



★ Poster size: 180 cm long X 90 cm wide

★ Poster mounting: 7:30 - 8:20, June 20, 2007

★ Poster removing: 18:30 - 21:00, June 21, 2007

★ Poster Session:

Posters of **odd numbers**: 18:30 – 19:30, June 20, 2007

Posters of **even numbers**: 17:30 – 18:30, June 21, 2007

★ Oral Poster Session over lunch

(28 selected posters): 13:00 – 14:30, June 20, 2007

Poster Titles

PO 1 Dissolution of NSAIDs in physiological relevant buffer: implications for biowaiver

Haili Ping, and Gordon Amidon

Department of Pharmaceutical Sciences, University of Michigan, Ann Arbor, MI USA

PO 2 Biopharmaceutics classification system (BCS) class I biowaivers: Determination of highly permeable compounds with the in situ single pass perfusion

Yasuhiro Tsume¹, Jae-Sung Kim², John M Hilfinger², and Gordon L Amidon¹

¹The Department of Pharmaceutical Science, University of Michigan, Ann Arbor, Michigan, USA, and ²TSRL inc, Ann Arbor, Michigan, USA

PO 3 Bioequivalence of baclofen in plasma by high-performance liquid chromatography-electrospray ionization tandem mass spectrometry with solid phase extraction

Sang Jun Choi, and Kyung Tae Lee

Department of Pharmaceutical Biochemistry, College of Pharmacy, University of Kyung-Hee, Seoul, Korea

PO 4 Assesment of bioequivalence of metformin hydrochloride administered in single dose to healthy volunteers by high-performance liquid chromatography

Myung Jae Lee, Ji Hyung Seo, and Kyung Tae Lee

Department of Pharmaceutical Biochemistry, College of Pharmacy, University of Kyung-Hee, Seoul, Korea

PO 5 Quantification of roxithromycin in human plasma using liquid chromatography-electrospray ionization tandem mass spectrometry with liquid-liquid extraction: application to the bioequivalence study

Ju Hee Ryu, and Kyung Tae Lee

Department of Pharmaceutical Biochemistry, College of Pharmacy, University of Kyung-Hee, Seoul, Korea

PO 6 Fecal elimination of acteoside, a phenylpropanoid glycoside from *Orobanchaeoerulescens*, after oral administration in rats

Yu-Tse Wu¹, Lie-Chwen Lin², and Tung-Hu Tsai^{1,3}

¹Institute of Traditional Medicine, National Yang-Ming University, Taipei, Taiwan, ²National Research Institute of Chinese Medicine, Taipei, Taiwan, and ³Department of Education and Research, Taipei City Hospital, Taipei, Taiwan

PO 7 The effect of gastroretentive dosage forms on pharmacokinetic profile of model drugs in the rat model

Leonid Kagan, and Amnon Hoffman

Department of Pharmaceutics, School of Pharmacy, The Hebrew University of Jerusalem, Israel

PO 8 Biphasic gastric emptying theory as a possible explanation of multiple peaks phenomenon

Won-Sik Shim, Yun Kyung Lee, and Chang-Koo Shim

National Research Laboratory of Transporters Targeted Drug Design, Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Seoul, Korea

PO 9 Pharmacokinetics of tetrodotoxin by a single administration to puffer fish *Takifugu rubripes*

Takuya Matsumoto, Yuji Nagashima, Shoichiro Ishizaki, Kuniyoshi Shimakura, and Kazuo Shiomi
Department of Food Science and Technology, Tokyo University of Marine Science and Technology, Tokyo, Japan

PO 10 Pharmacokinetic characterization of artesunate in rat

Kyeong-Ryoon Lee¹, Dong-Jin Chung¹, Dong-Hyun Kim², Dae-Duk Kim¹, Chang-Koo Shim¹, and Suk-Jae Chung¹

¹*Department of Pharmaceutics, College of Pharmacy, Seoul National University, Seoul, South Korea, and* ²*Bioanalysis and Biotransformation Research Center, Korea Institute of Science and Technology, Seoul*

PO 11 Inhibitory effect of docosahexaenoic acid (DHA) on the intestinal metabolism of midazolam: *in vitro* and *in vivo* studies in rats

Vilasinee Hirunpanich^{1,2}, Kazutoshi Murakoso¹, and Hitoshi Sato¹

¹*Department of Clinical and Molecular Pharmacokinetics/Pharmacodynamics, Faculty of Pharmaceutical Sciences, Showa University, Tokyo, Japan, and* ²*Faculty of Pharmacy, Mahasarakham University, Mahasarakham, Thailand*

PO 12 Intestinal and liver CYP3A4-mediated metabolism of R/S-verapamil in pigs

Helena Eriksson¹, Paul Dickinson², and Hans Lennernäs¹

¹*Department of pharmacy, Uppsala University, Sweden, and* ²*Pharmaceutical and Analytical Research & Development, AstraZeneca, Alderley Park, Cheshire, England*

PO 13 Investigation of unique pharmacokinetics in cynomolgi (1) - Species differences in intestinal absorption -

Nobuyuki Amano¹, Midori Ono¹, Tomohiro Nishimura², Yoshiaki Kimura¹, Hisashi Fujita¹, Yoshiyuki Kubo², Yukio Kato², and Akira Tsuji²

¹*Discovery Research Center, Pharmaceutical Research Division, Takeda Pharmaceutical Company Ltd., Osaka, Japan, and* ²*Graduate School of Natural Science and Technology, Kanazawa University, Kanazawa, Japan*

