dart

Rocky Mountain Poison and Drug Center, Denver Health and Hospital Authority, Denver, USA

At the end of this session the audience should be able to:
- compare overall prescription drug abuse trends between countries
- describe the relationship between opioid consumption by country and the abuse of prescription opioids in that country
- discuss the trends for most commonly abuse opioids and stimulants

16.40 *Monoamine transporter and receptor interaction profiles of halogenated phenethylamines (166)

Anna Rickli1, Marius C Hoener2, Matthias E Liechti1

1Clinical Pharmacology and Toxicology, University Hospital Basel, University of Basel, Switzerland; 2Neuroscience Research, F. Hoffmann-La Roche Ltd, Basel, Switzerland

16.45 *Prevalence of analytically confirmed intoxications by new psychotoxic substances in Italy: Data from Pavia Poison Centre and National Early Warning System (167)

Carlo A Locatelli1, Davide Lonati1, Eleonora Buscaglia1, Pietro Papa2, Valeria M Petrolini1, Sarah Vecchio1, Andrea Giampreti1, Catia Seri1, Claudiia Rimondo1, Elisa Roda1, Teresa Coccini1, Teodora Macchia1, Giovanni Serpelloni1

1Poison Control Centre & National Toxicology Information Centre and Clinico-toxicological Coordinating Centre of the National Early Warning System, IRCCS Maugeri Foundation, Pavia; 2Laboratory of Analytical Toxicology, IRCCS Policlinico San Matteo Foundation, Pavia; 3Addiction Department, ULSS 20, Verona; 4Laboratory of Clinical Toxicology, IRCCS Salvatore Maugeri Foundation, Pavia; 5Department of Therapeutic Research and Medicines Evaluations, Istituto Superiore di Sanità, Rome; 6Department for Antidrug Policies, Presidency of the Council of Ministers, Rome, Italy

16.50 *Toxicity after reported use of ‘benzofury’ compounds ([2-aminopropyl]-2,3-dihydrobenzofurans) compared with mephedrone. A report from the UK National Poisons Information Service (168)

Ashraf Kamour1, David James1, David J Lupton2, Gillian Cooper3, Michael Eddleston2, Allister J Vale4, John P Thompson3, Ruben HK Thanacoody3, Simon L Hill1, Simon HL Thomas1

1NPIS, Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK; 2NPIS, Royal Infirmary of Edinburgh, Edinburgh, UK; 3NPIS, University Hospital Llandough, Cardiff, UK; 4NPIS, City Hospital, Birmingham, UK

At the end of this session the audience should be able to:
- compare novel halogenated amphetamines with known drugs of abuse
- discuss the value of analytically confirmed intoxications to new psychotoxic substances in Italy
- compare the effects of ‘benzofury’ abuse with mephedrone

*Short poster oral – see page 46

Close 16.55

17.15 EAPCCT GENERAL ASSEMBLY (Silver Hall)
Symposium: New insights in mechanisms of toxicity and their clinical relevance – Part 2

Session chair: Andrew Dawson, Kenneth McMartin

16.00 Keynote lecture: TRP channels in the respiratory tract: potential therapeutic targets in toxic lung injury

Thomas Gudermann¹, Dirk Steinritz², Alexander Dietrich¹
¹Pharmacology & Toxicology, University of Munich, Munich, Germany; ²Bundeswehr Institute of Pharmacology & Toxicology, Munich, Germany

At the end of this session the audience should be able to:
• explain the role of Transient Receptor Potential (TRP) ion channels in cellular signaling processes
• explain the contribution of TRP channels to toxic lung injury in response to oxidative stress and toxic chemicals
• list the advantages of TRP channels as therapeutic targets in acute toxic lung injury

16.20 Keynote lecture: Genetic susceptibility in toxicology

Munir Pirmohamed
The Wolfson Centre for Personalised Medicine, Institute of Translational Medicine, Liverpool, UK

At the end of this session the audience should be able to:
• explain the basic concepts of pharmacogenetics and pharmacogenomics, including commonly used terminology (genotype, phenotype, allele, SNP, genome, etc)
• discuss the role of genetics in the response to drugs and other toxins
• give examples of some clinically important toxicological processes subject to genetic variability and explain the mechanisms involved

16.50 Carbon monoxide release curves from measurements during indoor charcoal burning: Systematic research on toxic levels for humans (131)

Axel Hahn¹, Sebastian Zellmer¹, Benno Riesselmann², Simone Krüger³, Tina Raspe³, Silke Schwarz³, Sebastian Stahn³, Klaus Urban³
¹Federal Institute for Risk Assessment, Berlin, Germany; ²State Institute of Legal and Social Medicine Berlin, Department of Forensic Toxicology, Berlin, Germany; ³Federal Institute for Materials Research and Testing (BAM), Berlin, Germany

At the end of this session the audience should be able to:
• discuss the levels of carbon monoxide reached during indoor charcoal burning

17.05 Close

17.15 EAPCCT GENERAL ASSEMBLY
YOUNG INVESTIGATOR AWARD

Session chair: Martin Wilks, Michael Eddleston

08.30 Introduction to Young Investigator Award

08.35 Clinical findings and genomic biomarkers in three cases of chronic ciguatera poisoning (234)

Davide Lonati1, Miryam Martinetti2, Antonella Pasi2, Anna Gatti3, Michele Buonocore3, Carlo A Locatelli1

1Pavia Poison Centre and National Toxicology Information Centre, IRCCS Maugeri Foundation Hospital; 2Immunogenetics Laboratory, Immunohematology and Transfusion Center, IRCCS Policlinico San Matteo Foundation; 3Unit of Clinical Neurophysiology & Neurodagnostic Skin Biopsy, IRCCS Maugeri Foundation Clinical Institute, Pavia, Italy

08.50 The role of GABA receptors during intoxications with designer drugs: A mechanism-based approach for piperazine-derivatives (235)

Laura Hondebrink1, Elise JP Hermans2, Regina GDM van Kleeft2, Jan Meulenberg1,2,3, Remco HS Westerink2

1National Poisons Information Center, University Medical Center Utrecht; 2Neurotoxicology Research Group, Institute for Risk Assessment Sciences, Utrecht; 3Department of Intensive Care Medicine, University Medical Center Utrecht, The Netherlands

09.05 Pharmacokinetic study of mitragynine in Kratom abuse users (236)

Satariya Trakulsrichai1,2, Kobthum Sathirakul1, Saranya Auparakkitanon1, Jatupon Krongvorakul1, Jetjamnong Sueajai1, Nutida Nounjad1, Winai Wananukul1

1Emergency Department, Ramathibodi Hospital; 2Ramathibodi Poison Center, Ramathibodi Hospital; 4Department of Pharmacy, Mahidol University; 4Department of Pathology, Ramathibodi Hospital, Bangkok, Thailand

09.20 Study of lithium pharmacokinetics in the rat according to the three different modalities of human poisoning (237)

Anne-Sophie Hanak1, Lucie Chevillard1, Souleiman El-balkhi1, Patricia Risède1, Katell Peoc’h1, Bruno Mégarbane1,2

1INSERM U1144, Paris-Descartes University; 2Department of Toxicological and Medical Intensive Care, Lariboisière Hospital, Paris, France

09.35 Judging commences

09.35 Keynote lecture: The Wetteren acrylonitrile disaster: Management, media communication, and biomarker-based screening

Peter De Paepe1, An Van Nieuwenhuyse2, Christophe Stove3, Walter Buylaert1

1Department of Emergency Medicine, Ghent University Hospital, Ghent, Belgium; 2Scientific Institute of Public Health, Brussels, Belgium; 3Laboratory of Toxicology, Faculty of Pharmaceutical Sciences, Ghent University, Ghent, Belgium

At the end of this session the audience should be able to:

- describe the clinical findings in chronic ciguatera poisoning
- describe the role of GABA receptors in the abuse of piperazine-derivatives
- outline the pharmacokinetics of Kratom abuse
- discuss lithium pharmacokinetics in the rat
- describe the medical management aspects of large-scale chemical disasters
- develop an understanding of the pitfalls and difficulties of risk and crisis communication
- list the advantages and limitations of biomonitoring

09.55 Presentation to the winner of the Young Investigator Award

10.00 – 10.30 Coffee and Posters (250-330)
08.30 – 10.00 YOUNG INVESTIGATOR AWARD (Copper Hall)
and
Keynote lecture: The Wetteren acrylonitrile disaster: Management, media communication, and biomarker-based screening (Copper Hall)

10.00 – 10.30 Coffee and Posters (250-330)
Symposium: Poisonings in the developing world / resource-limited areas – Part 1

Session chair: Reza Afshari, Alex Manini

10.30 Keynote lecture: Challenging the limitation of clinical toxicology in the developing world: Where do we go from here? (238) Andrew Dawson

NSW Poisons Center, Prince Alfred Hospital, Sydney, Australia

At the end of this session the audience should be able to:

- describe core limitations in global clinical toxicology
- discuss translational research block
- list some successful or potential strategies for addressing these blocks
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<th>Time</th>
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<td>10.30</td>
<td>To improve product safety in Europe</td>
<td>European Commissionaire</td>
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<td>10.40</td>
<td>To influence Public Health-related decisions based on risk assessment</td>
<td>Herbert Desel</td>
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<td><strong>GIZ-Nord Poisons Centre, University Medical Center Göttingen, Göttingen, Germany</strong></td>
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<td>At the end of this session the audience should be able to:</td>
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<td>- list the steps for clinical risk assessment in exposure cases reported to poisons centres</td>
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<td>- discuss mechanisms used to identify new poisoning risks and trends</td>
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<td>- describe the cooperation of poisons centres and other stakeholders (public health authorities, industry) in cases of detection of unusual events with risk of mass poisoning casualties</td>
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<td>10.50</td>
<td>To assess population health threats from chemicals</td>
<td>Paolo Guglielmetti</td>
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<td><strong>DG Sanco Health Threats Unit, European Commission, Luxembourg</strong></td>
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<td>At the end of this session the audience should be able to:</td>
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<td>- list the scope and content of the new Decision of the European Parliament and the Council on serious cross border threats to health</td>
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<td>- describe the flow of procedures and activities intended to capture signals, confirm and assess such threats</td>
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<td>- discuss the respective roles of the Commission's Scientific Committee, experts' networks, and other EU bodies in the risk/threat assessment, management and coordination of response, including the recent developments of the Early Warning and Response System (EWRS) and of the Rapid Alert System for Chemical events (RAS CHEM)</td>
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<td>11.00</td>
<td>To identify toxicological hazards and risks in clinical toxicology</td>
<td>Irma de Vries</td>
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<td><strong>National Poisons Information Center, University Medical Center Utrecht, Utrecht, The Netherlands</strong></td>
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<td>At the end of this session the audience should be able to:</td>
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<td>- discuss the importance of the use of Early Warning Systems by PCs</td>
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<td>- describe how PCs can contribute and work together to prevent poisonings on a European (and global) scale</td>
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<td>- explain how close cooperation between PCs and national Health Authorities benefits European Early Warning Systems in case of toxicological hazards</td>
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Symposium: Poisonings in the developing world / resource-limited areas – Part 1 (continued)

