

GESELLSCHAFT FÜR
TOXIKOLOGISCHE UND FORENSISCHE CHEMIE

XVII. GTFCh-SYMPOSIUM

14. – 16. April 2011 in Mosbach (Baden)

Tagungszentrum Alte Mälzerei, Mosbach (Baden)

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Alte Mälzerei, Alte Bergsteige 7, Mosbach (Baden), e-mail: info@maelzerei.de

Programm

Mittwoch, 13. April 2011

20:00 Uhr **Mittwochsvortrag für die Mosbacher Öffentlichkeit**
Wednesday-lecture - open to the public
Thomas Krämer, Zürich, Schweiz
Drogen 2.0 - Kiffen und XTC war gestern

Donnerstag, 14. April 2011

Satellitensymposium

Alkoholentzugs- und Alkoholentwöhnungstherapie: Klinik, Psychotherapie, Labordiagnostik, Alkohol und Drogen am Arbeitsplatz, Sorgerecht.

14:00 Uhr **Eröffnung und Begrüßung / *Opening and welcome***

VS01 Torsten Arndt, Ingelheim
Biomarker des Alkoholkonsums – eine Übersicht

VS02 Friedrich M. Wurst, Salzburg, Österreich
Neuere Aspekte in Diagnose und Therapie alkoholbezogener Störungen

VS03 Olof Beck, Stockholm, Schweden
Presentation and methodological aspects on alcohol biomarkers GTOL, EtG and PEth

15:30 Uhr **Kaffeepause / *Coffee break***

16:00 Uhr **Fortsetzung / *Continuation***

VS04 Claudia Zimmer-Odenwälder, Richterin am Amtsgericht, Schwetzingen
Sucht und Sorgerecht

VS05 Sumandeep Rana, California, USA
Testing for Alcohol and its Markers: Ethyl Glucuronide (EtG) and Ethyl Sulfate (EtS) on a Large Scale

VS06 Detlev Thieme, Kreischa
Kinetische Berechnungen zur Simulation von EtG und EtS

VS07 Johannes Lagois, Lübeck
Alkohol-Interlocks: Ein Beitrag zur Sicherheit im Straßenverkehr

18:00 Uhr **Sitzungsende / *End of session***

19:30 Uhr **Abendveranstaltung / *Evening event***
Empfang durch Oberbürgermeister Michael Jann/Welcome by mayor M. Jann

Die GTFCh dankt Thermo Fisher Scientific, dem Bund gegen Alkohol und Drogen im Straßenverkehr e.V. und AB SCIEX für die Unterstützung des Satellitensymposiums.

Freitag, den 15. April 2011

Hauptsymposium

- 09:00 Uhr** **Eröffnung des Symposiums und Grußworte / *Opening of the symposium and welcome***
- 09:10 Uhr** **Vorträge: Neue Missbrauchsdrogen – von der Strukturaufklärung bis zur Toxikologie / *Oral presentations: New drugs of abuse – from structural characterisation to toxicology***
- V01 Michael Bovens, Markus Schläpfer, Zürich, Schweiz
Designer drugs / Research chemicals – A survey on recent seizures and an attempt to a more effective handling from a Swiss perspective
- V02 Dariusz Zuba, Bogumiła Byrska, Roman Stanaszek, Kraków, Polen
Identification of active components of 'legal highs'
- V03 Christoph Härtel, Michael Pütz, Uwe Karst, Wiesbaden, Münster
Identification of synthetic cannabimimetic substances in herbal mixtures by IMS and TLC-DESI-MSn
- V04 Jan Schäper, Simone Thiemt, Marc Wende, München
Assessment of supposedly legal designer drugs and legal highs according to the German Drug Law
- V05 Folker Westphal, Peter Rösner, Thomas Junge, Kiel
Differentiation of N-alkylated regioisomeric fluorocathinones with product ion spectrometry using chemical ionization and GC-MS
- V06 Evelyn Pawlik, Hellmut Mahler, Düsseldorf
Smoke analysis of adulterated illicit drug preparations
- V07 Markus R. Meyer, Christian Vollmar, Ehud (Udi) Wolf, Andrea E. Schwaninger, Hans H. Maurer, Homburg (Saar), Jerusalem, Israel
Metabolism of the new drug of abuse 3-fluoromethcathinone (3-FMC) in human and rat urine and toxicological analysis of 3-FMC, methedrone, and methylenedioxypropylvalerone (MDPV) in human plasma and urine using GC-MS and LC-HRMS techniques
- V08 Andrea E. Schwaninger, Julia Dinger, Dirk K. Wissenbach, Markus R. Meyer, Giselher Fritsch, Hans H. Maurer, Homburg (Saar), Wiesbaden
Metabolism and Toxicological Detection of the Fentanyl-derived Designer Drugs Isofentanyl and 3-Methylfentanyl using LC-Linear Ion Trap-MS
- V09 Alexander Paulke, Christian Kremer, Cora Wunder, Stefan Tönnies, Frankfurt am Main
A new old natural high: Lysergic acid amide (LSA) containing seeds
- 11:00 Uhr** **Kaffeepause / *Coffee break***

