

Program

Thursday, July 6th

9:10 **Registration**

9:10 – 9:40 **Poster set-up time**

9:40 – 9:50 **Opening remarks**

Ruri Kikura-Hanajiri, Meeting President (National Institute of Health Sciences)

9:50 –10:30 **Oral Session 1 < Pharmacological Evaluation of Drugs of Abuse 1 >**

Chair: Satoshi Numazawa (Showa University School of Pharmacy)

O-01

Pathophysiology of the serotonin syndrome model rat: an expression analysis of *UCP-3* in skeletal muscles and metabolomics approaches

○Saki Noda¹, Kei Zaitu^{1,2}, Yumi Hayashi^{2,3}, Tomomi Ohara¹, Akira Iguchi⁴, Maiko Kusano¹, Takako Sato⁵, Hitoshi Tsuchihashi¹, Tetsuya Ishikawa³, Kouichi Suzuki⁵, Akira Ishii¹ (¹Department of Legal Medicine & Bioethics, Nagoya University Graduated School of Medicine, ²Institute for Advanced Research, Nagoya University, ³Department of Radiological and Medical Laboratory Science, Nagoya University Graduate school of Medicine, ⁴Department of Bioresources Engineering, National Institute of Technology, Okinawa College, ⁵Department of Legal Medicine, Osaka Medical College)

O-02

25B-NBOMe induces rhabdomyolysis in zebrafish

Genri Kawahara¹, Hideyuki Maeda², Ruri Kikura-Hanajiri³, Yukiko Hayashi¹, ○Ken-ichi Yoshida²
(¹Department of Pathological Physiology, ²Department of Forensic Medicine, Tokyo Medical University, ³National Institute of Health Sciences)

O-03

Elevation of endogenous cannabinoid 2-AG in brain by synthetic cannabinoid JWH-018: the mechanism and the effect on learning and memory

○Renshi Li¹, Tomoki Takeda¹, Satoshi Morimoto², Ruri Kikura-Hanajiri³, Hideyuki Yamada¹, Yuji Ishii¹
(¹Laboratory of Molecular Life Sciences, Graduate School of Pharmaceutical Sciences, Kyushu University, ²Department of Pharmacognosy, Graduate School of Pharmaceutical Sciences, Kyushu University, ³National Institute of Health Sciences)

10:30 –11:10 **Oral Session 2 < Pharmacological Evaluation of Drugs of Abuse 2 >**

Chair: Yuji Ishii (Graduate School of Pharmaceutical Sciences, Kyushu University)

O-04

Brain activities and behaviors induced by Δ^9 -THC, JWH-018 and 5-fluoro-ADB in mice

○Reiko Kobayakawa¹, Ruri Kikura-Hanajiri², Ko Kobayakawa¹ (¹Kansai Medical University, Institute of Biomedical Science, ²National Institute of Health Sciences)

O-05

Natural (Δ^9 -THC) and synthetic (JWH-018) cannabinoids induce seizures.

○Olga Malyshevskaya¹, Kosuke Aritake¹, Nahoko Uchiyama², Ruri Kikura-Hanajiri², Yoshihiro Urade¹
(¹WPI-IIIIS University of Tsukuba, ²Division of Pharmacognosy, Phytochemistry and Narcotics National Institute of Health Sciences)

O-06

MDMB-CHMICA induces bradycardia in cannabinoid receptor dependent and behavioral abnormalities in rats.

○Hideyuki Maeda¹, Erika Nagashima¹, Kawahara Genri², Ruri Kikura-Hanajiri³, Yukiko K. Hayashi², Ken-ichi Yoshida¹
(¹Department of Forensic Medicine, Tokyo Medical University, ²Department of Pathophysiology, Tokyo Medical University, ³National Institute of Health Sciences)

11:20 –12:20 **Poster Session (Odd Numbers)**

12:30 –13:30 **Luncheon Seminars 1 and 2**
Sponsor 1: Agilent Technologies
Sponsor 2: AB SCIEX

13:40 –14:20 **JAFT General Meeting**

14:20 –15:20 **Educational Lecture**
Chair: Ruri Kikura-Hanajiri (National Institute of Health Sciences)

