

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

AGENDA

Monday, 10.02.2020 9:00-12:20

9:00 Prof. Dr. M. Thevis (Institute of Biochemistry, German Sport University Cologne)
Welcome

Chair: Thevis

9:10 Saugy M (Lausanne):
External view on the development of the anti-doping system as former insider

9:30 Gotzmann A (NADA Germany):
“Operation Aderlass”: Legislation as a cornerstone of anti-doping

9:50 Rossi F (AFLD France):
Dried Blood Spots: alternative matrix to deter and detect tramadol abuse in road cycling competitions

10:10 Knoop A, Planitz P, Wuest B, Thevis M (Cologne):
Evaluation of cobalt in doping control samples: Discrimination of different cobalt sources

10:30 COFFEE BREAK / POSTER HANGING

Chair: Gmeiner

11:00 Paßreiter A, Thomas A, Walpurgis K, Thevis M (Cologne):
First steps towards uncovering gene doping with CRISPR/Cas9

11:20 Coll S, Monfort N, Alechaga É, Matabosch X, Pérez-Mañá C, Ventura R (Barcelona):
Evaluation of the reporting level to detect betamethasone misuse in sports: additional studies after intranasal and intramuscular administrations

11:40 Rubio A, Guddat S, Görgens C, Krug O, Walpurgis K, Wagener G, Thevis M (Cologne):
Elimination profiles of microdosed ostarine mimicking contaminated products ingestion

12:00-
12:20 Garzinsky A, Thomas A, Krug O, Thevis M (Cologne):
Exhaled breath in doping controls: characterization of SensAbues® sampling devices using an aerosol test generator

13:00 LUNCH

Monday, 10.02.2020 14:30-16:30

Chair: Botrè

14:30 Ericsson M, Mongongu C, Madi Moussa E, Audran M, Coudore F, Marchand A, Buisson C (Châtenay-Malabry):
Quantitative determination of IGF-I in dried blood using Volumetric Absorptive Microsampling and Top-down analysis with LC-HRMS

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

- 14:50 Miller G, Madrigal K, Lamm J, Husk J, Eichner D (Salt Lake City):
Detecting growth hormone abuse in dried capillary blood spots: results from a large-scale field trial and a controlled administration study
- 15:10 Dib J, Thomas A, Thevis M (Cologne):
Fully automated “offline” dried blood spot (DBS) extraction and its implementation into doping control analysis
- 15:30 COFFEE BREAK
- 15:50 Lange T, Thomas A, Walpurgis K, Thevis M (Cologne):
Fully automated dried blood spot sample preparation enables the detection of lower molecular mass peptide and non-peptide doping agents by means of LC-HRMS
- 16:10-16:30 Solheim SA, Stillesby Levernæs MS, Mørkeberg J, Bastrup Nordborg N, Juul A, Upners EN, Dehnes Y (Oslo, Copenhagen):
Dried blood spot analysis of testosterone esters is applicable in doping analysis

Tuesday, 11.02.2020 9:00-11:50

Chair: Dehnes

- 9:00 Padilha M, Cavalcanti G, Gomes M, Caneiro G, Oliveira F, Pereira H (Rio de Janeiro):
Can Graviola juice result an AAF for higenamine ?
- 9:20 De Wilde L, Roels K, Deventer K, Van Eenoo P (Ghent):
Update on the use of 2D-LC-MS/MS in doping analysis
- 9:40 de la Torre X, Colamonici C, Molaioni F, Jardines D, Iannone M, Botrè F (Rome):
Intentional or accidental clostebol detection. An Italian Story
- 10:00 Görgens C, Walker K, Boeser C, Wijeratne N, Martins C, Guddat S, Thevis M (Cologne, San Jose, Bonn):
Paperspray mass spectrometry – a potential new technique for detecting polar compounds in sports drug testing?
- 10:20 COFFEE BREAK
- Chair: Kuuranne**
- 10:50 Kraiem S, Al-Mahamed H, Al-Menhali A, Al-Thani N, Helaleh M, Samsam W, Bouabdallah S, Touil S, Georgakopoulos C, Al-Muraikhi A, Beotra A, Mohamed Ali V, Al Maadheed M (Doha, Zarzouna, London):
Analytical strategy for the detection of ecdysterone and its metabolites *in vivo* in uPA(+/-)-SCID mice with humanized liver, human urine samples and estimation of prevalence of its use in anti-doping samples

