

# CURRICULUM VITAE

## PERSONAL DETAILS

Name: Ing. Karolína Štěřbová, Ph.D.  
Birth surname: Ranglová  
Marital Status: Married  
Place and Date of Birth: Jindřichuv Hradec, Febr. 3, 1990  
Sex: Female  
Address: Záblatí 18, 379 01 Třeboň  
Czech Republic  
E-mail: [sterbova@alga.cz](mailto:sterbova@alga.cz)  
*h*-index: 16 (WOS)



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## EDUCATION

- 2017-2020 PhD study of Agricultural Biotechnology  
**University of South Bohemia**, Czech Republic  
Doctoral thesis: Cultivation, Monitoring and Application of Microalgae Cultures
- 2012-2014 MSc study of Chemistry of Natural Compounds  
**University of Chemistry and Technology Prague**  
Master thesis: Sulfuric compounds of *Tulbaghia* species
- 2009-2012 BSc study of Chemistry  
**University of South Bohemia**, Czech Republic  
Bachelor thesis: Sulfuric compounds of "sweet garlic" (*Tulbaghia violacea* Harv.)
- 2005-2009 Secondary Art School of Bechyně  
Graduated in Applied Chemistry - Analytical Chemistry

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## WORKING EXPERIENCES

- 2021 – present Postdoc  
Institute of Microbiology of the Czech Academy of Sciences, v.v.i.,  
Laboratory of Algal Biotechnology, Třeboň
- 2014 - 2020 Research assistant

Institute of Microbiology of the Czech Academy of Sciences, v.v.i.,  
Laboratory of Algal Biotechnology, Třeboň

- July 2013 Practise in Transfusion Department and Haematology, Hospital Jindřichův Hradec
  - June 2008 Practise in Production Laboratory, GEM Bohemia s.r.o., České Velenice
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### OTHER SKILLS

- Microsoft Office, SigmaPlot, Prism
  - English (B2)
  - Driving licence
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### PUBLICATIONS and BOOK CHAPTERS (In total 33+1??)

- **Ranglová K**, Krejčová P, Kubec R\* (2015) The effect of storage and processing on antimicrobial activity of *Tulbaghia violacea*. *S Afr J Bot* 97: 159-164 (IF = 1.244)
- Babaei A\*, **Ranglová K**, Malapascua JR, Mehrnia MR, Masojídek J (2017) The synergistic effect of Selenium (selenite,  $-SeO_3^{2-}$ ) dose and irradiance intensity in *Chlorella* cultures. *AMB Express*. 56 (IF = 1.719)
- Benavides AMS\*, Malapascua JR, **Ranglová K**, Masojídek J, Torzillo G (2017) Diurnal changes of photosynthesis and growth of *Arthrospira platensis* cultured in a thin-layer cascade and open pond. *Algal Res* 28:48-56 (IF = 3.745)
- Bednařík A\*, Kuta J, Vu DL, **Ranglová K**, Hrouzek P, Kanický V, Preisler, J (2018) Thin-layer chromatography combined with diode laser thermal vaporization inductively coupled plasma mass spectrometry for the determination of selenomethionine and selenocysteine in algae and yeast. *J Chromatogr A* 1533:199-207 (IF = 3.858; Q1)
- Vu DL\*, **Ranglová K**, Hájek J, Hrouzek, P (2018) Quantification of methionine and selenomethionine in biological samples using multiple reaction monitoring high performance liquid chromatography tandem mass spectrometry (MRM-HPLC-MS/MS). *J Chromatogr B* 1084: 36-44 (IF = 2.813; Q2)
- Vu DL\*, Saurav K, Mylenko M, **Ranglová K**, Kuta, J, Ewe D, Masojídek J, Hrouzek, P (2019) In vitro bioaccessibility of selenoamino acids from selenium (Se)-enriched *Chlorella vulgaris* biomass in comparison to selenized yeast; a Se-enriched food supplement; and Se-rich foods. *Food Chem* 279: 12-19 (IF = 6.306; Q1)

