Sunday November 11	**08:00-09:00**	**Workshop Registration**		
	09:00-12:00	**Morning Workshops (10:30 Break)**		
	13:30-14:00	**Workshop Registration**		
	14:00-17:00	**Afternoon Workshops (15:30 Break)**		
	17:00-19:00	**Conference Registration and Check-in - Kaohsiung Exhibition Center**		
	17:00-19:00	**Welcome Reception Dinner Buffet - Kaohsiung Exhibition Center**		
Monday November 12	**08:00-18:00**	**Registration and Check-in**		
	08:30-09:00	**Opening Remarks**		
	09:00-09:45	**Plenary Presentation I** **Chih-Ming Ho, UCLA, USA**		
	09:45-10:15	**Break - Exhibit and Poster Inspection**		
	10:15-11:35	**Session 1A1: Separation Techniques**	**Session 1B1: DNA**	**Session 1C1: Self-Assembly**
	10:15-10:35	3581 Tunable 3D helical inertial microfluidics constructed with PDMS-Parylene flexible microfluidic system Presenter: Bum-Joon Jung, Korea Advanced Institute of Science and Technology (KAIST)	3594 DNA origami nanostructured surfaces for enhanced detection of molecular interactions Presenter: Devin Daems, KU Leuven	3787 Igloo-block patterning for domain separation of surface on microparticle by dehydration and hydration process Presenter: Cheolheon Park, Kyunghee University
	10:35-10:55	3591 Electrophoretic cytometry: Single-cell separations on microparticles to elucidate biological variation Presenter: Burcu Gumiscu, UC Berkeley	3766 Quantifying the DNA Hybridization Kinetics in Live Cells using a 3D Single-Molecule Tracking Technique Presenter: Yuan-I Chen, University of Texas at Austin	3928 Grayscale lithography system and water transfer printing method for fabricating and printing biomimetic structures Presenter: Kibeom Kim, Kyung Hee University
	10:55-11:15	3331 Rapid and dynamic switching of physicochemical environments for diffusiophoretic particle manipulation and separation Presenter: Dogyeong Ha, Ulsan National Institute of Science and Technology	3462 Hacking DNA for DNA-powered digital bioassay using NAzymes Presenter: Saba Safdar, KU Leuven	2656 Entropy-driven self-assembly of mesoscale three-dimensional objects Presenter: Prof. Hiroaki Suzuki, Chuo University
	11:15-11:35	1409 Gradient elution chromatography of femtoliter samples utilizing extended-nano fluidics Presenter: Hisashi Shimizu, The University of Tokyo	3750 Toehold-medicated DNA strand displacement reactions for quantitative paper-based diagnostics Presenter: Elizabeth Phillips, Purdue University	3564 Effect of temperature distribution in microtube and microfluidic channel for DNA origami assembly Presenter: Keita Hara, Osaka University
	11:35-12:35	**Lunch**		

	12:35-14:05	**Session 1A2 Dielectrophoresis**	**Session 1B2 Infectious Disease/ POC Diagnostics**	**Session 1C2 Microfluidic Technology**
	12:35-13:05	**Keynote Presentation Chiafu Chou**	**Keynote Presentation Jonathan Cooper**	**Keynote Presentation Patrick Doyle**
	13:05-13:25	3794 Microfluidic Dielectrophoresis Enables Rapid Characterization of Lipopolysaccharide Modification in Gram-Negative Bacteria Presenter: Dr. Qianru Wang, Massachusetts Institute of Technology (MIT)	1563 Multiplexed Instrument-Free Bar-Chart Spinchip Integrated with Nanoparticle-Mediated Magnetic Aptasensors for Visual Quantitative Detection of Multiple Pathogens Presenter: Prof. Xuijun James Li, Univeristy of Texas at El Paso	2729 Barcode Immunohistochemistry: Multiplexed Microfluidic Immunohistochemistry on Tissue Microarray Presenter: Chang Hyun Cho, KAIST
