Hair analysis, the other side of the moon
The organizers of the SoHT-GTFI Joint Meeting 2022 welcome you in Verona.

After a too long time of difficult personal interactions, we have now the possibility to gather in Verona in this Joint Meeting aiming at the exploration of “The other side of the moon”.

May be this fairly cryptic title needs an explanation: **WHAT MOON? WHICH SIDE?**

You know that **THE MOON** is the queen of the night and of our dreams, which, in science, correspond to our hopes of new lands of discoveries. There is a constant need of “foolishness” and fantasy to break down the walls of mediocrity and routine work and we all, organizers and participants are committed to work together in this direction.

How **MANY SIDES** has a sphere in the sky? Not only one for sure... we must search for as many sides we can in order to continuously enlarge the scope of our research efforts.

This congress offers an unique opportunity to pursue both these perspectives, in a pleasant environment such as the beautiful city of Verona rich of history, culture and love, not forgetting food and wine.

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Prof.ssa **Donata Favretto**

Prof. **Franco Tagliaro**
ORGANIZING COMMITTEE
Donata Favretto | Franco Tagliaro | Federica Bortolotti | Rossella Gottardo

SCIENTIFIC COMMITTEE
Donata Favretto | Franco Tagliaro | Federica Bortolotti | Rossella Gottardo
Maristela Andraus | Brice Appenzeller | Elisabetta Bertol | Tina Binz | Silvio Chiericoni | Vincent Cirimele | Gail Cooper
Maria Del Mar Ramirez Fernandez | Giampietro Frison | Robert Kronstrand | Luca Morini | Simona Pichini
Alberto Salomone | Frank Sporkert | Sabina Stranorossi | Marco Vincenti | Claudia Vignali | Michel Yegles

INVITED SPEAKERS

Markus R. Baumgartner
University of Zurich
Switzerland

Elisabetta Bertol
University of Florence
Italy

Pascal Kintz
University of Strasbourg
France

Elisabetta Simeoni
Dept of Anti Drugs Policies
Presidency of the Council of Minister
Rome - Italy

Franco Tagliaro
Unit of Forensic Medicine
University of Verona
Italy

Pietro Traldi
Institute of Pediatric research
Città della Speranza
Padua – Italy

Michel Yegles
Service of Medico Legal Toxicology
Health National laboratoy
Dudelange - Luxembourg
### SoHT-GTFI Joint meeting

#### JUNE 8TH 2022

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<td>10.00</td>
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<td>MICHEL YEGLES</td>
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<td>FRANCO TAGLIARO</td>
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MEETING OFITALIAN GROUP OF FORENSIC TOXICOLOGY (GTFI)
Official Language: Italian

9.00-9.20
Salute of welcome and introduction to the GTFI SYMPOSIUM
D. Favretto | F. Tagliaro

9.20-10.00
Invited Lectures
The role of the Department of Anti-Drug Policies in the definition of national address lines
E. Simeoni | DPA – Presidenza del Consiglio dei Ministri, Rome - Italy

Forensic toxicology: origin and its evolution
E. Bertol | University of Florence - Italy

10.00-12.00
ORAL SESSION 1 - NEW TRENDS IN FORENSIC TOXICOLOGY
Chairs: E. Bertol | G. Frison

OG1
I thought it was MDPV, but...
F. Vaiano | University of Florence - Italy

OG2
Metabolic study of methoxpropamine (MXPr) in rats and determination of its metabolites in biological samples by UHPLC-QTOF-HRMS
E. Gerace | Regional Antidoping Center, Orbassano (TO) - Italy

12.00-14.00
LUNCH & POSTER SESSION

14.00-15.00
ORAL SESSION 2 - NEW TRENDS IN FORENSIC TOXICOLOGY
Chairs: R. Borriello | L. Morini

OG9
Post-mortem redistribution: this unknown?
D. Favretto | University of Padova - Italy

OG10
Lethal intoxication from vortioxetine
P. Zuccarello | University of Catania - Italy

