



ALGÆ EUROPE 2022

13 - 15 • DECEMBER • ROME

ABSTRACT BOOK

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WELCOME LETTER EABA

Dear participants

Welcome to the 2022 edition of the EABA Conference: ALGAEUROPE.

On behalf of the EABA Steering Committee, the Scientific Committee, and the Industry Committee, we are pleased to welcome you this year in a face-to-face event.

It is easy to measure how much everyone likes the return to this configuration: we have received a record number of abstract proposals: 289.

It goes without saying that this craze is accompanied by an increase in the complexity of the conference organization. Meeting all the aspirations becomes a real challenge. We need to attract universities and all academics. We need to be attractive to algae producers, equipment manufacturers and a whole private world. We must appeal to the younger generation and be aware that algae cover a disparate world where we see macroalgae on the outside and microalgae on the inside. And where finally, we must be attentive to the geographical representativeness not to say geopolitical.

Thus, it is the return of "off" moments, coffee breaks and meetings around lunches or dinners. Conviviality and live negotiations. Real meetings leading to collaborations.

The EABA and DLG teams are returning to face-to-face meetings and are organizing this event in large part thanks to the quality of the speakers and the summaries received. This edition will also be the occasion to continue to organize some original round tables. A little more business and market-oriented exchanges in addition to the usual scientific sessions.

Finally, EABA intends to continue its close collaboration with the European Commission and the European strategy in general with a session dedicated to Europe. In this respect, the Commission has chosen to back up the EU4Algae tender meetings with the EABA conference by organizing the tender feedback day on the Monday preceding AlgaEurope.

Finally, as in other years, we would like to apologize for the abstracts that were not selected for oral presentation and insist on the fact that the choices made are only the mirror of the growing success of the AlgaEurope Conference.

After Florence (2014), Lisbon (2015), Madrid (2016), Berlin (2017), Amsterdam (2018), Paris (2019), 2020 and 2021 in video conference. At the end, here is Rome 2022 where we know we can meet in real.

See you there in December!



Jean-Paul Cadoret
President EABA



Vitor Verdelho
General Manager EABA

WELCOME LETTER DLG

Dear Algae professionals,

Hereby we warmly welcome you to the AlgaEurope 2022 Conference in Rome!

After having organized the last 2 editions online, we are very excited to be back in a live format as no online format can replace the power of meeting face-to-face.

We are delighted to welcome more than 400 delegates from 43 countries, with this high interest it is once again evident that AlgaEurope is one of the most global comprehensive conferences about science, technology and business in the Algae Biomass sector organized by industry professionals.

The program of AlgaEurope 2022 is a very comprehensive one with more than 90 speakers who will share their knowledge and expertise within the field of Algae. Some 17 sessions spread out over 3 days will give the participants a full update on the Algae industry.

This years' conference is again the result of a great cooperation between EABA - European Algae Biomass Association and DLG Benelux.

I would like to take this opportunity to thank all our speakers and chairs for their cooperation and enabling us to draft such a dedicated program addressing all relevant topics in the Algae industry. Furthermore, I would like to thank our sponsors; Algalif (Platinum Sponsor), SCHOTT (Silver Sponsor), Fluid Air (Silver Sponsor), Microphyt (Silver Sponsor), A4f (Silver Sponsor), Green Aqua (Silver Sponsor), Fermentalg (Bronze Sponsor), SANI Membranes (Bronze Sponsor) and Livegreen (Bronze Sponsor).

A special thanks goes out to EABA for their commitment, dedication and support, once again it has been a pleasure to cooperate, and the conference greatly benefits from their professionalism.

I wish all our delegates, speakers, sponsors and partners a great edition of AlgaEurope 2022 and we hope to see all again next year in Prague! Thank you for your commitment and support!



