

PROGRAMME AT A GLANCE

Day 1 : Sunday 10th November 2019

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| 16:00-17:30 | Conference Registration and Poster Setup |
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**Plenary speaker 30 min, Keynote speaker 25 min, Invited speaker 20 min, Oral presentation 15 min

Day 2 : Monday 11th November 2019

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| 08:00-09:00 | Conference Registration and Poster Setup | | |
| 09:00-09:30 | Opening Session (Duangchanok 1-2) - Introduction of TSB 2019 by Assoc. Prof. Dr. Penjit Srinophakun - Welcome address by Prof. Dr. Amaret Bhumiratana, Founder of TSB - Welcome address by Prof. Dr. Wen-Chien Lee, President of AFOB - Opening address by Asst. Prof. Dr. Vichai Leelavatcharamas, President of TSB - Photo session | | |
| 09:30-10:00 | Plenary speaker 1: Prof. Dr. Jian-Jiang Zhong, Shanghai Jiao Tong University, Mainland China | Duangkaew | |
| 10:00-10:30 | Plenary speaker 2: Prof. Dr. Dietmar Haltrich, University of Natural Resources and Life Sciences, Austria | AFOB Bioeconomy forum 2019 | |
| 10:30-11:00 | Coffee Break | | Session 1: AFOB Bioeconomy forum "STARTUP" <u>Keynote speaker:</u> Prof. Satyahari Dey <u>Invited speaker:</u> Prof. Joseph Aurensia Prof. Wen-Cheng Tsai Mr. Ifan Lin. 2 Oral presentation |
| 11:00-11:30 | Taguchi Prize Announcement Dr. Verawat Champreda, BIOTEC, Thailand | | |
| 11:20-12:00 | Ajinomoto Award Announcement Assoc. Prof. Dr. Vichien Kitpreechavanich, Kasetsart University, Thailand | | |
| 12:00-13:30 | Lunch Poster session | | |
| | Duangchanok 1 | Duangchanok 2 | Duangthip |
| 13.30-15.00 (90 min) | Joint Session: Jatropha and New Energy Updates <u>Chairman:</u> Dr. Sompid Samipak <u>Keynote speaker:</u> Prof. Aoyagi Hideki Prof. Virendra Swarup Bisaria Prof. Vipa Hongtrakul Prof. Wei-Cheng Wang | Joint Session: Microbial-derived biofuels and biochemicals <u>Chairman:</u> Prof. Tsuyoshi Imai <u>Keynote speaker:</u> Prof. Qiang Liao Prof. Alissara Reungsang Prof. Zongbao Zhao Prof. Savitree Limtong | Joint Session: TSB-SBJ-JST ERATO NOMURA PJ Part1 "Paradigm Shift from Traditional to Advanced Biotechnology" <u>Chairman:</u> Prof. Murooka & Prof. Yawata <u>Keynote speaker:</u> Prof. Nobuhiko Nomura <u>Invited speaker:</u> Prof. Yoshikatsu Murooka Prof. Yutaka Yawata |

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| 15.00-15.30 | Coffee Break | | | |
| 15.30-16.30 (60 min) | <p>Joint Session: Jatropha and New Energy Updates <u>Chairman:</u> Dr. Sompid Samipak</p> <p><u>Invited speaker:</u> Ms. Anna Saimaneerat Dr. Wanida Pan-utai</p> <p>Inovative energy (IE) 1 Oral presentation</p> | <p>Joint Session: Microbial-derived biofuels and biochemicals <u>Chairman:</u> Prof. Xun Zhu</p> <p><u>Invited speaker:</u> Prof. Tsuyoshi Imai Asst.Prof.Dr. Apilak Salakkam</p> | <p>Joint Session: TSB-SBJ-JST ERATO NOMURA PJ Part1 “Paradigm Shift from Traditional to Advanced Biotechnology” <u>Chairman:</u> Prof. Murooka & Prof. Yawata</p> <p><u>Invited speaker:</u> Prof. Douglas Brumley Prof Istvan Molnar Prof. Sunee Korbsrisate</p> | |
| 16.30-17.30 | The 31st TSB Annual Meeting (Members Only) | Poster session | | |
| 18.00-19.30 | Presentation of TSB Flag Emblem Thai participant Welcome Dinner at Duangchanok3 International participant Welcome Dinner at Phuket Fantasy | | | |

**Plenary speaker 30 min, Keynote speaker 25 min, Invited speaker 20 min, Oral presentation 15 min

Day 3 : Tuesday 12th November 2019

| | Duangchanok1 | Duangchanok2 | Duangthip |
|-------------------------|---|---|---|
| 09.00-10.30 (90 min) | <p>Functional food, nutraceuticals and natural products (FNN) <u>Chairman:</u> Prof. Vilai Rungsardthong</p> <p><u>Invited speaker:</u> Asst.Prof.Dr. Ratiya Thuwapanichayanan Asst.Prof.Dr. Nuttawee Niamsiri 3 Oral presentation</p> | <p>Biorefinery and Biochemicals (BB) <u>Chairman:</u> Asst.Prof. Maythee Saisriyoot</p> <p><u>Invited speaker:</u> Prof. Montarop Yamabhai Prof. Zhigang Qian Dr. Ranjita Biswas 2 Oral presentation</p> | <p>Session: TSB-SBJ-JST ERATO NOMURA PJ Part2 “New development of Enzyme Application <u>Chairman:</u> Prof.Koga&Prof.Jongruja</p> <p><u>Keynote speaker:</u> Prof. Yuichi Koga <u>Invited speaker:</u> Dr. Shogo Yamamoto Dr. Naohiro Tomari Prof. Nujarin Jongruja</p> |
| | Duangkamol | Duangmanee | Duangkaew |
| | <p>Sustainable environment (SE) <u>Chairman:</u> Assoc.Prof. Aphichart Karnchanatat</p> <p><u>Keynote speaker:</u> Prof. Yu-Kaung Chang 4 Oral presentation</p> | <p>Young scientist (YS) <u>Chairman:</u> Asst.Prof. Prakrit Sukyai 6 Oral presentation</p> | <p>Other related topics (ORT) <u>Chairman:</u> Assoc.Prof. Chuenchit Boonchird</p> <p><u>Invited speaker:</u> Asst. Prof. Dr. Supakit Sayasoonthorn</p> |