11:30 Uhr Fortsetzung / Continuation

- V10 Sumandeep Rana, Victor P. Uralets, Wayne B. Ross, California, USA
Routine Screening of Human Urine for Synthetic Cannabinoids by LC-MSMS Utilizing Spectrum Based Library
- V11 Merja A. Neukamm, Hans Sachs, Thomas E. Mürdter, Susanna Fehn, Thomas Pöhlmann-Moore, Heinz-Dieter Wehner, Cornelius Knabbe, Dieter Ratge, Stuttgart, München, Haar
Determination of 'Spice' Cannabinoids in Serum and Hair by Liquid Chromatography-Tandem Mass Spectrometry
- V12 Kristina Y. Rust, Annika M. Dally, Markus R. Baumgartner, Thomas Kraemer, Zürich, Schweiz
New drugs in hair – A retrospective study
- V13 Frank T. Peters, Polina Mattis, Kerstin Hoffmann, Folker Westphal, Grit Kießling, Jena, Kiel
Systematic screening for new designer drugs in routine sample extracts using full-scan GC-MS – experience from one year and identification of 4-methylamphetamine
- V14 Andreas Thomas, Sebastian Höppner, Hans Geyer, Wilhelm Schänzer, Mario Thevis, Köln
Determination of growth hormone releasing peptides (GHRP) and their major metabolites in human urine for doping controls by means of liquid chromatography mass spectrometry

12:30 Uhr Mittagspause / Lunch break

13:30 Uhr Posterausstellung mit Kaffeetheke / Poster session and Coffee bar

- P01 Pirkko Kriikku, Lars Wilhelm, Olaf Schwarz, Janne Rintatalo, Ilkka Ojanperä, Erkki Vuori, Jukka Hurme, Jan Kramer, Helsinki, Finland, Geesthacht, Vantaa, Finland
Methylenedioxypropylone (MDPV) in Finland
- P02 Simon Beuck, Ines Möller, Andreas Thomas, Annika Klose, Nils Schlörer, Wilhelm Schänzer, Mario Thevis, Köln, Münster
Structure characterisation of urinary metabolites of the cannabimimetic JWH-018 using chemically synthesized reference material for the support of LC-MS/MS-based drug testing
- P03 Jörg Teske, Jens-Peter Weller, Jonas Kremer, Michael Klintschar, Hannover
LC-MS-MS studies of detection of synthetic cannabinoids
- P04 Marc Wende, Jan Schäper, München
Qualitative and Quantitative Analysis of Synthetic Cannabinoids in Smoking Mixtures of the "Spice" Type using LC-MS/MS
- P05 Lars Wilhelm, Stefan Jenckel, Pirkko Kriikku, Janne Rintatalo, Jukka Hurme, Jan Kramer, Geesthacht, Helsinki, Vantaa, Finland
New abused sedative phenazepam – findings from apprehended drivers in Finland