Pharmacological evaluation of new psychoactive substance (NPS)
○Tutomu Suzuki
(Drug Dependence Laboratory, School of Pharmacy and Pharmaceutical Sciences Hoshi University)

15:25 –16:05 **Oral Session 3 < Drug Analysis and Metabolism >**
Chair: Tooru Kamata (Forensic Science Laboratory, Osaka Prefectural Police)

O-07
Metabolism of fentanyl and acetylfentanyl by chimeric mouse-derived human hepatocytes
○Tatsuyuki Kanamori, Yuko T. Iwata, Hiroki Segawa, Tadashi Yamamuro, Kenji Kuwayama, Kenji Tsujikawa, Hiroyuki Inoue (National Research Institute of Police Science)

O-08
Identification and quantification of predominant metabolites of synthetic cannabinoid MAB-CHMINACA in an authentic human urine specimen
○Koutaro Hasegawa¹, Kayoko Minakata¹, Kunio Gonmori¹, Hideki Nozawa¹, Itaru Yamagishi¹, Kanako Watanabe¹, Osamu Suzuki² (¹Department of Legal Medicine, Hamamatsu University School of Medicine, ²Hamamatsu University School of Medicine)

O-09
Studies on the metabolites of 5-PPDI in human urine
○Ayumu Ishii¹, Kosuke Kusakabe¹, Noriyuki Kato¹, Shinichi Sasaki², Kenji Tsujikawa³, Takeshi Wada⁴ (¹Scientific Crime Laboratory, Kanagawa Prefectural Police Headquarters, ²Metropolitan Police Department Criminal Investigation Laboratory, ³National Research Institute of Police Science, ⁴Faculty of Pharmaceutical Sciences, Tokyo University of Science)

16:05 –17:10 **Symposium < Drug Analysis – Challenge of Young Researchers >**
Organizer: Hiroyuki Inoue (National Research Institute of Police Science)
Munehiro Katagi (Forensic Science Laboratory, Osaka Prefectural Police H.Q.)

O-10
Differentiation of *o*-, *m*-, *p*-positional isomers of fluoromethcathinone by energy-resolved mass spectrometry
○Takaya Murakami¹, Yoshiaki Iwamuro¹, Reiko Ishimaru¹, Yuki Sakamoto², Natsuhiko Sugimura³, Satoshi Chinaka¹ (¹Forensic Science Laboratory, Ishikawa Prefectural Police Headquarters, ²Shimadzu Corporation, ³Materials Characterization Central Laboratory, Waseda University)

O-11
Primary screening of methamphetamine by electrochemiluminescence combined with potential modulation technique
○Fumiki Takahashi, Ryo Shimizu, Saki Nitta (Faculty of Science, Shinshu University)

O-12
Ultrafast screening method for medicinal toxicants in whole blood by PESI/MS/MS
○Kazuaki Hisatsune^{1,2}, Kei Zaitu^{2,3}, Yumi Hayashi^{3,4}, Tasuku Murata⁵, Tomomi Ohara², Maiko Kusano², Hiroshi Tanihata⁵, Minemasa Hida¹, Hitoshi Tsuchihashi², Tetsuya Ishikawa⁴, Akira Ishii²

(¹Criminal Science Laboratory, Aichi Prefectural Police H.Q., ²Department of Legal Medicine and Bioethics, Nagoya University Graduate School of Medicine, ³Institute for Advanced Research, Nagoya University, ⁴Department of Pathophysiological Laboratory Sciences, Nagoya University Graduate School of Medicine, ⁵Shimadzu Corporation)

O-13

Analysis of new psychoactive substances in biological samples by LC-Q-TOFMS coupled with Ion Mobility Separation

○Maiko Kawamura, Ruri Kikura-Hanajiri, Takashi Hakamatsuka (National Institute of Health Sciences)

O-14

Contribution of human carboxylesterases to the abundance of 5F-ADB in tissue specimens

○Maiko Kusano¹, Kei Zaitu¹, Tomomi Ohara¹, Saki Noda¹, Kazuaki Hisatsune², Tomomi Asano¹, Takashi Yoshimoto¹, Jun'ichi Nakajima³, Jin Suzuki³, Takako Moriyasu³, Hitoshi Tsuchihashi¹, Akira Ishii¹ (¹Department of Legal Medicine and Bioethics, Nagoya University, ²Forensic Science Laboratory, Aichi Prefectural Police Headquarters, ³Tokyo Metropolitan Institute of Public Health)

