



# JAPAN-INDONESIA INTERNATIONAL SCIENTIFIC CONFERENCE 2018

## SCHOLAR SUMMIT

Sunday, 28 October 2018  
Icho-kaikan Hall, Suita campus,  
Osaka University, Japan

Industrial Revolution 4.0 for Smart Society



**ABSTRACT BOOK**



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No. 4 <b>Partial Purification Of Bromelain From Pineapple Core Extract (<i>Ananas Comosus</i> [L] Merr.) And In Vivo Preliminary Study As An Antiplatelet Agent</b> Siswati Setiasih, Fatiyah Musfiroh, Nita Magfirah, Sri Handayani, Isrina Wahyuni, Sumi Hudiyono
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No. 19*Selected oral presentation <b>Adsorption Behavior of 5-(4-Carboxyphenyl)-10,15,20-triphenylporphine at the Toluene/Water Interface</b> Tania Avianda Gusman, Satoshi Sukahara
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No. 25 <b>Metabolite profiling of soy sauce-like seasoning by using Gas chromatograph /Mass spectrometry</b> Tomoyuki Yamana, Tomoya Irifune, Risa Harada, Yusuke Ito, Takeharu Nakahara, Sastia Prama Putri, Eiichiro Fukusaki
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**Water Spring Evaluation and Forest Conservation of Mount Merbabu National Park for Tourism in New Selo, Yogyakarta**

Satrio Budi Prakoso <sup>1</sup>, Sri Astuti Soedjoko

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**Comparison Between the Potential of Tempe Flour Made from Germinated and Nongerminated Soybeans in Preventing Diabetes Mellitus**

Made Astawan, Inas Suci Rahmawati, Tuti Wresdiyati

No. 5\*Selected oral presentation

**Identification of Biomarkers for Nitrogen Status in *Sorghum Bicolor* Seedlings**

Reza Ramdan Rivai, Masaru Kobayashi, Shigeru Hanano, Daisuke Shibata, Toru Matoh

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**The Effect of Modified Cultivation System On Growth and Survival Rate of Patin Fish (*Pangasius Hypophthalmus*)**

Irfan Zidni, Ayi Yustiati, Iskandar, Yuli Andriani, Ujang Subhan, Fittrie Meyllianawaty

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**Pitcher Shapes Variation of *Nepenthes* Based On Geometric Morphometrics Analysis: Basis for Development Automated Species Identification System**

JN. Raisal Haq, Nunik S Arianti, Berry Juliandi, P.J.A Kessler

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No. 9 <b>Utilization Anaerobic Microorganisms with Coal Media to Prevent Greenhouse Gas Formation from Livestock Waste</b> Hidayati Y.A ., Tb.B.A.Kurnani, E.T.Marlina, K.N.Rahmah, I.M.Joni, Ellin Harlia
No. 10 <b>Product Quality of Vermicompost from The Mixture of Beef Cattle Waste and Rice Straw</b> Marlina E.T, D. Z. Badruzzaman, I. Susilawati
No. 11 <b>Ant Diversity (Hymenoptera: Formicidae) on Different Types of Land Use in Education Forest "UB Forest", Malang, Indonesia</b> Rina Rachmawati, Margaretha Galuh SCA, Mufidah A., Akhmad Rizali
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No. 18 <b>The effect of salinity stress on expression patterns of HSP 81-2, HSP 70, P5CS1 and PAL genes on banana (<i>Musa acuminata</i> Colla) somaclone</b> Kusdianti, Iriawati, Sri Nanan B. Widiyanto
No. 19 <b>The influence of pollination process on coffee fruit ripening and fruit size</b> Hafsah, Iriawati, TS Syamsudin
No. 20 <b>Intertidal Rocky Shore Invertebrate Communities of the Pangandaran Coastal: Analysis of Biodiversity and Spatial Distribution</b> Asep Sahidin, Herman Hamdani, Sriati, Zahidah, Nendra Suhendra
No. 21 <b>I-Shrimp: Innovation of Disease Detection on Vaname Shrimp in Lampung</b> Yoga Widi Pamungkas, Siti Nur
No. 22*Selected oral presentation <b>Evaluation of the effect of chitosan coating on postharvest quality of banana (<i>Musa acuminata</i>) using metabolomics approach</b> Kana Yamamoto, Fenny M. Dwivany, Sastia P. Putri, Eiichiro Fukusaki
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No. 24 <b>Titanium dioxide (TiO<sub>2</sub>) roles in Banana Ripening</b> Fenny M Dwivany, Rizkita R. Esyanti, Veinardi Suendo, Aksarani 'Sa Pratiwi, Annisa A. Putri
No. 25*Selected oral presentation <b>Untargeted metabolomic approach of coffee beans obtained from different altitude</b> Fitri Amalia, Pingkan Aditiawati, Sastia Prama Putri, Yusianto, Eiichiro Fukusaki
No. 26 <b>Potential of Actinomyces from Soybean Rhizosphere for Plant Growth-Promoting Rhizobacter and Antifungal of <i>Rhizoctonia Solani</i></b> Umi Fatmawati, Abdjad Asih Nawangsih, Anja Meryandini, Aris Tri Wahyudi
No. 27 <b>Characterization and Expression of <i>AiiA</i> Gene Encoding Acyl Homoserine Lactone (Ahl) Lactonase from <i>Bacillus Cereus</i> B10</b>



