

# International Conference on Algal Biomass, Biofuels & Bioproducts

10-12 June 2024 | Hilton Clearwater Beach, Florida

10th Jun 2024

07:00 - 08:45	<b>Registration</b> Location: Grand ballroom foyer	
08:45 - 08:50	<b>Welcome, Introduction and Jose Olivares Student Travel Award Ceremony</b> Location: Grand ballroom, salons EF Session Chair: Taraka Dale, Olaf Kruse	
08:50 - 10:20	<b>Plenary session 1</b> Location: Grand ballroom, salons EF Session Chair: Olaf Kruse  <b>08:50 - 09:20 [PLE01]</b> <b>Algae: A strategic renewable carbon resource – perspective from the U.S. Department of energy bioenergy technologies office</b> <u>Valerie Reed</u> <i>US Department of Energy Oak Ridge Office, Oak Ridge, TN, USA</i>  <b>09:20 - 09:50 [PLE02]</b> <b>What science and technology opportunities are large companies seeking in the algae biomass sector?</b> <u>Vitor Verdelho</u> <i>European Algae Biomass Association (EABA), Italy</i>  <b>09:50 - 10:20 [PLE03]</b> <b>Metabolic engineering for algal biotechnology - carbon, nitrogen and phosphorus</b> <u>Patrik Jones</u> <i>NouriSol Limited, UK</i>	
10:20 - 10:50	<b>Coffee break</b> Location: Grand ballroom, salons ABCD	
10:50 - 12:35	<b>Session 1A: Algal Pests and Pathogens</b> Location: Grand ballroom, salons EF Session Chair: Taraka Dale  <b>10:50 - 11:15 [EO.1]</b> <b>Countermeasures development for prevention of bacterial pathogens in outdoor microalgal production ponds</b> <u>Chuck Smallwood</u> <sup>1</sup> , Elise Wilbourn <sup>2</sup> , Todd Lane <sup>2</sup> , Brittany Humphrey <sup>1</sup> , Jessica Forrester <sup>3</sup> , John McGowen <sup>3</sup> , Pamela Lane <sup>2</sup> , Jesse Cahill <sup>1</sup> , Monica Sanchez <sup>1</sup> , Jenna Schambach <sup>1</sup> , Aaron Geels <sup>3</sup> <sup>1</sup> Sandia National Laboratories, Albuquerque, NM, USA. <sup>2</sup> Sandia National Laboratories California, Livermore, CA, USA. <sup>3</sup> Arizona State University, Tempe, AZ, USA  <b>11:15 - 11:35 [O1A.1]</b>	<b>Session 1B: Advances in Algal Processes</b> Location: Grand ballroom, salon G Session Chair: Vitor Verdelho  <b>10:50 - 11:15 [EO.2]</b> <b>Designing a Novel Accelerated Macroalgae Biorefinery Conversion Platform</b> <u>Lieve Laurens</u> <i>National Renewable Energy Laboratory, Golden, CO, USA</i>  <b>11:15 - 11:35 [O1B.1]</b> <b>Integrated production of algal biofuels and biocommodities</b> <u>Dheeban Chakravarthi Kannan</u> <sup>1</sup> , Fraddy D'Souza <sup>1</sup> , Souvik Bhattacharjya <sup>1</sup> , Vimal Katiyar <sup>2</sup> , Piyali Das <sup>1</sup> , Sanjukta Subudhi <sup>1</sup> , Amitabh Tandon <sup>3</sup> , Sunil Pabbi <sup>4</sup> , Elroy Joe Pereira <sup>1</sup>