- P06 Thomas Schäfer, Folker Westphal, Lothar Zechlin, Wiesbaden, Kiel, Mainz
Mass spectral and NMR spectroscopic data of 4-methylamphetamine – a new designer drug
- P07 Nadine Roth, Ariane Wohlfarth, Volker Auwärter, Freiburg
Regioselective synthesis of THCA-A and THCA-B by reaction of Δ^9 -THC with magnesium methyl carbonate (MMC)
- P08 Tjorben Posch, Michael Pütz, Carolin Huhn, Jülich, Wiesbaden
Forensic analysis of biogenic recreational drugs by non-aqueous capillary electrophoresis – mass spectrometry
- P09 Tim Laussmann, Sigrid Meier-Giebing, Köln
Cation-exchange liquid chromatography: A convenient and “eco-friendly” alternative method for quantitative determination of herbal and fungal alkaloids
- P10 Daniel Müller, Katharina Rentsch, Zürich, Schweiz
Online extraction LC-MSⁿ method for the detection of drugs in urine, serum and heparinized plasma
- P11 Herbert Oberacher, Innsbruck, Österreich
MsforID: a robust and transferable tandem mass spectral library
- P12 Stefan König, Jessica Spinner, Ana Hernandez, Thomas Wüthrich, Anita Iannone, Sidonia Guggisberg, Wolfgang Weinmann, Bern, Schweiz
“Forensic solution” for the analysis of GHB in human urine and human whole blood
- P13 Jörg Haisser, Bernd Tiemann, Christoph Protzek, Michael Böttcher, Rolf Aderjan, Heidelberg, Lörrach, Dessau, Neckarsteinach
Quantification of 11-nor-9-carboxy- Δ^9 -tetrahydrocannabinol (CTHC) Equivalents in Urine using Instrumentally Read Gold-labeled Lateral Flow Immunoassays (GLFIA)
- P14 Werner Bernhard, Beat Daellenbach, Wolfgang Weinmann, Bern, Schweiz
Comparison of some field tests for illicit drug and drug trace detection in the service of the Swiss Border Guard
- P15 Verena Poetsch, Kurt Jiran, Karin Simon, Thomas Stimpfl, Wien, Österreich
Determination of Drugs in Brain Samples using Disposal Pipette Extraction
- P16 Ariane Wohlfarth, Nicole Töpfner, Maren Hermanns-Clausen, Volker Auwärter, Freiburg
Clozapine intoxication of a 13-month old girl: Quantification of clozapine and its main metabolites norclozapine and clozapine-N-oxide in plasma and urine samples over 11 days
- P17 Gabriele Roider, Gustav Drasch, Matthias Graw, München
Death following accidental intravenous infusion of an aluminium irrigation solution
- P18 Elke Below, Britta Bockholdt, Ulrich Hoffmann, Greifswald
Fatal overdose with sustained-release verapamil and opipramol: a case report

- P19 Detlef Haase, Sybille Fuhrmann, Markus Stuppe, Lutz Briedigkeit, Schwerin
Fatal outcome of fluvastatin overdose in a depressive women
- P20 Stefan König, Ana Hernandez, Stefan Schürch, Claudia Bühr, Wolfgang Weinmann, Bern, Schweiz
Quantification of ethyl glucuronide in hair with high sensitivity LC-MS/MS
- P21 Maria E. Albermann, Frank Mußhoff, Burkhard Madea, Bonn
Ethyl glucuronide in hair and urine – examinations of actual cut-off values
- P22 Josef Ippisch, Susanne Gradl, Rainer Hampel, Hans-Wolfgang Schultis, Weiden
Positive diagnostic findings of ethyl glucuronide in urine compared to hair samples in the context of driving ability examination
- P23 Hans-Willi Clement, Katharina Kulvelis, Klaus Hennighausen, Christian Fleischhaker, Christoph Burz, Simone Schulze, Eberhard Schulz, Richard Lukačín, Freiburg, Graubünden, Schweiz, Kiel, München
CDT value as a safe course parameter for alcohol withdrawal
- P24 Cornelius Hess, Frank Musshoff, Burkhard Madea, Bonn
1,5-Anhydroglucitol – a new marker for ante-mortem hyperglycaemia?
- P25 Klaas J. Lusthof, Ingrid J. Bosman, Den Haag, Niederlande
The methylecgonine/cocaine ratio in blood samples and the effectiveness of preservation with 0.4 % sodium fluoride
- P26 Tim Gorn, Annette Rickert, Oliver Temme, Thomas Daldrup, Düsseldorf
Stability of Δ^9 -THC, 11-OH-THC and THC-COOH in refrigerated forensic serum samples
- P27 Harald Ertl, Jürgen Hartleb, Hamburg
Evaluation of sources of low and high creatinine concentrations in drug screening urine samples
- P28 Gisela Skopp, Anja Kniest, Joerg Haisser, Karl Mann, Derik Hermann, Heidelberg, Mannheim
On buprenorphine findings in hair
- P29 Kerstin Boomgaarden-Brandes, Niels Tobias, Mathias Thoben, Bernd Mühlbauer, Bremen
Opiate-addiction of the parents as a high risk factor for child maltreatment
- P30 Swiss Guidelines Committee for Drugs of Abuse Testing (SCDAT; Rudolf Brenneisen, Ingeborg Bertschi, Thomas Briellmann, Katharina Rentsch, André Deom, Hans Küffer, André Scholer, Pierre-Alain Binz), Schweiz
Swiss Guidelines 2010 for Drugs of Abuse Testing
- P31 Georg Schmitt, Michael Herbold, Frank T. Peters; Heidelberg, Walldorf, Jena
Valistat - software for method validation in forensic toxicology
- P32 Detlef Tiess, Rostock-Papendorf
Georg Dragendorff (1836 Rostock/Germany – 1898 *ibid.*). Regarding the correspondences on the issue of the appointment to the University of Berlin in 1895