*Kuno Jacobs
Managing Director DLG Benelux B.V.*

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AlgaEurope 2022 Conference Program



ALGÆUROPE 2022
13 - 15 • DECEMBER • ROME

All times are mentioned in Central European Time (CET)

Conference Day 1 - Tuesday 13 December 2022

Registration: 08:00 am - 09:00 am

09:00 am - 09:25 am: Conference Opening

Cadoret, Jean-Paul (EABA President)

Verdelho, Vitor (EABA General Manager)

09:25 am - 09:30 am: Intro Morning Chairwoman

Nyvall Collen, Pi (Olmix)

09:30 am - 10:00 am: Keynote Speaker Day 1

Prof. Falkowski, Paul G. (Rutgers The State University of New Jersey): The bottom line: The cost of light

10:00 am - 11:00 am: Session 1: Seaweed sources and applications

10:00 am - 10:15 am: Jiménez González, Camila (University of Vigo): Chondrus crispus as a potential biomass for a green biorefinery: proteins, hydrocolloids and other bio-compounds

10:15 am - 10:30 am: Camarão, Bárbara (University of Coimbra): Seaweed-based biostimulant – potential for seed germination and effect of seasonality

10:30 am - 10:45 am: Damitha Bandara, Chaturangi (Uva Wellassa University Sri Lanka): Determination of anti-microbial and anti-diabetic compounds from crude extract of red seaweed, *Kappaphycus alvarezii*

10:45 am - 11:00 am: Weiss, Ben (Woods Hole Oceanographic Institution): Rapid Out-Planting of Seaweed Grow Lines

11:00 am - 11:30 am: Coffee Break

11:30 am - 12:00 pm: Session 2: Process

11:30 am - 11:45 am: Di Caprio, Fabrizio (University Sapienza di Roma): Control of bacterial contamination in microalgae cultures integrated with cheese whey wastewater treatment by applying feast and famine regime

11:45 am - 12:00 pm: Enmak, Prayoon (Newcastle University): Process intensification for low-cost microalgae harvesting by using continuous foam flotation technique

12:00 pm - 12:30 pm: Special Session

Tribute to Prof. Mario Tredici (Late EABA President and Founder)

12:30 pm - 02:00 pm: Lunch Break

02:00 pm - 02:05 pm: Intro Afternoon Chairwoman

Rodolfi, Liliana (University of Florence, Department of Agriculture, Food, Environment and Forestry - DAGRI)

02:05 pm - 02:15 pm: Algalif - Sponsored Presentation

Stefánsson, Tryggvi: Algalif – How did we get here and where are we going?

02:15 pm - 03:45 pm: Session 3: Physiology

02:15 pm - 02:30 pm: Gallardo Rodríguez, Juan José (University of Almería): CFD-aided determination of shear stress thresholds in sensitive microalgae using shake flasks

02:30 pm - 02:45 pm: Bezzo, Fabrizio (University of Padova): DigitAlgaesation: A knowledge-based training network for digitalisation of photosynthetic bioprocesses

02:45 pm - 03:00 pm: Guerra, Inês (Allmicroalgae/University of Algarve): Growth, size, and biochemical evaluation of *Arthrospira platensis* cultivated in tubular photobioreactors driven by a centrifugal pump

03:00 pm - 03:15 pm: Van Oossanen, Sabine (Wageningen University & Research): Putting algae on the map: Genome-scale metabolic modeling of *Nannochloropsis* for improved lipid production

03:15 pm - 03:30 pm: Lopes, Filipa (CentraleSupélec): Microalgae-biofilm as a source of bioactive compounds

03:30 pm - 03:45 pm: Kriechbaum, Ricarda (Technical University Vienna): Potential of Lignocellulosic Waste as Substrate for Microalgal Cultivation

03:45 pm - 04:00 pm: SANI Membranes - Sponsored Presentation

Hjelmsmark, Henrik: Vibro Filtration for harvesting, concentration and refinery

04:00 pm - 04:30 pm: Coffee Break

04:30 pm - 05:00 pm: Company Presentations

04:30 pm - 04:45 pm:

Busch-Larsen, Henrik (Algiecel)

Hazewinkel, Sander (Lgem)

Lizzul, Marco (Variconacqua)

04:45 pm - 05:00 pm:

Kaplan, Claude (Kuehnle AgroSystems)

Boelens, Pieter (Liqoflux)

Goudeau, Paul (Synoxis)

05:00 pm - 06:00 pm: Session 4: Europe and the World

05:00 pm - 05:15 pm: Doumeizel, Vincent (United Nations Global Compact / Lloyd's Register Foundation): The Seaweed Manifesto and the new Safe Seaweed Coalition, working together on global regulations to enable collaboration in this emerging sector

05:15 pm - 05:30 pm: Stulgis, Maris (European Commission): EU Algae Initiative

05:30 pm - 05:45 pm: Maragna, Laura (Tender EU4Algae): EU4Algae Stakeholders Forum – Making change together

05:45 pm - 06:00 pm: Jagot, Charlotte (EMFAF): EMFAF portfolio of projects on algae and blue bioeconomy

06:00 pm - 07:00 pm: Controversis

Session Chairman: Navalho, João (Necton)

Topic: Algae and the real world

07:00 pm: Closure of the Conference Day

Cadoret, Jean-Paul (EABA President)

Verdelho, Vitor (EABA General Manager)

08:00 pm - 10:30 pm: Conference Dinner

Conference Day 2 - Wednesday 14 December 2022

09:00 am - 09:05 am: Conference Opening

Cadoret, Jean-Paul (EABA President)
Verdelho, Vitor (EABA General Manager)

09:05 am - 09:10 am: Intro Morning Chairwoman

Arvaniti, Efthalia (SUBMARINER Network)

09:10 am - 09:40 am: Keynote Speaker Day 2

Prof. Boussiba, Sammy (Microalgae Biotechnology - Ben-Gurion University of the Negev):
Astaxanthin the king of Carotenoids and it's path in Nature

09:40 am - 10:55 am: Session 5: Food

09:40 am - 09:55 am: Monino Fernandez, Pedro (Wageningen University & Research): From the hot springs to the table: Scaling up mixotrophic cultivation of *Galdieria sulphuraria*

09:55 am - 10:10 am: Villaró, Silvia (University of Almeria): Production of *Arthrospira platensis* using pilot-scale raceway reactors and characterization of the nutritional, bioactive, and techno-functional properties of the biomass

10:10 am - 10:25 am: Oliveira, Sónia (School of Agriculture University of Lisbon/Ulisboa): Using 3D printing technology to develop microalgae-based snacks: Nutrition and sensory impact

10:25 am - 10:40 am: Demets, Robbe (KU Leuven KULAK): Antioxidative capacity of microalgal carotenoids for stabilizing n-3 LC-PUFA rich oil: initial quantity is key

10:40 am - 10:55 am: Bar Gil, Amikam (Yemoja Ltd): Algae based Blood substitute enriched with vitamin B-12. A complete solution for the plant-based alternatives

10:55 am - 11:25 am: Coffee Break

11:25 am - 12:25 pm: Session 5: Food

11:25 am - 11:40 am: Infante, Carlos (Fitoplancto Marino, S.L.): TetraSOD®, a unique marine microalgae ingredient: an overview of main outputs in pre-clinical and clinical trials

11:40 am - 11:55 am: Alemán Vega, Monserrat (Instituto Tecnológico de Canarias): Long-term pilot-scale cultivation of *Arthrospira platensis* in seawater: Strategies for the production of alternative protein sources and high-value compounds while maximizing hydric efficiency

11:55 am - 12:10 pm: Kurpan, Daniel (University of Milan): A 2-step serial membrane filtration for the extraction and purification of phycocyanin from *Arthrospira platensis*

12:10 pm - 12:25 pm: Boskovic Cabrol, Marija (University of Padua): Nutritional properties of frankfurters with added chlorophyll-deficient *Chlorella vulgaris* mutants