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| | | | Asst. Prof. Dr. Patompong Johns Saengwilai 3 Oral presentation |
| 10.30-11.00 | Coffee Break | | |
| 11.00-12.00 (60 min) | Duangchanok1 | Duangchanok2 | Duangthip |
| | Functional food, nutraceuticals and natural products (FNN) <u>Chairman:</u> Prof. Sirirat Rengpipat 4 Oral presentation | Biorefinery and Bio-chemicals (BB) <u>Chairman:</u> Prof. Montarop Yamabhai 4 Oral presentation | TSB-SBJ-JST ERATO NOMURA PJ Part3 Round table discussion “Future of Microbiology and Protein Science” <u>Chairman:</u> Prof. Morooka |
| | Duangkamol | Duangmanee | Duangkaew |
| | Sustainable environment (SE) <u>Chairman:</u> Assoc.Prof. Ratchaneewan Aunpad 3 Oral presentation | Young scientist (YS) <u>Chairman:</u> Dr. Adisak Romsang 4 Oral presentation | Other related topics (ORT) <u>Chairman:</u> Asst.Prof. Rujikan Nasanit 4 Oral presentation |
| 12.00-14.00 | Lunch Poster session | | |
| 14.00-15.45 (105 min) | Duangchanok1 | Duangchanok2 | Duangthip |
| | Functional food, nutraceuticals and natural products (FNN) <u>Chairman:</u> Prof. Pensri Planglang 2 Oral presentation | Biorefinery and Bio-chemicals (BB) <u>Chairman:</u> Prof. Apilak Salakkam 6 Oral presentation | Smart farming (SF) <u>Chairman:</u> Prof. Prasartporn Smitamana 2 Oral presentation |
| | Precision medicine (PM) 4 Oral presentation | | Other related topics (ORT) 3 Oral presentation |
| | Duangkamol | Duangmanee | Duangkaew |
| | Biorefinery and Bio-chemicals (BB) <u>Chairman:</u> Prof. Surewan Sittijunda 5 Oral presentation | Young scientist (YS) <u>Chairman:</u> Prof. Vichai Leelavatcharamas 6 Oral presentation | Other related topics (ORT) <u>Chairman:</u> Prof. Alissara Reungsang 6 Oral presentation |
| 15.45-16.00 | Coffee Break | | |
| 16.00-17.00 | Closing Remark | | |

SCIENTIFIC PROGRAMME

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|-------------------------|---|---|
| SESSION | Biorefinery and bio-chemicals (BB) | |
| Room | Duangchanok 2 | |
| 12 November 2019 | | |
| Chairman | Asst.Prof. Maythee Saisriyoot | |
| 09.00-09.20 | Invited Speaker-01 | Biorefining Chitin Wastes into Functional Chito-oligosaccharides (CHOS) Prof. Montarop Yamabhai (Suranaree University of Technology, Thailand) |
| 09.20-09.40 | Invited Speaker-02 | Resilin-Based Functional Materials: Design, Biosynthesis and Application Prof. Zhi-Gang Qian (Shanghai Jiao Tong University, Mainland China) |
| 09.40-10.00 | Invited Speaker-03 | Consolidated Bioprocessing of Lignocellulose for Advance Biofuel Production by <i>Thermoanaerobacterium</i> sp RBITT Dr. Ranjita Biswas (Maulana Abul Kalam Azad University of Technology, India) |
| 10.00-10.15 | O-BB-01 | The Potential of Cassava Leaves as Ethanol production Feedstock <i>Nardrapee Karuna*</i> , <i>Jaruwan Panpedthan</i> , <i>Sasithon Supasorn</i> |
| 10.15-10.30 | O-BB-04 | Biogas Production from Co-Digestion of Vinasse with Spent Yeast <i>Sureewan Sittijunda*</i> and <i>Alissara Reungsang</i> |
| Chairman | Prof. Montarop Yamabhai | |
| 11.00-11.15 | O-BB-05 | Starch in Sweet Sorghum Juice <i>Rattana Mueangmontri*</i> , <i>Samran Saensupo</i> , <i>Pisitinee Chapanya</i> , <i>Anutin Pattamasuwan</i> and <i>Klanarong Siroth</i> |
| 11.15-11.30 | O-BB-06 | Biovalorization of Lignin: Alternative Pathway for the Production of Vanillic Acid, a Precursor for Bioplastic, from Lignin-Derived Compound <i>Panaya Kotchaplai*</i> , <i>Jedsadakorn Ninrat</i> , and <i>Alisa S. Vangnai</i> |
| 11.30-11.45 | O-BB-07 | Effect of Sodium hydroxide Steeped of Low-grade Maize on Enzyme Hydrolysis <i>Rattanaporn Thakaew*</i> , <i>Chayakorn Pumas</i> , <i>Suraphon Chaiwongsar</i> , <i>Suparin Chaiklangmuang</i> |
| 11.45-12.00 | O-BB-09 | Extraction and Characterization of Protein from <i>Moringa oleifera</i> Leaf <i>Raherison Aime Roger*</i> and <i>Saroat Rawdkuen</i> |
| Chairman | Prof. Apilak Salakkam | |
| 14.00-14.15 | O-BB-10 | Ethanol Stress Response via Unfolded Protein Response Regulated by Transcription Factor Znf1 in <i>Yeast Saccharomyces cerevisiae</i> <i>Wiwat Samakkam*</i> , and <i>Nitnipa Soontornrun</i> |
| 14.15-14.30 | O-BB-11 | Isolation and Selection of Probiotic Bacteria from Thai Traditional Fermentation Starter (Look-Pang-Khao-Mak) <i>Siriwan Sangpayung*</i> , <i>Charoen Charoenchai</i> and <i>Duangjai Ochaikul</i> |
| 14.30-14.45 | O-BB-12 | Determination of Beta-1,3 glucan Content of Spent Yeast by FTIR Spectroscopy Analysis <i>Raksmey Thin</i> , <i>Atiya Techaparin</i> , <i>Poramaporn Klanrit</i> and <i>Jirawan Apiraksakornae*</i> |
| 14.45-15.00 | O-BB-13 | Transcriptional Factor Znf1 Control Acetic Acid Tolerance in <i>Saccharomyces cerevisiae</i> for Improvement of Bioethanol Production |