**Round table: Adapting guidelines and recommendations for the developing world**

**Session chair: Reza Afshari, Alex Manini**

### 10.50 How perfect turns into “as good as it gets”: Methanol

**Knut Erik Hovda**  
*The National CBRNe Centre, Oslo University Hospital, Ullevaal, Norway*

At the end of this session the audience should be able to:

- explain why the existing guidelines for methanol poisonings have a limited value in most of the world
- describe how the existing guidelines can be used to develop a locally adapted diagnosis- and treatment protocol
- list the main limiting factors for a beneficial outcome in methanol poisonings in the areas where they most often occur

### 11.05 How perfect turns into “as good as it gets”: Organophosphates

**Michael Eddleston**  
*NPIS, Edinburgh, Royal Infirmary, Edinburgh, UK*

At the end of this session the audience should be able to:

- explain the limitations that most clinicians will face in their treatment of poisoned patients in resource-limited areas
- describe the best way to administer atropine to a patient with OP pesticide poisoning
- discuss how management of organophosphate pesticide poisoning can be improved with widely available and affordable treatments

### 11.20 How perfect turns into “as good as it gets”: Paraquat

**Indika Gawarammana**  
*South Asian Clinical Toxicology Research Collaboration and Department of Medicine, University of Peradeniya, Peradeniya, Sri Lanka*

At the end of this session the audience should be able to:

- describe the way in which management guidelines developed in the 1st world are not always applicable in the developing world settings of poisoning due to resource limitation
- discuss the best marker of prognosis following ingestion of paraquat (plasma paraquat level), which may be unavailable
- assess the usefulness of the urine dithionite test and creatinine levels which can predict outcome from paraquat self poisoning with decent accuracy

### 11.35 How perfect turns into “as good as it gets”: Lead

**Paul I Dargan**  
*Guy's and St Thomas' NHS Foundation Trust and King's Health Partners, London, UK*

At the end of this session the audience should be able to:

- describe the challenges with using standard lead chelation protocols in the Zamfara lead poisoning incident
- discuss how standard lead chelation protocols were adapted for use in the Zamfara lead poisoning incident
- describe the initial results from the use of this protocol

### 11.50 GENERAL DISCUSSION
Round table: Role of poisons centres in the eyes of the European partners – Part 1 (continued)

11.10 To build pharmacovigilance based on the new European legislation on medical drugs
Simon Thomas
National Poisons Information Service (Newcastle), Newcastle Hospitals NHS Foundation Trust, Newcastle-upon-Tyne, UK

At the end of this session the audience should be able to:
- describe the new obligations imposed on national regulatory authorities by the recent EU Pharmacovigilance Directive (2010/84/EU)
- define suspected adverse drug reactions according to this Directive
- discuss how data collected by poisons centres may assist regulatory authorities in meeting their new obligations under the terms of the Directive

11.20 To harmonize poisoning case data collection for regulatory needs
Axel Hahn
Federal Institute for Risk Assessment (BfR), Berlin, Germany

At the end of this session the audience should be able to:
- discuss the implementation of a standard dataset of poisoning cases based on EAPCCT definitions
- explore the harmonisation of at least the most important items on different poisoning database platforms
- develop a harmonised categorisation system for poisonings linked to a notification process of products

11.30 To provide useful data for product classification
Sylvie Lemoine
A.I.S.E. - International Association for Soaps, Detergents and Maintenance products, Brussels, Belgium

At the end of this session the audience should be able to:
- demonstrate how to build on experience and expertise from poisons centres to successfully generate statistically robust information for Classification and Labelling of chemicals (eye effects of detergents)
- describe the complementary roles of poison centres and industry in managing incidents in specific sectors
- plan the way for more such cooperation, as appropriate

11.40 GENERAL DISCUSSION

12.00 - 13.30 Lunch and Posters (250-330)
Symposium: Poisonings in the developing world / resource-limited areas – Part 2

Session chair: Jou-Fang Deng, Randall Bond

13.30 Keynote lecture: Toxic and corrosive: What should be done for first aid?  
Daniela Pelclová  
Toxicological Information Centre, Charles University, Prague, Czech Republic

At the end of this session the audience should be able to:
- describe the preferred recommendations for first aid after ingestion of toxic agents
- describe the preferred recommendations for first aid after ingestion of corrosives
- explain the controversy in first aid recommendations and list several agents with both effects and recommend the optimal first aid for ingestion of those agents, based on the mechanisms and literature data

13.50 Keynote lecture: Phosphides and phosphine: Mechanisms for toxicity and range of the problem (239)  
Hossein Hassanian-Moghaddam  
Department of Clinical Toxicology, Shahid Beheshti University of Medical Sciences, Tehran, Iran

At the end of this session the audience should be able to:
- discuss aluminum and zinc phosphide poisonings and their prevalence in Asian countries
- describe the most common presentations of these toxicities
- evaluate the most recent achievements in their management

14.10 Keynote lecture: Ayurvedic drugs: It’s a jungle out there (240)  
Ashish Bhalla  
Post Graduate Institute of Medical Education and Research, Chandigarh, India

At the end of this session the audience should be able to:
- discuss the basics of Ayurvedic medicine use and the scope of the problem
- describe the nature of ayurvedic medicine toxicity and the complexities of attributing effect to any single component of the medicine
- list the possible interactions between conventional and ayurvedic drugs and the ways these can be prevented

14.30 Keynote lecture: Pharmaceutical poisoning spectrum in the developing countries in Asia: Epidemiologic data and possible causes of poisoning  
Chen-Chang Yang  
Division of Clinical Toxicology & Occupational Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

At the end of this session the audience should be able to:
- describe the epidemiology of pharmaceutical poisonings in developing Asian countries
- contrast the differences in the pattern of pharmaceutical poisonings between various Asian countries
- identify possible causes and related geographic variation of pharmaceutical poisonings across developing Asian countries
Poster discussion session

Session chair: Alison Good, Horst Thiermann

Adverse consequences of low-dose methotrexate medication errors (56)
Thierry Vial, Anne-Marie Patat, Clement Gegu, Delphine Castellan, Antoine Villa, Helene Theophile, Luc De Haro, Dorothee Durand, Andrea D’Amico, Aurore Gouraud, Christine Fayen, Jacques-Georges Descotes

Pharmacogenomic testing to mitigate azathioprine adverse drug effects (80)
Shannon Manzi, Michael Toce, Michele Burns

Very low-dose naltrexone versus placebo in alleviating withdrawal manifestation (171)
M Khadem Rezaiyan, H Khatibi Moghadam, Hamid Khosrojerdi, Reza Afshari

Enhanced elimination methods in treatment of acute methanol poisonings: Continuous hemodialysis / hemodiafiltration versus intermittent hemodialysis (250)
Sergey Zakharov, Tomas Navratil, Jaromir Belacek, Knut Erik Hovda, Daniela Pelclová

Gastric lavage after overdose of large size slow release drugs (270)
Mark Personne, Katarina M Luhr, Anita Annas

Procedural safety in lipid rescue therapy for various intoxications by adoption of a protocol defining indications and application (262)
Stefan Poechacker, Eva Klingbacher, Stephan Lang, Gerald Raab, Rainer Schmid, Elisabeth Turek, Burkhard Gustorff

At the end of this session the audience should be able to:
- describe the adverse effects of low-dose methotrexate medication errors
- discuss the role of pharmacogenomic testing in mitigating adverse effects of azathioprine
- discuss the role of naltrexone in alleviating opioid withdrawal
- contrast haemodialysis and haemofiltration in methanol poisoning
- evaluate the efficacy of gastric lavage for large size slow release drugs
- summarise the role of protocols for lipid rescue therapy
Symposium: Poisonings in the developing world / resource-limited areas – Part 2 (continued)

Session chair: Jou-Fang Deng, Randall Bond

14.50 Keynote lecture: Setting up poison information services in developing countries - needs and accomplishments: The Poison Control Centre of Senegal (241)

Amadou Diouf¹,², Absa Lam Faye¹
¹Centre Anti Poison, Ministère de la Santé et de l’Action Sociale, Dakar, Sénégal; ²Laboratoire de Toxicologie et d’Hydrologie, Université Cheikh Anta Diop, Dakar, Sénégal

15.10 Feasibility study for a sub-regional poisons centre in the Eastern Africa sub-region (242)

Nicholas Edwards¹, Joanna H Tempowski², Hawa S Senkoro³, Clare Roberts⁴, Carine J Marks⁵, Caesar Nyadzedor⁶, Dexter Tagwireyi⁷, Tom Menge⁷, David Kapindula⁸, Christopher Kanema⁹
¹Nick Edwards Consulting Ltd, London, UK; ²International Programme on Chemical Safety, World Health Organisation, Geneva, Switzerland; ³World Health Organisation, Brazzaville, Congo; ⁴Poisons Centre, Red Cross War Memorial Children's Hospital, Cape Town, South Africa; ⁵Tygerberg Poison Information Centre, Stellenbosch University, Cape Town, South Africa; ⁶Ghana Poisons Information Centre, Ridge Hospital, Accra, Ghana; ⁷National Poison Information and Management Centre, Kenyatta National Hospital, Nairobi, Kenya; ⁸Drug and Toxicology Information Service, Harare, Zimbabwe; ⁹Zambian Environmental Management Agency, Lusaka, Zambia

15.25 GENERAL DISCUSSION

At the end of this session the audience should be able to:

- discuss international initiatives on public health with respect to poisoning
- describe the setting up of a poisons centre in a developing country
- list the requirements and potential achievements of such a poisons centre
- discuss the feasibility and desirability of setting up a sub-regional poisons centre
Mini-symposium: What's new in drugs of abuse?

