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European Monitoring Centre
for Drugs and Drug Addiction



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PROGRAMME

Sixth international conference on novel psychoactive substances

8–9 April 2019

Maastricht, The Netherlands

Organising committee

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Professor Francesco Botrè, Sapienza University of Rome

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Professor Zsolt Demotroics, Eötvös Loránd University

Conference website

www.novelpsychoactivesubstances.eu

Social media

#NPSMaastricht

Venue

Maastricht University

Sixth international conference on novel psychoactive substances

Over the last decade, there has been a dramatic increase in the number of new psychoactive substances (NPS) detected across the world. The NPS market remains highly dynamic and is characterised by the emergence of large numbers of new substances reported in a growing number of countries. Between 2009 and 2018, 119 countries and territories reported the emergence of 892 NPS to the United Nations Office on Drugs and Crime (UNODC), through the UNODC Early Warning Advisory on NPS. Overall, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), through the EU Early Warning System (EWS), is now monitoring over 720 NPS that have appeared since 1997. Of these, 90% have been reported in the last decade.

The increase in the number and availability of NPS in recent years has largely been driven by globalisation, the internet and rapid changes in technology. Yet, recently, there have been some encouraging signs, at least for Europe. For example, the number of NPS reported annually for the first time in Europe has dropped from a high of around 100 in 2014 and 2015 to around 50 in 2017 — a trend that continued in 2018. This is thought to partly reflect the results of efforts to control NPS, especially their open sale in shops.

Nevertheless, NPS continue to pose numerous challenges in terms of: detecting and monitoring; understanding patterns of use and harms caused; and developing appropriate public health responses. In Europe, around one new substance is still detected every week, increasing the overall number that needs to be monitored. Major new problems have also emerged, that have led to an increasing number and range of risks for people who use psychoactive substances. These include an increase in the number of highly potent NPS on the market, many of which are synthetic cannabinoids or synthetic opioids. These substances pose a high risk of life-threatening poisoning to users and are capable of causing outbreaks of mass poisonings.

Increasingly, users might also be unaware that they are using an NPS. Globalised supply chains and markets have increased the opportunity for NPS (and a whole range of toxic chemicals) to be sold, either deliberately or accidentally, as controlled drugs, which can have deadly consequences. For example: synthetic opioids may be sold as, or mixed with, heroin; new benzodiazepines are increasingly used to make fake medicines that are sold as diazepam and alprazolam; while cathinones, such as ephylone, may be sold as 'ecstasy'. Given the numerous challenges posed by NPS, there is a need for multidisciplinary and international collaboration to enhance knowledge, strengthen best practice and improve the quality of information-sharing in this area.

The aim of this NPS conference series, started in 2012, is to provide a forum that builds and fosters such collaboration. It is hoped that this conference will help increase our understanding of the nature and effects of NPS, strengthen the evidence base and promote innovative strategies to protect public health.

| Objectives

The main objectives of the conference are:

- sharing evidence-based information on NPS and the latest trends in use;
- supporting the development of early-warning, preparedness and response activities to health and social harms caused by NPS;
- exploring the motivations and socio-cultural factors underlying NPS use;
- improving understanding of the clinical treatment and management of NPS use;
- identifying the public health implications of NPS;
- improving understanding of prevention measures;
- exploring policy and legislative responses to NPS; and
- networking and providing the opportunity to meet leading experts in the field.

Opening and plenary sessions

Monday 8 April 2019

Opening session: Registration, opening and welcome remarks

Location: Franz Palmzaal

11.00	Registration
13.00	<p>Welcome addresses</p> <p>R. Sedefov, European Monitoring Centre for Drugs and Drug Addiction</p> <p>J. Tetley, United Nations Office on Drugs and Crime</p> <p>O. Corazza, University of Hertfordshire, United Kingdom</p> <p>O. Rabin, World Anti-Doping Agency</p> <p>J. Ramaekers, Maastricht University, The Netherlands</p>

Plenary session: Where are we with new psychoactive substances?

Moderator: O. Bowden-Jones, Imperial College, United Kingdom

Location: Franz Palmzaal

13.15	The emergence of NPS — a crisis that did not happen? — J. Tetley, United Nations Office on Drugs and Crime
13.30	New psychoactive substances: a threat to health security — M. Evans-Brown, European Monitoring Centre for Drugs and Drug Addiction
13.45	Ten years of NPS: looking back and looking forwards — B. Logan, Center for Forensic Science Research and Education, United States
14.00	Learning from lived experiences — O. Corazza, University of Hertfordshire, United Kingdom
14.15	NPS and sport: how we care about our athletes — O. Rabin, World Anti-Doping Agency
14.30	The call for science and law to unite against NPS — M.J. Menendez, Department of Justice, United States
14.45	<i>Break and networking</i>