- Malapascua JR\*, **Ranglová K**, Masojídek, J (2019) Photosynthesis and growth kinetics of *Chlorella vulgaris* R-117 cultured in an internally LED-illuminated photobioreactor. *Photosynthetica* 1:103-112 (IF = 2.562; Q2)
- **Ranglová K\***, Lakatos GE, Camara Manoel JA, Grivalský T, Masojídek, J (2019) Rapid screening test to estimate temperature optima for microalgae growth using photosynthesis activity measurements. *Folia Microbiol.* 64:615-625. doi: 10.1007/s12223-019-00738-8 (IF = 1.730; Q3)
- Lakatos G\*, Kopecký J, Grivalský T, **Ranglová K**, Camara Manoel JA, Masojídek, J (2019) Bioethanol production from microalgae polysaccharides. *Folia Microbiol.* 64:627-644. doi: 10.1007/s12223-019-00732-0 (IF = 1.730; Q3)
- Grivalský T\*, **Ranglová K**, Camara Manoel JA, Lakatos G, Lhotský R, Masojídek J (2019): Development of thin-layer cascades for microalgae cultivation: milestones (review). *Folia Microbiol* 64: 603-614. doi: 10.1007/s12223-019-00739-7 (IF = 1.730; Q3)
- Mylenko M\*, Vu DL, Kuta J, **Ranglová K**, Kubáč D, Lakatos G, Caporgno MP, Manoel JA, Kopecký J, Masojídek J, Hrouzek P (2020) Selenium incorporation to amino acids in *Chlorella* cultures grown in phototrophic and heterotrophic regimes. *J Agric Food Chem* 12:1654-1665. doi: 10.1021/acs.jafc.9b06196 (IF = 5.279; Q1)
- Babaei, A\*, **Ranglová K**, Malapascua JR, Torzillo G, Shayegan J, Benavides AMS and Masojídek J (2020) Photobiochemical changes of *Chlorella* g120 culture during trophic conversion (metabolic pathway shift) from heterotrophic to photoautotrophic growth regime. *J Appl Phycol.* doi: 10.1007/s10811-020-02137-w (IF = 3.215; Q2)
- Bauer, L\*, **Ranglová, K**, Masojídek, J, Drosig, B, Meixner, K (2021) Digestate as sustainable nutrient source for microalgae-challenges and prospects. *Appl Sci.* doi: 10.3390/app11031056 (IF = 2.838; Q2)
- **Ranglová, K\***, Lakatos, GE, Manoel JAC, Grivalský, T, Estrella, FS, Fernandez, FGA, Molnar, Z, Ördög, V (2021) Growth, biostimulant and biopesticide activity of the MACC-1 *Chlorella* strain cultivated outdoors in inorganic medium and wastewater. *Algal Res.* doi: 10.1016/j.algal.2020.102136 (IF = 5.276; Q1)
- Rearte TA\*, Celis-Pla, PSM, Neori, A, Masojídek, J, Torzillo, G, Gomez-Serrano, C, Benavides, AMS, Alvarez-Gomez, F, Abdala-Diaz, RT, **Ranglová, K**, Caporgno, M, Massocato, TF, da Silva, FL, All Mahrouqui, H, Atzmüller, R, Figueroa, FL (2021) Photosynthetic performance of *Chlorella vulgaris* R117 mass culture is moderated by diurnal oxygen gradients in an outdoor thin layer cascade. *Algal Res.* doi: 10.1016/j.algal.2020.102176 (IF = 5.276; Q1)
- Masojídek, J\*, **Ranglová, K**, Lakatos, GE, Benavides, AMS, Torzillo, G (2021) Variables Governing Photosynthesis and Growth in Microalgae Mass Cultures. *Processes.* doi: 10.3390/pr9050820 (IF = 3.352; Q2)

