

GESELLSCHAFT FÜR TOXIKOLOGISCHE UND FORENSISCHE CHEMIE
Präsident: Stefan W. Tönnies, Frankfurt

XXII. GTFCh-SYMPOSIUM

15. bis 17. April 2021 Mosbach-online

Tagungspräsidentin: Hilke Andresen-Streichert
Institut für Rechtsmedizin, Uniklinik, Köln

Wissenschaftlicher Beirat: Gisela Skopp
Forensisch Toxikologisches Centrum GmbH, München

Programm

Donnerstag, 15. April 2021

14:00 Uhr **Young Scientists – Treffen / *Meeting of young scientists***
Virtuelles Treffen der Doktoranden/innen und jungen Wissenschaftler/innen
Thema: Plan B - Alternative Karrieren außerhalb der Universität
Ende: 18:00 Uhr

Freitag, 16. April 2021

Hauptsymposium

- 09:00 Uhr** **Eröffnung des Symposiums und Grußworte / *Opening of the symposium and welcome***
- 09:10 Uhr** **Vorträge: Neue Psychoaktive Stoffe, Kinetik / *Oral presentations: New Psychoactive Substances, kinetics***
- V01 Tanja M. Gampfer, Lea Wagmann, Anouar Belkacemi, Veit Flockerzi, Markus R. Meyer, Homburg
Optimization of a high content screening assay for studying the cytotoxicity of new psychoactive substances – First results for the synthetic cannabinoid A-796260
- V02 Matthias J. Richter, Lea Wagmann, Tanja M. Gampfer, Simon D. Brandt, Markus R. Meyer, Homburg, Liverpool (United Kingdom)
In vitro phase I and II metabolism of the synthetic cannabinoids QMPSB and QMPCB

- V03 Manuela Monti, Eva Scheurer, Katja Mercer-Chalmers-Bender, Basel (Switzerland)
In vitro phase I metabolic profiling of the synthetic cannabinoid receptor agonists CUMYL-THPINACA and ADAMANTYL- THPINACA using high resolution mass spectrometry
- V04 Sascha K. Manier, Florian Schwermer, Lea Wagmann, Niels Eckstein, Markus R. Meyer-Homburg, Pirmasens
Metabolic fate of 4-MPD and 4-MEAP investigated in pooled human liver microsomes using metabolomics techniques
- V05 Belal Haschimi, Arianna Giorgetti, Lukas Mogler, Tibor Zsigmond Nagy, Selina Kramer, Sebastian Halter, Sándor Boros, Adrienn Dobos, Előd Hidvégi, Volker Auwärter, Freiburg i. Br., Padova (Italy), Budapest (Hungary)
The novel psychoactive substance Cumyl-CH-MEGACLONE: Human phase-I metabolism, basic pharmacological characterisation, and comparison to other synthetic cannabinoid receptor agonists with a γ -carboline-1-one core
- V06 Lea Wagmann, Rebecca G. Stiller, Svenja Fischmann, Folker Westphal, Markus R. Meyer, Homburg, Kiel
Contribution of human carboxylesterases to the metabolism of selected synthetic cannabinoids
- V07 Moritz Losacker, Stefan W. Toennes, Elizabeth B. de Sousa Fernandes Perna, Johannes G. Ramaekers, Joerg Roehrich, Cornelius Hess, Mainz, Frankfurt, Maastricht (The Netherlands)
Chiral serum pharmacokinetics of 4-fluoroamphetamine after controlled oral administration – can (R)/(S)-concentration-ratios help in interpreting forensic cases?
- V08 Frederike Nordmeier, Adrian A. Doerr, Stefan Potente, Nadja Walle, Matthias W. Laschke, Michael D. Menger, Peter H. Schmidt, Markus R. Meyer, Nadine Schaefer, Homburg
Studies on perimortem and postmortem (re-)distribution of the synthetic opioids U-47700, tramadol and their main metabolites in pigs following intravenous administration
- V09 Frederike Nordmeier, Annelies Cannaert, Christophe P. Stove, Peter H. Schmidt, Markus R. Meyer, Nadine Schaefer, Homburg, Ghent (Belgium)
Is the *N*-desmethylated metabolite of U-47700 more active than its parent compound?
- In vitro MOR activation of *N*-desmethyl-U-47700 and *N,N*-bisdesmethyl-U-47700
- 11:00 Uhr** **Pause / Break**
- 11:15 Uhr** **Vorträge: Matrices / Oral presentations: Matrices**
- V10 Merja A. Neukamm, Alexander Riedel, Miriam Klima, Kerstin Henkel, Volker Auwärter, Markus J. Altenburger, Freiburg
Concentrations of drugs of abuse in dental plaque and enamel – two *in situ* studies
- V11 Frederike Stöth, Philippe Pfeifer, Wolfgang Weinmann, Bern (Switzerland)
Ethyl glucuronide in fingernails of patients starting a withdrawal treatment