12:25 pm - 12:35 pm: Algalif - Sponsored Presentation

Jessen, Jan Eric: Future potential of microalgae biotechnology

12:35 pm - 02:10 pm: Lunch Break

02:10 pm - 02:15 pm: Intro Afternoon Chairman

02:15 pm - 03:30 pm: Session 6: Biorefinery

02:15 pm - 02:30 pm: Cheel, José (Institute of Microbiology of the Czech Academy of Sciences, Centre Algatech): Separation of eicosapentaenoic acid from the diatom *Nanofrustulum shiloi* via two-step high performance countercurrent chromatography

02:30 pm - 02:45 pm: Costa, Luis (A4F - Algae for Future): From wastewater to biojetfuel: a circular economy system using microalgae for wastewater bioremediation and raw material for biojetfuel through hydrothermal liquefaction

02:45 pm - 03:00 pm: Marchal, Luc (Nantes University): Eco-design of a downstream process for enriched fucoxanthin production from *Tisochrysis lutea*

03:00 pm - 03:15 pm: Madugu, Fatima (University of Manchester): Enhanced cultivation strategy for industrial scale algae-based biorefineries

03:15 pm - 03:30 pm: Kazbar, Antoinette (Wageningen University & Research): Multi-product biorefinery of Seaweed using green solvents

03:30 pm - 03:40 pm: Microphyt: Sponsored Presentation

Maury, Jonathan: From microalgae to the next generation of natural ingredients: focus on Microphyt expertise

03:40 pm - 04:15 pm: Coffee Break

04:15 pm - 05:00 pm: Session 7: Feed

04:15 pm - 04:30 pm: Khozin-Goldberg, Inna (Ben Gurion University of the Negev): Microalgae as sustainable and health-promoting agents in aquaculture

04:30 pm - 04:45 pm: Štěřbová (former: Ranglová), Karolína (Institute of Microbiology of the Czech Academy of Sciences, Centre Algatech): Microalgae as a feed improve the survival rate and vitality of Pikeperch (*Sander Lucioperca*) larvae

04:45 pm - 05:00 pm: Guiheneuf, Freddy (Inalve): Biofilm-based production of marine microalgae as live feeds for the aquaculture industry

05:00 pm - 05:45 pm: Session 8: Biostimulant

05:00 pm - 05:15 pm: Alvarez-Gil, Maria (Neoalgae Micro Seaweeds products): Life algar-bbe project: Results in microalgae application as biostimulant

05:15 pm - 05:30 pm: Schüler, Lisa M. (GreenCoLab): Novel strains of *scenedesmus* sp. as a potential source for agricultural applications

05:30 pm - 05:45 pm: Gitau, Margaret (Biological Research Centre): Microalgae promotes plant growth and primes plants for response to abiotic stress

05:45 pm - 05:55 pm: Fluid Air - Sponsored Presentation

Beaupeux, Elodie: Gentle drying process for thermosensitive compounds

05:55 - 06:55 pm: Session 9: Genetics

05:55 pm - 06:10 pm: D'Adamo, Sarah (Wageningen University & Research): Genetic engineering tools and approaches for understanding and revising lipid metabolism in the microalga *N. oceanica*

06:10 pm - 06:25 pm: Mokakabye, Ngokoana (University of Cape Town): Recombinant expression of Thermostable Phycocyanin in *Spirulina*

06:25 pm - 06:40 pm: Betterle, Nico (University of Verona): Engineering of the recently-discovered *Synechococcus* PCC 11901, a fast-growing cyanobacteria, for the synthesis of high added-value carotenoids

06:40 pm - 06:55 pm: Kichouh Aiadi, Salim (University of Almeria): Exposure of a marine dinoflagellate microalgae to epigenetic

06:55 pm: Closure of the Conference Day

Cadoret, Jean-Paul (EABA President)

Verdelho, Vitor (EABA General Manager)

08:30 pm - 10:30 pm: The Mentor's Evening

Moderator: Cadoret, Jean-Paul (EABA President)

Sommer Ferreira, Bruno (Biotrend SA)

Sassi, Jean Francois (CEA - Commissariat a l'Energie Atomique et aux Energies Alternatives)

Reinhardt, Robert (Algen, Algal Technology Centre, LLC)

Raymundo, Anabela (University of Lisbon)

