

**18<sup>th</sup> International Hydrocolloids Conference, Mar. 30-April 2,  
Tokyo University of Marine Science and Technology  
Shinagawa Campus, Tokyo, Japan**

**Final Program**

*(Colour Codes are explained at the bottom of this document)*

**Monday, 30<sup>th</sup> March**, 16:00 - 19:00, Drop-in Registration and Welcome Reception.

<b>Tuesday 31st March</b>	
	<b>Auditorium</b>
8:40-9:00	<b>Opening</b>
9:00-9:40	<b>Plenary1 Eiichi Saitoh: The landscape of dysphagia management</b> Session Chair: Koichiro Matsuo
9:40-10:20	<b>Plenary2 David Julian McClements: Adventures in food hydrocolloids: A sci-fi journey through food</b> Session Chair: Yasuki Matsumura
10:20-10:40	----- <b>Coffee break</b> -----

	Room 1	Room 2	Room 3
10:40-11:10		<b>Keynote1 Koichiro Matsuo: Process Model of Feeding: Linking Oral Physiology, Bolus Properties, and Dysphagia Rehabilitation</b> Session Chair: Katsuyoshi Nishinari	<b>Keynote2 Costas Nikiforidis: Stimuli-responsive natural lipid droplets for selective lipid trafficking</b> Session Chair: Mitsutoshi Nakajima
	Session Chair: To be confirmed	Session Chair: To be confirmed	Session Chair: Costas Nikiforidis
11:10-11:30	Oral1 1033 Xi Yang: Gelation mechanism and network structure of gellan gum in low and high concentration of sucrose solutions	Oral12 1099 H. Lozano Perez: Surface-Mediated Enzymatic Reactions of Banana Starches: Quantifying Amylase Interaction and Inhibition Effect	Oral23 1002 Lingyun Chen: Preparation of size-controllable sustainable pulse protein microgels with high emulsifying performance
11:30-11:50	Oral2 1085 Md Faruk Ahmed: Macadamia husk phenolic-loaded liposomes: In vitro digestibility and potential as yogurt-based delivery systems	Oral13 1042 S. Elliott: Disentangling viscosity from non-catalytic binding in $\alpha$ -amylase inhibition	Oral24 1220 S.S. Wong: Emulsifier-Free Stabilization of Low-Fat Whipped Cream via Clean-Label Starch-Hydrocolloid Network Engineering
11:50-12:10	Oral3 1095 Aaron L. Pambu: Physicochemical and Functional Properties of Wet-Type Grinder-Treated Vegetables as Natural Hydrocolloids	Oral14 1210 Iris Joye: From Molecules to Interfaces: Protein-Polysaccharide Conjugates in Food Structure Innovation	Oral25 1202 Wahyu Ramadhan: High Internal Phase Emulsion of Sardine Oil Stabilized by Sodium Caseinate-Carrageenan Complexes: A Colloidal Approach to Omega-3 Enrichment in Freshwater Fish Surimi
12:10-14:10	---- LUNCH & Poster ----		