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

- 11:10 Salamin O, Nicoli R, Schweizer C, Xu C, Pitteloud N, Saugy M, Kuuranne T (Lausanne):
Longitudinal steroid profiling in healthy women: impact of transdermal testosterone administration
- 11:30-
11:50 Zanitzer K, Erceg D, Forsdahl G, Gmeiner G (Seibersdorf, Zagreb, Tromso):
Comparison of the ratios of sulpho-conjugated and glucuro-conjugated phase II metabolites of endogenous steroids in urine samples after administration of testosterone preparations via UHPLC-HRMS
- 13:00 LUNCH

Tuesday, 11.02.2020 14:30-16:10

Chair: Thieme

- 14:30 Putz M, Piper T, Thevis M (Cologne):
Metabolite identification studies of trenbolone
- 14:50 Albertsdóttir AD, Van Gansbeke W, Coppieters G, Balgimbekova K, Polet M, Van Eenoo P (Ghent):
Searching for new long term metabolites of metenolone and drostanolone by gas chromatography mass spectrometry with a focus on non-hydrolysed sulphates
- 15:10 COFFEE BREAK
- 15:30 De Wilde L, Roels K, Van Renterghem P, Deventer K, Van Eenoo P (Ghent):
Steroid profiling in urine of intact glucuronidated and sulfated steroids using liquid chromatography-mass spectrometry
- 15:50-
16:10 Piper T, Heimbach S, Adamczewski M, Thevis M (Cologne, Monheim):
Investigations on the potential impact of different doping agents on the steroid profile by means of a steroidogenesis assay

Wednesday, 12.02.2020 9:00-11:10

Chair: de la Torre

- 9:00 Polet M, De Wilde L, Van Renterghem, Van Eenoo P (Ghent):
A fast GC-C-IRMS method for the detection of epiandrosterone sulfate in urine
- 9:20 Hülsemann F, Fußhöller G, Lehn C, Thevis M (Cologne):
Excretion of 19-norandrosterone after consumption of boar meat
- 9:40 Piper T, Rubio A, Thevis M (Cologne):
Investigations on carbon isotope ratios of potential novel long term metabolites of testosterone and testosterone prohormone misuse - 5 α - and 5 β -androstane-3 α ,17 α -diol
- 10:00 COFFEE BREAK

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

Chair: Van Eenoo

- 10:30 Iannella L, Botrè F, Colamonici C, Curcio D, Ciccarelli C, de la Torre X (Rome):
Potential masking effect of different prednisolone based pharmaceutical formulations on IRMS confirmation analysis
- 10:50- Piper T, Fußhöller G, Geyer H, Dănilă G, Toboc A, Thevis M (Cologne):
11:10 **Detecting the misuse of 7-oxo-DHEA by means of carbon isotope ratio mass spectrometry in doping control analysis**
- 12:00 FLYING BUFFET / Poster Presentation

Wednesday, 12.02.2020 13:00-15:00

Chair: Piper

- 13:00- **Waters User Meeting** (in HS1)
14:00
- Danaceau J: Select Series Cyclic IMS
 - Knoop A: Testing specific subsets of substances for specific needs

Chair: Guddat / Hülsemann

- 14:00- **Thermo User Meeting** (parallel track presentations)
15:00
- Kellmann M: Full MS, DIA, PRM or Multiplex SIM? Considerations Creating Methods for an Orbitrap MS System (in HS1)
 - Juchelka D: Maximum Sensitivity and Performance for IRMS: GC IsoLink II coupled with 253 Plus (in HS2)

