



60<sup>th</sup> International Association of Forensic Toxicologists Meeting

R<sup>20.23</sup>OME

TIAFT



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# SCIENTIFIC PROGRAM

## SUNDAY AUGUST 27<sup>th</sup> – Pre-congress Day

09.00 – 12.30	Executive Board meeting [D. Gerostamoulos (AU), S. Elliott (UK), M. LeBeau (USA), C. Jurado (ES), C. Stove (BE), S. Wille (BE), J.C. Alvarez (FR), N.P. Lemos (GR)]
09.00 – 12.30	Young Scientists Symposium [L. Rodda (US), E. Lendoiro (SP), F. Busardò (IT), B. Davies (SA), S. Eller (BR), D. Pasin (AU), L. Wagmann (DE), S. Watanabe (JP)]
12.30 – 13.30	Lunch
13.30 – 14.30	TIAFT Regional Representatives Meeting
17.00 – 20.00	Opening Ceremony [D. Gerostamoulos (AU), T. Trenti (IT), F.P. Busardò (IT), S. Pichini (IT)] Opening Lectures: F. Botrè (IT) - "From forensic toxicology to doping analysis and back: new matrices, new markers, new methods" I. Leone (IT) - "Roma Caput Mundi: from the sunrise to the sunset"

## MONDAY AUGUST 28<sup>th</sup>

08.00 – 08.30	COMEDICAL - Scientific Workshop Title: "TricoINC® technology and Comedical TricoCheck® Hair Quality Controls" Speaker: Simona Pichini
08.30 – 10.30	Plenary Room Session 1: New Psychoactive Substances (NPS) Moderators: A. Zapparoli (IT), T. Trenti (IT)
08.30 – 08.50	Main Lecture: M. Evans-Brown (UK) - "25 years of early warning, preparedness, and response to new psychoactive substances in Europe: past, present, future"
08.50 – 10.00	Oral Presentations
10.00 – 10.30	Coffee Break
10.30 – 12.30	Plenary Room Session 2: NPS and new trends of drug use Moderators: H. Teixeira (PT), V. Auwärter (DE) Oral Presentations
12.30 – 13.10	SHIMADZU - Scientific Workshop Title: "Enhancing automation & reporting confidence for LCMS (TQ/HRMS) and innovative approaches for toxicology studies using mass spectrometry" Speaker: Daisuke Kawakami
13.10 – 14.10	Lunch
13.40 – 14.10	AGILENT - Scientific Workshop Title: "Combining compound information from the HighResNPS Project with the Agilent LC/Q-TOF MassHunter Screening Tool for large-scale analysis of New Psychoactive Substances"

	Speaker: Bernhard Wüst
14.10 – 16.10	Plenary Room Session 3: DUID, alcohol biomarkers and DFSA Moderators: C. Jurado (SP), M. LeBeau (USA)
14.10 – 14.30	Main Lecture: P. Kintz (FR) - "Forensic aspects of the "Chemsex" phenomenon"
14.30 – 16.10	Oral Presentations
16.10 – 16.50	AGILENT - Scientific Workshop Title: "High-throughput low impact sample preparations for NPS analysis in various biological samples" Speaker: Sara Odoardi Title: "Mass spectrometric alternatives for steroid analysis in serum"
16.50 – 18.20	Speaker: Xavier De la Torre Plenary Room Session 4: Free Topics Moderators: S.A. Akgür (TR), T. Keller (AT) Oral Presentations
08.30 – 18.30	Poster Session 1



## TUESDAY AUGUST 29<sup>th</sup>

### The Young Scientists Day

The entire day is dedicated to studies and investigations presented by young scientists under the age 40 years old with three plenary lectures of worldwide renowned scientists.

08.30 – 10.00	Plenary Room Session 5: Young Scientists - part 1 Moderators: L. Wagmann (DE), L. Rodda (USA)
08.30 – 08.50	Main Lecture: M. Huestis (USA) - "Advancing the field of forensic toxicology, your reputation and career by writing successful scientific manuscripts"
08.50 – 10.00	Oral Presentations from Young Scientists
10.00 – 10.30	Coffee Break
10.30 – 11.40	Plenary Room Session 6: Young Scientists - part 2 Moderators: M. Concheiro (USA), A. Salomone (IT)
10.30 - 10.50	Main Lecture: B. Chankvetadze (GE) - "Chirality in forensic toxicology"
10.50 - 12.00	Oral Presentations from Young Scientists 2.0
12.00 – 13.00	THERMO FISHER SCIENTIFIC - Scientific Workshop Title: "Mass spectrometric applications and advances for the analysis of NPS" Speakers: Stefania Boccuzzi & Sandrine A.M. Mérette
13.00 – 14.00	Lunch
13.30 – 14.00	BRUKER - Scientific Workshop Title: "NMR-based testing of suspicious substances - as easy as it gets" Speaker: Joerg Koehler
14.00 – 14.40	SIEMENS - Scientific Workshop - "Siemens Healthineers Innovative Approach to Toxicological Screening" Title: "Evaluation of ARK High Sensitivity Benzodiazepine II Assay" Speaker: Luca Morini

	Title: "New Drug Testing Approach in a High-Volume Toxicology Lab with Atellica Integrated Automation"
	Speaker: Roberto Baronti
14.40 - 17.40	Plenary Room Session 7: Live Poster Session from Young Scientists
	Moderators: J. Schumann (AU), J. Carlier (IT)
17.55 - 18.45	BRUKER - Scientific Workshop
	Title: "Rapid identification of drug metabolites with TargetScreener4D"
	Speaker: Carsten Baessmann
	Title: "A fast and novel workflow for urine toxicology screening and confirmation by a single DART-LC-MS/MS platform"
	Speaker: Terry Bates
08.30 - 18.30	Poster Session 2



### WEDNESDAY AUGUST 30<sup>th</sup>

08.00 - 08.30	ABBOTT - Scientific Workshop
	Title: "Addressing drugged driving - A Colombian initiative"
	Speaker: Suman Rana
08.30 - 10.00	Plenary Room Session 8: Advances in clinical and forensic toxicology
	Moderators: M. Martinez (ES), L. Ferrari (AR)
08.30 - 08.50	Main Lecture: S. Wille (BE) - "Drugs and Driving - Why bother and how to tackle this worldwide problem?"
08.50 - 10.00	Oral Presentations
10.00 - 10.30	Coffee Break
10.30 - 12.20	Plenary Room Session 9: Advances in clinical and forensic toxicology and free topics
	Moderators: H. Chung (KR), J.C. Alvarez (FR)
12.20 - 13.00	RANDOX - Scientific Workshop
	Title: "Innovations in Toxicology and Post-Mortem Screening"
	Speaker: Ricardo Addobbati
13.00 - 14.00	Lunch
13.30 - 14.00	SCIEX - Scientific Workshop
	Title: "SCIEX forensics applications workshop"
	Speaker: Pierre Negri
08.30 - 18.30	Poster Session 3

 THURSDAY AUGUST 31<sup>st</sup>

08.00 – 09.30	Plenary Room Session 10: Free topics and Doping Moderators: R. Kronstrand (SE), A. Evans (ZA) Oral Presentations
09.30 – 10.00	COMEDICAL - Scientific Workshop Title: "Determination of Ethyl Glucuronide (EtG) in hair by COMpact biochemical analyzer after extraction with VMA-T Reagent" Speaker: Fabrizio Lo Faro
10.00 – 10.30	Coffee Break
10.30 – 12.20	Plenary Room Session 11: Post-mortem toxicology Moderators: R. Giorgetti (IT), N.P. Lemos (GR) Oral Presentations
12.20 – 13.05	WATERS - Scientific Workshop - "Innovation in MassSpec for the Forensic Toxicology Laboratory" Title: "Analysis of EtG in hair on Waters Xevo TQ-XS" Speaker: Sara Vezzoli, Cristina Calvetti Title: "High resolution MSe Toxicology Screening using the Waters Xevo G3 QTof" Speaker: Nayas S. Mistry
08.30 – 13.00	Poster Session 4
13.05 – 13.50	Lunch
13.50 – 15.10	Plenary Room Session 12: SIBioC - latest updates in Laboratory Medicine Moderators: G. Cangemi (IT), G. Sancesario (IT)
15.10 – 17.00	Post congress TIAFT Business Meeting [D. Gerostamoulos (AU), S. Elliott (UK), M. LeBeau (USA), C. Jurado (ES), C. Stove (BE), S. Wille (BE), J.C. Alvarez (FR), N.P. Lemos (GR)]

