29th Scientific Meeting of the SoHT

June 4 - 6, 2025







Meeting Program

Wednesday 4th June 2025

14h00 - 17h00

Board Meeting

17h30 - 20h00

Registration

18h00 - 21h00

Welcome Reception

Thursday 5th June 2025

08h30 - 09h00

Registration

08h45 - 09h00

Opening Ceremony & Welcome Addresses

09h00 - 09h45

Invited Lecture

Advances & Future Perspectives in Hair Testing

Professor Dimitri Gerostamoulos

- Department of Forensic Medicine, Monash University & Victorian Institute of Forensic Medicine, Victoria, Australia.
- Past President of The International Association of Forensic Toxicologists TIAFT

09h45 - 10h00

Major Challenges in Hair Testing

Use the QR code provided to anonymously submit your opinion on the three major challenges in hair testing

10h00 - 11h00

Session 1: Oral Presentations

O1. False-positive EtG immunoassay screening after exposure to aliphatic alcohols. LC-HRAM-Orbitrap-MS detection of C1-C6 EtG homologs in urine, chest and pubic hair samples

Camilla Vigato, Flavio Zancanaro, Novella Ghezzo, Giampietro Frison

- **O2.THC-COOH levels in hair as biomarker of chronic cannabis use, and correlation with self-reported extent of use** *Vevelstad, M, Olsen, LH, Fosen, JT, Øiestad, ÅML, Krpo, M, Gudrun Høiseth*
- O3. Exploring the potential of steroid and endocannabinoid analysis in hair for assessing long-term stress exposure in various clinical settings

<u>Clarissa D. Voeqel</u>, Lilian von Werd, Stefan Yu Bögli, Bea Latal, Emanuela Keller, Boris B. Quednow, Melanie Ehrler, Thomas Kraemer, Tina M. Binz

O4. Comparative Analysis of Tenofovir and Emtricitabine in Hair: Manual Hand Cutting Versus Pulverization Techniques

<u>Hideaki Okochi</u>, Leenie Chen, Alexander Louie, Leslie Z. Benet, and Monica Gandhi

O5. Challenges in the Interpretation of Isolated THC-COOH Detection in Hair: Forensic and Clinical Implications

Maria del Mar Ramirez Fernandez, Vincent di Fazio, Vincent Cirimele, Werner Jacobs, Sarah M.R. Wille

11h00 - 11h45

Coffee Break 1

11h45 - 13h00

Sponsor Presentation

O6. Optimised and Efficient SPE Workflow for Low Level Detection of the Alcohol Marker EtG in Hair via UPLC-MS/MS Analysis

Lee Williams, Zainab Khan, Lucy Richards, <u>Thomas Smith</u>, Adam Senior, Helen Lodder, Russell Parry, Geoff Davies, Alan Edgington, Charlotte Hayes, Claire Desbrow & Dan Menasco.

Session 2: Oral Presentations

O7. Influence of different washing hair procedures in the quantitative determination of THC and THCCOOH

<u>Valentina Martini</u>, Simone Cozzolino, Cristiana Stramesi, Claudia Vignali, Stefania Ortu, Paolo Franceschini, Ilaria Baudone, Gianfranco Petricciani, Isa Mavi Sbarbaro, Cinzia Corsini, Paolo Bucchioni, Luca Morini

O8. Hair analysis of new psychoactive substances: investigating reporting thresholds and metabolite detection challenges

Hooi Yan Moy, Siti Aisyah Jamil

O9. Hair analysis by high-resolution mass spectrometry for NPS detection: focusing on fragmentation profiling and metabolic pathway prediction. Data processing strategies

José Manuel Matey, Luis Manuel Menéndez-Quintanal, Sergio Velazquez Romanos, Begoña Bravo Serrano

O10.Evaluation of the oxidative melanin markers PTCA and PTeCA in hair: LC-MS/MS method development and application in authentic hair samples

Christoph Leu, Thomas Kraemer, Tina M. Binz

O11. Sleeping your way through success: Drug-facilitated crime in the workplace

<u>Salomé Riess</u>, Aurélie Muckensturm; Ruben Goncalves; Olivier Roussel; Marjorie Chèze; Vincent Cirimele

13h00 - 14h30

Lunch Break 1

14h30 - 15h30

Session 3: Oral Presentations

O12. Development of a rapid method for PFAS determination in human hair

Justin Allen, Ashef Ameer, Teeshavi Acosta, Marta Concheiro, Ana Miguel Fonseca Pego.

