Sunday, July 23				
14:00	Workshop on Biofilm (Green Hall 120)			
14:00	Registration (Whitaker Atrium)			
18:00	Reception (Whitaker Atrium)			
Monday, July 24				
9:00	**Opening remarks (Whitaker 100)**			
9:30	**Plenary: Dr. Menachem Elimelech** (Whitaker 100)	The Physical Basis of Water Transport in Reverse Osmosis Membranes: Solution-Diffusion or Pore-Flow Mechanism?		
10:30	**Plenary: Dr. Masaru Kurihara** (Whitaker 100)	Current Status and Future Trend of Seawater Desalination on Membrane Technology and Biotechnology as Sustainable Green Desalination in the 21st Century		
11:30	Group Photo			
12:00	Lunch (Whitaker Atrium)			
13:00	Poster 1 (Brauer Lobby)			
	Session 1: Membrane Materials	Session 2: Quorum Quenching	Session 3: Separation mechanisms	Session 4: Membrane Distillation
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Meagan Mauter	Prof. Xia Huang	Prof. Ngoc Bui	Prof. Mohan Qin
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
14:00	Keynote: Engineering the Next-Generation of Membrane Materials Needed to Achieve Global Water Sustainability Goals	Keynote: Development of Vibrating Membrane and Quorum Quenching Technique for Membrane Fouling Control in MBRs	Keynote: Performance Metrics for Nanofiltration-based Selective Separation for Resource Extraction and Recovery	Keynote: A Thermally Engineered Polydopamine Membrane for Photothermal Membrane Distillation
	Prof. Eric Hoek, University of California, Los Angeles	Prof. How Yong Ng, Beijing Normal University, National University of Singapore	Prof. Shihong Lin, Vanderbilt University,	Prof. Young-Shin Jun, Washington University in St Louis
14:30	Synthesis and Characterization of Molecularly Imprinted Polymer Membranes for the Removal of Arsenate and Ammonia from Water	Anti-biofouling membranes with immobilization of live quorum quenching strains	Chemical Functional Groups Affect Heterogeneous Scale Formation in Membrane Desalination	Characterization of the hydrophobicity of Laser induced graphene for its application in direct contact membrane distillation for desalination
	Mr. Jordan Myers, Central Michigan University	Prof. Kwang-Ho Choo, Kyungpook National University	Mr. Ping-I Chou, Washington University in St. Louis	Mr. Mateo Peralta, University of Missouri
14:50	Performance Evaluation of Holey Graphene Membranes for Increased Water Permeability	Development of a circulating quorum quenching-vessel to improve the efficiency of biofouling control in a membrane bioreactor	Elucidating Salt Transport Mechanisms in High Pressure Reverse Osmosis using Quartz Crystal Microbalance	Gypsum Scaling in Direct Contact Membrane Distillation: Elucidating the Impacts of Temperature and Flux
	Prof. Ali Alshami, University of North Dakota	Prof. Hyun-Suk Oh, Seoul National University of Science & Technology	Mr. Kevin Pataroque, Yale University	Prof. Kofi Christie, Louisiana State University
15:10	A Coherent Theoretical model for Interpreting Ion Separation Mechanism of Nanofiltration Membranes: Beyond the DSPM-DE and Ion Dehydration model	20+ Years of Drinking Water Related Coagulation/Flocculation-Low Pressure Membrane Studies: Knowledge Gaps and Recommendations for Future Research	Fabrication of Omniphobic Membrane for Hypersaline Water Treatment via Robust Membrane Distillation	Volatile Fatty Acid and Ammonium Recovery during Membrane Contactor and Understanding the Effects of Osmotic Distillation