	13:25-13:45	2669 Dielectrophoretically Oriented Porous Microcapsule to Modulate Mechanical Property of hydrogel and Spatial Drug Delivery for Facilitating Neural Stem Cell Differentiation Presenter: Dr. min-Yo Chiang, National Chiao Tung University	3618 An Electokenetic PCR Chip with In Situ Electrochemical Amplicon Detection for Comprehensive Microbiological Analysis of Hospital Acquired Infections Presenter: Prof. Pak Kin Wong, Penn State	1613 Reconfigurable Multipolar Open-space Microfluidics Presenter: Plerre-Aleandre Goyette, Polytechnique Montreal
	13:45-14:05	1620 Dielectrophoretic Manipulation for Robust Liquid Marble-Based Digital Microfluidics Presenter: Prof. Nam-Trung Nguyen, Griffith University	3466 An Array-type Microfluidic Chip for Multiple Subtyping of Influenza A Viruses by using Chemically Synthesized Pentasaccharide-Coated Magnetic Beads and RT-PCR Presenter: Kao-Mai Shen, National Tsing Hua University	3492 Quantitative Microimmunohistochemistry (quIC) Presenter: Anna Fomitcheva Khartchenko
	14:05-16:05	**Poster Session 1**		
	14:05-16:05	**Exhibitor Industrial Stage 1 Micronics, Inc. - ASE Group - Fluigent - NIST: National Institute of Standards and Technology**		
	16:05-16:50	**Plenary Presentation II Uwe Marx, TissUse GmbH, Germany**		
	16:50-17:00	**Transition**		
	17:00-17:40	**Session 1A3: Imaging Techniques**	**Session 1B3: Advanced Droplets**	**Session 1C3: Capacitance/ Impedance Measurement**
	17:00-17:20	3476 Fluorescence Ghost Imaging-activated Cell Sorter Presenter: Yoko Kawamura, Thinkcyte Inc.	3599 C.H.A.D.: Continuous Heterogeneous Assay in Droplets for the Measurement of Cortisol Presenter: Gareth Evans, University of South Hampton	1385 Gradual Capacitance for Particle tracking in Micro-channels Presenter: Miguel Solsona, University of Twente

	17:20-17:40	3734 Highly Multiplexed Detection of Fluorescent Droplets on a Cell Phone Using Time Domain Encoded Optofluidics Using Only Three Excitation Sources Presenter: Venkata Yelleswarapu, University of Pennsylvania, Issadore Lab	2871 Structural Smart Microgels-enhancing the Sensitivity for Single Cell Secretomic Analysis Presenter: Myat Noe Hsu, National University of Singapore	3932 A CMOS/Microfluidics Integration Technique with 3-D Hydrodynamic Focusing for Chip-Scale GHz-Frequencies Dielectric-based Flow Cytometry Presenter: Dr. Jun-Chau Chien, Stanford University
	18:30-22:00	**Student Mixer – MLD Arumi8 Bar**		
	19:30-22:00	**Woman Night Out - MLD Seafood Restaurant**		
Tuesday November 13	**08:00-18:00**	**Registration**		
	08:30-08:35	**Announcements**		
	08:35-09:20	**Plenary Presentation III Luke Lee, UC Berkeley, USA**		
	09:20-09:30	**TRANSITION**		
	09:30-10:30	**Session 2A1: Vascular Systems**	**Session 2B1: C. Elegans**	**Session 2C1: Single-Cell Biomolecular Analysis**
	09:30-09:50	3430 Engineering of a 3D Vascularized Tissue-on-a-Chip Using Human iPSC-derived Cells Presenter: Dr. Yu-suke Torisawa, Kyoto University	2939 Neuronal and Behavioural Effects of Alpha-Synuclein Protein and 6-OHDA Neurotoxin in Parkinson's Disease Investigated with a C. Elegans Electrotaxis Microfluidic Assay Presenter: Prof. Pouya Rezai, Department of Mechanical Engineering, York University	3072 From Nasal Swab to Digital Answer: Unit Operations for Antibiotic Resistance Screening on a Single Cell Level Presenter: Martin Schulz, Hahn-Schickard