	<p><b><i>Botryococcus braunii</i> reduces algal grazing losses to <i>Daphnia</i> and <i>Poteroiochromonas</i> through both chemical and physical interference</b>  Patrick Thomas<sup>1</sup>, Finn Arn<sup>2</sup>, Micha Freiermuth<sup>2</sup>, Anita Narwani<sup>1</sup>  <sup>1</sup>Eawag Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland. <sup>2</sup>ETH Zurich Department of Biology, Zurich, Switzerland</p> <p><b>11:35 - 11:55 [O1A.2]</b>  <b>Inhibition of the highly resilient predator - <i>Poteroiochromonas</i> sp. by high salinity medium strategy in the culture of <i>Synechocystis</i> PCC6909</b>  Elizabeth Figueroa-Valencia<sup>1,2,3</sup>, Sheyla Figueroa Valencia<sup>3</sup>, Tomáš Grivalský<sup>1</sup>, Martin Lukeš<sup>4</sup>, Lenka Tomanová<sup>4</sup>, Pavel Hrouzek<sup>1</sup>, Jiří Kopecký<sup>1</sup>  <sup>1</sup>Centre Algatech, Laboratory of Algal Biotechnology, Institute of Microbiology of the Czech Academy of Sciences, Czech Republic. <sup>2</sup>Department of Experimental Plant Biology, Faculty of Science, University of South Bohemia, Czech Republic. <sup>3</sup>Unidad de Posgrado, Facultad de Ciencias Naturales y Formales, Universidad Nacional de San Agustín de Arequipa, Peru. <sup>4</sup>Centre Algatech, Laboratory of Photosynthesis, Institute of Microbiology of the Czech Academy of Sciences, Czech Republic</p> <p><b>11:55 - 12:15 [O1A.3]</b>  <b>Development of Algae-Bacteria Pest Models to Inform Crop Protection Strategies</b>  Alina Corcoran<sup>1</sup>, John McGowen<sup>2</sup>, Everett Eustance<sup>2</sup>, Thuy Nguyen<sup>1</sup>, Aaron Geels<sup>2</sup>, Jessica Forrester<sup>2</sup>  <sup>1</sup>New Mexico State University Department of Biology, Las Cruces, NM, USA. <sup>2</sup>Arizona State University, Tempe, AZ, USA</p> <p><b>12:15 - 12:35 [O1A.4]</b>  <b>Cell morphology engineering enhances predation resistance of freshwater cyanobacterium <i>Synechococcus elongatus</i> PCC 7942 for non-sterile large-scale cultivation</b>  Narumi Toda<sup>1</sup>, Natsuko Inoue-Kashino<sup>2</sup>, Hazaya Fujita<sup>2</sup>, Ryosuke Yoshida<sup>1</sup>, Kaori Nimura-Matsune<sup>3</sup>, Satoru Watanabe<sup>3</sup>, Akio Kuroda<sup>1</sup>, Yasuhiro Kashino<sup>2</sup>, Ryuichi Hirota<sup>1</sup>  <sup>1</sup>Hiroshima University, Higashihiroshima, Japan. <sup>2</sup>University of Hyogo, Kobe, Japan. <sup>3</sup>Tokyo University of Agriculture, Setagaya, Japan</p>	<p><sup>1</sup>The Energy and Resources Institute (TERI), India. <sup>2</sup>Indian Institute of Technology - Guwahati, India. <sup>3</sup>Transtech Green Power Ltd, India. <sup>4</sup>Indian Agricultural Research Institute, India</p> <p><b>11:35 - 11:55 [O1B.2]</b>  <b>Enhancing biomass and value-added product yield via co-cultivation of <i>Parachlorella kessleri</i> and <i>Rhodotorula</i> on agro-industrial waste for efficient nutrient removal</b>  Facundo Rocha Calvette, Mariana Umpiérrez Failache, Eliana Nervi Faggiani  ORT University Uruguay Department of Biotechnology, Montevideo, Uruguay</p> <p><b>11:55 - 12:15 [O1B.3]</b>  <b><i>Chlorella Vulgaris</i> thermochemical valorization: hydrothermal liquefaction versus pyrolysis</b>  Ainhoa Díaz<sup>1</sup>, Jennifer Cueto<sup>1</sup>, Inés Moreno<sup>1,2</sup>, David P. Serrano<sup>1,2</sup>  <sup>1</sup>Instituto IMDEA Energía, Mostoles, Spain. <sup>2</sup>Rey Juan Carlos University, Mostoles, Spain</p> <p><b>12:15 - 12:35 [O1B.4]</b>  <b>Integrated Algal Biorefinery to Produce Sustainable Aviation Fuel</b>  Tao Dong, Tobias Hull, Ali Chamas, Helene Koumans, Lieve Laurens  National Renewable Energy Laboratory, Golden, CO, USA</p>
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12:35 - 13:35	<b>Lunch</b> Location: Grand ballroom, salons ABCD	
13:35 - 15:15	<p><b>Session 2A: Molecular Engineering and metabolic regulation of Algae I</b>  Location: Grand ballroom, salons EF  Session Chair: Pia Lindberg</p> <p><b>13:35 - 13:55 [O2A.1]</b>  <b>A PSII photosynthetic control is activated in anoxic cultures of green algae following illumination</b>  <u>Iftach Yacoby</u>  <i>Tel Aviv University, Tel Aviv, Israel</i></p> <p><b>13:55 - 14:15 [O2A.2]</b>  <b>A gene-coexpression-based approach to unravel the transcriptional control of neutral lipid accumulation in <i>Chlamydomonas</i></b>  <u>Damar Lopez-Arredondo, Matteo Tosoni, Luis Herrera-Estrella</u>  <i>Texas Tech University, Lubbock, TX, USA</i></p> <p><b>14:15 - 14:35 [O2A.3]</b>  <b>CRISPR-Cas9 RNP-mediated strategy for gene overexpression via replacement of endogenous promoter and terminator in <i>Chlamydomonas reinhardtii</i></b>  <u>Kwangryul Baek<sup>1</sup>, Jooyeon Jeong<sup>1</sup>, Christine Atkinson<sup>1,2</sup>, EonSeon Jin<sup>3</sup>, Donald R. Ort<sup>1,4,5</sup>, Yong-Su Jin<sup>1,2</sup></u>  <sup>1</sup><i>Carl R. Woese Institute for Genomic Biology, University of Illinois at Urbana-Champaign, Urbana, IL, USA.</i> <sup>2</sup><i>Department of Food Science and Human Nutrition, University of Illinois at Urbana-Champaign, Urbana, IL, USA.</i> <sup>3</sup><i>Department of Life Science, Hanyang University, Republic of Korea.</i> <sup>4</sup><i>Department of Crop Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA.</i> <sup>5</sup><i>Department of Plant Biology, University of Illinois at Urbana-Champaign, Urbana, IL, USA</i></p> <p><b>14:35 - 14:55 [O2A.4]</b>  <b>Whole genome duplicated algae as a mechanism to increase the efficiency of algal crops</b>  <u>Jennifer Pentz, Claire Sanders, Erik Hanschen</u>  <i>Los Alamos National Laboratory, Los Alamos, NM, USA</i></p> <p><b>14:55 - 15:15 [O2A.5]</b>  <b>CRoxP (Cas9 RNPs coupled with CRE-loxP): generate non-GMO strains fast</b>  <u>Tyson Burch<sup>1,2</sup>, Anagha Krishnan<sup>1</sup>, Matthew Posewitz<sup>1</sup></u></p>	<p><b>Session 2B: Wastewater I – Nutrient Utilization</b>  Location: Grand ballroom, salon G  Session Chair: Gabriel Acien</p> <p><b>13:35 - 13:55 [O2B.1]</b>  <b>Microalgae for Bioremediation and Reuse of Phosphorus Impacting Florida Waters</b>  <u>John Benemann<sup>1</sup>, Tryg Lundquist<sup>1,2</sup></u>  <sup>1</sup><i>MicroBio Engineering Inc, San Luis Obispo, CA, USA.</i>  <sup>2</sup><i>California Polytechnic State University, San Luis Obispo, CA, USA</i></p> <p><b>13:55 - 14:15 [O2B.2]</b>  <b>A sustainable alternative for dairy farms wastewater management using microalgae: an example of a circular economy model in Uruguay</b>  <u>Maria Clara Segovia, Matias Regina, Mary Lopretti, Mariana Umpierrez-Failache</u>  <i>ORT University Uruguay, Montevideo, Uruguay</i></p> <p><b>14:15 - 14:35 [O2B.3]</b>  <b>Phosphate recovery from wastewater and evaluation of microalgal luxury phosphorus uptake: A quantitative proteomic analysis through tandem mass spectrometry</b>  <u>Kolli Venkata Supraja<sup>1</sup>, Rohan Jain<sup>2</sup>, Sk. Ziauddin Ahammad<sup>1</sup></u>  <sup>1</sup><i>Indian Institute of Technology Delhi, India.</i>  <sup>2</sup><i>Helmholtz Institute Freiberg for Resource Technology, Freiberg, Germany</i></p> <p><b>14:35 - 14:55 [O2B.4]</b>  <b>Evaluating the potential of microalgae in the Nordics: Treatment of greenhouse waste streams and nutrient recovery for bioagricultural applications</b>  <u>Sema Sirin, Emren Borhan, Erik Chovancek, Martina Jokel, Yagut Allahverdiyeva</u>  <i>Molecular Plant Biology Unit, Department of Life Technologies, Faculty of Technology, University of Turku, Finland</i></p> <p><b>14:55 - 15:15 [O2B.5]</b>  <b>Hydrothermal carbonization of high phosphorus containing wastewater-grown microalgae: A promising strategy for developing a slow-release fertilizer</b>  <u>Kolli Venkata Supraja<sup>1</sup>, Bunushree Behera<sup>2</sup>, Rohan Jain<sup>3</sup>, Sk. Ziauddin Ahammad<sup>1</sup></u>  <sup>1</sup><i>Indian Institute of Technology Delhi, New Delhi, India.</i> <sup>2</sup><i>Thapar University Department of Biotechnology, Patiala, India.</i> <sup>3</sup><i>Helmholtz Institute Freiberg for Resource Technology, Freiberg, Germany</i></p>