	Dr. Xuesong Li,Tongji University	Mr. Tyler Malkoske, University of Toronto	Dr. Lijun Meng, Tongji University	Mr. Matthew Ferby, Washington University in St Louis
15:30	Coffee Break			
	Session 5: Membrane Materials	Session 6: Quorum Quenching	Session 7: MBR	Session 8: Electric/Thermal Membranes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Meagan Mauter	Prof. Xia Huang	Prof. Ngoc Bui	Dr. Mohan Qin
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
15:50	Keynote: Designing nanocomposite membranes for specific water treatment applications	Enriched autoinducer-2 (AI-2)-based quorum quenching consortium in a ceramic anaerobic membrane bioreactor (AnMBR) for biofouling	VFA from sewage sludge by anaerobic membrane bioreactors: lesson learned from two-year experiments within Wider Uptake EU project	Coupling anodic and cathodic reactions using an electrocatalytic dual-membrane system actuates ultra-efficient degradation with regulable
	Prof. Baolin Deng, Univerisity of Missouri	Dr. Boyan Xu, Beijing Normal University	Prof. Giorgio MANNINA, Palermo University	Dr. Yifan Gao, Massachusetts Institute of Technology
16:20	ULPUF using Cake Layer Filtration combined with Electrocoagulation for Arsenic Removal	Zwitterionic polymer brush membranes at ambient conditions: examining the roles of brush thickness and density	Deciphering the occurrence and persistence of emerging cell-free extracellular DNA in pilot anaerobic membrane bioreactor	Fabrication of Tailor-made Heterogeneous Ion Exchange Membranes for Brackish Water Desalination in Membrane Capacitive Deionization
	Prof. Franz-Bernd Frechen, University of Kassel	Dr. Allyson McGaughey, Princeton University	Dr. Shuo Zhang, King Abdullah University of Science and Technology	Prof. Chia-Hung Hou, National Taiwan University
16:40	Gravity-driven membrane filtration with coagulation pre-treatment to reduce arsenic and organic compounds without electricity	Electrospun fibers for controlled release of anti-quorum sensing molecules for biofouling mitigation in MCE membranes	Filtration modelling of an MBR full-scale plant	Efficient removal of micropollutants from low-conductance surface water using an electrochemical Janus ceramic membrane filtration system
	Mr. Kwang Pyo Son, Yonsei University	Mr. Amos Taiswa, Montana Technological University	Mr. Albert Galizia, LEQUIA - University of Girona	Mr. Zhouyan Li, Tongji University
17:00	Comparative study of passive & gravity-driven membrane systems with the characterization of biofilm growth in drinking water treatment	Optimum Quorum Quenching Bacteria Concentration in Cell Entrapping Beads to control Biofouling in MBR	Removal performance of extracellular and intracellular antimicrobial resistance genes in a full-scale membrane bioreactor	Laboratory and Pilot Scale Experiments with a Monovalent Selective Membrane Capacitive Deionisation
	Ms. Varshaa Kumaran, The University of British Columbia	Dr. Shinho Chung, Forman Christian College	Mr. Rongxuan Wang, Kanazawa University	Ms. Hanna Rosentreter, Technische Universität Dresden