# ORAL PRESENTATIONS

 MONDAY, AUGUST 28th

08.50 - 10.00

S1 - New Psychoactive Substances (NPS)

- O1. **Annagiulia Di Trana:** Benzimidazole synthetic opioid etonitazepipne: the first three related fatalities
- O2. **Marilyn Huestis:** Mitragynine and 7-hydroxy-mitragynine plasma pharmacokinetics after controlled oral kratom leaf administration to healthy human subjects
- O3. **Gerd Jakobsson:** Instability of 3-CMC in blood precludes quantification unless properly handled
- O4. **Tanja Gampfer:** *In vitro* and *in vivo* metabolism studies of the two hallucinogens 4-AcO-DET and 1cP-LSD using human liver preparations, zebrafish larvae, and LC-HRMS/MS
- O5. **Cuimei Liu:** Infrared spectroscopy combined with machine learning for the fast non-targeted screening of new psychoactive substances
- O6. **Ruri Kikura-Hanajiri:** LC-QTOF-MS analysis of 23 natural and semi-synthetic cannabinoids and metabolic properties of cannabinoid acetyl derivatives in human liver microsomes
- O7. **Diletta Berardinelli:**  $\mu$ -, and  $\delta$ -Opioid receptor activity assessment of the most recent 2-benzylbenzimidazole nitazene analogs using a [35S]-GTP $\gamma$ S assay: Etonitazepipne, ethyleneoxynitazene, 5-methyl etodesnitazene

10.30 - 12.30

S2 - NPS and new trends of drug use

- O8. **Eduardo de Campos:** Identification of ADB-5'Br-BINACA in plant-material seized in the United States and full chemical characterization using GC-MS, LC-QTOF-MS, NMR, and ATR-FTIR
- O9. **Marie Deventer:** SCRA's with a "Brand" new look: *In vitro* cannabinoid activity profiling of generic ban-evading brominated synthetic cannabinoid receptor agonists and their analogs
- O10. **Lea Wagmann:** Cytotoxicity and toxicokinetics of the new synthetic opioids 2-methyl-AP-237 and AP-238
- O11. **Sebastian Rojek:** Analytical and interpretative problems due to the presence of chloromethcathinone isomers in biological materials from postmortem cases
- O12. **Florian Hakim:** Use of alternative matrices and UPC2-SM to document an intoxication case in a chemsex practitioner
- O13. **Jeremy Carlier, Sara Malaca:** Epimers (9S)- and (9R)-hexahydrocannabinol (HHC): A different metabolic fate in humans?
- O14. **Alaina Holt:** Monitoring emerging tetrahydrocannabinol isomers and derivatives in the unregulated cannabis industry and poisoning and impairment cases by LC-MS/MS
- O15. **Benedikt Pulver:** Pharmacological evaluation of recently detected synthetic cannabinoid receptor agonists
- O16. **Asena Avci Akca:** Detection of drugs in drug-infused papers collected from English prisons
- O17. **Marthe Vandeputte:** When a prophecy comes true: ethyleneoxynitazene as a 'prophetic' member of the emerging class of 2-benzylbenzimidazole 'nitazene' synthetic opioids
- O18. **Matilde Murari:** The use of zebrafish early life stages to investigate the metabolism and toxic effects of nine NPS with opioid effects
- O19. **Annette Zschiesche:** Insights into the metabolism of CH-PIATA – a newly emerged synthetic cannabinoid receptor agonist featuring an acetamide linker

**14.30 - 16.10**

**S3 - DUID, alcohol biomarkers and DFSA**

- O20. **Jari Rubbens:** Enhancing efficiency based on a decade of experience with authentic oral fluid samples: novel extraction method & UHPLC/MS-MS analysis for simultaneous determination of 18 compounds
- O21. **Dimitri Gerostamoulos:** Crash Risk of Drugs in Injured Drivers in Victoria, Australia – an update
- O22. **Jasmine Maxwell:** 11 Year of review of 1,1-Difluoroethane in Driving Under the Influence (DUI) cases in toxicology and breath alcohol testing
- O23. **Jose Luiz Costa:** Clobenzorex in authentic oral fluid samples: method development and investigation of the abuse in a DUID context
- O24. **Karen Hayes:** Roadside Oral Fluid Drug Testing in Ireland – A 6 Year Review
- O25. **Franco Tagliaro:** Different degrees of association of carbohydrate deficient transferrin, mean corpuscular volume and gamma-glutamyltransferase with occurrences of alcohol-related road traffic crashes
- O26. **Sian Bevan:** Hair EtG testing in combination with measurements of PEth and EtG in blood to improve the assessment of alcohol consumption
- O27. **Wiebke Rudolph Allritz:** Driving under the influence of alcohol with BAC less than 0.5‰ – Do we miss the drugs of abuse?
- O28. **Peter Stockham:** High co-detection rates of gamma-hydroxybutyrate and methamphetamine in emergency department patients across Australia – Cause for concern?
- O29. **Andrea Steuer:** Urinary concentrations of GHB and its amino acid and carnitine conjugates following controlled GHB administration in humans

**16.50 - 18.20**

**S4 - Free Topics**

- O30. **Simon Elliot:** No laughing matter? – nitrous oxide use and detection in toxicology casework
- O31. **Meng Hu:** High resolution mass spectrometry based non-target screening and risk assessment of organic pollutants in surface water of the Hai River
- O32. **Arianna Giorgetti:** External contamination of hair by cannabis and “light cannabis” delivered by smoking and vaping: an *in vitro* preliminary study
- O33. **Islam Amin Larabi:** Assessing the reliability of hair testing as a direct indicator of substance abuse: Preliminary findings from the EHDAN (European Hair Drug Analysis Network) project in France
- O34. **Liesl Janssens:** Activity-based detection of hypoxia-induced factor (HIF) stabilizers: a future-proof complementing method in doping control?
- O35. **Marta Concheiro:** Pharmaceuticals and drugs of abuse in New York City rivers
- O36. **Henrique Silva Bombana:** Psychoactive substance use in Brazil: regional differences among four Brazilian regions
- O37. **Lenneert Borra:** Three postmortem cases of suspected ayahuasca intoxication: Identification and quantification of N,N-dimethyltryptamine and harmala alkaloids in postmortem human matrices
- O38. **Michael Scholz:** DUIS: Driving under the influence of sleepiness – first insights from the ME-SMART study

TUESDAY, AUGUST 29<sup>th</sup>

**8.50 - 10.00**

**S5 - Young Scientists - part 1**

- O39. **Josefine Herzog:** Stability of phosphatidylethanol in whole blood and dried blood spots
- O40. **Andre Luis Fabris:** A solvent-free parallel artificial liquid membrane extraction for toxicological analyses
- O41. **Jennifer Liut:** Preliminary evaluation of 4-palmitoyloxy butyrate as a potential biomarker after  $\gamma$ -hydroxybutyric acid ingestion
- O42. **Bilel Chefirat:** Interest of cholinesterases as predictive biomarker of schizophrenia
- O43. **Fabrizio Lo Faro, Anastasio Tini:** Development and validation of a quantitative LC-MS/MS method for the stereoisomers 9R- and 9S-hexahydrocannabinol in blood, oral fluid and urine: application to authentic human samples
- O44. **Giulia Bambagiotti, Maria Sofia Fede:** Hexahydrocannabinol (HHC) concentrations in blood, oral fluid and urine following a single controlled administration of 25 mg inhaled HHC to seven volunteers
- O45. **Martin Scheu:** Pharmacology of SCRA: how important is the effect of the side chain moiety?