Parallel sessions

Monday 8 April 2019

Parallel session 1: Use, settings, experiences and trends

Moderator: A. Roman-Urrestarazu, Maastricht University, The Netherlands

Location: Franz Palmzaal

15.00	NPS trends in the US — E.D. Lockhart, Drug Enforcement Administration, United States
15.15	Trends in availability, use and harms of NPS in Australia — A. Peacock, University of New South Wales, Australia
15.30	The designer and synthetic drugs in the Khanty-Mansi autonomous region of Russia in 2017 — A.U. Gil, S.P. Novikov, C.G. Palacio, R.A. Khalfin, S.A. Appolonova and S.A. Savchuk, Sechenov First Moscow State Medical University, Russia
15.45	An overview of the recent emergence of NPS and their legal status in Japan — R. Kikura-Hanajiri, National Institute of Health Sciences, Japan
16.00	NPS analysis and trends in the US: 2014–2018 — S.L. Kacinko, D.M. Papsun and B.K. Logan, NMS Labs, United States
16.15	Questions and discussion
16.30	<i>Break and networking — Poster session 1</i>

Moderator: F. Schifano, University of Hertfordshire, United Kingdom

16.50	Identification of synthetic cannabinoid trends in forensic toxicology casework in the US using high resolution mass spectrometry — A.L.A. Mohr, A.J. Krotulski and B.K. Logan, Center for Forensic Science Research and Education, United States
17.05	The trouble with the Standardized Field Sobriety Test in the US — K.R. Burke, Racine County Sheriff's Office, United States
17.20	Recent use of synthetic cannabinoids, synthetic opioids and other psychoactive drug groups among a sample of high-risk drug users in Israel — B. Shapira, R. Berkovitz, P. Rosca and Y. Neumark, Hebrew University of Jerusalem, Israel
17.35	A survey of synthetic cannabinoids in New Zealand street samples — A. Lloyd, R. Somerville, V. Hassan, E. Kolbe, C. Stansfield, H. Partington, K. Walsh, D. Kappatos and C. Johnson, Institute of Environmental Science and Research, New Zealand
17.50	Determining the occurrence of NPS in Australia using wastewater analysis — R. Bade, J.M. White, J.F. Mueller, J. O'Brien, K.V. Thomas, B.J. Tschärke and C. Gerber, University of South Australia, Australia
18.05	Questions and discussion
18.30	<i>Close for the day</i>

Parallel sessions

Monday 8 April 2019

Parallel session 2: Detection, identification and characterisation

Moderator: I. Mazzoni, World Anti-Doping Agency

Location: Seminar room C-1.07

15.00	Updates on the in-field detection of NPS — A. Guirguis, L. Calvo-Castro, E. Samaras, M. Zloh, S.B. Kirton and J.L. Stair, University of Hertfordshire, United Kingdom
15.15	Substrate displacement colorimetry for the detection of diarylethylamines — J.W. Lowdon, K. Eersels, B. Grinsven and T.J. Cleij, Maastricht University, The Netherlands
15.30	Differentiating designer opioids U-48800 and U-51754 by GC/MSD — E.M. Guest, Drug Enforcement Administration, United States
15.45	The utility of <i>in vitro</i> metabolism studies coupled to liquid chromatography-tandem mass spectrometry for the selection of diagnostic markers of NPS: the case of 4,4'-DMAR — C. Chieffi, F. Botrè, C. Camuto, F. De Giorgio, X. de la Torre, M. Marti, C. Trapella and M. Mazzarino, Italian Sports Medicine Federation, Italy
16.00	Novel sampling-substrates for the determination of NPS in oral fluid by desorption electrospray ionization-high resolution mass spectrometry — L. Anzillotti, University of Parma, Italy
16.15	Questions and discussion
16.30	<i>Break and networking — Poster session 1</i>

Moderator: O. De Hon, Doping Authority, The Netherlands

16.50	Fast method for the preparation of cadaver tissue for GC-MS and HPLC-MS/MS analysis. Case study: detection of carfentanil in cadaveric tissues modified by rotting and in the products of tissue lysis — S.A. Savchuk and A.L. Petchnikov, Sechenov First Moscow State Medical University, Russia
17.05	Development and validation of a method to analyse fentanyl and its analogues in post-mortem blood samples by LC-MS/MS — T.B. Rodrigues, D.R. Morais, V.A.P. Gianvecchio and J.L. Costa, University of Campinas, Brazil
17.20	The latest developments in new psychoactive substance testing — E.O. Benchikh, P. Robinson and M.A. Gomez, Randox Toxicology Ltd, United Kingdom
17.35	Hitting the jackpot — development of a sensitive method for the routine screening of fentanyl analogues within suspected samples of heroin — N. Gilbert, L.H. Antonides, B. Kilkelly, C. Schofield, R.E. Mewis and O.B. Sutcliffe, Manchester Metropolitan University, United Kingdom
17.50	Identification of NPS, and in particular fentanyl analogues by Raman handheld spectroscopy — C. Guillou, J. Omar, B. Slowikowski, F. Reniero, M. Holland and A. Boix, Joint Research Centre of the European Commission
18.05	Tracking NPS and amphetamines precursors in Portugal — H. Gaspar, M. Sequeira, S. Santos and M.J. Caldeira, University of Lisbon, Portugal
18.20	Questions and discussion
18.30	<i>Close for the day</i>

