

JOINT MEETING. VERONA JUNE 8-10 2022

SOHT-GTFI

*Hair analysis, the other side of the moon*



# SoHT - GTFI

*Have analysis, the other side of the moon*

## WELCOME MESSAGE

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".

Maybe 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.

Prof.ssa **Donata Favretto**



Prof. **Franco Tagliaro**



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## 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*

JUNE 8 <sup>TH</sup> 2022	
$\frac{8.00}{18.00}$	Registration
<b>GTFI SYMPOSIUM</b>	
$\frac{9.00}{9.20}$	Salute of welcome and introduction to the GTFI SYMPOSIUM
$\frac{9.20}{10.00}$	Invited lectures
$\frac{10.00}{12.00}$	Oral Presentations (Coffee station)
$\frac{12.00}{14.00}$	<b>LUNCH &amp; POSTER SESSION</b>
$\frac{14.00}{15.00}$	Oral Presentations
$\frac{15.00}{17.30}$	<b>GTFI Business Meeting</b>
$\frac{18.00}{18.30}$	Salute of welcome and introduction to the SoHT-GTFI meeting
$\frac{18.30}{19.00}$	<b>Plenary Lecture PIETRO TRALDI</b> Fondazione Istituto di Ricerca Pediatrica Città della Speranza, Padova
$\frac{19.00}{21.00}$	<b>WELCOME COCKTAIL</b>

JUNE 9 <sup>TH</sup> 2022	
$\frac{8.00}{18.00}$	Registration
<b>SoHT-GTFI Joint meeting ADVANCES IN HAIR TESTING AND FORENSIC TOXICOLOGY</b>	
$\frac{9.00}{9.20}$	<b>Plenary Lecture MARKUS R. BAUMGARTNER</b> University of Zurich
$\frac{9.20}{11.00}$	Oral Presentations
$\frac{11.00}{11.30}$	<b>COFFEE BREAK &amp; POSTER SESSION</b>
$\frac{11.30}{13.00}$	Oral Presentations
$\frac{13.00}{14.00}$	<b>LUNCH &amp; POSTER SESSION</b>
$\frac{14.00}{14.20}$	<b>Key Note Lecture MICHEL YEGLES</b> LNS Luxembourg
$\frac{14.20}{16.00}$	Oral presentations
$\frac{20.00}{23.00}$	<b>SOCIAL DINNER</b>

JUNE 10 <sup>TH</sup> 2022	
<b>SoHT-GTFI Joint meeting THE OTHER SIDE OF THE MOON IN HAIR ANALYSIS AND FORENSIC TOXICOLOGY</b>	
$\frac{9.00}{9.20}$	<b>Key Note Lecture FRANCO TAGLIARO</b> University of Verona
$\frac{9.20}{10.50}$	Oral Presentations
$\frac{10.50}{11.10}$	<b>COFFEE BREAK &amp; POSTER SESSION</b>
$\frac{11.10}{12.10}$	Oral Presentations
$\frac{12.10}{13.10}$	<b>SoHT Business Meeting</b>
$\frac{13.10}{14.20}$	<b>LUNCH &amp; POSTER SESSION</b>
$\frac{14.20}{14.40}$	<b>Key Note Lecture PASCAL KINTZ</b> University of Strasbourg
$\frac{14.40}{16.40}$	Oral Presentations
$\frac{16.40}{17.00}$	<b>CLOSING CEREMONY</b>

# SOHT - GTFI *Have analysis, the other side of the moon*

## MEETING OF ITALIAN 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**

**OG3**

Determination of 11-nor- $\Delta^9$ -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*

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**

# SOHT - GTFI *How analysis, the other side of the moon*

PROGRAM

June 8<sup>th</sup> 2022

## JOINT MEETING

18.00-18.30

Salute of Welcome from authorities and Introduction

**D. Favretto**

18.30-19.00

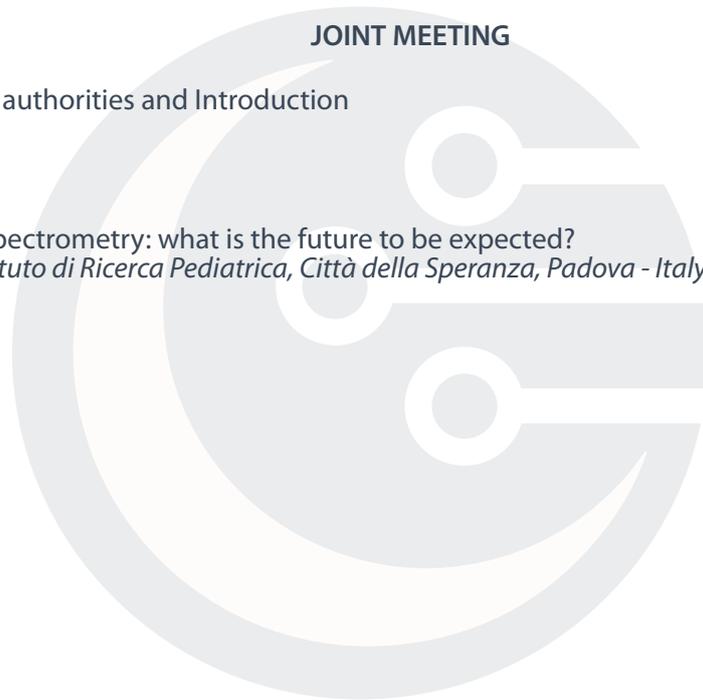
### PLENARY LECTURE

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

**WELCOME COCKTAIL**



# SOHT - GTFI *Hair analysis, the other side of the moon*

PROGRAM

June 9<sup>th</sup> 2022

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*

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## 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**

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June 10<sup>th</sup> 2022

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 dyeing

**M.M. Ramirez Fernandez** | *National Institute of Criministics 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**

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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*

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## 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*

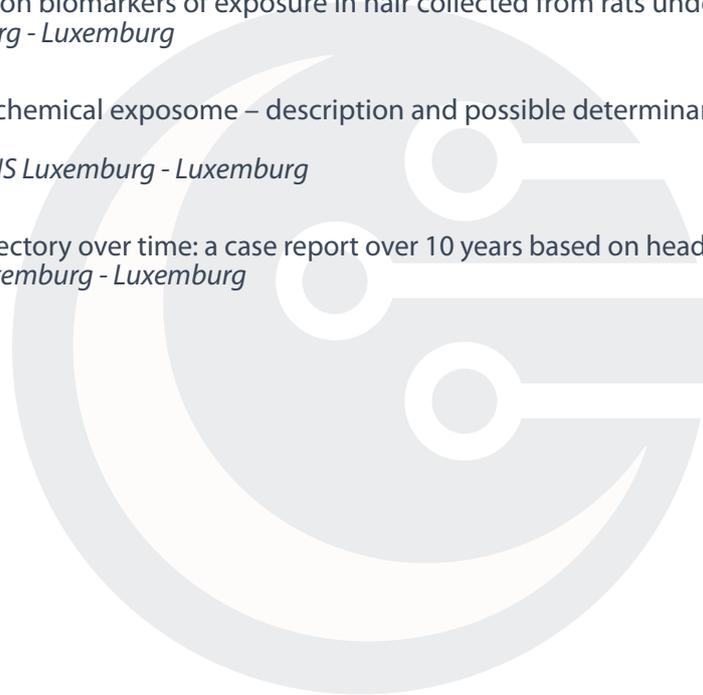
## OS36

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**



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NOTE



# SOHT - GTFI *How analysis, the other side of the moon*

## SPONSOR



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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**)

## PROVIDER & ORGANIZING SECRETARIAT



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