**10.50 - 12.00**

**S6 - Young Scientists - part 2**

- O46. **Maria Cobo Golpe:** Usefulness of hair as a matrix for metabolome analysis – exemplified for amphetamine
- O47. **Elias Iturraspe:** Ethoxylated phosphorylcholine as a new marker for ethanol consumption: discovery and proof-of-concept
- O48. **Lucía Paniagua-González:** LC-MS/MS method for monitoring antiepileptic drugs in VAMS, and its application to pediatric patient samples
- O49. **Axelle Timmerman:** *In vitro* activity-based screening of seized plant materials for the presence of synthetic cannabinoid receptor agonists
- O50. **Aline Vollmer:** Extraction of amatoxins from human urine using immunoprecipitation and liquid chromatography high-resolution tandem mass spectrometry – A proof of concept study
- O51. **Steven Baginski:** Structure-Metabolism Relationships of 4-Pentenyl Synthetic Cannabinoid Receptor Agonists
- O52. **Beatrice Garneau:** Is methadone chronic use related to postmortem redistribution towards femoral blood?

**14.40 - 17.50**

**S7 - Live Poster Session from Young Scientists**

- LP1. **Christina Ververi:** Method development for the quantification of nitazenes in Dried Blood Spots utilizing liquid chromatography- tandem mass spectrometry
- LP2. **Muhammad Usman:** The threat of Amphetamine type stimulants (ATS) for the society of Pakistan: an analysis based on seizure data and seized illicit drug materials
- LP3. **Duygu Ye im Ovat:** Importance of including pregabalin screening in routine clinical and forensic drug testing to identify substance abusers avoiding legal consequences
- LP4. **Giorgia Sprega, Giorgi Kobidze:** Pharmacokinetic study of the enantiomers of methylone and its metabolites using enantioselective high performance liquid chromatography tandem mass spectrometry method
- LP5. **Xin Wang:** Toxicological investigation of 20 aconitine-induced deaths
- LP6. **Jade Mader:** Development, validation, and implementation of a multi-analyte drug panel using LC-MS/MS for forensic casework in Cape Town, South Africa

- LP7. **Serena Mestria:** Rapid and simple dispersive liquid-liquid microextraction sample preparation for propofol analysis in biological specimens
- LP8. **Nadia Arbouche:** Spiritual rituals and psychotropic drugs: ethno-toxicology applied to century-old specimens of ayahuasca, peyote and Mariani wine
- LP9. **Caitlyn Norman:** Evaluation of fentanyl immunoassay test strips for rapid in situ detection of fentanyl and fentanyl analogs in seized samples and alternative matrices
- LP10. **Duoqi Xu:** Pharmacokinetic study of estazolam in hair roots after controlled oral administration: Exploration of the mechanism of drug incorporation
- LP11. **Marta Massano:** Metabolic study of N-ethylhexedrone, N-Ethylpentedrone, and 4-Chloromethcathinone in urine samples by UHPLC-QTOF-HRMS
- LP12. **Nunzia La Maida:** Concentrations of clephedrone, N-ethyl Pentedrone and N-ethyl Hexedrone in oral fluid in humans analyzed by GC-MS/MS
- LP13. **Willi Schirmer:** Identification of hexahydrocannabinol metabolites
- LP14. **Shirley Verschoor:** Development and validation of a quantitative LC-MS/MS method to investigate the potential role of alternative matrices in postmortem toxicology
- LP15. **Natan Van Wichelen:** *In vitro* biotransformation of 3-methylmethcathinone (3-MMC) in human liver microsomes and correlation with the *in vivo* situation
- LP16. **Saba Jorbenadze:** Some technical aspects of enantioselective high-performance liquid chromatography tandem mass spectrometry
- LP17. **Tamar Kathiashvili:** Novel enantioselective high-performance liquid chromatography-tandem mass spectrometry method for simultaneous determination of methorpan and its O-demethylated metabolite in postmortem blood samples
- LP18. **Malin Johansson:** Identification and findings of hexahydrocannabinol (HHC) in oral fluid and its carboxy metabolite in urine samples
- LP19. **Omayema Taoussi, Aurora Balloni:** Etodesnitazene and metodesnitazene human metabolism
- LP20. **Angelica Ørregaard Lindholm:** Measuring Nitrous Oxide Abuse in Traffic Cases – Results from Copenhagen and Eastern Denmark
- LP21. **Matthias Bantle:** Lyso-Phosphatidylethanol: A new marker for alcohol consumption monitoring?
- LP22. **Annika Andersson:** Method development and validation for the chiral measurement of amphetamine enantiomers in oral fluid
- LP23. **Nadia Maria Porpiglia:** Comparison between ethyl glucuronide and cocaethylene in the hair of cocaine users
- LP24. **Theo Willeman:** Smartphones swabs analysis as a promising tool for toxico-epidemiology: a proof of concept study in nightclub
- LP25. **Catalina Dumitrascu:** Microplate liquid-liquid extraction: a rapid technique for routine analysis of phosphatidylethanol 16:0/18:1 in whole blood
- LP26. **Alexander San Nicolas:** Driving risk assessment in Indiana, United States of America: a 3-year retrospective analysis among drivers with cannabinoids in their whole blood
- LP27. **Giacomo Musile:** Paper-based microfluidic devices: novel and versatile tools for forensic toxicologists
- LP28. **Petra Hehet:** Results of a multi-site prevalence study on synthetic cannabinoid receptor agonists (SCRAs) in sewage systems: Correlation with hair analysis and seizure data
- LP29. **Margot Balcaen:** Severe, poly-drug intoxications involving 'Flakka': A compilation of Belgian case reports
- LP30. **Alessandro Di Giorgi, Gloria Daziani:** A green analytical method for the simultaneous determination of 17 perfluoroalkyl substances (PFAS) in plasma and semen by ultra performance liquid chromatography-tandem mass spectrometry (UPLC-MS/MS)

- LP31. **Maarten Degreef:** Are we focussing too much on new psychoactive substances? Lessons learned from the Belgian festival season
- LP32. **Alice Ameline:** Is mitragynine the best target to document kratom consumption? Identification of other alkaloids in hair or nails from two consumers



WEDNESDAY, AUGUST 30<sup>th</sup>

8.50 - 10.00

S8 - Advances in clinical and forensic toxicology

- O53. **Marine Deville:** Barbie Drug identification: not child's play
- O54. **Albert Elmsjö:** Postmortem Metabolomics Identifies Potential Biomarkers for Hypothermia-Related Deaths
- O55. **Madysen Elbourne:** Enhanced data analysis workflows for LC-HRMS used in forensic toxicology applications
- O56. **Elies Zarrouk:** Study of the metabolism and possible drug-drug interactions of the novel cathinone derivative 3-MMC combining three *in vitro* approaches
- O57. **Victoria Marland:** Detection and quantification of novel benzodiazepines in tablets, powders, blotters and infused materials from Scottish prisons
- O58. **Mira Sundstrom:** Simplifying drug screening workflow for clinical toxicology samples: dilute-and-shoot with high-resolution time-of-flight mass spectrometry applying a new, highly enhanced heated electrospray ionization technique
- O59. **Romain Magny:** Metabolomics-based investigation of a severe venlafaxine poisoning case