Parallel sessions

Monday 8 April 2019

Parallel session 3: Pharmacology and toxicology

Moderator: S. Assi, Liverpool John Moores University, United Kingdom

Location: Seminar room C-1.05

15.00	Pharmacological characterisation of the aminorex analogs 4-MAR, 4,4'-DMAR and 3,4-DMAR — A. Rickli, K. Kolaczynska, M.C. Hoener and M.E. Liechi, University of Basel, Switzerland
15.15	Enantiospecific synthesis, chiral separation and biological activity of four carboxamide-type synthetic cannabinoid receptor agonists and their detection in seized drug samples — L.H. Antonides, A. Cannart, C. Norman, L. Vives, A. Harrison, N. NicDaeid, C. Stove, O.B. Sutcliffe and C. McKenzie, University of Dundee, United Kingdom
15.30	Bioassays to study-biased signalling of novel synthetic opioids — L. Vasudevan, E. Wouters, A. Cannart, M. Meyrath, M. Szpakowska, A. Chevigné, D.K. Saini and C.P. Stove, Ghent University, Belgium
15.45	The interaction of synthetic cannabinoids and alcohol: an <i>in vitro</i> evaluation — V. Abbate, O. Apirakkan, I. Gavrilovic, G. Floresta, C. Pierre, D. Cowan and L. Couchman, King's College London, United Kingdom
16.00	Emergent synthetic cannabinoid NPS and their prophetic analogues — S.D. Banister, R.C. Kevin, I.S. McGregor, M. Glass, M. Connor and R. Gerona, University of Sydney, Australia
16.15	Questions and discussion
16.30	<i>Break and networking — Poster session 1</i>
Moderator: R. Kikura-Hanajiri, National Institute of Health Sciences, Japan	
16.50	Chronic use of synthetic cannabinoids is associated with impairments in cognitive function, brain structure and function, and comorbidity with depression and schizotypal personality disorder — A. Weinstein, University of Ariel, Israel
17.05	Assessing reversibility of effects of acute and prolonged exposure to new psychoactive substances on neuronal activity <i>in vitro</i> to mimic human exposure — A. Zwartsen, Utrecht University, The Netherlands
17.20	Safety profile and neurocognitive function following acute 4-fluoroamphetamine (4-FA) administration in humans — E.B. de Sousa Fernandes Perna, E.L. Theunissen, P.C. Dolder, N.L. Mason, N.R. Hutten, S.W. Toennes, K.P.C. Kuypers and J.G. Ramaekers, Maastricht University, The Netherlands
17.35	CUMYL-4CN-BUTINACA: a potent synthetic cannabinoid receptor agonist with convulsant effects in mice — R.C. Kevin, L. Anderson, S.D. Banister, R. Boyd, C. Macdonald, M. Glass, M. Connor and I.S. McGregor, University of Sydney, Australia
17.50	Docking analysis of selected cathinones on a complex of SAP97 PDZ2 with 5-HT _{2A} receptor peptide — E.J. Kostic, B.B. Arsic, B.S. Milosavljevic and M.M. Vujovic University of Nis, Serbia
18.05	The molecular mechanism of amphetamine-type stimulants — J. Maier, Medical University of Vienna, Austria
18.20	Questions and discussion
18.30	<i>Close for the day</i>