14:10-14:40		<b>Keynote3 Tetsu Kamiya: Simulation of Chewing and Swallowing: Experimental and Numerical Approaches to Bolus Formation and Flow</b> Session Chair: Koichiro Matsuo	<b>Keynote4 Kentaro Matsumiya: Structuring Low-Smoke-Point MCTs for Aqueous Food Systems: Bulk Crystallization and Emulsification</b> Session Chair: Costas Nikiforidis
	Session Chair: Yoko Nitta	Session Chair: To be confirmed	Session Chair: Vassilis Kontogiorgos
14:40-15:00	<b>Oral4 1015 José C. Bonilla: Advanced optics and image analysis for food hydrocolloid gel characterization</b>	<b>Oral15 1071 Isao Kobayashi: Effect of adding thickened aqueous fluid to cooked, minced chicken breast meat on in vitro digestibility using human Gastric Digestion Simulator</b>	<b>Oral26 1197 Ubonrat Siripatrawan: Cellulose-based foam-mat freeze-dried clove essential oil nanoemulsion as a natural food preservative</b>
15:00-15:20	<b>Oral5 1005 V. P. Aparna: Xanthan Gum–Driven Modulation of Physical Properties in Dairy Matrices for Enhanced 3D Food Printing</b>	<b>Oral16 1189 Xinya Wang: Effect of pectin on calcium release from acid-induced pea protein gels during dynamic in vitro digestion</b>	<b>Oral27 1167 Yanni Yang: Development of Emulsion-based Confectionery product: Understanding the Role of High Sugar Concentration in the Formation, Stability and Rheology of Emulsions</b>
15:20-15:40	<b>Oral6 1143 Jakob K. Agbenorheyi: Evaluation of okra pectin as an alternative emulsifier in milk chocolate: Effects on rheological, textural and sensory properties</b>	<b>Oral17 1066 Lingxin You: Impact of deep eutectic solvent–tailored nanocellulose on the stability and in vitro semi-dynamic digestion behavior of <math>\beta</math>-carotene conveying Pickering emulsions</b>	<b>Oral28 1112 Lin Chen: High-yield and scalable preparation of lignin nanoparticles with uniform surface properties for stable Pickering emulsions</b>
15:40-16:00	<b>Oral7 1025 J. Cavallo: Maillard Reaction control in condensed biopolymer/co-solute model systems</b>	<b>Oral18 1177 Haoxin Wang: Construction of a pH-driven self-assembled soy protein–lecithin microcage embedded in a <math>\kappa</math>-carrageenan hydrogel for weight-management</b>	<b>Oral29 1192 Sangeun Park: Fish Gelatin/Chitosan Microfiber-Based 3D Porous Scaffolds Constructed with Pickering Emulsion and 3D Printing for Cell-Cultivated Meat</b>

16:00-16:20	----- Coffee break -----		
16:20-16:50	<b>Keynote5 Lester Geonzon: Linking Structure Across Multiple Scales to Macro-Properties in Hydrogels</b> Session Chair: Shingo Matsukawa	<b>Keynote6 Aaron Goh Suk Meng: Hydrocolloids in Novel Foods for Dysphagia</b> Session Chair: Tetsu Kamiya	
	Session Chair: Lester Geonzon	Session Chair: Isao Kobayashi	Session Chair: To be confirmed
16:50-17:10	Oral8 1011 Chenghao Li: Structural and mechanical characterisation of microgels fabricated using spray gelation method	Oral19 1159 Alan M. Smith: Evaluation of polysaccharides from Malvaceae as sustainable excipients for sustained-release oral tablets	Oral30 1045 Mayang Gitta Pawitra: Designing Natural Co-Emulsifier Systems: Modified Porous Starch and Soy Lecithin for Egg-Yolk-Free Mayonnaise
17:10-17:30	Oral9 1145 Zeenatu S. Adams: Influence of thermal processing on extraction efficiency and properties of tamarind xyloglucans	Oral20 1007 Sanjida Humayun: Hybrid Carrageenans in Food and the Human Gut	Oral31 1178 Nor Hayati Ibrahim: Functional properties of cold-set agar-based emulsion gel for fat replacer in fish sausages

17:30-17:50	<p>Oral10 1198 Narpinder Singh: Multimodal Fusion of Image, Textural and Colorimetric Features for Prediction of Bread Shelf-Life and Texture Decay</p>	<p>Oral21 1115 Elena Vittadini: Acorn flour enriched bread: in vitro starch digestion and colonic fermentation</p>	<p>Oral32 1003 Yinxuan Hu: Impact of various physical treatments on physicochemical and microstructural characteristics of vegetable oil-based whipped cream stabilised by faba bean protein</p>
17:50-18:10	<p>Oral 11 1166 Florian Nettesheim: Evaluating Cohesiveness of Hydrocolloid Solutions Using Filament Stretching Extensional Rheometry (FiSER): Insights and Literature Comparison with CaBER</p>	<p>Oral22 1050 Jingfeng Yang: Absorption of Enteromorpha prolifera Polysaccharides in Mice and the Protective Mechanism Against Alcohol-Induced Damage in L02 Cells</p>	<p>Oral33 1219 Laxmikant S. Badwaik: Encapsulation to interface engineering of hydrocolloids for optimal nutrition design and functional food applications</p>
18:10	<p>----- Adjourn -----</p>		