Session chair: Richard Dart, Jody Green

14.30  The pharmacology of novel psychoactive substances (246)
Matthias E Liechti¹, Linda D Simmler¹, Anna Rickli¹, Marius C Hoener²
¹Clinical Pharmacology, University of Basel, Switzerland; ²Neuroscience Research, F. Hoffmann-La Roche Ltd, Basel, Switzerland

14.45  Novel and emerging recreational drug detection: A signals intelligence approach (247)
Silas W Smith¹,², Cole Gibbons³, Brian J Gilberti³
¹Department of Emergency Medicine, NYU School of Medicine, New York, USA; ²New York City Poison Control Center, New York, NY, USA; ³NYU School of Medicine, New York, USA

15.00  Novel synthetic cannabinoid outbreak causing severe illness (248)
Janetta L Iwanicki¹,³, Dazhe J Cao¹,², Jason Hoppe¹,², Christopher O Hoyte¹,², Alvin C Bronstein¹,², Eric J Lavonas¹,³, Kennon J Heard¹,², Kristen Carpenter², Andrew A Monte¹,²
¹Medical Toxicology, Rocky Mountain Poison and Drug Center, Denver, USA; ²Department of Emergency Medicine, University of Colorado School of Medicine, Aurora, USA; ³Department of Emergency Medicine, Denver Health Medical Center, Denver, USA

15.15  Acute effects of methylphenidate in healthy subjects alone or in combination with MDMA (249)
Yasmin Schmid, Cédric M Hysek, Matthias E Liechti
Clinical Pharmacology, University Hospital Basel, Basel, Switzerland

At the end of this session the audience should be able to:
• discuss the similarities and differences in the pharmacology of novel psychoactive substances
• discuss the use of the Internet to investigate novel psychoactive substances through user experiences
• describe a novel synthetic cannabinoid outbreak causing severe illness
• describe the effects of a single dose of methylphenidate in healthy subjects

15.30 - 16.00 Coffee and Posters (250-330)

5Short-listed for Informa Best Scientific Presentation
Mini-symposium: Management of severe poisonings
Session chair: Simon Thomas, Florian Eyer

16.00 Pro/Con debate
Should we intubate all drug-induced comatose patients?

Pro: Philippe Hantson

Intensive Care, Cliniques St-Luc, Brussels, Belgium

Con: Bruno Mégarbane

Medical and Toxicological Intensive Care Unit, Lariboisière Hospital, Paris, France

At the end of this session the audience should be able to:
- describe when intubation is generally used in drug overdose
- discuss the value of intubating all drug overdose patients who are comatose

16.45 Methanol and formate elimination half-life during treatment for methanol poisoning: Intermittent hemodialysis vs. continuous hemodialysis / hemodiafiltration (243)

Sergey Zakharov¹, Daniela Pelclová¹, Tomas Navratil², Jaromír Belácek³, Ivana Kurcova⁴, Ondrej Komzak⁴, Knut Erik Hovda⁵

¹Toxicological Information Center, General University Hospital at Charles University, Prague, Czech Republic; ²Department of Biophysical Chemistry, J. Heyrovský Institute of Physical Chemistry, Prague, Czech Republic; ³Institute of Biophysics and Informatics at Charles University, Prague, Czech Republic; ⁴Department of Toxicology, Institute of Forensic Medicine and Toxicology at Charles University, Prague, Czech Republic; ⁵Norwegian Center for NBC Medicine, Oslo University Hospital, Ullevaal, Norway

17.00 α-amanitin poisoning: Outcome in 242 patients treated with the Pavia mushroom protocol (N-acetylcysteine, forced diuresis and multiple-dose activated charcoal) (244)

Valeria M Petrolini, Sarah Vecchio, Marta Crevari, Eleonora Buscaglia, Davide Lonati, Andrea Giampreti, Teresa Coccini, Elisa Roda, Davide Acerbi, Monia Aloise, Francesca Chiara, Carlo A Locatelli

Pavia Poison Control Centre - National Toxicology Information Centre, IRCCS Maugeri Foundation, Pavia, Italy

17.15 Arteriovenous extracorporeal life support in drug-induced cardiogenic shock: A ten-year experience (245)

Frédéric J Baud¹, Pascal Leprince², Nicolas Deye¹, Isabelle Malissin¹, Pierre Brun¹, Bruno Mégarbane¹, Louis Modestin¹, Alain Pavie², Iraj Gandjbakhch²

¹Medical and Toxicological Intensive Care Unit, Lariboisière Hospital, Paris, France; ²Cardiothoracic Surgery Department, La Pitié-Salpêtrière Hospital, Paris, France

At the end of this session the audience should be able to:
- contrast the effects of intermittent hemodialysis (IHD) and continuous veno-venous hemodialysis/hemodiafiltration (CVVHD/HDF) on methanol and formate elimination half-lives
- outline the Pavia mushroom protocol as used in α-amanitin poisoning
- evaluate usefulness of arteriovenous extracorporeal life support in drug-induced cardiogenic shock

17.30 Close

Short-listed for Informa Best Scientific Presentation
The best paper session

Session chair: Knut Erik Hovda, Régis Bédry

16.00 The best papers of 2013

An international panel will each be asked to select a clinical toxicology paper published in the year 2013 that they consider to be among the best. Three speakers, from different countries, will defend their choice in a brief 10 minute presentation followed by discussion.

Discussants:

Carlo Locatelli
Poison Control Centre and National Toxicology Information Centre, Toxicology Unit, IRCCS Maugeri Foundation, Pavia, Italy

Max Goyffon
RDDM Department, National Museum of Natural History, Paris, France

Dag Jacobsen
Department of Acute Medicine, Oslo University Hospital Ulleval, Oslo, Norway

At the end of this session the audience should be able to:
• describe how the reviewed articles may impact the practice of clinical toxicology
• discuss factors limiting the utility or application of this new information to clinical practice

17.30 Close
**Epidemiology**

19. Use of artificial adaptive system software for real-time Poison Center outbreak localization
   *Alvin C Bronstein, Weldon A Lodwick, Massimo P Buscema*

20. Using Twitter to measure underage alcohol usage
   *Michael Chary, Nick Genes, Alex F Manini*

21. Monitoring of domperidone and dextromethorphan intoxications reported to Poisons Information Center following change in legal sales status
   *Henneke N Mulder-Spijkerboer, Antoinette JHP van Riel, Agnes G van Velzen, Jan Meulenbelt, Irma de Vries*

22. Acute poisoning in psychiatric patients
   *Konstantin M Brusin, Yulia V Krayeva, Viacheslav G Ustyuzhanin, Nikolay V Druzhinin, Knut Erik Hovda*

23. Epidemiology and mortality of hospitalized acute poisonings in Yekaterinburg and Oslo: A comparison of two cities
   *Konstantin M Brusin, Cathrine Lund, Yulia E Krayeva, Knut Erik Hovda*

24. Impact of changes in UK management advice for paracetamol overdose on the numbers of adult patients admitted and treated in Newcastle upon Tyne?
   *Muhammad EMO Elamin, Lucy C Peart, Simon L Hill, Simon HL Thomas*

25. Etiology of severe acute fatal poisoning in southern Romania between 2004-2012
   *Alexandru I Ulmeanu, Dora A Boghitoiu, G Viorela Nitescu, Coriolan E Ulmeanu*

26. Acute renal damage: Cause of death in acute severe poisoning in children
   *Alexandru I Ulmeanu, Dora Boghitoiu, Coriolan E Ulmeanu*

27. Risks from Russia – an analysis of 225 intoxications with Russian medicines over a 15 year period
   *Andreas Schaper, Alexander Emmert, Alessandro Ceschi*

28. Evaluation of the completeness of epidemiological surveillance systems for poisoning by the capture-recapture system in Rabat and region, Morocco, 2012
   *Asmae Khattabi, Nasser Meskaoui, Hanane Chaoui, Rachida Soulaymani-Bencheikh*

   *Narjis Badrane, Fatima Abadi, Fouad Chafi, Driss Soussi Tanani, Abdelmajid Soulaymani, Naima Rhalem, Rachida Soulaymani-Bencheikh*

30. Morbidity and mortality associated with exposures to over-the-counter combination acetaminophen products in the United States
   *Edward P Krenzelok, Becki Bucher Bartelson, Jody L Green*

31. Intentional substance exposures in young persons: Inquiries to the New Zealand Poisons Information Centre from 2008-2012
   *Richard Mason*
32. Acute fatalities reported to the National Poisons Information Centre of Ireland from 2000-2012: A prospective observational study
   Nicola Cassidy, Patricia B Casey, Edel Duggan

33. Enquiries to the National Poisons Information Centre, Dublin concerning new generation anticoagulant agents
   Elaine Donohoe, Patricia B Casey, Edel Duggan

34. Analysis of the database of patients admitted with acute intoxications with substances of abuse in a large, university toxicology unit
   Oana Avram, Radu A Macovei, Ilenuta Danescu

35. Evolution of fatal cases by chemicals in the Spanish Toxic Surveillance System
   Ana Ferrer-Dufol, Santiago Nogue-Xarau, Ana Serrano-Ferrer, Francisco Ruiz-Ruiz

36. Fatal Poisonings in the Toxicology Clinic of UMHATEM “N.I.Pirogov” for the period 2009 – 2011
   Julia V Radenkova-Saeva, Rayna Stoyanova

37. Intentional self-poisoning by alkaline corrosive agents: A study for the period 2010-2012
   Julia V Radenkova-Saeva, Anelia Loukova, Hristo Tzekov

38. Patients presenting with acute poisoning to an outpatient emergency clinic in Oslo: A 1-year prospective observational study
   Odd Martin Valtersnes, Dag Jacobsen, Øivind Ekeberg, Mette Brekke

39. Self-poisoning with drugs in Bamako, Mali
   Hinde Hami, Tidiane Diallo, Ababacar Maiga, Abdelrhami Mokhtari, Rachida Soulavmani-Bencheikh, Abdelmajid Soulavmani

40. Acute poisonings in Iceland: A prospective study of poisonings presenting to the Emergency Department at Landspitali University Hospital
   Gudborg A Gudjonsdottir, Anna M Thordardottir, Jakob Kristinsson

Antidotes

41. Plasma pralidoxime concentrations: A paradigm in antidotal efficacy of pralidoxime towards paraoxon toxicity
   Pascal Houze, Tania M Duarte, Frédéric J Baud, Chantal Martin, Olivier Laprevote

42. Paracetamol poisoning in Melbourne, Australia: Are we maintaining the NAC of treating paracetamol poisoning?
   Andis Graudins

43. A review of physical exam findings associated with anticholinergic poisoning reversed with physostigmine
   Timothy J Wiegand, Rachel Schult

44. Rivastigmine toxicity safely treated with pralidoxime without atropine
   Larissa K Laskowski, Cindy Wang, Mary A Howland, Robert S Hoffman, Lewis S Nelson

45. A Belgian survey on the management of acute paracetamol intoxications by emergency physicians
   Henk van Pelt, Martine Mostin
46. Hydroxocobalamin - an antidote for sodium azide poisoning?  
*Kinga Bartecka-Mino, Helmut Schiel, Angelika Holzer, Tara Arif, Gerald Raab, Hermann Mascher*

47. Successful use of fomepizole during second trimester of pregnancy  
*Sian CD Harbon, John P Thompson*

48. Poisonings in Greenland: Remote-area challenges  
*Lotte CG Hoegberg, Niels E Ebbehoej*

49. Five years of antivenom delivery: Cooperation between the National Serum Depot and the Dutch Poisons Information Center  
*Mari eke A Dijkman, Kees Van der Zwan, Jan Meulenbelt, Irma De Vries*