PO 14 Investigation of unique pharmacokinetics in cynomolgi (2) - Evaluation of intestinal metabolism in Ussing-type chamber method -

Midori Ono¹, Nobuyuki Amano¹, Tomohiro Nishimura², Yoshiaki Kimura¹, Hisashi Fujita¹, Yoshiyuki Kubo², Yukio Kato², and Akira Tsuji²

¹*Discovery Research Center, Pharmaceutical Research Division, Takeda Pharmaceutical Company Ltd., Osaka, Japan, and* ²*Graduate School of Natural Science and Technology, Kanazawa University, Kanazawa, Japan*

PO 15 Investigation of the effects of food on the gastrointestinal transit and orally drug absorption in beagle dogs by gamma scintigraphy

Takuo Washio¹, Masayuki Takahashi¹, Osamu Okazaki¹, Bridget O'Mahony², Lee Ann Hodges², Fiona McInnes², Howard Stevens^{2,3}, and Shinji Yamashita⁴

¹*Daiichi Sankyo Co., Ltd, Tokyo, Japan,* ²*Bio-image Reserch Ltd, Glasgow, UK,* ³*University of Strathclyde, Glasgow, UK, and* ⁴*Setsunan University, Osaka, Japan*

- PO 16 Synthesis and evaluation of [¹⁸F]FE1-MDL 100907, a potential 5-HT_{2A} antagonist**
M.M. Herth¹, M. Piel¹, F. Debus², M. Palner³, P. Riss¹, H.Lüddens², and F. Rösch¹
¹*Institute of Nuclear Chemistry, Johannes Gutenberg-University, D-55128 Mainz, Germany, and*
²*Department of Psychiatry, Clinical Research Group, Mainz, Germany, and* ³*Neurobiology Research Unit, Rigshospitalet, Copenhagen, Denmark*
- PO 17 Backbone cyclization of a melanocortin-4 agonist enhances its intestinal permeability and yields a novel peptide drug candidate for treating obesity**
Oded Ovadia¹, Shmuel Hess¹, Yaniv Linde², Carrie Haskell-Luevano³, Chaim Gilon², and Amnon Hoffman¹
¹*Pharmaceutics and* ²*Organic Chemistry Departments, The Hebrew University of Jerusalem, Israel, and* ³*Department of Medicinal Chemistry, University of Florida, Gainesville, Florida, USA*
- PO 18 Effect of glycerol-related compounds on carrier-mediated glycerol uptake in HCT-15 cells**
Nami Fujimoto¹, Katsuhisa Inoue¹, Yayoi Hayashi², and Hiroaki Yuasa¹
¹*Graduate School of Pharmaceutical Sciences, Nagoya City University, Nagoya, Japan, and*
²*College of Pharmacy, Kinjo Gakuin University, Nagoya, Japan*
- PO 19 Characterization of PCFT/HCP1-mediated transport of methotrexate in Caco-2 cells**
Mai Hatakeyama¹, Katsuhisa Inoue², Kin-ya Ohta², Yayoi Hayashi¹, and Hiroaki Yuasa²
¹*College of Pharmacy, Kinjo Gakuin University, Nagoya, Japan, and* ²*Graduate School of Pharmaceutical Sciences, Nagoya, Japan*
- PO 20 Involvement of carrier-mediated transport in the intestinal uptake of FTD**
Takashige Okayama, Keizou Kuwata, Kunihiro Yoshisue, Masahito Komuro, and Sekio Nagayama
Pharmacokinetics Research Laboratory, Tokushima Research Center, Taiho Pharmaceutical CO., LTD., Tokushima, Japan
- PO 21 Intestinal absorption mechanism of glipizide, an anionic compound**
Luise Gram, and Bente Steffansen
Molecular Biopharmaceutics, Faculty of Pharmaceutical Sciences, University of Copenhagen, Denmark
- PO 22 Some furanocoumarins extracted from Umbelliferous Plants show potent inhibitory effects on P-glycoprotein and CYP3A4**
Kazunori Iwanaga¹, Manami Hayashi¹, Yukimi Hamahata¹, Shinji Yoneda¹, Makoto Miyazaki¹, Makio Shibano², Masahiko Taniguchi², Kimiye Baba², and Masawo Kakemi¹
¹*Division of Pharmaceutics, Osaka University of Pharmaceutical Sciences, Osaka, Japan,* ²*Division of Pharmacognosy, Osaka University of Pharmaceutical Sciences, Osaka, Japan*
- PO 23 The effect of selected hydroxy and methoxy flavonoids on the in vitro efflux transport of rhodamine 123 using rat jejunum**
Stephanie Van Huyssteen, Stanley A. Dodd, Kobus Swart, and Maides M. Malan
Pharmaceutics, School of Pharmacy, North West University, Potchefstroom, South Africa

PO 24 Prediction of intestinal drug absorption and disposition by non-invasive method using peripheral blood lymphocyte

Mariko Nakaike, Mikio Tomita, and Masahiro Hayashi

School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, Japan

PO 25 TRN classification of ampicillin prodrugs for P-glycoprotein using Caco-2 cells for designing absorbable lipophilic prodrugs

Takashi Mizuma, Sachie Tanaami, Sayaka Sakaguchi, and Masahiro Hayashi

School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan

PO 26 Modulation of intestinal p-glycoprotein function by pharmaceutical excipients: contributions of p-gp ATPase activity and membrane fluidity

