### The AFPS Nagai-Shukri Pre-doctoral

### **Oral and Poster Presentation Award**

#### **Oral Presentation Award**

#### 1601-3 IN-SKIN ELECTROPORATION USING A MICRONEEDLE ELECTRODES-ARRAY Keshu Yan, Hiroaki Todo, Kenji Sugibayashi Faculty of Pharmaceutical Sciences, Josai University, Japan

#### 1601-4 SKIN DELIVERY OF HIGH MOLECULAR WEIGHT HYDROPHILIC COMPOUND USING HOLLOW MICRONEEDLES

<u>Nanthida Wonglertnirant</u><sup>1,2</sup>, Tanasait Ngawhirunpat<sup>2</sup>, Hiroaki Todo<sup>1</sup>, Kenji Sugibayashi<sup>1</sup> <sup>1</sup>Faculty of Pharmaceutical Sciences, Josai University, Japan, and <sup>2</sup>Faculty of Pharmacy, Silpakorn University, Thailand

#### 1601-7 DEVELOPMENT OF EFFICIENT SIRNA DELIVERY SYSTEM TO TUMOR CELLS BY COMBINING OCTAARGININE, GALA AND ENZYMATICALLY-CLEAVABLE PEG-LIPID

<u>Yu Sakurai</u><sup>1,3</sup>, Hiroto Hatakeyama<sup>1,3</sup>, Hidetaka Akita<sup>1,3</sup>, Motoi Oishi<sup>2,3</sup>, Yukio Nagasaki<sup>2,3</sup>, Shiroh Futaki<sup>4</sup>, Hideyoshi Harashima<sup>1,3</sup>

<sup>1</sup>Laboratory for Molecular Design of Pharmaceutics, Faculty of Pharmaceutical Sciences, Hokkaido University, Japan, and <sup>2</sup>Tsukuba Research Center for Interdisciplinary Material Science (TIMS), University of Tsukuba, Japan, and <sup>3</sup>CREST, Japan Science and Technology Agency (JST), Japan, and <sup>4</sup>Institute for Chemical Research, Kyoto University, Japan

#### 1601-8 LACTOFERRIN-MODIFIED PROCATIONIC LIPOSOMES AS NOVEL DRUG CARRIER FOR BRAIN DELIVERY

He Qin, Tang Lei, Chen Hua-li, Qin Yao, Yin Yu-jia, Yuan Wen-min

Key laboratory of drug targeting and drug delivery system(Sichuan University), Ministry of Education, Chengdu, Sichuan, China

#### 1702-2 CHARACTERIZATION OF SODIUM NAPROXEN PSEUDOPOLYMORPHS BY MQMAS NMR

Ayako Yamamoto, Kenjirou Higashi, Kunikazu Moribe, Keiji Yamamoto

Department of Pharmaceutical Technology, Graduate School of Pharmaceutical Sciences, Chiba University, Japan

#### 1702-3 SOLID STATE NMR INVESTIGATION INTO THE MECHANISM OF INDOMETHACIN NANOPARTICLE FORMATION BY CO-GRINDING WITH β-CYCLODEXTRIN

Shuichi Tanabe, Satoko Yoshimatsu, Kenjirou Higashi, Kunikazu Moribe, Keiji Yamamoto Department of Pharmaceutical Technology, Graduate School of Pharmaceutical Science, Chiba University, Japan

# 1702-4 EFFECT OF SULFOBUTYL ETHER $\beta$ -CYCLODEXTRIN ON THE AQUEOUS SOLUBILITY AND MASKING OF BITTER TASTE OF FAMOTIDINE IN THE ABSENCE AND PRESENCE OF PVP K30

<u>Fatma M. Mady</u><sup>1,2</sup>, Ahmed E. Abou-taleb<sup>3</sup>, Khaled A. Khaled<sup>1</sup>, Keishi Yamasaki<sup>4</sup>, Daisuke Iohara<sup>4</sup>, Takako Ishiguro<sup>4</sup>, Fumitoshi Hirayama<sup>4</sup>, Kaneto Uekama<sup>4</sup>, Masaki Otagiri<sup>2,4</sup>

<sup>1</sup>Pharmaceutics Department, Faculty of Pharmacy, Al-Minya University, Egypt, and <sup>2</sup>Department of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Kumamoto University, Japan, and <sup>3</sup>Industrial Pharmacy Department, Faculty of Pharmacy, Assuit University, Egypt, and <sup>4</sup>Faculty of Pharmaceutical Sciences, Sojo University, Japan

#### 1702-6 A NOVEL SOLID DISPERSION OF POORLY WATER SOLUBLE DRUG WITH ALPHA-GLUCOSYL HESPERIDIN: DISSOLUTION AND ABSORPTION ENHANCEMENT

<u>Hiromasa Uchiyama</u>, Yuichi Tozuka, Hirofumi Takeuchi Laboratory of Pharmaceutical Engineering, Gifu Pharmaceutical University, Japan

#### 1702-7 AEROSOL PERFORMANCE OF BOVINE SERUM ALBUMIN NANO-MATRICES FOR INHALATION

<u>Philip C L Kwok<sup>1</sup></u>, William Glover<sup>2</sup>, Hak-Kim Chan<sup>1</sup>

<sup>1</sup>Advanced Drug Delivery Group, Faculty of Pharmacy, Building A15, The University of Sydney, Australia, and <sup>2</sup>GlaxoSmithKline, Australia

