

## Newsletter September 2023

Dear All,

I am writing to update you about our Action.

Please receive the most recent information on OneHealthdrug COST Action.

From September 2023, those who want to communicate short information/concepts, can contact me and we will include the communication in the monthly letter.

We have a new COST Action participant Theo Zacharis ([theo@greek-scientists-society.org](mailto:theo@greek-scientists-society.org)) who will help in the communication activities!

You will find below information about ongoing and forthcoming activities of the network.

- I am pleased to inform you that the 2<sup>nd</sup> **STSM** applications is opened. It opens on October 1<sup>st</sup> and close on November 15<sup>th</sup>. Everyone can apply and the awarded participants will be informed within the end of November. Details are published on the website.
- The 3<sup>rd</sup> call will be opened on the 15<sup>th</sup> of February 2024 and close on March 31<sup>st</sup>. Announcement of the awarded participants will be announced on the 15<sup>th</sup> of April.

Prepare your visit to labs of your interest!

### 1. ACTION CHAIR ACTIVITIES.

We had the Management Committee Meetings 5 and the activity review of YEAR 1 that was performed by all participants and coordinated by our excellent Working group leaders.

You can find enclosed the communication slides by Action Chair and Federica Piccolo presented at the MC5 meeting on the 20<sup>th</sup> of September.

### 4. MEDIA ACTIVITIES

- Our **website** updates ([www.onehealthdrugs.com](http://www.onehealthdrugs.com)). The website is continuously updated. We hope and trust your collaboration for implementing it at best. We are looking for interested collaborators who want to help with the website activity and Action promotion.

All participants are invited to contribute with items like: ·

- publications information in which you have acknowledged our OneHealthdrugs COST Action
- Nice/your preferred pictures from your lab work,
- scientific news about discoveries with comments
- other news useful for increasing interests in our Action
- picture should be 1000x1000 pixel

you can send it to [mariapaola.costi@unimore.it](mailto:mariapaola.costi@unimore.it) for now while we are looking for someone who is interested in keeping the website updated.

If you are interested, please let me know!

### 5. DISSEMINATION ACTIVITY (in the [www.onehealthdrugs.com](http://www.onehealthdrugs.com) website)

1. Vittoria Monaco, STSM, British Society for Proteome Research-European Proteomics Association (BSPR-EUPA) 2023 Annual Scientific Meeting – Poster presentation in presence.

2. Kayhan Ilbeigi Second workshop WG4, Giessen, Germany

Title: “Biomarkers, screening, standardized and non-standardized ecotoxicological testing in One Health drug discovery and development” September 20<sup>th</sup> and 21<sup>st</sup>, 2023

3. Lorenzo Tagliazucchi and Giulia Malpezzi and MPCosti: Paul Ehrlich PhD MedChem network , Thessaloníki 16-18 July Greece). Poster exhibition and flyer distribution. In presence.

4. Lorenzo Tagliazucchi, Daniele Aiello, Giulia Saporito, Davide Torelli, Giada Mercanile, Chiara Odorici, Alberto Venturelli and MPCosti presented the COST Action at the European Research Night 29 September 2023 in Unimore (Modena-Italy).

**An Example! Next year we can plan some activities online!** If you have other contributions, please send it to me. <https://marie-sklodowska-curie-actions.ec.europa.eu/event/2023-european-researchers-night>.

The European Researchers' Night is a Europe-wide public event, which displays the diversity of science and its impact on citizens' daily lives in fun, inspiring ways.

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This year, the event will take place in **26 countries on Friday 29 September 2023**.

The European Researchers' Night aims to

- bring research and researchers closer to the public
- promote excellent research projects across Europe and beyond
- increase the interest of young people in science and research careers
- showcase the impact of researchers' work on people's daily lives

The European Researchers' Night attracts each year more than 1.5 million visitors in Europe and beyond.

