



Environmental impact of pharmaceuticals



30.Jun - 01.Jul 2022

Cod. O10-22

Mod.:
Streaming

Edition
2022

Activity type
Summer course

Date
30.Jun - 01.Jul 2022

Location
Villa Suso Palace

Languages
Spanish English

Academic Validity
30 hours

Web
<https://sustainablepharmacy.org>

Organising Committee



Description

We live in an increasingly polluted world. In addition to the well known "legacy" environmental pollutants, the so-called pollutants of emerging interest are increasingly worrying scientists. Of all of them, those that give rise to the greatest concern are drugs, which is why their study is among the priority lines of research of the main organizations dedicated to the protection of public and environmental health, such as the World Health Organization (WHO) or the European Commission. One of the fundamental sections of this strategy is the awareness / education of health professionals. For a comprehensive approach to the problem, it is essential to train future generations of health professionals in the field. It is essential to publicize and address this problem linked to contamination by drugs and medicines to society in general and to professionals in the sector in particular. All those agents involved in the complex drug cycle must know basic aspects about their impact on the environment and human health and, more importantly, possible solutions to the problem. The Summer Course on Drug Pollution aims to expand knowledge about the problem of contamination by drugs, its consequences and environmental impact as well as describe and reflect on possible solutions in the short and medium term. This summer course will be of special interest to all students and professionals of the degrees of the bio-health branch, as well as students, scientists and professionals from other fields (biology, veterinary medicine, environment, toxicology, study of wastewater, regulators, etc.), and will have an international focus.

Objectives

Understand the problem of environmental contamination by medicines.

Learn potential solutions to the problem of environmental contamination by drugs.

Course specific contributors



Program

30-06-2022

09:00 - 09:30	Registro y entrega de documentación
09:30 - 10:00	“ Inauguración oficial del curso de verano “Presentation by the Director of the activity Gorka Orive Arroyo UPV/EHU - Profesor de Farmacia Unax Lertxundi Etxebarria Osakidetza
PARTE I: EL PROBLEMA DE LA FARMACONTAMINACIÓN	
10:00 - 10:30	“Introducción a la farmacontaminación.” Gorka Orive Arroyo UPV/EHU - Profesor de Farmacia
10:30 - 11:00	“ Presencia de fármacos en el medio ambiente “ Tomas Brodin Professor Swedish University of Agricultural Sciences SLU · Wildlife, Fish and Environmental Studies
11:00 - 11:30	“Consecuencias de los fármacos en el medioambiente. Problemas ecotoxicológicos “ Miren Cajaraville Bereciartua UPV/EHU - Facultad de Ciencia y Tecnología, Zoología y Biología Celular Animal
11:30 - 12:00	“Legislación y farmacontaminación “ Ricardo Carapeto García
12:15 - 13:15	Round table: “Mesa redonda “ Ricardo Carapeto García (Moderator) Iker Armentia Ortiz de Zarate Miren Cajaraville Bereciartua UPV/EHU - Facultad de Ciencia y Tecnología, Zoología y Biología Celular Animal Tomas Brodin Professor Swedish University of Agricultural Sciences SLU · Wildlife, Fish and Environmental Studies Gorka Orive Arroyo UPV/EHU - Profesor de Farmacia

01-07-2022

09:30 - 10:00	“Visión global del abordaje del problema. Soluciones “ Unax Lertxundi Etxebarria Osakidetza
PARTE II: POSIBLES SOLUCIONES	
10:00 - 10:30	“ Nuevas tecnologías para eliminar fármacos de las aguas residuales “ José Benito Quintana Álvarez Universidad Santiago Compostela
10:30 - 11:00	“Ecofarmacovigilancia “

11:00 - 11:30

“ Esquemas take-back “

Mario Zarzuela | SIGRE

12:00 - 13:00

Round table: “Mesa redonda “

Iker Armentia Ortiz de Zarate (Moderator)