Tuesday Morning, July 25

	Session 9: Drinking Water Treatment	Session 10: Membrane Scaling	Session 11: Wastewater Treatment	Session 12: Reactive Membranes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Shihong Lin	Prof. XUE JIN	Prof. Baoxia Mi	Prof. Young-Shin Jun
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
08:30	Keynote: Re-Engineering Membranes for Drinking Water Treatment in Small, Remote and/or Marginalized Communities	Ultrahigh resistance of hexagonal boron nitride to mineral scale formation	Invited: Membrane development and application for pharmaceutical wastewater treatment	Keynote: Reactive ceramic membranes in water treatment: filtration, adsorption and catalysis
	Dr. Pierre Berube, The University of British Columbia	Prof. Kuichang Zuo, Peking University	Prof. Sui Zhang, National University of Singapore	Prof. Maria Fidalgo, University of Missouri
09:00	Direct filtration with a monolith ceramic membrane to treat surface water for drinking water production	Carbonate scaling in FO treatment for ROC	Advanced wastewater treatment by ozonation, coagulation and ceramic microfiltration for WWTP effluent reuse	Development of a new modular membrane filtration unit including reactant (enzyme) for the degradation of micropollutants in water and wastewater
	Dr. Jumeng Zheng , PWNT Water Technology	Prof. Li-Hua Cheng, Zhejiang University	Mr. Martin Spruijt, PWNT Water Technology	Prof. André Lerch, Technische Universität Dresden
09:20	Effectiveness of membrane filtration for removal of cell free antibiotic resistance genes from water and wastewater	Insights into the scale-inhibition potential of different fractions of commercial PAA-based antiscalant against sulfate and carbonate salts	Chemodiversity change of dissolved organic matter and removal of organic micropollutants in a full scale A2O-MBR NF municipal reclaimed water plant	Process intensification in hybrid oxidation-filtration process via catalytic ceramic membrane for micropollutant removal
	Dr. Pawel Krzeminski, Norwegian Institute for Water Research (NIVA	Prof. Mathias Ernst, DVGW-Forschungsstelle TUHH	Prof. Xianhua Wen, Tsinghua University	Mr. Arvin Liangdy,Nanyang Technological University
09:40	Development of a gravity-driven membrane filtration system with zeolite adsorption for calcium removal without electricity	Is closed circuit reverse osmosis less prone to scaling than conventional plug flow operation? First-time comparison under the same conditions using a real water matrix on a pilot scale	Investigating structure-performance relationships in ligand- functionalized membranes for lithium ion-selective separations	Synergistic nitrogen-doped and single-atom Co in MXene membranes for catalytic CBZ degradation
	Mr. Dowon Chae, Yonsei University	Mr. Martin Futterlieb, Universität Duisburg-Essen	Ms. Kristen Abels, Stanford University	Dr. kexuan gao, Beijing Normal University
10:00	Coffee Break			
	Session 13: Membrane Synthesis	Session 14: Membrane Fouling	Session 15: RO Desalination	Session 16: Membrane Distillation
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Shihong Lin	Dr. XUE JIN	Prof. Baoxia Mi	Prof. Young-Shin Jun
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
10:20	Keynote: 3D Printing Membranes for Customized Water Treatment	Keynote: Membrane fouling: from an inherent problem to a controllable issue	Keynote: RESERSE OSMOSIS: REVERSE OSMOSIS, CONTINUOUS VS. INTERMITTENT. REACHING HIGHER PERFORMANCE	Invited: Enhanced Ammonia Recovery from Wastewater Using Solar Photothermal Membrane Distillation
	Dr. Jeffrey McCutcheon, University of Connecticut	Prof. Long Nghiem, Universtiy of Technology Sydney	Dr. Val Frenkel, GREELEY and HANSEN	Prof. Mohan Qin, University of Wisconsin-Madison
10:50	Photoreaction-induced phase inversion for porous membrane manufacturing by DLP type 3D printer	Factors affecting the potential of reversible fouling in microfiltration treating surface waters	Ion-exchange resin for desalination and a process for their sustainable regeneration	Selective Lithium Recovery from Lithium ion Battery Leachate by Coupling Flow-electrode Capacitive Deionization and Membrane Distillation
	Ms. Nanami Kato, Chuo University	Prof. Hiroshi Yamamura, Chuo University	Mrs. Farah Monowara Jahangiri, UNSW, Canberra	Ms. TSAI-HSUAN CHEN, National Taiwan University
11:10	Recycling the High-Salinity Textile Wastewater by Loose Nanofiltration Membranes with Minimal Water and Energy Consumption	Foulants on Nanofiltration Membranes Used for Purification of Surface Waters with High Dissolved Organic Carbon and Hardness	Biological Reduction of Chloramphenicol and nitrate in Hydrogen-based Membrane Biofilm Reactor (H2-MBfR)	Water Reuse and Resource Recovery from Greenhouse Wastewater by Capacitive Electrodialysis: The ULTIMATE project-Horizon 2020 Europe
	Ms. Rui Zhao, KU Leuven	Prof. Beata Gorczyca, University of Manitoba	Ms. Lin Yang, Tongji University	Dr. Leo Gutierrez Ghent University
11:30	Modification of symmetric membranes for enhanced performance for produced water and oily water treatment applications.	Multi-Modal Actions of Ferrate(VI) Pre-Treatment in Alleviating Membrane Fouling	Leachability of dissolved and assimilable organic carbon from commercial polyamide reverse osmosis membranes	Tuning Structure of Advanced Thin-film Nanocomposite Polyamide Membranes for Efficient Removal of Trace Organic Contaminants
	Dr. Oluwaseun Ogunbiyi, Bin Khalifa University	Prof. Virender Sharma, Texas A&M Univeristy	Mr. Zhao Li, RWTH Aachen University	Dr. Ruobin Dai, Tongji University
12:00	Lunch (Whitaker Atrium)			
13:00	Poster 2 (Brauer Lobby)			