	09:50:10:10	3830 Unveiling Endothelial Cell Phenotypic Regulation by Spatial Hemodynamic Flows with Microfluidics Presenter: Dr. Sarvesh Varma, Massachusetts Institute of Technology	2788 Automated On-chip Phenotyping of Caenorhabditis Elegans Embryos: A Developmental Study as Function of Exposure to Various Compounds Presenter: Huseyin Baris Atakan, EPFL	2698 Single-cell RNA-sequencing of Migratory Cancer Cells Sorted By Microfluidics: Discovering Drivers of Cancer Metastasis Presenter: Dr. Yu-Chih Chen, University of Michigan
	10:10-10:30	3827 Non-uniform Vascular Networks Generated by Non-uniform Flow Velocity Distribution for an On-chip Hereditary Hemorrhagic Telangiectasia Model Presenter: Da Shao, University of California, Irvine	286 Quantitative Analysis of Muscle Atrophy Under Hyperglycemic Conditions Using C. Elegans Model in a Scalable Microfluidic Device Presenter: Samuel Sofela, New York University	1343 Micro/Nano Integrated Fluidic Device for Living Single-cell Protein Analysis Presenter: Tatsuro Nakao, The University of Tokyo
	10:30-11:00	**Break - Exhibit and Poster Inspection**		
	11:00-12:20	**MicroTAS 2018 Shark Tank Competition**		
	12:20-13:20	**Lunch**		
	13:20-14:50	**Session 2A2: Centrifugal platform/ Blood Analysis**	**Session 2B2: Organ-on-a-Chip**	**Session 2C2: Serology/ Immunization**

	13:20-13:50	**Keynote Presentation Yoon-Kyoung Cho**	**Keynote Presentation Ryuji Yokokawa**	**Keynote Presentation Amy Shen**
	13:50-14:10	1464 Lab-on-a-Disc for Fully Automated Isolation of Extracellular Vesicles from Whole Blood of Cancer Patients Presenter: Chi-Ju Kim, UNIST	3463 A Biomimetic Circular 3D Stenosis Model for Whole Blood Perfusion and Direct Platelet Monitoring in Aspirin Therapy Presenter: Dr. Nishanth Venugopal Menon	1614 Measles Immunization Status Test Using 3D-Printed Capillaric Circuits Presenter: Arya Tavakoli, McGill University
	14:10-14:30	3808 High-Yeild Automated Extraction of Nucleic Acids from Whole Blood Using a Centrifugal Microfluidic Platform with Active Pneumatic Pumping Presenter: Dr. Daniel Brassard, National Research Council	3236 Exploring the Chemoresistance Mechanisms of Leukemia in a biomimetic 'Leukemia-on-a-Chip' Microsystem Presenter: Prof. Weiqang Chen, New York University Tandon School of Engineering	2920 Lab in a Backpack: Portable Digital Microfluidics for Serosurveillance in Resource-Limited Settings Presenter: Alexandros A. Sklavounos, University of Toronto
	14:30-14:50	3405 Multi-Staged Inertial and Impedance Cytometer for Direct Label-Free Leukocyte Sorting and Profiling from Whole Blood Presenter: Chaykorn Petchakup, School of Mechanical and Aerospace Engineering, Nanyang Technical University	2675 A Tetris-Like (TILE) Modular Microfluidic Platform for Mimicking Multi-Organ Systemic Interactions Presenter: Louis Ong, National University of Singapore, Singapore	3676 Liver-immune Co-culture Array Predicts Drug-metabolism Induced Skin Sensitization Presenter: Lor Huai Chong, National University of Singapore
	14:50-16:50	**Poster Session 2**		
	14:50-16:50	**Exhibitor Industrial Stage 2 Schott Nexterion - DuPont - WinMEMS Technologies Co. Ltd. - NIL Technology APS + Titan Electro-Optics Co. Ltd.**		
	16:50-17:35	**Plenary Presentation IV Johnsee Lee, Personal Genomics, Taiwan**		
	17:35-18:35	**Session 2A3: Cellular Metabolism**	**Session 2B3: Droplets - Interesting Mechanisms**	**Session 2C3: Cytometry/Sensors**