Unax Lertxundi Etxebarria | Osakidetza

José Benito Quintana Álvarez | Universidad Santiago Compostela

Carmelo Aguirre | UPV/EHU - Facultad de Medicina y Enfermería

Mario Zarzuela | SIGRE

Directed by



Gorka Orive Arroyo

UPV/EHU, Doctor en Farmacia

Doctor Gorka Oriva, aged 44, is a prolific, multi-faceted pharmacy lecturer, researcher, teacher, educator and entrepreneur. He takes part in a range of research projects. His academic output is outstanding, including a total of 318 international publications, 45 in Spain, 25 book chapters and 3 books as principal editor. He has an h-index of 70 and over 18,400 citations. His academic output is over 20 international articles a year over the last 10 years. He is in the top 1% of scientists by h-index in a sample of 55,000 in Spain. Moreover, in the recent “Top Scientific Rankings” drawn up by Stanford University, he heads the list of the most influential pharmaceutical researchers in Spain, and is one of the top 30 scientists in the world in this category, counting those still working who published their first article in the 21st century. He is founder and CSO of the firm Geroa Diagnostics.



Unax Lertxundi Etxebarria

Osakidetza, Doctor en Farmacia

Unax Lertxundi works as Head of the Pharmacy Section in the Araba Mental Health Network, part of Osakidetza, the Basque Health Service. In 2002 he came first in the national entrance examination for FIR, or Resident In-House Pharmacists. Holder of a doctorate in Pharmacy from the University of the Basque Country (special prize-winner), he has led and taken part in numerous research projects, and is the author of more than 60 articles in international academic journals and 60 conference papers, having won numerous awards. He is also one of 16 European professionals to be a Board Certified Psychiatric Pharmacy (BCPP) specialist, awarded by the prestigious American Pharmacists Association.

Teachers



Carmelo Aguirre



Iker Armentia Ortiz de Zarate



Tomas Brodin

Tomas Brodin is an aquatic ecologist, studying ecological effects of pharmaceuticals in aquatic systems. Tomas has a background in evolutionary- and behavioral ecology, and is now using this knowledge to increase the ecological relevance of chemical risk-assessment in general, and pharmaceutical risk-assessment in particular. His research bridges the gap between the lab and the real world by combining lab-experiments, for mechanistic understanding, with large-scale field studies that answers the million dollar question “What happens in the lake or stream?”



Miren Cajaraville Bereciartua

Biologia Molekularreko katedraduna, irakasle eta ikerlari lanetan aritu da EHUko Medikuntza Fakultatean eta Zientzia eta Teknologia Fakultatean. Ikerkuntza-egonaldiak egin ditu hainbat unibertsitatetan: University of Wales, Universität Heidelberg, King’s College School of Medicine and Dentistry, San Diegoko University of California eta University of Hong Kong. Haren ikerketa-jarduera honako eremu hauetan zentratzen da: kutsaduraren biomarkagailu molekular eta zelurarrak garatu eta

aplikatzea, zelula-kultiboak eta in vitro toxikotasun mekanismoak, transkriptomika eta proteomika, zelulen patologia eta histopatologia, honako elementu hauek eragindako kutsadura kimikoari lotuta: hidrokarburo aromatikoak eta petrolioa, disruptore endokrinoak, nanomaterialak eta mikroplastikoak. EHUko Zoologia eta Animalia Zelulen Biologia Saileko idazkari akademikoa izan da (2009-2010), eta Graduondoko Ikasketen eta Etengabeko Prestakuntzaren Unitateko zuzendari-kargua izan du (2010-2011), baita Master eta Doktorego Eskolako zuzendari-postua ere (2012). 2013az geroztik, Zoologia eta Animalia Zelulen Biologia Saileko zuzendaria da.



Ricardo Carapeto García



José Benito Quintana Álvarez



Mario Zarzuela

Registration fees

FACE-TO-FACE	UNTIL 30-06-2022
General	80,00 EUR
Reduced fee regular	68,00 EUR
Registration exemptions	56,00 EUR
Health, a commitment with people	20,00 EUR
INVITED OSAKIDETZA	0 EUR
LIVE ONLINE	UNTIL 30-06-2022
General	80,00 EUR
Reduced fee regular	68,00 EUR
Registration exemptions	56,00 EUR
Health, a commitment with people	20,00 EUR
INVITED OSAKIDETZA	0 EUR

Place

Villa Suso Palace

Plaza del Machete. 01001 Vitoria-Gasteiz

Araba