OG11
Influence of putrefaction on the benzodiazepine analysis of brain
G. Carnazza | University of Catania - Italy

OG12
Prevalence of driving under the influence of alcohol or drugs in road accidents: a three-years retrospective observational study in Verona and Vicenza districts
F. Taus | University of Verona - Italy

15.00-17.30
GTFI BUSINESS MEETING

18.00-18.30
Salute of Welcome from authorities and Introduction
D. Favretto

18.30-19.00
PLENARY LECTURE
The evolution of mass spectrometry: what is the future to be expected?
P. Traldi | Fondazione Istituto di Ricerca Pediatrica, Città della Speranza, Padova - Italy

19.00-21.00
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Determination of 11-nor-Δ9-tetrahydrocannabinol-9-carboxylic acid (THC-COOH) in hair to complete an one single hair extraction LC-MS/MS method for the determination of drugs of abuse, NPS and EtG
G. Stocchero | APSS Trento - Italy

OG4
Are the NPS used? An extensive investigation in Northern Italy based on hair analysis
C. Calvetti | University di Torino - Italy

OG5
Determination of cannabinoids in 50 microliters whole blood samples by online extraction using turbulent flow chromatography and LC-HRAM-Orbitrap-MS
F. Zancanaro | AULSS 3 Venezia - Italy

OG6
The interpretation of toxicological data in the diagnosis of acute intoxication: not only a question of numbers...
S. Strano Rossi | UCSC Roma - Italy

OG7
Development and validation of advanced analytical methods for alcohol biomarkers’ analysis and application on real samples from cancer patients
S. Gariglio | University of Torino - Italy

OG8
High correlation between carbohydrate deficient transferrin (CDT) and alcohol-related road traffic accidents
N.M. Porpiglia, University of Verona - Italy

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S O H T - G T F I  Hair analysis, the other side of the moon

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WELCOME COCKTAIL

JOINT MEETING
9.00-09.20
KEY NOTE LECTURE 1
Hair analysis: quo vadis?
M. R. Baumgartner | University of Zurich - Switzerland

9.20-11.00
ORAL SESSION 3 - HAIR ANALYSIS: GENERAL ASPECTS
Chairs: M. M. Ramirez Fernandez | R. Kronstrand

OS1
Comparison of Forensic Hair Analysis Methods for Multiple Drugs in Authentic User Hair
B. Spear | Florida International University, FL - USA

OS2
Evaluation of sample preparation with the Comedical M3 reagent for quantifying drugs in hair
A. Verstraete | Ghent University - Belgium

OS3
Suitability evaluation of markers for cosmetic hair treatments
T.M. Binz | University of Zurich - Switzerland

OS4
Study on the External Contamination in Hair – Amphetamines in Sweat
S.J. Chan | Health Science Authority - Singapore

OS5
The importance of contamination models to evaluate decontamination performance in proficiency testing
S. Vikingsson | RTI International, NC - USA
**OS6**
The hair test and its extraordinary impact on road safety and fighting the logistics of organized crime in Brazil
R. Rizzotto | Coordinator of SOS ESTRADAS - Brazil

11.00-11.30
**COFFEE BREAK & POSTER SESSION**

11.30-13.00
**ORAL SESSION 4 - HAIR TESTING APPLIED TO NOVEL PSYCHOACTIVE SUBSTANCES DETERMINATION**
Chairs: T. Binz | V. Cirimele

**OS7**
A case of defenestration involving new psychoactive substances: evaluation of the pattern of drug use in the victim by hair analysis
A. Ameline | Institut of Legal Medicine, Strasbourg - France

**OS8**
Findings from analyses of current drugs and NPS: Essential for the selection of appropriate target analytes for hair analysis
M. Uhl | Bavarian State Criminal Police Office, Munich - Germany

**OS9**
From ketamine to fakes of “tusibi” (2C-B) also called “pink cocaine”. The role of high-resolution mass spectrometry analysis. Prevalence in the hair of a Spanish criminal population, 2013-2021
J. M. Matey | National Institute of Toxicology and Forensic Science, Madrid - Spain