| SESSION | | |
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| Biorefinery and bio-chemicals (BB) | | |
| Room | | |
| Duangchanok 2 | | |
| <i>Pattanan Songdech* and Nitipa Soontorngun</i> | | |
| 15.00-15.15 | O-BB-14 | Dissecting the Enhancement of Enzymatic Hydrolysis of Carbohydrate in Lignocellulosic Material Treated by Alkalis <i>Paripok Phitsuwan* and Khanok Ratanakhanokchai</i> |
| 15.15-15.30 | O-BB-15 | Mixotrophic Cultivation of <i>Scenedesmus</i> sp. KKU-P2 on Molasses-based Substrate: Effect of Initial pH <i>Kamolwan Thepsuthammarat*, Alissara Reungsang and Pensri Plangklang</i> |
| 15.30-15.45 | | |
| Room | | |
| Duangkamol | | |
| Chairman | | |
| Prof. Surewan Sittijunda | | |
| 14.00-14.15 | O-BB-16 | Effect of Nutrient Limitation on Carbohydrate and Lipid Accumulation of <i>Coelastrum</i> sp. KKU-P1 Cultivated Under Photoautotrophic and Mixotrophic Conditions <i>Pensri Plangklang* and Alissara Reungsang</i> |
| 14.15-14.30 | O-BB-17 | Root Traits Conferring Drought Tolerance of Maize Inbred Lines from the Drought Tolerance Maize for Africa project (DTMA) <i>Jirawat Salungyu*, Jonathan P. Lynch, Suriphat Thaitad and Patompong Johns Saengwilai</i> |
| 14.30-14.45 | O-BB-18 | Industrial Biotechnology for Bioplastics <i>Phatthanon Prasitchoke*, Nikornpon Prapaitrakul and Jittiporn Kruenate</i> |
| 14.45-15.00 | O-BB-19 | Biochemical Property of an Endo-Glucanase-Like Enzyme from <i>Clostridium</i> sp. Z-7026 <i>Sengthong Lee*, Salita Eiamboonsert, Khanok Ratanakhanokchai and Paripok Phitsuwan</i> |
| 15.00-15.15 | O-BB-20 | Poly (N-Isopropylacrylamide) Grafted Substrates as Thermo-Responsive Surfaces to Enhance Microalgae Biofilm Formation <i>Weida Zeng, Yun Huang*, Keming Chen, Ao Xia, Qiang Liao, Xun Zhu</i> |

| SESSION | | |
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| Innovative energy (IE) | | |
| Room | | |
| Duangchanok 1 | | |
| 11 November 2019 | | |
| Chairman | | |
| Dr. Sompid Samipak | | |
| 16.10-16.25 | O-IE-01 | Low-cost Lipid Production from Crude Glycerol by <i>Rhodospiridiobolus fluvialis</i> DMKU-RK253 using Two-stage Cultivation Under Non-aseptic Culture Condition <i>Pirapan Polburee* and Savitree Limtong</i> |