	17:35-17:55	3402 Circulating Tumor Cells Isolation Based on Their Altered Metabolism with Droplet Microfluidics Presenter: Francesca Rivello, Radboud University	3408 Navigation of Droplets Through Micropillars Using an AC Electric Field Presenter: Adrian Teo, Griffith University	3147 Smart Contact Lens for Continuous Colorimetric Intraocular Pressure Monitoring Presenter: Bohee Maeng, Sogang University
	17:55-18:15	3160 Metabolomics Comparison of Adherent vs Spheroid Cell Culture Via microfluidic NMR Presenter: Dr. Bishnubrata Patra, School of Chemistry, University of South Hampton, UK	3664 Gas-medicated Crosstalk in Droplet Flow - Characterisation and Correction Presenter: Dr. Adrian Nightingale, University of South Hampton	4062 Deep Learning Assisted Analysis of Multiple Individual Red Blood Cells in Blood Flow Presenter: Takayuki Akai, Osaka University

	18:15-18:35	3588 High-sensitivity Chip Calorimeter Based on Parylene Microfluidics for Measurement of Cellular Metabolic Rate Presenter: Dr. Jihye Kim, Korea Advanced Institute of Science and Technology	3020 Dynamics of Hybrid Nano-structured Au Particles/Nanobubble in a Quasi 2D Liquid Environment Presenter: Dr. Pijus Kundu, National Tsing Hua University	2889 Large-area Cell-tracking Intrinsic Cytometry with Digital Holographic Imaging Presenter: Nicha Apichitsopa, MIT
Wednesday November 14	**08:30-18:00**	**Registration**		
	08:30-08:40	**Announcements**		
	08:40-09:00	**Analytical Chemistry Young Innovator Award and Presentation**		
	09:00-09:20	**Lab on a Chip and Dolomite - Pioneers in Miniaturization Prize and Presentation**		
	09:20-09:30	**TRANSITION**		
	09:30-10:50	**Session 3A1: Nano-Fluidics / Nano-Pores**	**Session 3B1: Droplet Generation & Manipulation**	**Session 3C1: Particle Preparation**
	09:30-09:50	3893 Construction of Programmable Nanopore Using 3-Sheet Peptides Presenter: Keisuke Shimizu, Tokyo University of Agriculture and Technology	3748 Integrated Droplet Generation and Assembly Platform with Precisely Controlled Droplet Contents and Uniform Droplet Incubation Duration Presenter: Pengfei Zhang, Johns Hopkins University	3756 FlowScript: Software for Efficiently Designing Inertial Flow Sculpting Devices Presenter: Dr. Daniel Stoecklein, University of California, Los Angeles
	09:50-10:10	2708 Long-term Continuous Online Monitoring of Antibody Purity Using a Nanofluidic Device During High-concentration Perfusion Culture Presenter: Taehong Kwon, Massachusetts Institute of Technology	3715 Mechanically and Directionally Tunable Soft Step Emulsification Presenter: Seungman Choi, Department of Mechanical Engineering, Tokyo Institute of Technology	2912 Device-free Monodisperse Droplet Generation Using 3D-Structured Janus Microparticles Presenter: Dr. Chueh-Yu Wu, Department of Biomedical Engineering, UCLA
	10:10-10:30	2715 Proton Transfer Mechanism in Extended-Nano Space Investigated by H+/D+ Isotope Effect Presenter: Prof. Kazuma Mawatari, The University of Tokyo	1495 Plug-n-Play Biosensors for Multi-modal Digital Microfluidic Analytics Presenter: Dr. Richard Piffer Soares de Campos, University of Toronto	2922 Next Generation Optofluidic Fabrication for Sub-100 Micron 3D Particles Presenter: Dr. Kevin Paulsen, Lawrence Livermore National Laboratory
	10:30-10:50	2643 A self-powered enzymatic microtubular sensor based on streaming current Presenter: Longteng Yu, National University of Singapore	3431 Self-Construction of Eiffel tower-inspired Tip-merged Polymeric Presenter: Junegeun Lim, Seoul National University	3911 Cloaked Exosomes: Biocompatible, Durable, and Degradable Encapsulation Through Microfluidic Rapid Mixing Presenter: Sumit Kumar, IBS CSLM