**OS10**
Determination of ketamine and norketamine in hair samples using MEPS as sample clean-up
M. Barroso | Institute of Legal Medicine and Forensic Sciences, Lisboa - Portugal
OS11
The use of a simplified user-interface UPLC-Ion Trap-MS for broad spectrum forensic and clinical toxicological screening
G. Musile | Unit of Forensic Medicine, University of Verona - Italy

OS12
Comparison of patterns of drug levels in head and body hair for medico-legal and workplace testing
L. Tsanaclis | Cansford Laboratories Limited, Cardiff - UK

13.00-14.00
LUNCH & POSTER SESSION

14.00-14.20
KEY NOTE LECTURE 2
Challenges in the evaluation of retrospective alcohol consumption in hair
M. Yegles | LNS Luxemburg - Belgium

14.20-16.00
ORAL SESSION 5 – HAIR TESTING APPLIED TO THE DIAGNOSIS OF ALCOHOL ABUSE AND DFC
Chairs: S. Strano Rossi | P. Kintz

OS13
CDT and ETG performance in DUI subjects
A. Cinquetti | Legal Medicine and Toxicology, University of Padova - Italy

OS14
LC-HRAM-Orbitrap-MS determination of EtG in blood, urine, and hair samples based on chemical derivatization with EDC
G. Frison | Laboratory of Clinical and Forensic Toxicology; AULSS 3, Venice - Italy
OS15
Assessment of GHB concentration in hair after a single exposure and interpretation issues due to individual endogenous concentrations
S. Mestria | Forensic Toxicology Laboratory, UCSC, Rome - Italy

OS16
Determination of GHB in hair in DFC cases: myth or reality?
V. Cirimele | Laboratoire ChemTox, Illkirch, France

OS17
GHB derivatization with EDC. LC-HRAM-Orbitrap-MS characterization of derivatives and application to blood, urine, and hair analysis
G. Frison | Laboratory of Clinical and Forensic Toxicology; AULSS 3, Venice - Italy

OS18
Hidden pethidine administration: a substance rarely reported in drug facilitated crimes
V. Cirimele | Laboratoire ChemTox, Illkirch - France

20.00-23.00
SOCIAL DINNER
09.00-09.20
**KEY NOTE LECTURE 3**
Hair analysis: the ideal tool to monitor adherence to long term pharmaceutical treatments?
**F. Tagliaro** | *Unit of Forensic Medicine, University of Verona - Italy*

09.20-10.50
**ORAL SESSION 6 – HAIR TESTING APPLIED TO PHARMACEUTICAL DRUG ANALYSIS**
Chairs: **E. Lendoiro** | **A. Verstraete**

**OS19**
Simultaneous identification and quantification of 13 antidiabetic drugs in human hair by LC-MS/MS
**N. Arbouche** | *Institute of Legal Medicine, Strasbourg - France*

**OS20**
Paliperidone concentrations in hair of LAI treated patients
**P. Zuccarello** | *Laboratory of Forensic Toxicology, University of Catania - Italy*

**OS21**
Ketamine disappearance from hair following 3 days of intravenous administration for major depressive disorder (MDD)
**I-A Larabi** | *Dept. of Pharmacology and Toxicology, Paris-Saclay University - France*

**OS22**
Interest of hair testing in pharmacological clinical trials
**J.C. Alvarez** | *Dept. of Pharmacology and Toxicology, Paris-Saclay University - France*

**OS23**
In vivo and in vitro study evaluating the incorporation of doxylamine and N-doxylamine-oxide in head hair and the impact of oxidative hair dying
**M.M. Ramirez Fernandez** | *National Institute of Criminilastics and Criminology, Brussels - Belgium*
OS24
Advantages of hair analysis to determine the cause of death: case of skeletonised bodies
A.L. Pelissier-Alicot | Service of Legal Medicine, University of Aix-Marseille - France