50. Hydroxocobalamin administration falsely lowers carboxyhemoglobin determination  
*Rana Biary, Lewis S Nelson, Robert S Hoffman, Daniel Lugassy*

51. L-Carnitine supplementation in the treatment of acute valproic acid overdoses  
*Maria Sili, Arianna Dilaghi, Arianna Totti, Brunella Occupati, Alessandra Pistelli, Guido Mannaioni*

52. Factors associated with prehospital naloxone use in the United States: 2010  
*Benjamin W Hatten, Robert G Hendrickson, Mohamud Daya, Rongwei Fu, Craig Newgard*

53. Administration of expired methylene blue in patients with methemoglobinemia: A therapeutic dilemma  
*Wanling Wong, Chen-Chang Yang, Jou-Fang Deng*

54. Symptomatic methemoglobinemia in a home hemodialysis patient and tolerance of methylene blue  
*Charlotte Van Ende, Vincent Haufroid, Eric Marion, Johann Morelle, Philippe Hantson*

**ADR and medication errors**

55. Seizures and sustained encephalopathy following an accidental 4-aminopyridine overdose  
*Maria Ballesta Méndez, Vincent van Pesch, Arnaud Capron, Philippe Hantson*

56. Adverse consequences of low-dose methotrexate medication errors  
*Thierry Vial, Anne-Marie Patat, Clement Gegu, Delphine Castellan, Antoine Villa, Helene Theophile, Luc De Haro, Dorothee Durand, Andrea D'Amico, Aurore Gouraud, Christine Payen, Jacques-Georges Descotes*

57. A dietary supplement public health event  
*Shireen Banerji, Alvin C Bronstein*

58. Persistent effects after camphor ingestion: A case report and review of the literature  
*Cynthia Santos, Jennifer Cabot*

59. Vitamin D overdose in infants and newborns after medication error: Public health problem in Morocco  
*Narjis Badrane, Loubna Alj, Driss Soussi Tanani, Naima Rhalem, Rajae Benkirane, Rachida Soulanymani-Bencheikh*

60. AV block II in a toddler after accidental ingestion of a single tablet of fingolimod for multiple sclerosis  
*Jonas Höjer, Eva Olsson*

*5Short-listed for Informa Best Case Report, 6Poster discussion session – see page 31*
61. Asymptomatic rhabdomyolysis after pyridoxine treatment of an isoniazid intoxication
   Gabi Dostal, Katrin Romanek, Raphael Stich, Rudi Pfab, Florian Ever

62. A case report of exogenous human chorionic gonadotropin use leading to laparoscopy to exclude
ectopic pregnancy
   Scott N Lucyk, Stephanie H Hernandez, Lewis S Nelson

63. Metformin induced leukemoid reaction
   Ross W Sullivan, Jennifer Cochran, Jeanna Marraffa

64. Post-injection delirium/sedation syndrome after olanzapine pamoate intramuscular injection
   confirmed by serum olanzapine concentrations
   Magdalena Łukasik-Głębocka, Karina Sommerfeld, Artur Teżyk, Pawel Panieński, Czesław Żaba,
   Barbara Zielinska-Psuj

65. Toxic epidermal necrolysis associated with lomefloxacin: Case report and molecular typing studies
   Arturo Zancan, Davide Lonati, Andrea Giampreti, Miryam Martinetti, Antonella Pasti, Maurizio Stella,
   Carlo A Locatelli

66. Encephalopathy due to prolonged misuse of ivermectin (Stromectol R) after scabies infection
   Elisabeth Goossens, Catherine Deraemaeker, Susana Ferrao, Martine Mostin, Christian Sindic

67. Chlorine dioxide from a dietary supplement causing hemolytic anemia
   Vincent Nguyen, Robert S Hoffman, Lewis S Nelson

68. Methemoglobinemia in long term dapsone treatment
   Radu Macovei, Ilenuta Danescu, Genica Caragea, Mihai Ionica

69. Medication errors in the first six months of life
   Valeria M Petrolini, Elena Borlenghi, Giulia Scaravaggi, Sarah Vecchio, Andrea Giampreti,
   Francesca Chiara, Emanuela Cortini, Marta Mazzoleni, Monia Aloise, Marta Crevani,
   Carlo A Locatelli

70. Non-ST-segment-elevation myocardial infarction after phenylephrine misdosing
   Jason L Dorais, John Dayton, E Martin Caravati

71. Topiramate-associated heat stroke resulting in disseminated intravascular coagulation
   Neal B Madhani, Andrew M King, Nathan B Menke, Andaleeb H Raja, Michael Abesamis,
   Anthony F Pizon

72. Reversible cardiomyopathy secondary to citalopram and methadone toxicity
   Anthony Pfeiffer, Andrew M King, Nathan B Menke, Andaleeb H Raja, Jawaid Akhtar, Kenneth D Katz

73. Medication incidents in primary care medicine: Prospective observational pilot study with case-
control analysis
   Alessandro Ceschi, Dieter Conen, Lilli Herzig, Alfred Staehelin, Marco Zoller, Markus Gnädinger

74. Benzyl benzoate burns bad: 339 poison centre adverse reaction reports and counting
   Jared A Brown, Christopher I Johnston

75. Toxicokinetics of intravenous paracetamol overdose in a 13 kg girl
   Nicholas J Connors, Richard Marn, Mary Ann Howland, Lewis S Nelson, Robert S Hoffman

5Short-listed for Informa Best Case Report
76. Neonatal medication errors reported to a Poison Control Center
   Nicholas J Connors, Lewis S Nelson, Robert S Hoffman, Mark K Su

77. Enquiries from nursing homes - increasing problems?
   Jutta Trompelt, Oliver Sauer, Andreas Stürer

78. Plan C: Intra-muscular overdose of methotrexate. A rarely reported entity
   Mai Takematsu, Robert S Hoffman, Lewis S Nelson, Mary Ann Howland, Silas W Smith

79. Iatrogenic recombinant factor VIII overdose in a patient with hemophilia A
   Scott N Lucyk, Lewis S Nelson, Robert S Hoffman

80. Pharmacogenomic testing to mitigate azathioprine adverse drug effects
   Shannon Manzi, Michael Toce, Michele Burns

Psychotropic drugs

81. Clinical outcomes of methylphenidate intoxications in children and adults: A prospective follow-up study
   Saskia J Rietjens, Laura Hondebrink, Claudine C Hunault, Rob Pereira, Nuriye Kelleci, Gulhan Yasar, Ariam Ghebrreslastie, Cindy Lo-A-Foe, Irma de Vries, Jan Meulenbelt

82. Pregabalin and gabapentin abuse and toxicity as disclosed from postmortem cases
   Margareeta Håkkinen, Erkki Vuori, Eija Kalso, Merja Gergov, Ilkka Ojanperä

83. Specific aspects of acute poisoning with new psychoactive substances in adolescents in a pediatric poisoning centre
   G Viorela Nitescu, Dora Boghitoiu, Ramona Gheorghe, Alina Condivo, Alexandru I Ulmeanu, Catalin Stemate, Coriolan E Ulmeanu

84. Mild valproic acid poisoning and development of near fatal cerebral edema
   William E Novotny, William J Meggs, Leonard Hymes, Marsha Ford

85. Therapeutic drug monitoring of clozapine and norclozapine using a multidrug ultra-high performance liquid chromatography-tandem mass spectrometric method
   Lisbeth Patteet, Zarha Vermeulen, Kristof E Maudens, Bernard Sabbe, Manuel Morrens, Hugo Neels

86. Psychomotor agitation in acute poisoning: Could we call it a toxidrome?
   Ana Ferrer-Dufol, Ana Serrano-Ferrer, Sebastian Menao-Guillen, Francisco Ruiz-Ruiz

87. Gabapentin overdose: A case series
   Dagmar Prasa, Uwe Stedtler, Petra Hofmann-Walbeck, Elia Heistermann, Cornelia Reichert, Carola Seidel, Elke Färber, Sabine Stolaetzki, Dieter Genser, Sonja Gurov

88. Diabetes insipidus associated with valproic acid overdose: A rare case of valproic acid toxicity
   Mai Takematsu, Lewis S Nelson, Robert S Hoffman, Jason Chu

89. Bupropion and ethanol co-ingestion presenting with hypotension and focal seizure activity
   Anthony Pfeiffer, Andrew M King, Nathan B Menke, Andaleeb H Raja, Anthony F Pizon

*Poster discussion session – see page 31*
90. Methylphenidate poisoning: A devil in disguise?  
Sonja Gros, Ingo Sagoschen, Dagmar Eckart, Oliver Sauer, Andreas Stürer

91. A case of unintentional naltrexone-induced opioid withdrawal successfully treated with buprenorphine in an emergency department setting  
Cynthia Santos, Stephanie H Hernandez

92. Non-medical use of attention deficit hyperactivity disorder drugs by adults: A comparative study of atomoxetine versus methylphenidate  
Louise S Jensen, Anne Katrine Pagsberg, Kim P Dalhoff

History

*93. 50 years of the German National Committee for the Assessment of Poisonings  
Axel Hahn, Kathrin Begemann, Matthias Greiner

*94. The Ljubljana Poison Control Center 40 years on  
Miran Brvar, Marija Jamsek

*95. Setting up and stages of toxicological service work in the Sverdlovsk region: 40 years of toxicological service work in the Russian Federation  
Valentin G Sentcov, Konstantin M Brusin, Olga V Novikova, Sergey I Bogdanov, Andrey A Reutov, Dmitriy E Zhovtyak, Viacheslav U Misharin, Aleksey V Martinov, Andrey A Masterkov

Poisons centres activity

96. Comparison of 15,329 unit dose and 12,599 non-unit dose pediatric laundry detergent exposures using US National Poison Data System data: 2012-2013  
James B Mowry, Daniel A Spyker

97. Surveillance of biocide-related toxic exposures in Italy  
Laura Settimi, Franca Davanzo, Luciana Cossa, Elisabetta Urbani, Felice Giordano, Giovanni Milanesi

98. A preliminary comparison between human exposure cases identified in the US by the National Poison Data System and in Italy by the National System for Surveillance of Toxic Exposures and Poisonings  
Laura Settimi, Alvin C Bronstein, Franca Davanzo, Anna Celentano, Fabrizio Sesana

99. Surveillance of hazardous exposures to electronic cigarettes in Italy  
Franca Davanzo, Laura Settimi, Giovanni Milanesi, Felice Giordano, Fabrizio M Sesana, Anna Celentano, Elisabetta Urbani, Giscardo Panzavolta, Luciana Cossa, Adriana Tomoiaga, Angelo Travaglia, Valeria Dimasi

100. Snus vs. cigarettes: A change in pattern of calls to the Norwegian poisons information centre  
Lise G Ringstad, Helga R Lorentzen