17:15 – 17:45 **Evening Seminar**

Sponsor: Biotage Japan

18:20 – 20:20 **Banquet** (Hotel New Otani Inn Tokyo)

Friday, July 7th

9:10 – 9:30 **Registration**

9:30 – 10:10 **Oral Session 4 <Analyses of Drugs in Biological Matrices >**

Chair: Kei Zaitu (Nagoya University Graduate School of Medicine)

O-15

Different localizations of drugs simultaneously administered in a single hair strand by micro-segmental analysis

○Kenji Kuwayama¹, Maika Nariai², Hajime Miyaguchi¹, Yuko Iwata¹, Tatsuyuki Kanamori¹, Kenji Tsujikawa¹, Tadashi Yamamuro¹, Hiroki Segawa¹, Hiroko Abe³, Hirotaro Iwase^{2,3}, Hiroyuki Inoue¹ (¹National Research Institute of Police Science, ²Division of Forensic Medicine, Tokyo University, ³Division of Forensic Medicine, Chiba University)

O-16

Variation in drug-distribution among single hair specimens sampled at the same time

○Tooru Kamata¹, Noriaki Shima¹, Akihito Miki¹, Hiroshi Nishioka¹, Hiroe Kamata¹, Keiko Sasaki¹, Shuntaro Matsuta¹, Hidenao Kakehashi¹, Shihoko Nakano¹, Misato Wada¹, Takako Sato², Hitoshi Tsuchihashi³, Munehiro Katagi¹ (¹Forensic Science Laboratory, Osaka Prefectural Police H.Q., ²Department of Legal Medicine, Osaka Medical College, ³Department of Legal Medicine and Bioethics, Nagoya University)

O-17

Enantiomeric analysis of zopiclone in human hair by one-tube micropulverized extraction and chiral liquid chromatography/high resolution mass spectrometry

○Hajime Miyaguchi, Kenji Kuwayama (National Research Institute of Police Science)

10:10 – 10:50 **Oral Session 5 <Drug Analysis and Distribution>**

Chair: Keiko Kudo (Department of Legal Medicine, Kyusyu University)

O-18

Toxicological screening for prescribed drugs in nail using LC-MSMS

○Takeshi Saito¹, Akira Namera², Sadaki Inokuchi¹ (¹Department of Emergency and Critical Care

Medicine, Tokai University School of Medicine, ²Department of Forensic Medicine, Hiroshima University)

O-19

Changes in the stomach-to-blood methamphetamine ratios after its oral and subcutaneous administration

○Kei Yoshitome^{1,3}, Fumio Moriya², Satoru Miyaishi³ (¹Department of Hygiene, Kawasaki Medical School, ²Department of Nursing, Faculty of Health and Medicine, Kawasaki University of Medical Welfare, ³Department of Legal Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences)

O-20

Two cases where metabolites and tissue distribution analyses revealed the process from drug administration until death by asphyxiation

○Katsuhiro Okuda¹, Yohsuke Makino², Masaru Asari¹, Hiroki Tanaka¹, Hiromi Yamada¹, Kie Horioka¹, Hiroshi Shiono¹, Keiko Shimizu¹ (¹Department of Legal Medicine, Asahikawa Medical University, ²Department of Forensic Medicine, Graduate School of Medicine, The University of Tokyo)

10:55 – 16:40 **Special Lecture**

Chair: Rie Tanaka (National Institute of Health Sciences)

Current status of substance use and addiction in Japan: Epidemic and decline of new psychoactive substances

○Takuya Shimane¹, Megumi Omagari¹, Kunihiko Kitagaki², Hisateru Tavhimori¹, Masahiko Funada¹, Kiyoshi Wada³

(¹Department of Drug Dependence Research, National Institute of Mental Health, National Center of Neurology and Psychiatry, ²Tokyo University of Pharmacy and Life Sciences, ³Saitama Psychiatric Medical Center)

12:05 – 13:05 **Luncheon Seminars 3 and 4**

Sponsor 3: Nihon Waters

Sponsor 4: Shimadzu Corporation

13:15 – 14:15 **Poster Session (Even Numbers)**

14:15 – 14:25 **Intermission / Poster removal time**

14:25 – 15:00 **Award Presentation**

Chair: Ruri Kikura-Hanajiri (National Institute of Health Sciences)