	<sup>1</sup> Colorado School of Mines, Golden, CO, USA. <sup>2</sup> Lindahl Reed Inc., USA	
15:15 - 15:45	<b>Coffee break</b> Location: Grand ballroom, salons ABCD	
15:45 - 17:45	<p><b>Session 3A: Molecular Engineering and metabolic regulation of Algae II</b> Location: Grand ballroom, salons EF Session Chair: Patrik Jones</p> <p><b>15:45 - 16:05 [O3A.1]</b> <b>Engineering and cultivation of the fast-growing <i>Synechococcus</i> PCC 11901 for the synthesis of high added-value carotenoids</b> <u>Nico Betterle</u><sup>1</sup>, <u>Eliana Gasparotto</u><sup>2</sup>, <u>Battagini Elia</u><sup>3</sup>, <u>Francesco Bellamoli</u><sup>3</sup>, <u>Matteo Ballottari</u><sup>3</sup> <sup>1</sup>University of Verona, Italy. <sup>2</sup>University of Verona, Seattle, WA, Italy. <sup>3</sup>University of Verona, Verona, Italy</p> <p><b>16:05 - 16:25 [O3A.2]</b> <b>Rubisco as a limiting factor of biomass productivity</b> <u>Sara Pacheco</u>, <u>Daniel Trettel</u>, <u>Raul Gonzalez</u> <i>Los Alamos National Laboratory, Los Alamos, NM, USA</i></p> <p><b>16:25 - 16:45 [O3A.3]</b> <b>Manipulatable control of the PHB-producing <i>Synechocystis</i> sp. PCC6803 strain by co-overexpressing the <i>RuBisCO</i> and <i>phaAB</i> genes in response to nitrogen and phosphorus deficiency</b> <u>Vetaka Tharasirivat</u>, <u>Saowarath Jantaro</u> <i>Department of Biochemistry, Faculty of Science, Chulalongkorn University, Thailand</i></p> <p><b>16:45 - 17:05 [O3A.4]</b> <b>Bicistronic expression and targeted integration - novel strategies to drive robust transgene expression in <i>Chlamydomonas reinhardtii</i></b> <u>Nick Jacobebbinghaus</u>, <u>Olaf Kruse</u>, <u>Thomas Baier</u> <i>Bielefeld University Center for Biotechnology, Bielefeld, Germany</i></p> <p><b>17:05 - 17:25 [O3A.5]</b> <b>Algal Biotech Partnership: The generation, tracking and phenotyping of a random insertional mutant library in <i>Picochlorum renovu</i></b> <u>Monica Sanchez</u><sup>1</sup>, <u>Lukas Dahlin</u><sup>2</sup>, <u>Matt Green</u><sup>3</sup>, <u>chuck smallwood</u><sup>1</sup>, <u>Shawn Starkenburg</u><sup>3</sup>, <u>Michael Guarnieri</u><sup>2</sup></p>	<p><b>Session 3B: Harvesting &amp; Extraction</b> Location: Grand ballroom, salon G Session Chair: Sangeeta Negi</p> <p><b>15:45 - 16:05 [O3B.1]</b> <b>Microalgal self-aggregation induced by predator infochemicals for sustainable harvesting</b> <u>Emma Muir</u><sup>1</sup>, <u>Benoit Guieysse</u><sup>2</sup>, <u>Maxence Plouviez</u><sup>3</sup> <sup>1</sup>Massey University, Palmerston North, New Zealand. <sup>2</sup>BG Bioprocess Consulting Limited, Palmerston North, New Zealand. <sup>3</sup>Cawthron Institute, Palmerston North, New Zealand</p> <p><b>16:05 - 16:25 [O3B.2]</b> <b>Fungal-Assisted Immobilization of Microalgae for Customizable Bioproducts: A Modeling Approach</b> <u>Suvro Talukdar</u>, <u>Tyler Barzee</u> <i>University of Kentucky, Lexington, KY, USA</i></p> <p><b>16:25 - 16:45 [O3B.3]</b> <b>Removal of a mix of pharmaceuticals from wastewater using microalgae</b> <u>Jesna Fathima</u>, <u>Pritha Chatterjee</u> <i>Indian Institute of Technology, Hyderabad, India</i></p> <p><b>16:45 - 17:05 [O3B.4]</b> <b>Optimal harvesting strategy for astaxanthin production from <i>Haematococcus lacustris</i> using online image analysis</b> <u>Lars Stegemüller</u>, <u>Borja Valverde-Perez</u>, <u>Irini Angelidaki</u> <i>Technical University of Denmark Department of Chemical and Biochemical Engineering, Kgs Lyngby, Denmark</i></p> <p><b>17:05 - 17:25 [O3B.5]</b> <b>Novel and sustainable methodologies for phytosterols recovery from macroalgae</b> <u>Judite Resende</u>, <u>Filipe H. B. Sosa</u>, <u>João A. P. Coutinho</u>, <u>João Rocha</u>, <u>Armando J. D. Silvestre</u>, <u>Sónia A. O. Santos</u> <i>University of Aveiro CICECO, Aveiro, Portugal</i></p> <p><b>17:25 - 17:45 [O3B.6]</b> <b>Production and separation of UV-protective compounds from a non-GMO cyanobacterial consortium at a 1000 L scale</b> <u>Aditya P Sarnaik</u><sup>1</sup>, <u>Rocco Mancinelli</u><sup>2</sup>, <u>David Smernoff</u><sup>2</sup>, <u>Taylor Weiss</u><sup>1</sup> <sup>1</sup>Arizona State University - Polytechnic Campus, Mesa, AZ, USA. <sup>2</sup>HelioBioSys Incorporation, USA</p>

	<p><sup>1</sup><i>Sandia National Laboratories, Albuquerque, NM, USA.</i> <sup>2</sup><i>National Renewable Energy Laboratory, Golden, CO, USA.</i> <sup>3</sup><i>Los Alamos National Laboratory, Los Alamos, NM, USA</i></p> <p><b>17:25 - 17:45 [O3A.6]</b>  <b>Endogenous and high-throughput fluorescent protein tagging in diatoms</b>  <u>Onyou Nam</u>, Irina Grouneva, Luke Mackinder  <i>University of York, York, UK</i></p>	
17:45 - 18:45	<p><b>Welcome drinks reception &amp; Poster session 1</b>  Location: Grand ballroom, salons ABCD</p>	