Parallel sessions

Monday 8 April 2019	
Parallel session 4: Prevention, harm reduction, treatment and clinical management	
Moderator: M. Raitelhuber, United Nations Office on Drugs and Crime	
Location: Seminar room C-1.09	
15.00	Use and health needs regarding NPS: the users' perspective — S. Simonis, A. Van Dijck, T. Van Havere and P. Blanckaert, Scientific Institute of Public Health, Belgium
15.15	What are the needs of Belgian professionals for tackling the NPS phenomenon? — A. Van Dijck, S. Simonis, P. Blanckaert, T. Van Havere, University College of Ghent, Belgium
15.30	Treatment and information needs of vulnerable populations who use NPS — K. MacLeod, Scottish Drugs Forum, United Kingdom
15.45	Synthetic cannabinoid use in a case series of patients with psychosis presenting to acute psychiatric settings: clinical presentation and management issues — S. Bonaccorso, A. Metastasio, A. Ricciardi, N. Stewart, L. Jamal, N.U.D. Rujully, C. Theleritis, S. Ferracuti, G. Ducci and F. Schifano, Camden and Islington NHS Foundation Trust, United Kingdom
16.00	Substance-related exogenous psychosis: a novel form of psychopathology induced by NPS — G. Martinotti, University of Chieti-Pescara, Italy
16.15	Questions and discussion
16.30	<i>Break and networking — Poster session 1</i>
Moderator: G. Bersani, Sapienza University of Rome, Italy	
16.50	Management of inpatients who use NPS — A. Metastasio, S. Bonaccorso and A. Kwan, Camden and Islington NHS Foundation Trust, United Kingdom
17.05	Cognitive behaviour therapy with opioid use disorder: a case study — Q. Abbas, Government College University Faisalabad, Pakistan
17.20	NPS-related mental health presentations at United Kingdom festivals — K. MacLeod, Scottish Drugs Forum, United Kingdom
17.35	Mandatory drug testing in prison settings: helpful or harmful? — S. Marrinan, University of Hertfordshire, United Kingdom
17.50	A novel and evolving response to emergency situations: experience from the largest integrated drugs and alcohol service in England — R. Vaziri, M. Hallam and L. Wilson, Humankind, United Kingdom
18.05	Problematic internet use: preliminary data on prevalence in Italian public rehabilitation centres — F. Mucci, University of Pisa, Italy
18.20	Questions and discussion
18.30	<i>Close for the day</i>

Parallel sessions

Monday 8 April 2019

Parallel session 5: Performance- and image-enhancing drugs

Moderator: A. Petroczi, Kingston University, United Kingdom

Location: Seminar room C-1.03

15.00	Pathways to anabolic steroid use: a systematic review and meta-synthesis — D. Sagoe, C.S. Andreassen and S. Pallesen, University of Bergen, Norway
15.15	The black market of performance- and image-enhancing drugs (PIEDs) in Italy — S. Odoardi, S. Mestria, V. Valentini and S. Strano Rossi, Università Cattolica del Sacro Cuore, Italy
15.30	Peptide hormones and selective androgen receptor modulators (SARMs): the 'new wave' of PIEDs — M.D. Chandler, University of Birmingham, United Kingdom
15.45	Routes of testosterone administration by female PIED users — T. Knox, University of Birmingham, United Kingdom
16.00	Psychosocial factors facilitating use of cognitive enhancing drugs in education: a qualitative investigation of moral disengagement and associated processes — R. Heyes, University of Birmingham, United Kingdom
16.15	Questions and discussion
16.30	<i>Break and networking — Poster session 1</i>

Moderator: I. Boardley, University of Birmingham, United Kingdom

16.50	'Play safe!' — Practical risk-assessment framework for PIEDs — A. Petroczi, J. Shelley and A. Hudson, Kingston University London, United Kingdom
17.05	Organisational factors, identity and precariousness in elite cycling — R. Cunningham, B. Fincoeur and F. Ohl, University of Lausanne, Switzerland
17.20	The status and perspectives of the fight against doping in sport in Bosnia and Herzegovina with a focus on NPS — A. Avdagic, N. Ahmetovic, Agency for Anti-doping Control, Bosnia and Herzegovina
17.35	The health risks of looking fit. Supplement use, appearance anxiety and exercise addiction — P. Simonato, Z. Demetrovics, K. van de Ven, G. Martinotti and O. Corazza, Dual-Diagnosis Unit, Clinic Parco dei Tigli, Italy
17.50	On performance-enhancing drug use by mixed martial arts athletes — B. Fincoeur and F. Ohl, University of Lausanne, Switzerland
18.05	Questions and discussion
18.30	<i>Close for the day</i>

Parallel sessions

Tuesday 9 April 2019

Parallel session 6: Early-warning and toxicovigilance

Moderator: F. Botrè, Sapienza University of Rome, Italy

Location: Seminar room C-1.03

9.00	Update from the EU Early Warning System on NPS — A. Gallegos, European Monitoring Centre for Drugs and Drug Addiction
9.15	NPS exposures reported to the Dutch Poisons Information Centre, L. Hondebrink, J.J. Nugteren-van Lonkhuyzen, I.S. van den Hengel-Koot, S.J. Rietjens and A.J.H.P. van Riel, Utrecht University, The Netherlands
9.30	Deaths caused by NPS opioids in Belgium — P. Blanckaert, J. Antoine, E. Plettinckx, S. Simonis, L. Van Baelen and L. Gremeaux, Belgian Drugs Early Warning System, Belgium
9.45	Recent trends in synthetic cannabinoid use in Australia resulting in ambulance attendance — J. Grigg, R. Crossin, J. Killian, S. Arunogiri, S. Matthews, D. Scott, V. Manning, D. Taylor, K. Smith and D.I. Lubman, Monash University, Australia
10.00	Managing NPS in New Zealand: a 'Border to Grave' approach — M.J. McCarthy, Forensic Toxicology, Institute of Environmental Science and Research, New Zealand
10.15	Questions and discussion
10.30	<i>Break and networking — Poster session 2</i>