## Wednesday 1st April

	<b>Auditorium</b>		
9:00-9:40	<b>Plenary3 Erik van der Linden: Physics ready to bite into complex soft matter.</b> Session Chair: Steve Cui		
9:40-10:20	<b>Plenary4 Jianshe Chen: Food oral processing: A colloidal perspective of eating and sensory perception</b> Session Chair: Katsuyoshi Nishinari		
10:20-10:40	----- Coffee break -----		
	<b>Room 1</b>	<b>Room 2</b>	<b>Room 3</b>
10:40-11:10		<b>Keynote7 Pedro Fardim: Pullulan-based gels for protein encapsulation and cell therapies</b> Session Chair: Dan Ramdath	<b>Keynote8 Hyun Jin Park: Nano-encapsulation technology of functional food ingredients using by 3-D printer for improving bioavailability</b> Session Chair: Mitsutoshi Nakajima
	Session Chair: To be confirmed	Session Chair: Pedro Fardim	Session Chair: Hyun Jin Park
11:10-11:30	<b>Oral34 1004 Jack Yang: Predicting food hydrocolloids techno-functionality: more accurate data &amp; smarter physics-based models</b>	<b>Oral44 1136 Motoyoshi Kobayashi: Sol-gel like transition of semi-dilute suspension of rod-like cellulose nanoparticles</b>	<b>Oral54 1022 Yonghui Li: Developing functionally enhanced pea proteins as innovative food ingredients</b>

11:30-11:50	Oral35 1200 M. Takemasa: Bigdata-driven approach for food texture analysis	Oral45 1147 Shunsuke Sato: Optimum compositions for shear-induced gel formation in model colloid-polymer systems	Oral55 1068 Syed Ubaid Ullah Shah: Enhancing Nutritional Value of Baked Products Using Fermented Lucerne (Medicago sativa) Flour as an Alternative Protein Source
11:50-12:10	Oral36 1053 Erika Nozawa: Modeling and simulation of phase inversion processes going from fresh cream to butter via whipped cream by a complex systems approach with Coupled Map Lattice	Oral46 1194 Lei Su: Ultrafast gelation of hyaluronan hydrogels via alternate compression-decompression	Oral56 1034 Elle Ina Wilhelm: Protein dry spinning as a bottom-up approach for the design strategy of anisotropic structures in plant-based meat analogues.
12:10-13:40	---- LUNCH & Poster ----		
13:40-14:10	<b>Keynote9 Stefan Kasapis: Controlled delivery of bioactive compounds from natural polymers across the concentration range of industrial application</b> Session Chair: Motoyoshi Kobayashi		<b>Keynote10 Jin-Kyu Rhee: Multi-Dimensional Food Fabrication: A Bottom-Up Approach to Structuring Alternative and Cultivated Meats</b> Session Chair: Makoto Nakauma
	Session Chair: Lester Geonzon	Session Chair: Dan Ramdath	Session Chair: Jin-Kyu Rhee
14:10-14:30	Oral37 1049 Ubonrat Siripatrawan: Sustainable active packaging from chitosan infused with extract from pulsed electric field-treated microalgae to preserve quality of chicken fillet	Oral47 1054 Ivan M. Lopez-Rodulfo: Polyphenols modulate faecal fermentation of dietary fibre depending on polysaccharide chemistry and supramolecular assembly	Oral57 1055 MN Emmambux: Modified marama bean concentrate as an alternative to gluten protein
14:30-14:50	Oral38 1044 Laura Roman: Fractionating cereal brans into functional polysaccharides through subcritical water extraction	Oral48 1067 Loreto Muñoz: Advances in understanding the metabolic and hydrocolloidal relevance of fiber-rich fraction from chia seeds	Oral58 1036 Aiqian Ye: The physical properties and microstructure of hybrid processed cheese formulated with plant protein ingredients and rennet casein