08:15 - 08:20	<p><b>Welcome and introduction</b>                  Location: Grand ballroom, salons EF                  Session Chair: Taraka Dale</p>	
08:20 - 09:20	<p><b>Plenary session 2</b>                  Location: Grand ballroom, salons EF                  Session Chair: Taraka Dale</p> <p><b>08:20 - 08:50 [PLE04]</b>  <b>Metabolic engineering of cyanobacteria for sustainable production of chemicals and fuels</b>  <u>Pia Lindberg</u>  <i>Uppsala University, Department of Chemistry - Ångström, Uppsala, Sweden</i></p> <p><b>08:50 - 09:20 [PLE05]</b>  <b>Challenges in the scale-up of microalgae production systems</b>  <u>Francisco Gabriel Acien Fernandez</u>  <i>University of Almeria, Spain</i></p>	
09:20 - 09:40	<p><b>Coffee break</b>                  Location: Grand ballroom, salons ABCD</p>	
09:40 - 11:05	<p><b>Session 4A: Bioproducts I – New Chemistries</b>                  Location: Grand ballroom, salons EF                  Session Chair: Matteo Ballottari</p> <p><b>09:40 - 10:05 [EO.3]</b>  <b>Bioengineering microalgae for their application as green cell factories</b>  <u>Olaf Kruse</u>  <i>Bielefeld University, Bielefeld, Germany</i></p> <p><b>10:05 - 10:25 [O4A.1]</b>  <b>Biocatalytic chemicals production by engineered living materials</b>  <u>Yagut Allahverdiyeva</u>  <i>University of Turku, Turku, Finland</i></p> <p><b>10:25 - 10:45 [O4A.2]</b>  <b>Towards photosynthetic hydrogen production.</b>  <u>Sean Craig</u><sup>1</sup>, Carrie Eckert<sup>2</sup>, Nigel Burroughs<sup>3</sup>, Kirstin Gutekunst<sup>4</sup>, Jens Appel<sup>4</sup>, Samantha Bryan<sup>1</sup>  <sup>1</sup>University of Nottingham, Nottingham, UK. <sup>2</sup>Oak Ridge National Laboratory, Oak Ridge, TN, USA. <sup>3</sup>University of Warwick, Coventry, UK. <sup>4</sup>University of Kassel, Kassel, Germany</p> <p><b>10:45 - 11:05 [O4A.3]</b>  <b>In-process epimerisation of alginates from <i>Saccharina latissima</i>, <i>Alaria esculenta</i> and <i>Laminaria hyperborea</i></b>  <u>Katharina Nøklung-Eide</u><sup>1,2</sup>, Finn Aachmann<sup>3</sup>, Anne Tøndervik<sup>1</sup>, Øystein Arlov<sup>1</sup>, Håvard Sletta<sup>1</sup></p>	<p><b>Session 4B: Economic and Sustainability Analyses I</b>                  Location: Grand ballroom, salon G                  Session Chair: Daniel Fishman</p> <p><b>09:40 - 10:05 [EO.4]</b>  <b>Comparative techno-economic analysis and life cycle assessment of algal turf scrubber systems</b>  <u>Ashley Ryland</u>, David Quiroz, Peter Chen, Jason Quinn  <i>Colorado State University, Fort Collins, CO, USA</i></p> <p><b>10:05 - 10:25 [O4B.1]</b>  <b>The Role of Pond Reliability on the Sustainability of Algal Biofuels</b>  <u>David Quiroz</u><sup>1</sup>, John McGowen<sup>2</sup>, Jason Quinn<sup>1</sup>  <sup>1</sup>Colorado State University, Fort Collins, CO, USA. <sup>2</sup>Arizona State University, Tempe, AZ, USA</p> <p><b>10:25 - 10:45 [O4B.2]</b>  <b>Microalgae for wastewater treatment reduces microbial disease burden without environmental trade-offs in water reuse</b>  <u>Ankita Bhatt</u><sup>1</sup>, Nitin Sahu<sup>1</sup>, Ayokunle Christopher Dada<sup>2</sup>, Sanjeev Kumar Prajapati<sup>1</sup>, Pratham Arora<sup>1</sup>  <sup>1</sup>Indian Institute of Technology Roorkee, Roorkee, India. <sup>2</sup>QMRA Data Experts, Hamilton, Waikato, New Zealand</p> <p><b>10:45 - 11:05 [O4B.3]</b>  <b>Affordable low-carbon platform chemicals from seaweed</b>  <u>Nawa Baral</u>  <i>E O Lawrence Berkeley National Laboratory The Biosciences Area, Berkeley, CA, USA</i></p>