Yulian Lin¹, Yuriko Nakao¹, Mariko Nishimi¹, Hidemasa Katsumi¹, Takuya Fujita², and Akira Yamamoto¹

¹*Department of Biopharmaceutics, Kyoto Pharmaceutical University, and* ²*College of Information Science and Engineering, Ritsumeikan University*

PO 27 Transport and metabolism of MitoQ10, a mitochondria-targeted antioxidant, in Caco-2 cell monolayers

Yan Li^{1,2}, Hu Zhang¹, J. Paul Fawcett¹, Ikumi Tamai², and Ian G. Tucker¹

¹*School of Pharmacy, University of Otago, Dunedin, New Zealand, and* ²*Department of Membrane Transport and Pharmacokinetics, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Chiba, Japan*

PO 28 Change in the localization of tight junction proteins in the plasma membrane of an MDCK monolayer by treatment with a medium-chain fatty acid

Yoshinori Onuki, Ko Sugibayashi, and Kozo Takayama

Department of Pharmaceutics, Hoshi University, Tokyo, Japan

PO 29 Structural parameters affecting on drug release behaviors from poly (2-hydroxyethyl methacrylate) matrix

Fumiki Yanagawa, Yoshinori Onuki, Mariko Morishita, and Kozo Takayama

Department of Pharmaceutics, Hoshi University, Japan

PO 30 Improvement of bioavailability and photostability of amlodipine using redispersible dry emulsion

Dong-Jin Jang, Sung Tae Kim, Bae-Chan Kim, and Chong-Kook Kim

Laboratory of Excellency for Drug and Gene delivery, College of Pharmacy, Seoul National University, Seoul, Republic of Korea

PO 31 Modeling of mass transfer from double W/O/W emulsions

Stanisław Wroński¹, Vsevolod Vladimirov², and Anna Adach¹

¹*Department of Chemical and Process Engineering, Warsaw University of Technology, Warsaw, Poland, and* ²*Faculty of Applied Mathematics, AGH University of Science and Technology, Cracow, Poland*

PO 32 Effects of particle sizes on bile-independent intestinal absorption of poorly water-soluble drugs improved by self-emulsifying drug delivery system (SEDDS)

Shinpei Yoshida¹, Hiroshi Araya², Mikio Tomita¹, and Masahiro Hayashi¹

¹*School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, Japan, and* ²*Formulation Technology Research Department, Drug Engineering Division, Chugai Pharmaceutical Co., LTD., Japan*

PO 33 Electrospun polyvinyl alcohol polymeric fibrous system as carriers for extracts from fruit hull of mangosteen

Praneet Opanasopit¹, Suwannee Panomsuk¹, Tanasait Ngawhirunpat¹, Chavalit Sittisombut¹, Uracha Ruktanonchai², Orawan Suwantonng³, and Pitt Supaphol³

¹*Faculty of Pharmacy, Silpakorn University, Nakhonpathom, Thailand,* ²*National Nanotechnology Center (NANOTEC) Pathumthani, Thailand, and* ³*The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand*

PO 34 Mechanisms of membrane transport of poorly soluble drugs: Role of micelles in oral absorption processes

Koji Yano, Yoshie Masaoka, Makoto Kataoka, Shinji Sakuma, and Shinji Yamashita
Setsunan University, Hirakata, Osaka, Japan

PO 35 Multiple inhibition mechanism of ketoconazole on activities of CYP3A4 and P-glycoprotein

Yun-Ping Lim, and Jin-ding Huang

Department of Pharmacology, College of Medicine, National Cheng Kung University, Tainan, Taiwan

PO 36 P-Glycoprotein mediated transport of nifedipine and its impact on nifedipine pharmacokinetics and pharmacodynamics in rats

M. Dorababu^{1,2}, Asako Nishumura¹, Kazumasa Naruhashi¹, Nobuyuki Sugioka², Kanji Takada², and Nobuhito Shibata¹

¹*Department of Biopharmaceutics, Doshisha Womens College of Liberal Arts, Kyotanabe, Kyoto, Japan, and* ²*Department of Pharmacokinetics, Kyoto Pharmaceutical University, Yamashina, Kyoto, Japan*

PO 37 Circadian clock-controlled expression of the multidrug resistance gene *mdr1a* in mouse small intestine

Shigehiro Ohdo, Yuichi Murakami, Yuko Higashi, Naoya Matsunaga, and Satoru Koyanagi

Pharmaceutics, Division of Clinical Pharmacy, Department of Medico-Pharmaceutical Sciences, Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan

PO 38 Prediction of human intestinal availability of CYP3A4 substrates based on in vitro studies