14:50-15:10	Oral39 1117 D. Ghina Nadhifa: Textural engineering of analog rice using sago and fermented kidney bean flour hydrocolloids	Oral49 1175 Thoithoi Tongbram: Short-soluble amylose chains inhibit long-term retrogradation and modulate in vitro digestion of waxy corn starch gels	Oral59 1199 Maria Gräfenhahn: Enhancing structure formation in pea protein systems through sequential thermomechanical processing for sustainable meat alternatives
15:10-15:30	Oral40 1181 Eui-Jung Han: Development of a Double-Network CaCO <sub>3</sub> -GDL Crosslinked Bioink for Cell-Compatible and Edible Scaffolds in Cultivated Fish	Oral50 1191 Tantawan Pirak: Bioaccessibility of white mugwort ( <i>Artemisia lactiflora</i> ) polyphenol extract in the system with brown rice flour and inulin revealing by static in-vitro digestion model	Oral60 1031 Iloyd Condict: Towards a Kinetic Understanding for Protein-Phenolic Interactions in the High Temperature Regime
15:30-15:50	----- Coffee break -----		
15:50-16:20		<b>Keynote11 Yong-Cheng Shi: Modulating starch digestion: strategies for healthier starch-rich food development</b> Session Chair: Aaron Goh Suk Meng	<b>Keynote12 Toshihiro Nakamori: Polysaccharide Gels and Soy Protein Gels: Molecular Origins of Hydration, Network Architecture, and Food Functionality</b> Session Chair: Takao Nagano
Session Chair:	Session Chair: Koki Ryo	Session Chair: To be confirmed	Session Chair: Yasuki Matsumura
16:20:16:40	Oral41 1182 Seri Park: Development of 3D-Printable Marine-Derived Gels for Senior-Friendly Seafood Analogues	Oral51 1082 Maria Franco: Influence of apple pomace to modulate the starch and polyphenol bioaccessibility of wheat bread co-formulated with pomace and soluble polysaccharides	Oral61 1203 Marco Torre: Ultrasound-assisted extraction and colloidal properties of protein isolates from neglected Sicilian black chickpeas

16:40-17:00	<p>Oral42 1087 A. Rahmayanti Ramli: Wet-type grinder-treated rice bran as a natural hydrocolloid alternative for improving gluten-free rice bread quality</p>	<p>Oral52 1131 Naushad M. Emmambux: Effects of Cowpea Protein Isolates and Stearic Acid on the Physio-chemical and In Vitro Starch Digestibility of High Amylose Maize Starch</p>	<p>Oral62 1169 Naaman Francisco Nogueira Silva: Protein extraction of Pereskia aculeata leaves – effects of ultrasounds and Ohmic heating on their physical-chemical and acid gelling properties</p>
17:00-17:20	<p>Oral43 1138 Anthony Halim: Effects of debranching and ultrasound treatment on starch nanoparticles fabrication: a structure-functional analysis</p>	<p>Oral53 1103 G. Portillo-Perez: Effect of chao- and kosmotropic natural deep eutectic solvents on the chitin separation and from h. Illucens pupae molt shells</p>	<p>Oral63 1186 Laura Roman: Protein Composition and Purity Modulates Structural Transitions of Sunflower and Lupin Proteins During Hydrothermal Processing</p>
17:20	<p>----- Adjourn -----</p>		
17:50-20:35	<p><b>Dinner, Katsuyoshi Nishinari Honorary Speaker, Next Conference Announcement, Poster Award</b></p>		

## Thursday 2nd April

	Auditorium		
9:00-9:40	<b>Plenary5 Sylvie Turgeon: From purified hydrocolloids to complex ingredients: a sustainable alternative in food applications</b> Session Chair: Doug Goff		
9:40-10:20	<b>Plenary6 Hidemitsu Furukawa: From Underutilized Biomass to Digital Ingredients: Freeze- Milled Hydrocolloid Powders and Scalable 3D Food Printing</b> Session Chair: Shingo Matsukawa		
10:20-10:40	----- Coffee break -----		
	Room 1	Room 2	Room 3
10:40-11:10		<b>Keynote13 Sushil Dhital: Structure Matters: Tailoring Plant Proteins for Functional Food Applications</b> Session Chair: Isao Kobayashi	<b>Keynote14 Chaiwut Gamonpilas: Harnessing Mung Bean Proteins for Future Foods: Extraction, Modification, and Techno-functionality</b> Session Chair: Naushad Emmambux
Session Chair:	Session Chair: To be confirmed	Session Chair: Sushil Dhital	Session Chair: Chaiwut Gamonpilas
11:10-11:30	Oral64 1023 Xin Xu: Soft Lubrication of Model Absorbing Polysaccharide Solutions	Oral72 Cancelled	Oral80 1012 Vassilis Kontogiorgos: Canola Proteins at the Air–Water Interface