	<p><sup>1</sup>SINTEF Industry, Department of Biotechnology and Nanomedicine, Norway.</p> <p><sup>2</sup>Norwegian University of Science and Technology, Department of Biotechnology and Food Science, Norway. <sup>3</sup>Norwegian University of Science and Technology, Department of Biotechnology and Food Science, Trondheim, Norway</p>	
11:05 - 11:15	<b>Comfort break</b>	
11:15 - 12:35	<p><b>Session 5A: Bioreactor and Raceway Design</b> Location: Grand ballroom, salons EF Session Chair: Gabriel Acien</p> <p><b>11:15 - 11:35 [O5A.1]</b> <b>Performance evaluation of a new opaque photobioreactor prototype with internal lighting through optical fibers for microalgae cultivation.</b> Gisel Chenard<sup>1</sup>, Rene Gonzalez<sup>1</sup>, Yordanka Reyes<sup>1</sup>, Donato A. Gomes<sup>1</sup>, Marcelo Martins Werneck<sup>2</sup>, Regina Célia da Silva Barros Allil<sup>2</sup>, <u>Leonardo B. Mendes<sup>3</sup></u>, Carolina Vieira<sup>1</sup> <sup>1</sup>Laboratory Greentec/EQ-UFRJ, Brazil. <sup>2</sup>COPPE/UFRJ, Brazil. <sup>3</sup>CENPES/PETROBRÁS, Brazil</p> <p><b>11:35 - 11:55 [O5A.2]</b> <b>Modeling the hydrodynamic effect of different paddle wheel geometries of a raceway pond for microalgae cultivation</b> Jesús Vargas-Villegas<sup>1</sup>, Roberto Dominguez<sup>2</sup>, Juan Carlos García Castrejón<sup>1</sup>, <u>Laura Vargas-Estrada<sup>3</sup></u>, P.J. Sebastian<sup>2</sup> <sup>1</sup>UAEM, Mexico. <sup>2</sup>National Autonomous University of Mexico Institute for Renewable Energy, Temixco, Mexico. <sup>3</sup>University of Valladolid, Valladolid, Spain</p> <p><b>11:55 - 12:15 [O5A.3]</b> <b>Increased Carbon Utilization Efficiency of Nannochloropsis oceanica Cultivation by Using a Membrane Module</b> <u>Xing-Feng Huang</u>, Chen Shen, Jonah Greene, David S. Dandy, Jason C. Quinn, Kenneth F. Reardon Colorado State University, Fort Collins, CO, USA</p> <p><b>12:15 - 12:35 [O5A.4]</b> <b>Sustainable algal feedstock production using smart design raceway pond with innovative photovoltaic system</b> <u>Nitharsan Kirubakaran<sup>1,2</sup></u>, Vivek Neethirajan<sup>1,3</sup>, Rashmi Vijayaragavan<sup>1</sup>, Muralitharan Gangatharan<sup>1,4</sup>, Uma Lakshmanan<sup>1</sup>, Prabaharan Dharmar<sup>1,2</sup></p>	<p><b>Session 5B: Economic and Sustainability Analyses II</b> Location: Grand ballroom, salon G Session Chair: David Quiroz</p> <p><b>11:15 - 11:35 [O5B.1]</b> <b>Life cycle assessment on phycoremediation of shrimp farm wastewater</b> April Arbour, Halis Simsek, Paul Brown, <u>Jen-Yi Huang</u> Purdue University, West Lafayette, IN, USA</p> <p><b>11:35 - 11:55 [O5B.2]</b> <b>Multicriteria-based selection of microalgae biorefineries: biomass composition defines the most suitable product portfolios</b> <u>Bruno Klein<sup>1</sup></u>, Mateus Chagas<sup>2</sup>, Ryan Davis<sup>1</sup>, Marcos Watanabe<sup>3</sup>, Matthew Wiatrowski<sup>1</sup>, Edvaldo Morais<sup>2</sup>, Lieve Laurens<sup>1</sup> <sup>1</sup>National Renewable Energy Laboratory, Golden, CO, USA. <sup>2</sup>Biorenewables National Laboratory, CAMPINAS, Brazil. <sup>3</sup>Norwegian University of Science and Technology, Trondheim, Norway</p> <p><b>11:55 - 12:15 [O5B.3]</b> <b>Geographically Resolved Techno-Economic and Life Cycle Assessments of Algae-Based Diesel and Sustainable Aviation Fuel Considering the Current State of Technology</b> <u>Jonah Greene</u>, David Quiroz, Braden Limb, Jason Quinn Colorado State University, USA</p> <p><b>12:15 - 12:35 [O5B.4]</b> <b>Techno-economic evaluation of nanofiltration-enhanced hydrothermal liquefaction for sustainable aviation fuel from algae</b> <u>Tiago Da Cruz Costa</u>, Lance Schideman, Yuanhui Zhang University of Illinois Urbana-Champaign, Urbana, IL, USA</p>

	<p><sup>1</sup>National Facility for Marine Cyanobacteria, Bharathidasan University, India.</p> <p><sup>2</sup>Department of Marine Biotechnology, Bharathidasan University, India.</p> <p><sup>3</sup>Department of Environmental Biotechnology, Bharathidasan University, India. <sup>4</sup>Department of Microbiology, Bharathidasan University, India</p>	
12:35 - 13:30	<p><b>Lunch</b> Location: Grand ballroom, salons ABCD</p>	
13:30 - 15:35	<p><b>Session 6A: Outdoor Cultivation</b> Location: Grand ballroom, salons EF Session Chair: John Benemann</p> <p><b>13:30 - 13:55 [EO.5]</b> <b>DISCOVR Multi-Year Outdoor Cultivation Trials: Update and Future Directions</b> <u>John McGowen</u> <i>Arizona State University, Mesa, AZ, USA</i></p> <p><b>13:55 - 14:15 [O6A.1]</b> <b>Balancing biomass productivity and carbon utilization in outdoor raceways</b> <u>Everett Eustance</u>, Jessica Forrester, John McGowen <i>Arizona State University Arizona Center for Algae Technology and Innovation, Mesa, AZ, USA</i></p> <p><b>14:15 - 14:35 [O6A.2]</b> <b>From Pond to Power: Growing Green Energy with Microalgae</b> <u>Tamar Elman</u>, Iftach Yacoby <i>Tel Aviv University, Tel Aviv, Israel</i></p> <p><b>14:35 - 14:55 [O6A.3]</b> <b>Strategies to minimise the abundance of unwanted microalgae in cultures of <i>Arthrospira platensis</i></b> <u>Tomas Lafarga</u>, Silvia Villaró-Cos, Sandra Valero, Cristina Cerdá-Moreno, Gabriel Acién <i>University of Almeria, Almeria, Spain</i></p> <p><b>14:55 - 15:15 [O6A.4]</b> <b>Increasing Biomass Productivity with the Optimized Luminance (OptiLum) Cultivation Strategy and Improving CO<sub>2</sub> Utilization Efficiency by Cultivation at Air-CO<sub>2</sub> Equilibrium pH</b> <u>Song Gao</u><sup>1</sup>, Nicholas Kalamaris<sup>1</sup>, Bruno Klein<sup>2</sup>, Scott Edmundson<sup>1</sup>, Geetanjali Yadav<sup>2</sup>, Ryan Davis<sup>2</sup>, Michael Huesemann<sup>1</sup> <sup>1</sup><i>Pacific Northwest National Laboratory Marine Sciences Laboratory, Sequim, WA, USA.</i> <sup>2</sup><i>National Renewable Energy Laboratory, Golden, CO, USA</i></p>	<p><b>Session 6B: Bioproducts II - Polymers</b> Location: Grand ballroom, salon G Session Chair: Cesar Gonzalez Esquer</p> <p><b>13:30 - 13:55 [EO.6]</b> <b>Biopolyester production from microalgae <i>Nannochloropsis</i> side streams</b> Claudia L. Duarte<sup>1,2</sup>, Marisa Cardoso<sup>1,2</sup>, Mariana Matos<sup>1,2</sup>, Joana Fradinho<sup>1,2</sup>, Bruno S. Ferreira<sup>3,4</sup>, Jorge F.B. Pereira<sup>5</sup>, <u>María A.M. Reis</u><sup>1,2</sup> <sup>1</sup><i>Associate Laboratory i4HB – Institute for Health and Bioeconomy, NOVA School of Science and Technology, Universidade NOVA de Lisboa, Portugal.</i> <sup>2</sup><i>UCIBIO – Applied Molecular Biosciences Unit, Department of Chemistry, NOVA School of Science and Technology, Universidade NOVA de Lisboa, Portugal.</i> <sup>3</sup><i>Biotrend SA – Biocant Park, Portugal.</i> <sup>4</sup><i>A4F – Algae for Future, Campus do Lumiar, Portugal.</i> <sup>5</sup><i>University of Coimbra, CERES, Department of Chemical Engineering, Portugal</i></p> <p><b>13:55 - 14:15 [O6B.1]</b> <b>Exploring the potential of invasive <i>Sargassum natans</i> and <i>fluitans</i>: extraction of bioactive natural products, anticorrosive study, and synthesis of biochar for environmental</b> <u>Stacy Melyon</u><sup>1</sup>, Waking-Balaguer Mainviel<sup>1</sup>, Manon Sénard<sup>1</sup>, Marckens Francoeur<sup>1</sup>, Pau Reig Rodrigo<sup>1</sup>, Isabelle Polaert<sup>2</sup>, Ulises Jauregui<sup>3</sup>, Alejandro Ponce Mora<sup>4</sup>, Eloy Bejarano Fernandez<sup>4</sup>, Lucia Gimeno Malench<sup>4</sup>, Laura Brelle<sup>1</sup>, Muriel Sylvestre<sup>1</sup>, Gerardo Cebrian Torrejon<sup>1</sup>, Sarra Gaspard<sup>1</sup> <sup>1</sup><i>University of the Antilles, Pointe a Pitre, Guadeloupe.</i> <sup>2</sup><i>University of Applied Sciences Rouen, St Etienne du Rouvray, France.</i> <sup>3</sup><i>Santo Domingo Institute of Technology, Santo Domingo, Dominican Republic.</i> <sup>4</sup><i>CEU Cardinal Herrera University Faculty of Health Sciences, Moncada, Spain</i></p> <p><b>14:15 - 14:35 [O6B.2]</b> <b>Elucidating the secrets of soluble extracellular polymers in algae cultivation</b> Kaitlin Lesco<sup>1,2</sup>, Kim Williams<sup>1</sup>, <u>Lieve Laurens</u><sup>2</sup> <sup>1</sup><i>Colorado School of Mines, Golden, CO, USA.</i> <sup>2</sup><i>National Renewable Energy Laboratory, Golden, CO, USA</i></p>