101. Calls concerning electronic cigarettes to the Finnish Poison Information Centre  
Suvi Pajarre-Sorsa, Mervi Saukkonen, Kalle Hoppu

102. E-cigarettes: A need for better quality regulation?  
Elisabeth J Scholtens, Antoinette JHP van Riel, Jan Meulenbelt, Irma de Vries

*Short poster oral – see page 11
103. Trends in electronic cigarette exposures reported to the National Poison Center database
   J Priyanka Vakkalanka, Lewis S Hardison, William F Rushton, Christopher P Holstege

   Eleri Thomas, Rosie A Spears, Gloria Alldridge, Channa V Krishna, John P Thompson, Michael Eddleston, J Allister Vale, Simon HL Thomas

105. School-based health promotion for poisoning prevention education in children: A National Poisons Information Service proposal to reduce poisonings in the UK
   Eleri Thomas, Rosie A Spears, Gillian Cooper, Gloria Alldridge, Channa V Krishna, John P Thompson, Michael Eddleston, J Allister Vale, Simon HL Thomas

106. Serious adverse events associated with liquid laundry pods exposure: A retrospective study by the French poison control and toxicovigilance centres from 2005 to 2012
   Fatoumata Rigaux-Barry, Anne-Marie Patat, Laurie Cordier, Jacques Manel, Sandra Sinno-Tellier

107. An analysis of the UK National Poisons Information Service consultant referral process
   David A James, Simon HL Thomas, Rebecca ML Waugh, J Allister Vale, John Thompson, Michael Eddleston

   Bhupesh Panchal, Michael Eddleston, Simon HL Thomas, John P Thompson, J Allister Vale

109. Consequences of the inappropriate use of professional grade pesticides, an analysis using National Poisons Information Service Pesticide Surveillance Survey data
   Liam Perry, Andrew Bennett, Richard D Adams, Gill Jackson, Simon HL Thomas, John P Thompson, J Allister Vale, Michael Eddleston

110. National Poisons Information Service urgent alerting system for chemicals: Data from the first year
    Catherine L Crawford, Gill Jackson, Simon HL Thomas, John P Thompson, J Allister Vale, Michael Eddleston

111. Added value of poisons centers in the response to radiological incidents
    Marianne EC Leenders, Ronald De Groot, Gerard A Van Zoelen, Antoinette JHP van Riel, Jan Meulenbelt

112. National register of acute poisonings - role of the poison information center
    Zanina Pereska, Andon Chibishev, Cvetanka Bozhinovska, Lidija Petkovska, Natasha Simonovska, Aleksandra Babulovska, Irena Jurukov, Aleksandra Stevchevska, Marija Glasnovik

113. Sympathomimetic toxicity caused by adulterated food supplements for weight loss
    Chantal CJ Roelen, Antoinette JHP van Riel, Irma de Vries, Jan Meulenbelt

114. Use of Cloud technology reporting systems to motivate and improve staff performance in a poisons information service setting
    Alexander Campbell, Damian S Ballam, J Allister Vale

115. Agreement on product information requirements for Poisons Centres in European Union Member States
    Ronald de Groot, Pieter JAM Brekelmans, Herbert Desel, Martine Mostin, Karin Feychting, Jan Meulenbelt
116. The impact of changes to packaging and labelling on exposures to liquid laundry detergent gel capsules

*Patricia B Casey, Feargal O'Connor, Edel Duggan*

117. Supporting the Union level co-ordinated assessment and management of cross border chemical health threats

*Rob Orford, Charlotte Hague, Monique Mathieu-Nolf, Herbert Desel, Daniela Pelcovà, Gabija Dragelyte, Laura Settimi, Lisbeth Hall, Ann Goransson Nyberg, Jose Javier Garcia del Aguila, Raquel Duarte-Davidson*

118. Survey of toxicological analyses availability in the Italian national health system: Preliminary results and a national pilot database

*Carlo A Locatelli, Eleonora Buscaglia, Pietro Papa, Teresa Coccini, Sarah Vecchio, Valeria M Petrolini, Davide Lonati, Andrea Giampreti, Olha Maystrova, Marta Mazzoleni, Giovanni Serpelloni, Marco Leonardi, Virgilio Costanzo*

119. Development of syndromic surveillance system in toxicovigilance: Lessons learned from mushroom poisonings and Hymenoptera envenomations in France

*Delphine Viriot, Sandra Sinno-Tellier, Vanina Bousquet, Abdessatar Saoudi, Jacques Manel, Robert Garnier*

120. The Global Educational Toxicology Uniting Project

*Anselm Wong, Rais Vohra, Anne Michelle Ruha, Zeff Koutsogiannis, Kimberlie A Graeme, Paul I Dargan, Anne Creaton, Shaun I Greene*
Animal poisonings

132. How often do North American crotalid bites need surgical management?
   Andrew B Theilen, Evan Schwarz, Robert Poirier, Michael Mullins, Anna Arroyo

133. Weever fish envenomation - analysis of enquiries to the Poisons Information Centre Erfurt from 1994-2013
   Simone Just, Dagmar Prasa, Iris Bergmann, Gisela Enden, Germaine Frimlova, Helmut Hentschel, Gisela Liebetrau, Bettina Plenert, Anne Stürzebecher, Detlef Thiede, Michael Deters

134. Magnetic resonance appearance of the brain in snake bite patients: Resonating the venomous findings
   Ashish Bhalla, Chirag Ahuja, Surjit Singh, Niranjan Khandelwal

135. Incidence and severity of hypotension and bradycardia in ciguatera
   Thomas YK Chan, Jones CM Chan, Raymond SM Wong

136. Complement cascade activation by Bothrops lanceolatus venom: A “pathway” to improving patient management in case of envenomation?
   Marie Delafontaine, Danielle Paixão-Cavalcante, Fernanda CV Portaro, Laurence Mathieu, Joël Blomet, Denise V Tambourgi

137. Vipera berus bite causing compartment syndrome in a 14 year old boy
   Tara Arif, Kinga Bartecka-Mino, Karl Hruby

138. Scorpion stings in Mali: Epidemiological aspects
   Sanou K Coulibaly, Hinde Hami, Ababacar Maïga, Rachida Soulaimani-Bencheikh, Max Goyffon, Abdelrhani Mokhtari, Abdelmajid Soulaimani

139. Envenomation by a sea anemone on the French Atlantic Coast
   Magali Labadie, Denis Dondia, Patricia Bernadet, Coralie Braganca, Françoise Penouil

140. Bitis arietans envenomation in snake charmers in the Province of Tiznit, Morocco: First two case reports
   Fouad Chafiq, Nadia Chrouqui, Emmanuelle Mangin, Abderahmane Mataame, Naima Rhalem, Abdelmajid Soulaimani, Abdelghani Mokhtari, Narjis Badrane, Mohammed Fekhaoui, Rachida Soulaimani-Bencheikh

141. Risk profile Vipera berus bites
   Julia Eidt, Michael Deters, Adrienne Kilian, Cornelius Radamm, Anne Stürzebecher, Rafael Wagner, Andreas Schaper

142. Compartment syndrome after a bite by the South American rattlesnake (Crotalus durissus terrificus): Case report
   Fabio Bucareuchi, Eduardo M De Capitani, Stephen Hyslop, Sueli M Mello, Luciane CR Fernandes, Carla B Fernandes, Maira M Branco, Fernando H Bergo, Felipe BP Nascimento

143. Serum sickness after the administration of Australian snake antivenoms
   Nicole M Ryan, Simon SGA Brown, Geoffrey K Isbister

$Short-listed for Informa Best Case Report
144. Cats experiencing toxicity after use of a new “Spot-on” pesticide product containing indoxacarb
Chantal CJ Roelen, Antoinette JHP van Riel, Irma de Vries, Jan Meulenbelt

**Experimental investigations and mechanisms of toxicity**

145. Investigation of respiratory effects of norbuprenorphine and their modulation in the rat to define its contribution to buprenorphine toxicity
Emilie Souton, Camille Cohier, Lucie Chevillard, Patricia Risède, Bruno Mégarbane

146. High mobility group box 1 protein changes in serum of subjects exposed to irritant factors released during uncontrolled fire
Anna Krakowiak, Renata Winnicka, Maciej Czerniak, Ewa Nowakowska-Swirta

147. The antioxidant effect of *Glehnia littoralis* on α-amanitin induced hepatotoxicity
Soohyung Cho, Yongjin Park, Kjungoon Sun

148. Acid burns, comprehension of the lesions mechanism: The sulfuric acid example
Céline Fosse, Colombe Gronnier, François Lutz, François Burgher, Laurence Mathieu

149. Pilot study comparing hemodynamic measures and survival in swine anesthetized with alphachloralose and isoflurane
Christine M Murphy, Cliff Williams, Michael Quinn, Brian Nicholson, Thomas Shoe, Anna R Dulaney, Michael C Beuhler, Russ Kerns

**New recreational drugs**

150. Phenethylamine poisonings reported in a French Poison Control Center
Gael Le Roux, David Boels, Alain Turcant, Chloé Bruneau, Marie Bretauadeau, Benoîte Lelievre, Severine Ferec, Patrick Harry

151. Acute intoxications by new psychoactive substances: Patterns of use and circumstances of exposure
EU Project SPICE II Plus
Josephine Kithinji, Volker Auwärter, Bela Szabo, Maren Hermanns-Clausen

152. Increasing illegal use of melanotan: The Barbie Drug hype
Anja PG Wijnands-Kleukers, Irma de Vries, Jan Meulenbelt, Antoinette JHP van Riel

153. New psychoactive substances and illicit drugs used among 16 year old high school students in Romania
Sorin Oprea, Milica Georgescu Visan, Ruxanda Iliescu, Silvia Florescu, G Viorela Nitescu

154. Urinary test for mephedrone/methcathinone in suspected intoxicated patients: Comparative evaluation between a new screening (ELISA) assay and liquid chromatography–mass spectrometry method
Teresa Coccini, Elisa Roda, Davide Lonati, Sarah Vecchio, Eleonora Buscaglia, Pietro Papa, Laura Rocchi, Carlo A Locatelli

155. Data evaluation from synthetic cannabinoids screening in biological samples by ELISA assay and liquid chromatography–mass spectrometry analysis
Elisa Roda, Davide Lonati, Valeria M Petrolini, Antonella Valli, Laura Rolandi, Andrea Giampreti, Teresa Coccini, Carlo A Locatelli
156. Awareness and use of the NBOMe novel psychoactive substances is lower than mephedrone in a high drug using population
   Caitlyn J Lovett, Fiona Measham, Paul I Dargan, David M Wood

157. Detection of novel psychoactive substances through analysis of recreational drug samples obtained in the emergency department
   Takahiro Yamamoto, Anusuya Kawsar, John Ramsey, Ursula Collignon, Paul I Dargan, David M Wood