10.30 - 12.20

S9 - Advances in clinical and forensic toxicology and free topics

- O60. **Samantha Joubert:** Rapid and fully-automated analysis of 69 drugs of abuse and their metabolites in urine
- O61. **Svante Vikingsson:**  $\Delta^8$ -tetrahydrocannabinol – a prevalent drug in the workforce of the USA
- O62. **Tais Rodrigues:** A fast and straightforward method for simultaneous analysis of THC, its metabolites and other cannabinoids in human urine by packed in-tube SPME-LC-MS/MS
- O63. **Isabel Brueckner:**  $\alpha$ -Pyrrolidinohexanophenone ( $\alpha$ -PHP) and  $\alpha$ -Pyrrolidinoisohexanophenone ( $\alpha$ -PiHP): The party is going on
- O64. **Elod Hidvegi:** GC-MS markers in urine of N-ethyl-norpentedrone use
- O65. **Rukiye Aslan:** Comparison of the performance of laboratory-made solid phase microextraction (SPME) fibers for amphetamine-type stimulants determination
- O66. **Adeline Blanchot:** New approach to document cannabis toxicity during pregnancy: Histological and genetic identification of cannabinoid receptors in fetal tissues
- O67. **Dayong Lee:** Changing landscape of forensic toxicological analysis for cannabis-impaired driving investigation
- O68. **Jennifer Schumann:** Novel harm minimization measures at festival events in Australia: pilot implementation of the Emerging Drugs Network of Australia- Victoria (EDNAV) toxico-surveillance methodology
- O69. **Curt Harper:** A 12-Year Review of Fentanyl Identification in Overdose and Drug Related Driving Cases
- O70. **Hannes Schwelm:** 5-Methoxy-2-aminoindane: From NPS to an 'anti-binge drinking' drug?

THURSDAY, AUGUST 31<sup>st</sup>

8.00 - 9.30

S10 - Free Topics and Doping

- O71. **Nicolas Fabresse:** Adulterated dietary supplement: a common issue with serious consequences
- O72. **Jared Castle:** Identification of clobromazolam in emergency department intoxications and coronial casework in Victoria, Australia
- O73. **Xue Qin Ng:** Characterization of unknown LSD isomer and its metabolism using human liver microsomes and LC-QTOF-MS
- O74. **Jean Claude Alvarez:** First method to test roxadustat in hair and application to a chronically treated patient
- O75. **Cristina Sempio:** LC-MS/MS Quantification of  $\Delta 8$ -THC,  $\Delta 9$ -THC, THCV Isomers and Their Main Metabolites in Human Plasma
- O76. **Laurie Gheddar:** Testing for clomifene in keratinous matrices using LC-MS/MS in a doping case: interpretation of the results
- O77. **Maria Kristina Parr:** Analytical quality by design for multi-target analysis: supercritical fluid chromatography-MS/MS method development for doping control analysis
- O78. **Kathy Tou :** Complementary biomarker detection for nitrogenous bisphosphonate use in racehorses
- O79. **Lina Lucuta:** Detectability of oxandrolone, metandienone, clostebol and dehydrochloromethyltestosterone in urine after transdermal application

10.30 - 12.20

S11 - Postmortem toxicology

- O80. **Hongjuan Ma:** Simultaneous determination and postmortem distribution of paraquat and its metabolites in four paraquat poisoning death cases
- O81. **Dirk Wissenbach:** False positive MDA findings in HRMS-based screening of putrefied postmortem blood samples – Identification of the interfering compound as N-acetyltyramine
- O82. **Pai-shan Chen:** Monitoring multiple-class new psychoactive substances in metropolitan Taipei wastewater during the COVID-19 pandemic
- O83. **Craig Chatterton:** A review of over 1250 benzo-dope / fentanyl toxicity cases in Alberta, Canada
- O84. **Rogier van der Hulst:** Postmortem distribution of morphine and its metabolites in human remains after 13 weeks of burial
- O85. **Sarah Russell:** Eight cases involving colchicine in New Zealand since 2019
- O86. **Carlos Garcia-Caballero:** Deaths in prison: toxicological findings in a cohort of cases over two years in Madrid area (Spain)
- O87. **Yannick Wartmann:** Postmortem Metabolomics: Influence of time since death on the level of endogenous compounds. Necessary to be considered in metabolome study planning?
- O88. **Gustav Engvall:** Postmortem metabolomics of opioid intoxications and hangings
- O89. **Liam Ward:** Large-scale untargeted metabolomics in forensic postmortem investigations: a new tool for cause-of-death screening
- O90. **Bronwen Davies:** Methamphetamine and methaqualone in infant deaths: A case series from Cape Town, South Africa

**13:50 - 15:00**

**S12 – SIBioC: Latest updates in Laboratory Medicine**

- O91. **Federica Pigliasco:** A new LC-MS/MS method for the quantification of fenfluramine and cannabidiol in drug-resistant pediatric patients
- O92. **Francesca Di Gaudio:** Technical and health governance aspects of the External Quality Assessment Scheme for New Psychoactive Substances (NPS) molecular tests
- O93. **Viviana Izzo:** Therapeutic Drug Monitoring of opioids for pain management
- O94. **Jennifer Pascali:** Determination of persistent organic pollutants in human biological samples: the case of per- and polyfluoroalkyl substances
- O95. **Leila Gholamhazrat Hojat:** Effects of Ketamine on psychomotor, sensory, and cognitive functions relevant for driving
- O96. **Riccardo Addobbati:** An improved fast toxicological screening API LC-MS/MS method for forensic purposes
- O97. **Simona Zaami:** Challenges of Italian early warning system on New Psychoactive Substances
- O98. **Gabriele Napoletano:** Building bridges between clinical and forensic toxicology

## MONDAY AUGUST 28<sup>th</sup>

- P1. **Bruno Spinoso De Martinis:** Development and validation of a method for the determination of  $\Delta^9$ -tetrahydrocannabinol and cannabidiol in sweat samples using DPX-WAX disposable pipette tips
- P2. **Marie Deventer:** *In vitro* characterization of the pyrazole-carrying synthetic cannabinoid receptor agonist 5F-3,5-AB-PFUPPYCA and its structural analogs
- P3. **Humera Shafi Makhdoom:** Quantification of pheniramine in conventional and alternative specimens of chronic drug abusers
- P4. **Ester Schallmach:** Drug-facilitated sexual assault in Israel: A retrospective study from 2015 to 2022
- P5. **Aastha Sethi:** Toxicological analysis of pesticide poisoning cases in the state of Maharashtra: its importance for analyzing suicide prevention policy
- P6. **Maria A. Martinez, Bernardino Barcelo:** Recreational drug overdose involving 2C-B in a Emergency Department
- P7. **Pirkko Kriikku:** Fatal toxicity of amphetamine-type stimulants based on comparison between wastewater based epidemiology and poisoning deaths
- P8. **Yifeng Lan:** Ultrasensitive label-free fluorescence detection of Cathinone analogs based on functional aptamer-signal amplification technique
- P9. **Lana Brockbals:** Analytical considerations and data processing strategies for ion mobility-separated untargeted proteomics data in the context of time since death estimation
- P10. **Pauline Thiebot:** Internet recipes for high cannabis concentrated cakes
- P11. **Henrik Green:** *In vitro* metabolism of the emerging semi-synthetic cannabinoids hexahydrocannabinol, hexahydrocannabiphorol and their corresponding acetates
- P12. **Dongbo Fearn:** Developing a workflow for toxicology Screening of basic, neutral and acidic compounds using Ultra Performance Liquid Chromatography coupled with Quadrupole Time-of-flight Mass Spectrometry (UHPLC-QTOF-MS)
- P13. **Lana Brockbals:** Dried blood spots in routine sports drug testing - LC-MS/MS-based peptide analysis for sampling time point estimation
- P14. **Zhuoyi Wang:** Study on stability of remifentanyl, sufentanyl and their metabolites in biological samples
- P15. **Shihao Zhong:** How synthetic cannabinoids emerged in the Chinese market before the class-wide ban: A survey of their use from 2018 to 2021
- P16. **Kathrine Skov:** What's in the sample? Toxicological findings from drug-facilitated sexual assault cases in eastern Denmark from 2015–2022
- P17. **Jing Chang:** Fatal intoxications by anesthetic ointment put on back skin: report of two cases
- P18. **Mia Jane Abbott:** A retrospective analysis of trace detection data from an English prison
- P19. **Kenan Can Tok:** Analytical Method Development and Validation of Pregabalin and Gabapentin in Pharmaceutical, Biological, and Environmental Samples Using HPLC
- P20. **Chiara Palazzo:** Possible use of dried blood spots in prevention and control strategies of driving under the influence of psychoactive drugs by Italian Police Medical Officers
- P21. **MJ Menendez:** Xylazine, fentanyl and scheduling: the complicated landscape facing forensic toxicologists in the U.S.
- P22. **Pauline Griffeuille:** Less than 3 min for detection and quantification of 18 benzodiazepines and designer benzodiazepines using Probe ElectroSpray Ionization Tandem Mass Spectrometry (PESI-MS/MS)
- P23. **Sara Gagen:** The Importance of Using Historical Calibrations for Volatile Analysis