| SESSION | | |
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| Session: Functional food, nutraceuticals and natural products (FNN) | | |
| Room | | |
| Duangchanok 1 | | |
| 12 November 2019 | | |
| Chairman | | |
| Prof. Vilai Rungsardthong | | |
| 09.00-09.20 | Invited Speaker-04 | Effect of Drying Temperature on Drying Kinetics, Bioactive Compounds, Antioxidant Activity and Energy Consumption of Hot Air Dried Seagrape (<i>Caulerpa lentillifera</i>) Asst. Prof. Dr. Ratiya Thuwapanichayanan (Kasetsart University, Thailand) |
| 09.20-09.40 | Invited Speaker-05 | Insights into Antibacterial Property and Stability of Chitosan Nanoparticles for Vegetable and Mouthwash Disinfectant Applications Asst. Prof. Dr. Nuttawee Niamsiri (Mahidol University, Thailand) |
| 09.40-09.55 | O-FNN-01 | Antioxidant Activity of Porcine Placenta and Its Cytotoxic Effect on HaCaT Cell <i>Pantanat Mahasupachai*</i> , <i>Praneet Opanasopit</i> , <i>Nisa Patikarnmonthon</i> |
| 09.55-10.10 | O-FNN-02 | Bioactive Peptide from Enzymatic Digestion of Linzhi Mushroom: Identification of Tyrosinase Inhibitory Pentapeptide <i>Yodying Yingchutrakul</i> , <i>Sittiruk Roytrakul</i> , <i>Kiatawee Choowongkorn</i> and <i>Sucheewin Krobthong*</i> |
| 10.10-10.25 | O-FNN-03 | Screening and Isolation of Stevioside and Rebaudioside A Degrading Bacteria from Forest Soil <i>Tanatchakorn Asawasriworanan*</i> , <i>Phurt Harnvoravongchai</i> , <i>Jamorn Samana2</i> , <i>Puey Ounjai</i> , <i>Surang Chankhamhaengdecha</i> |
| Chairman | | |
| Prof. Sirirat Rengpipat | | |
| 11.00-11.15 | O-FNN-04 | Antioxidative Activities and Total Phenolic and Flavonoid Contents of Extracts from <i>Cordyceps militaris</i> Cultivation on Streamed Jasmine Rice Mixed Rice Berry <i>Kwanyuen Leamsamrong</i> , <i>Thalisa Yuwa-amornpitak</i> , <i>Piyanete Chantiratikul</i> and <i>Noppakun Pakdeenarong*</i> |
| 11.15-11.30 | O-FNN-05 | Thermal and pH Inactivation of Peroxidase from Thai Black Glutinous Rice (<i>Oryza sativa</i> L. cv. Luem Pua) <i>Sunutchai Piyaming*</i> , <i>Sugunya Mahatheeranont</i> and <i>Lalida Shank</i> |
| 11.30-11.45 | O-FNN-06 | Safe and Effective Delivery of Garlic Essential Oil to the Gastrointestinal Tract using the Dual Nano/microparticle Hybrid System <i>Jakarwan Yostawonkul*</i> , <i>Walailuk Chonniyom</i> , <i>Teerapong Yata</i> , <i>Uracha Rungsardthong Ruktanonchai</i> , <i>Suvimol Surassmo</i> , <i>Onuma Ketchart</i> and <i>Nattika Saengkrit</i> |
| 11.45-12.00 | O-FNN-07 | Insect Virulence of the Entomopathogen <i>Beauveria Bassiana</i> is Enhanced by Overexpression of the Reducing Clade IIb Polyketide Synthase Gene <i>pks14</i> <i>Chettida Srisuksam*</i> , <i>Juntira Punya</i> , <i>Songsak Wattanachaisaareeku</i> , <i>Wachiraporn Toopaang</i> , <i>Supapon Cheevadhanarak</i> , <i>Morakot Tanticharoen</i> and <i>Alongkorn Amnuaykanjanasin</i> |

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| SESSION | Session: Functional food, nutraceuticals and natural products (FNN) | |
| Room | Duangchanok 1 | |
| Chairman | Prof. Pensri Plangklang | |
| 14.00-14.15 | O-FNN-08 | Development of an Edible Vaccine against Pneumococcal Diseases using Transgenic Plant <i>Shahina Akter, Jamalun Nessa, and Chowdhury Rafiqul Ahsan*</i> |
| 14.15-14.30 | O-FNN-09 | Evaluation of <i>in vivo</i> Antioxidant, Hypolipidemic and Anti-Hyperglycemic Properties of a Polyherbal Formulation <i>Bindu Jacob, Narendhirakannan RT*, MSA Muthukumar Nadar, Pariyaporn Itsaranuwat</i> |

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| SESSION | Precision medicine (PM) | |
| Room | Duangchanok 1 | |
| 12 November 2019 | | |
| Chairman | Prof. Pensri Plangklang | |
| 14.30-14.45 | O-PM-01 | Comparison of Quantitative PCR and Droplet Digital PCR for Effective Hepatitis B Covalently Closed Circular DNA Measurement <i>Pattida Kongsomboonchoke* and Suparerk Borwornpinyo</i> |
| 14.45-15.00 | O-PM-02 | Roles of Histone Deacetylases in Orbital Fibroblasts from Graves' Ophthalmopathy Patients <i>Supanuch Ekronarongchai*, Tanapat Palaga, Preamjit Saonanon, Vannakorn Pruksakorn, Willem A. Dik and Sita Virakul</i> |
| 15.00-15.15 | O-PM-03 | The Effect of Histone Methyltransferase in Orbital Fibroblast from Graves' Ophthalmopathy <i>Sopita Visamol*, Tanapat Palaga, Preamjit Saonanon, Vannakorn Pruksakorn, Willem A. Dik and Sita Virakul</i> |
| 15.15-15.30 | O-PM-04 | Fabrication and Characterization of Anti-CD20 Conjugated Liposome-Containing Methotrexate as Targeted Drug Nanocarrier for Therapeutics of Primary Central Nervous System Lymphoma (PCNSL) <i>Nutthanit Thumrongsiri*, Paweena Dana, S. Sathornsumetee, P. Anekwiang, R. Bawab and Nattika Saengkrit</i> |