Yumiko Iwase, Masataka Ishiji, Yasuyuki Tsuda, and Tomoo Itoh

School of Pharmaceutical Sciences, Kitasato University, Tokyo, Japan

- PO 39 In vitro evaluation of improved oral absorption of poorly soluble drugs by various formulations**
Makoto Kataoka¹, Takuo Washio², Norio Suzuki², Katsuhiko Igeta², Masayuki Takahashi², and Shinji Yamashita¹
¹*Setsunan University, Osaka, Japan, and* ²*Daiichi Sankyo Pharmaceutical Co., Ltd., Tokyo, Japan*
- PO 40 Estimation of food effect on the oral absorption of drugs by *in vitro* Dissolution/Permeation system (D/P system)**
Masayuki Takahashi¹, Takuo Washio¹, Norio Suzuki¹, Katsuhiko Igeta¹, Osamu Okazaki¹, Makoto Kataoka², and Shinji Yamashita²
¹*Daiich Sankyo Pharmaceutical Co., Ltd., Tokyo, Japan, and* ²*Setsunan University, Osaka, Japan*
- PO 41 Assessment of the intestinal first-pass metabolism using excised intestinal membrane *in vitro***
Yoshie Masaoka, Otake Junji, Izuchi Toru, Makoto Kataoka, Shinji Sakuma, and Shinji Yamashita
College of Pharmacy, Setsunan University, Osaka, Japan
- PO 42 Improvement of oral absorption behavior of griseofulvin, a BCS class II drug, by SMEDDS and prediction of absorption kinetics based on GITA model**
Kazutaka Higaki, Yoshitsugu Fujioka, Yasuko Fujie, Yukiko Metsugi, Takanori Hironaka, Motoki Ochi, Ken-ichi Ogawara, and Toshikiro Kimura
Division of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, Okayama, Japan
- PO 43 Comparison of the “well-stirred” gut and the “Q_{Gut}” models for predicting intestinal first-pass metabolism**
Jiansong Yang¹, Masoud Jamei¹, Karen Rowland Yeo¹, Geoffrey T. Tucker^{1,2}, and Amin Rostami-Hodjegan^{1,2}
¹*Simcyp Limited, Blades Enterprise Centre, John Street, Sheffield, United Kingdom, and* ²*Academic Unit of Clinical Pharmacology, Pharmacokinetics and Pharmacogenetics Group, University of Sheffield, United Kingdom*
- PO 44 Simulation of non-linear dose dependent absorption and pharmacodynamic response of P-glycoprotein substrate talinolol**
Marija Tubic-Grozdanis, Hildegard Spahn-Langguth, and Peter Langguth
Department of Biopharmaceutics and Pharmaceutical Technology, Johannes-Gutenberg University, Mainz, Germany
- PO 45 A simulation study to clarify the impact of uneven distribution of CYP3A4 and P-glycoprotein in intestine on barrier function against xenobiotics**
Kazuya Maeda, Takao Watanabe, Chikako Nakai, and Yuichi Sugiyama
Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan
- PO 46 A Novel Physiologically-Based Mechanistic Model for Predicting Oral Drug Absorption: The Advanced Dissolution, Absorption, and Metabolism (ADAM) Model**
Masoud Jamei¹, Jiansong Yang¹, David Turner¹, Karen R. Yeo¹, Geoffrey T. Tucker^{1,2}, and Amin Rostami-Hodjegan^{1,2}
¹*Simcyp Limited, Blades Enterprise Centre, John Street, Sheffield, United Kingdom, and* ²*Academic Unit of Clinical Pharmacology, Pharmacokinetics and Pharmacogenetics Group, University of Sheffield, United Kingdom*

PO 47 Toward the in silico prediction of drug-drug interactions based on Ontology-driven logic inference

Takeshi Arikuma¹, Sumi Yoshikawa², Kentaro Watanabe¹, Kazumi Matsumura², and Akihiko Konagaya^{1,2}

¹Graduate School of Information Science and Engineering, Tokyo Institute of Technology, Tokyo, Japan, and ²Advanced Genome Information Technology Research Group, Riken Genomic Sciences Center, Tokyo, Japan

PO 48 Evaluation of the multiple depletion curves method, an improved approach for characterization of enzyme kinetics in early drug development

Erik Sjögren, and Hans Lennernäs

Department of Pharmacy, Biopharmaceutic Research Group, Uppsala University, Sweden

PO 49 Systematic prediction of drug-drug interactions mediated by CYP3A4 from in vivo pharmacokinetics; considerations on intestinal metabolism and transport

Akihiro Hisaka, Yoshiyuki Ohno, and Hiroshi Suzuki

The University of Tokyo Hospital, Faculty of Medicine, The University of Tokyo, Tokyo, Japan

PO 50 Inhibition of the esterase activity in microsomes from human liver and intestine microsomes and Caco-2 cell S9 by citrus fruits

Masumi Imoto¹, Noriyuki Usami¹, Ikuo Yamamoto¹, Shinzo Hosoi¹, Akiyo Sakushima¹, and Kazuhito Watanabe²

¹School of Pharmaceutical Sciences, Kyushu University of Health and Welfare, Nobeoka, Japan, and

²Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, Japan

PO 51 Cholesterol feeding prevents hepatic accumulation of bile acid in cholic acid-fed FXR-null mice: FXR-independent suppression of intestinal bile acid absorption

Masaaki Miyata¹, Yoshiaki Matsuda¹, Masahiro Nomoto¹, Frank J. Gonzalez², and Yasushi Yamazoe^{1,3}

¹Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai, Japan, ²National Cancer Institute, National Institutes of Health, Bethesda, MD, USA, and ³CRESCENDO, The Tohoku University 21st Century "Center of Excellence" Program, Sendai, Japan

PO 52 Enhanced expression of hepatic UDP-glucuronosyltransferases 1A1 and 1A6 in rats fed a high-fat and high-sucrose diet and association with elevated glucuronidation of acetaminophen

Makoto Osabe¹, Junko Sugatani^{1,2}, Kousuke Mizushima¹, Tomoaki Fukuyama¹, Shin-Ichi Ikushiro³, Tadanobu Takahashi¹, Akira Ikari¹, and Masao Miwa¹

¹Department of Pharmaco-Biochemistry, School of Pharmaceutical Sciences, University of Shizuoka,

²21st Century Center of Excellence Program, Shizuoka, Japan, and ³Biotechnology Research Center, Toyama Prefectural University, Toyama, Japan