Parallel session 7: Monitoring new psychoactive substances

Moderator: D. Singh, Centre for Drug Research, Universiti Sains Malaysia, Malaysia

Location: Seminar room C-1.03

11.00	Monitoring NPS in the Netherlands: combining data from various sources — D. van der Gouwe, Trimbos Institute, The Netherlands
11.15	Dark web drug monitoring — A. Lloyd and K. Nguyen, Institute of Environmental Science and Research, New Zealand
11.30	Illegal drug trafficking on the darkweb: key findings from a cross-sectional study on a sample of cryptomarkets — M. Mignone, E. Bosio and V. Scioneri, Research Centre on Security and Crime, Italy
11.45	The systematic analysis of drug discussion forums and cryptomarkets: is it useful to monitor NPS? — D. Rhumorbarbe, M. Morelato, L. Staehli, C. Roux, D.O. Jaquet-Chiffelle, Q. Rossy, J. Tettey, M. Raitelhuber and P. Esseiva, University of Lausanne, Switzerland
12.00	Advancing wastewater-based epidemiology towards a comprehensive community-wide monitoring and early-warning system — F. Béen, E. Emke, T. ter Laak and P. de Voogt KWR Watercycle Research Institute, The Netherlands
12.15	4-fluoramphetamine in the Netherlands: text mining and sentiment analysis of internet fora — M. Blankers, D. van der Gouwe and M. van Laar, Trimbos Institute, The Netherlands
12.30	Questions and discussion
13.00	<i>Break, lunch and networking — Poster session 3</i>

Parallel sessions

Tuesday 9 April 2019

Parallel session 8: Use, settings, experiences and trends (continued from Parallel session 1)

Moderator: S. Bonaccorso, Camden and Islington NHS Foundation Trust, United Kingdom

Location: Seminar room C-1.05

9.00	NPS awareness, use, preference and health perception following the United Kingdom Psychoactive Substances Act 2016 — L.A. Lione, E. Deligianni, O.J. Daniel, J.M. Corkery and F. Schifano, University of Hertfordshire, United Kingdom
9.15	Lifetime prevalence of NPS among the general population in the US 2007–2014 — J. Neicun, J.C. Yang, H. Shih, R. van Kessel, A. Negri, P. Nadella, K. Czabanowska, O. Corazza, C. Brayne and A. Roman-Urrestarazu, University of Hertfordshire, United Kingdom
9.30	2018 Annual substance abuse research report in South-East Serbia according toxicology data of forensic institute in Nis — M.M. Vujovic, B.S. Milosavljevic, E.J. Kostic and M.M. Djukic, University of Nis, Serbia
9.45	An observational study of the acute effects of two synthetic cathinones: mephedrone and methylene — M. Farré, E. Olesti, R. de la Torre, M. Ventura, L. Poyatos, C. Pérez-Mañá, M. Torrens and E. Papaseit, Universitat Autònoma de Barcelona, Spain
10.00	Ayahuasca use: potential benefits and harm reduction — F. Morgante, Middlesex University, United Kingdom
10.15	Questions and discussion
10.30	<i>Break and networking — Poster session 2</i>

Moderator: F. S. Bersani, Sapienza University of Rome, Italy

11.00	Prevalence, effects and toxicity of NPS from the perspectives of the homeless population — S. Assi, T. Coombs, T. Ginige, P. Van Calster, C. Devany, J. McEachran and O. Corazza, Bournemouth University, United Kingdom
11.15	Exploring NPS and custodial environments — K.J. Stockdale and M. Addison, York St. John University, United Kingdom
11.30	Fatalities involving fentanyl in England 1998–2018 — H. Claridge and C.M. Goodair, St George's University of London, United Kingdom
11.45	Synthetic cathinones and related fatalities in the United Kingdom — J.M. Corkery, University of Hertfordshire, United Kingdom
12.00	The use of wastewater-based epidemiology to qualify and quantify NPS use during an electronic dance festival — E. Emke, L. Bijlsma, A. Celma, D. Vughs, K. Hup and P. de Voogt, KWR Watercycle Research Institute, The Netherlands
12.15	NPS in United Kingdom prisons — M. Vigar, G4S Care and Justices Services, United Kingdom
12.30	Should the NPS be included in workplace drug testing? — A. Salomone and M. Vincenti University of Turin, Italy
12.45	Questions and discussion
13.00	<i>Break, lunch and networking — Poster session 3</i>

Parallel sessions

Tuesday 9 April 2019

Parallel session 9: Pharmacology and toxicology (continued from Parallel session 3)