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| SESSION | Smart farming (SF) | |
| Room | Duangthip | |
| 12 November 2019 | | |
| Chairman | Prof. Prasartporn Smitamana | |
| 14.00-14.15 | O-SF-01 | Dissecting the Transcriptional Regulatory Network to Reveal Beneficial Network Topology for Cassava Brown Streak Virus Resistance <i>Thanakorn Jaemthaworn*, Treenut Saithong and Saowalak Kalapanuluk</i> |
| 14.15-14.30 | O-SF-02 | Antimicrobial Activities of Plant Extracts Against Bacteria Associated with Bovine Mastitis <i>Chadanong Chaiwut*, Sakunnee Bovonsombut and Thararat Chitov</i> |

| SESSION | Sustainable environment (SE) | |
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| Room | Duangkamol | |
| 12 November 2019 | | |
| Chairman | Assoc. Prof. Aphichart Karnchanatat | |
| 09.00-09.25 | Keynote Speaker-01 | Fabrication and Characterization of Antibacterial Efficacy of Quaternized Chitosan/Poly (vinyl alcohol) Nanofiber Crosslinked with Blocked Diisocyanate Prof. Yu-Kaung Chang (Ming Chi University of Technology, Taiwan) |
| 09.25-09.40 | O-SE-01 | Upscaling of RS87 Endospore Production Process - From Flask to Semi-Industrial Scale Cultivation <i>Akarawit Jenjitwanich*</i> , <i>Kanchalee Jetiyanon</i> , and <i>Thunyarat Pongtharangkul</i> |
| 09.40-09.55 | O-SE-02 | Environmental and Economic Sustainability of Cheese Production Combined with Bioenergy Production from Whey Wastage <i>Piya Gosalvit*</i> , <i>Rosa Cuellar Franca</i> , <i>Robin Smith</i> and <i>Adisa Azapagic</i> |
| 09.55-10.10 | O-SE-03 | Isolation of Potential Lignin-Degrading Bacteria from Tropical Forest Soils in Thailand <i>Esther Amosu*</i> , <i>Puey Ounjai</i> , <i>Thitinun Sumranwanich</i> , <i>Phurt Harnvoravongchai</i> , <i>Surang Chankhamhaengdech</i> |
| 10.10-10.25 | O-SE-04 | Investigation of Cassava Protein-protein Interaction Alterations: Cellular Response to Cassava Brown Streak Virus Infection <i>Ratana Thanasomboon*</i> , <i>Supatcharee Netrphan</i> , <i>Saowalak Kalapanulak</i> and <i>Treenut Saithong</i> |
| Chairman | Assoc. Prof. Ratchaneewan Aunpad | |
| 11.00-11.15 | O-SE-05 | Biodegradation of Petroleum Hydrocarbons in Contaminated Soil: Comparative Study on Spent Engine-Oil Contaminated Clay Soil Treated with Commercial Biodegrading Product and Selected Petrophilic Bacteria <i>Theerawat Runguphan*</i> and <i>Sirirat Seangthong</i> |
| 11.15-11.30 | O-SE-06 | Optimization of Oleaginous Fungi Cultivation on Palm Empty Fruit Bunches for Production of Fungal Oils and Cellulolytic Enzymes <i>Rawitsara Intasita*</i> , <i>Benjamas Cheirsilp</i> , <i>Yasmi Louhasakul</i> , <i>Piyarat Boonsawang</i> , <i>Sumate Chairapat</i> and <i>Jarucha Yeesang</i> |
| 11.30-11.45 | O-SE-07 | Removal of Methyl Parathion in Still Water by Circulating System Model Consists of Fine Micro Bubble Water Generator and Absorptive Organobentonite <i>Chinanat Witthayaprapakorn*</i> , <i>Kanchana Dumri</i> and <i>Dau Hung Anh</i> |