PO 53 Cranberry juice affects the pharmacokinetics of tadalafil in rats

Ching-Ling Cheng¹, Yu-Shuan Chen², and Chen-Hsi Chou²

¹Department of Pharmacy, Chia-Nan University of Pharmacy and Science, Jen-Te, Tainan, Taiwan, and ²Institute of Clinical Pharmacy, Medical College, National Cheng Kung University, Tainan, Taiwan

- PO 54 The effect of gemfibrozil on the biliary excretion of rosuvastatin in pig and man**
Ebba Bergman¹, Anna Lundah¹, Elin Sjödin¹, Patrik Forsell², Mikael Hedeland³, Ulf Bondesson³, Lars Knutson², and Hans Lennernäs¹
¹*Department of Pharmacy, Uppsala University, Sweden,* ²*Department of Surgery, Uppsala University Hospital, Sweden,* ³*Department of Chemistry, National Veterinary Institute, Uppsala, Sweden, and* ⁴*Division of Analytical Pharmaceutical Chemistry, Uppsala University, Sweden*
- PO 55 In vivo evaluation of the intestinal and hepatobiliary transport of ximelagatran and its metabolites in pigs and humans**
Elin Sjödin¹, Ulf Eriksson², Holger Fritsch², Ulrika Logren², Hassan Dorani², Patrik Forsell³, Lars Knutson³, and Hans Lennernäs¹
¹*Department of Pharmacy, Uppsala University, Uppsala, Sweden,* ²*AstraZeneca R&D Mölndal, Sweden, and* ³*Department of Surgery, University Hospital, Uppsala, Sweden*
- PO 56 The effect of St John's wort on the pharmacokinetics and metabolism of finasteride**
Anna Lundahl¹, Mikael Hedeland², Ulf Bondesson^{2,3}, Lars Knutson⁴, and Hans Lennernäs¹
¹*Department of Pharmacy, Uppsala University, Sweden,* ²*Department of Chemistry, National Veterinary Institute, Uppsala, Sweden,* ³*Division of Analytical Pharmaceutical Chemistry, Uppsala University, Sweden, and* ⁴*Department of Surgery, Uppsala University Hospital, Sweden*
- PO 57 Influence of cytochrome P450 (CYP) 2C9 genotype on pharmacokinetics and pharmacodynamics of benzbromarone**
Shinya Uchida¹, Kayoko Shimada¹, Shingen Misaka¹, Kyoichi Ohashi², Shizuo Yamada¹, and Hirohi Watanabe³
¹*School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan,* ²*Ohita University, School of Medicine, Ohita, Japan, and* ³*Hamamatsu University, School of Medicine, Hamamatsu, Japan*
- PO 58 Pharmacokinetics of daunorubicin in CCl₄ induced acute hepatic injury**
Min-Koo Choi¹, Im-Sook Song², Dae-Duk Kim¹, Suk-Jae Chung¹, and Chang-Koo Shim¹
¹*National Research Laboratory of Transporters Targeted Drug Design, Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Seoul, Korea, and* ²*Department of Pharmacology and Pharmacogenomics Research Center, Inje University College of Medicine, Busan Korea*
- PO 59 Pharmacokinetics of pyrazinamide and pyrazinoic acid and the interaction with silibinin in rats**
Jhy-Wen Wu^{1,2}, and Tung-Hu Tsai^{1,3}
¹*Institute of Traditional Medicine, School of Medicine, National Yang-Ming University, Taipei, Taiwan,* ²*Centers for Disease Control, Department of Health, Taipei, Taiwan, and* ³*Department of Education and Research, Taipei City Hospital, Taipei, Taiwan*
- PO 60 Bile-to-blood distribution of plumbagin in rat using microdialysis**
Yen-Ju Hsieh¹, and Tung-Hu Tsai^{1,2}
¹*Institute of Traditional Medicine, National Yang-Ming University, Taipei, Taiwan, and* ²*Department of Education and Research, Taipei City Hospital, Taipei, Taiwan*

PO 61 Utility of sandwich-cultured rat hepatocytes to predict in vivo biliary excretion in rats

Hajime Fukuda¹, Rikiya Ohashi¹, Minoru Tsuda-Tsukimoto¹, and Ikumi Tamai²

¹Tanabe Seiyaku Co., Ltd., Saitama, Japan, and ²Tokyo University of Science, Chiba, Japan

PO 62 Predominant contribution of rat oatp2 to hepatic uptake of β -lactam antibiotics

Masanori Nakakariya¹, Taiki Shimada¹, Masanori Irokawa¹, Hiroyuki Koibuchi¹, Takashi Iwanaga¹, Hikaru Yabuuchi², Tomoji Maeda¹, and Ikumi Tamai¹

¹Department of Membrane Transport and Pharmacokinetics, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Chiba, Japan, and ²GenoMembrane, Inc., Kanagawa, Japan

PO 63 Inhibition of BSP transport by cyclosporin A in rat hepatocytes

Yoshihisa Shitara¹, Yoshiko Nagamatsu¹, Yuichi Sugiyama², and Toshiharu Horie¹

¹Graduate School of Pharmaceutical Sciences, Chiba University, Chiba, Japan, and ²Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan

PO 64 Role of various efflux transporters in the pharmacokinetics of fexofenadine in the liver

Soichiro Matsushima¹, Kazuya Maeda¹, Hisamitsu Hayashi¹, Yasuyuki Debori¹, Alfred H. Schinkel², Masashi Adachi³, John D. Schuetz³, Hiroyuki Kusuhara¹, and Yuichi Sugiyama¹