Pruvost, Jeremy (GEPEA - Nantes University)

Nyvall Collen, Pi (Olmix)

Hennequart, Franck (ALGAIA)

Griffths, Hywel (Fermentalg)

Fuentes Grünewald, Claudio (King Abdullah University of Science and Technology)

Benemann, John (MicroBio Engineering Inc)

Barbosa, Maria (Wageningen University & Research)

Acien, Gabriel (University of Almeria)

09:00 am - 09:05 am: Opening Day 3

Cadoret, Jean-Paul (EABA President)
Verdelho, Vitor (EABA General Manager)

09:05 am - 09:10 am: Intro Morning Chairman

Verdelho, Vitor (EABA General Manager)

09:10 am - 09:40 am: Keynote Speaker Day 3

Prof. Smith, Alison (University of Cambridge): How can we exploit the biodiversity of algae for biotechnology?

09:40 am - 10:55 am: Session 10: Original

09:40 am - 09:55 am: Ende, Stephan (Alfred-Wegener-Institute): New Microalgae media formulated with completely recycled phosphorus originating from agricultural sidestream

09:55 am - 10:10 am: Pozo-Dengra, Joaquin (Biorizon Biotech): EMFF- ALGAENAUTS Project: Eco-friendly and sustainable new family of biopesticides based on microalgae

10:10 am - 10:25 am: Berden Zrimec, Maja (Algen, Algal Technology Centre, LLC): Relevance of zoosporic parasites in aquatic systems (Cost ParAqua)

10:25 am - 10:40 am: Nascimento, Francisco (iBET - Institute of Experimental Biology and Technology): Insights into the role of the microbiome in microalgae growth and development: Microbiome recruitment and assembly dynamics in *Nannochloropsis oceanica* and *Phaeodactylum tricorutum* cultivations

10:40 am - 10:55 am: Parreira, Celina (A4F - Algae for Future): Extratoteca – Microalgae Extracts for High Value Products

10:55 am - 11:25 am: Coffee Break

11:25 am - 12:25 pm: Session 11: Process B

11:25 am - 11:40 am: Davila, Javier (Universidad de Sevilla): Time scales of the use of light in photobioreactors

11:40 am - 11:55 am: Castejón, Natalia (University of Vienna): Unlocking the lipidome of *Nannochloropsis gaditana*: a source of high-value lipids with potential biological activities

11:55 am - 12:10 pm: Silva, Samara (University of Porto & Polytechnic Institute of Bragança): C-phycoerythrin extraction using spirulina (*Arthrospira platensis*) biomass immobilization in calcium-alginate beads

12:10 pm - 12:25 pm: Manoel, João (Institute of Microbiology, Centrum Algatech) - Deciphering the communication between Algae and Bacteria

12:25 pm - 12:35 pm: SCHOTT - Sponsored Presentation

Wintersteller, Fritz: Why Tubular Glass Photobioreactors?

12:35 pm - 02:00 pm: Lunch Break

02:00 pm - 02:05 pm: Intro Afternoon Chairman

Unamunzaga, Carlos (Fitoplancton Marino)

02:05 pm - 02:15 pm: A4F- Sponsored Presentation

Costa, Luís: Replicable large scale exploitation of algae in a circular economy symbiosis with other industries

02:15 pm - 03:00 pm: Session 12: Transversal

02:15 pm - 02:30 pm: Leão, Susana (LEITAT): REDWine LCA: CO₂ from wine fermentation to produce *Chlorella* as feedstock for the industry

02:30 pm - 02:45 pm: Braud, Léa (University College Dublin): Improving transparency in life cycle assessment of algae systems: A case study on the spirulina biorefinery

02:45 pm - 03:00 pm: Speranza, Lais (GreenCoLab): LCA of commercial scale *Tetraselmis* sp. production

03:00 pm - 04:15 pm: Session 13: Bioremediation

03:00 pm - 03:15 pm: Beigbeder, Jean-Baptiste (APESA - Association for the Environment and Safety in Aquitaine): Coupling anaerobic digestion and microalgal cultivation for efficient nutrients and inorganic carbon uptake