Tuesday Afternoon, July 25

	Session 17: Drinking Water	Session 18: Membrane Biofouling	Session 19: Wastewater Treatment and Reuse	Session 20: Electrified/Thermal Membrane Processes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Pierre Berube	Prof. Qilin Li	Prof. Kuichang Zuo	Prof. Shiqiang Zou
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
14:00	Keynote: Dynamic Operating Schema for Resilient, Affordable, Decarbonized Water Systems	Keynote: Biofouling control in spiral wound membrane elements: insights into hydraulic effect of feed spacer	Water Reuse from Wastewater Treatment by Conventional Activated Sludge and Ultrafiltration Membranes: the case Study of Corleone - Italy	Keynote: Resource Recovery Using Membrane Capacitive Deionization
	Prof. Meagan Mauter* (1) (1. Stanford University)	Prof. Xia Huang,Tsinghua University	Prof. Giorgio MANNINA, Palermo University	Prof. Ho Kyong Shon, University of Technology Sydney

14:30	Proven Successful Long-Term Operation of SWRO plants with Pressure Center and Eight (8) Element Design	Comparison of the effect of nutrient concentration on biofouling development in a membrane fouling simulator (MFS) supplied with fresh water and UF pre-treated seawater	Treatment of Industrial Wastewater for a California Wine Packaging Facility	Faradaic Rhenium Recovery with Polyvinyl Ferrocene (PVF) Coated Carbon Electrodes
	Dr. Irina Zaslavschi, IDE Technologies Group	Ms. Natalia Franco Clavijo, King Abdullah University of Science and Technology (KAUST)	Dr. Mavis Wong, Magna Imperio Systems	Ms. Yurui Li, University of Illinois Urbana Champaign
14:50	Cyclic Simulation and Energy Assessment of Closed-Circuit RO (CCRO) of Brackish Water	Highly efficient wastewater treatment and fouling mitigation by living membrane® in electro-encapsulated self-forming membrane bioreactor	Innovative membrane-based approach for high-strength industrial wastewater reuse	Electrodialysis and membrane contactor for recovering plant nutrients from food wastes for bio-based fertilizer applications.
	Dr. MINGHENG LI, California State Polytechnic University	Prof. Vincenzo Naddeo, University of Salerno	Dr. Samik Bagchi, Digested Organics	Mr. Francis Kotoka, Ghent University
15:10	Analysis and estimation of the potential environmental and economic benefits of coupling salinity gradient energy with seawater desalination.	Fouling potential membrane based desalination plants during algal blooms	Membrane bioreactor technology for the treatment of landfill leachate	Effective nutrient recovery from digester centrate assisted by in situ production of acid/base in a novel electrochemical membrane system
	Mrs. Anggie Cala, Universidad del Norte	Dr. Nirajan Dhakal, IHE Delft	Ms. Oumaima el hachimi, University of Quebec	Mr. Fubin Liu, Washington University in St. Louis
15:30	Coffee Break			
	Session 21: Water Systems	Session 22: Membrane Fouling	Session 23: Membrane for Resource Recovery	Session 24: Electrified/Thermal Membrane Processes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Pierre Berube	Prof. Qilin Li	Prof. Kuichang Zuo	Prof. Shiqiang Zou
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
15:50	Keynote: Minus Approach to Shift Water Treatment Paradigm	The Design of Anti-scalants for Gypsum and Silica Scaling in Membrane Desalination: A Systematic Study	Invited: An Emerging Membrane Platform based on Crystalline Supramolecular Frameworks for Selective Ion Capture from Water	Keynote: Electrically Conducting Membrane Coatings with Grafted Stimuli-Responsive Block Copolymer Brushes Inhibit Mineral Scale Formation
	Prof. Yongsheng Chen, Georgia Institute of Technology	Ms. Yiqun Yao, Colorado State University	Prof. Ngoc Bui, The University of Oklahoma	Prof. Qilin Li, Rice University
16:20	Combined Aerobic Granular Sludge and Gravity-Driven Membrane System for Energy-Efficient Wastewater Treatment and Reuse	EFFECT OF DIFFERENT ULTRAVIOLET STRENGTHS ON PHOTOLYTIC QUORUM QUENCHING IN LAB-SCALE MBRs	Membrane-based resource recovery from municipal wastewater: Direct membrane filtration (DMF) not only for carbon redirection but also for effective pretreatment for ammonium recovery	Electro-sorption and -desorption of aqueous natural organic matter by conductive ultrafiltration membranes
	Dr. Muhammad Ali, Trinity College Dublin	Ms. Aqsa Mubeen, Forman Christian College (A Chartered University)	Prof. Katsuki Kimura, Hokkaido University	Dr. Muhammad Usman, Hamburg University of Technology
16:40	Trace contaminant removal and bromate formation in hollow fibre membrane ozonation	Examination of Fouling Layer Development Based on In Situ and Ex Situ Measurements of the Absorbance of Feed, Filtrate and PES Membrane	Medium-Chain Fatty Acids Recovery from Organic Waste Streams Using Supported Liquid Membranes	Electrochemical Membrane with Metal Heteroatom Interface for Bromate Reduction: Efficacy and Mechanism
	Prof. Mathias Ernst, Hamburg University of Technology	Prof. Gregory Korshin, University of Washington	Prof. Jongho Lee, The University of British Columbia	Dr. Yang Li, Tongji University
17:00	Evaluation of Long-Term Performance of Full Scale UF Facilities Treating Drinking Water	Investigating fouling behaviour of Layer-by-Layer-Modified Multibore® Ultrafiltration capillary membranes in water treatment and its effect on separation performance	Roles of Anion-Cation Coupling Transport and Dehydration Induced Ion-Membrane Interaction in Precise Separation of Ions by Nanofiltration Membranes	Preparation of poly(piperazine-amide)nanofilms with micro-wrinkled surface via nanoparticle-templated interfacial polymerization: Performance and mechanism
	Mr. Md Nurul Afcher Shishir, The University of British Columbia	Mr. Martin Futterlieb, University of Duisburg-Essen	Mr. Xiaohu Zhai, Tongji University	Dr. Xuerui Gao, Tongji University
18:30	Gala Dinner (Knight-Bauer Hall)			