- 18:00 **WAADS Annual Meeting: Restricted to Members**

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

Thursday, 13.02.2020 9:00-12:10

Chair: Cowan

- 9:00 Coppieters G, Judák P, Van Haecke N, Van Renterghem P, Deventer K, Van Eenoo P (Ghent):
Top-down quantification of Insulin-Like Growth Factor-I in human serum by liquid chromatography coupled with high-resolution mass spectrometry
- 9:20 Renovato-Martins M, Amorim C, Magdalena I, Dudenhoefter-Carneiro AC, Lopez S, Nunes I, Pizzatti L, Aquino Neto F, Mirotti L, Pereira HM (Rio de Janeiro, Niterói):
Monocytes as sensors of autologous blood transfusion detection
- 9:40 Judak P, Coppieters G, Deventer K, Van Eenoo P (Ghent):
Urinary detection of insulin analogues: Improvements in the Ghent laboratory
- 10:00 Dehnes Y, Bogetveit S, Solheim SA, Sletten C, Mørkeberg J, Baastrup Nordsborg N (Oslo):
Effect of testosterone administration on GH-biomarkers IGF-1 and PIIINP
- 10:20 COFFEE BREAK

Chair: Naud

- 10:50** Renovato-Martins M, Dudenhoefter-Carneiro AC, Du Rocher-Silva B, Soares F, Aquino Neto F, Hasan M, Rahaman KA, Muresan A, Oh-Seung K, Mirotti L, Pereira HM (Rio de Janeiro, Niterói, Seoul):
Erythrocyte phenotyping of international athletes by flow Cytometry
- 11:10 Narduzzi L, Dervilly G, Marchand A, Morvan M, Ericsson M, Le Bizec B, Buisson C (Nantes, Châtenay-Malabry):
ABP-omics: a combined use of the haematological module and the “steroidomics passport” to track GH users
- 11:30 Marchand A, Ericsson M (Châtenay-Malabry):
EPO Biosimilars with unusual profiles: Characterization and detection
- 11:50-
12:10 Heiland C, Masquelier M (Stockholm):
Validation of sepharose gel beads immunopurification method for recombinant erythropoietin extraction from blood
- 13:00 LUNCH

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02. - 14.02.2020**

Thursday, 13.02.2020 14:30-16:50

Chair: Ventura

- 14:30 Voss SC, Elsaftawy W, Saghbazarian S, Al-Kaabi A, Mohamed-Ali V, Georgakopoulos C, Al Maadheed M, Orié N (Doha):
Testing the applicability of HRP-conjugated Anti-EPO antibodies for direct rEPO detection – proof of concept
- 14:50 Dehnes Y, Miller G, Naud J, Martin L, Reihlen P, Reichel C (Oslo, Salt Lake City, Montreal, Paris, Cologne, Seibersdorf):
Inter-laboratory validation of biotinylated clone AE7A5EPO-antibody for EPO detection by single blotting of urine and blood samples
- 15:10 Reichel C, Lorenc B, Scheibelhofer C, Farmer L, Gmeiner G (Seibersdorf):
Data from a low-dosed rEPO administration study
- 15:30 COFFEE BREAK

Chair: Thevis

- 15:50 Leuenberger N, Salamin O, Gottardo W, Schobinger C, Reverter-Branchat G, Segura J, Saugy M, Tisso J, Kuuranne T (Lausanne, Barcelona):
Detection of stimulated erythropoiesis using the transcriptomic ALAS2 biomarker in dried blood spot samples
- 16:10 Walpurgis K, Weigand T, Thomas A, Reichel C, Thevis M (Cologne):
Detection of follistatin-based inhibitors of the TGF- β signaling pathways in serum/plasma by means of LC-HRMS & Western blotting
- 16:30-
16:50 Miller G, Cox H, Manandhar A, Husk J, Eichner D (Salt Lake City):
Evaluation of CD71, Band3, and serum markers as evidence of recombinant EPO use: results from a non-drug longitudinal study and a blinded, placebo-controlled administration study

19:00

**DINNER
AND
PRESENTATION OF THE MANFRED DONIKE AWARDS**

Friday, 14.02.2020 10:00-12:00

- 10:00-10:45 Visit of the Laboratory (Slot 1)
11:00-11:45 Visit of the Laboratory (Slot 2)
- 12:30 LUNCH