	10:50-11:20	**Break - Exhibit and Poster Inspection**		

	11:20-12:20	**Session 3A2: Cell Arrays**	**Session 3B2: Tumor-on-a-Chip**	**Session 3C2: Single Cell Sorting and Separation**
	11:20-11:40	1634 Fabrication of Cell Based Sensor Array for Multichemical Detection Presenter: Dr. Haruka Oda, The University of Tokyo	3584 A Three-Dimensional In Vitro Model of Lymphangiogenesis in Tumor Microenvironment Presenter: Youngkyu Cho, Korea University	3514 Label-free Purification of Hematopoietic Stem Cell (HSC) Derived Reticulocytes for Red Blood Cell Production Presenter: Dr. Kerwin Kwek Zeming, Sigapore-MIT Alliance for Research and Technology, BioSym
	11:40-12:00	3387 A Microfluidic Single-Cell Paring Array for Studying Cell-Cell Interactions in Isolated Compartments Presenter: Xuan Li, University of California, Irvine	3261 Multiplexed Co-Culture Patterning in 2D and 3D Using Low-Cost 3D Printing monolithic Pin-Heads Presenter: Grant Ongo, McGill	2838 Real-Time Optofluidic Diffractive “Imaging” Cell Analyzer Presenter: Masachi Ugawa, ThinkCyte Inc.
	12:00-12:20	1354 Efficient Pairing of Single Cells using Trap-and-Drop Microwell Array Presenter: Dr. Soo Hyeon Kim, Institute of Industrial Science, The University of Tokyo and JST, PRESTO	3172 Cell Culturing in Electropolymerized Hydrogel Multi-Layer Nets Fabricated in an Electrokinetics Microfluidic Chip Presenter: Li Pan, State Key Laboratory of Robotics Shenyang Institute of Automation, Chinese Academy of Sciences	3878 A Droplet Based Single-cell RNA-Seq Platform Using Active Sorting and Downstream Merging Presenter: Meng Ting Chung, University of Michigan- Ann Arbor
	12:20-13:20	**Lunch**		
	13:20-14:05	**Plenary Presentation V Tomokazu Matsue, Tohoku University, Japan**		
	14:05-14:15	**MicroTAS 2019 Announcement**		
	14:15-14:25	**TRANSITION**		
	14:25-15:35	**Session 3A3: Flexible/Wearable & Environment applications**	**Session 3B3: Sorting / Cell Separation**	**Session 3C3: Drug Screening**
	14:25-14:55	**Keynote Presentation Róisín M. Owens**	**Keynote Presentation Nicole Pamme**	**Keynote Presentation Pak Kin Wong**
	14:55-15:15	1422 PM2.5 Analysis in Liquid Phase Via Water Film-based Collection and Microfluidics-based Electrical Detection Presenter: Taisuke Shimada, Nagoya University	3425 AcouWash: A Standalone Instrument for the Washing, Separation and Enrichment of Cells Presenter: Jay Mallinson, AcouSort AB	3714 Development of a High-throughput Micro-neurocircuitry Platform for Drug Screening Studies Presenter: Dr. Joseph Fantuzzo, Rutgers University

	15:15-15:35	3065 Wiring on Stretchable Material by Agglutination and Adhesion of Metallic Nanoparticle using Electrically Induced Microbubbles Presenter: Ren Masuda, Kyushu University	3971 Method for Selecting Optimal Operation Frequencies in Bulk Acoustophoretic Devices Presenter: Dr. Andreas Lenshof, Lund University	3991 Microfluidic Multi-Organ Platform to Study the Effects of Prodrugs on Early Embryonic Development Presenter: Julia Alicia Boos, ETH Zurich
	15:35-17:35	**Poster Session 3**		
	16:00-17:35	**Art in Science Award**		
	17:35-18:35	**Transition to Banquet**		
	18:35-21:35	**Conference Banquet**		
Thursday November 15	**08:00-11:00**	**Registration**		
