

• 3분 스피치 및 포스터발표 / 3-Minute Speech & Poster Presentation

October 10, 2019, 13:00–14:15 (3F Grand Ballroom A)

Chairs : Kyobum Kim (Dongguk University), Byung Hoon Jo (Gyeongsang National University)

PSP01 AC2 Peptide Isolated from *Bacillus/Trapa japonica* Fruit Extract Rescues DHT (dihydrotestosterone)-treated Human Dermal Papilla Cells and Mediates mTORC1 Signaling in Autophagy and Apoptosis Suppression

Gun-He NAM¹, Kyung-Jo JO¹, Ye-Seul PARK¹, Hye Won KAWK¹, Hee Sun JIN¹, Je-Geun YOO¹, Jin Dong JANG², Sang Moon KANG³, Sang-Yong KIM⁴, Young-Min KIM¹

¹Department of Biological science and Biotechnology, College of Life science and Nano technology, Hannam University, Daejeon, Korea, ²Doori Cosmetics Co.,Ltd., Seoul, Korea, ³ANPEP INC, Cheongju, Korea, ⁴Department of Food Science & Bio Technology, Shinansan University, Ansan, Korea

PSP02 Farrerol Induced Apoptosis in Human Breast Cancer MCF-7 Cells by Modulating p38 MAPK

Jong-Beom CHAE, Sung Eun JU, Seongeun HWANG, Dahye KIM, Jinmin KIM, Jiyoung KIM, Gyu Ri KIM, Ju-Ock NAM

Department of Food Science and Biotechnology, Kyungpook National University, Daegu, Korea

PSP03 Geometric Parameters of Exosome Purification on a Microsystem

Chang Hyun LEE¹, Kyusoon SHIN¹, Jong Wook HONG^{1,2,3}

¹Department of Bionanoengineering, Hanyang University, Seoul, Korea, ²Department of Bionanoengineering, Hanyang University, Ansan, Korea, ³Center for Exosome & Bioparticulate Research, Hanyang University, Ansan, Korea

PSP04 Metal-mediated Self-healable & Adhesive Hydrogel Derived from Mussel for Stem Cell Delivery

Seong-Woo MAENG, Tae Yoon PARK, Hyung Joon CHA

Department of Chemical Engineering, Pohang University of Science and Technology, Pohang, Korea

PSP05 The Role of Oxidative Stress in Corticotropin Releasing Hormone-Induced Hair Loss

You Jin NAM, Sangjin KANG, Ji Hyung CHUNG

Department of Biotechnology, CHA University, Pocheon, Korea

PSP06 Simultaneous Multiplexed Detection of Exosomal Biomarkers for Cancer Diagnosis

Heecheol YANG¹, Seongcheol CHO¹, Won Jong RHEE^{1,2}

¹Dept. of Bioengineering and Nano-bioengineering, Incheon National University, Incheon, Korea, ²Division of Bioengineering, Incheon National University, Incheon, Korea

PSP07 Tangeretin Maintains Skin Homeostasis by Inhibiting Cutaneous HIF-1 α and NF- κ B Crosstalk Induced by Phorbol Ester in Mice Model

Sukcum Nguillie CHANG, Sun Chul KANG

Department of Biotechnology, Daegu University, Gyeongsan, Korea

- PSP08** Silkworm Storage Protein 1 Suppresses Autophagy-mediated Apoptosis in Chinese Hamster Ovary Cell
Jae Young YOU¹, Su Jin KANG¹, Won Jong RHEE^{1,2}
¹Department of Bioengineering and Nano-bioengineering, Incheon National University, Incheon, Korea, ²Division of Bioengineering, Incheon National University, Incheon, Korea
- PSP09** A Semisynthesis Method for Removing the Poisonous Substance from *Myristica fragrans* Houuttuyn
Jimin LEE¹, Taewon KANG¹, Hye-eun LEE¹, Jun-seok OH¹, Dongjin JEONG¹, Hyun-Sook Kwon KWON², BoMi KIM², Sun-Gun KIM², Jai-Hyun SO²
¹New Korean Medicine Team, Gyeongsan Science High School, Gyeongsan, Korea, ²New Korean Medicine Team, National Institute for Korean Medicine Development, Gyeongsan, Korea
- PSP10** Risk Assessment of Carbamazepine and Bisphenol-A
Han-sol JEONG, Chang-Hyo AHN, Young SO, Yong-Woon LEE, Seong-Jun KIM
 Department of Environment and Energy Engineering, Chonnam National University, Gwang-ju, Korea
- PSP11** Risk Assessment of Multi Medicines in Aquatic Ecosystem
Changhyo AHN, Hansol JEONG, Yongsu KIM, Seongjun KIM, Yongwoon LEE
 Department of Environment and Energy Engineering, Chonnam National University, Gwang-ju, Korea
- PSP12** Alcohol Pretreatment Methods for Removal of Residual Solvents from Amorphous Paclitaxel
Hoe-Jong KANG, Jin-Hyun KIM
 Dept. of Chemical Engineering, Kongju National University, Cheonan, Korea
- PSP13** FDH from *Rhodobacter aestuarii* (RaFDH) as a Potential CO₂ Reductase
Young Su PARK^{1,2}, Jin-Suk LEE¹, Chang Hyun KO², Kyoung Seon MIN¹
¹Gwangju Bio/Energy R&D Center, Korea Institute of Energy Research, Gwangju, Korea, ²School of Chemical Engineering, Chonnam National University, Gwangju, Korea
- PSP14** Increasing Soluble Expression of Constitutive Lysine Decarboxylase by Golden Mutagenesis Library
Jin Young KIM^{1,2}, Byung-Gee KIM^{1,2,3,4}
¹Interdisciplinary Program in Bioengineering, Seoul National University, Seoul, Korea, ²Institute of Molecular Biology and Genetics, Seoul National University, Seoul, Korea, ³Institute of Engineering Research, Seoul National University, Seoul, Korea, ⁴School of Chemical and Biological Engineering, Seoul National University, Seoul, Korea
- PSP15** [Showcase Poster]
C. elegans-on-chip: Monitoring of High Glucose Induced Accelerating Aging in a Single -channel Chip
Arvie Camille DE GUZMAN¹, Seung Hwan LEE³, Shin Sik CHOI^{1,2}
¹Department of Energy Science and Technology, Myongji University, Yongin, Korea, ²Department of Food and Nutrition, Myongji University, Yongin, Korea, ³Department of Bionano Engineering and Bionanotechnology, Hanyang University, Ansan, Korea