- P24. **Sumandeep Rana:** Underreported methamphetamine use in the United States by laboratories following Health and Human Services (HHS) reporting guidelines
- P25. **Valeria Catalani:** *In silico* studies on recreational drugs: 3D-QSAR prediction of classified and de novo designer benzodiazepines
- P26. **Natalia Bardoni:** What's new Buenos Aires (Argentina)? Strengths and weaknesses of a Latinamerican laboratory
- P27. **Amine Kerdoun:** Epidemiology of carbon monoxide acute poisoning in Algeria: a six-year single site retrospective study in Ouargla city
- P28. **Beatriz Aparecida Passos B. Paranhos:** Development of a green analytical toxicology method for the detection of ayahwasca active components in hair
- P29. **Lorenzo Cerutti:** Prozone effect (or hook effect) in urinary immunoenzymatic screening for tramadol: a case report
- P30. **Aya Matsusue:** Association between blood catecholamine concentrations and catechol-O-methyltransferase gene polymorphisms in forensic autopsy cases
- P31. **Leonardo Costalonga Rodrigues:** Evaluation of New Psychoactive Substances (NPS) toxicity using zebrafish (*Danio rerio*) model
- P32. **Jean-michel Gaulier:** A case study of post-mortem toxicological analyses in hair, nails, bone, and tissue fragments in skeletonized bodies
- P33. **Kristine Van Natta:** Tox Explorer Collection for Drugs of Abuse Screening and Quantitation
- P34. **Niclas Stephanson:** Method development and application of an enzymatic hydrolysis procedure for opioids glucuronides: evaluation of hydrolysis efficiency in urine using liquid chromatography - tandem mass spectrometry
- P35. **Paula Proença Cunha:** A retrospective analysis of data from cannabinoid forensic cases in the Centre of Portugal between 2020 and 2023
- P36. **Masayuki Kashiwagi:** An autopsy case of surfactant poisoning from detergent ingestion
- P37. **Cyrille Lambole:** Consolidating LC-MS/MS method conditions for the analysis of alcohol metabolites, barbiturates, and drugs of abuse
- P38. **Carla Monteiro:** The relevance of the analysis of volatile substances in a forensic clinical examination: a case report
- P39. **Barbora Walderova:** The effect of organic additives on solubility and photocatalytic degradation kinetics of 17 $\alpha$ -ethinylestradiol
- P40. **Sonia Zieba:** Uncertainty of postmortem time estimation based on potassium ion determination in vitreous humour using potentiometric ion-selective electrode and microwave-induced plasma with optical emission spectrometry methods
- P41. **Cuimei Liu:** Mass Fragmentation Characteristics of Ketamine Analogs
- P42. **Kanju Saka:** Development of criteria for selecting internal standards for quantifying flunitrazepam and 7-aminoflunitrazepam in putrefied blood samples
- P43. **Romain Pelletier:** Eutylone metabolism studies using complementary models: *in silico* / *in vivo* / *in vitro* approach, molecular networking and chemical characterization
- P44. **Soumia Tehami:** Addictive potential of pregabalin: *in vivo* study
- P45. **Emily Lee:** Analysis of Drug-infused Papers by ASAP-MS
- P46. **Marc Augsburger:** Potential misinterpretation of blood ethanol concentration in the presence of sevoflurane
- P47. **Sayaka Nagasawa:** Sensitive and rapid analysis of insulin analogs in the whole blood of corpses using HPLC-QTOF-MS
- P48. **Shimpei Watanabe:** *In vitro* metabolic profiling of the OXIZID synthetic cannabinoid BZO-4en-POXIZID

- P49. **Gunhild Heide:** Driving under the influence of cocaine and MDMA: Relationship between blood concentrations and results from clinical test of impairment
- P50. **Vassiliki Boumba:** Quantitative method for detecting drugs from multiple classes in human blood by scheduled MRM LC-MS/MS
- P51. **Sys Johansen:** Detection of scopolamine in urine and hair in a drug-facilitated sexual assault case
- P52. **Salomé Riess:** Hair analysis in two death cases involving 2-Fluoro-deschloroketamine (2F-DCK) and Deschloroketamine (DCK)
- P53. **Jingshu Guo:** Direct quantification of 77 toxicology and therapeutic drugs in dried blood spots using the fully automated Transcend DSX-1 system
- P54. **Luz Alejandra Castillo-Alanís:** Evaluation of the effect of malathion on the development of *Megaselia scalaris* larvae under different humidity and temperature conditions
- P55. **Ana Pego:** Impact of dry shampoo and gel treatments on *in-vitro* cocaine hair contamination
- P56. **Hana Walaska:** Isolation and characterization of several *Mitragyna* sp. alkaloids for subsequent HPLC-MS analysis of commercial kratom products
- P57. **Anna Carfora:** A 6-years retrospective analysis of drivers under the influence of alcohol (DUI) or drugs (DUID) in one of the most populous regions of Southern Italy (Campania)
- P58. **Younes Zebbiche:** Screening of abused drugs in environmental samples in cafeterias using GC-MS: New approach to drug addiction evaluation
- P59. **Sanae Djelad Kaddour:** Accidental pediatric cannabis poisoning in cases received at the toxicology department of Oran University Hospital, Algeria
- P60. **Bogdan Mălinescu:** Ingestion of solutions for washing windshields and windows - fatal cases
- P61. **Sara Abdennour:** Drug use trends in Algeria
- P62. **Salim Benamara:** Assessment of phthalate content in drinking water bottled in PET: A systematic review
- P63. **Steven Baginski:** The Metabolic Profile of the Synthetic Cannabinoid Receptor Agonist ADB-HEXINACA using Human Hepatocytes, LC-QTOF-MS and Synthesized Reference Standards
- P64. **Nawel Belabbaci:** Addictive behavior in schools in Oran: about five case reports
- P65. **Alice Nacke:** Forensic screening of toxic substances in biological samples using UHPLC-Orbitrap-MS/MS
- P66. **Aymeric Morla:** Targeted and non-targeted analysis of fentanyl analogs and their potential metabolites using LC-QTOF
- P67. **Salim Benamara:** Assessment of food additives used in gas carbonated beverages marketed in the Tlemcen region, Algeria
- P68. **Marco Biglietto:** Sensitivity improvement for the detection of steroid hormones and endocannabinoids in keratinized matrices
- P69. **Giacomo Musile:** A new approach for identifying the post-mortem formation of ethanol: development and validation of a salt-assisted HS-GC-FID method for the determination of ethanol in vitreous humor
- P70. **Charlotte Andersen:** Combined effects of methadone and quetiapine on respiratory rate, hemodynamic variables, and temperature in conscious rats
- P71. **Jose Luiz Costa:** Changes in the detected drugs of abuse profile of toxicological analyses from a Brazilian Poison Control Center (2021-2023)
- P72. **Camilla Montesano:** Study of metabolomic profile alterations in murine models following the administration of opioids by UHPLC-HRMS
- P73. **Anne Szewczyk:** Quantitative determination of cocaine-metabolites in hair – Establishing a new method via LC-MS/MS
- P74. **Yiping Hou:** Ketamine mediates anxiety and cognitive impairment by inhibiting the hippocampal CaMKII $\alpha$ -CREB signaling pathway