¹Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan, ²The Netherlands Cancer Institute, Amsterdam, The Netherlands, and ³St Jude Children's Research Hospital, Memphis, United States

PO 65 Investigation of the translocation mechanism of MRP2 in the liver by genipin

Mototsugu Ito¹, Hiroyuki Kusuhara¹, Masahiro Yamamoto², Nobuhiro Ohtake², Junichi Shoda³, and Yuichi Sugiyama¹

¹Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan, ²Central Research Laboratories, Tsumura&Co., Japan, and ³Graduate School of Comprehensive Human Sciences, The University of Tsukuba, Ibaraki, Japan

PO 66 Effects of endogenous ligands on the biological role of human serum albumin in S-nitrosylation and S-transnitrosylation

Yu Ishima¹, Takaaki Akaike², Ulrich Kragh-Hansen³, Shuichi Hiroyama¹, Tomohiro Sawa², Toru Maruyama¹, Ayaka Suenaga¹, Toshiya Kai¹, and Masaki Otagiri¹

¹Department of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, and ²Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan, and ³Department of Medical Biochemistry, University of Aarhus, Aarhus C, Denmark

PO 67 Site-directed mutagenesis study on drug binding specificity to genetic variants of human α_1 -acid glycoprotein

Toru Maruyama, Megumi Ueno, Koji Nishi, Yuka Murakami, Naoko Fukunaga, Teruo Akuta, Hitoshi Watanabe, Yasunori Iwao, Ayaka Suenaga, and Masaki Otagiri

Kumamoto University, Kumamoto, Japan

PO 68 Changes of net charge and α -helical content affect the pharmacokinetic properties of human serum albumin

Yasunori Iwao¹, Mikako Hiraike¹, Ulrich Kragh-Hansen², Keiichi Kawai³, Toru Maruyama¹, and Masaki Otagiri¹

¹*Department of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Kumamoto University, Kumamoto, Japan,* ²*Department of Medical Biochemistry, University of Aarhus, Aarhus C, Denmark,* and ³*School of Health Sciences, Faculty of Medicine, Kanazawa University, Ishikawa, Japan*

PO 69 Characterization of hepatic uptake of tilisolol, palmitoyl tilisolol, and liposomal palmitoyl tilisolol in the perfused rat liver

Hitoshi Sasaki¹, Chie Nakatsukasa¹, Mugen Teshima¹, Mikiro Nakashima², Shintaro Fumoto², Koyo Nishida², Junzo Nakamura², Nobuhiro Ishikawa¹, Hideto To¹, and Takashi Kitahara¹

¹*Department of Hospital Pharmacy, Nagasaki University Hospital, and* ²*Graduate School of Biomedical Science, Nagasaki University, Nagasaki, Japan*

PO 70 Targeted delivery of NF κ B decoy by glycosylated cationic liposomes

Shigeru Kawakami, Yuriko Higuchi, and Mitsuru Hashida

Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan

PO 71 Differential effects of dexamethasone palmitate incorporated in mannosylated liposomes on LPS-induced cytokine release in rat alveolar macrophages

Wassana Wijagkanalan¹, Shigeru Kawakami¹, Fumiyoshi Yamashita¹, Hitoshi Sasaki², and Mitsuru Hashida¹

¹*Graduate School of Pharmaceutical Sciences, Kyoto University, Sakyo-ku, Kyoto Japan, and*

²*Department of Hospital Pharmacy, Nagasaki University Hospital of Medicine and Dentistry, Nagasaki, Japan*

PO 72 Endocytosis of albumin in primary cultured alveolar type II and type I-like epithelial cells

Mika Ikehata, Ryoko Yumoto, Kousuke Nakamura, Junya Nagai, and Mikihiisa Takano

Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan

PO 73 Antigen delivery by nasal administration with γ -PGA nanoparticles can elicit potent antitumor responses

Kazuhiko Matsuo^{1,2}, Keisuke Matsuo^{1,2}, Takami Akagi^{2,3}, Mitsuru Akashi^{2,3,4}, Yohei Mukai¹, Yasuo Yoshioka^{1,4}, Naoki Okada^{1,2}, and Shinsaku Nakagawa^{1,2,4}

¹*Dept. Biotech. Ther., Grad. Sch. Pharm. Sci., Osaka Univ., Osaka, Japan,* ²*CREST, Japan,* ³*Dept. Appl. Chem., Grad. Sch. Eng., Osaka Univ., Osaka, Japan,* and ⁴*MEI center, Osaka Univ., Osaka, Japan*

PO 74 The pharmacodynamics and pharmacokinetics studies of intranasally administered Insulin in novel gel base in healthy male volunteers

Subramanian.G¹, Amitkhanna¹, Surulivelrajan M¹, Ranjith Kumar¹, Sureshwar Pandey² and Udupa

¹*Manipal College of Pharmaceutical Sciences, Manipal University, Manipal, Karnataka, India, and*

