

EpiLipidNet Newsletter September 2022



Greetings and Aims

Our GP2 is almost over and it has been a quite challenging, but a very good year for EpiLipidNET COST Action.

We were able to award many researchers with STSM and ITC grants, we also organised meetings and a Training School. New collaborations emerged from the networking activities.

And we still have our 3rd General meeting where most of us will meet personally for the first time and it will be the perfect time to strengthen our role in science, more precisely in lipidomics.

On my behalf and as Chair of EpiLipidNET CA I want to thank all the members for the effort and support given throughout this Grand Period. It is very much appreciated.

Rosário Domingues, Chair of the Action

This Newsletter aims to be a forum for updates on the COST Action EpiLipidNet (CA 19105) and presentation of ideas and opportunities to further contribute to networking.

Urgent Notice: EpiLipidNET Mid-Term Review

You may not realize it, but we are now nearly 2 years through the EpiLipidNET COST Action and the CORE Group are preparing the Progress Report for the mid-point assessment. You have been asked by email to help in collecting information on our activities via a Microsoft Share Excel file, through the link [Outputs 24 months.xlsx](#). If you already completed it, many thanks 😊. If you didn't, please add your information as soon as possible (before 12th September). If you experience any difficulties with the link, you can send the information to your Working Group Leader(s), who will pass it on for the Progress Report. The Progress Report has to be approved at the MC meeting on 22nd September, hence the urgency.

Looking forward to the next General Meeting (first one face-to face!)

3rd EpiLipidNET action meeting
and the young researchers
and innovators workshop
21-23 September 2022, Aveiro, Portugal



The 3rd EpiLipidNet Action Meeting and young researchers and innovators workshop will take place in Aveiro (Portugal) from the 21st to the 23rd of September 2022. The 3rd EpiLipidNET Action meeting aims to bring together a multidisciplinary pan-European network of experienced and young researchers working in the area of lipid research.

With many new ideas emerging from the EpiLipidNET network, this first face-to-face event will

provide the opportunity to exchange knowledge and find interesting collaborations. We are positive you will find it inspiring and stimulating.

Details and Program: <https://www.epilipid.net/3rd-epilipidnet-action-meeting/>

News from Grants and Training

EpiLipidNet provides grants to support Short Term Scientific Missions (STSMs) with the aim of enabling stays of investigators at foreign research institutions and facilitate networking and knowledge exchange, as well as the establishment of new collaborations. During GP2, the EpiLipidNet opened four calls for applications and in total 13 Short Term Scientific Missions (STSMs) were granted with an overall budget of 29.500 €.

The beneficiaries of STSM grants during GP2 were mainly early career researchers, such as PhD students and post-doctoral researchers. Home institutions from ten countries and host institutions from seven countries participated (see Figure 1), with 60% of participants coming from Inclusiveness Target Countries (ICTs). The duration of granted STSMs varied between 11 days and 3 months with a median duration of 25 days and the granted budgets ranged between 1060 and 3750 € with a median budget of 2000 €.

Figure 1. Map of countries of participating host and home organizations during GP2 of EpiLipidNet



In summary, during GP2, the STSM program has reached its initially established goals and successfully provided support for research stays relevant to the diverse goals of the EpiLipidNet work packages. We hope that during the upcoming grant period this program will be continued to be well-received by researchers working in the field.

More info: <https://www.epilipid.net/stsm-grants/>

STSM Coordinator, Julia Kuligowski; Grant Awarding Coordinator, Joanna Godzien

Recent EpiLipidNet Publications

Conde T, Lopes D, Łuczaj W, Neves B, Pinto B, Maurício T, Domingues P, Skrzydlewska E, Domingues MR. Algal Lipids as Modulators of Skin Disease: A Critical Review. *Metabolites*. 2022;12(2):96. doi: 10.3390/metabo12020096.

Sochorová M, Vávrová K, Fedorova M, Ni Z, Slenter D, Kutmon M, Willighagen EL, Letsiou S, Töröcsik D, Marchetti-Deschmann M, Zoratto S, Kremslehner C, Gruber F. Research Techniques Made Simple: Lipidomic Analysis in Skin Research. *J Invest Dermatol*. 2022 Jan;142(1):4-11.e1. doi: 10.1016/j.jid.2021.09.017.

Rey F, Greenacre M, Silva Neto GM, Bueno-Pardo J, Domingues MR, Calado R. Fatty acid ratio analysis identifies changes in competent meroplanktonic larvae sampled over different supply events. *Mar Environ Res*. 2022;173:105517. doi: 10.1016/j.marenvres.2021.105517.

Sohrabi Y, Schwarz D, Reinecke H. LDL-C augments whereas HDL-C prevents inflammatory innate immune memory. *Trends Mol Med.* 2022;28(1):1-4. doi: 10.1016/j.molmed.2021.11.003.