- Lakatos, GE\*, **Ranglová, K**, Manoel, JC, Grivalský, T, Masojídek, J (2021) Photosynthetic monitoring techniques indicate maximum glycogen accumulation in nitrogen-limited *Synechocystis* sp. PCC 6803 culture. *Algal Res.* doi: 10.1016/j.algal.2021.102271 (IF = 5.276; Q1)
- Masojídek, J\*, **Ranglová, K**, Rearte, TA, Pla, PSMC, Torzillo, G, Benavides, AMS, Neori, A, Gomez, C, Alvarez-Gomez, F, Lukeš, M, Caporgno, MP, Abdala, R, Miazek, K, Massocato, TF, da Silva, JC, Atzmüller, R, Al Mahrouqui, H, Estrella, FS, Figueroa, FL (2021) Changes in photosynthesis, growth and biomass composition in outdoor *Chlorella* g120 culture during the metabolic shift from heterotrophic to phototrophic cultivation regime. *Algal Res.* doi: 10.1016/j.algal.2021.102303 (IF = 5.276; Q1)
- Carneiro, M\*, **Ranglová, K\***, Lakatos, GE, Manoel, JAC, Grivalský, T, Kozhan, DM, Toribio, A, Moreno, J, Otero, A, Varel, J, Malcata, FX, Estrella, FS, Acien-Fernandez, G, Molnar, Z, Ördög, V, Masojídek, J (2021) Growth and bioactivity of two chlorophyte (*Chlorella* and *Scenedesmus*) strains co-cultured outdoors in two different thin-layer units using municipal wastewater as a nutrient source. *Algal Res.* doi: 10.1016/j.algal.2021.102299 (IF = 5.276; Q1)
- Tena, FO\*, **Ranglová, K**, Kubáč, D, Steinweg, C, Thomson, C, Masojídek, J, Posten, C (2021) Characterization of an aerated submerged hollow fiber ultrafiltration device for efficient microalgae harvesting. *Eng Life Sci.* doi: 10.1002/elsc.202100052 (Q2)
- Celis-Pla\*, PSM, Rearte, TA, Neori, A, Masojídek, J, Bonomi-Barufi, J, Alvarez-Gomez, F, **Ranglová, K**, da Silva, JC, Abdala, R, Gomez, C, Caporgno, M, Torzillo, G, Benavides, AMS, Ralph, PJ, Massocato, FL, Atzmüller, R, Vega, J, Chavez, P, Figueroa, FL (2021) A new approach for cultivating the cyanobacterium *Nostoc calcicola* (MACC-612) to produce biomass and bioactive compounds using a thin-layer raceway pond. *Algal Res.* doi: 10.1016/j.algal.2021.102421 (IF = 5.276; Q1)
- Torzillo G\*, Chini Zittelli G, Silva Benavides AM, **Ranglová K**, Masojídek J (2021) Culturing of microalgae for food applications. In: Lafarga T, Acien Fernandez FG (eds) *Cultured Microalgae for the Food Industry, Current and Potential Applications*. 1st Edition, Elsevier, p. 1-48, 376 p. <https://doi.org/...2-2>
- Mittermair S\*, Lakatos G, Nicoletti C, **Ranglová K**, Camara Manoel J, Grivalský T, Malikuly Kozhan D, Masojídek J, Richter J (2020) Impact of glgA1, glgA2 or glgC Overexpression on Growth and Glycogen Production in *Synechocystis* sp. PCC 6803. *J. Biotech.* doi: 10.1016/j.jbiotec.2021.08.012 (IF = 3.595; Q2)
- Lucakova, S, Branyikova, I\*, Kovacicova, S, Masojídek, J, Ranglová, K, Branyik, T, Ruzicka, MC (2022) Continuous electrocoagulation of *Chlorella vulgaris* in a novel channel-flow reactor: A pilot-scale harvesting study. *Bioresour. Technol.* 351 doi: 10.1016/j.biortech.2022.126996 (IF = 11.4; Q1)
- Grivalský, T\*, **Ranglová, K**, Lakatos, GE, Manoel, JAC, Černá, T, Barceló-Villalobos, M, Suárez Estrella, F, Ördög, V, Masojídek, J (2022) Bioactivity assessment, micropollutant and nutrient removal ability of *Tetradesmus obliquus* cultivated outdoors in centrate from urban wastewater. *J. Appl. Phycol.* doi: 10.1007/s10811-022-02828-6 (IF = 3.56; Q2)