²*Asian Institute of Medical Sciences, Kedah Darul Amman, Malaysia*

PO 75 Stereoselective transport system of amethopterin enantiomers

Tomoya Narawa, Hideaki Yanagisawa, Yasuyuki Tsuda, and Tomoo Itoh

School of Pharmaceutical Sciences, Kitasato University, Tokyo, Japan

- PO 76 Expression of zinc transporter ZnT2 (Slc30a2) and ZIP2 (Slc39a2) in rat prostate**
Kazuhiro Iguchi, Shigeyuki Usui, and Kazuyuki Hirano
Laboratory of Pharmaceutics, Gifu Pharmaceutical University, Gifu, Japan
- PO 77 Functional characterization of ergothioneine transport by rat organic cation/carnitine transporter (rOcn1)**
Toshimichi Nakamura¹, Kenji Yoshida¹, Hikaru Yabuuchi², Tomoji Maeda¹, and Ikumi Tamai¹
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- PO 78 Structural requirements for drug inhibition of human OCT1**
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- PO 79 Re-evaluation and functional classification of nonsynonymous single nucleotide polymorphisms of human ABC transporter ABCG2**
Ai Tamura^{1,2}, Kanako Wakabayashi^{1,2}, Misako Takeda³, Yoji Ikegami³, and Toshihisa Ishikawa¹
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- PO 80 A global drug inhibition pattern for the human ABC transporter BCRP (ABCG2)**
Pär Matsson¹, Gunilla Englund¹, Gustav Ahlin¹, Christel A. S. Bergström¹, Ulf Norinder^{1,2}, and Per Artursson¹
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- PO 81 Functional validation of genetic polymorphisms of ABCB1 (P-glycoprotein/MDR1): The functional impact of tetra-allelic SNPs 2677G>T, A, or C**
Aki Sakurai^{1,2}, Yuko Onishi¹, Ei Leen Liew¹, Hiroyuki Hirano¹, Minoru Sakurai¹, Michel Seigneuret³, and Toshihisa Ishikawa¹
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- PO 82 H⁺/organic cation antiporter is involved in the blood-brain barrier transport of cationic drugs**
Yoshiharu Deguchi¹, Takashi Okura¹, Asami Hattori¹, Yusuke Nakazawa¹, Yusuke Takano¹, Takenori Sato¹, Margareta Hammarlund-Udenaes², and Tetsuya Terasaki³
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- PO 83 LAT1-mediated transport of amino acid prodrug across the rat blood-brain barrier**
Mikko Gynther, Krista Laine, Jarmo Ropponen, Anne Mannila, Jukka Leppänen, Tapio Nevalainen, Jouko Savolainen, Tomi Järvinen, and Jarkko Rautio
Department of Pharmaceutical Chemistry, University of Kuopio, Finland
- PO 84 In silico establishment of LC-MS/MS-based simultaneous high-sensitive quantification method for 75 human transporter proteins**
Ken Ohmine¹, Ryo Iwase¹, Kazunari Yanai¹, Yasuo Uchida¹, Kenjiro Sakai², Jun-ichi Kamiie^{1,2,3}, Yuki Katsukura^{1,2,3}, Sumio Ohtsuki^{1,2,3}, and Tetsuya Terasaki^{1,2,3}
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- PO 85 LC-MS/MS-based quantitative profile comparison of 27 transporter proteins in leukemia cells to identify the transporter involved in vincristine resistance**
Ryo Iwase¹, Ken Ohmine¹, Junichi Kamiie^{1,3}, Hideo Harigae², Sumio Ohtsuki^{1,3}, and Tetsuya Terasaki^{1,3}
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- PO 86 Quantitative expression profiling of 29 human transporter proteins in Caco-2 cells of different culture periods**
Yasuo Uchida¹, Junichi Kamiie^{1,2}, Ryo Iwase¹, Ken Ohmine¹, Sumio Ohtsuki^{1,2}, and Tetsuya Terasaki^{1,2}
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- PO 87 Effect of hyperammonia on the expression and function of transport system in conditionally immortalized mouse brain capillary endothelial cells (TM-BBB)**
Sumio Ohtsuki^{1,2}, Mireille Bélanger³, Tomoko Asashima^{1,2}, Hirofumi Yamaguchi¹, Shingo Ito^{1,2}, and Tetsuya Terasaki^{1,2}
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- PO 88 Oseltamivir (Tamiflu) transport at the blood-brain barrier via efflux transporter P-glycoprotein**
Kaori Morimoto¹, Masanori Nakakariya², Yoshiyuki Shirasaka², Ikumi Tamai², and Takuo Ogihara^{1,2}
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- PO 89 In vitro to in vivo prediction of P-gp based drug interactions at the human blood-brain barrier**
Peng Hsiao¹, Sara Eyal¹, Mark Muzi², Francisco Chung¹, Amal Kaddoumi¹, Jeanne M Link², David A Mankoff², Tot Bui¹, Rodney JY Ho¹, and Jashvant D Unadkat¹
¹Department of Pharmaceutics, and ²Department of Radiology, University of Washington, Seattle, Washington, USA