03:15 pm - 03:30 pm: Costa, Margarida (NIVA - Norwegian Institute for Water Research): Filamentous microalgae as tertiary wastewater treatment

03:30 pm - 03:45 pm: Futó, Peter (Albitech Biotechnology Ltd.): Comparative analysis of soil degradation and soil structure in croplands affected by erosion and soil dehydration treated with a biological soil crust forming algal culture

03:45 pm - 04:00 pm: Carneiro, Mariana (Necton): Reusing Effluents from Agriculture to unlock the potential of Microalgae (REALM)

04:00 pm - 04:15 pm: Casagli, Francesca (INRIA): Outdoor N₂O emissions measurements in algae-bacteria systems guided by modelling

04:15 pm - 04:45 pm: Coffee Break

04:45 pm - 05:45 pm: Session 14: Biomaterial

04:45 pm - 05:00 pm: Rizzo, Arianna (YAS - Young Algaeneers Symposium): YAS, the next Algaeneers generation

05:00 pm - 05:15 pm: Carletti, Marta (Ben-Gurion University of the Negev): Effective conversion of atmospheric nitrogen into cyanophycin: mutagenesis and optimization of cultivation of *Nostoc* sp. PCC 7120

05:15 pm - 05:30 pm: Gao, Fengzheng (Wageningen University & Research): Oxygen production from 3D bioprinted living microalgae for tissue engineering

05:30 pm - 05:45 pm: Van Miert, Sabine (Thomas More University of Applied Sciences) - Pilot-scale Cultivation of *Chloromonas typhlos* in a photobioreactor

05:45 pm - 06:00 pm: Closure of the Conference

Cadoret, Jean-Paul (EABA President)

Verdelho, Vitor (EABA General Manager)

NUTRITIONAL PROPERTIES OF FRANKFURTERS WITH ADDED CHLOROPHYLL-DEFICIENT *CHLORELLA VULGARIS* MUTANTS

Boskovic Cabrol M.^{1,2}

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*4 University of Belgrade, Faculty of Agriculture, Department of Animal Source Food Technology,
Serbia*

*5 Universidade de Lisboa, LEAF—Linking Landscape, Environment, Agriculture and Food, Instituto
Superior de Agronomia, Portugal*

ABSTRACT

Microalgae have been proven to be a promising functional and sustainable ingredient in different food matrices, including some meat products [1,2,3,4,5,6]. However, the coloring of meat products containing microalgae *Spirulina maxima* and *Chlorella vulgaris* in a dark green could lead to consumers' rejection of these products. To overcome the color barrier, we used white and yellow chlorophyll-deficient *C. vulgaris* mutants, commercially available (Honey Chlorella), in designing acceptable products. The study aimed to analyze the nutritional composition (chemical, fatty, amino acid, and mineral composition) of pork frankfurters enriched with 3% of yellow and white *C. vulgaris*. The inclusion of these microalgae resulted in a significant ($P < 0.05$) increase in protein (0.8- 0.85%) and ash, while moisture and fat content decreased. Following current Regulation (EC) No 1924/2006 and the amended Commission Regulation (EU) No 1047/2012, the "high protein" content claims can be assumed for microalgae enriched frankfurters. Carbohydrates increased with microalgae addition due to the increase in fibers. The sum of total essential amino acids and essential/nonessential amino acid ratio was higher ($P < 0.05$) in groups containing microalgae. In addition, white *C. vulgaris* samples had better Lys:Arg ratio compared to the control and honey *C. vulgaris* groups. Frankfurters with microalgae had significantly more ($P < 0.05$) n-3 PUFAs, mainly alfa-linolenic, gamma-linolenic, and eicosatrienoic acid, along with significantly lower amounts ($P < 0.05$) of SFAs, mainly palmitic and stearic acid. *C. vulgaris* mutants resulted in increased total PUFA, lower PUFA/SFA ratio, n-6/n-3 ratios, lower atherogenic index (AI), and thrombogenicity index (IT) compared to reference frankfurters. *C. vulgaris* inclusion in formulations increased ($P < 0.05$) Na, K, Ca, P and Zn, but lowered Mn compared to control frankfurters. In addition, frankfurters fortified with white *C. vulgaris* resulted in higher iron content and lower copper content compared to the control. Moreover, microalgae enrichment lowered the Na/K ratio by 34.74% and 16.42%, respectively, resulting in a significantly better ratio closer to the recommended one. Using microalgae to create innovative meat products can bring potential health benefits to consumers due to the enhanced nutritional profile of these products.