O13. Chemical carcinogens in children living in Luxembourg

<u>Franco Catuogno</u>, Alba Iglesias-Gonzáleza, Brice M. R. Appenzeller

O14. Comprehensive analysis, comprehensive understanding: the benefit of widening the scope to uncover the complexity of human chemical exposome and tailor personalized risk assessment

Alba Iglesias-Gonzalez & Brice MR Appenzeller

O15.Influence of parental socioeconomic status on children's chemical exposure disparities: The role of professional occupation in Luxembourg using hair analysis

Alba Iglesias-González, Paul Palazzi, Franco Catuogno, Brice M.R. Appenzeller

O16.Influence of permanent chemical straightening on the interpretation of endogenous GHB and alprazolam hair results

Miriam Blanco-Ces, Ana de-Castro-Ríos, Angelines Cruz, Ángela López-Rabuñal, María Cobo-Golpe, Manuel López-Rivadulla, <u>Elena Lendoiro</u>

16h00 - 17h00

Session 4: Oral Presentations

O17.Evaluation of PTeCA (1-H-pyrrole-2,3,4,5-tetracarboxylic acid) in in vivo and in vitro hair matrix as a marker of oxidative cosmetic treatment

S. Casati, A. Ravelli, R. F. Bergamaschi, A. Magliocco, M. Orioli2, G.Roda, A. Battistini

O18. Evaluating the Presence of Dehydronorketamine in the Hair as a Marker for Ketamine Use

Zhang HuiFen Hannah, Yong Ching Yee Christy, Chan Si Jia, Moy Hooi Yan, Lui Chi Pang

O19. Hair Analysis in Psychiatric Patients

Donata Favretto, Clara Cestonaro, Alice Costantini

O20. Analysis of Drugs of Abuse and Contaminants in Individuals Under Drug Surveillance Programs: A Study in Hair Samples

<u>A.Y. Simão</u>, P. Y. Tokuyama, G. Zampieri, V. Rocha, C. Madruga, K. Isicawa, L. S. Cidade, K. R. Almeida, N. R. da Silva, M. Barroso, M. Andraus, E. Gallardo

O21.Metabolomic Analysis of Hair from Heroin and Methamphetamine Users

Zhang Wenji, Xia Xinxin, Zhang ting

19h00 - 22h30

Gala Dinner at The Royal Society

Posters Presentations

Authors should be available next to poster for questions for a minimum of 30 minutes on:

June 6th Coffee Break 1

P1. Comparison of a semi-quantitative immunoenzymatic method and confirmation LC-MS/MS method for the extraction of the EtG from hair

Giulia Pagano, <u>Giulia Stocchero</u>, Antonio Cambria, Cambria Antonio, Giovanni Michele Marchio, Flora Donini1, Francesco Ingenito, Lucia Bertoldi, Cristiana Fait, Lucia Pecoraro, Adriano Anesi, Alberto Salomone, Donata Favretto

P2. Hair of the herd: cattle hair as a sentinel for human exposure to pesticides

<u>Ashna Lallmahomed</u>, Christine Monfort, François Beaudeau, Laura Le Martelot, Justine Kergavarat, Fabien Mercier, Cécile Chevrier, Arthur David

P3. Analysis of D9-tetrahydrocannabinol, cannabidiol, cannabinol and 11-nor-D9-tetrahydrocannabinol-9-carboxylic acid in hair by LC-MS/MS: combination of MRM and MS3 modes

<u>Burqueño, M José</u>; Ayuso-Tejedor, Sara; Quintela, Oscar; Bueno, José R; Baeza, Irene; Megía, Carmen; Díaz, Rocío; Bravo, Begoña.

