

## Japan-China Joint Medical Workshop on Drug Discoveries and Therapeutics 2008: The need of Asian pharmaceutical researchers' cooperation

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The Japan-China Joint Medical Workshop on Drug Discoveries and Therapeutics 2008 (JCMWDDT 2008) was held from September 29 to October 1, 2008 at The University of Tokyo, Tokyo, Japan. JCMWDDT is an international workshop that is mainly organized by Asian editorial members of Drug Discoveries & Therapeutics (<http://www.ddtjournal.com/home>) for the purpose of promoting research exchanges in the field of drug discovery and therapeutic. This year's JCMWDDT is the second workshop and focused particularly on novel development and technological innovation of anti-influenza agents. The workshop began with an announcement by the Japanese Co-chairperson, Dr. Sekimizu (Department of Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Japan; Editor-in-Chief of Drug Discoveries & Therapeutics, DDT) followed by a speech by the Chinese Co-chairperson, Dr. Wenfang Xu (School of Pharmaceutical Sciences, Shandong University, Shandong, China; Editor in China Office of DDT), with additional speeches by Dr. Norio Matsuki (The University of Tokyo, Japan; Editor of DDT) and Dr. Guanhua Du (Chinese Academy of Medical Science, China; Editor of DDT). Fifty-nine titles were presented in 6 specialized sessions (Research Advances in Drug Discoveries and Therapeutics, Drug Synthesis/Clinical Therapeutics, Medicinal Chemistry/Natural Products, Anti-influenza Drugs, Anti-infection/antiviral Drugs, Biochemistry/Molecular Biology /Pharmacology) and a poster session (*Drug Discov Ther 2008; 2, Suppl; available at <http://www.ddtjournal.com/Announce/index.htm>*). An annual outbreak of avian influenza in Asian countries including China and Japan has sparked fears that the virus will mutate and then cause an epidemic in humans. Therefore, Asian researchers need to work together to control this infection. This year's JCMWDDT helped provide an opportunity to reiterate the crucial role of medicinal chemistry in conquering influenza and created an environment for cooperative research in Asian countries. (reported on October 1st, with grateful thanks to all participants)



### Main program

#### Session I. Research Advances in Drug Discoveries and Therapeutics

- Design, synthesis and preliminary activity assay of influenza virus neuraminidase inhibitors by *Wenfang Xu (Shandong University, China)*
- Infection disease models with silkworms to evaluate the therapeutic effects of drug candidates by *Kazuhisa Sekimizu (The University of Tokyo, Japan)*
- Japan's governmental approaches to facilitate drug development process by *Makoto Shimoaraiso (Ministry of Foreign Affairs of Japan, Japan)*
- Effective detection of the epidermal growth factor receptor mutation by the peptide nucleic acid-locked nucleic acid PCR Clamp by *Sakuo Hoshi (The University of Tokyo Hospital, Japan)*
- Design and synthesis of p53-MDM2 binding inhibitors by *Yongzhou Hu (Zhejiang University, China)*

#### Session II. Drug Synthesis/Clinical Therapeutics

- Pharmacogenomics-based clinical studies using a novel fully-automated genotyping system by *Setsuo Hasegawa (Sekino Clinical Pharmacology Clinic, Japan)*
- Synthesis and biological evaluation of pentacyclic triterpenes as anti-tumor agents by *Hongbin Sun (China Pharmaceutical University, China)*
- Drug discovery and therapeutics using silkworm as experimental animal by *Yasuyuki Ogata (The University of*

Tokyo, Japan)

- Novel selective estrogen receptor modulators (SERMs) with unusual structure and biological activities by Haibing Zhou (Wuhan University, China)

### Session III. Medicinal Chemistry/Natural Products

- Synthesis and properties of isonucleosides incorporated oligonucleotides by Zhenjun Yang (Peking University, China)
- Isolation of antiviral compounds from plant resources using silkworm bioassay by Yutaka Orihara (The University of Tokyo, Japan)
- Synthesis and structural modification of tasiamide and the effect of these modifications on *in vitro* anticancer activity by Yingxia Li (Ocean University of China, China)
- Spirohexalines A and B, novel undecaprenyl pyrophosphate inhibitors produced by *Penicillium* sp. FK1-3368 by Junji Inokoshi (Kitasato University, Japan)
- Nosokomyocins, novel anti-MRSA antibiotics, produced by *Streptomyces* sp. K04-0144 by OR. Uchida (Kitasato University, Japan)
- *In vivo* screening for antimicrobial activity of Thai Herbal Medicines using silkworm model by Santad Chanprapaph (Chulalongkorn University, Thailand)
- Novel electrochemical sensor of nitric oxide for screening anti-aging Traditional Chinese Medicine by Zilin Chen (Wuhan University, China)
- Polysaccharide from green tea purified by silkworm muscle contraction assay induces innate immunity by increasing the expression of various inflammatory cytokine mRNA in human leukocytes by Saphala Dhital (The University of Tokyo, Japan)