158. Limited awareness and use of the novel psychoactive substance methiopropamine in men who have sex with men in South London nightclubs
   Caitlyn J Lovett, Fiona Measham, Paul I Dargan, David M Wood

$159. K2 - not the spice of life: Synthetic cannabinoids and ST elevation myocardial infarction, a case report
   Rita G McKeever, David Vearrier, Michael I Greenberg

$160. "WTF": A case of acute cerebral ischemia following synthetic cannabinoid inhalation

161. The electric koolaid NBOMe test: LC-TOF/MS confirmed 2C-C-NBOMe (25C) intoxication at Burning Man
   Patil Armenian, Roy R Gerona

162. Acute agitation and chest pain from 5-fluoro-AKB48: A novel synthetic cannabinoid
   Naren Gunja, Karolina Kuligowski, Placid G Paul, Michael Collins, Ryan Anderson, James Kwan

163. Synthetic cannabinoids: Impact of Australian legislation; is the problem Kronic or chronic?
   Jared A Brown, Naren Gunja, Nick A Buckley

164. Death by spice: A case report of mortality following synthetic cannabinoid use
   Heather T Streich, William F Rushton, Nathan P Charlton

165. Exposure to 5f-P22, 5IAI and diclazepam: A case report
   Francis Grossenbacher, Julie Souille, Zoubir Djerrada, Olivier Passouant, Valerie Gibaja

*166. Monoamine transporter and receptor interaction profiles of halogenated phenethylamines
   Anna Rickli, Marius C Hoener, Matthias E Liechti

*167. Prevalence of analytically confirmed intoxications by new psychotoxic substances in Italy: Data from Pavia Poison Centre and National Early Warning System
   Carlo A Locatelli, Davide Lonati, Eleonora Buscaglia, Pietro Papa, Valeria M Petrolini, Sarah Vecchio, Andrea Giampreti, Cattia Seri, Claudia Rimondi, Elisa Roda, Teresa Coccini, Teodora Macchia, Giovanni Serpelloni

*168. Toxicity after reported use of ‘benzofury’ compounds ([2-aminopropyl]-2,3-dihydrobenzofurans) compared with mephedrone. A report from the UK National Poisons Information Service
   Ashraf Kamour, David James, David J Lupton, Gillian Cooper, Michael Eddleston, J Allister Vale, John P Thompson, Ruben HK Thanacoody, Simon L Hill, Simon HL Thomas

*Short poster oral - see page 22
$Short-listed for Informa Best Case Report
Patterns of presentation and clinical toxicity after reported intravenous use of mephedrone in the United Kingdom. A report from the UK National Poisons Information Service

Ashraf Kamour, David James, Michael Eddleston, John P Thompson, J Allister Vale, Ruben Thanacoody, Simon Hill, Simon HL Thomas

Drug and alcohol abuse

Patterns of presentation and clinical toxicity after reported use of alpha methyltryptamine in the United Kingdom. A report from the UK National Poisons Information Service

Ashraf Kamour, David James, Rosie Spears, Gillian Cooper, David J Lupton, Michael Eddleston, John P Thompson, J Allister J Vale, Ruben HK Thanacoody, Simon Hill, Simon HL Thomas

Very low-dose naltrexone versus placebo in alleviating withdrawal manifestation

M Khadem Rezaiyan, H Khatibi Moghadam, Hamid Khosrojerdi, Reza Afshari

Assessing the validity of capillary dried blood spots used for gamma-hydroxybutyrate analysis from patients suspected of toxicity attending the Emergency Department

John RH Archer, Ann-Sofie Ingels, Paul I Dargan, David M Wood, Christophe Stove

Drug analysis and clinical effects in patients attending the emergency department with suspected gamma-hydroxybutyrate toxicity

John RH Archer, Ann-Sofie Ingels, David M Wood, Michelle Wood, Paul I Dargan, Christophe Stove

What to do when they’re stuffed?

Takahiro Yamamoto, Elisa Malavasi, John RH Archer, David M Wood, Paul I Dargan

How common is injection drug use (“slamming”) amongst men who have sex with men attending night-time economy venues?

Caitlyn J Lovett, David M Wood, Fiona Measham, Paul I Dargan

A survey to establish current European data collection on emergency room presentations with acute recreational drug toxicity

Fridtjof Heyerdahl, Knut Erik Hovda, Isabelle Giraudon, Christopher Yates, Jiri E Valnoha, Roumen Sedefov, Alison M Dines, David M Wood, Paul I Dargan

Risk/degree of social exclusion that drug users are facing

Milica Georgescu Visan, Ruxanda Iliescu, G Viorela Nitescu

Drug consumption among patients admitted to a methadone maintenance program

Caroline Pauly, Serge Schneider, Jean-Paul DeWinter, Jean-Nico Pierre

Global Toxicosurveillance Network (GTNet): Characterizing prescription opioid exposures reported to European Poison Centres


Prescription opioid misuse in Europe: From opioid treatment programs to Poison Centres

Jody L Green, Erin M Martinez, Stephan Walcher, Lorenzo Somaini, Gaetano Denuvo, Herbert Desel, Giovanni Milanesi, Fabrizio Sesana, Marilena Guareschi, Karin E McBride, Icro Maremmani, Richard C Dart

Poster discussion session – see page 31
181. What is the evidence of the misuse of sildenafil (Viagra) in UK men who have sex with men clubbers?
   
   Wui Ling Chan, Anne-Erika Vermette, Paul I Dargan, David M Wood

182. What is the evidence of the misuse of benzodiazepines and the ‘Z drugs’ in UK men who have sex with men clubbers?

   Wui Ling Chan, David M Wood, Thomas Wood, Paul I Dargan

183. Sudden sensorineural hearing loss after methadone overdose: A case series

   Henuita Danescu, Radu Macovei, Genica Caragea, Mihai Ionica

184. A case of MDMA associated rhabdomyolysis, disseminated intravascular coagulation, intracerebral hemorrhage, and multi-organ system failure potentially enhanced by propofol

   Katrina Harper, Stephanie Hernandez

185. Drug-facilitated sexual assaults in Italy: Preliminary data of the Violence And Date Rape Drug project

   Sarah Vecchio, Andrea Giampreti, Valeria M Petrolini, Francesca Chiara, Marta Crevani, Sabina Strano Rossi, Claudiia Rimondo, Catia Seri, Eleonora Buscaglia, Giovanni Serpelloni, Monia Aloise, Carlo A Locatelli

186. Misuse and abuse of fentanyl depot transdermal patches

   Gunilla Siöberg, Mark Personne, Christine Karlson-Stiber

187. Severe intoxication after hidden chronic abuse of liquorice: A case report

   Francesca Chiara, Davide Lonati, Giancarlo Dolcini, Monia Aloise, Sara Negri, Sarah Vecchio, Valeria M Petrolini, Carlo A Locatelli

188. Blood lead levels in opium addicts in Mashhad, Iran

   Hoda Khatibi Moghadam, Majid Khadem Rezaiyan, Reza Afshari

189. Full of grace to full of gas: A perforated body packer

   Mai Takematsu, Silas W Smith, Lewis S Nelson, Robert S Hoffman

190. Consumption pattern of party drugs in Denmark

   Henrik Horwitz, Peter Gulstad Skanning, Gesche Jürgens

191. Withdrawal from massive diphenhydramine abuse

   Thomas G Martin, Thomas B Ettinger

192. Analysis of overdose deaths involving methadone and cytochrome P450 inhibitors

   Suzanne Doyon, Christopher Welsh, Yolande Tra, Rebecca Jufer-Phipps, Barry Levine, David Fowler

193. A case of heroin overdose reversed by sublingually-administered buprenorphine/naloxone film (Suboxone®)

   Christopher Welsh, Suzanne Doyon

**Heavy metals**

194. Estimation of heavy metals in different brands of moisturizers and lipsticks using atomic absorption spectroscopy

   Maryam A L Ahmad, Victor Raj Mohan Chandrasekaran, Rajendran Kuppusamy, Joshua Ashok
195. A case of intravenous injection of mercuric chloride
Anna-Kaisa Eronen, Kalle Hoppu, Aapo Läspä

196. Skin whitening cream related mercury poisoning treated with dimercaptopropane sulfonic acid
Ming-Ling Wu, Jou-Fang Deng

197. Subcutaneous elemental mercury injection and bone marrow failure: A fatal case
Isabella Orsini, Francesco Orsini, Primo Botti, Alberto Bosi, Barbara Scappini, Francesca Bacchiarri, Massimo Di Gioia, Andrea Giampreti, Guido Mannaioni

198. Elevated blood lead levels among adolescents pursuing the sport of firearms marksmanship
Alan D Woolf, Mateusz Karwowski, Megan Sandel, Rose Goldman

199. Blood lead levels and haemoglobin concentration in children below five years in Ajman, United Arab Emirates
Amna H Shalash, Anoop K Agarwal, Victor Raj Mohan Chandrasekaran

200. Cases of self-poisoning with elemental mercury administrated intravenously: Clinical observations
Yury N Ostapenko, Ismail N Afandiyev, Teimuraz S Kobidze, Amayak V Badalian, Yuri S Goldfarb

201. Arsenic elimination in the urine after crustacean ingestion
William F Rushton, Jennifer R Charlton, Nathan P Charlton

202. Elemental mercury exposures: A review of enquiries to the New Zealand Poisons Centre
D Michael G Beasley, Robin J Slaughter, Wayne A Temple

203. Mercury bichloride iatrogenic poisoning
Angeliki Kalostou, Vasiliki Papathanasiou, Eleni Basanou, Konstantinos Fountas, Vasiliki Sofidiotou, Karmen Tasiopoulou, Polyxeni Neou

**Plant, fungi and herbal poisonings**

204. Can bolete poisoning promote gastrointestinal bleeding?
Philippe Saviuc, Corine Pulce, Antoine Villa, David Boels

205. Flagellate dermatitis due to raw shiitake consumption: A French Poison Control Centre study
David Boels, Anne Landreau, Chloe Bruneau, Robert Garnier, Corine Pulce, Luc de Haro, Alain Caubet, Patrick Harry

206. Anticholinergic poisoning after drinking contaminated herbal tea
Antoinette JHP van Riel, Jan Meulenbelt, Irma de Vries

207. Major causes and prospects for prevention of poisoning or adverse events related to herbal medicines: Experience of a poison treatment centre in Hong Kong
Raymond SM Wong, Suet Li Yuen, Yuen Sim Wong, Jones CM Chan, Thomas YK Chan

208. *Peganum harmala* L. poisoning and pregnancy: Two case reports in Morocco
Imane Iken, Hanan Saadi, Sanae Achour