	<p><b>15:15 - 15:35 [O6A.5]</b>  <b>Exploring Qatar's Extreme Environments: Bioprospecting Algae for High-Value Products</b>  <u>Imen Saadaoui</u>, Maroua Cherif, Simil Amir  <i>Qatar university, Qatar</i></p>	<p><b>14:35 - 14:55 [O6B.3]</b>  <b>Microalgae play a structuring and nutritional role in protein rich gelled snacks</b>  Sheyma Khemiri, Sónia Oliveira, <u>Cristiana Nunes</u>, Anabela Raymundo  <i>University of Lisbon School of Agriculture, Lisboa, Portugal</i></p> <p><b>14:55 - 15:15 [O6B.4]</b>  <b>Enhancing 3d printed gels from red seaweed: impact of introducing a thickening agent and adjusting printing temperature</b>  Sónia Oliveira<sup>1</sup>, Isabel Sousa<sup>1</sup>, <u>Anabela Raymundo</u><sup>1</sup>, Carlos Bengoechea<sup>2</sup>  <sup>1</sup><i>University of Lisbon School of Agriculture, Lisboa, Portugal.</i> <sup>2</sup><i>University of Seville, Sevilla, Spain</i></p> <p><b>15:15 - 15:35 [O6B.5]</b>  <b>Assessing the potential of protein production by nitrogen-fixing cyanobacteria: a bioprocess engineering approach</b>  <u>Veronica Lucato</u><sup>1</sup>, Leonardo Pattaro<sup>1</sup>, Stefania Sut<sup>2</sup>, Fabian Abiusi<sup>3</sup>, Alexander Mathys<sup>3</sup>, Stefano Dall'Acqua<sup>2</sup>, Eleonora Sforza<sup>1</sup>  <sup>1</sup><i>Department of Industrial Engineering, University of Padova, Italy.</i> <sup>2</sup><i>Department of Pharmaceutical and Pharmacological Sciences, University of Padova, Italy.</i> <sup>3</sup><i>Laboratory of Sustainable Food Processing, ETH Zurich, Switzerland</i></p>
<p>15:35 - 16:00</p>	<p><b>Coffee break</b>  Location: Grand ballroom, salons ABCD</p>	
<p>16:00 - 17:20</p>	<p><b>Session 7A: Wastewater II - Bioremediation</b>  Location: Grand ballroom, salons EF  Session Chair: John McGowen</p> <p><b>16:00 - 16:20 [O7A.1]</b>  <b>Advancing Sustainability: Scaling up microalgae-based bioremediation of nejayote to an open ponds photobioreactor with continuous kLa monitoring</b>  <u>Cesar E. Najjar-Almanzor</u>, Karla D. Velasco-Iglesias, Minerva Solis-Bañuelos, Tomás García-Cayuela, Danay Carrillo-Nieves  <i>Tecnologico de Monterrey, Escuela de Ingenieria y Ciencias, Mexico</i></p> <p><b>16:20 - 16:40 [O7A.2]</b>  <b>Sustainable Effluent Reuse in the Wine Industry for Microalgal Biomass as a Novel Resource as a biostimulant in Vineyards</b>  Ana Gabriela Gomes<sup>1,2</sup>, Ana Claudia Sousa<sup>1,2</sup>, Catarina R. Dias<sup>1,2</sup>, David Galego<sup>1</sup>, <u>Carla A. Santos</u><sup>1,2</sup>  <sup>1</sup><i>Setúbal Polytechnic University, Portugal.</i> <sup>2</sup><i>Resilience, Sustainability and Development</i></p>	<p><b>Session 7B: Bioproducts III – Nutraceuticals</b>  Location: Grand ballroom, salon G  Session Chair: Lieve Laurens</p> <p><b>16:00 - 16:20 [O7B.1]</b>  <b>Microalgae as more sustainable and affordable sources for micronutrient deficiency treatment</b>  <u>Fengzheng Gao</u><sup>1,2</sup>, Michael Zimmermann<sup>3</sup>, Ferdinand von Meyenn<sup>2</sup>, Alexander Mathys<sup>1</sup>  <sup>1</sup><i>Sustainable Food Processing Laboratory, Institute of Food, Nutrition and Health, ETH Zurich, Switzerland.</i> <sup>2</sup><i>Laboratory of Nutrition and Metabolic Epigenetics, Institute of Food, Nutrition and Health, ETH Zurich, Switzerland.</i> <sup>3</sup><i>Weatherall Institute of Molecular Medicine, John Radcliffe Hospital, The University of Oxford, UK</i></p> <p><b>16:20 - 16:40 [O7B.2]</b>  <b>Pavlova gyrans as a promising and sustainable source of carotenoids – optimization of the key growth parameters</b>  <u>Filipe Maciel</u><sup>1,2</sup>, Paulo Berni<sup>1,2</sup>, Pedro Geada<sup>1,2</sup>, José Teixeira<sup>1,2</sup>, Joana Silva<sup>3</sup>, António Vicente<sup>1</sup></p>