Studies for the elucidation about chemical structure of synthetic cannabimimetics and their biological activity found in “dangerous drug products”

○Jun'ichi Nakajima, Recipient of 2017 Yoshimura Award
(Tokyo Metropolitan Institute of Public Health)

15:00 – 16:05 **Oral Session 6 < Drug Analysis and Other Topics >**

Chair: Takeshi Saito (Tokai University School of Medicine)

Akira Namera (Department of Forensic Medicine, Hiroshima University)

O-21

Identification and quantification of cannabinoids in *Cannabis sativa* L. by LC-Q-TOF-MS

○Rie Tanaka¹, Sakumi Mizutani¹, Maiko Kawamura¹, Hiroyuki Fuchino², Nobuo Kawahara², Ruri Kikura-Hanajiri¹, Takashi Hakamatsuka¹ (¹National Institute of Health Sciences, ²Research Center for Medicinal Plant Resources, National Institute of Biomedical Innovation, Health and Nutrition)

O-22

Analysis of new psychoactive substances (NPS) by gas chromatography/mass spectrometry (GC/MS) with photoionization (PI)

○Mamoru Akutu¹, Ken-ichi Sugie¹, Koichi Saito² (¹Narcotics Control Department, Kanto-Shin'etsu Regional Bureau of Health and Welfare, Ministry of Health, Labour and Welfare, ²Department of Analytical Chemistry, Faculty of Pharmaceutical Sciences, Hoshi University)

O-23

Synthesis of mexedrone with novel finding

○Kenji Tsujikawa, Yuko, T. Iwata, Hiroki Segawa, Tadashi Yamamuro, Kenji Kuwayama, Tatsuyuki Kanamori, Hiroyuki Inoue (National Research Institute of Police Science)

O-24

Chemical analysis of counterfeit hepatitis C drug Harboni found in Japan

○Nahoko Uchiyama, Hiroyuki Kamakura, Sayaka Masada, Takashi Tsujimoto, Junko Hosoe, Takuro Maruyama, Yukihiro Goda, Takashi Hakamatsuka (National Institute of Health Sciences)

O-25

"Antibody breeding" for more sensitive immunoassays : a case study for anti- cotinine antibodies

○Norihiro Kobayashi, Hiroyuki Oyama, Izumi Morita, Yuki Kiguchi (Kobe Pharmaceutical University)

16:05 –16:15 **Closing remarks**

Satoshi Numazawa, President of the next Meeting (Showa University School of Pharmacy)

Poster Presentations

Set-up time	Thursday, July 6 th 9:10 ~ 9:40
Display time	Thursday, July 6 th 9:40 ~ Friday, July 7 th 14:15
Poster Session	
Odd numbers	Thursday, July 6 th 11:20 ~ 12:20
Even numbers	Friday, July 7 th 13:15 ~ 14:15
Removal time	Friday, July 7 th 14:15 ~ 14:25

P-01

Computational study on prediction of biological activity for regulation of illegal drugs

○Yosuke Demizu, Rie Tanaka, Takashi Hakamatsuka, Masaaki Kurihara, Ruri Kikura-Hanajiri
(National Institute of Health Sciences)

P-02

Evaluation of carboxamide type synthetic cannabinoids with chiral center as the cannabimimetic compounds

○Takahiro Doi, Takaomi Tagami, Akihiro Takeda, Akiko Asada, Yoshiyuki Sawabe
(Osaka Prefectural Institute of Public Health)

P-03

Analysis of intracellular signaling induced by cannabinoid-related chemicals through the cannabinoid receptor family

○Zoi Kido¹, Hidetoshi Kumagai¹, Ryo Nakata¹, Yoshihiro Motozawa¹, Yuichi Ikeda¹, Ruri Kikura-Hanajiri², Issei Komuro¹
(¹Department of Cardiovascular Medicine, Graduate School of Medicine, The University of Tokyo, ²National Institute of Health Sciences)

P-04

The excitatory mechanism of synthetic cannabinoids

○Kyoko Hataoka, Asuka Kaizaki-Mitsumoto, Satoshi Numazawa
(Showa University School of Pharmacy)