209. Datura contamination of a large batch of frozen vegetables – some poisonings and a big hassle
Anna-Mariia Termälä, Tiina Pohjalainen, Kalle Hoppu
210. Exposure to *Euphorbia lathyris*. Efficacy of an amphoteric washing solution
   Jean-Luc Fortin, Marie-Paule Bitar, François N’guedia Kenfack, Sophie Jabour, Jean-Bernard Braun,
   Christophe C Savio

211. Do *Amanita muscaria* and *Amanita pantherina* poisoning differ?  
    Andreja Vendramin, Miran Brvar

212. Surveillance of mushroom-related poisonings in Italy
    Francesca Assisi, Laura Settimi, Maurizio Bissoli, Rossana Borghini, Tiziana Della Puppa,
    Valeria Dimasi, Marcello Ferruzzi, Paola A Moro, Johanne Georgatos, Ilaria Rebutti,
    Angelo Travaglia, Paolo Severgnini, Fabrizio Sesana, Giovanni Milanesi, Franca Davanzo

213. Toxic risk of traditional healers “Ferraga” in infants, Morocco
    Sanae Achour, Imane Iken, Sanae Abourazzak, Rachida Soulaymani-Bencheikh, Afaf Amarti,
    Mustapha Hida

214. Fatal poisoning due to Indigofera
    Sanae Achour, Imane Iken, Smail Labib, Afaf Amarti, Mustapha Harandou

215. Neurological toxicity of Nigella
    Sanae Achour, Imane Traibi, Imane Iken, Faouzi Belhacen, Afaf Amarti

216. Suicidal *Digitalis purpurea* poisoning treated with specific Fab fragments
    Jonas Höjer, Viktoria Friman

217. Severe poisoning with “Maâjoun”: A case report
    Sara Bouri, Imane Iken, Ahmed El Attari, Afaf Amarti, Sanae Achour

218. *Echinoderma asperum*: In vivo, acetaldehyde-syndrome after consumption together with alcohol
    (case series), in vitro: suppression of acetaldehyde-dehydrogenase activity
    Rudi Pfab, Bettina Haber, Bettina Plenert, Katharina Schenk-Jaeger, Katrin Romanek, Florian Eyer

219. Aggressive treatment results in complete resolution of *Amanita bisporigera* toxicity
    Margaret M Purcell, Jeanna M Marraffa

220. When folk medicine harms: Four pediatric cases following ingestion of *Laurus nobilis* infusion
    Emanuela Cortini, Francesca Chiara, Valeria M Petrolini, Sarah Vecchio, Andrea Giampreti,
    Carlo A Locatelli

221. Poisonings with alkaloids of Veratrum in Russia
    Konstantin M Brusin, Yury V Zobnin, Ivan P Provado, Irina L Chaykovskaya, Vitaliy V Kazartsev,
    Olga V Novikova

222. Biological and botanical confirmation of solanaceous glycoalkaloid poisoning by susumber berries
    (Solanum torvum)
    Nicholas J Connors, Robert L Glover, Cristiana Stefan, Daniel Patterson, Ernest Wong, Mark Milstein,
    Michael Swerdlow, Robert S Hoffman, Lewis S Nelson, Silas W Smith

223. The management of ventricular dysrhythmia inaconite poisoning: A review of published cases
    James M Coulson, John P Thompson
224. The use of plants and media vigilance
   *Naima Rhalem, Abderrahim Chebat, Ghita Benabdallah, Maria Windy, Abdelmjid Soulanymani, Rachida Soulanymani-Bencheikh*

225. Adverse effects due to the use of medicinal plants in the Moroccan diabetic
   *Lakhira Tourougui, Naima Rhalem, Abderrazzak Khadmaoui, Abdelmajid Soulanymani, Rachida Soulanymani-Bencheikh*

**Pharmaceuticals**

   *Richard D Adams, Catherine L Crawford, Liam Perry, Simon HL Thomas, John P Thompson, J Allister Vale, Michael Eddleston*

227. Prolonged, intermittent Brugada after imipramine overdose
   *Jonathan Koehler, Andaleeb H Raja, Kenneth D Katz*

228. Rate dependent bundle branch block in drug overdose: A case report
   *Colin B Page, Ingrid Berling, Geoff K Isbister*

229. Serotonin syndrome in tramadol overdose patients
   *Seyed Mostafa Mansouripour, Reza Afshari*

230. Polypharmacy reported by emergency department patients presenting with psychiatric crises
   *William J Meggs, Kori L Brewer, Susan N Miller, William L Burton*

231. Human exposures to non-opioid analgesics reported to the Poisons Information Centre Erfurt from 2003 to 2012
   *Helmut Hentschel, Dagmar Prasa, Iris Bergmann, Gisela Enden, Germaine Frimlova, Simone Just, Gesine Liebetrau, Bettina Plenert, Anne Stürzebecher, Michael Deters*

232. Injection of crushed tablets: A prospective observational study
   *Birgitta Jonsson, Eva Backman, Helene Salmonson, Jonas Höjer*

233. Cardiomyopathy caused by naphazoline
   *Uwe Stedtler, Maren Hermanns-Clausen*
Drug and opioid abuse

250. Enhanced elimination methods in treatment of acute methanol poisonings: Continuous hemodialysis / hemodiafiltration versus intermittent hemodialysis
   Sergey Zakharov, Tomas Navratil, Jaromir Belacek, Knut Erik Hovda, Daniela Pelclová

251. Electrocardiographic predictors of adverse cardiovascular events in acute drug overdose: A validation study
   Alex F Manini, Barry Stimmel, Ajith Nair, Rajesh Vedanthan, David Vlahov, Robert S Hoffman

252. Respiratory failure from acute drug overdose: Incidence, complications, and risk factors
   Angela Hua, Stephen Haight, Robert S Hoffman, Alex F Manini

253. Metformin removal by extracorporeal elimination techniques in cases of overdose: A literature review
   Roberto Zoppellari, Giovanna Felisatti, Giulia Dallocchio, Stefano Petrini, Enrico Ferri, Milo Vason, Erica Fabbri, Alda Storari

254. Intravenous lipid emulsion used in the therapy of a patient with prolonged cardiac pauses following a single pill ingestion of propafenone
   Rana Biary, Lewis S Nelson, Robert S Hoffman, Brenna M Farmer

255. Body packing and body stuffing: Review of a case study and proposal for a decision algorithm
   Francesco Gambassi, Valentina Galli, Andrea Missanelli, Lara Bertieri, Ilaria Pacileo, Mariarita Quaranta, Guido Mannaioni, Emanuela Masini

256. Lisdexamfetamine ingestion resulting in hypertensive emergency treated with phentolamine
   Michelle L Spaziani, Rachel F Schult, Timothy J Wiegand

257. Impact of an emergency short stay unit on emergency department performance with toxicology patients
   Michael A Downes, Tracey M Muscat, Nicole Ritchie, Geoffrey K Isbister

258. Acute poisonings admitted to the emergency department: Epidemiology and criteria of admission to the intensive care unit
   Sébastien Beaune, Emmanuel Curis, Philippe Juvin, Bruno Mégarbane

259. Treatment of boric acid poisoning in two infants with continuous venovenous hemodialysis
   Stefania Pedicelli, Stefano Picca, Francesca Stoppa, Daniela Perrotta, Elisabetta Pasotti, Corrado Cecchetti, Nicola Pirozzi, Mara Pisani, Marco Marano

260. Successful treatment of angiotensin converting enzyme inhibitor angioedema with fresh frozen plasma
   Christopher Yates, Magda C Cordeiro, Mar Crespi, Jordi Puiguriguer

261. Procedural safety in high dose insulin euglycemia therapy by adoption of a target-controlled infusion regimen
   Stefan Poechacker, Nina Grossmann, Margit Mayerhofer, Burkhard Gustorff

262. Procedural safety in lipid rescue therapy for various intoxications by adoption of a protocol defining indications and application
   Stefan Poechacker, Eva Klingbacher, Stephan Lang, Gerald Raab, Rainer Schmid, Elisabeth Turek, Burkhard Gustorff

*262. Short-listed for Informa Best Case Report, *Poster discussion session – see page 31
263. Necessity of early carboxyhemoglobin determination in carbon monoxide poisoning

    Guido Kaiser

264. Lithium intoxications in patients on chronic therapy: Precipitating factors, management and outcomes - 2009-2012 experience of Milan Poison Control Centre

    Giscardo F Panzavolta, Andrea F Stella, Adriana M Tomoiaga, Paolo Severgnini, Giovanni Milanesi, Ilaria Rebutti, Joannis Georgatos, Franca Davanzo

265. Inefficacy of extracorporeal life support in four cases of acute colchicine poisoning: A preliminary report

    Frédéric B Baud, Nicolas Deye, Isabelle Malissin, Pierre Brun, Guy Bonmarchand, Louis Modestin, Pascal Leprince, Iraj Gandjbakhch

266. Acute metformin overdose: Metformin serum concentrations during treatment

    Dieter Müller, Michael Möller, Gerrit Montag, Hartmut Neurath, Herbert Desel

267. Methanol poisoning in Tasiilaq, Greenland

    Lotte CG Hoegberg, Hans C Florian Soerensen, Nete B Hansen, Niels E Ebbehoej

268. Lithium poisoning in the intensive care unit: A descriptive study and analysis of the predictive factors of hemodialysis

    Dominique Vodovar, Emmanuel Curis, Souleiman El-balkhi, Isabelle Malissin, Nicolas Deye, Frédéric J Baud, Bruno Mégarbane

269. Fat emulsion therapy given intraosseusly in massive verapamil overdose

    Christopher S Sampson, Starr-Mar'e C Bedy

270. Gastric lavage after overdose of large size slow release drugs

    Mark Personne, Katarina M Luhr, Anita Annas

271. Gastric decontamination in poisoned patients operated for bariatric surgery

    Mark Personne, Ulla S Westberg

Childhood poisonings

272. Epidemiology of acute poisoning in children admitted to the emergency department of the Institute of Mother and Child of the Republic of Moldova

    Gheorghe Ciobanu, Silvia Margoci, Ana Oglinda, Silviu Gatcan, Nicolae Stanciu, Maria Neamtu, G Viorela Nitescu


    Axel Hahn, Nina Glaser, Kathrin Begemann, Grit Grohmann, Suzan Fiack, Martin Trinkaus

274. Childhood poisoning in Sweden: A twenty years perspective

    Eva Backman, Eva Olsson, Gunilla Sjöberg

275. Prospective follow-up study on battery ingestion in children younger than six years

    Johanna J Nugteren-van Lonkhuyzen, Antoinette JHP van Riel, Claudine C Hunault, Irma de Vries, Jan Meulenbelt

276. Infant botulism treated with equine botulinum antitoxin: A case report

    Diletta Sabatini, Laura Papetti, Davide Lonati, Fabrizio Anniballi, Enrico Properzi, Caterina M Grassi