	<p><i>Center, Setúbal Polytechnic University, Portugal</i></p> <p><b>16:40 - 17:00 [O7A.3]</b>  <b>Biosorption Capacity of Cyanobacteria Strains for Nickel Detoxification: Potential Metallo-Protective Agent</b>  Hadjira Hamai-Amara, <u>Imen saadaoui</u>, Lama Subra, Mohamad Al-Ghouti  <i>Qatar University, Doha, Qatar</i></p> <p><b>17:00 - 17:20 [O7A.4]</b>  <b>Taking On Big Oil with Small Molecules: Algae Derived Chemical Herders for Oil Spill Cleanup</b>  <u>Tanner Finney</u><sup>1</sup>, Peter Neate<sup>1</sup>, Cameron Taylor<sup>2,1</sup>, Brian Harriman<sup>1</sup>, Xiaokun Yang<sup>1</sup>, Nilusha Sudasinghe<sup>1</sup>  <sup>1</sup><i>Los Alamos National Laboratory, Los Alamos, NM, USA.</i> <sup>2</sup><i>Texas A&amp;M University, College Station, TX, USA</i></p>	<p><sup>1</sup><i>University of Minho Centre of Biological Engineering, Braga, Portugal.</i> <sup>2</sup><i>University of Minho, LBBELS –Associate Laboratory, Portugal, Portugal.</i> <sup>3</sup><i>ALLMICROALGAE, Natural Products S.A., Portugal</i></p> <p><b>16:40 - 17:00 [O7B.3]</b>  <b>Design of dynamic experiments for high-value compound production from acidophilic <i>Coccomyxa onubensis</i> in a high cell density cultivation system</b>  <u>Rosaria Tizzani</u>, Gianmarco Barberi, Pietro Grendene, Fabrizio Bezzo, Pierantonio Facco, Eleonora Sforza  <i>University of Padova Department Industrial Engineering, Padova, Italy</i></p> <p><b>17:00 - 17:20 [O7B.4]</b>  <b>Asteasier: the sustainable way for natural astaxanthin</b>  <u>Federico Perozeni</u>, Nico Betterle, Stefano Cazzaniga, Matteo Ballottari  <i>University of Verona, Verona, Italy</i></p>
<p>17:20 - 18:20</p>	<p><b>Poster session 2</b>  Location: Grand ballroom, salons ABCD</p>	
<p>18:30 - 21:30</p>	<p><b>Conference Dinner (optional ticketed event)</b>  Location: StarShip IV</p>	

08:15 - 08:20	<p><b>Welcome and introduction</b> Location: Grand ballroom, salons EF Session Chair: Olaf Kruse</p>	
08:20 - 09:20	<p><b>Plenary session 3</b> Location: Grand ballroom, salons EF Session Chair: Jose Olivares</p> <p><b>08:20 - 08:50 [PLE06]</b> <b>Metabolic regulation in diatoms: Transcriptional control and the quest for a lipid trigger</b> <u>Sarah R. Smith</u><sup>1,2</sup>, Andrew E. Allen<sup>2,3</sup> <sup>1</sup>Moss Landing Marine Laboratories, San José State University, Moss Landing, CA, USA. <sup>2</sup>J Craig Venter Institute La Jolla, La Jolla, CA, USA. <sup>3</sup>Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA, USA</p> <p><b>08:50 - 09:20 [PLE07]</b> <b>Integrating techno-economic and environmental perspectives: Advancements in renewable energy and sustainable aviation fuel</b> <u>Jason Quinn</u><sup>1</sup>, Braden Limb<sup>1</sup>, David Quiroz<sup>1</sup>, Jonah Greene<sup>1</sup>, Steve Simske<sup>1</sup>, Jack Smith<sup>2</sup> <sup>1</sup>Colorado State University, Fort Collins, CO, USA. <sup>2</sup>B&amp;D consulting, USA</p>	
09:20 - 10:20	<p><b>Coffee break &amp; poster session 3</b> Location: Grand ballroom, salons ABCD</p>	
10:20 - 11:45	<p><b>Session 8A: Algae Omics Tools and Analyses I</b> Location: Grand ballroom, salons EF Session Chair: Olaf Kruse</p> <p><b>10:20 - 10:45 [EO.7]</b> <b>Improved tools for screening of epigenetic modifications in microalgae</b> <u>Christina Steadman</u> <i>Los Alamos National Laboratory, Los Alamos, NM, USA</i></p> <p><b>10:45 - 11:05 [O8A.1]</b> <b>Algal Genomics Resources at the DOE Joint Genome Institute</b> <u>Igor Grigoriev</u> <i>US Department of Energy Joint Genome Institute, Lawrence Berkeley National Laboratory, USA</i></p> <p><b>11:05 - 11:25 [O8A.2]</b> <b>HPLC-QToF-MS profiling and structural analysis of pigments in <i>Synechocystis salina</i> PCC 6909 using an integrated processing strategy</b> <u>Elizabeth Figueroa-Valencia</u><sup>1,2,3</sup>, Sheyla Figueroa Valencia<sup>3</sup>, Jan Hájek<sup>1</sup>, Pavel Hrouzek<sup>1</sup>, Jiří Kopecký<sup>1</sup> <sup>1</sup>Centre Algatech, Laboratory of Algal Biotechnology, Institute of Microbiology of the Czech Academy of Sciences, Czech Republic. <sup>2</sup>Department of Experimental Plant</p>	<p><b>Session 8B: Advances in Lipid Production &amp; Extraction</b> Location: Grand ballroom, salon G Session Chair: Taraka Dale</p> <p><b>10:20 - 10:45 [EO.8]</b> <b>The Waste to Jet Consortium: Development and Optimization of an Algae Pathway to Produce Sustainable Aviation Fuel</b> <u>Shawn Starkenburg</u><sup>1</sup>, Lou Brown<sup>1</sup>, Alina Corcoran<sup>2</sup>, Lukas Dahlin<sup>3</sup>, Ryan Davis<sup>4</sup>, Raul Gonzalez<sup>1</sup>, Martin Gross<sup>5</sup>, Michael Guarnieri<sup>3</sup>, Jason Quinn<sup>6</sup>, Andrew Sutton<sup>7</sup>, Peter Valdez<sup>8</sup>, Jianping Yu<sup>3</sup> <sup>1</sup>Los Alamos National Laboratory, Los Alamos, NM, USA. <sup>2</sup>New Mexico State University, Las Cruces, NM, USA. <sup>3</sup>National Renewable Energy Laboratory, Golden, CO, USA. <sup>4</sup>Sandia National Laboratory, USA. <sup>5</sup>Gross-wen Technologies, USA. <sup>6</sup>Colorado State University, Fort Collins, CO, USA. <sup>7</sup>Oakridge National Laboratory, USA. <sup>8</sup>Pacific Northwest National Laboratory, Richland, WA, USA</p> <p><b>10:45 - 11:05 [O8B.1]</b> <b>Carbon Dot Exposure Increases Neutral Lipid Droplet Production in the Microalgae <i>Raphidocelis subcapitata</i></b> <u>Emma McKeel</u><sup>1</sup>, Hye-In Kim<sup>2</sup>, Su-Ji Jeon<sup>2</sup>, Juan Pablo Giraldo<sup>2</sup>, Rebecca Klaper<sup>1</sup>, <sup>1</sup>University of Wisconsin-Milwaukee, USA, <sup>2</sup>University of California Riverside, USA</p> <p><b>11:05 - 11:25 [O8B.2]</b></p>