- P75. **Hong Zhu:** Determination of  $\Delta^9$ -tetrahydrocannabinol based on a label-free ratiometric fluorescence assay
- P76. **Gloria Daziani:** Identification of anamorelin metabolites using human hepatocyte incubations and high-resolution mass spectrometry
- P77. **Aurora Balloni:** *In vitro* human metabolism of IOX2, a hypoxia-inducible factor (HIF) activating agent and prohibited substance in sport
- P78. **Fabian Frankenfeld:** Quantification of drugs of abuse, cognitive enhancers, and their biomarkers in wastewater of a university hospital – A comparative study



## TUESDAY AUGUST 29<sup>th</sup>

- LP1. **Christina Ververi:** Method development for the quantification of nitazenes in Dried Blood Spots utilizing liquid chromatography- tandem mass spectrometry
- LP2. **Muhammad Usman:** The threat of Amphetamine type stimulants (ATS) for the society of Pakistan: an analysis based on seizure data and seized illicit drug materials
- LP3. **Duygu Ye im Ovat:** Importance of including pregabalin screening in routine clinical and forensic drug testing to identify substance abusers avoiding legal consequences
- LP4. **Giorgia Sprega, Giorgi Kobidze:** Pharmacokinetic study of the enantiomers of methylene and its metabolites using enantioselective high performance liquid chromatography tandem mass spectrometry method
- LP5. **Xin Wang:** Toxicological investigation of 20 aconitine-induced deaths
- LP6. **Jade Mader:** Development, validation, and implementation of a multi-analyte drug panel using LC-MS/MS for forensic casework in Cape Town, South Africa
- LP7. **Serena Mestria:** Rapid and simple dispersive liquid-liquid microextraction sample preparation for propofol analysis in biological specimens
- LP8. **Nadia Arbouche:** Spiritual rituals and psychotropic drugs: ethno-toxicology applied to century-old specimens of ayahuasca, peyote and Mariani wine
- LP9. **Caitlyn Norman:** Evaluation of fentanyl immunoassay test strips for rapid *in situ* detection of fentanyl and fentanyl analogs in seized samples and alternative matrices
- LP10. **Duoqi Xu:** Pharmacokinetic study of estazolam in hair roots after controlled oral administration: Exploration of the mechanism of drug incorporation
- LP11. **Marta Massano:** Metabolic study of N-ethylhexedrone, N-Ethylpentadron, and 4-Chloromethcathinone in urine samples by UHPLC-QTOF-HRMS
- LP12. **Nunzia La Maida:** Concentrations of cephedrone, N-ethyl Pentadron and N-ethyl Hexedron in oral fluid in humans analyzed by GC-MS/MS
- LP13. **Willi Schirmer:** Identification of hexahydrocannabinol metabolites
- LP14. **Shirley Verschoor:** Development and validation of a quantitative LC-MS/MS method to investigate the potential role of alternative matrices in postmortem toxicology
- LP15. **Natan Van Wichelen:** *In vitro* biotransformation of 3-methylmethcathinone (3-MMC) in human liver microsomes and correlation with the *in vivo* situation
- LP16. **Saba Jorbenadze:** Some technical aspects of enantioselective high-performance liquid chromatography tandem mass spectrometry
- LP17. **Tamar Kathiashvili:** Novel enantioselective high-performance liquid chromatography-tandem mass spectrometry method for simultaneous determination of methorphan and its O-demethylated metabolite in postmortem blood samples

- LP18. **Malin Johansson:** Identification and findings of hexahydrocannabinol (HHC) in oral fluid and its carboxy metabolite in urine samples
- LP19. **Omayema Taoussi, Aurora Balloni:** Etodesnitazene and metodesnitazene human metabolism
- LP20. **Angelica Ørregaard Lindholm:** Measuring Nitrous Oxide Abuse in Traffic Cases – Results from Copenhagen and Eastern Denmark
- LP21. **Matthias Bantle:** Lyso-Phosphatidylethanol: A new marker for alcohol consumption monitoring?
- LP22. **Annika Andersson:** Method development and validation for the chiral measurement of amphetamine enantiomers in oral fluid
- LP23. **Nadia Maria Porpiglia:** Comparison between ethyl glucuronide and cocaethylene in the hair of cocaine users
- LP24. **Theo Willeman:** Smartphones swabs analysis as a promising tool for toxico-epidemiology: a proof of concept study in nightclub
- LP25. **Catalina Dumitrascu:** Microplate liquid-liquid extraction: a rapid technique for routine analysis of phosphatidylethanol 16:0/18:1 in whole blood
- LP26. **Alexander San Nicolas:** Driving risk assessment in Indiana, United States of America: a 3-year retrospective analysis among drivers with cannabinoids in their whole blood
- LP27. **Giacomo Musile:** Paper-based microfluidic devices: novel and versatile tools for forensic toxicologists
- LP28. **Petra Hehet:** Results of a multi-site prevalence study on synthetic cannabinoid receptor agonists (SCRAs) in sewage systems: Correlation with hair analysis and seizure data
- LP29. **Margot Balcaen:** Severe, poly-drug intoxications involving 'Flakka': A compilation of Belgian case reports
- LP30. **Alessandro Di Giorgi, Gloria Daziani:** A green analytical method for the simultaneous determination of 17 perfluoroalkyl substances (PFAS) in plasma and semen by ultra performance liquid chromatography-tandem mass spectrometry (UPLC-MS/MS)
- LP31. **Maarten Degreef:** Are we focussing too much on new psychoactive substances? Lessons learned from the Belgian festival season
- LP32. **Alice Ameline:** Is mitragynine the best target to document kratom consumption? Identification of other alkaloids in hair or nails from two consumers
- P79. **Mark Tyler:** Chemsex-related deaths: toxicology data (2017 – 2022)
- P80. **Aaron Shapiro:** Formation of a pan-Canadian toxicology laboratory response network for NPS surveillance
- P81. **Piotr Adamowicz:** Drugs detection in fingerprints
- P82. **Lata Gautam:** Drink spiking: social issues and scientific challenges
- P83. **Thomas Berg:** A precise and accurate LC-MS/MS method for determination of six phosphatidylethanol homologues in blood
- P84. **Margot Balcaen:** Concern for fentanyl-laced heroin negated through the RADAR-heroin-23 project
- P85. **Lana Bakuli :** Carbofuran quantification-A fatal intoxication with carbamate insecticide carbofuran
- P86. **Luis Ferrari:** Evaluation of cocaine use as a factor in recidivism among offenders on probation
- P87. **Aslı Atasoy Aydin:** *In vitro* cytotoxicity and identification of phase I metabolites of 5F-NPB-22 using human liver cell line
- P88. **Gabriela de Paula Meirelles:** Development of a Green Analytical Toxicology analytical method for the evaluation of maternal-fetal exposure to cocaine in umbilical cord tissue
- P89. **Rafael Linden:** Determination of ethyl-glucuronide and ethyl-sulfate in blood by UPLC-MS/MS: evaluation of trauma victims
- P90. **Kamran Shahzad:** A case study of chlorpyrifos poisoning and identification by GC-MS
- P91. **Jing Chang:** Two fatal intoxications by anesthetic ointment applied to skin on the back
- P92. **Heejung Kim:** Poison Trends in Korean Autopsies in the Last 5 Years