5. Alfonso T. Garcia-Sosa et al. Presented at the following conference "Recent advances in structural biology and drug discovery" | September 18-19, 2023 | Riga | Latvia

<https://biodrugconference.osi.lv/> "Beyond protein structure prediction" Alfonso T. Garcia-Sosa. University of Tartu, Tartu – Estonia, where acknowledgement to COST Action 21111 OneHealthdrugs, as can be seen in the book of abstracts:

<https://biodrugconference.osi.lv/abstract-book>

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**Please send information if you have more to add! those who participated to the European Research Night!**  
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## 6. EVENTS Calendar for October 2023

Finally, please stay connected with the events organized in June. Sometimes technical reasons the real events hours are different from those of the invitations sent through the COST web platform:

1. **WG leaders meetings** (WG) are invited to plan 1 hr meeting with their WG participant to monitor the achievements of year 1 and to plan their next activity by defining the goals achievements for year 2. Complete definition (Title, dates, hours) of the next year activities is necessary to complete the work budget plan!
  2. **October workshops**
- **WG1-Workshop 2 online\_ Chemoinformatic Tools, Compound Databases and Data Management Platforms**

**Date 9 October 2023 - 2pm-4pm - online**

Organizer: Ulrike Wittig and Cecilia Pozzi

### Description

High quality data on compound properties and activities form the backbone of the daily work for many members of the COST Action OneHealthdrugs. Chemoinformatics tools, compound repositories and data management platforms play an essential role in providing access to vital compound information and facilitating the analysis of compound properties for modelling of drug targets and developing compounds as potential drug candidates against parasitic diseases. The aim of this workshop is to introduce knowledge in using various chemoinformatics tools, accessing and navigating compound databases, and efficiently managing chemical data through data management platforms.

The event registration requires two steps:

1) create an e-COST account in the [www.cost.eu](http://www.cost.eu) and

2) register **by the 06/10/2023**

online <https://docs.google.com/forms/d/e/1FAIpQLScKZMglluY63O9CgYX37-jjeFemeFFUPi86W7ufMEVIZa7x2Q/viewform?usp=sharing>

- **WG6 Workshop 2 online - "Regulatory aspects of drug development in Europe" 12 th of October from 4:00pm – 6:00 pm CET.**

Description. The One Health approach recognizes the interconnectedness of human, animal, and environmental health, aiming to address planetary health issues, including parasitic diseases, through an holistic and collaborative approach. When it comes to drug development for Parasitic Vector-Borne Diseases (PVBDs), there are several regulatory aspects that should be analyzed under the One Health framework for an effective multidisciplinary collaboration, targeting sustainability of drug development, its production and distribution. Therefore, to meet the One Health approach expectations for drug development against PVBDs, careful consideration of regulatory aspects that encompass human and animal health, ethical concerns, environmental impact, and international collaboration must be considered. Effective communication and coordination among regulatory agencies, researchers, and stakeholders are essential to bring safe and effective drugs to both humans and animals. At "Regulatory aspects of drug development" we aim at enlightening COST Action 21111 audience and partners on some fundamental aspects for Drug Development Regulations in Europe, and how they imply in the drug development and distribution of drugs for human and animal PVBD.

For registration to the meeting please find below the information:

For non-COST members, registration requires two steps :

1) create an e-COST account at [www.cost.eu](http://www.cost.eu)

2) register here: <https://docs.google.com/forms/d/e/1FAIpQLScDI1TzZO6kRmn5916-dtVQUzusuxcGkc dclCxlMpdfpiaBA/viewform?usp=sharing> **by the 7/10/2023**

- **HG4 virtual meeting - Young researcher innovators (YRI): updates and next steps Oct 23, 2023 – 4-5 pm CET**

This meeting will be dedicated to the next activities planning!

This meeting within YRI will be dedicated to the organization of the next activities. Particularly, we will discuss:

-Onehealthdrugs marathon One half day (Nov 3) dedicated to YRI and there all STSM & Conference Grants

winners will present. One of them will be selected for the grant award for congress participation.

- VIDEO/MOVIE to be uploaded on YouTube and/or Jove

-YRI website

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Just finished!

2nd Training School "MedChem and structural biology: tools and strategies for hit and lead optimization in the One Health perspective. 27-29/09/2023 - 3days school. Siena-Italy. Organizers Sandra Gemma and Cecilia Pozzi.

**Description.** Drug discovery is a complex process aiming to develop compounds with appropriate safety and efficacy profiles allowing to proceed to their clinical evaluation. On this purpose structural biology, medicinal chemistry and computational chemistry provide key information to guide the rational design of effective drugs. The first focus of this Training School will be to explore how drugs are designed and synthesized, with a particular focus on the green aspects that should be considered both in the design, synthetic approaches, and in the prediction of their environmental fate. The second focus of the Training School will be the structural characterization of macromolecular targets and of their interactions with substrates and compounds for drug development purposes. The main topics that will be part of the Training School scientific program are in silico methods for the toxicity prediction applications related to environmental issues, green medchem/synthetic approaches, integrative

structural biology approaches for investigating macromolecular targets, structural characterization of enzyme-inhibitor and enzyme-substrate complexes through X-ray crystallography. At the end of the training school, the participants will work together to create a report that summarizes the main topics and subjects covered during the training.