Wednesday Morning, July 26

	Session 25: Drinking Water	Session 26: MBR	Session 27: Integrated processes	Session 28: Integrated Processes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Baolin Deng	Prof. Sui Zhang	Dr. Val Frenkel	Prof. Maria Fidalgo
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
08:40	Membrane fractionation to understand biological stability of pre-treated groundwater at a full-scale drinking water production plant	Investigation of membrane fouling in a pilot-scale MBR treating municipal wastewater with focus on characteristics of isolated biopolymers	The interaction of the coexist sulfate to the antimonate reduction in a Hydrogen-Based Membrane Biofilm Reactor	Feasibility of Newly Isolated SND5 bacteria in Membrane Aerated Bioreactor for Wastewater Treatment
	Prof. Emile Cornelissen, KWR Water Research Institute	Dr. Takayuki Kakuda, Chuo University	Mr. Jingzhou Zhou, Tongji University	Dr. Chuansheng Wang, National University of Singapore
09:00	Spiral-Wound Ultrafiltration Membrane Flushing Modeling for Secondary Wastewater Upgrading for Unrestricted Application	Effectiveness of nanobubble assisted backwashing of membranes used in membrane bioreactors	Air scour flow strategies for UF hollow fiber membranes. Behaviour differences between TIPS and NIPS	First-Principles Analysis of Gas Extraction from Water using a Hollow-Fiber Membrane Module
	Prof. Gideon Oron, Ben Gurion University of the Negev	Mr. Hayato Nakagawa, Hokkaido University	Mr. Albert Galizia, LEQUIA - University of Girona	Mr. Ian Song, University of Minnesota, Twin Cities

