

## NEWSLETTER OCTOBER-NOVEMBER 2023

Dear All,

I hope that this letter finds you well!

I am updating you about our OneHealth*drug* Activities in these two months and about the forthcoming one.

From December 2023, those who want to communicate short information/concepts, can contact Theo Zacharis who joined us for Communication and Dissemination management. He is proposed as Virtual Network Support manager and will be part of the management activity. From December 23, the Newsletter will have another shape! we are planning this new communication tool.

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

- I am pleased to inform you that [a few STSM applications have been submitted by the 15th of November](#). The research visiting period can be performed up to the end of August (31 August deadline to be back. Be ready for the next period application starting by **15 February 2024, deadline March 30**. Selection in the 4th call is independent from the 3rd Call. All our OneHealth*drugs* grantees will prepare a summary/ movie/poster about their achievements. They will present in the 2nd Edition of OHD marathon in November 2024. We are requesting the Laboratory profiles of the hosting laboratory and of the home laboratory profiles.
- The previous STSM winners have presented their own work performed during the STSM at the OHD marathon days the 22 November 23 h 2pm - 6pm.

### TRAINING SCHOOLS

- Our second Training school was performed in Siena organized by Sandra Gemma and Cecilia Pozzi: ["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"](#). It finalized successfully all the training and the Summary of the activities performed can be found in the attached file. Details in the [www.onehealthdrugs.com](http://www.onehealthdrugs.com) website.
- Our first training school [Training School "Natural products in parasitic diseases"](#), has [been planned](#), details will be provided hopefully on Dec 6 when we will have the general assembly of the OHD Action and all activities will be presented.

[2nd Training School "MedChem and structural biology: tools and strategies for hit and lead optimization in the One Health perspective Description](#). Drug discovery is a complex process aiming to develop compounds with appropriate safety and efficacy profiles allowing them to proceed to their clinical evaluation. For 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.

### **ACTION CHAIR ACTIVITY**

- Routine work on the OneHealth*drugs* action was performed. More efforts have been devoted to the revision of the Dissemination activities planning together with the Dissemination Team.
- Reporting activity for the end of YEAR1 of the OHD Action (Grant period 1).

**This was performed with the Grant Holder - UniMORE team: Maria Cristina Notarsanto, Maria Esposito, Laura Leonardi and Federica Piccolo.**

**I wish to thank all of them for their work and support.**

and of course all the WG, HG leaders and vice leaders for the work performed.

A special thank to Anabela!

- Planning of the new activity. It was very demanding and I will inform you about the final outcome of our yearly activity in a separate event (General Assembly 6 Dec 2:30pm)

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Our **website** has been published ([www.onehealthdrugs.com](http://www.onehealthdrugs.com)). The website needs information and pictures. We hope and trust your collaboration for implementing it at best.

All participants are invited to contribute with items like:

- Nice/your preferred pictures from your lab work, publications information in which you have acknowledged our OneHealth*drugs* COST Action
- 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!

### **SURVEYS**

#### **SURVEY 1**

**status: 60% completed**

You have received the **entry SURVEY** entitled "[WG6 - Survey on research perspectives for drug development targeting vector-borne diseases and environmental impact](#)" by Clara Lima.

This data collection (or survey) was prepared by Clara and some Collaborators. We are expecting to achieve the 95% coverage of the network participants.

This data collection represents the entry ID for all new OneHealth*drugs* applicants.

Clara has prepared a report on the

Description.

This questionnaire is being conducted under COST Action 21111 on “One Health drugs for Vector-Borne Diseases”, aiming to survey the current trends and status of the research and drug development for the treatment of Vector-Borne Diseases. In addition, we intend to assess the level of awareness about the sustainability and environmental impact of the process of developing drugs for parasitic Vector-Borne Diseases (PVBDs). To answer each question, please select one or more options to reply to each question. The questionnaire is composed of 33 questions and shouldn't take more than 20 min to reply. The answers will be summarized and analyzed. From the results of this survey, we aim to develop training opportunities and guidelines to help researchers and their institutes produce more sustainable and environmentally safe compounds for the treatment of Parasitic Vector-Borne diseases.

This survey has to be filled by each COST participant as an entry document, all those registering to the Action are requested to fill the data collection.

*Thank you for your help and time!*

### **SURVEY 2: Survey on compounds database (WG1) is turning to a compound collection (chemical compound structure database, only virtual collection) .**

Description

This survey is organized by WG1, Ulrike Witting, (*Compound libraries coordination and integration of compound design*) of COST Action CA21111 "OneHealth*drugs*" and collects information from COST Action members about the handling of chemical compound information and the usage of compound databases/repositories. The results will help to coordinate and integrate compound data from different resources for searching and screening purposes by the COST Action participants. The survey is finished for this first year.

This is now turning to a database collection instrument. It is time to collect the virtual compounds available and that can be shared within the network. The use of information will be regulated by NDA written on purpose.

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Regarding external available Database: Our website report the database selected by the network participants, under the following field WORKING AREA-> [Database collections, open sources and vendors](#).

The survey results is enclosed in this e-mail and is deposited in FairdomHub with the following DOI

<https://doi.org/10.15490/fairdomhub.1.document.4187.1>

### **SURVEY 3 about HITS and LEADS profile is turning to a compound collection (chemical compound structure database, only virtual collection)**

SURVEY 3 is conducted by WG2 and WG3 with the aim of collecting information from the network about the most important compounds existing among the network members that can respect the HITS or LEAD profile. The use of the structural-chemical information will be useful

for further medicinal chemistry application in the field. This activity is in line with WG1 activity on compound database collection.