| SESSION | Young Scientists (YS) | |
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| Room | Duangmanee | |
| 12 November 2019 | | |
| Chairman | Asst. Prof. Prakrit Sukyai | |
| 09.00-09.15 | O-YS-01 | Isolation of Fungi from Agarwood Timber and Chemical Constituents in Agarwood Oil <i>Thidarat khunsuksaen*</i> , <i>Oratip Tiangyuttitom</i> , <i>Weeradej Meeinkuirt</i> , <i>Malinee Sriariyanun</i> and <i>Theerawut Phusantisampan</i> |
| 09.15-09.30 | O-YS-02 | Effect of Zn/Cd Tolerant Endophytic Bacterial Inoculation on Zn and Cd Accumulation and Phenolic Contents of <i>Gynura pseudochina</i> (L.) DC. Under the Metals Stress <i>Ruttanakorn Munjit*</i> , <i>Woranan Nakbanpote</i> , <i>Aphidech Sangdee</i> , <i>Dawn Arnold</i> |
| 09.30-09.45 | O-YS-03 | Effect of Metformin on Reducing Self-renewal and Proliferative Ability in Neuroblastoma SH-SY5Y Cells by Induction of Cell Differentiation <i>Thunwa Bimlateh*</i> , <i>Supita Tanasawet</i> and <i>Pilaiwanwadee Hutamekalin</i> |
| 09.45-10.00 | O-YS-04 | Biological Control of Anthracnose and Fruit Rot Caused by Fungi of Mango Fruits by Antagonistic Yeasts from Economic Crops Leaves <i>Wilasinee Konsue*</i> , <i>Savitree Limtong</i> and <i>Tida Dethoup</i> |
| 10.00-10.15 | O-YS-05 | Effect of Low Shear and Modeled-Microgravity Condition on the Physiological Activities of Enteric useful Bacteria and its Application <i>Arisa Masuda*</i> , <i>Hideki Aoyagi</i> |
| 10.15-10.30 | O-YS-06 | Development and Evaluation of Collagen Wound Dressing from Fish Skin for Dental Surgery <i>Pichayamon Maharatanawong*</i> , <i>Rudee Surarit</i> and <i>Nuttawee Niamsiri</i> |
| Chairman | Dr. Adisak Roomsang | |
| 11.00-11.15 | O-YS-07 | Isolation of Bacteria from Microbial Flora in Soy Sauce Brewery <i>Daisuke Matsuzaki*</i> and <i>Hideki Aoyagi</i> |
| 11.15-11.30 | O-YS-08 | Immobilization of Papain on Bacterial Nanocellulose for Wound Dressing <i>Vo Minh Quan*</i> , <i>Oranatee Asanarong</i> and <i>Prakit Sukyai</i> |
| 11.30-11.45 | O-YS-09 | Specific Lipid Phase Requirement of <i>Bacillus thuringiensis</i> Cyt2Aa2 Toxin for Protein-Lipid Interaction <i>Sudarat Tharad*</i> , <i>Boonhiang Promdonkoy</i> and <i>José L. Toca-Herrera</i> |
| 11.45-12.00 | O-YS-10 | Metformin Suppresses Epithelial Cell Adhesion Through ROS Production Involving Apoptosis in Cervical Cancer Cells <i>Wanumaidah Saengmolee*</i> , <i>Wanida Sukketsiri</i> and <i>Pilaiwanwadee Hutamekalin</i> |
| Chairman | Asst. Prof. Vichai Leelavatcharamas | |
| 14.00-14.15 | O-YS-11 | The Partial Purification of Water-Soluble Cellulose from Banana Peel Extraction <i>Konlarat Phirom-on*</i> , <i>Jirawan Apiraksakorn</i> |

| SESSION | | |
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| Young Scientists (YS) | | |
| Room | Duangmanee | |
| 14.15-14.30 | O-YS-12 | The Alternative Source of High GABA Content Derived from Germinated Black Bean <i>Kimroen Vann*</i> , <i>Atiya Techaparin</i> , <i>Jirawan Apiraksakorn</i> |
| 14.30-14.45 | O-YS-13 | Comparison of Non-aeration and Aeration Malting Process on Amylase Activities in Rice Malt <i>Thananpat Jarernsamrit*</i> , <i>Sucha Thongkorn</i> , <i>Waraporn Boonsupthip</i> and <i>Ulaiwan Withayagiat</i> |
| 14.45-15.00 | O-YS-14 | Microbial Community Structure Analysis in <i>Acer palmatum</i> Bark and Isolation of Novel Bacteria Belonging to <i>Abditibacteriota</i> (Former Candidate Division FBP) <i>Kazuki Kobayashi*</i> and <i>Hideki Aoyagi</i> |
| 15.00-15.15 | O-YS-15 | Monitoring the pH Changes on the Agar Plate Medium during Cultivation of Microbes and its Application <i>Reina Harada*</i> and <i>Hideki Aoyagi</i> |
| 15.15-15.30 | O-YS-16 | Isolation of New Yeast Species from Soil in Korea <i>Soo Hyun Maeng*</i> , <i>Srinivasan Sathiyaraj</i> |

| SESSION | | |
|-----------------------------------|---|---|
| Other related topics (ORT) | | |
| Room | Duangkaew | |
| 12 November 2019 | | |
| Chairman | Assoc. Prof. Chuenchit Boonchird | |
| 09.00-09.20 | Invited Speaker-06 | Development and Testing of Lemon Squeezer Asst. Prof. Dr. Supakit Sayasoonthorn (Kasetsart University, Thailand) |
| 09.20-09.40 | Invited Speaker-07 | Root Ideotype and Genetic Control for Root Anatomical Traits in Rice Asst. Prof. Dr. Patompong Johns Saengwilai (Mahidol University, Thailand) |
| 09.40-09.55 | O-ORT-01 | Identification and Characterization of Defensin-related Genes Challenged with Fungal Pathogen Infection in Cassava <i>Pattaraporn Hormhuan*</i> , <i>Budsakorn Dechapitak</i> , <i>Punchapat Sojikul</i> , <i>Unchera Viboonjun</i> and <i>Jarunya Narangajavana</i> |
| 09.55-10.10 | O-ORT-02 | Identification of Genes Encoding Annexin in Cassava Genome and Expression Profile of <i>MeAnn1</i> and <i>MeAnn2</i> in Response to Pathogen Infection in Cassava <i>Phatcharom Yoosomboon*</i> , <i>Lalita Juntean</i> , <i>Punchapat Sojikul</i> , <i>Unchera Viboonjun</i> , and <i>Jarunya Narangajavana</i> |
| 10.10-10.25 | O-ORT-03 | Design of Electronic Teaching Materials for Self-Learning in the Subject: Research Methodology of Thailand <i>Wanrudee Suksanguan*</i> and <i>Patnatcha Chotkunakiti</i> |
| Chairman | Asst. Prof. Rujikan Nasanit | |
| 11.00-11.15 | O-ORT-04 | Exploration of Cassava lincRNAs Relevant to Defense Response Against Cassava Brown Streak Virus (CBSV) Infection <i>Rungaroon Suksamran*</i> , <i>Treenut Saithong</i> , <i>Chinae Thammarongtham</i> , <i>Saowalak Kalapanulak</i> |
| 11.15-11.30 | O-ORT-05 | Computational Approaches to Predict Human Protein Targets of Spirulina Compounds for the Treatment of Systemic Lupus |