09:20	Transport of microplastic fibers through dynamic imaging analysis in ceramic membrane filtrations	Fabrication of membranes which are different in only a target property: investigation of effects of membrane pore size and materials on membrane fouling in MBRs	Leveraging Coagulation Mechanisms to Systematically Evaluate the Impact of Coagulation/Flocculation Pre-treatment on UF Performance	Assessing the sludge recirculation ratios on the performance of an MBR-OSA system treating domestic wastewater
	Ms. Soyoun Kim, Ewha Womans University	Mr. Takumi Nakamura, Hokkaido University	Mr. Tyler Malkoske, University of Toronto	Prof. Giorgio MANNINA, Palermo University
09:40	11 Years of Continuous Operation of a Membrane Based Water Reuse System at a Food and Beverage Facility	Green Solvent Cleaning Removes Irrecoverable Foulants from End-of-life Membranes in Membrane Bioreactor: Efficacy and Mechanisms	Coupling continuous flow densification & MBR: from improved settling to improved filterability	High Recovery ZLD Solution for Semiconductor Wastewater
	Mrs. Sara Theodoulou, Veolia Water Technologies and Solutions	Dr. Chenxin Tian, Tongji University	Mr. Sylvain Donnaz, Veolia Water Technologies and Solutions	Dr. Avital Dror-Ehre, IDE Technologies Group
10:00	Coffee Break			
	Session 29: Water Systems	Session 30: Membrane Fouling	Session 31: Membrane fouling	Session 32: Selective Membrane Processes
Stream:	Drinking Water and Systems	Membrane Fouling	Wastewater and Desalination	Process Innovation and Integration
Chair	Prof. Baolin Deng	Prof. Sui Zhang	Dr. Val Frenkel	Prof. Maria Fidalgo
Venue:	Whitaker 100	Brauer 12	Jubel 121	Green Hall 120
10:20	Dimensional Analysis to Establish Relationships Between Energy Input and Solids Removal for Particle Separation (MBR) Membranes	Keynote: Improving the sustainability of membrane-based wastewater treatment: From membrane cleaning to membrane regeneration	Invited: Enhanced Removal of Extracellular Microcystin-LR using Chitosan Coagulation-Ultrafiltration	Keynote: A Reverse-Selective Ion Exchange Membrane for the Selective Transport of Phosphate
	Dr. Glen Daigger, University of Michigan	Prof. Zhiwei Wang, Tongji University	Dr. XUE JIN, Oregon State University	Prof. David Jassby, UCLA
10:50	Techno-economical Perspective for Marine-culture Novel Treatment by AGMD Process	Optimizing the performance of Passive Gravity Driven Membrane Filtration with optimal chemical cleaning protocols	Application of a hydrogen peroxide based cleaning strategy developed with lab- and full-scale membrane-bioreactor systems to protect the aquatic environment	Anaerobic microbial electrochemical fluidized membrane bioreactor for domestic wastewater treatment and reuse with energy recovery
	Ms. Dian Qoriati, Chung Yuan Christian University	Mr. Binura Senavirathna, The University of British Columbia	Mr. Maximilian Werner, MANN+HUMMEL Water & Fluid	Dr. Krishna Katuri, King Abdullah University of Science and Technology
11:10	Evaluating the Sustainability Impacts of Water, Wastewater and Biosolids Projects Through Greenhouse Gas Quantification	Physical cleaning methods for ceramic membrane filtration of spent filter backwash water: backwashing vs. backpulsing	From dewatering to cultivation—the role of forward osmosis and the evolution of microalgal fouling mechanisms	A sustainable nutrient recovery from wastewater using single and dual bioelectrochemical/electrochemical membrane systems
	Ms. Aleah Henry, Veolia Water Technologies and Solutions	Ms. Charlotte Kas, DVGW-Forschungsstelle TUHH	Prof. Li-Hua Cheng, Zhejiang University	Dr. Rehab ElSayed, National Research Centre (NRC)
11:30	Assessment of Cooling Tower Blowdown Reuse Feasibility at Chemical Industrial Site	Elucidating the role of feed water constituents in governing the chemical cleaning performance of aged ultrafiltration membranes	Assessment of organic characterisation towards better management of ultrafiltration during algal blooms	Application of Microalgal Membrane Photobioreactor with Anaerobic Membrane bioreactor for Decarbonized Wastewater Treatment: Nutrient removal, Bioenergy Production and Decarbonization Potentials
	Mrs. Sarah Mueller, RWTH Aachen University	Mr. Rahul Dutta, The University of British Columbia	Dr. Pierre Le Clech, UNSW Sydney	Ms. DING MEIYUE, National University of Singapore
11:50	The race to Minimum/Zero Liquid Discharge (MLD/ZLD) - Where do competing technologies stand today?	Oxygen Mass Transfer in Membrane Aerated Biofilm Reactors to Treat Municipal Wastewater	Electro-dialytic Crystallization for Brine Management	Membrane-assisted H2 delivery for in-situ biogas upgrading
	Dr. Vasu veerapaneni, Black&Veatch	Ms. Na Qin, University of Guelph	Mr. Xudong Zhang, Vanderbilt University	Ms. Yue Rao, Washington University in St Louis
12:10	Lunch (Whitaker Atrium)			
12:10	IWA-Membrane Technology Specialist Group General Assembly (Whitaker 100)			