11:30-11:50	Oral65 1026 Wirasinee Supang: Effects of Drying Methods on Physicochemical and Functional Properties of Lemon Basil Seed Mucilage	Oral73 1142 Mario M. Martinez: Selective detoxification of digesta revealed how apple pomace modulate transepithelial glucose transport and stimulate GLP-1 secretion	Oral81 1157 Paraskevi Paximada: Exploration of electrospinning technique for producing food-grade nanofibers from legume protein concentrates and pullulan
11:50-12:10	Oral66 1056 Nguyen N.D. Phan: Modulation of interfacial and foaming properties of cow milk under non-rancid lipolytic conditions	Oral74 1076 Thaiza Serrano P. de Souza: Rheological, structural, and functional properties of $\beta$ -glucan from barley and oat	Oral82 1016 Belinda P. C. Dewi: From cow to bioreactor: physicochemical properties of native and precision fermentation-derived bovine $\beta$ -casein for dairy analogue applications
12:10-13:20	---- LUNCH ----		
13:20-13:50			<b>Keynote 15 S.Savadkoohi: Designing Texture in Plant-Based Foods: Protein-Hydrocolloid-Process Synergies</b> Session Chair: Kazuhiko Yamatoya
	Session Chair: Rando Tuvikene	Session Chair: To be confirmed	Session Chair: S. Savadkoohi
13:50-14:10	Oral67 1057 Tetsuo Torisu: Physicochemical properties of barley lipid transfer protein 1 contributing to beer foam quality	Oral75 1059 Yael Vodovotz: Transforming Watermelon Rind and Pea Protein into a Functional Snack	Oral83 1156 A. Raymundo: Bio-impact reformulation of "Caldo verde" soup with microalgae incorporation
14:10-14:30	Oral68 1060 Yoko Nitta: Characterization of gel-forming components derived from mushrooms	Oral76 1073 E. Smith: Investigating covalent interactions between 11S glycinin and genistein following thermal treatment	Oral84 1183 Yeonjoo Maeng: Tensile-Spun Gelatin-Chitosan Composite Scaffolds for Exploring Architecture-Cell Interaction Relationships

14:30-14:50	<p>Oral69 1171 SZ Razavi: Fermentation-assisted extraction and structural characterization of <math>\beta</math>-glucans from shiitake mushroom by-products</p>	<p>Oral77 1164 Ali Ubeyitogullari: Enhancing the bioaccessibility of lutein and anthocyanins by loading into food-grade biopolymer gels using 3D food printing</p>	<p>Oral85 1017 Belinda P. C. Dewi: Toward meltable plant-based cheese: mechanistic insights for product innovation</p>
14:50-15:05	<p><b>Short Break</b></p>		
15:05-15:25	<p>Oral70 1092 Naoko Yuno-Ohta: Interactions of whey protein isolate and sodium caseinate with different kinds of mild preheating treatments</p>	<p>Oral78 1029 Mario M. Martinez: Plant cell wall-polyphenol interactions modulate starch functionality, digestibility and the prebiotic outcomes of the tertiary system</p>	<p>Oral86 1180 Shinbee Eun: Chlorella Polysaccharides as Compositional Modulators of Network Organization in Edible Fiber Scaffolds</p>
15:25-15:45	<p>Oral71 1075 Federico Casanova: Role of globulins and albumins in oil-water interface properties of coconut meal proteins</p>	<p>Oral79 1030 Ali Rashidinejad: Enhanced delivery and bitterness masking of appetite-suppressing hop bioactives using hydrocolloid microgels: A structure-function design for enhanced palatability, stability, and bioaccessibility</p>	<p>Oral87 1150 Federico Casanova: Influence of ultrasound treatment on the emulsifying properties of Tenebrio molitor-based ingredients displaying different protein content</p>
15:45-16:10	<p><b>Closing</b></p>		
16:40-20:40	<p><b>Excursion</b></p>		

*Colour Codes refer to the following program themes:*

<b>Innovative hydrocolloid design for delivering optimal nutrition and functional foods</b>
<b>Bioactive polysaccharides for human health</b>
<b>Physical properties of food hydrocolloids for enhanced product development</b>
<b>Role of hydrocolloids in pharmaceuticals and health/personal care products</b>
<b>Behavior of food biopolymers during digestion</b>
<b>Polysaccharide structures and their impact on gut microbiome</b>
<b>Functional hydrocolloids for plant-based dairy and meat alternatives.</b>
<b>Innovating with alternative proteins in new product development.</b>
<b>Hydrocolloids in emulsions and as emulsifiers</b>