Moderator: K. Kuypers, Maastricht University, The Netherlands

Location: Seminar room C-1.09

9.00	Neurocognition and subjective experience following acute doses of the synthetic cannabinoid JWH-018: responders versus non-responders — E.L. Theunissen, N.R.P.W. Hutten, N.L. Mason, S.W. Toennes, K.P.C. Kuypers and J.G. Ramaekers, Maastricht University, The Netherlands
9.15	Health hazards after using the synthetic cannabinoid 5F-ADB — C. Lehmann, R. Kegler, D. Rentsch, J. Manhart and A. Büttner, Brandenburg Institute for Forensic Medicine, Germany
9.30	Development and application of an activity-based bio-assay for the profiling of hallucinogenic NPS — E. Pottie, A. Cannart, C.P. Stove, Ghent University, Belgium
9.45	Prescription and over-the-counter medicine misuse in the context of the NPS scenario; considering the pharmacovigilance approach to evaluate the abuse and misuse of medications — S. Chiappini, A. Guirguis, J.M. Corkery and F. Schifano, University of Hertfordshire, United Kingdom
10.00	Functional evaluation of carboxy metabolites of synthetic cannabinoid receptor agonists featuring scaffolds based on valine or tert-leucine — E. Wouters, L. Mogler, A. Cannart, V. Auwärter and C. Stove, Ghent University, Belgium
10.15	Questions and discussion
10.30	<i>Break and networking — Poster session 2</i>

Parallel session 10: Policy and legislation

Moderator: J. Collins, London School of Economics, United Kingdom

Location: Seminar room C-1.09

11.00	Prevalence of NPS on the Polish drug market after 1 July 2015 — B. Byrska, R. Stanaszek, W. Wrzesień and D. Zuba, Institute of Forensic Research, Poland
11.15	NPS trends and controls in the United States — L.L. Wong, M.L. Van Linn and T.L. Boos, Drug Enforcement Administration, United States
11.30	Introduction of the New Psychoactive Substances Act in Germany: perceived changes and opinions of persons affected by the law — R. Kühnl, S. Horn and L. Kraus, IFT Institute for Therapy Research Munich, Germany
11.45	Review of the United Kingdom Psychoactive Substances Act — S. Hardy, M. Brown and L. Comber, International Drug Policy, Home Office, United Kingdom
12.00	Generic classification for synthetic cannabinoids as controlled substances in Brazil — R.M. Souza, L.S. Lopes, G.H. Giudice, G.M.O. Latuf, M.L.S. Macedo, L.F. Machado, E.S. Santana and S.R.S.C. Souza, Brazilian National Health Regulatory Agency, Brazil
12.15	Strategies and collaboration to counter the NPS challenge — A.T.W. Yap, W.J.L. Lim and M.C. Ong, Health Science Authority, Singapore
12.30	Legal situation of NPS in the Netherlands — D. Kumpe, Department of Health, Welfare and Sport, The Netherlands
12.45	NPS in Poland — policy and legislation, E. Liberska and K. Juško, Bureau for Chemical Substances in Lodz, Poland
13.00	<i>Break, lunch and networking — Poster session 3</i>

Closing session

Tuesday 9 April 2019	
Closing session: Where next for new psychoactive substances?	
Moderator: R. Sedefov, European Monitoring Centre for Drugs and Drug Addiction	
Location: Franz Palmzaal	
14.00	Panel and audience discussion — B. Logan, M.J. Menendez, O. Corazza, M. Evans-Brown, K. MacLeod, R. Vaziri and O. Bowden-Jones
15.00	Closing remarks
15.15	Evaluation
15.30	<i>Close of the conference</i>

Poster presentations

Monday 8 April 2019 (16.30–16.50)