- Masojídek, J\*, Gómez-Serrano, C, **Ranglová, K**, Cicchi, B, Encinas Bogeat, Á, Manoel, JAC, Sanchez Zurano, A, Silva Benavides, AM, Barceló-Villalobos, M, Robles Carnero, VA, Ördög, V, Gómez Pinchetti, JL, Vörös, L, Arbib, Z, Rogalla, F, Torzillo, G, Lopez Figueroa, F, Acién-Fernández, FG (2022) Photosynthesis Monitoring in Microalgae Cultures Grown on Municipal Wastewater as a Nutrient Source in Large-Scale Outdoor Bioreactor. *Biology* 11, 1380. doi: 10.3390/biology11101380 (IF = 4.2; Q2)
- Masojídek, J\*, **Ranglová, K**, Bečková, M, Torzillo, G, Knoppová, J, Silva Benavides, AM, Charvát, F, Komenda, J (2022) Outdoor photoacclimation of two *Chlorella* strains characterized by normal and reduced light-harvesting antennas: photosynthetic activity and chlorophyll-protein organization. *J Appl Phycol*. doi: 10.1007/s10811-022-02803-1 (Q2)
- Chini Zitelli, G, Silva Benavides, AM, Silovic, T, **Ranglová, K**, Masojídek, J, Cicchi, B, Faraloni, C, Touloupakis, E, Torzillo, G\* (2022) Productivity and nutrient removal by the microalgae *Chlamydomodium fusiforme* grown outdoors in BG-11 and piggery wastewater. *Front Mar Sci*. doi: 10.3389/fmars.2022.1043123 (IF=5.247; Q1)
- **Ranglová, K\***, Bureš, M, Câmara Manoel, J, Lakatos, GE, Masojídek, J (2022) Efficient microalgae feed production for fish hatcheries using an annular column photobioreactor characterized by a short light path and central LED illumination. *J. Appl. Phycol*. doi: 10.1016/j.jbiotec.2021.08.012 (Q2)
- Lakatos, GE\*, **Ranglová, K**, Bárcenas-Pérez, D, Grivalský, T, Manoel, JA, Mylenko, M, Cheel, J, Nyári, J, Wirth, R, Kovács, KL, Kopecký, J, Nedbalová, L, Masojídek, J (2023) Cold-adapted culturing of microalga *Monoraphidium* sp. in thin-layer raceway pond for biomass production. *Algal Res*. doi: 10.1016/j.algal.2022.102926 (Q1)
- Clagnan, E\*, Dell'Orto, M, **Štěrbová, K**, Grivalský, T, Manoel, JA, Masojídek, J, D'Imporzano, G, Acién-Fernández, G, Adani, F (2023) Impact of photobioreactor design on microalgae-bacteria communities grown on wastewater: Differences between thin-layer cascade and thin-layer raceway ponds. *Bioresour Technol*. doi: 10.1016/j.biortech.2023.128781 (Q1)
- **Štěrbová, K\***, Câmara Manoel, J, Lakatos, GE, Grivalský, T, Masojídek, J (2023) Microalgae as an aquaculture feed produced in a short light-path annular column photobioreactor. *J. Appl. Phycol*. doi: 10.1007/s10811-023-02928-x (Q2)
- Masojídek, J\*, **Štěrbová, K**, Gómez Serrano, C, da Silva, JC, Grivalský, T, Figueroa, FL, Acién Fernández, FG (2023) Photosynthetic performance of *Chlamydomodium* (Chlorophyta) cultures grown in outdoor bioreactors. *Appl. Microbiol. Biotechnol*. doi: 10.1007/s00253-023-12428-0 (Q1)
- Ferreira, A\*, Figueiredo, D, Ferreira, F, Marujo, A, Bastos, CRV, Martin-Atanes, G, Ribeiro, B, **Štěrbová, K**, Marques dos Santos, C, Acién, FG, Gouveia, L (2023) From piggery wastewater to wheat using microalgae towards zero waste. *Algal Res*. doi: 10.1016/j.algal.2023.103153 (Q1)