Erma Suryanti, Iman Rusmana, Aris Tri Wahyudi, Alina Akhdiya
No. 28 <b>Waterlogging Condition has Reduced Stomatal Conductance and Panicle number of Some Sugarcane Genotypes</b> Mochamad Arief Soleh, Mira Ariyanti, Intan Ratna Dewi
No. 29 <b>Bacterial Diversity of Soybean (<i>Glycine Max</i>) Soaking for Tempe Fermentation</b> Mahensa Billqys Nurhayati Prativi, Dea Indriani Astuti, Sastia Prama Putri, Pingkan Aditiawati
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No. 32 <b><i>B11</i> Gene Silencing Impairs Root Growth and Downregulates Aluminum Tolerance Gene Expressions in Rice</b> Miftahudin, E.I. Umayah, M.H. Fendiyanto, R.D. Satrio, Y.C. Sulistyaningsih, T. Chikmawati
No. 33 <b>Isolation and Characterization of Phosphate Solubilizing Bacteria that Can Fix Nitrogen from Limestone Quarry in Hambalang-Indonesia</b> Nisa Rachmania Mubarik, Istiani Novitasari, Aris Tjahjoleksono
No. 34 <b>Analysis of Secretory Structure and Histochemistry of Terung Gelatik (<i>Solanum Melongena</i> L.)</b> Tasya Nabella Putri, Yohana C Sulistyaningsih and Dorly
No. 35 <b>Arbuscular Mycorrhiza On Rice Grown in Tropical Acidic Soil</b> Nampiah Sukarno, Sri Listiyowati, Ivan Permana and Nurul Rahayu
No. 36 <b>Regulation of Adult Hippocampal Neural Stem Cells and Learning-Memory</b> Berry Juliandi <sup>1</sup> , Kanthi Arum Widayati <sup>1</sup> , Bambang Suryobroto <sup>1</sup>





No. 37 <b>Andromonoecious of <i>Jatropha curcas</i> has the superior traits: A new varieties candidate</b> Triadiati Triadiati, Dasumiati, Rully Diah Purwati
No. 38 <b>Endophytics Actinobacteria in Indonesian Medicinal Plants</b> Yulin Lestari, Dedy Duryadi Solihin
No. 39 <b>Untargeted Metabolomics Analysis of Eggplant (<i>Solanum Melongena L.</i>) Fruit and Its Correlation to Fruit Morphologies</b> Abu Hanifah, Awang Maharijaya, Sastia P. Putri, Walter A. Laviña, Sobir
No. 40 <b>Automatic switching valve system based on LC-MSMS method for chiral amino acids profiling in rat urine</b> Umakoshi Yutaka, Yosuke Nakano, Eiichiro Fukusaki
No. 41 <b>Histochemical and Physiological Analysis of Four Species Produce Biodiesel Feedstock Exposed to Lead Contaminant</b> Hamim, Hanifatunnisa, Deden Saprudin, Luluk Setyaningsih, Hadisunarso, Hirmas Fuady Putra
No. 42 <b>A Mystery of Tongka Langit Banana (<i>Musa troglodytarum</i>) in Galunggung Mountain, West Java, Indonesia</b> Ketut Wikantika, Fenny Dwivany, Agus Sutanto, Farah Nafisa Ariadji
No. 43 <b>In Vivo Study of DNA Adduct (8-OHdG) Formation of Rats (<i>Rattusnovergicus</i>) by Using Bisphenol A (BPA) Chemica Through Fenton-Like Reaction and Nickel (II) Metal as Cancer Risk Biomarker</b> Budiawan, IC Dani, C. F. O Rugian, S. Handayani
No. 44 <b>Characterization of Methane Oxidation by Recombinant Cupredoxin Domain of Particulate Methane Monooxygenase</b> Iman Rusmana, Laila Karomah, Antonius Suwanto