- P93. **Karla Aparecida Souza de Oliveira:** Optimization of micro-QuEChERS extraction for quantification of designer benzodiazepines in postmortem blood samples
- P94. **Courtney Patterson:** Quantitation of 106 drugs in urine using a fast, 7-minute method with high resolution mass spectrometry
- P95. **Marta Massano:** The importance of the matrix effect in multi-analyte screening protocols
- P96. **Rie Tanaka:** Identification of tetrahydrocannabinol (THC) analogs in oil products distributed on the internet in Japan
- P97. **Tatjana Vujic:** Is the molecular content of extracellular vesicles reflecting their parent cells after morphine exposure? A multi-omic study
- P98. **Wiebke Rudolph Allritz:** Is disulfiram the cause of a psychotic reaction in a case of rape and murder?
- P99. **Romain Pelletier:** Impact of N-acetylcysteine interference on circulating creatinine in acetaminophen intoxication: Evaluation and management
- P100. **Silviya Stoykova:** Profiling of drugged drivers in Bulgaria: Data from expert results between 2012 and 2021
- P101. **Karolina Sekula:** Analysis of fragmentation pathways of fentanyl derivatives by electrospray ionisation high-resolution mass spectrometry
- P102. **Vasil Atanasov:** Adipose tissue as an alternative specimen in postmortem analysis of lipophilic drugs
- P103. **Hyeon Jegal:** Metabolite identification using human liver microsomes and application to new psychoactive substances analysis in biological samples
- P104. **Jane Cooper:** Analysis of carboxy-THC using UPLC-MS/MS
- P105. **Marta Concheiro:** Determination of Cannabidiol Metabolites in Umbilical Cord to Detect Cannabidiol Use During Pregnancy
- P106. **Younes Zebbiche:** Poisonous Beauty: Unveiling the Dangers of Lead-Infused Cosmetics in a Rare Case of Acute Lead Poisoning
- P107. **Gaia Iaquina:** Exploring cerebrospinal fluid: a pilot study on collection protocols and forensic toxicological implications
- P108. **Natalie Paškanová:** Development of Enantioseparation of Methoxphenidine and Its Metabolite From Wistar Rat Serum by Supercritical Fluid Chromatography
- P109. **Fabio Vaino:** Traces of the invisible: ancient DNA and biomarkers from the Paleolithic sediments of Landro cave (Veneto) – part I
- P110. **Nesrine Abouejal:** Evaluation of phthalate levels in Algerian population
- P111. **Brunet Bertrand:** 7 years in the life of a designer drug user
- P112. **Gys Celine:** Building a forensic GC-MS/MS MRM database
- P113. **Pierre Negri:** Leveraging sensitivity improvements for low-level detection of drugs, metabolites, and endogenous hormones in complex biological matrices
- P114. **Nesrine Abouejal:** Assessment of vitamin C levels in smokers
- P115. **Ludmila Komorousová:** Determination of selective androgen receptor modulators (SARMs) in dietary supplements by HPLC-MSD iQ, Infrared and Raman spectroscopy
- P116. **Helena Fels:** Stability of research chemicals in urine during storage
- P117. **Viktor Vorisek:** The Application of UHPLC/HRMS to the Determination of Coumarin and p-Coumaric acid in Honey Samples
- P118. **Alejandra Quijano:** Evaluation of the effect of clonazepam and its metabolites on the life cycle of *Megaselia scalaris*
- P119. **Khaoula Kouloughli:** Prevalence and Patterns of Polydrug Use among Drug Users Seeking Treatment in Setif, Eastern Algeria

- P120. **Ioannis Papoutsis:** Determination of  $\Delta^9$ -tetrahydrocannabinol, 11-nor-9-carboxy- $\Delta^9$ -THC and cannabidiol in human plasma and urine after CBD oil product intake
- P121. **Flaminia Vincenti:** Mobile Mass Spectrometry Laboratory: From drug screening to confirmation on-site
- P122. **Nerea Picazas Márquez, Tamara Khazooz:** The needle spiking crisis in the spanish east coast: a restrospective study
- P123. **Wojciech Lechowicz:** Determination of argon in whole blood - a simple approach
- P124. **Linchuan Liao:** An untargeted metabolomics study of plasma and different brain regions in ketamine-addicted rats
- P125. **Martin Scheu:** Acute intoxication of an adolescent with quetiapine after suicide attempt: A case report
- P126. **Ceren Bozmaoglu:** Evaluation of Dilute-and-Shoot and Liquid-Phase Extraction Methods for the Analysis of Buprenorphine/Naloxone Combination Used in the Treatment of Opioid Addiction
- P127. **Zhiwen Wei:** Development of a LC-MS/MS method for determination methcathinone in hair
- P128. **Giulio Mannocchi:** Application of Comedical M3 digestion buffer for hair EtG analysis and method optimization by ACQUITY UPLC I-Class PLUS System coupled to Xevo TQ Absolute Triple Quadrupole Mass Spectrometry



### WEDNESDAY AUGUST 30<sup>th</sup>

- P129. **Keming Yun:** Study on the forensic toxicokinetics of poisoning biomarkers in China
- P130. **Ping Xiang:** *In vitro* and *in vivo* metabolism of 3-MeO-PCE in human liver microsomes, a zebrafish model, and in two human urine samples by liquid chromatography–high resolution mass spectrometry
- P131. **Alexandr Gish:** A case of repeated Ayahuasca consumption documented by hair and nail analysis
- P132. **Martin Juebner:** Blood methanol concentrations after ingestion of large amounts of pears and its impact on the assessments of congener analyses
- P133. **Francesco Pozzebon:** DUI recidivism: medico-legal and toxicological predicting factors
- P134. **Vincenzo Abbate:** Disposition of mephedrone in the human following nasal insufflation: analysis of conventional and alternative matrices
- P135. **Frederic Aknouche:** Tested positive for cocaine after consuming tea and sweets
- P136. **Lisa Davis:** Fentanyl in urinary workplace drug testing – a US perspective
- P137. **Lingxiao Wang, Keming Yun:** Postmortem alcohol exposure leads to production of EtG and EtS in Bama minipigs
- P138. **Gudrun Høiseth:** Which consumption of ethanol is related to different levels of PEth?
- P139. **Yuping Lu, Keming Yun:** Study on the stability of EtG and EtS in dried blood spots preserved at different temperatures
- P140. **Manuela Carla Monti:** Method comparison for the analysis of drugs of abuse handed in at Swiss drug checking services
- P141. **Stefania Oliverio:** “To be or not to be CO poisoned?” – Approaches to answer this and other queries in CO poisoning diagnoses
- P142. **Mattias Persson:** Spice 2.0? *In vitro* activation of the CB1 receptor by the semi-synthetic cannabinoids hexahydrocannabinol (HHC) and hexahydrocannabiphorol (HHC-P)
- P143. **Pascal Houzé:** First reported human toxicokinetics of deschloro-N-ethylketamine (O-PCE) in a poly-drug user
- P144. **Florian Pitterl:** Detection of hexahydrocannabinol and its putative metabolites in human blood and urine samples by non-target liquid chromatography-high resolution mass spectrometry
- P145. **Barry Logan:** Quetiapine - An Unexpected Toxic Adulterant in the Illicit Drug Supply