The excel files containing the HITS and LEADS profile have been distributed among WG2 and WG3 for now, and will be corrected and updated. Finally, it will be distributed to the whole network for inclusion of all available compounds.

#### **SURVEY 4 Available technologies within COST Action OneHealthDrugs**

This survey is developed to collect technologies used by the members of the COST Action CA21111 "One Health drugs against parasitic vector borne diseases in Europe and beyond" (OneHealthDrugs).

**This has not circulated yet. It deals with the selection of the technologies in use from the reported list.**

**This will circulate soon.**

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#### **DISSEMINATION ACTIVITY**

We have connected again with One Health Commission (OHC) the US organization **One Health Commission (OHC)** A U.S. based non-profit organization working globally to 'connect' One Health Stakeholders, to 'create' teams and networks that work together across disciplines to 'educate' about One Health and One Health issues.

<https://www.onehealthcommission.org/>

OneHealth*drugs* has established a connection with OHC and we will exchange news and initiatives for disseminating about One Health principles and guidelines in the respective field. Globally and within drug development in vector borne parasitic diseases

please visit our website at:

<https://www.onehealthday.com>

and the OHC website at

<https://www.onehealthcommission.org/>

where our news about the One Health day celebration is reported, if you explore a bit around!

Youtube channel publication for the One Health day (3 November 2023) at

<https://www.youtube.com/watch?v=OVCziP2HPcl>

#### **EVENTS in October 2023**

WG1 Workshop 2 “Chemoinformatics tools, compound databases and data management platforms” 09/10/2023 (VIRTUAL)

WG6 Workshop 1 “Regulatory issues associated to drugs for the treatment of Vector-Borne parasitic Diseases. 12/10/2023 (VIRTUAL)

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

**WG1 and WG6 meetings** were very interesting and you can find details in the OHD website. The summary is also reported in this e-mail.

**HG4 meeting** was held by Elisa Uliassi, HG4 Leader with the aim This meeting within YRI will be dedicated to the organization of the next activities.

-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

## EVENTS in November 2023: YEAR2 of the COST Action started!!

HG2 STSM Grants awarding group meeting 30/11/2023 10:00-11:00 (VIRTUAL)

OHD marathon days 20-23 November 2023

### OHD marathon days 20-23 November 2023.

The event was very interesting and for four days we had a full session with 8-10 speakers on the planned topics.

A summary is under preparation, the book of abstract is ready and the winners of the 2 conference grants for YEAR 2 will be all published on the website [www.onehealthdrugs.com](http://www.onehealthdrugs.com).

**Ivan Bassanini, Marko Jukic** received the COST OHD award and **Darline Dize** received a special mention for her excellent presentation.

**A big thanks to the participants and Speakers! Session chairs were wonderful!**

## EVENTS in December 2023

Finally, please stay connected with the events organized in December.

Please book your agenda for the event of December 6!

**General Assembly 6th December 2023 14:00-16:00 (VIRTUAL)**

This event is calling all the OHD network participants to meet and get updated about the **OHD YEAR 1** outcome and the planning of **OHD YEAR 2**.  
Do not miss this event!

Please find below the appointments for the specific operational WG.

Core group meeting OHD 1 December 2023 2:30-4
WG6 meeting 4th December 2023 14:30-15:30 pm CET (VIRTUAL)
WG4 meeting 7 December 2023 10:00-11:00 am CET (VIRTUAL)
WG2 meeting 8th December 2023 15:00-16:00 pm CET (VIRTUAL)

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**IMPORTANT!!!**

**Publications: ACS Infectious disease Issue associated with the Modena meeting January 2023**

The special issue invitation was submitted to ACS Infectious disease and edited by the Editor Dr. Felix Calderon with the following title:

*One Health and Vector Borne Parasitic Diseases*

The issue is in the context of the OneHealth*drugs* 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.

The Editor added the theme of the **World Malaria DAY that will be on 24<sup>th</sup> April 2024**.

I received about 18-20 publication titles.

The issue will be dedicated to the OneHealth*drugs* topics but it will be extended to Scientists external to OneHealth*drugs* Action. This was asked/suggested by the Editor.

Deadline for submission: 31st December 2023

Title: One Health and Vector Borne Parasitic Diseases

Editorial submission deadline: 31st January 2024

VSI in the web: February 2024

VSI editorial included in the March 2024 ACS ID issue

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>

## Go to Congress!

1. Join us and register for LeishSymposia-2023, an interesting 1-day content-rich program which covers major research findings and provides quality education related to development of effective strategies for the prevention, diagnosis, and treatment of top neglected tropical diseases, Leishmaniasis and Trypanosomiasis.

We believe that you would find it interesting to attend. Registrants will have an access to consented recordings if not able to attend live.

LeishSymposia-2023: International Virtual Symposium on Leishmaniasis and Trypanosomiasis

Conference Dates: Thursday, Dec 7, 2023, 9 AM (Eastern Time)

Scientific Program: <https://leishconference.com/pdfs/LeishSymposia-2023-Program.pdf>

Conference website link for detailed information: <https://leishconference.com/>

We are already 100+ expecting more than 150-200 international delegates will address the conference and the low-cost registration will support each and everyone's participation.

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

I would like to remember 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.

I am looking forward to seeing you at the General Assembly on Dec 6, 2 pm

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/>