| SESSION | Other related topics (ORT) | |
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| Room | Duangkaew | |
| | | Erythematous <i>Han Ping*</i> , <i>Teeraphan Laomettachtit</i> , <i>Marasri Ruengjitchatchawalya</i> |
| 11.30-11.45 | O-ORT-06 | Biodiversity of Yeast from Peat Swamp Forest Area in Rayong Botanical Garden, Thailand <i>Pannida Khunnamwong*</i> and <i>Savitree Limtong</i> |
| 11.45-12.00 | O-ORT-07 | Molecular Cloning of Red Spotted Grouper Nervous Necrosis Virus Capsid Protein <i>Kitipong Angsujinda*</i> , <i>Jes Kettratad</i> and <i>Wanchai Assavalapsakul</i> |
| Chairman | Prof. Alissara Reungsang | |
| 14.00-14.15 | O-ORT-08 | Development of Frozen Hash Brown from Hanatee Sweet Cassava <i>Rutai Ruangthamsing*</i> and <i>Nongnuch Siriwong</i> |
| 14.15-14.30 | O-ORT-09 | Simple and efficient gene deletion in <i>Bacillus thuringiensis</i> using CRISPR-Cas9 system <i>Sumarin Soonsanga*</i> and <i>Boonhiang Promdonkoy</i> |
| 14.30-14.45 | O-ORT-10 | Design, Generation and Protein Expression of the Epitope-Based PEDV (Porcine Epidemic Diarrhea Virus) Vaccine <i>Kanokporn Polyiam*</i> , <i>Marasri Ruengjitchatchawalya</i> , <i>Teerapan Laomettachtit</i> , <i>Kanokwan Poomputsa</i> , <i>Phenjun Mekvichitsaeng</i> and <i>Yaowaluck Maprang Roshorn</i> |
| 14.45-15.00 | O-ORT-11 | Osteogenesis Induction of Mesenchymal Stem Cells by Gold Nanoparticles <i>Thitima Artidchay*</i> , <i>Dakrong Pissuwan</i> |
| 15.00-15.15 | O-ORT-12 | Antibacterial Effect of Gold Nanoshell Against Drug Resistance Bacteria (<i>mrsa</i>) <i>Kayakon Pirasiyapa*</i> , <i>Dakrong Pissuwan</i> |
| 15.15-15.30 | O-ORT-13 | Development of <i>Bacillus subtilis</i> Spore as a Mucosal Vaccine Against Porcine Epidemic Diarrhea Virus <i>Kitiya Piboonprai</i> , <i>Phenjun Mekvichitsaeng</i> , <i>Yaowaluck Maprang Roshorn*</i> |
| Room | Duangthip | |
| Chairman | Prof. Prasartporn Smitamana | |
| 14.30-14.45 | O-ORT-14 | Biodiversity of Carotenoids-Producing Yeast from Sea Sponge in Thailand <i>Chutima Kaewkrajay*</i> and <i>Savitree Limtong</i> |
| 14.45-15.00 | O-ORT-15 | Culturable Yeast species from the Gut of Earthworm <i>Han Ju Hyun*</i> , <i>Myung Kyum Kim</i> |
| 15.00-15.15 | O-ORT-16 | Biodiesel Production from Vegetable Oil Sources and Coastal Microalgae of Bangladesh <i>Shaila Siddiqua</i> , <i>Abdullah Al Mamun</i> , <i>Sheikh Md. Enayetul Babar*</i> |

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| JOINT SESSION | Jatropha and New Energy Updates | |
| Room | Duangchanok 1 | |
| 11 November 2019 | | |
| Chairman | Dr. Sompid Samipak | |
| 13.30-13.55 | Keynote Speaker-02 | Characteristics of the Conventional Microbial Cell Culture Method: Problems and Solutions Prof. Hideki Aoyagi (University of Tsukuba, Japan) |
| 13.55-14.20 | Keynote Speaker-03 | Bioconversion of Plant Biomass to Ethanol and Advanced Biofuels Prof. Virendra Swarup Bisaria (Indian Institute of Technology-Delhi, India) |
| 14.20-14.45 | Keynote Speaker-04 | Genetic Study of <i>Jatropha</i> Species and Selected Hybrids from Interspecific Hybridization Assoc. Prof. Dr. Vipa Hongtrakul (Kasetsart University, Thailand) |
| 14.45-15.05 | Keynote Speaker-05 | Jatropha Derived Bio-jet Fuel Prof. Wei-Cheng Wang (National Cheng Kung University, Taiwan) |
| 15.30-15.50 | Invited Speaker-08 | Preliminary Yield Trial of the New Selected <i>Jatropha curcas</i> Clones Miss Anna Saimaneerat (Kasetsart University, Thailand) |
| 15.50-16.10 | Invited Speaker-09 | Biomass and Lipid Production from <i>Ankistrodesmus</i> sp. Dr. Wanida Pan-utai (Kasetsart University, Thailand) |