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02.-14.02.20**

POSTER

- 1 Nazir J (London):
A menu driven laboratory Information Management System (DCLIMS) for anti-doping laboratories
- 2 Son J, Cho Y (Seoul, Daejeon):
Model System for brain doping: Identification of the correlation between performance enhancing and alterations of neurochemical profiling
- 3 Araujo A, Sardela V, Anselmo C, Cabral L, Pereira H (Rio de Janeiro):
Application of the zebrafish (*Danio rerio*) water tank model to investigate budesonide metabolic profile
- 4 Prado E, Gomes G, Lima de Sá C, Matos R, Sardela V, Anselmo C, Nunes I, Ramalho G, Vanini G, Padilha M, Oliveira MA, Oliveira A, Canuto C, Amaral L, Siqueira D, Aquino Neto FR, Pereira H (Rio de Janeiro):
Study of the metabolism of the cathinones methylone, alpha-PVP and 4-CDC through the zebrafish water tank model
- 5 Sigmund G, Geyer H, Görgens C, Thevis M (Cologne):
Prevalence of the imidazole derivatives naphazoline, oxymetazoline and xylometazoline in doping control samples
- 6 Pettersson-Bohlin K, Sjö J, Sjö M (Stockholm):
The sniffing dog/anti-doping dog Molly – A new dimension of doping controls
- 7 Wicka M, Kaliszewski P, Grucza K, Stanczyk D, Drapala A, Konarski P, Zalewska Z, Siek P, Michalak D, Kwiatkowska D (Warsaw):
Elimination profile of triamcinolone acetonide and its metabolites in human urine after a multiple transdermal administration
- 8 Barban Duarte L, Martinez Brito D, Correa Vidal T, Montes de Oca Porto R (Havana):
Trend analysis and decision making in the Havana Anti-Doping Laboratory
- 9 Rogriguez Fernandez A, Laffita D, López Castillo D, Terrero O, Montes de Oca Porto R (Havana):
Increase in the incidence of THC in urine samples of athletes in 2019
- 10 Mazzarino M, Ambrosio G, Grieco A, Parr MK, de la Torre X, Botrè F (Rome, Berlin):
Ecdysterone: a snapshot of use in the athlete's population
- 11 Ahi S, Nimker V, Sharma R, Narula B, Sahu PL (New Delhi):
Continuous quality improvement in doping control laboratories: Implementation of ISO/IEC 17025:2017 and WADA ISL 2019, challenges and future perspective
- 12 Vargas García-Tenorio S, Serrano Garde E, Soldevilla Navarro AG, Cortes Carrillo N, Martín Escudero P, Muñoz-Guerra JA, Galindo Canales M, del Prado N, Fuentes Ferrer M, Fernández Pérez C, Brouwer B, Benish P (Madrid, Amsterdam):
Indirect detection of steroids abuse in sports based on the androgenic activity measurement
- 13 Voss SC, Elsaftawy W, Saghbazarian S, Al-Kaabi A, Al-Hamad K, Nofal A, Al Maadheed M, Georgakopoulos C, (Doha):
IAAF Doha 2019 World Championships – Sysmex XN-1000 Hematology Results
- 14 Biasini GM, Donati F, Rutigliano L, de la Torre X, Botrè F (Rome):
Proteomic analysis of biomarkers of red blood cells storage: application for the development of a direct method of detection of autologous blood transfusion in sport doping