- Torzillo, G\*, Álvarez-Gómez, F. Celis-Plá, PSM, Rearte, A, Gómez-Serrano, C, Silva Benavides, AM, **Štěrbová, K**, Caporgno, M, Touloupakis, E, Masojídek, J, Figueroa, FL (2023) Photosynthesis and biochemical characterization of the green alga *Chlamydomodium fusiforme* (Chlorophyta) grown in a thin-layer cascade. *Photochem. Photobiol. Sci.* doi: 0.1007/s43630-023-00444-y (Q2)
- Masojídek, J\*, Lhotský, R, **Štěrbová, K**, Chini Zittelli, G, Torzillo, G (2023) Solar bioreactors used for the industrial production of microalgae. *Appl. Microbiol. Biotechnol.* doi: 0.1007/s00253-023-12733-8 (Q1)
- Grivalský, T\*, Lakatos, GE, **Štěrbová, K**, Manoel, JOC, Beloša, R, Divoká, P, Kopp, J, Kriechbaum, R, Spadiut, O, Zwirtzitz, A, Trenzinger, K, Masojídek, J (2024) Poly- $\beta$ -hydroxybutyrate production by *Synechocystis* MT\_a24 in a raceway pond using urban wastewater. *Appl. Microbiol. Biotechnol.* doi: 0.1007/s00253-023-12924-3
- Yanes-Roca, C\*, **Štěrbová, K**, Mráz, J, Veselý, L, Malinovskyi, O, Pěnka, T, Masojídek, J, Policar, T (2024) Live feed enrichments using microalgae for pikeperch (*Sander lucioperca*) larval culture. *Journal of the World Aquaculture Society* 55(2), e13059.
- Masojídek, J\*, **Štěrbová, K**, Robles Carnero, VA, Torzillo, G, Gómez-Serrano, C, Cicchi, B, Camara Manoel, JA, Benavides, AMS, Barceló-Villalobos, M, Pozo Dengra, J, Ördög, V, Pinchetti, JLG, Fernández, FGA, Figueroa, FL\* (2024) Photosynthetic Activity Measured In Situ in Microalgae Cultures Grown in Pilot-Scale Raceway Ponds. *Plants* 13(23), 3376.
- \*corresponding author

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## PATENTS

- CZ308652 B6 Kmen mikrořasy *Parachlorella kessleri* HY1 pro produkci luteinu a použití tohoto kmene pro průmyslovou produkci luteinu; *Parachlorella kessleri* HY1 microalgae strain for lutein production and use of this strain for industrial lutein production (2020) – patent originators: Kopecký, J, Masojídek, J, Kubáč, D, Hrouzek, P, Lhotský, R, **Ranglová, K**, Pekařová, S.

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## IMPORTANT TALKS

- Microalgae Strains with Potencial Bipesticide Activity (2<sup>nd</sup> EUAlgae Workshop of Algae Bioproducts for Early Career Investigators COST1408, **Thessaloniki, Greece**)
- Microalgae Strains with Potencial Bipesticide Activity (Growth, Photosynthetic Performance, Bioactivity), World Biotechnology, Food and Agriculture Conference, **Stockholm, Sweden**
- Production of Microalgae with Biopesticide Activity (Symposium on Microalgal Biotechnology in Agriculture, **Třeboň, Czech Republic**)

- Networking Session on European Project of Centre ALGATECH (Annual meeting of SABANA Project, **Las Palmas, Gran Canaria**)
- Rapid screening test to estimate temperature optima for microalgae growth using photosynthetic activity measurements (EUALGAE Final Conference – European Recent Advances in the Microalgae Field, **Madrid, Spain**)
- Biopesticide Activity of *Chlorella* sp. strain cultured in Pilot Scale (Algae Biomass Summit, Orlando, **Florida, USA**)
- Outdoor Pilot Scale Cultivation in Wastewater and Bioactivity of Selected Microalgae Strains (Annual meeting of Sabana project, **Milan, Italy**)
- Sabana project (Interreg Algenetics Symposium, **Wels, Austria**)
- Algae4Fish – new project introduction (Regular seminars at Centre Algatech, **Třeboň, Czech republic**)
- Microalgae as a feed improve the survival rate and vitality of pikeperch (*Sander lucioperca*) larvae (AlgaEurope 2022, **Milan, Italy**)