- V12 Julia Kaudewitz, Jonas Malzacher, Sergej Bleicher, Johannes Kutzler, Volker Auwärter, Freiburg, Weiden
Detection of drugs and metabolites in hair before and after treatment with freely available agents chosen to effectively remove drugs from the hair matrix – a case study
- V13 Petra Hehet, Thomas Franz, Natalie Kunert, Frank Mußhoff, München
Fast and highly sensitive determination of 11-nor-9-carboxy- Δ^9 - tetrahydrocannabinol in hair using liquid-chromatography-multistage mass spectrometry (LC-MS³)
- V14 Lisa Eisenbeiss, Tina M. Binz, Markus R. Baumgartner, Thomas Kraemer, Andrea E. Steuer, Zurich (Switzerland)
Hair metabolomics in forensic toxicology? First studies on its applicability to detect potential endogenous biomarkers for hair bleaching
- V15 Nadja Walle, Adrian A. Doerr, Benjamin Peters, Matthias W. Laschke, Michael D. Menger, Peter H. Schmidt, Markus R. Meyer, Nadine Schaefer, Homburg
Development of a sampling technique in an in vitro pig lung model for the detection of synthetic cannabinoids in exhaled breath
- 12:30 Uhr** **Mittagspause / Lunch break**
- 13:00 Uhr** **Vorträge: Hochauflösende Massenspektrometrie/ Oral presentations: High-resolution mass spectrometry**
- V16 Cathy M. Jacobs, Lea Wagmann, Markus R. Meyer, Homburg
Adherence monitoring of antipsychotics in finger prick blood by means of volumetric absorptive micro-sampling and LC-HRMS/MS
- V17 Jan-Niklas Kleis, Cornelius Heß, Tanja Germerott, Jörg Röhrich, Mainz
Sensitive untargeted screening of synthetic cannabinoids using liquid chromatography quadrupole time-of-flight mass spectrometry after solid phase extraction
- V18 Thomas P. Bambauer, Selina Hemmer, Armin A. Weber, Sascha K. Manier, Lea Wagmann, and Markus R. Meyer, Homburg
Analytical toxicology and evaluation of screening targets in human samples by means of UHPLC-HRMS/MS after suspected intake of *Amanita muscaria* or *Amanita pantherina*
- V19 Selina Hemmer, Sascha K. Manier, Lea Wagmann, Robert Bals, Markus R. Meyer, Homburg
Evaluation of two strategies for processing untargeted LC-HRMS metabolomics data
- V20 Gabriel L. Streun, Andrea E. Steuer, Lars C. Ebert, Akos Dobay, Thomas Kraemer, Zurich (Switzerland)
Interpretable machine learning model to detect chemically adulterated urine samples analyzed by high resolution mass spectrometry
- V21 Nadine Theofel, Michael Tsokos, Stefan Scholtis, Berlin
A suicide note but no sign of intoxication yet

14:15 Uhr **Pause / Break**

14:30 Uhr **Vorträge: Neues aus der Kriminaltechnik, Neue Psychoaktive Stoffe / Oral presentations: News from forensic science, New Psychoactive Substances**