P-05

Establishment of a new assay method for the pharmacological activities of the dissociative-analogues involved in law-evading drugs on NMDA-type glutamate receptors

○Yukari Shigemoto-Mogami¹, Kaoru Sato¹, Kazue Hoshikawa¹, Hideo Shimizu¹, Ruri Kikura-Hanajiri², Takashi Hakamatsuka², Yuko Sekino^{1,3}
(¹Division of Pharmacology, ²Division of Pharmacognocny Phytochemistry, Narcotics, National Institute of Health Sciences, ³Division of Pharmaceutical Sciences, Tokyo University)

P-06

The association with drug transporters for pharmacokinetics of stimulants

○Shoetsu Chiba, Toru Ikawa, Ayako Ro, Sanae Kanno, Yukino Oidi, Kazue Ichiba, Morihisa Sagi, Toshiji Mukai
(Department of Legal Medicine, St. Marianna University School of Medicine)

P-07

Dysfunction of endothelial barrier by mitragynine

○Yoshifumi Morikawa¹, Kyoko Kamase², Michi Horinouchi², Sasajima Yasuhide¹, Suenami Koichi¹, Kiyohito Sato¹, Yuji Takekoshi¹, Satoshi Endo², Akira Ikari², Toshiyuki Matsunaga²
(¹Forensic Science Laboratory, Gifu Prefectural Police Headquarters, ²Laboratory of Biochemistry, Gifu Pharmaceutical University)

P-08

Induction of neuronal cell apoptosis by α -pyrrolidinoctanophenone derivatives

○Toshiyuki Matsunaga¹, Yoshifumi Morikawa², Miki Tanigawa¹, Kyohei Kamata¹, Satoshi Endo¹, Yasuhide Sasajima², Koichi Suenami², Kiyohito Sato², Yuji Takekoshi², Akira Ikari¹

(¹Laboratory of Biochemistry, Gifu Pharmaceutical University, ²Forensic Science Laboratory, Gifu Prefectural Police Headquarters)

P-09

Cytotoxicity and apoptotic pathway induced by nanosilver in human liver cells

○Yuying Xue¹, Junjun Wang¹, Xiaojie Gao¹, Junko Fujihara², Haruo Takeshita²

(¹School of Public Health, Southeast University (Nanjing, China), ²Department of Legal Medicine, Shimane University Faculty of Medicine)

P-10

Toxicity evaluation of GaSb thin films

○Junko Fujihara¹, Naoki Nishimoto², Toshihiro Yasuda³, Masanori Hasegawa⁴, Haruo Takeshita¹,

(¹Department of Legal Medicine, Shimane University Faculty of Medicine, ²Shimane Institute for Industrial Technology, ³Department of Medical Genetics and Biochemistry, Faculty of Medical Sciences, University of Fukui, ⁴Criminal Investigation Laboratory, Shimane Prefectural Police Headquarters)

P-11

Effects of cationic surfactants on surface activity of pulmonary surfactant monolayers

○Sanae Kanno^{1,2}, Seishiro Hirano³, Yasuhiro Aoki², Toshiji Mukai¹

(¹Department of Legal Medicine, St. Marianna University School of Medicine, ²Department of Forensic Medicine, Nagoya City University Graduate School of Medical Sciences, ³Center for Health and Environmental Risk Research, National Institute for Environmental Studies)

P-12

Sensitive analysis of six synthetic cannabinoids in urine samples of human cadavers by LC-MS/MS

○Kayoko Minakata, Itaru Yamagishi, Hideki Nozawa, Kunio Gonmori, Osamu Suzuki, Kanako Watanabe (Department of Legal Medicine, Hamamatsu University School of Medicine)

P-13

Simultaneous determination of fosphenytoin and phenytoin in blood by LC-MS/MS.

○Takayoshi Suzuki¹, Tadashi Ogawa¹, Jun Ueyama², Masae Iwai¹, Fumio Kondo¹, Hiroshi Seno¹

(¹Department of Legal Medicine, Aichi Medical University School of Medicine, ²Department of Pathophysiological Laboratory Sciences, Field of Radiological and Medical Laboratory Sciences, Nagoya)

P-14

Quantitative Analysis of THC and Related Cannabinoids in Multiple Matrices Using Solid Phase Extraction with UPLC/MS/MS for Clinical Research

○Mariko Matsumoto¹, Xin Zhang², Jonathan Danaceau², Kim Haynes², Erin Chambers²

(¹Japan Waters, ²Waters Corp.)