Keywords

Frankfurters, microalgae, PUFA, minerals, amino acids

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1. Marti-Quijal, F. J., Zamuz, S., Tomašević, I., Gómez, B., Rocchetti, G., Lucini, L., Remizef, F., Barba, J. F., & Lorenzo, J. M. (2019a). Influence of different sources of vegetable, whey and microalgae proteins on the physicochemical properties and amino acid profile of fresh pork sausages. *LWT*, 110, 316-323. <https://doi.org/10.1016/j.lwt.2019.04.097>

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3. Thirumdas, R., Brnčić, M., Brnčić, S. R., Barba, F. J., Gálvez, F., Zamuz, S., Lacomba, R., & Lorenzo, J. M. (2018). Evaluating the impact of vegetal and microalgae protein sources on proximate composition, amino acid profile, and physicochemical properties of fermented Spanish “chorizo” sausages. *Journal of Food Processing and Preservation*, 42, e13817. <https://doi.org/10.1111/jfpp.13817>
4. Žugčić, T., Abdelkebir, R., Barba, F. J., Rezek-Jambrak, A., Gálvez, F., Zamuz, S., Granato, D., & Lorenzo, J. M. (2018). Effects of pulses and microalgal proteins on quality traits of beef patties. *Journal of Food Science and Technology*, 55, 4544-4553. <https://doi.org/10.1007/s13197-018-3390-9>
5. Zamuz, S., Purriños, L., Galvez, F., Zdolec, N., Muchenje, V., Barba, F. J., & Lorenzo, J. M. (2019). Influence of the addition of different origin sources of protein on meat products sensory acceptance. *Journal of Food Processing and Preservation*, 43, e13940. <https://doi.org/10.1111/jfpp.13940>
6. Parniakov, O., Toepfl, S., Barba, F. J., Granato, D., Zamuz, S., Galvez, F., & Lorenzo, J. M. (2018). Impact of the soy protein replacement by legumes and algae based proteins on the quality of chicken rotti. *Journal of Food Science and Technology*, 55, 2552-2559. <https://doi.org/10.1007/s13197-018-3175-1>

SPEAKER INFORMATION



Marija Boskovic Cabrol

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BIOGRAPHY

Marija Boskovic Cabrol is a Senior Research Associate at the Department of Food Hygiene and Technology, Faculty of Veterinary Medicine, University of Belgrade, Serbia, and Marie Sklodowska Curie postdoctoral researcher at the Department of Agronomy, Animals, Food, Natural Resources and Environment, University of Padua, Italy. She obtained her Ph.D. at the University of Belgrade in Serbia, followed by postdoctoral studies at the Instituto Superior de Agronomia, University of Lisbon in Portugal. During her postdoctoral formation at LEAF (Linking Landscape, Environment, Agriculture and Food) department, she participated in works using microalgae as a sustainable protein source in animal feed and its impact on meat quality, nutritional profile, and *in vitro* digestibility of such meat. Marija Boskovic Cabrol is one of the scientific coordinators of the PhAgroWaste project, dedicated to repurposing agricultural waste by transforming it into added-value and functional products. She is the key investigator at the DeMyo project founded by the European Commission under MSC Action employing advanced methodologies based on omics platforms to understand the molecular mechanism involved in the development of novel emerging and unexplored myopathies such as spaghetti meat in broilers.

Over the following ten years she published more than 100 journals and conference papers and three book chapters about animal science, meat quality, safety, innovation and functional food.