**14:00 Uhr Treffen der Kolleginnen und Kollegen im Ruhestand in der „Tenne“ /
*Meeting of retired colleagues in the „Tenne“***

Michael Yegles
Alkoholmarker in Haaren / Alcohol markers in hair

14:30 Uhr Fortsetzung / *Continuation*

V15 Stefan Kneisel, Maren Hermanns-Clausen, Volker Auwärter, Freiburg
Severe intoxications after use of products containing synthetic cannabinoids –
analytical findings versus clinical symptoms

V16 Jan Rittgen, Michael Pütz, Thorsten Rößler, Ralf Zimmermann, Wiesbaden,
Rostock, München
Contactless and direct MS-techniques for the surveillance of clandestine
production facilities of synthetic drugs

V17 Christoph Köhler, Thomas Grobosch, Torsten Binscheck, Peter Surmann,
Berlin
Development of a systematic toxicological screening method using an auto-
mated on-line SPE-LC-QqTOF System (XLC-QqTOF)

V18 Dirk K. Wissenbach, Markus R. Meyer, Daniela Remane, Armin A. Weber,
Hans H. Maurer, Homburg (Saar)
Development of a Metabolite-based LC-MSn Screening Procedure for
Detection of Drugs of Abuse and Their Metabolites in Urine

V19 Sebastian Broecker, Fritz Pragst, Gregor Kopf, Max Koch, Sina Wuttig,
Sieglinde Herre, Berlin
Semi-quantitative estimation of concentrations in systematic toxicological
analysis by liquid chromatography-hybrid quadrupole time-of-flight mass
spectrometry (LC-QTOF-MS)

V20 Melanie Hutter, Stefan Lanz, Christoph Köhler, Thomas Grobosch, Sebastian
Dresen, Stefan König, Wolfgang Weinmann, Freiburg, Bern, Schweiz, Berlin
Modified Multi Target Screening (MTS) with QTrap 3200 and methanol as elu-
ent with Luna PFP column

V21 Herbert Oberacher, Birthe Schubert, Kathrin Libiseller, Marion Pavlic,
Innsbruck, Österreich
MSforID: applications of a tandem mass spectral library in forensic toxicology

16:00 Uhr Mitgliederversammlung / *Business Meeting*

**19:00 Uhr Festabend mit Verleihung des Jean-Servais-Stas-Preises und des
Förderpreises für junge Wissenschaftler
Festvortrag: Peter Wollenberg, Homburg (Saar): Evidenz**

***Congress ceremony and dinner – Presentation of the 2011 laureate of
the Jean-Servais-Stas award and of the winner of the GTFCh Young-
Scientists award***

Lecture: Peter Wollenberg, Homburg (Saar): Evidence

23:00 Uhr After Dinner Party

Samstag, 16. April 2011

9:00 Uhr **Falldarstellungen und freie Themen aus Forensischer Chemie und Toxikologie / Case reports – communications in forensic chemistry and toxicology**