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- PSP16** Flanking Lys Undermines Cation-pi Interactions in Underwater
Mincheol SHIN¹, Yeonju PARK², Young Mee JUNG², Hyung Joon CHA¹
¹Department of Chemical Engineering, POSTECH, Pohang, Korea, ²Department of Chemistry, Institute for Molecular Science and Fusion Technology, Kangwon National University, Chunchon, Korea
- PSP17** [Showcase Poster]
Protective Effect of Curcumin Nanoparticles on Dopaminergic Neuronal System in *Caenorhabditis elegans*
Eun Ji KIM¹, Ji Eun LEE¹, Arvie Camille V. DE GUZMAN², Joong Hee CHO¹, Shin Sik CHOI^{1,2}
¹Department of Food and Nutrition, Myongji University, Yongin, Korea, ²Department of Energy Science and Technology, Myongji University, Yongin, Korea
- PSP18** Enhancement of C1 Gas Uptake by Biocompatible Organic Nanofluid System
Eungsu KANG¹, Eunjoon MOON¹, Hyunsuk CHOI¹, Hwa Heon JE², Dong Soo HWANG², Yoo Seong CHOI¹
¹Department of Chemical Engineering and Applied Chemistry, Chungnam National University, Daejeon, Korea, ²Department of Chemical Engineering, Pohang University of Science and Technology, Pohang, Korea
- PSP19** Simple Molecular Sensor that Specifically Detects Histamine within a Few Minutes
Byunghwa KANG, Gyuri PARK, Seung Soo OH
Department of Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Pohang, Korea
- PSP20** Utilization of Biomass-derived Sugars for Enhanced Production of Amino-carboxylic Acids Using Recombinant *Corynebacterium glutamicum* Strains
Kei-Anne BARITUGO¹, Hee Taek KIM², Jeong Chan JOO², Si Jae PARK¹
¹Division of Chemical Engineering and Materials Science, Ewha Womans University, Seoul, Korea, ²Center for Bio-based Chemistry, Division of Convergence Chemistry, Korea Research Institute of Chemical Technology, Daejeon, Korea
- PSP21** The Enhanced Production of Glutaric Acid without Using Molecular Oxygen Pathway in *Corynebacterium glutamicum*
Min Soo KANG^{1,2}, Ye Jean JUNG^{1,2}, Tae Uk KHANG¹, Hee Taek KIM¹, Bong Keun SONG¹, Kyoungmoon PARK², Si Jae PARK³, Jeong Chan JOO¹
¹Bio-based Chemistry Research Center, Advanced Convergent Chemistry Division, Korea Research Institute of Chemical Technology, Daejeon, Korea, ²Department of Biological and Chemical Engineering, Hongik University, Sejong, Korea, ³Division of Chemical Engineering and Materials Science, Ewha Womans University, Seoul, Korea
- PSP22** Short-chain Ester Production by Using the Engineered *Clostridium Acetobutylicum*
Seong Woo KWON¹, Hyeon Ji NOH¹, Sang Yup LEE², Yu-Sin JANG¹
¹Division of Applied Life Science (BK21 Plus Program), Gyeongsang National University, Jinju, Korea, ²Department of Chemical and Biomolecular Engineering (BK21 Plus Program), Institute for the BioCentury, KAIST, Daejeon, Korea

- PSP23** Hyaluronic Acid Production from Glucose and Galactose in the Engineered *Escherichia coli*
Hyeon Jeong SEONG¹, Ji Eun WOO¹, Sang Yup LEE², Yu-Sin JANG¹
¹Division of Applied Life Science (BK21 Plus Program), Gyeongsang National University, Jinju, Korea, ²Department of Chemical and Biomolecular Engineering (BK21 Plus Program), KAIST, Daejeon, Korea
- PSP24** Engineering of *Escherichia coli* for the Enhanced Production of p-Coumaric Acid
Chang Gyu LIM¹, Seung Hee HAN¹, Hyun Bae BANG¹, Ki Jun JEONG^{1,2}
¹Department of Chemical and Biomolecular Engineering, BK21 Plus program, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea, ²Institute for the BioCentury, KAIST, Daejeon, Korea
- PSP25** Development of Biosensor for the Detection of Amino Acids in *Corynebacterium glutamicum*
Min Gi SOHN¹, Yong Jun JEONG¹, Jae Woong CHOI¹, Eun Jung JEON¹, Ki Jun JEONG^{1,2}
¹Department of Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea, ²Institute for the BioCentury, KAIST, Daejeon, Korea