- V22 Christian Bissig, Zurich (Switzerland)
Synthetic cannabinoids on hemp – situation in Switzerland
- V23 Anne Scheunemann, Katrin Elsner, Tanja Germerott, Cornelius Hess, Siegfried Zörntlein, Jörg Röhrich, Mainz
Potential distinguishing phytocannabinoid markers for seized cannabis and cannabis-based medicines
- V24 Benedikt Pulver, Folker Westphal, Michael Pütz, Jan Riedel, Torsten Schönberger, Katharina Grafinger, Belal Haschimi, Volker Auwärter, Freiburg, Kiel, Wiesbaden
Synthetic cannabimimetics with cyclobutyl methyl and norbornyl methyl side chain – Pharmacological data and implications for the German NpSG
- V25 Benedikt Pulver, Folker Westphal, Volker Auwärter, Michael Pütz, Jan Riedel, Torsten Schönberger, Freiburg, Kiel, Wiesbaden
Analytical differentiation of the synthetic cannabinoid receptor agonist Cumyl-5F-P7AICA from its N-positional isomers and comparison of their pharmacological data
- V26 Katharina E. Grafinger, Annelies Cannaert, Adam Ametovski, Eric Sparkes, Elizabeth Cairns, Samuel D. Banister, Volker Auwärter, Christophe P. Stove, Ghent (Belgium), Freiburg, Sydney (Australia)
Investigating structure activity relationships via the β -arrestin recruitment of a systematic panel of 30 synthetic cannabinoid receptor agonists structurally related to MMB-4en-PICA and MDMB-4en-PINACA
- V27 Nadja Walle, Adrian A. Doerr, Matthias W. Laschke, Michael D. Menger, Markus R. Meyer, Peter H. Schmidt, Nadine Schaefer, Homburg
Systematic studies on the temperature-dependent in vitro stability during storage of the synthetic cannabinoid 5F-MDMB-P7AICA

15:45 Uhr **Mitgliederversammlung / Business meeting**

Verleihung des Jean-Servais-Stas-Preises und des Förderpreises für junge Wissenschaftler / Presentation of the 2021 laureate of the Jean-Servais-Stas award and the winner of the GTFCh Young-Scientists award
Ende: 17:30 Uhr

Samstag, 17. April 2021

9:00 Uhr **Vorträge: Alkohol, analytische Strategien / Oral presentations: Alcohol, analytical strategies**

- V28 Cora Wunder, Corinna Weber, Alexander Paulke, Sarah C. Koelzer, Franziska Holz, Stefan W. Toennes, Frankfurt
Endogenous formation of 1-propanol after consumption of alcoholic beverages
- V29 Nadine Aboutara, Hilke Jungen, Anne Szewczyk, Martina Sterneck, Stefanie Iwersen-Bergmann, Alexander Müller, Hamburg
Analysis of PEth-homologues in comparison to other alcohol biomarkers in patients with liver disease

- V30 Frank Sporkert, Nicolas Duda, Julien Deglon, Lausanne-Geneva (Switzerland)
Evaluation of phosphatidylethanol (PEth) formation in blood after the consumption of drinks with a rather low alcohol content
- V31 Tom D. Schneider, Bernd Roschitzki, Jonas Grossmann, Thomas Kraemer, Andrea E. Steuer, Zurich (Switzerland)
Time since Deposition: Blood-spot age prediction by mass-spectrometry based proteomics
- V32 Marc Luginbühl, Frederike Stöth, Yannick Fischer, Stefan Gaugler, Wolfgang Weinmann, Muttenz (Switzerland), Bern (Switzerland)
Fully automated optical hematocrit measurement from dried blood spots for the analysis of phosphatidylethanol
- V33 Maj B. A. Seifert, Hilke Jungen, Alexander Müller, Anne Szewczyk, Nadine Aboutara, Stefanie Iwersen-Bergmann, Hamburg
Toxicological analysis for exclusion of effective serum levels of previously applied sedating drugs in preparation for brain death diagnosis. The problem of extended half-lives: Sufentanil as an example
- V34 Anne Szewczyk, Alexander Müller, Hilke Jungen, Nadine Aboutara, Stefanie Iwersen-Bergmann, Hilke Andresen-Streichert, Hamburg, Köln
Detection of 144 substances and/or their metabolite(s) in cases of drug facilitated crime: Establishing an extensive analytical method via LC-MS/MS
- V35 Katharina E. Grafinger, Wolfgang Weinmann, Bern (Switzerland), Freiburg
Determination of the cross-reactivity of the biological metabolite (-)-trans- Δ^9 -tetrahydrocannabinol-carboxylic acid-glucuronide (THC-COO-Gluc) for cannabinoid immunoassays
- V36 Pouria Jarsiah, Theresa Kueting, Bianca Schneider, Michael Krämer, Joerg Roehrich, Tanja Germerott, Daniela Wissenbach, Walter Martz, Stefan Toennes, Stefan Scholtis, Franziska Krumbiegel, Anna Heidbreder, Cornelius Hess, Mainz, Dortmund, Bonn, Jena, Gießen, Frankfurt, Berlin, Innsbruck (Austria)
Usefulness of quantification of GHB related acids in routine casework of suspected GHB intoxication cases ante- and post-mortem
- 10:50 Uhr** **Pause / Break**
- 11:10 Uhr** **Vorträge: Freie Themen aus der Forensischen Chemie und Toxikologie / Oral presentations: *Communications in forensic chemistry and toxicology***
- V37 Priska Frei, Stephanie Frauchiger, Laura Egloff, Eva Scheurer, Katja Mercer-Chalmers-Bender, Basel (Switzerland)
The CBDrive Study: Time course of cannabinoids in blood after vapour inhalation of CBD-rich cannabis
- V38 Adrian A. Doerr, Frederike Nordmeier, Nadja Walle, Matthias W. Laschke, Michael D. Menger, Peter H. Schmidt, Markus R. Meyer, Nadine Schaefer, Homburg
Toxicokinetic studies on the synthetic cannabinoid 5F-MDMB-P7AICA in pigs