- V22 Folker Westphal, Thomas Junge, Ulrich Girreser, Kiel
An artificial amino acid derivative in a case involving administration via a drink? – an analytical interesting and surprising result of a substance's identification
- V23 Ludmila Mut, Thomas Grobosch, Thorsten Binscheck, Berlin
Automated Quantification of Doxylamine and Diphenhydramine in Human Plasma Using On-line Extraction-HPLC-DAD (TOX.I.S.)
- V24 Daniel Lenz, Katja Bender, Krischan Friedrich, Justus Beike, Markus A. Rothschild, Martin Jübner, Köln
Assisted suicide by application of transdermal fentanyl patches: Tissue distribution of fentanyl and norfentanyl
- V25 Cora Wunder, Verena Könitz, Alexander Paulke, Stefan Tönnies, Frankfurt am Main
Lidocaine – a drug of abuse?
- V26 Katharina M. Rentsch, Seraina Prader, Thomas J. Neuhaus, Zürich, Luzern, Schweiz
A highly concentrated metabolite of cyclamate as the only finding in the general unknown screening of urine from a 6 year old girl
- V27 Anne-Kathrin Gottzein, Frank Musshoff, Christian Schyma, Burkhard Madea, Bonn
Systematic toxicological analysis revealing a rare case of captan ingestion
- V28 Hans-Hermann Schaumann, Kristina Y. Rust, Markus R. Baumgartner, Thomas Kraemer, Zürich, Schweiz
Brain doping with modafinil: a well documented self-experiment
- V29 Ricarda Jantos, Gisela Skopp, Heidelberg
Comparison of drug analysis in whole blood and dried blood spots

10:30 Uhr **Kaffee-Pause / Coffee Break**

11:00 Uhr **Fortsetzung / Continuation**

- V30 Milena M. Madry, Kristina Y. Rust, Rosetta Guglielmello, Ulfert Grimm, Markus R. Baumgartner, Thomas Kraemer, Zürich, St. Gallen, Schweiz
Percentages and ratios of N- and O-desmethyl metabolites of tramadol in hair – Use for assessment of tramadol intake vs. external contamination
- V31 Tiffany Porta, Chantal Grivet, Emmanuel Varesio, Gerard Hopfgartner, Thomas Kraemer, Genf, Zürich, Schweiz
MALDI-mass spectrometric imaging – Analysis of cocaine and metabolites in a single hair

- V32 Frank Sporkert, Hicham Kharbouche, Christian Staub, Marc Augsburg, Patrice Mangin, Lausanne, Genf, Schweiz
Diagnostic Performance of Ethyl Glucuronide in Hair for the Investigation of Alcohol Drinking Behavior: A Comparison with Hepatic Biomarkers
- V33 Martin Weber, Holger Schulz, Münster
Immunological Detection of Ricin and Castor Seeds in Beverages, Food and Consumer Products
- V34 Golo M.J. Meyer, Markus R. Meyer, Dirk K. Wissenbach, Hans H. Maurer, Homburg (Saar)
Studies on the Metabolism and Toxicological Detection of Glaucine, an Aporphin Alkaloid from *Glaucium flavum* (*Papaveraceae*), in Rat urine using GC-MS and LC-MSn
- V35 Thomas Stimpfl, Wien, Österreich
Automation of Solid-Phase Extraction in Forensic Toxicology
- V36 Jorge A. Martínez Ramirez, Kerstin Voigt, Frank T. Peters, Bogota, Kolumbien, Jena
Studies on the metabolism of five model drugs by fungi colonizing cadavers using LC-MS/MS and GC-MS analysis
- V37 Daniela Remane, Markus R. Meyer, Dirk K. Wissenbach, Hans H. Maurer, Homburg (Saar)
Fully Validated Liquid Chromatographic-Tandem Mass Spectrometric Procedure for Identification and Quantification of Antidepressants and Benzodiazepines in Human Blood Plasma
- V38 Frank T. Peters, Michael Hubig, Holger Muggenthaler, Grit Kießling, Jena
No evidence of increased time intervals between offense and blood sampling or decreased drug concentrations in THC positive DUID samples after Jena Higher Regional Court order regarding § 81a of the German Code of Criminal Procedure
- V39 Wolfgang Weinmann, Ana Hernandez, Stefan König, Jessica Spinner, Annette Thierauf, Bern, Schweiz, Freiburg
Ethyl glucuronide and ethyl sulfate for detection of alcohol abuse in drunken drivers
- 12:50 Uhr Schlusswort zum Symposium / *Closing words***
- 13:00 Uhr Tagungsende / *End of the meeting***