- PO 90 P-glycoprotein mediates brain-to-blood efflux transport of buprenorphine across the blood-brain barrier**
Toyofumi Suzuki, Chika Zaima, Yoshiaki Moriki, Toshiro Fukami, and Kazuo Tomono
College of Pharmacy, Nihon University, Chiba, Japan
- PO 91 Cloning, functional characterization and tissue distribution of the murine plasma membrane monoamine transporter (mPMAT; SLC29a4)**
Amber Dahlin¹, Li Xia¹, Wei Kong¹, Robert Hevner², and Joanne Wang¹
¹*Department of Pharmaceutics, University of Washington, Seattle, WA, and* ²*Department of Neurobiology and Behavior, University of Washington, Seattle, WA, USA*
- PO 92 A new role of creatine transporter (SLC6A8) at the blood-cerebrospinal fluid barrier**
Jun Fujinawa¹, Masanori Tachikawa¹, Tetsuya Terasaki², and Ken-ichi Hosoya¹
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- PO 93 Identification of guanidino compound transporters in the brain**
Yasuyuki Kasai¹, Masanori Tachikawa¹, Masato Takahashi¹, Jun Fujinawa¹, Tetsuya Terasaki², and Ken-ichi Hosoya¹
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- PO 94 Gene expression of ATP-binding cassette transporter A and C subfamilies at the mouse inner blood-retinal barrier**
Masanori Tachikawa, Hidetoh Toki, Masatoshi Tomi, and Ken-ichi Hosoya
Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
- PO 95 Scavenger receptor class B type I contributes to the uptake of high density lipoprotein-associated vitamin E at the inner blood-retinal barrier**
Shun Okayasu, Masanori Tachikawa, and Ken-ichi Hosoya
Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
- PO 96 Effect of bioactive lysophospholipids on osmosensitive taurine release from retinal capillary endothelial cells**
Kazuhiro Tsuji, Masanori Tachikawa, and Ken-ichi Hosoya
Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
- PO 97 Upregulation of L-type amino acid transporter 1 in the retinal capillary endothelial cells under the glucose depleted conditions**
Ryo Matsuyama, Masatoshi Tomi, Masanori Tachikawa, and Ken-ichi Hosoya
Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
- PO 98 Characterization of methyltetrahydrofolate uptake in the retinal capillary endothelial cells**
Keiko Fujita, Masanori Tachikawa, and Ken-ichi Hosoya
Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
- PO 99 L-Serine transport in retinal and brain capillary endothelial cells**
Masashi Okamoto¹, Masanori Tachikawa¹, Tetsuya Terasaki², and Ken-ichi Hosoya¹
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PO 100 The effect of calcium channel blockers and oxidative stress on taurine transport in the retinal capillary endothelial cell and syncytiotrophoblast cells

Young-Sook Kang

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PO 101 Immunohistochemical Demonstration of Transporters in Rabbit Corneal Epithelium

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PO 102 Drug-induced lung toxicity caused by the inhibition of choline uptake transporter in human lung adenocarcinoma A549 cells and rat alveolar type II cells

Naoki Ishiguro¹, Masanobu Oyabu¹, Toshihiro Sato¹, Tomoji Maeda¹, Hironobu Minami², and Ikumi Tamai¹

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PO 103 Placental transport of erythromycin evaluated using syncytiotrophoblast cell line TR-TBT 18d-1

Yoshimichi Sai, Kaori Ochi, Noriko Kose, Tomohiro Nishimura, and Emi Nakashima

Kyoritsu University of Pharmacy, Tokyo, Japan

PO 104 Transport mechanism and drug sensitivity of uridine, adenosine and hypoxanthine influx from apical membrane of rat syncytiotrophoblast cell line, TR-TBT 18d-1

Takuya Chishu, Yoshimichi Sai, Noriko Kose, Kazuko Sato, Tomohiro Nishimura, and Emi Nakashima

Kyoritsu University of Pharmacy, Tokyo, Japan

PO 105 MATE: a mammalian transporter protein that mediate the final excretion step for toxic organic cations

Yoshinori Moriyama, Takuya Matsumoto, Miki Hiasa, Toshinori Komatsu, Takuji Kanamoto, Ayumi Kobara, Masato Otsuka, and Hiroshi Omote

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PO 106 Functional characterization and localization of rodent multidrug and toxic compound extrusion 2 (MATE2), polyspecific H⁺/organic cation exporter

Miki Hiasa, Takuya Matsumoto, Toshinori Komatsu, Hiroshi Omote, and Yoshinori Moriyama

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PO 107 Purification and reconstitution of human MATE1 polyspecific H⁺/organic cation exporter

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- PO 108 OCT and MATE families are key transporters in platinum agents-induced nephrotoxicity**
Sachiko Yokoo, Atsushi Yonezawa, Satohiro Masuda, Toshiya Katsura, and Ken-ichi Inui
Department of Pharmacy, Kyoto University Hospital, Kyoto, Japan
- PO 109 Investigation of the inhibition mechanisms of probenecid and benzbromarone in the renal reabsorption of urate**
Tomohiro Ando, Hiroyuki Kusuhara, and Yuichi Sugiyama
Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan
- PO 110 Involvement of uric acid transporters in alteration of serum uric acid level by angiotensin II receptor blockers**
Hideaki Mamada¹, Takashi Iwanaga¹, Masanobu Sato¹, Toshio Ogihara², Hikaru Yabuuchi³, Tomoji Maeda¹, Yan Li¹, Yoshiyuki Shirasaka¹, and Ikumi Tamai¹
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- PO 111 Exogenous expression of adenylate kinases affects the cytotoxicity of adefovir in HEK293 cells**
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- PO 112 Mechanism of functional impairment of the rat taurine transporter by nitrogen oxide: evidence for the activation of nitrogen oxide by superoxide**
Mi-Hwa Kim, Tae-Sung Koo, Dae-Duk Kim, Chang-Koo Shim, and Suk-Jae Chung
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- PO 113 Reproducible Expression of the Function in LLC-PK1 Cells by an Isogenic Introduction rOCT2**
Kyung-Ha Yu, Dae-Duk Kim, Chang-Koo Shim, Suk-Jae Chung
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- PO 114 Intestinal absorption of cephalexin is governed by PDZK1 as a regulatory mechanism of oligopeptide transporter PEPT1 (Slc15a1) in mice**
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