P4. The Detection of $\Delta 9$ -THC, $\Delta 8$ -THC, $\Delta 10$ -THC and CBD in Keratinized Specimens

Amy Racines, Katie Lea, Donna Coy, Joseph Jones, <u>Mary Jones</u>

P5. Method Development Strategies for Low Level Detection of EtG in Hair Using UPLC-MS/MS Analysis

Lee Williams, <u>Zainab Khan</u>, Lucy Richards, Thomas Smith, Adam Senior, Helen Lodder, Russell Parry, Geoff Davies, Alan Edgington, Charlotte Hayes, Claire Desbrow & Dan Menasco.

June 5th Lunch Break 1

P6. Hair analysis as the sole method to confirm methamphetamine use in a stroke-related death case Serena Mestria, Giulia Biosa, Sara Odoardi, Chiara Capriotti, Valeria Valentini, Sabina Strano Rossi

P7. Evaluation of Methadone (MD) to 2-Ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP) Ratio Variation in Segmental Head Hair Analysis in Family Law Cases

Eleanor I Mille¹, Peter D Maskell, David Nicholson and Vincent Cirimele

P8. Only One Step: A Novel Refrigerator-Cooled Homogenization Protocol Enhancing Efficiency and Robustness in Hair Drug Testing

Ping Xiang, Hang Chen, Xin Wang

P9. Quantitative Analysis of Cannabinoids in Hair Using Liquid-Liquid Extraction and LC-MS/MS

Mónica Antunes, Susana Simões, Suzana Fonseca, João Franco, Eugenia Gallardo, Mário Barroso

P10. Development and validation of UHPLC-MS/MS method for the quantification of 12 nitazenes, brorphine, fentanyl, xylazine and 4- hydroxy-xylazine in hair

Marta Massano, Consuelo Bridda, Enrico Gerace, Alberto Salomone

June 5th Coffee Break 2

P11. Comprehensive Evaluation of Cocaine and its Hydroxy Metabolites in Seized Cocaine and a Large Cohort of Hair Samples

<u>Milena M. Madry</u>, Teresa Denifle, Markus R. Baumgartner, Christian Bogdal, Thomas Kraemer, Tina M. Binz

P12. Retrospective Analysis of Hair Samples Positive for Drugs in Pakistan

<u>Humera Shafi Makhdoom</u>, Zeerak Abbas, Nadeem Ul Hassan Khan, Mehak Naveed, Omar Chughtai, Akhtar Sohail Chughtai

P13. Development of a Comprehensive Chromatographic Method for the Detection of Narcotics and Psychoactive Substances in Hair and Biological Matrices

C.Pareja-Torres, T. Huertas, A. Pino-Tarragona, A. González-Padrón

P14. Extraction and Analysis of a Comprehensive Quantitative Drug Panel in Hair Samples by UPLC-MS/MS for Forensic Toxicology

Emily Lee, Nayan Mistry, Jonathan P Danaceau and Lisa J Calton

P15. Pesticide Contamination in the Hair of Children from Colonia San Juan, a Rural Community in Paraguay

Stela Benitez Leite, Alba Iglesias-Gonzalez, Mirta Noemí Mesquita, María Luisa Macchi, Robin Mesnage, <u>Brice M.R. Appenzeller</u>

June 6th Coffee Break 3

P16. Evaluation and comparison of sensitivity of alcohol biomarkers PEth, EtG and EtPa in civil cases in England 2022–2023

Sharnette Ashiru, Jamie Banham, Ethan Webster, Lili Saskoy, Gavin Trotter, Mathew Wade, Brian Rooney.