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02.-14.02.20**

- 15 Donati F, Rutigliano L, Biasini GM, Concetti L, Sian V, di Stefano A, de la Torre X, Botrè F (Rome):
Evaluation of the impact of human genetic polymorphisms on basal values of human serum biomarkers: implications for antidoping analysis
- 16 Momobayashi A, Kageyama S, Okano M (Tokyo):
Detection of homologous blood transfused erythrocytes by means of a two color fluorescence flow cytometric analysis
- 17 Mazzarino M, Di Costanzo L, Comunità F, de la Torre X, Botrè F (Rome):
Dried blood spot in doping control test: evaluation of different blood collection devices
- 18 Zhou X, He S, Zhang L, Shen L, He C (Beijing):
Administration Study of rEPOs circulated in China
- 19 Reihlen P, Blobel M, Völker-Schänzer E, Schänzer W, Geyer H, Thevis M (Cologne):
Case reports of re-analyzed rEPO suspicious doping control urine samples from 2011-2014
- 20 Ericsson M, Bhuiyan H, Ekström L (Stockholm):
GHRH daily administration can be determined with longitudinally monitoring of IGF-I
- 21 Alechaga E, Pont L, Terrero A, Monfort N, Ventura R (Barcelona):
Optimization of an immunopurification method for the screening of growth hormone-releasing hormones in urine doping control
- 22 Martin L, Maurice T, Audran M, Ericsson M, Marchand A (Chatenay-Malabry):
Detection of a non-erythropoietic EPO, Neuro-EPO, in blood after intra-nasal administration in rat
- 23 Kaliszewski P, Siek P, Zalewska Z, Michalak D, Grucza K, Wicka M, Kwiatkowska D (Warsaw):
Method development for detection of carbamylated erythropoietin (CEPO) for doping control purposes
- 24 Zhou X, Jingzhu W, He S, Zhang L, Shen L, He C (Beijing):
Research on spiking internal standard in doping control sample for EPO detection with SAR-PAGE analysis
- 25 Reihlen P, Weiß P, Blobel M, Walpurgis K, Thevis M (Cologne):
Evaluation of PEGylated EPO-conjugates as internal standards for EPO analysis in doping controls
- 26 He S, Zhou X, Zhang L, Shen L, He C (Beijing):
Troubleshooting for doping analysis of EPO
- 27 Somay Selbes Y, Önoel S, Demirel AH, Aytekin S, Kacar T (Ankara):
Effects of protease inhibitors on stability of urine hCG and LH in doping analysis
- 28 Kiousi P, Fragkaki AG, Lyris E, Petrou M, Georgakopoulos C, Angelis YS (Athens, Nicosia, Doha):
Novel long-term markers for methyltestosterone misuse in human urine
- 29 Martinez Brito D, Botrè F, de la Torre X (Rome):
Mass spectrometric analysis of 7-oxygenated androst-5-ene steroids. An *in vitro* study
- 30 Martinez Brito D, Iannone M, Tatangelo M, Molaioni F, Botrè F, de la Torre X (Rome):
Old compounds, new alertness: *In vitro* and *in vivo* experiments using methyltestosterone
- 31 Iannone M, Botrè F, de la Torre X (Rome):
Direct and indirect detection of pseudo-endogenous steroids in blood
- 32 Deventer K, Van Gansbeke W, Van Eenoo P (Ghent):
Alternative approach for the detection of aminoglutethimide