10.50-11.10
COFFEE BREAK & POSTER SESSION

11.10-12.10
ORAL SESSION 7 – HAIR TESTING APPLIED TO IN UTERO AND POST-NATAL DRUG EXPOSURE
Chairs: M. Pieri | F. Sporkert

OS25
Interpretation of hair and nails findings in a sudden unexpected infant death (SUID) case related to maternal addiction to tramadol
A. Gish | CHU Lille - France

OS26
Biomarkers for in utero tobacco exposure: maternal hair vs. maternal-fetal matrices
A. Lopez-Rabunal | Service of Forensic Toxicology, University of Santiago de Compostela - Spain

OS27
Hair testing applied to the investigation of in utero and postnatal drug exposure: critical evaluation of 65 cases from Verona area
A. Bertaso | Unit of Forensic Medicine, University of Verona - Italy

OS28
Children victims of drugs: hair testing as a tool to assess pediatric exposure to drugs of abuse. A cohort of cases from Spain
C. Garcia-Caballero | National Institute of Toxicology and Forensic Sciences, Madrid, - Spain

12.10-13.10
SOHT BUSINESS MEETING

13.10-14.20
LUNCH & POSTER SESSION
14:20-14:40
KEY NOTE LECTURE 4
The importance of establishing the minimal detectable dose to allow hair test results interpretation. Focus on recent doping cases toward the Court of Arbitration for Sports
P. Kintz | University of Strasbourg - France

14:40-16:40
ORAL SESSION 8 – HAIR TESTING APPLIED TO DOPING CASES AND CHEMICAL AGENTS EXPOSURE
Chairs: M. Andraus | A. Salomone

OS29
Single hair analysis—Application to a doping case
C. Wiedfield | Forensic Toxicology Center, Munich - Germany

OS30
Hair analysis as powerful tool for the identification of anabolic androgenic steroids and other performance and image enhancing drugs in a subject with tissues damages
S. Odoardi | Forensic Toxicology Laboratory, UCSC, Rome - Italy

OS31
Silent deaths related to doping agents
D. Favretto | Legal Medicine and Toxicology, University of Padova - Italy

OS32
Profiling steroid and thyroid hormones with hair analysis in a cohort of women aged 25 to 45 years old
B. Appenzeller | LNS Luxemburg - Luxemburg

OS33
Equine hair analysis after adverse analytical findings: about two cases
L. Gheddar | Institute of Legal Medicine, Strasbourg - France
OS34
Analysis of fast elimination biomarkers of exposure in hair collected from rats under controlled exposure
P. Palazzi | LNS Luxemburg - Luxemburg

OS35
Investigating children’s chemical exposome – description and possible determinants of exposure in the region of Luxembourg
A Iglesias-Gonzalez | LNS Luxemburg - Luxemburg

OS36
Chemical exposome trajectory over time: a case report over 10 years based on head and beard hair analysis
B. Appenzeller | LNS Luxemburg - Luxemburg

16.40-17.00
CLOSING CEREMONY
NOTE

SoHT-GTFI  Hair analysis, the other side of the moon
SOHT-GTFI  Hair analysis: the other side of the moon

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Meeting Venue
Conference Hall “G. De Sandre”, Policlinico G.B. Rossi | Piazzale Scuro, 10 - Verona

Scientific Director
Prof. Franco Tagliaro

CME – ITALIAN CREDITS
ID CME n. 354769 | Credits assigned n. 5

The Soht-Gtfi Meeting was accredited by Agenas (Italian Ministry of Health) for 50 PARTICIPANTS

only for June 8th for the following professions and disciplines:
• Surgeon (Forensic Medicine) • Chemists • Analytical chemistry • Biologists
• Pharmacists (Territorial Pharmacy and Hospital Pharmacy) • Biomedical laboratory health technicians

To be entitled to ECM training credits it is mandatory:
• Belong to the discipline for which the event was accredited;
• Take the online assessment test by June 11, 2022. The test will be passed upon successful completion of 75% of the questions
• Have attended 90% of the accredited training hours (Only for June 8th)
Hair analysis, the other side of the moon