#### 1702-9 ROLE OF MURINE OATP1A4 IN THE HEPATIC UPTAKE OF DRUGS IN MICE

Junichi Takano, Kazuya Maeda, Yuichi Sugiyama

Department of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan

#### **Poster Presentation Award**

#### AP-1 ANALYSIS OF MICROTUBULE-DEPENDENT TRANSPORT IN (16P-5) LIPID-ENCAPSULATED DNA NANO-CARRIER BY REAL-TIME IMAGING: COMPARISON WITH ADENOVIRUS

<u>Kaoru Enoto</u><sup>1</sup>, Hidetaka Akita<sup>1</sup>, Tomoya Masuda<sup>1</sup>, Hiroyuki Mizuguchi<sup>2</sup>, Hideyoshi Harashima<sup>1</sup> <sup>1</sup>Faculty of Pharmaceutical Sciences, Hokkaido University, Japan, and <sup>2</sup>Graduate School of Pharmaceutical Sciences, Osaka University, Japan

#### AP-2 DOXORUBICIN-LOADED, HEMATOPORPHYRIN-MODIFIED BOVINE SERUM

#### (16P-8) ALBUMIN NANOPARTICLES AS A TARGETED DRUG DELIVERY SYSTEM FOR THE LIVER CANCER

<u>Ji-Eun Chang</u>, Won-Sik Shim, Dae-Duk Kim, Suk-Jae Chung, Chang-Koo Shim Department of Pharmaceutics, College of Pharmacy, Seoul National University, Korea

### AP-3 EFFECTS OF ENHANCING METHODS FOR TRANSBUCCAL DELIVERY OF (16P-9) SALMON CALCITONIN (SCT) AND ITS HISTOLOGICAL EVALUATION

<u>Dong-Ho OH</u><sup>1</sup>, Sang-Ok JEON<sup>2</sup>, Kyeung-Hwa CHUN<sup>1</sup>, Hee-Jin HWANG<sup>1</sup>, Sun-Mi HONG<sup>1</sup>, Sun-Heui HAN<sup>1</sup>, Min-Ju KIM<sup>1</sup>, SangKil LEE<sup>1</sup>

<sup>1</sup>Department of Smart Foods and Drugs and <sup>2</sup>Department of Biohealth products, Inje University, Korea

#### AP-4 SPRAY-DRYING OF LOW-Tg DRUG WITH THE AID OF EXCIPIENTS

(16P-18) <u>Yusuke Hasegawa</u><sup>1,2</sup>, Kohsaku Kawakami<sup>1</sup>, Yasuo Yoshihashi<sup>2</sup>, Etsuo Yonemochi<sup>2</sup>, Katsuhide Terada<sup>2</sup>

<sup>1</sup>Biomaterials Center, National Institute for Materials Science and International Center for Materials Nanoarchitectonics, Japan, and <sup>2</sup>Toho University, Faculty of Pharmaceutical Sciences, Japan

### AP-5 DETERMINATION OF THE PRIMARY PHYSICOCHEMICAL PROPERTIES FOR THE (16P-30) DELIVERY OF DRUGS TO THE BRAIN AFTER THE NASAL ADMINISTRATION

<u>Kyeong-Ryoon Lee</u>, Han-Joo Maeng, Mi-Hwa Kim, Jung-Byung Chae, Jun-Hyeng Son, Dae-Duk Kim, Chang-Koo Shim, Suk-Jae Chung

Department of Pharmaceutics, College of Pharmacy, Seoul National University, Korea

### AP-6 NEUROPROTECTIVE EFFECTS OF EXTRACTED COMPOUNDS FROM *CLAUSENA* (16P-36) *HARMANDIANA* LINN.

Chantana Boonyarat<sup>1</sup>, Orawan Monthakantirat<sup>1</sup>, <u>Sutasinee Srisoi</u><sup>1</sup>, Tula Thongthoom<sup>2</sup>, Uraiwan Songsiang<sup>2</sup>, Waranyoo Prasertcharoensuk<sup>3</sup>, Jinda Wangboonsakul<sup>1</sup>, Chavi Yenjai<sup>2</sup>

<sup>1</sup>Faculty of Pharmaceutical Sciences, Khon Kaen University, Thailand, and <sup>2</sup>Faculty of Sciences, Khon Kaen University, Thailand, and <sup>3</sup>Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Mahidol University, Thailand

### AP-8 EFFECTS OF CURCUMIN ON DEPRESSION AND ANXIETY-LIKE BEHAVIOR IN (16P-40) UNPREDICTABLE CHRONIC MILD STRESS TREATED MICE

<u>Keerakul Tingsa</u>, Phantun Kongpraphan, Yaowared Chulikhit *Faculty of Pharmaceutical Sciences, Khonkaen University, Thailand* 

# AP-10 EFFECTS OF BILOBALIDE, GINKGOLIDE B AND PICROTOXININ ON GABAA (16P-42) RECEPTOR MODULATION

<u>Chiu Chin Ng</u>, Rujee K Duke, Tina Hinton, Graham AR Johnston Department of Pharmacology, The University of Sydney, Australia

# AP-11 EXENDIN-4 EXPRESSING ISLETS IMPROVE METABOLIC CONTROL AFTER RAT (16P-43) ISLET TRANSPLANTATION

Jee-Heon Jeong<sup>1</sup>, Dong Yun Lee<sup>2</sup>, Simmyung Yook<sup>1</sup>, Yoonsuk Jung<sup>1</sup>, Youngro Byun<sup>1,3</sup>

<sup>1</sup>College of Pharmacy, Seoul National University, South Korea, and <sup>2</sup>Department of Bioengineering, College of Engineering, Hanyang University, South Korea, and <sup>3</sup>Department of Molecular Medicine and Biopharmaceutical Sciences, Seoul National University, South Korea