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02.-14.02.20**

- 33 Son J, Park JW, Lee SH (Seoul):
Multiple biomarkers of anabolic agent administration in urine as candidates for doping diagnosis
- 34 Danila G, Pop A, Toboc A, Stan C (Bucharest):
7-keto-DHEA – case study
- 35 Andersson A, Elings Knutsson J, Ekström L, Hirschberg A (Stockholm):
ABP profile in relation to transdermal testosterone administration in women
- 36 Geyer H, Fuschöller G, Haenelt N, Mareck U, Blatt C, Gougoulidis V, Hülsemann F, Piper T, Thevis M (Cologne):
The ratio 5 α Adiol/E as indicator for the detection of T-doping in athletes with naturally low T/E – a case study
- 37 Suominen T, Ekström L, Ericsson M, Schulze J (Stockholm):
ABP profile in relation to the menstrual cycle
- 38 Andersson A, Eklund E, Hirschberg A, Ekström L (Stockholm):
ABP urinary metabolites and how they correlate to serum hormone levels in female athletes
- 39 Brailsford A, Wojek N, Chih-Wei C, Walker C, Cowan D, Wolff K (London):
Determination of anabolic steroids in dried blood using microsampling and gas chromatography-mass spectrometry: application to a testosterone gel administration study
- 40 Wen C, Jingzhu W, Tianshuo Z, Liu X (Beijing):
Isolation of boldenone and its metabolite in urine sample and further determination the ¹³C/¹²C ratios by gas chromatography-combustion-isotope ratio mass spectrometry
- 41 Mabusa I, Du Preez H, van der Merwe T (Bloemfontein):
Proposed suppression of phentermine derivatization by concomitant medication: a GC-MS case study and suggested solution
- 42 Cavalcanti G, Zhu Y, Wijeratne N, Martins C, Padilha M, Pereira H (Rio de Janeiro, San Jose):
Application of VeriSpray ion source Triple Quadrupole Mass Spectrometry for stimulants and narcotics analysis in oral fluids
- 43 Kaewklum M, Kaewklum S, Dithayam S, Wilairat P, Kongpatanakul S (Bangkok):
Separation and identification of regioisomers of fluororamphetamine (FA) and fluorormethamphetamine (FMA) in doping control by gas chromatography-mass spectrometry
- 44 Kowalczyk K, Torres Elguera JC, Konopka A, Jarek A, Stanczyk D, Wicka M, Kwiatkowska D, Bulska E (Warsaw):
In vitro metabolic studies of emerging selective androgen receptor modulators (PF-0620414, TFM-4-AS-1, BMS 564929 and GSK 2881078) and implementation of the results into LC-MS/MS-based doping control analysis
- 45 Stacchini C, Dima AP, de la Torre X, Mazzarino M, Botrè F (Rome):
Application of liquid chromatographic-mass spectrometric techniques for the study of the metabolic profile of different classes of selective androgen receptor modulators (SARMS)
- 46 Sato M, Kageyama S, Okano M (Tokyo):
Detection of selective estrogen receptor modulator Bazedoxifene in human urine by LC-MS/MS
- 47 Songsaeng R, Saardpun N, Kusamran T, Kongpatanakul S (Bangkok):
Method development for identification of growth hormone releasing peptides (GHRPs) in doping control by UFLC/MS-IT-TOF
- 48 Dubey S, Sah S, Sahu PL (New Delhi):
Comprehensive screening of doping agents by “dilute and shoot” urine analysis using high resolution/high accuracy mass spectrometry

**Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis,
09.02.-14.02.20**

- 49** Ahi S, Dubey S, Bhardwaj A, Sahu PL (New Delhi):
Fast and sensitive detection of small peptides in human urine using liquid chromatography tandem mass spectrometry
- 50** Berghes B, Radu M, Cristea CD, Toboc A, Stan C (Bucharest):
Validation of HIF activating agents confirmation methods
- 51** Mongongu C, Madi Moussa E, Ericsson M, Audran M, Coudoré F, Buisson C, Marchand A (Chatenay-Malabry):
A sensitive detection of synthetic IGF-I analogs using mass spectrometric immunoassay and nano-ultra-high-performance liquid chromatography coupled to high resolution mass spectrometry
- 52** Rahaman KA, Muresan AR, Rafique FB, Kim KH, Lee KM, Min H, Kim HJ, Sung C, Son J, Lee J, Kwon OS (Seoul):
Metabolites of TB-500 peptide in various *in-vitro* enzyme systems by UHPLC-MS/MS
- 53** Grucza K, Wicka M, Drapala A, Konarski P, Stanczyk D, Michalak D, Kaliszewski P, Kwiatkowska D (Warsaw):
Impact of various purity grades of acetonitrile and different mass spectrometry ionization methods on limits of detection of doping substances by means of the "Dilute-and-Shoot" approach
- 54** Rafique FB, Muresan AR, Rahaman KA, Kim KH, Lee KM, Min H, Kim HJ, Sung C, Son J, Lee J, Kwon OS (Seoul):
In vitro phase I metabolism study of diuretics clopamide by LC-MS/MS
- 55** Pettersson-Bohlin K, Österlind L, Börjesson A, Ekström L (Stockholm):
Bis-(4-fluouphenyl)-methylpiperazine detection in urine from female and male Caucasians after oral lomerizine intake
- 56** Alechaga E, Terrero A, Monfort N, Ventura R (Barcelona):
UHPLC-HRMS multi-screening method for doping control analysis in urine samples
- 57** Silveira C, Sardela V, Anselmo C, Pereira H (Rio de Janeiro):
Chiral analysis of amphetamine and methamphetamine with Mosher derivatization by LC-MS²
- 58** De la Cal A, Espinosa P, Blázquez I, Fernández B, García L, De Pedraza L, Carreras D, Muñoz G (Madrid):
Solving problems with HILIC column: Difficult chromatographic behavior compounds
- 59** Fernández-Alvarez M, Cuervo D, Baltazar-Martins JG, Plata MDM, Muñoz-Guerra JA, Lara B, Del Coso J, Muñoz G, Carreras D (Madrid):
Determination of Tramadol and its metabolites in plasma by using liquid chromatography quadrupole time-of-flight (Q-TOF-LC/MS)
- 60** Cuervo D, Fernández-Alvarez M, Baltazar-Martins JG, Plata MDM, Muñoz-Guerra JA, Lara B, Del Coso J, Muñoz G, Carreras D (Madrid):
Determination of Tramadol and its metabolites in urine via accurate-mass quadrupole time-of-flight (Q-TOF-LC/MS)
- 61** He C, Shen L, Zhou X, He S (Beijing):
Quantification of intact human IGF-I in serum by LC-MS/MS
- 62** Fragkaki AG, Kiouisi P, Paloumpis N, Kioukia-Fougia N, Panderi I, Angelis YS (Athens):
MS behavior of intact phase-II metabolites of anabolic androgenic steroids after derivatization for their detection by LC/(MS)MS
- 63** Görgens C, Guddat S, Knoop A, Geyer H, Thevis M (Cologne):
Implementation of the HIF activator IOX-2 in routine doping controls – pilot study data