	<p><i>Biology, Faculty of Science, University of South Bohemia, Czech Republic. <sup>3</sup>Unidad de Posgrado, Facultad de Ciencias Naturales y Formales, Universidad Nacional de San Agustín de Arequipa, Peru</i></p> <p><b>11:25 - 11:45 [O8A.3]</b>  <b>A Comparison of the Algae-Associated Microbiome in Closed and Open Systems During Fungal Infections</b>  <u>Elise Wilbourn</u>, Georgios Kepesidis, Pamela Lane, Tyler Eckles, Todd Lane  <i>Sandia National Laboratories California, Livermore, CA, USA</i></p>	<p><b>Hydrocarbon continuous production and non-destructive extraction from the microalga <i>Botryococcus braunii</i></b>  <u>Samy Kemei</u><sup>1,2,3</sup>, Luc Marchal<sup>1,2</sup>, Olivier Goncalves<sup>1,2</sup>, Agnes MONTILLET<sup>1,2</sup>, Jeremy Pruvost<sup>1,2</sup>  <sup>1</sup>Nantes University, Nantes, France. <sup>2</sup>National Centre for Scientific Research, Paris, France. <sup>3</sup>The French Agency for Ecological Transition, Angers, France</p> <p><b>11:25 - 11:45 [O8B.3]</b>  <b>Lipid Extraction from Blue-Green Cyanobacteria using Novel Switchable Solvent</b>  <u>Callum Russell</u>, Cristina Rodriguez Nunez  <i>University of the West of Scotland, Paisley, UK</i></p>
11:45 - 11:55	<b>Comfort break</b>	
11:55 - 12:55	<p><b>Session 9A: Algae Omics Tools and Analyses II</b>  Location: Grand ballroom, salons EF  Session Chair: Christina Steadman</p> <p><b>11:55 - 12:15 [O9A.1]</b>  <b>Algomics: molecular and genetic observations in microalgae for optimal scale-up strategies and sustainable bio-manufacturing</b>  <u>Yorgos Kepesidis</u>, Wittney Mays, Elise Wilbourn, Matthew Hirakawa, Daniel Yang, Brittanie North, Tyler Eckles, Pam Lane, Todd Lane, Raga Krishnakumar  <i>Sandia National Laboratories California, Livermore, CA, USA</i></p> <p><b>12:15 - 12:35 [O9A.2]</b>  <b>Uncovering Carbon and Nitrogen Metabolism Driving Composition Shift in Algae with 13C-Fluxomics and Machine Learning Approaches</b>  <u>Arnav Deshpande</u>, Jessica Loob, Stefanie Van Wychen, Lieve M. L. Laurens  <i>National Renewable Energy Laboratory, Golden, CO, USA</i></p> <p><b>12:35 - 12:55 [O9A.3]</b>  <b>Metabolomic profile during anaerobic co-digestion of <i>Sargassum spp.</i> and food waste</b>  Yazmin Varela-Granados<sup>1</sup>, Deifilia Ahuatz-Chacón<sup>1</sup>, Yair Cruz-Narváez<sup>2</sup>, Alfonso Mendez-Tenorio<sup>1</sup>, <u>Celestino Odín Rodríguez Nava</u><sup>1</sup>  <sup>1</sup>National School of Biological Sciences of the National Polytechnic Institute, Mexico.  <sup>2</sup>Higher School of Chemical Engineering and Extractive Industries of the National Polytechnic Institute, Mexico</p>	<p><b>Session 9B: Algae as Biofertilizers/Biostimulants</b>  Location: Grand ballroom, salon G  Session Chair: Shawn Starkenburg</p> <p><b>11:55 - 12:15 [O9B.1]</b>  <b>Exploring Halospira's Potential for Bioproducts and Biofertilizer Application Toward Sustainable Agriculture</b>  <u>Maroua Cherif</u>, Simil Siddiqui, Imen Saadaoui  <i>Qatar University, Doha, Qatar</i></p> <p><b>12:15 - 12:35 [O9B.2]</b>  <b>A zero-waste biorefinery approach of <i>Arthrospira platensis</i> as a food protein source and as a plant biostimulant in agriculture</b>  <u>Silvia Villaro</u>, Tomas Lafarga, Francisco Gabriel Acien  <i>University of Almeria, Almeria, Spain</i></p> <p><b>12:35 - 12:55 [O9B.3]</b>  <b>Exopolysaccharides (EPS) as a versatile biorefinery agent from the marine diazotroph <i>Nostoc calcicola</i> BDU 40302 - a sustainable approach</b>  <u>Rashmi Vijayaragavan</u><sup>1</sup>, Nitharsan Kirubakaran<sup>1,2</sup>, Vivek Neethirajan<sup>1,3</sup>, Muralitharan Gangatharan<sup>1,4</sup>, Prabakaran Dharamar<sup>1</sup>, Uma Lakshmanan<sup>1</sup>  <sup>1</sup>National Repository for Microalgae and Cyanobacteria – Marine (NRMCM), National Facility for Marine Cyanobacteria (Sponsored by DBT, Govt. of India), Bharathidasan University, Tiruchirappalli, Tamil Nadu, India., India. <sup>2</sup>Department of Marine Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India., India. <sup>3</sup>Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India., India. <sup>4</sup>Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India, India</p>

12:55 - 13:05	<b>Conference closing-</b> Taraka Dale, Olaf Kruse Location: Grand ballroom, salons EF
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