Poster discussion session – see page 31
277. Characteristics of severely poisoned children admitted to the tertiary pediatric intensive care unit: A shift from organophosphate poisoning to corrosives

Mojca Groselj-Grenc, Damjan Grenc, Janez Primozic

278. Levothyroxine: Acute toxicity in newborns

Carola Seidel, Petra Hoffmann-Walbeck, Hans-Jürgen Reinecke, Uwe Stedtler, Dagmar Prasa, Christine Rauber-Lüthy, Elke Färber, Dieter Genser

279. Development of respiratory acidosis following the ingestion of a liquid detergent capsule by a boy aged 1 year 10 months: A case report

Ruth Kastanje, Kristiina Pöld, Aleksandr Peet, Lea Maipuu, Mare Oder

280. Characterization of the use of naloxone in pediatric patients using data from the Toxicology Investigators Consortium

Laura J Fil, Lewis Nelson, Dean G Olsen

281. Accidental ingestion of paliperidone (Invega R) in children: A case series

Elisabeth Goossens, Dominique Biarent, Rachel Demarque, Valérie Domken, Jean-Paul Misson, Martine Mostin

282. A poisoning prevention program aimed at adolescents in Wales: Is it needed?

Nicola Wheatley, Gillian Cooper, Gloria A Alldridge, John P Thompson, Michael Eddleston, J Allister Vale, Simon HL Thomas

283. A review of pediatric cases exposed to unknown xenobiotics

Kiera Sibbald, William F Rushon, Priyanka Vakkalanka, Scott H Wiley, Nathan P Charlton

284. Suicide attempt and suicide by medication poisoning in children and adolescents: Moroccan Poison Control Centre data

Narjis Badrane, Fatima Abadi, Abdelmajid Soulaymani, Naima Rhalem, Rachida Soulaymani-Benechikh

285. A case of inadvertent ingestion of cinacalcet by a 1-year-old child

Henk Van Pelt, Jessie De Ridder, Martine Mostin

286. Pediatric dimetinden exposures

Silvia Plackova, Blazena Caganova, Petra Faltanova, Jaroslav Kresanek

287. Exposures to liquid detergent capsules in children

Gesine Liebetrau, Julia May, Dagmar Prasa, Anne Stürzebecher, Michael Deters, Helmut Hentschel

Rare poisonings and presentations

288. Brain death and overdose

Diana Felton, Jennifer L Carey, Edward Boyer, Mark J Neavyn

289. Cerebral injury in 2-chloroethanol intoxication

Dong-Zong Hung
290. Premature diagnostic closure of metabolic acidosis and hypotension attributed to propylene glycol toxicity in a cirrhotic patient  
   *Timothy Depp, Andrew M King, Nathan B Menke, Andaleeb H Raja, Michael Abesamis, Anthony F Pizon*

291. Fatal insulin overdose: Role of the clinical laboratory  
   *Christopher Yates, Loreto Quesada, Angela Garcia, Josep M Bauça, Antonia Barcelo, Jordi Puiguriguier, Bernardino Barcelo*

292. Acute heart failure after venlafaxine overdose: Post-mortem myocardial examination in two cases  
   *Melissa Batista, Sandhya Fonseca, Jean-Pierre Cosyns, Vincent Haufroid, Arnaud Capron, Philippe Hantson*

293. High clinical suspicion and prompt treatment are life saving in accidental cyanide poisoning in children  
   *Eléni Basanou, Angeliki Kalostou, Maria Kazantzi, Menelaos Svirkos, Vasiliki Sofidiotou, Konstantinos Fountas, Polyxeni Neou*

294. Mefenamic acid toxicosis in dogs and cats: A consecutive case series  
   *Katharina E Hofer, Christine Rauber-Lüthy, Cornelia Reichert, Hugo Kupferschmidt, Alessandro Ceschi*

295. The third lethal case over the last year with the weight loss agent 2,4-dinitrophenol  
   *Peter Hultén*

296. Severe toxicity after use of 2,4-dinitrophenol reported to the UK National Poisons Information Service  
   *Ashraf Kamour, David Gwynnette, Nathan George, Gillian Cooper, David J Lupton, Michael Eddleston, John P Thompson, J Allister Vale, Ruben HK Thanacoody, Simon Hill, Simon HL Thomas*

297. Thyrotoxic periodic paralysis secondary to overuse of liothyronine  
   *Jolene Okaneku, David Vearrier, Michael I Greenberg*

298. Misuse of the herbicide chlormequat as euthanasia agent in veterinarian practice, an emerging problem?  
   *Yves Haerden, Henk van Pelt, Elisabeth Goossens, Martine Mostin*

299. A case of intentional oral intake of T61  
   *Yves Haerden, Lucien Bodson, Martine Mostin*

300. Accidental peroral Veratrum tincture poisoning: A case report  
   *Ruta Leksiene, Jonas Surkus, Edita Ziginskiene, Inga A. Bumblyte, Algirdas Stonys*

301. Rare occurrence of arsenic hydride poisoning in children  
   *Evgeny A Luzhnikov, Galina N Sukhodolova, Yury N Ostapenko, Liliya A Kovalenko, Alexander S Kovalchuk*

302. Magnetic resonance imaging findings and follow-up in a case with full recovery after ethylene glycol poisoning  
   *Monique Boukobza, Frédéric J Baud, Sébastien Champion*

303. Unsuspected source of accidental group carbon monoxide poisoning  
   *Gabija Dragelyte, Giedre Putelyte*

$ Short-listed for Informa Best Case Report
Chemicals, detergents, and pesticides

304. When the clinical findings are confusing, and the chemical analyses misleading. A toxic gas event in Oslo
Fridtjof Heyerdahl, Stig-Rune Sellevaag, Fatima Ibsen, Mari Tosterud, Jan-Erik Andersen, Oona Dunlop

305. Development of a new methodology to harmonise information on pesticide-related poisoning exposures and to support comparable reporting from EU member states
Laura Settimi, Rob Orford, Raquel Duarte-Davidson, Charlotte Hague, Erik Andrew, Monique Mathieu-Nolf, Gabija Dragelyte, Robertas Badaras, Daniela Pelclová, Sergey Zakharov, Herbert Desel, Martin Ebbecke, Franca Davanzo, Fabrizio Sesana, Richard D Adams

306. Development of chemical emergency risk management monographs as a tool for provision of standardized health care measures in chemical incidents with cross-border health threats in EU (ASHT III project)
Sergey Zakharov, Daniela Pelclova, Tomas Navratil, Rob Orford

307. Aluminum phosphide poisoning in the Tunisian Anti Poison Center
Youssef Blel, Hafedh Thabet, Aymen Mrad, Hatem Elghord, Nadia Kouraichi, Nozha Brahmi, Mouldi Amamou

308. Laundry detergent pod causing esophageal and gastric injury in an adult
Vincent Nguyen, Scott Kramer, Rachel Wightman, Lewis S Nelson, Robert S Hoffman

309. A case of death associated with ingestion of liquid neutral detergent
Satoshi Furukawa, Satomu Morita, Hayato Okunaga, Yoshio Yamamoto, Katsuji Nishi

310. Severe gastric necrosis following household bleach ingestion
Dorian Jacobs, David Vearrier, Michael I Greenberg

311. Assessment of life threatening sulfuric acid ingestion using computed tomography imaging
Pardeep S Jagpal, Khaled Dawas, Sally M Bradberry

312. Plain abdominal radiography: A powerful tool to prognosticate zinc phosphate-poisoned patients’ outcome
Nasim Zamani, Hossein Hassanian-Moghaddam, Hooman Bahrami-Motlagh, Mitra Rahimi

313. Descriptive study of reported cases of intoxication by caustic household “hydrochloric acid” in Morocco
Ghyslaine Jalal, Maria Windy, Narijs Badrane, Naima Rhalem, Rachida Soulaimani-Bencheikh

314. A descriptive analysis of US prehospital care response to hazardous materials events
Ashley J Martin, Christine M Lohse, Matthew D Szajnkrycer

315. Prognostic factors in acute organophosphate poisoning
Kwang Young Lee, In O Sun, Hyun Ju Yoon, Jeong Gwan Kim

316. Thrombopenia and anaemia following acute 2,4-D human poisoning
Christine Payen, Nicolas Jacquot, Corine Pulce, Thierry Vial, Jacques G Descotes

317. Epidemiology of pesticide exposures in Slovakia: A twenty-year review
Blazena Caganova, Silvia Plackova, Jaroslav Kresanek
318. Burns on civilians by exposure to old WW1 chemical weapons
   Francis Grossenbacher, Zoubir Djerrada, François Braun, Lucas Milloncourt,
   Marie Agnes BouchéPillon

319. Rapidly fatal poisoning with an insecticide containing rotenone
   Katrin Faber, Marc Augsburger, Frank Sporkert, Reto Laffer, Alessandro Ceschi

320. Unintentional poisoning in the elderly: Ingestion of bar soap
   Elke Färber, Rafael Wagner, Stephan Rhode, Maren Hermanns-Clausen

321. Caustic and thermal eye and skin injury in four children caused by exposure to chemicals from the
    heating mechanism of a self-heating chocolate drink
   Barbro J Spillum, Jarle Sletten, Marte Espeland

322. Role of magnesium sulphate in management of organophosphate poisoning
   Ashish Bhalla, Mohan Kumar, Surjit Singh, Navneet Sharma, Sushil Kumar

Poisoning evaluation

323. A characterization of the overuse of toxic alcohol screening tests
   William F Rushton, Priyanka Vakkalanka, Laura Grangeia, Mark C Pierce, Christopher P Holstege

324. Causality assessment of herb-induced liver injury using Roussel Uclaf Causality Assessment Method
   Jones CM Chan, James MH Ng, Raymond SM Wong, Thomas YK Chan

325. Clinical application of therapeutic drug monitoring of frequently used antipsychotics
   Lisbeth Patteet, Kristof E Maudens, Bernard Sabbe, Manuel Morrens, Marc Leysen, Hugo Neels

326. The effect of obligatory review of emergency department physician requests for paracetamol serum
    level laboratory tests by a clinical toxicologist
   Ophir Lavon

327. How do emergency physicians make discharge decisions for alcohol-related patients?
   Nicolas Franchitto, Fanny Pelissier, Dominique Lauque, Sandrine Charpentier, Christophe Lancon,
   Daniel Rouge

328. What are the drugs involved in sudden deaths?
   Fanny Pelissier, Norbert Telmon, Daniel Rouge, Nicolas Franchitto

329. Antipsychotic overdose QT nomogram risk assessment
   Ingrid Berling, Geoffrey K Isbister

330. Monitoring self-poisoned patients with non-invasive capnography in the emergency department:
    Interim analysis of the CAPNOTOX survey
   Damien Viglino, Delphine Bourez, Françoise Carpentier, Vincent Danel, Maxime Maignan