Manfred Donike Workshop, 38th Cologne Workshop on Dope Analysis, 09.02.-14.02.2020

09.02.2020 SUNDAY	10.02.2020 MONDAY	11.02.2020 TUESDAY	12.02.2020 WEDNESDAY	13.02.2020 THURSDAY	14.02.2020 FRIDAY
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	All lectures will take place in the lecture hall 1 at DSHS Financial arrangements, the registration & information desk as well as the posters are located at the DSHS foyer				9:15 Departure by taxi
	09:00 Welcome and Lectures 10:30 Coffee break / poster hanging Financial arrangements Information desk Registration User Meetings	09:00 Lectures 10:20 Coffee break Financial arrangements Information desk Registration User Meetings	09:00 Lectures 10:00 Coffee break Financial arrangements Information desk Registration User Meetings	09:00 Lectures 10:20 Coffee break Information desk	Visit of the lab (Nawi-Medi) 10:00-10:45 Slot 1 11:00-11:45 Slot 2
	11:00 Lectures	10:50 Lectures	10:30 Lectures	10:50 Lectures	
	13:00 Lunch	13:00 Lunch	12:00 Flying Buffet and Poster Presentation	13:00 Lunch	
	14:30 Lectures 15:30 Coffee break / Open Discussion	14:30 Lectures 15:10 Coffee break / Open Discussion	13:00 Waters User Meeting in HS1 14:00 Thermo User Meeting in HS1, HS2 Registration during Morning Coffee Breaks	14:30 Lectures 15:30 Coffee break / Open Discussion	
Trainerakademie (TA): 17:00: Registration, Financial arrangements 18:00: Welcome Party	17:30 Snack at the Trainerakademie	18:00 WAADS Annual Meeting			
	18:00 accompanied departure by tram	18:15 accompanied departure by bus	from 18:30 departure by taxi		
	19:00 Brewery Gaffel am Dom	20:00 Philharmonie Cologne	19:00 Sportmuseum Gala-Dinner		

Trainerakademie (TA)
Guts-Muths-Weg 1,
50933 Köln

Bahnhofsvorplatz 1,
50667 Köln

Bischofsgarten 1,
50668 Köln

Guts-Muths-Weg 1,
50933 Köln

Im Zollhafen 1
50678 Köln