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| JOINT SESSION | Microbial-derived biofuels and biochemicals | |
| Room | Duangchanok 2 | |
| 11 November 2019 | | |
| Chairman | Prof. Tsuyashi Imai | |
| 13.30-13.55 | Keynote Speaker-06 | Enhancement of Biohydrogen Production by Immobilized Cell Technology Prof. Qiang Liao (Chongqing University, Mainland China) |
| 13.55-14.20 | Keynote Speaker-07 | Bioconversion of Sugarcane Juice to Hydrogen and Methane by Two Stage Fermentation Process Prof. Alissara Reungsang (Khon Kaen University, Thailand) |
| 14.20-14.45 | Keynote Speaker-08 | Recent Efforts on Microbial Lipid Technology Prof. Zongbao K. Zhao (Dalian Institute of Chemical Physics, Mainland China) |
| 14.45-15.05 | Keynote Speaker-09 | Microbial Lipid Production from Sugarcane Top Hydrolysate and Crude Glycerol by Oleaginous Yeast, <i>Rhodospiridiobolus fluvialis</i> , using a Two-stage Cultivation Strategy Prof. Savitree Limtong (Kasetsart University, Thailand) |
| Chairman | Prof. Xun Zhu | |
| 15.30-15.50 | Invited Speaker-10 | Screening and Identification of Extremely Halophilic Bacteria for Biohydrogen Production from Plant-based Biomass Prof. Tsuyoshi Imai (Yamaguchi University, Japan) |
| 15.50-16.10 | Invited Speaker-11 | Efficient fermentation process for recovery of energy from <i>Chlorella</i> sp. biomass Assist. Prof. Dr. Apilak Salakkam (Khon Kaen University, Thailand) |

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| JOINT SESSION | TSB-SBJ-JST ERATO NOMURA PJ Part1 “Paradigm Shift from Traditional to Advanced Biotechnology” | |
| Room | Duangthip | |
| 11 November 2019 | | |
| Chairman | Prof. Yoshikatsu Murooka Prof. Yutaka Yawata | |
| 13.30-13.55 | Keynote Speaker-10 | Microbial Control Ver.3.0 Prof. Nobuhiko Nomura (University of Tsukuba, Japan) |
| 13.55-14.10 | Invited Speaker-12 | Nutrigenomics of Traditional Japanese Fermented Foods as the Source of the Health and Longevity Prof. Yoshikatsu Murooka (Osaka University, Japan) |
| 14.10-14.30 | Invited Speaker-13 | Single-cell Innate Fluorescence Signatures of Microorganisms Prof. Yutaka Yawata (University of Tsukuba, Japan) |
| 14.30-14.50 | Invited Speaker-14 | Bacterial Navigation in Dynamic Environments Prof. Douglas R. Brumley (The University of Melbourne, Australia) |
| 15.30-15.50 | Invited Speaker-15 | Combinatorial Synthetic Microbiology for Unnatural Natural Products (uNPs) Prof. Istvan Molnar (University of Arizona, USA) |
| 15.50-16.10 | Invited Speaker-16 | Applications of Bacteriophage in Biotechnology Prof. Sunee Korbsrisate (Mahidol University, Thailand) |

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| JOINT SESSION | TSB-SBJ-JST ERATO NOMURA PJ Part2 “New development of Enzyme Application” | |
| Room | Duangthip | |
| 12 November 2019 | | |
| Chairman | Prof. Yuichi Koga Prof. Nujarin Jongruja | |
| 09.00-09.25 | Keynote Speaker-11 | Novel Application of Proteins from Hyperthermophiles Prof. Yuichi Koga (Osaka University, Japan) |
| 09.25-09.45 | Invited Speaker-17 | Unavailabel Made Available” in a Sustainable Way Dr. Shogo Yamamoto (NAGASE & Co., Ltd. NAGASE R&D Center, Japan) |
| 09.45-10.05 | Invited Speaker-18 | Measurement of Enzymatic Activity using Ion Sensitive Field Effect Transistor (ISFET) and its Application Dr. Naohiro Tomari (Kyoto Municipal Institute of Industrial Technology and Culture, Japan) |
| 10.05-10.30 | Invited Speaker-19 | Protein Engineering, Applied Microbiology, and Prospective Industrial Applications Prof. Nujarin Jongruja (KMUTT, Thailand) |

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| JOINT SESSION | TSB-SBJ-JST ERATO NOMURA PJ Part3 Round table discussion “Future of Microbiology and Protein Science” |
| Room | Duangthip |
| 12 November 2019 | |
| Chairman | Prof. Yoshikatsu Murooka |
| 09.00-12.00 | Panel discussion: JST-ERATO-TSB-SBJ |

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| JOINT SESSION | Taguchi Prize 2019 And Ajinomoto Lecture 2019 | |
| Room | Duangchanok 1-2 | |
| 11 November 2019 | | |
| 11.00-11.30 | Taguchi Prize 2019 | Discovery, Development, and Engineering of Microbes and Enzymes from Diversity for Biorefinery and Bioeconomy Dr. Verawat Champreda (BIOTEC, Thailand) |
| 11.30-12.00 | Ajinomoto Lecture 2019 | Microbial Resource and Fermentation Process: Keys of Success in Microbial Biotechnology Assoc. Prof. Dr. Vichien Kitpreechavanich (Kasetsart University, Thailand) |