Poster session 1

Coordinator: D. Collins, Middlesex University, United Kingdom

Location: Ad Fundum

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| 1 | 4-fluoroamphetamine (4-FA): before and after legislation — I.S. van den Hengel-Koot, D. van der Gouwe, J.J. Nugteren-van Lonkhuyzen, S.J. Rietjens, A.J.H.P.van Riel and L. Hondebrink, Dutch Poisons Information Centre, University Medical Centre Utrecht, The Netherlands |
| 2 | A group listing for fentanyls in the narcotics regulation — M. Schläpfer and C. Bissig Zurich Forensic Science Institute, Switzerland |
| 3 | Acute and repeated administration of MDPV increases aggressive behaviour in mice: forensic implications — F. De-Giorgio, S. Biele, A. Ossato, R. Arfè, M. Tirri, F. Foti, G. Serpelloni, P. Frisoni, M. Neri and M. Marti, Catholic University of Sacred Heart, Italy |
| 4 | Alpha-PVP: a media hype? — J.J. Nugteren-van Lonkhuyzen, L. Hondebrink, I.S. van den Hengel-Koot, S.J. Rietjens, B. Venhuis and A.J.H.P. van Riel, Dutch Poisons Information Centre, University Medical Centre Utrecht, The Netherlands |
| 5 | Application of ultrasound assisted dispersive liquid-liquid micro extraction coupled with GC-MS for the rapid determination of synthetic cannabinoids and metabolites in biological samples — G. Mercieca, S. Odoardi, M. Cassar and S. Strano Rossi, BioDNA laboratory services, Malta |
| 6 | Challenges in the identification of new thermolabile psychoactive substances: the 25I-NBOH case — L.N. Caldas, J.J. Zacca, A.O. Maldaner, M.L. Vieira, E.D. Botelho, J.N. Serrano, A.L. Oliveira and M.P. Souza, National Institute of Criminalistics, Brazil |
| 7 | Climbing a mountain with no guide ropes – when there are no guidelines... NPS withdrawal and detoxification, what do you do? — R. Vaziri and M. Hallam, Humankind, United Kingdom |
| 8 | Development of a new screening method for determination of illegal drugs including NPS and their metabolites in urine by means of UPLC- MS/MS — K.M. Shestakova, S.A. Savchuk and S.A. Appolonova, Sechenov First Medical University, Russia |
| 9 | Elaboration of generic legislation for synthetic cathinones in Brazil — M.L.S. Macedo, L.C. Arantes, R. Bonach, R.P.A. Cruz, G.H. Giudice, L.S. Lopes, L.F. Machado, C.B.C. Passos, E.S. Santana, I.R.C. Silva, M.P. Souza, R.M. Souza and S.R.S.C. Souza, Brazilian Health Regulatory Agency, Brazil |
| 10 | Evaluation of new psychoactive substances abuse in Brazil by the analysis of oral fluid samples — T.B. Rodrigues, D.R. Morais, V.A.P. Gianvecchio and J.L. Costa University of Campinas, Brazil |
| 11 | Exploring the experience of NPS among users from the homeless population: a pilot study — T. Coombs, P. Van Calster, C. Devany, T. Ginige, J. McEachran, O. Corazza and S. Assi, Bournemouth University, United Kingdom |
| 12 | Generic classification for synthetic cannabinoids as controlled substances in Brazil — R.M. Souza, Brazilian National Health Regulatory Agency, Brazil |
| 13 | High resolution/high accuracy mass spectrometry for the identification of illicit substances sold in the black market — S. Strano Rossi, S. Odoardi, S. Mestria, F. Zancanaro, L. Zamengo and G. Frison, University Cattolica del Sacro Cuore, Rome, Italy |
| 14 | Identification of psychoactive substances and their metabolites in human urine, blood, hair and nails in case of combined use of ADB-FUBINACA and alpha-PVP — L. Rizvanova and S. Savchuk, Nizhnevartovsk Psychoneurological Hospital, Russia |

Poster presentations

Tuesday 9 April 2019 (10.30–11.00)

Poster session 2

Coordinator: V. Catalani, University of Hertfordshire, United Kingdom

Location: Ad Fundum

15	Identification of five tryptamine derivatives in illegal products in Japan — R. Tanaka, M. Kawamura, T. Hakamatsuka and R. Kikura-Hanajiri, National Institute of Health Sciences, Japan
16	Injection of cathinones: exposures reported to the Dutch Poisons Information Centre — P.M. Verputten, S.J. Rietjens, I.S. van den Hengel-Koot, R.R. Contrucci, J.J. Nugteren-van Lonkhuizen, D.W. de Lange and L. Hondebrink, Utrecht University, The Netherlands
17	Investigating NPS use among LGBTQ adolescents in the United States — J.M. Eassey, J.M. Stogner, B.M. Miller and J.M. Baldwin, American University, United States
18	<i>In vitro</i> characterisation of the metabolic pathways of four new synthetic cannabinoids — M. Mazarino, C. Camuto, F. De-Giorgio, X. de la Torre, M. Marti, S. Samperi and F. Botrè, Italian Sports Medicine Federation, Italy
19	Is there such a thing as a 'lope' dope? Analysis of loperamide-related European Medicines Agency (EMA) pharmacovigilance database reports — S. Chiappini, F. Schifano, A. Guirguis and J.M. Corkery, School of Life and Medical Sciences, University of Hertfordshire, United Kingdom
20	Knowledge and attitudes towards the use of cognitive performance enhancers of young elite bridge players — B. Federico, G. Capelli, B. Palumbo and P.W. Gabriele, World Bridge Federation Medical and Prevention Commission, Switzerland
21	Laboratory diagnostics of acute poisoning with 3,4-methylenedioxy- α -pyrrolidinohexanophenone (3,4-MDPHP) in the Sverdlovsk region — M.A. Gofenberg and V.A. Shevyrin, Sverdlovsk Regional Poison Treatment Centre, Russia
22	Mephedrone and MDMA: a comparative review — J. Mead and A. Parrott, Swansea University, United Kingdom
23	Metabolic profile and pharmaco-toxicological effects of MPA in mouse model — C. Camuto, S. Bilel, A. Ossato, M. Tirri, R. Arfè, A. Fantinati, F. Foti, M. Neri, X. de la Torre, M. Mazarino, F. Botrè, F. De-Giorgio and M. Marti, Catholic University of Sacred Heart, Italy
24	Motives for classical and NPS use of psychedelic polydrug users — H. Kettner, N.L. Mason and K.P.C. Kuypers, Maastricht University, The Netherlands
25	New GC-MS approach for detection of general anesthetics in complex biological matrices. Detection of carfentanyl in putrefied tissue, a case study — S.A. Savchuk, N.M. Nikitina, C. Palacio, S. Appolonova and F. Tagliaro, Sechenov First Medical University, Russia
26	NPS in Nepal and role of law enforcement officials — A.R. Bohara, Nepal Police, Narcotics Control Bureau, Nepal
27	New psychoactive substances in 'stamps' — S.H. Zhang, Health Sciences Authority, Singapore
28	NPS seized at the New Zealand border — A. Lloyd, C. Johnson, B. Copp and A. Lewis Institute of Environmental Science and Research Ltd (ESR), New Zealand