- V39 Adrian A. Doerr, Frederike Nordmeier, Nadja Walle, Matthias W. Laschke, Michael D. Menger, Peter H. Schmidt, Markus R. Meyer, Nadine Schaefer, Homburg
Perimortem distribution of the synthetic cannabinoid 5F-MDMB-P7AICA and its main metabolite in pigs
- V40 Nadine Schaefer, Nadja Walle, Adrian A. Doerr, Peter H. Schmidt, Homburg
'Flying high?' – Jump from a height in a 'Spice' high? A case report on the synthetic cannabinoid 5F-MDMB-P7AICA
- V41 Daniela Wissenbach, Katja Schulz, Nneka Schwimmer-Okike, Gita Mall, Frank T. Peters, Jena, Dresden
Deadly poisoning after diesel ingestion- different observations in ante- and post-mortem blood
- V42 Katarina Bolte, Marek Dziadosz, Michael Klintschar, Jörg Teske, Hannover
Detectability of drugs in exhumed tissues 9.5-16.5 years postmortem
- V43 Katharina Koch, Frank Mußhoff, Thomas Franz, Karlsruhe, München
Case report: a 23 years old man with cannabis medication and negative THC-findings in hair
- V44 Sabrina Lehmann, Niklas Lang, Markus Rothschild, Martin Juebner, Hilke Andresen-Streichert, Köln
MDMA and amphetamine associated fatal- and non-fatal cases in the greater Cologne area
- V45 Volker Auwärter, Belal Haschimi, Bernd Werse, Frank Günther, Christiane Dittrich, Sarah Maier, Heino Stöver, Freiburg, Frankfurt
Summary of the results of the EU project NPS-PRISON

13:00 Uhr **Schlusswort zum Symposium / *Closing words***

13:10 Uhr **Tagungsende / *End of the meeting***

Anmeldung und Teilnahme / Registration and participation

Das Symposium kann im Kontext der Maßnahmen zur Einschränkung der Corona-Pandemie nicht als Präsenzveranstaltung durchgeführt werden. Das Vortragsprogramm und die Mitgliederversammlung mit Preisverleihungen werden daher in der Form eines Videostreamings realisiert.

Rechtzeitig vor der Veranstaltung werden personalisierte Links für den Stream an die registrierten Teilnehmer verschickt. Dabei erhalten Mitglieder der GTFCh einen Zugang, mit dem im Rahmen der Mitgliederversammlung Abstimmungen und Wahlen durchgeführt werden können.

Anmeldung zur Teilnahme am Symposium bis spätestens 19.02.2021 online über die Homepage www.gtfch.org. Die Anmeldung gilt als verbindlich und wird per E-mail bestätigt.

Die Teilnehmergebühr beträgt für Mitglieder der GTFCh 50 €, für Nichtmitglieder der GTFCh 100 €, für Studenten 15 € und als Mitglied der GTFCh im Ruhestand ohne Nebentätigkeit 15 €. Der Teilnahmebeitrag ist bis zum 02.04.2021 (Zahlungseingang) auf das Konto des GTFCh-Schatzmeisters zu überweisen, das mit der Bestätigungsmail mitgeteilt wird.

Please register online at www.gtfch.org until February 19, 2021.