The AFPS Nagai-Shukri Pre-doctoral Oral and Poster Presentation Award

**Oral Presentation Award**

16O1-3 IN-SKIN ELECTROPORATION USING A MICRONEEDLE ELECTRODES-ARRAY
Keshu Yan, Hiroaki Todo, Kenji Sugibayashi
Faculty of Pharmaceutical Sciences, Josai University, Japan

16O1-4 SKIN DELIVERY OF HIGH MOLECULAR WEIGHT HYDROPHILIC COMPOUND USING HOLLOW MICRONEEDLES
Nanthida Wonglertnirant¹ ², Tanasait Ngawhirunpat², Hiroaki Todo¹, Kenji Sugibayashi¹
¹Faculty of Pharmaceutical Sciences, Josai University, Japan, and ²Faculty of Pharmacy, Silpakorn University, Thailand

16O1-7 DEVELOPMENT OF EFFICIENT SIRNA DELIVERY SYSTEM TO TUMOR CELLS BY COMBINING OCTAARGININE, GALA AND ENZYMATICALLY-CLEAVABLE PEG-LIPID
Yu Sakurai¹ ³, Hiroto Hatakeyama¹ ³, Hidetaka Akita¹ ³, Motoi Oishi² ³, Yukio Nagasaki² ³, Shiroh Futaki⁴, Hideyoshi Harashima¹ ³
¹Laboratory for Molecular Design of Pharmaceutics, Faculty of Pharmaceutical Sciences, Hokkaido University, Japan, and ²Tsukuba Research Center for Interdisciplinary Material Science (TIMS), University of Tsukuba, Japan, and ³CREST, Japan Science and Technology Agency (JST), Japan, and ⁴Institute for Chemical Research, Kyoto University, Japan

16O1-8 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

17O2-2 CHARACTERIZATION OF SODIUM NAPROXEN PSEUDOPOLYMORPHS BY MQMAS NMR
Ayako Yamamoto, Kenjiro 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, Kenji Higashi, Kunikazu Moribe, Keiji Yamamoto
Department of Pharmaceutical Technology, Graduate School of Pharmaceutical Science, Chiba University, Japan

1702-4 EFFECT OF SULFOBUTYL ETHER β-CYCLODEXTRIN ON THE AQUEOUS SOLUBILITY AND MASKING OF BITTER TASTE OF FAMOTIDINE IN THE ABSENCE AND PRESENCE OF PVP K30
Fatma M. Mady1,2, Ahmed E. Abou-taleb3, Khaled A. Khaled1, Keishi Yamasaki4, Daisuke Iohara4, Takako Ishiguro4, Fumitoshi Hirayama4, Kaneto Uekama4, Masaki Otagiri2,4
1Pharmaceutics Department, Faculty of Pharmacy, Al-Minya University, Egypt, and 2Department of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Kumamoto University, Japan, and 3Industrial Pharmacy Department, Faculty of Pharmacy, Assuit University, Egypt, and 4Faculty 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
Hiromasa Uchiyama, Yuichi Tozuka, Hirofumi Takeuchi
Laboratory of Pharmaceutical Engineering, Gifu Pharmaceutical University, Japan

1702-7 AEROSOL PERFORMANCE OF BOVINE SERUM ALBUMIN NANO-MATRICES FOR INHALATION
Philip C L Kwok1, William Glover2, Hak-Kim Chan1
1Advanced Drug Delivery Group, Faculty of Pharmacy, Building A15, The University of Sydney, Australia, and 2GlaxoSmithKline, 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 LIPID-ENCAPSULATED DNA NANO-CARRIER BY REAL-TIME IMAGING: COMPARISON WITH ADENOVIRUS

Kaoru Enoto¹, Hidetaka Akita¹, Tomoya Masuda¹, Hiroyuki Mizuguchi², Hideyoshi Harashima¹
¹Faculty of Pharmaceutical Sciences, Hokkaido University, Japan, and ²Graduate School of Pharmaceutical Sciences, Osaka University, Japan

**AP-2** DOXORUBICIN-LOADED, HEMATOPORPHYRIN-MODIFIED BOVINE SERUM ALBUMIN NANO-PARTICLES AS A TARGETED DRUG DELIVERY SYSTEM FOR THE LIVER CANCER

Ji-Eun Chang, 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 SALMON CALCITONIN (SCT) AND ITS HISTOLOGICAL EVALUATION

Dong-Ho OH¹, Sang-Ok JEON², Kyeung-Hwa CHUN³, Hee-Jin HWANG¹, Sun-Mi HONG¹, Sun-Heui HAN¹, Min-Ju KIM¹, SangKil LEE¹
¹Department of Smart Foods and Drugs and ²Department of Biohealth products, Inje University, Korea

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

Yusuke Hasegawa¹,², Kohsaku Kawakami¹, Yasuo Yoshihashi², Etsuo Yonemochi², Katsuhide Terada²
¹Biomaterials Center, National Institute for Materials Science and International Center for Materials Nanoarchitectonics, Japan, and ²Toho University, Faculty of Pharmaceutical Sciences, Japan

**AP-5** DETERMINATION OF THE PRIMARY PHYSICOCHEMICAL PROPERTIES FOR THE DELIVERY OF DRUGS TO THE BRAIN AFTER THE NASAL ADMINISTRATION

Kyeong-Ryoon Lee, 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 HARMANDIANA LINN.

Chantana Boonyarat¹, Orawan Monthakantirat¹, Sutasinee Srisoi¹, Tula Thongthoom², Uraiwan Songsiang³, Waranyoo Prasertcharoensuk¹, Jinda Wangboonsakul¹, Chavi Yenjai²
¹Faculty of Pharmaceutical Sciences, Khon Kaen University, Thailand, and ²Faculty of Sciences, Khon Kaen University, Thailand, and ³Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Mahidol University, Thailand
AP-8  EFFECTS OF CURCUMIN ON DEPRESSION AND ANXIETY-LIKE BEHAVIOR IN UNPREDICTABLE CHRONIC MILD STRESS TREATED MICE
Keerakul Tingsa, Phantun Kongpraphan, Yaowared Chulikhit
Faculty of Pharmaceutical Sciences, Khonkaen University, Thailand

AP-10  EFFECTS OF BILOBALIDE, GINKGOLIDE B AND PICROTOXININ ON GABAA RECEPTOR MODULATION
Chiu Chin Ng, 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 ISLET TRANSPLANTATION
Jee-Heon Jeong¹, Dong Yun Lee², Simmyung Yook¹, Yoonsuk Jung¹, Youngro Byun¹,²,³
¹College of Pharmacy, Seoul National University, South Korea, and ²Department of Bioengineering, College of Engineering, Hanyang University, South Korea, and ³Department of Molecular Medicine and Biopharmaceutical Sciences, Seoul National University, South Korea