Wednesday Afternoon, July 26

13:10	**Plenary: Dr. Pierre Côté** (Whitaker 100)	The Birth and Growth of a Few Successful Inventions
14:10	**Plenary: Dr. Miriam Balaban** (Whitaker 100)	A Lifetime with Desalination
15:10	**Closing Remarks and Awards (Whitaker 100)**	

Poster 1, 24th July 2023, 1:00pm – 2:00pm

Renewable water and energy: exploration of saline gradient in the Colombia's Caribbean region
Anggie Cala (Colombia)[1] (1. 1 Department of Civil and Environmental Engineering, Instituto de Estudios Hidráulicos y Ambientales IDEHA, Universidad del Norte)

Membrane Design Criteria and Process-Scale Viability of Pressure-driven Distillation
Weifan Liu (United States)[1], Ruoyu Wang (United States)[1], Anthony Straub (United States)[3], Shihong Lin (United States)[1] (1. Vanderbilt University, 2. University of Colorado Boulder)

Optimization of filtration and backflushing properties of polymer nanocomposite based mixed depth bed upflow matrix filters to purify water
Lamia Sultana (Australia)[1] (1. PhD Candidate, UNSW, Canberra)

MoS2-based Multifunctional Membranes for Oxyanion Removal
Monong Wang (United States)[1], Kuan-Yu Chen (United States)[1], Baoxia Mi (United States)[1] (1. University of California, Berkeley)

Influence on the scale-up operation and surface modification parameters on membrane capacitive deionization performance
Mengshan Lee (Taiwan)[1], Zhi-Yi Wang (Taiwan)[1], Chihchi Huang (Taiwan)[1] (1. National Kaohsiung University of Science and Technology)

Desalination of Caspian Seawater and Removal of Iron and Sulfate via Reverse Osmosis to Mitigate Drinking Water Shortage
Masoumeh Akbarpour (United States)[1], S. Ahmad Mirbagheri (Iran, Islamic Republic of)[2], Anwar Sadmani (United States)[1] (1. University of Central Florida, 2. K. N. Toosi University of Technology)

Removal of estrogens using an algae-based membrane bioreactor
Pei-Hsun Wu (Taiwan)[1], Chang-Ping Yu (Taiwan)[1] (1. National Taiwan University)

Reduced Low-Pressure Membrane Fouling by Inline Coagulation Pretreatment for a Colored River Water
Joseph Ladouceur (Canada)[1], Roberto Narbaitz (Canada)[1] (1. University of Ottawa)

Water Reclamation from Candy waste using Membrane Technology
Amal ElGohary Ahmed (Austria)[1] (1. TU Wien)

A Comparative Study of Microbial Quorum Quenching and Photolytic Quorum Quenching for Inhibiting Biofouling in a Lab-scale MBR
Farah Khalid (Pakistan)[1], Shinho Chung (Pakistan)[1], ZIA UL ISLAM (Pakistan)[1] (1. Forman Christian College (A Chartered University))