Poster presentations

Tuesday 9 April 2019 (13.30–14.00)

Poster session 3

Coordinator: Attilio Negri, University of Milan, Italy

Location: Ad Fundum

29	NPS in prisons: a study on the challenge faced by health and non-health professionals working in acute and restricted mental health settings — S. Coloccini, S. Marrinan, A. Negri, A. Metastasio, G. Bersani and O. Corazza, Sapienza University of Rome, Italy
30	Offline and online drug markets: social meanings ascribed to different ways of accessing drugs — X. Rego and J. Pereira, APDES, Portugal
31	Optimisation possibilities of chemical-toxicological analysis using GC-MS and HPLC-MS-MS methods, N.M. Nikitina and S.A. Savchuk, Pskov Regional Narcological Dispensary, Russia
32	Practical cases: practical combined poisoning with fentanyl and other narcotic substances — E.B. Pipina, Russia
33	Prevalence of side-effects in opioid and kratom (<i>Mitragyna speciosa</i> Korth) use — D. Singh, University Sains, Malaysia
34	Searching for synthetic opioids on keratin matrix — E. Levari, A. Lotti, M. Frenguelli, V. Longo, M. Gottardi, M. Marchio, M. Stefani, R. Ferrucci, A. Negri and O. Corazza, Trento Addiction Unit, Italy
35	Sharing evidence-based information on NPS and exploring policy and legislative responses to them in Bangladesh — M.M. Hasan and N.I. Sikder, Ministry of Home Affairs, Department of Narcotics Control, Bangladesh
36	Sub-acute effects of psilocybin on empathy, creative thinking, and subjective well-being — N.L. Mason, E.M. Mischler, M.V. Uthaug, K.P.C. Kuypers, Maastricht University, The Netherlands
37	Substituted phenethylamine associated mortality: results of a retrospective review of regional medical examiner cases from 2014–2017 — A. Lopez and J.A. Rey, Larkin University, United States
38	The abuse of opioid analgesics: a clinical case study — M. Stefani, E. Levari, R. Ferrucci and O. Corazza, Trento Addiction Unit, Italy
39	The current prevalence of NPS in Taiwan — K.H. Kang, M.R. Ke, W.T. Chen, J. Hsu and W.I. Tsay, National Health Research Institute, Taiwan
40	New Zealand's Drug Early Warning System — J. O'Keeffe, National Drug Intelligence Bureau, New Zealand
41	Towards a prompt response network for Australia: coordinated and rapid communication of information about events of concerns related to emerging substances — K.J. Siefried, A. Peacock and N. Ezard, National Centre for Clinical Research on Emerging Drugs, Australia
42	Trends/control of NPS – Indian scenario — V. Suresh and T.C. Tanwar, Customs Laboratory, India
43	Unravelling the novelty or what kind of the NPS dynamics has experienced Kazakhstan? — M.V. Prilutskaya, Semey Medical University, Kazakhstan
44	Changing the narrative: introducing a drug screening and management strategy to a National Health Service (UK) Mental Health Trust – A. Kershaw, Norfolk and Suffolk NHS Foundation Trust, United Kingdom

| Notes

#NPSMaastricht

Sixth international conference on novel psychoactive substances

This event follows on from the first five conferences held in Budapest (2012, 2016), Swansea (2013), Rome (2014) and Vienna (2017). It is organised by: the United Nations Office on Drugs and Crime (UNODC); the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA); the World Anti-Doping Agency (WADA); the University of Hertfordshire and Maastricht University.

The conference covers a range of topics, including: sharing evidence-based information on NPS trends; improving understanding of treatment and management approaches; and exploring socio-cultural factors underlying risky behaviours. International experts will examine the latest scientific research in this rapidly changing field.

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