### Session IV. Anti-influenza Drugs

- Structure-activity relationship of flavonoids as influenza virus neuraminidase inhibitors and their *in vitro* anti-viral activities by Guanhua Du (Chinese Academy of Medical Sciences and Peking Union Medical College, China)
- Mechanisms and consequences of phagocytosis of influenza virus-infected cells by Yoshinobu Nakanishi (Kanazawa University, Japan)
- Nuclear export inhibitors; a possible target for novel anti-influenza viral drugs by Ken Watanabe (Nagasaki University, Japan)
- Catalytic asymmetric synthesis of oseltamivir phosphate directing toward its stable worldwide supply by Motomu Kanai (The University of Tokyo, Japan)
- Clinical effects of probiotic bifidobacterium in the prevention of influenza virus infections and allergic diseases by Jin-zhong Xiao (Morinaga Milk Industry Co., Ltd., Japan)
- Production of anti-influenza PR8-scFv using a phage display by Normaiza Zamri (Tokai University, Japan)

### Session V. Anti-infection/Antiviral Drugs

- Emerging infectious diseases and anti-viral drugs: Urgent need to develop effective drugs which cause less resistant

virus by Nobuyuki Kobayashi (Nagasaki University, Japan)

- Design, synthesis and antiviral evaluation of novel heterocyclic compounds as HIV-1 NNRTIs by Xinyong Liu (Shandong University, China)
- Antiviral drug screening from microbial products by Eisaku Tsujii (Astellas Pharma Inc., Japan)
- Viral factors that determine the natural course of chronic hepatitis B viral infection by Hiroshi Yotsuyanagi (The University of Tokyo, Japan)
- Effect of andrographolide derivatives having  $\alpha$ -glucosidase inhibition, on HBsAg, HBeAg secretion in HepG2 2.2.15 cells by Hongmin Liu (Zhengzhou University, China)
- Current and future antiviral therapy for influenza by Hideki Asanuma (Tokai University, Japan)
- Establishment of an HIV-based pseudotyping system as a safe model for screening inhibitors on bird flu H5N1 entry by Ying Guo (Peking Union Medical College Chinese Academy of Medical Sciences, China)
- Strategy of discovery for novel antibiotics using silkworm infection model by Hiroshi Hamamoto (The University of Tokyo, Japan)
- Potent neuraminidase inhibitors and anti-inflammatory substances from *Chaenomeles speciosa* by Li Zhang (Chinese Academy of Medical Sciences and Peking Union Medical College, China)
- High-throughput screening assay for hepatitis C virus helicase inhibitors using fluorescence-quenching phenomenon by Hidenori Tani (Waseda University and National Institute of Advanced Industrial Science and Technology, Japan)

### Session VI. Biochemistry/Molecular Biology/Pharmacology

- A novel conjugate of low-molecular-weight heparin and Cu,Zn-superoxide dismutase: Study on its mechanism in preventing brain reperfusion injury after ischemia in gerbils by Fengshan Wang (Shandong University, China)
- A novel gene *fudoh* in SCCmec region regulates the colony spreading ability and virulence in *Staphylococcus aureus* by Chikara Kaito (The University of Tokyo, Japan)
- Water soluble fluorescent boronic acid sensors for tumor cell-surface saccharide by Hao Fang (Shandong University, China)
- Molecular characterization of the biosynthetic enzyme for the biotechnological production of tetrahydrocannabinol, the active constituent of marijuana by Futoshi Taura (Kyushu University, Japan)
- Galloyl cyclic-imide derivative CH1104I inhibits tumor invasion via suppressing matrix metalloproteinase activity by Xianjun Qu (Shandong University, China)
- Neuroprotection by inhibition of GAPDH-MAO B mediated cell death induced by ethanol by Xiao-Ming Ou (University of Mississippi Medical Center, USA)

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