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## POSTERS

- Malapascua JRF, Sergejevová M, **Ranglová K** and Masojídek J. Photosynthesis, Growth & Lipid Accumulation in the Microalga *Trachydiscus minutus* (Eustigmatophyceae), Algae Biomass Summit 2014, San Diego (California).
- **Ranglová K**, Malapascua JR, Benavides, AMS, Masojídek J and Torzillo G. Diurnal Changes of Photosynthesis of *Arthrospira platensis* Grown in Inclined Thin-layer Platforms and Open Ponds, 7th Symposium on “Microalgae and Seaweed Products in Plant/soil Systems” 2015, Mosonmagyaróvár, Hungary.
- **Ranglová K**, Malapascua JR, Benavides AMS, Masojídek, J and Torzillo G. Diurnal Changes of Photosynthesis of *Arthrospira platensis* Grown in Inclined Thin-layer Platforms and Open Ponds, PHOTOTECH 2015 Towards a photosynthesis-biobased economy, 2015, Rome
- Caporgno MP, **Ranglová K** and Masojídek J. Microalgae strains with potential biostimulating and biopesticide activity: evaluation of photosynthetic performance, 8<sup>th</sup> Symposium on “Microalgae and Seaweed Products in Plant/soil Systems” 2017, Mosonmagyaróvár, Hungary.
- Lakatos G, Caporgno MP, Figuerova FL, **Ranglová K**, Gómez C, Rearte A, Celis-Plá P, Benavides AM, Torzillo G, Abdala R, Alvarez-Gómez F. Outdoor cultivation of *Nostoc piscinale* in thin-layer recaway pond, ALGAEUROPE 2017, Berlin, Germany.
- Grivalský T, **Ranglová K**, Lakatos GE and Masojídek J. Photosynthesis Based Pre-screening to Determine Suitable Growth Temperature of Microalgae Strains, YAS 2018, Oban, Scotland.
- Grivalský T, **Ranglová K**, Manoel JAC., Lakatos GE, Saurav K and Masojídek J. Cultivation and characterization of several microalgae: from laboratory to pilot scale cultivation, 2<sup>nd</sup> Nordic Algae Symposium 2019 – NAS 2019, Oslo, Norway.

- **Ranglová K**, Lakatos G, Camara Manoel JA, Estrella SF, Acién FG, Urajová P, Macho M, Ördög V and Masojídek J. Physiological performance and bioactivity of *Chlorella* grown outdoors in thin-layer raceway pond, 9th Symposium on “Microalgae and Seaweed Products in Plant/soil Systems” 2019, Mosonmagyaróvár, Hungary.
  - Grivalský T, **Ranglová K**, Camara Manoel JA, Lakatos G, Lukeš M, Oberleitner S, Gundolf R, Richter J and Masojídek J. Genetically modified *Synechocystis* PCC 6803 for starch and bioethanol production, 9th Symposium on “Microalgae and Seaweed Products in Plant/soil Systems” 2019, Mosonmagyaróvár, Hungary.
  - Camara Manoel JA, Ranglová K, Grivalský T, Lakatos G, Ördög V and Masojídek J. Photosynthetic performance of microalgae grown in laboratory PBRs in centrate at light/dark and continuous illumination regime, 9th Symposium on “Microalgae and Seaweed Products in Plant/soil Systems” 2019, Mosonmagyaróvár, Hungary.
  - **Ranglová K**, Lakatos G, Grivalský T, Camara Manoel JA, Estrella SF, Acién FG, Urajová P and Masojídek J. Biostimulant and Biopesticide Activity of *Chlorella* sp. Cultured in Pilot Scale, Algae Biomass Organization, Orlando-Florida, USA (**research award for the 2<sup>nd</sup> place in Biology Division Poster**)
  - Grivalský, T, Beloša, R, **Ranglová, K**, Manoel, JC, Lakatos, G, Masojídek, J. Ecologically Innovative PHB Production Technology Using Cyanobacteria Growing in Wastewater, AlgaEurope 2022, Rome, Italy.
  - Masojídek, J, **Štěrbová, K**, Bečková, M, Torzillo, G, Knoppová, J, Benavídes, AMS, Komenda, J. Outdoor Photoacclimation of Two *Chlorella* Strains Characterised by Normal and Reduced Light-harvesting Antennas: Photosynthetic Activity and Chlorophyll-Protein Organization. AlgaEurope 2022, Rome, Italy.
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## FIELD EXPERIENCES