P-15

Evaluation of semi-targeted and non-targeted ('discovery') screening tools for toxicology.

Michelle Wood¹, Masayo Yabu², ○Maki Terasaki², Thomas Rosano^{3,4}

(¹Waters Corporation, ²Nihon Waters, ³Albany Medical Center Hospital and College, ⁴National Toxicology Center)

P-16

Development of a non-target drug screening method for blood sample using an in silico approach (2)

○Kanju Saka¹, Yukiko Nakazono², Keiko Kudo³, Toshikazu Minohata⁴, Masatoshi Kaneshiro², Ichiro Hirano⁴, Kazumasa Furuta², Yusuke Fujii¹, Yohsuke Makino¹, Noriaki Ikeda³, Hirotaro Iwase^{1,5}

(¹Department of Forensic Medicine, Graduate School of Medicine, The University of Tokyo, ²Fujitsu Limited, ³Department of Forensic Pathology and Sciences, Graduate School of Medical Sciences, Kyushu University, ⁴Shimadzu Corporation, ⁵Department of Legal Medicine, Graduate School of Medicine, Chiba University)

P-17

Drug analysis in blood by thermal desorption and pyrolysis combined with DART-MS :TDP/DART-MS (2)

○Hiroko Abe¹, Chikako Takei², Motoshi Sakakura³, Teruhisa Shiota³, Kayako Suga⁴, Daisuke Yajima¹, Hirotaro Iwase^{1,5}

(¹Department of Legal Medicine, Graduate School of Medicine, Chiba University, ²BioChromato, Inc., ³AMR, Inc., ⁴AB SCIEX, ⁵Department of Forensic Medicine, Graduate School of Medicine, The University of Tokyo)

P-18

Chiral analysis of amphetamines and cathinones in urine

○Akira Namera¹, Maho Kawamura², Akihiro Nakamoto², Yuji Fujita³, Takeshi Saito⁴, Hirokazu Murata¹, Masataka Nagao¹

(¹Department of Forensic Medicine, Hiroshima University, ²Forensic Science Laboratory, Hiroshima Prefectural Police Headquarters, ³Department of Emergency Medicine, Iwate Medical University School of Medicine, ⁴Department of Emergency and Critical Care Medicine, Tokai University School of Medicine)

P-19

Differentiation of regioisomeric fluoromethamphetamines in urine samples by GC-IR

○Takashi Uchikawa, Mitsuhiro Ohtsuki, Atsushi Morita, Yusuke Haruta
(Forensic Science Laboratory, Saga Prefectural Police Headquarters)

P-20

Development of target and non-target screening for surfactant in plasma by LC-QTOF-MS

○Kayako Suga (AB Sciex)

P-21

Reliable determination of cyanide, thiocyanate and azide in whole blood by GC-MS for the application to NAGINATA-drug screening

○Keiko Kudo¹, Yosuke Usumoto^{1,2}, Naomi Sameshima¹, Miki Okumura¹, Akiko Tsuji¹, Noriaki Ikeda¹
(¹Department of Forensic Pathology and Sciences, Graduate School of Medical Sciences, Kyushu University, ²Department of Legal Medicine, Yokohama City University Graduate School of Medicine)

P-22

Drug distribution in teeth of rats treated with carbamazepine

○Hiroaki Ichioka, Kaori Shintani, Hiroshi Ikegaya
(Department of Forensic Medicine, Graduate School of Medical Science, Kyoto Prefectural University of Medicine)

P-23

Regioisomeric separation of ring-substituted cathinones by LC-MS with a naphthylethyl column

○Akihiro Takeda, Takaomi Tagami, Akiko Asada, Takahiro Doi, Masami Kawaguchi, Yuka Satsuki, Yoshiyuki Sawabe (Osaka Prefectural Institute of Public Health)

P-24

Isomeric discrimination of N-adamantyl carboxamide-type synthetic cannabinoids by GC-MS