Evaluation of PES-UF membrane incorporated with graphene oxide (PES-GO) and molybdenum disulfide (PES-MoS2) for drinking water treatment
Eduardo Subtil (Brazil)[1], Rodrigo Ragio (Brazil)[1], Gracyelly Leocádio (Brazil)[3], Gidiane Scaratti (Brazil)[1], Hugo Lemos (Brazil)[1], José Carlos Mierzwa (Brazil)[3] (1. Federal University of ABC, 2. University of São Paulo)

Conventional pretreatment evaluation for Seawater Osmosis Inverse coupled with Salinity Gradient Energy (SGE) by Reverse Electrodialysis (RED) using real samples of Magdalena River and Caribbean Sea.
Stefany Fernandez (Colombia)[1] (1. Young Researcher)

Membrane Filtration as a Strategy For Seawater Desalination as a Resource for Water Electrolysis and H2 Production

Camila Cabeza (Austria)[1], Camila Rodriguez M. (Austria)[2], Michael Harasek (Austria)[1] (1. TU Wien, 2. Technische Universität Wien,)

Poster2, 25th July 2023, 1:00pm – 2:00pm

Opportunity of Quorum Quenching study in developing countries for better wastewater treatment using membrane bioreactor

Shinho Chung (Pakistan)[1] (1. Forman Christian College (A Chartered University))

Biofilm research in undergraduate settings

Gisella Lamas-Samanamud (United States)[1], Garrett Matheny (United States)[1], Savannah Hunt (United States)[1], Hyun-Tae Hwang (United States)[1] (1. University of Kentucky - Paducah)

Electrospun fibers for controlled release of anti-quorum sensing molecules for biofouling mitigation in MCE membranes

Amos Taiswa (United States)[1], Jessica Andriolo (United States)[1], Jack Skinner (United States)[1] (1. Montana Technological University)

Comparative study of passive & gravity-driven membrane systems with the characterization of biofilm growth in drinking water treatment

Varshaa Kumaran (Canada)[1], Pierre Berube (Canada)[1], Leili Abkar (Canada)[3], Sara Beck (Canada)[1] (1. Department of Civil Engineering, The University of British Columbia, 2. The University of British Columbia)

ROLE OF FILAMENTOUS FUNGI IN MEMBRANE-AERATED BIOFILM REACTORS (MABRs)

Alejandro Martin-Linares (United States)[1], Yanina Nahum (United States)[1], Emily Clements (United States)[1], Erika Espinosa-Ortiz (United States)[4], Bumkyu Kim (United States)[1], Robert Nerenberg (United States)[1] (1. University of Notre Dame, 2. Montana State University)

Relevance of Extended Versus Typical Rapid Mixing HRTs During Bench- Scale Continuous-Flow Coagulation-UF

Tyler Malkoske (Canada)[1] (1. University of Toronto,)

Recovery of Potassium hydroxide from the spent solution of alkaline electrolyte battery wastes through membrane processes

Amal ElGohary Ahmed (Austria)[1], Michael Harasek (Austria)[1], Saeed Gul (Pakistan)[3], Camila Cabeza (Austria)[1], Mayuki Cabrera (Austria)[1] (1. TU Wien, 2. University of Engineering and Technology, Peshawar)

Membrane Technology for Treatment of Starch Hydrolysates

Camila Cabeza (Austria)[1], Amal ElGohary Ahmed (Austria)[1], Michael Harasek (Austria)[1] (1. TU Wien)

Effect of Surfactants on Reverse Osmosis Membrane Performance

Aymen Halleb (Japan)[1], Mitsutoshi Nakajima (Japan)[2], Fumio Yokoyama (Japan)[2], Marcos Antonio das Neves (Japan)[2] (1. University of Tsukuba,, 2. University of Tsukuba)

Studies with Spiral wound IEMB Contactor for Nitrate Removal from Contaminated

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Optimization of porous membrane filtration focused on sewage concentration for detection of enteric enveloped viruses

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Influence of organic foulants to membrane ageing

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