- P17. Key Role of Keratin Matrix in Toxicological Analysis to Determine the Cause of Death of a Poly-Drug Addict

 Binda Maddalena, Angeli Ilaria, Di Francesco Carlotta, Meda Valentina, Minoli Mauro, Battistini Alessio, Roda
 Gabriella
- P18. Correlation between alcohol consumption and phosphatidylethanol detection by both venous and dry blood spot testing

A. John, D. Muldoon

P19. Positivity rates and concentration levels of drugs of abuse and ethylglucuronide (EtG) detected in the hair of subjects undergoing license regranting

Giulia Biosa, Serena Mestria, Sara Odoardi, Valeria Valentin, Chiara Capriotti, Sabina Strano Rossi

P20. Hair Growth Rate and Drug Deposition Correlation across Ethnicities

Muhammad Imran, Nadeem Ul Hassan Khan

June 6th Lunch Break 2

P21. Retrospective study of poly-drug and alcohol use in the UK (2024 - 2025)

<u>Abduselam Mohammed</u>, Jayne Hazon, Robert Bradley

P22. Experimental-based evaluation of inter- and intra-individual variability of endogenous hair GHB Murari Matilde, Rinaldi Romolo, Casini Carlotta, Bortolotti Federica, Gottardo Rossella

P23. Increased prevalence of α -PHP and α -PiHP as drug of abuse in chemsex

Marta Vázquez, Alberto Córdoba, Marta Sánchez, Tamara Khazooz and Nuria Sanvicens.

P24. Drugs of abuse in hair, a straightforward chromatographic method using the MassTox® kit from Chromsystems

<u>Delphine Cappelle</u>, Evi van den Steen, Nele Pincé, Lisbeth Patteet

Friday 6th June

09h30 - 10h30

Session 5: Oral Presentations

O22.A Statistical Review of Results Obtained from Casework Samples Against Declared Drug Use D. Muldoon; A. John

O23.Interpretation criteria in hair analysis – Urgent need for education and uniform implementation of the consensus on drugs of abuse testing

Van Uytfanghe Katleen, Stove Christophe

O24.The LOD and LOQ Dilemma in Human Biomonitoring Data Reporting: Different Needs for Different Fields

<u>Linda R Macheka</u>, Brice MR Appenzeller

O25. Can we measure a single dose of antihistamine in hair after intake?

Jan Bílek, Marie Katrine Klose Nielsen, Robert Kronstrand, Sys Stybe Johansen

O26.Recreational Drug Use at a Music Festival: A Dual Approach Using Hair Biomarkers and Participants' Feedback

<u>Ana Simão</u>, Tiago Rosado, Mário Barroso, Maristela Andraus, Eugenia Gallardo

10h30-11h30

Coffee Break 3

11h30 - 12h30

Session 6: Oral Presentations

- **O27.**Hair as a valuable biospecimen for hormone assessment: Inter-relationships across biobehavioral biomarkers Allissa L. Van Steenis, Wen Wang, Brandon L. Smith, Elizabeth A. Shirtcliff,
- O28. Hair as a Biomarker of Cumulative Sex Hormone Exposure: Evidence from Young Adult Women <u>Wen Wanq</u>, Allissa Van Steenis, Jeff Kiesner, Elizabeth A Shirtcliff
- O29. The Effect of Dye Colour on Illicit Drug and Metabolite Levels in Chemically Treated Hair Amy Duda
- O30. Be the Reference: Certified Reference Materials for Clinical and Forensic Testing Applications

 <u>André Filipe Santarém Silva</u>

12h30 - 14h00

Lunch Break 2

14h00 - 15h00

Major Challenges in Hair Testing - Open Discussion

Moderator: Robert Kronstrand

This session will present a synthesis of the key issues identified by participants during the conference, focusing on the major challenges facing the field of hair testing.

The discussion aims to further develop these points and explore potential future directions for research and application.

The session will serve as a platform to consolidate ideas, foster collaboration, and guide strategic priorities for the SoHT and the broader scientific community.

15h00 - 15h15

Best poster and oral presentation awards

15h15 - 15h45

Short Coffee Break 4

15h45 - 17h00

SoHT General Assembly - SoHT Members only

- Election of the board
- New Board Meeting

17h00 - 23h00

Farwell Drinks Pub - McMullen Brewing

Join us for a relaxed farewell gathering to toast the end of the meeting. Enjoy local brews, good company, and informal conversations to wrap up the event on a warm and convivial note.

The McMullen Brewing is 7 minutes walking from the Royal Society