○Akiko Asada, Takahiro Doi, Takaomi Tagami, Akihiro Takeda, Yoshiyuki Sawabe
(Osaka Prefectural Institute of Public Health)

P-25

The application of supercritical fluid chromatograph to analyze illicit drugs

○Ryosuke Sasaki, Noriaki Ishizaki, Toshinori Ando, Chitoshi Hino
(Central Customs Laboratory, Ministry of Finance)

P-26

Pattern analysis of metals in the ingredient of recreational drugs by ICP-MS

○Natsumi Hattori, Satoshi Numazawa
(Showa University School of Pharmacy)

P-27

Quantitation of THC and CBD in the CBD oil products seized in JAPAN by HPLC-PDA

○Kei Ieuji
(Narcotics Control Department, Shikoku Regional Bureau of Health and Welfare, Ministry of Health, Labour and Welfare)

P-28

Screening of Aconitum Alkaloids in Aconitum Using LC-QTOF

○Masahiko Takino¹, Makiko Hayashida²
(¹Agilent Technologies Japan, Ltd, ²Department of Legal Medicine, Nippon Medical School)

P-29

Methamphetamine was detected in 21 autopsy cases from 2006 to 2016

○Tatsunori Takayasu¹, Hiroki Yamamoto², Yuko Ishida², Mizuho Nosaka², Mariko Kawaguchi², Yumi Kuninaka², Akihiko Kimura², Toshikazu Kondo²
(¹Forensic Toxicology Unit, Department of Forensic Medicine and Pathology, Graduate School of Medical Science, Kanazawa University, ²Department of Forensic Medicine, Wakayama Medical University)

P-30

The example of aconitine poisoning by the monkshood tuberous root purchased from Internet-order

○Makiko Hayashida¹, Kyoko Uekusa¹, Youkichi Ohno¹, Hiroshi Ohara²
(¹Department of Legal Medicine, Nippon Medical School, ²Critical Medical Care Center, School of Medicine, Toho University)

P-31

Analysis of gasoline and toluene using gas chromatography and gas chromatography-mass spectrometry in an autopsy case.

○Tomohiro Matsumoto, Atsushi Akane, Masaki Hashiyada, Sumitaka Yoshimura, Masahiro Ohbayashi
(Department of Legal Medicine, Kansai Medical University)

P-32

Analysis of Seirogan® components using gas chromatography/mass spectrometry in forensic samples

○Kyoko Maebashi¹, Isora Tatematsu¹, Kana Sakamoto¹, Sakurako Iwadata^{1,2}, Kimiharu Iwadata¹
(¹Department of Forensic Medicine, The Jikei University School of Medicine, ²Kyorin University School of Health Sciences)

P-33

Autopsy cases related to pesticides at Chiba University

○Yumi Hoshioka¹, Maika Nariai², Hiroko Abe¹, Daisuke Yajima¹, Go Inokuchi¹, Fumiko Chiba^{1,2}, Sayaka Nagasawa¹, Miyuki Miura¹, Keisuke Okaba¹, Hirotaro Iwase^{1,2}
(¹Department of Legal Medicine, Graduate School of Medicine, Chiba University, ²Department of Forensic Medicine, Graduate School of Medicine, The University of Tokyo)

P-34

A study on decomposition process of the organophosphorus pesticide mixed in food (part 2)

○Yoshihito Ohmae^{1,2}, Masashi Hojo², Yoshinori Nishiwaki³

(¹Forensic Science Laboratory, Kochi Prefectural Police Headquarters, ²Faculty of Science, Kochi University, ³Faculty of Education, Kochi University)

P-35

Generation and *in vitro* affinity maturation of a single-chain Fv fragment against Δ^9 -tetrahydrocannabinol

○Hiroyuki Oyama¹, Izumi Morita¹, Kazuhisa Matsuda¹, Kengo Katagi¹, Norihiro Kobayashi¹, Hiroyuki Tanaka², Satoshi Morimoto²

(Kobe Pharmaceutical University¹, Graduate School of Pharmaceutical Sciences, Kyushu University²)

P-36

Generation and characterization of novel monoclonal antibodies against ketamine

○Izumi Morita, Hiroyuki Oyama, Yui Kanda, Mayumi Yasuo, Aya Ito, Norihiro Kobayashi

(Kobe Pharmaceutical University)