	08:00-08:05	**Announcements**		
	08:05-08:50	**Plenary Presentation VI** **Evi Lianidou, University of Athens, Greece**		
	08:50-09:00	**TRANSITION**		
	09:00-10:00	**Session 4A1: Genetics / DNA**	**Session 4B1: Fluid Manipulation**	**Session 4C1: Droplet Application: Manufacturing/ Analytics**
	09:00-09:20	2653 An Automated Microfluidic Gene-editing Platform for Deciphering Cancer Genes Presenter: Prof. Steve Shih, Concordia University	1500 A Study of Ion Wind Generator Using Parallel Arranged Electrode Configuration for Centrifugal Flow Mixer Presenter: Dr. Tung Thanh Bui, University of Engineering and Technology, Vietnam National University	3148 Multimodal Analysis of Phytase-Producing Yeast in Nanoliter Droplet Arrays Presenter: Dominik Hummer, ETH Zurich
	09:20-09:40	1335 A CMOS Based Lab-on-Chip Diagnostic System for Rapid Detection and Serotyping of the Dengue Virus Presenter: Dr. Ling-Shan Yu, Imperial College London	4074 Three-Dimensional Rotation/Translation Microfluidic Devices for Sequential Mixing Presenter: Takeshi Tachibana, Keio University	2852 A Parallelized Droplet Magnetofluidic Platform for Automated Detection of Cancer Methylation Biomarkers Presenter: Alexander Trick, Johns Hopkins University
	09:40-10:00	3919 Plasmon Resonance Energy Transfer-based Ultrafast PCR Presenter: Doyeon Bang, UC Berkeley	3866 Microfluidic Standing Air Bubbles (μSABs) Presenter: Prof. Jixiao Liu, Hebei University of Technology	1328 On-chip Maufacturing of Synthetic Proteins for Point-of-Care Therapeutics Presenter: Travis Murphy, Virginia Tech
	10:00-10:30	**Coffee Break**		
	10:30-11:30	**Session 4A2: Cell Assay / Phenotyping**	**Session 4B2: Droplet Motion & Manipulation**	**Session 4C2: Mechanobiology**

	10:30-10:50	1324 Effects of Obtuse and Acute Wall Angles of 3D Microgroove Topography on Cancer Cell Migration Presenter: Tomohiro Yaginuma, Department of Bioengineering, School of Engineering, The University of Tokyo	2797 Sub-pg/mL, Multiplexed Detection of Cytokines on a Mobile-Phone, High Throughput Digital Droplet ELISA Presenter: Venkata Yelleswarapu, University of Pennsylvania, Issadore Lab	2829 Development-inspired Engineering of Folded Mucosa Presenter: Prof. Hon Fai Chan, Chinese University of Hong Kong
	10:50-11:10	3762 Quantitative label-Free Dynamic Phenotyping of Highly Metastatic Cancer Cells Presenter: Dr. Jose C. Contreas-Naranjo, Texas A&M University	1340 Towards Developing a "Droplet Motor" Driven by the Belousov-Zhabotinsky Reation: Control of Self-Propelled Motion Using a Ratchet Microchannel Presenter: Dr. Taiji Okano, Chuo University	2822 Cell Deformability Measurement Device for Labled-free Cancer Cells Discriminating Using Ionic Current Detection Presenter: Taiki Suzuki, Nagoya University
	11:10-11:30	3325 Deep Learning Correlates Single-Cell Morphology with Migratory Behaviors in Microfluidics Presenter: Dr. Yu-Chih Chen, University of Michigan	1404 A Magneto-Switchable Superhydrophobic Surface for Droplet Manipulation Presenter: Prof. Gang Li, Chongqing University	3039 Integrative Platform for Ultrahigh Throughput Quantitative Mechanoresponse of Adhered Single Cells Presenter: Ming Wang, National University of Singapore
	11:30-11:40	**TRANSITION**		
	11:40-12:20	**CHEMINAS - Young Researcher Poster Awards**		
		Lab on a Chip - Widmer Poster Awards		
		IMT Masken und Teilungen AG - Microfluidics on Glass Award		
	12:20	**Closing Remarks - Conference Adjourns**		