- P146. **Sebastian Rojek:** Analytical and interpretative problems due to the presence of chloromethcathinone isomers in biological material from postmortem cases
- P147. **Lingyu Liu:** Human skin cells as an *in vitro* model for metabolism of anabolic steroids
- P148. **Teemu Gunnar:** Analysis of used syringes of injecting drug users: 6 years of experience with the approach in Finland
- P149. **Morcos Athina:** Volumetric Absorptive Microsampling (VAMS) as a potential tool for postmortem toxicological screening on various biological matrices
- P150. **Emanuele Ceccon, Jamie York:** One Column One Setup Consolidating LC-MS/MS Method Conditions for the Analysis of Alcohol Metabolites, Barbiturates, and Drugs of Abuse
- P151. **Laura Franke:** Evaluation of Screening Methods for Urine Adulteration by Synthetic Urine
- P152. **Linda Glowacki:** Identification of delta-8-tetrahydrocannabinol in drugs and driving cases – implications for forensic casework
- P153. **Zhe Chen, Keming Yun:** A graphene oxide-aptamer nanosystem for fluorescent detection of ketamine in blood and urine samples
- P154. **Suzana Fonseca:** Development and validation of a multi-substance method for routine analysis of pesticides in post-mortem samples by UPLC-MS/MS
- P155. **Akihiro Nakauchi:** High resolution and high precision analysis of barbiturates and a metabolite in human body fluids using a Monolithic SPE SpinTip and UPLC-Q-ToF-MS
- P156. **Samar Alzeer:** Mercury and Arsenic levels in whole blood of children diagnosed with autism spectrum disorder (ASD), their siblings and unrelated controls
- P157. **Nebile Daglioglu:** Postmortem heroin redistribution with and without fentanyl contamination or adulteration
- P158. **Rafael Linden:** A micro-QuEChERS procedure for the simultaneous determination of amphetamines, opiates and cocaine and metabolites in capillary plasma microsamples using UHPLC-MS/MS
- P159. **Cristian Palmiere:** Consumption patterns of psychotropic substances in individuals undergoing fitness-to-drive medical assessment: investigating designer benzodiazepines use
- P160. **Brian Waters:** Separation of Barbiturates by Fast GC-MS/MS and Tandem Columns
- P161. **Ilung Seol:** A fatal case of potassium gold cyanide poisoning
- P162. **Ivo Ivanov:** Analysis of seized herbal mixtures containing synthetic cannabinoids in Bulgaria during the last 5 years
- P163. **Shahid Ullah:** Analysis of drugs of abuse in oral fluid by liquid chromatography triple quadrupole mass spectrometry
- P164. **Marianne Skov-Skov Bergh:** Metabolite markers for the three synthetic tryptamines N-ethyl-N-propyltryptamine, 4-hydroxy-N-ethyl-N-propyltryptamine, and 5-methoxy-N-ethyl-N-propyltryptamine
- P165. **Xinxin Ren:** LC-MS/MS analysis of antipyretic analgesics in human blood using isotope internal standard and application to forensic cases
- P166. **Kenji Kuwayama:** Influence of temperature, humidity, light, and soil on drug stability in hair: applicability of drug-distribution measurement using micro-segmental analysis to the hair of dead bodies left in natural environments
- P167. **Gaelle Magliocco:** Is vortioxetine subject to post-mortem redistribution?
- P168. **Bernardino Barcelò:** Demographic and toxicological profiles of high-risk methylene users admitted to the Emergency Services
- P169. **Eirin Bakke:** Enantiomer specific analysis of amphetamine in blood, urine and oral fluid
- P170. **Audrey Beauchamp Doré:** On-site drug detection coasters to assess drink safety: a false sense of security"
- P171. **Nayan Mistry:** Comparison of data-independent and data-dependent techniques for forensic toxicology screening analysis

- P172. **Heejung Kim:** Distribution and incidence of toxic azaleas with grayanotoxins in Korea
- P173. **Keiko Tonooka-Kubota:** Sensitive liquid chromatography/tandem mass spectrometry method for the simultaneous analysis of beta blockers and their metabolites from serum and urine
- P174. **Martin Juebner:** Optimization of Enzymatic Cleavage of Opiates by  $\beta$ -Glucuronidase in Serum
- P175. **Mehmet Gumustas:** Therapeutic Drug Monitoring: A bioanalytical method for naltrexone and major metabolite
- P176. **Rony Costa:** Brazilian pilot database of postmortem toxicological criminal information (ToxCrim system)
- P177. **Isadora Locilento Denkena:** Development and validation of a LC-MS/MS method for quantification of 30 substances in urine in DFSA cases
- P178. **Petra Cihlarova:** The UHPLC-MS/MS determination of ligandrol in food supplements
- P179. **María José Burgueño Arjona:** Analysis of propofol glucuronide in blood, urine, and hair by LC-MS/MS: application in a postmortem case of polydrug use
- P180. **Atika Bendjamaa:** Volatile compounds screening method in human blood by HS-GC-FID: Application in forensic toxicology to discriminate an antemortem consumption from postmortem formation of ethanol
- P181. **Atika Bendjamaa:** Drug misuse and psychiatric comorbidity: a descriptive study in the addictology department of the psychiatric hospital of Oran
- P182. **Seul Ku:** Validation of four synthetic cannabinoids and their metabolites in human urine and hair using LC-MS/MS
- P183. **Cristina Calvetti:** A screening method for ketamine in hair: validation and real samples
- P184. **Teresa Soriano:** A fatal intoxication involving troparil and pagoclone
- P185. **Alessandro Vallone:** An 8 week review of post-mortem cases analysed on the Randox Evidence MultiSTAT
- P186. **Sanae Kanno:** G0/G1 cell cycle arrest via Cdc6 depletion by benzalkonium chloride- and cetylpyridinium chloride-triggered plasma membrane damage in human lung epithelial cells
- P187. **Anne-Laure Pelissier-Alicot:** Postmortem GHB endogenous production with regard to the putrefaction degree
- P188. **Lucie Jane ková:** Tryptamine alkaloids in extensive collection of psychotropic mushrooms
- P189. **Rachida Saadi:** Cardiovascular toxicity of cannabis in young adult users: A metanalysis
- P190. **Alberto Chighine:** Fatal acute intoxication after snorting cocaine and fluoxetine
- P191. **Beata Bystrowska:** Metabolic evaluation of U-47700 a synthetic opioid *in vitro* and *in vivo* methods
- P192. **Carlos Espinoza Cruz:** R Shiny application for detection of outliers in blood alcohol concentration determination assays
- P193. **Wing Sze Janesse Hui:** Gamma-Hydroxybutyrate Overdose: A retrospective analysis of fatalities in Hong Kong, 2015-2022
- P194. **Simona Nicotera:** Two case reports of 3-MMC in fatal multi drugs intoxication in Rome: analysis of different biological matrices and post-mortem evaluations
- P195. **Yamoun Assia:** Immunoassay versus gas chromatography-mass spectrometry for urine screening of  $\Delta^9$ -carboxy-tetrahydrocannabinol
- P196. **Tiago Franco de Oliveira:** A validated streamlined LC-MS/MS urine screening for a comprehensive analysis of illicit drugs and medicines
- P197. **Ioannis Papoutsis:** Determination of indirect heroin biomarkers in biological samples of heroin users
- P198. **Bronwen Davies:** Fire deaths in Cape Town, South Africa: A retrospective review of medico-legal and toxicological findings (2006 – 2018)
- P199. **Marco Ballotari:** Determination of fentanyl and fentanyl analogs in hair samples from post-mortem cases
- P200. **Tao McQuade:** Development of a liquid chromatography mass spectrometry method for the determination of tryptamines in whole blood
- P201. **Rossella Barone:** Detection of New Psychoactive Substances in hair samples by UHPLC-MS/MS: method validation and application to real samples

- P202. **Prince Sellase Gameli:** NPS in Africa: Data! Data!! Data!!! You cannot make bricks without clay
- P203. **Kirsten Wiese Simonsen:** The incidence of psychoactive substances and alcohol among impaired drivers in Denmark in 2015-2019
- P204. **Christina Ververi:** Development of a reference measurement procedure for the quantification of Phosphatidylethanol (PEth) 16:0/18:1 in whole blood by Ultra High Performance Liquid Chromatography–Tandem Mass Spectrometry (UHPLC-MS/MS)
- P205. **Maya Tepperberg:** Trends and changes in the drugs market in Israel between 2017-2022



#### THURSDAY AUGUST 31<sup>st</sup>

- P206. **Bruno Spinosa de Martinis:** Cocaine trafficking in asphalt material: an unusual report of cocaine in seized drugs
- P207. **Paul Jannetto:** Clinical utility of ethylglucuronide and phosphatidylethanol testing in transplant patients
- P208. **Jing Chang:** Colchicine poisoning: report of four fatal cases with clinical data and post-mortem samples analysis
- P209. **Jing Chang:** Toxicology analysis and DNA tests were used to characterize drug-related behavior for cigarette butts
- P210. **Maiko Kusano:** Time profile of serum diquat and its metabolites concentrations in a fatal poisoning case
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