Ferreira HB, Barros C, Melo T, Paiva A, Domingues MR. Looking in Depth at Oxidized Cholesteryl Esters by LC-MS/MS: Reporting Specific Fragmentation Fingerprints and Isomer Discrimination. *J Am Soc Mass Spectrom.* 2022;33(5):793-802. doi: 10.1021/jasms.1c00370.

Ferreira HB, Guerra IMS, Melo T, Rocha H, Moreira ASP, Paiva A, Domingues MR. Dried blood spots in clinical lipidomics: optimization and recent findings. *Anal Bioanal Chem.* 2022. doi: 10.1007/s00216-022-04221-1.

Rey F, Melo T, Lopes D, Couto D, Marques F, Domingues MR. Applications of lipidomics in marine organisms: progress, challenges and future perspectives. *Mol Omics.* 2022;18(5):357-386. doi: 10.1039/d2mo00012a.

Alves E, Rey F, Melo T, Barros MP, Domingues P, Domingues R. Bioprospecting Bioactive Polar Lipids from Olive (*Olea europaea* cv. *Galega vulgar*) Fruit Seeds: LC-HR-MS/MS Fingerprinting and Sub-Geographic Comparison. *Foods.* 2022;11(7):951. doi: 10.3390/foods11070951.

Gaspar L, Ricardo F, Melo T, Domingues P, Domingues R, Calado R, Rey F. Lipidomics of common octopus' (*Octopus vulgaris*) tentacle muscle using untargeted high-resolution liquid chromatography-mass spectrometry. *J Food Compost Anal.* 2022. doi: org/10.1016/j.jfca.2022.104871

McDonald JG, Ejsing CS, Kopczynski D, Holčapek M, Aoki J, Arita M, Arita M, Baker ES, Bertrand-Michel J, Bowden JA, Brügger B, Ellis SR, Fedorova M, Griffiths WJ, Han X, Hartler J, Hoffmann N, Koelmel JP, Köfeler HC, Mitchell TW, O'Donnell VB, Saigusa D, Schwudke D, Shevchenko A, Ulmer CZ, Wenk MR, Witting M, Wolrab D, Xia Y, Ahrends R, Liebisch G, Ekroos K. Introducing the Lipidomics Minimal Reporting Checklist. *Nat Metab.* 2022. doi: 10.1038/s42255-022-00628-3.

Special Issues guest edited by EpiLipidNet members

Biomolecules (ISSN 2218-273X, IF 6.064): Special Issue “Cutting-Edge Research on the Analysis of Small Biomolecules in Foods, Plants, and Biological Samples”. Guest Editors: M.G. Kokotou, P. Tarantilis & C. Pappas. Submission deadline: 30th September 2022; Website: https://www.mdpi.com/journal/biomolecules/special_issues/Small_Biomolecules_Foods_Plants_Biological_Samples

Foods (ISSN 2304-8158, IF 5.561): Special Issue “New Trends in Bioactive Lipids Research in Health and Disease”. Guest Editor: L.M. Rodríguez-Alcalá; Submission deadline: 31st October 2022; Website: https://www.mdpi.com/journal/foods/special_issues/Bioactive_Lipids_Health_Disease_Volume_II

Cancers (ISSN 2072-6694, IF 6.575): Special Issue “Lipids and Small Metabolites in Cancer”. Guest Editors: Z. Balogi & L. Vigh; Submission deadline: 10th November 2023; Website: https://www.mdpi.com/journal/cancers/special_issues/Lipids_Small_Metabolites_Cancer

Featured Group

Please send us a brief description of your group interests, job opportunities, most exciting results, if you wish to appear in the next Newsletter as “Featured Group”.

Social Media Activities

EpiLipidNet reaches over 1000 followers on Twitter!

News from the “EpiLipidNet constellation”

*Great Meeting of the Society for Free Radical Research Europe (<https://www.sfrr-europe.org/>) held in Ghent from August 24th-26th with participation of several members of EpiLipidNet (<https://www.redoxbiologycongressliege.be/>).



Abstracts published in: Free Rad Biol Med (<https://www.sciencedirect.com/journal/free-radical-biology-and-medicine/vol/189/suppl/S1?page=1>)

*Forthcoming FEBS 2022 Advanced Course: “Redox Alterations and Cellular Responses: From Signalling to Interventions”. 19-25 September 2022 | Spetses Island, Greece.

More info: <https://redoxalterations2022.febsevents.org/>

* The Society for Redox Biology and Medicine's 29th Annual Conference (SfRBM 2022) will be held November 16-19, 2022, in Orlando, Florida, USA, at the Hilton Orlando Buena Vista Palace.

More info: <https://sfrbm.org/meetings/2022-annual-conference/>

*Other COST Actions of potential interest to EpiLipidNet members:

COST Action CA20121: Bench to Bedside transition for Pharmacological regulation of NRF2 in non communicable diseases (<https://benbedphar.org/>).

Please send feedback and information for upcoming Newsletters to:

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Thank you!