- 10-17 August 2014 Consiglio Nazionale delle Ricerche, Istituto per lo Studio degli Ecosistemi **Florence, Italy** (study the performance of *Arthrospira* cultures at optimal and sub-optimal conditions)
- 24 July - 3 August 2017 Consiglio Nazionale delle Ricerche, Istituto per lo Studio degli Ecosistemi **Florence, Italy** (study the performance of *Chlamydomodium fusiforme* MACC-430 in BG-11 and diluted pig manure)
- 19 August – 30 August 2017 10<sup>th</sup> International GAP Meeting, Centre ALGATECH, Institute of Microbiology CAS, **Třeboň, Czech Republic** (study the growth of *Nostoc cf. calcicola* in 100 L RWP MACC-612, cultivation of *Chlamydomodium fusiforme* MACC-430 in 70 L TLC, conversion of *Chlorella* g120 from heterotrophic regime to photoautotrophic one in 220 L TLC)
- 3 – 12 April 2018 University of Almería, La Cañada de San Urbano, **Almería, Spain** (study the performance of *Chlamydomodium fusiforme* MACC-430 grown on TLC – one-way 60m<sup>2</sup>; 3m<sup>3</sup> and two-ways 120m<sup>2</sup>; 3m<sup>3</sup> and in RWP 75m<sup>2</sup>;12m<sup>3</sup>)

- 31 July – 8 August 2018 Consiglio Nazionale delle Ricerche, Istituto per lo Studio degli Ecosistemi, **Florence, Italy** (heterotrophic conversion of *Chlorella* strain outdoor)
  - 8 – 23 August 2021 Aqualia company (Servicio Municipal de aguas) Mérida, Spain (field experiment with microalgae grown in WW 2x5000 m<sup>2</sup> and 1x 10 000m<sup>2</sup>); Biorizon company in Almería connected to University of Almería, **Almería, Spain** (field experiments with *Spirulina* and *Scenedesmus* grown in RWP's – 76 and 760 m<sup>2</sup>)
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### SHORT-TERM STAYS ABROAD

- 9-11 November 2016 1<sup>st</sup> Training School “Microalgae based processes: upstream and downstream”, **Lisbon, Portugal**
  - 15 – 26 November 2021 National Laboratory of Energy and Geology, **Lisbon, Portugal** (internship abroad - learning methods for detection of biostimulant properties of microalgae, mentor – Luisa Gouveia)
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### PROJECTS

- 2010-2014 – National Sustainability Project – Algatech – **Co-investigator**
- 2014-2020 Interreg Czech Republic - Bavaria - Joint research on natural cyanobacterial substances as a model for developing cross-border scientific partnership – **Co-investigator**
- 2015-2019 National Sustainability Project I – Algatech *plus* – **Co-investigator**
- 2016-2020 EU HORIZON 2020 project SABANA "Sustainable Algae Biorefinery for Agriculture and Aquaculture" – **Co-investigator**
- 2017-2019 Interreg Algenetics – Joint Czech-Austrian Center for Algal Biotechnology – **Co-investigator**
- 2020-2022 Interreg Austria-Czech Republic Algae4Fish – Recycling of nutrients from agro-industrial residues through the cultivation of microalgae as fish feed – **Principal Investigator**
- 2020-2024 MultiSt3eam - A sustainable multi-strain, multi-method, multi-product microalgae biorefinery integrating industrial side streams to create high value products for food, feed and fragrance – **Co-investigator**
- 2020-2025 Strategy AV21 – Food for the future – **Co-investigator**
- 2021-2022 Interreg Austria-Czech Republic Production of biodegradable polymer polyhydroxybutyrate PHB from cyanobacteria by cultivation in wastewater – **Co-investigator**
- 2021-2025 ALGAE4IBD – from nature to bedside – algae based bio compound for prevention and treatment of inflammation, pain and IBD – **Co-investigator**

- 2025 – 2027 Interreg V-A Bio2AgroFood Use of sustainable biotechnology in the agricultural and food sector - **Principal Investigator**