<b><i>SOCIAL SCIENCE</i></b>
No 1*Selected oral presentation <b>Decipher Social Opinion Polarization Towards Indonesian Political Event Using Topic Modelling and Dynamic Network Analysis</b> Andri Alamsyah, Wachda Yuniar Rochmah, Arina Nahya Nurnafia
No. 2 <b>Public Transportation in Jakarta and Manila: A Comparative Policy</b> Ayurisya Dominata, Lisman Manurung
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No. 4 <b>The Effect of Expressive Art Therapy of Withdrawn Behaviour of Hospitalized Preschool Children (Aged-3-5 Years)</b> Fatika Maulidyah Yuwanto, Rinik Eko Kapti, Endah Panca Lydia Fatma, Tyas Febry Ghea Rachmadi
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No. 6 <b>Productive Zakat as Pilar in The Progress of Indonesian Community Economy</b> Ahmad Rido, Wahyu Syuhada, Rizqi Anfanni
No. 7 <b>National Culture and Entrepreneurial Behavior</b> Elsye Tandelilin, Anis Eliyana
No. 8*Selected oral presentation <b>Issues On Global Talent in The Changing Japanese Firms: Japanese Perspective</b> Firman Budianto
No. 9 <b>“De Angkoots” Application for Smart Public Transportasion to Support Revolution Industry 4.0</b> Komalasari Dewi, Bela Fisca, Arif Setiawan
No. 10 <b>Urban Social Empowerment Pattern: Comparison of Bandung, Indonesia and Kobe, Japan</b> Puspa Mirani Kadir, Amaliatun Saleha, Nandang Rahmat



No. 11\*Selected oral presentation

**Legal Review On Palu Special Economic Zone**

Mohammad Ikbal Borman

No. 12\*Selected oral presentation

**Sustainable Development Model of Outer Small Islands in Indonesia: The Case of Enggano Island Bengkulu-Indonesia**

Dede Hartono, Teguh Adiprasetyo

No. 13\*Selected oral presentation

**An Essay of Taxing Digital Economy Through Online Marketplaces in Indonesia**

Haula Rosdiana, R.U.D. Tambunan, Edi Slamet Irianto



**(LS13) THE EFFECT OF UVA-LED ON EXTENDED-SPECTRUM -  
LACTAMASE (ESBL) PRODUCING *ESCHERICHIA COLI* FROM  
CLINICAL ISOLATES**



○Maria Ulfa<sup>1,3</sup>, Takaaki Shimohata<sup>1</sup>, Shiho Fukushima<sup>1</sup>,  
Momoyo Azuma<sup>2</sup>, Takashi Uebanso<sup>1</sup>, Kazuaki Mawatari<sup>1</sup>, Akira  
Takahashi<sup>1</sup>

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- <sup>3</sup> Master of Hospital Management, Universitas Muhammadiyah Yogyakarta, Indonesia.

The prevalence of Extended-Spectrum -Lactamase (ESBL) producing *Escherichia coli* is increasing rapidly spread in the worldwide. Patient with infections causes by ESBL-*E. coli* more resistant to -lactam antibiotics and may prolong hospital along with an increase of treatment cost and raises mortality. This study aimed to evaluate the effectiveness of UVA-LED irradiation to inactivate ESBL-*E. coli* from clinical isolates strain.

The samples of ESBL-*E. coli* isolates were identified from patients during 2017-2018 in Tokushima University Hospital, and *E. coli* K-12 was used as a non-ESBL- *E. coli* control strain. The bacterial suspensions in a disposable 96 well plate were fixed at distance of 2 cm above the UVA-LED light source device with 365 nm wavelength, the current was set 0.50 A, and the energy density was 239 J/cm<sup>2</sup>.

The UVA-LED irradiation after 30 minutes showed the log survival ratio of *E. coli* K.12 was < -8, and ESBL-*E. coli* was -1.05 0.6. ESBL-*E. coli* required more than 30 minutes to get higher inactivation efficiency. Results indicated the UVA-LED irradiation was effectively decreased in ESBL-*E. coli* from clinical isolates. Still, it is unknown the resistance of ESBL-*E. coli* on UVA-LED irradiation. Our data suggest that ESBL-*E. coli* are naturally resistant to oxidative stress.

**Keywords:** ESBL-*E. coli*, UVA-LED