The Training School within OneHealthdrugs will cover the cost of travel and allowance (for accommodation, catering, and short-distance travel) for 10 trainees (additional 2 trainees will be accepted based on funding availability). The selection of trainees has been completed and the list of selected participants is reported below:

### Successfully concluded!

### 7. PUBLICATIONS PLAN

1. Outcome of WG3 meeting on Ecotoxicology – “Assessing environmental risks during the drug development process for parasitic vector-borne disease - a critical reflection” Kayhan Ilbeig, Mirco Bundschuh and Guy Caljon et al.
2. Outcome of the survey on databases by WG1 – Ulrike Wittig, Theodora Cogeropoulou
3. Clara Lima review paper on “Parasitic vector-borne diseases of animals in Europe and the environmental impact of their management” \_ WG6 paper
4. Assessing environmental risks during the drug development process for parasitic vector-borne disease - a critical reflection
5. **Publications: ACS Infectious disease Issue associated with the Modena meeting January 2023.**

The special issue is now approved, ACS Infectious disease has published the Call for paper by the Editor Dr. Felix Calderon with the following title:

*One Health and Vector Borne Parasitic Diseases*

The screenshot shows the ACS Publications website page for the call for papers. The title is "Call for Papers: One Health and Vector-Borne Parasitic Diseases" edited by Maria P. Costi and Anabela Cordero-da-Silva. It includes publication details, metrics (151 article views, 1 altmetric, 0 citations), and a list of references. The references listed are: 1. Baxter, R. H., Contet, A., Krueger, K. Arthropod Innate Immune Systems and Vector-Borne Diseases. *Biochemistry* 2017, 56 (7), 907-918. DOI: 10.1021/acs.biochem.6b00870 [ACS Full Text «]. [CAS] [Google Scholar]; 2. Centers for Disease Control and Prevention (CDC), www.cdc.gov; 3. Larsson, J. D. G., Flach, C. Antibiotic resistance in the environment.

The issue is in the context of the OneHealthdrugs COST Action focused on the topic of the discovery of antiparasitic drugs against vector borne parasitic diseases with low environmental impact. The Issue will include articles on the medicinal chemistry methods, new drugs and environmental impact of the same other than some aspects of ecotoxicology. Both human and veterinary medicine fall within our interest. With this issue we would like to raise the interest of those experts

researching in the field of parasitic infectious disease, who want to integrate their knowledge in closely related fields of high interest by considering the sustainability aspects of their research. We will also include a few manuscripts on the OneHealth concept.

I received about 18-20 publication titles that allowed the approval of the Issue by ACS.

The issue is dedicated to the OneHealthdrugs topics and extended to Scientists external to OneHealthdrugs Action.

Deadline for submission: 31st December 2023

Title: One Health and Vector Borne Parasitic Diseases

Editorial submission deadline: 31st January 2024

Virtual Special Issue (VSI) in the web: February 2024

VSI editorial included in the March 2024 ACS ID issue

You can visit <https://doi.org/10.1021/acsinfecdis.3c00304>

We are All encouraged to publish papers together and acknowledge OneHealthdrugs Action. The rule is that the Authors should belong to at least 3 different COST countries.

**For those who wants to publish with the COST acknowledgement, please follow the instructions:**

Here is the link where you'll find all the info related to your question. Check the box according to the type of support. Publication if article: (c): This article/publication is based upon work from COST Action < insert name of Action or initials, CA21111, supported by COST (European Cooperation in Science and Technology). If a book, all references should appear. Details: follow this link. <https://www.cost.eu/uploads/2022/11/COST-Action-Visual-Branding-Guidelines-071122.pdf>

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If you are interested in some specific aspects, please let me know.

It is worth noticing that **active participation** to the COST Actions corresponds to the 35% of participation to successfully granted EU project.

Take this participation as an extraordinary opportunity for you and your research.

Have a good day!

Paola

PS

*Note that in our media LinkedIn and twitter we have now the following hashtag*

**#OneHealthdrugs**

*This is from us and please use it in your communications!*

[https://twitter.com/1Healthdrugs\\_ca](https://twitter.com/1Healthdrugs_ca)

<https://www.linkedin.com/company/86838804/>