Who-is-Who brochure

AquaticPollutants
Thematic Annual Programming Action (TAP) “RedCoPollutants”

Co-financed by the Connecting Europe Facility of the European Union

The AquaticPollutants Thematic Annual Programming (TAP) Action has the role of the third ERA-NET Cofund AquaticPollutants call (second additional call). It relies on the establishment of a network or cluster of excellence of national projects focussed on specific RDI needs from new or already started national calls in order to partner them, creating a critical mass of research and technological excellence, and ensuring the integration and sharing of knowledge. Furthermore, it leverages the impact of Strategic Research and Innovation Agendas (SRIAs) of Joint Programming Initiatives (JPIs)) on Water, Oceans and AMR (antimicrobial resistance) by focussing on the thematic areas of the three JPIs. Moreover, it will employ a multi-disciplinary approach including economic, ecological, societal and technological disciplines and perspectives.

The theme of this TAP Action is: Measuring of Inputs and Taking Actions to Reduce contaminants of emerging concern (CECs), Pathogens and Antimicrobial Resistant Bacteria in the Aquatic Ecosystems (inland and marine). The working title of this TAP Action is RedCoPollutants.

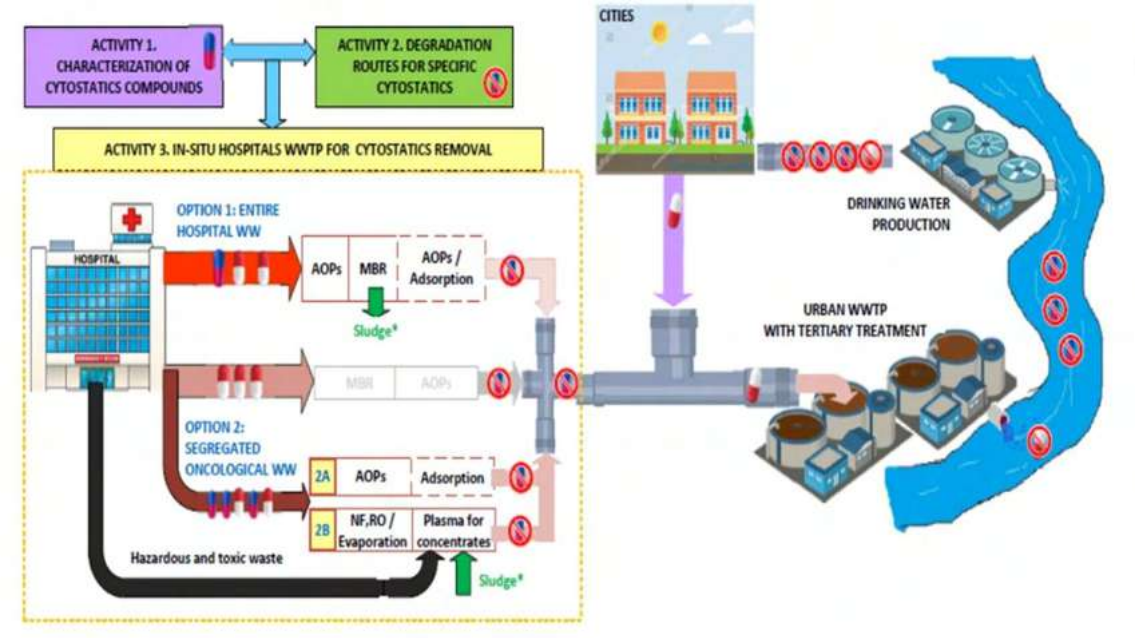
The following projects are members of the TAP Action cluster:

Country	Acronym of National Project	Project coordinator	Main contact point for the TAP	Organisation	Email
ES	**CYTOSREMOVAL 06/2020 - 05/2023**	**Angeles Blanco, RedCoPollutants Scientific Coordinator**	**Angeles Blanco**	**Complutense University of Madrid**	**ablanco @ucm.es**
CZ	HOPEM 01/2021 - 12/2023	Přemysl Soldán	Přemysl Soldán	T. G. Masaryk Water Research Institute, public research institution	premysl. soldan @vuv.cz
CZ	Change4Water 07/2020 - 12/2026	Petr Březina	Lada Stejskalová	T. G. Masaryk Water Research Institute, public research institution	lada .stejskalova @vuv.cz
CZ	ARG Tech 06/2020 - 12/2022	Jan Bartáček	Jan Bartáček	University of Chemistry and Technology, Prague	jan.bartacek @vscht.cz
FR	Mic GIVER 02/2022 - 01/2026	Stéphane Le Floch	Stéphane Le Floch	CEDRE	stephane. le.floch @cedre.fr
FR	CHYPSTER 10/2021 - 09/2025	Marina Coquery	Marina Coquery	INRAE, UR RiverLy, Villeurbanne	marina. coquery @inrae.fr
FR	Pharma_CARE 04/2022 - 09/2025	Laetitia Minguez	Laetitia Minguez	LIEC (Lorraine University, CNRS)	laetitia. minguez @ univ-lorraine.fr
IE	PIER 03/2019-09/2023	Dearbháile Morris	Dearbháile Morris	University of Galway	dearbhaile.morris @universityofgalway.ie
ES	CATAD3.0 09/2021 - 08/2024	Juan García Rodríguez	Juan García Rodríguez	Universidad Complutense - Catalysis and Unit Operations Group (CyPS)	jgarciar @ucm.es
SWE	ABRA 01/2022 - 12/2024	Charlotta Turner	Charlotta Turner	Lund University, Faculty of Science, Department of Chemistry	Charlotta.Turner @chem.lu.se
SWE	I-CRECT 02/2022 - 06/2025	Håkan Hanberger	Håkan Hanberger	Linköping University	hakan.hanberger @liu.se
SWE	APRIAM 01/2022 - 12/2025	Cecilia Stålsby Lundborg	Cecilia Stålsby Lundborg	Karolinska Institutet	cecilia.stalsby.lundborg@ki.se

TAP RedCoPollutants SCIENTIFIC COORDINATOR

CYTOSREMOVAL

In-situ treatment of hospitals wastewater to eliminate cytostatic pollutants



Keywords: cytostatics, hospital effluents, emerging contaminants, degradation and removal, pharmaceuticals

Lead organisation: **Complutense University of Madrid**

Project duration: **06/2020 - 05/2023**

Angeles Blanco

Coordinator and main contact point:

Areas of expertise: chemical Engineering; sustainable water use; water technologies; water

- **Funding agency (Country):** Agencia Estatal de Investigación (Spain)

- **Abstract:** The continuous release of cytostatic compounds to the environment represents a high environment and human health risk due to their ecotoxicity and synergic effect with other contaminants. To protect water quality, it is necessary to avoid the increasing cytostatics levels in surface waters. The proposed approach is the in-situ treatment of hospital wastewaters for the removal of cytostatic compounds before their discharge to the municipal wastewater treatment plants. To reach this objective 15-25 selected target cytostatics have been selected and need to be quantified at ng/L levels by LC-MS-MS (Activity 1). Then, the main degradation routes of these compounds which degradation pathways are still unknown will be identified and understood (Activity 2) to propose treatment alternatives for their removal. The treatments will be evaluated and validated with model compounds and real hospital wastewaters. Different approaches will be followed depending on the cytostatic concentration and toxicity of the effluents. For toxic waters it is proposed 1) an advanced oxidation process (AOP), followed by adsorption if the complete mineralization of the cytostatics is not achieved; 2) to concentrate the water by membranes or evaporation and then use AOPs to treat the concentrates. For less toxic effluent partially biodegradable from general hospitals it is proposed to increase the water biodegradability by an AOP treatment, then the water can be treated in an aerobic membrane bioreactor treatment with acclimated sludge. If necessary, a final treatment for the removalof recalcitrant contaminants can be carried out by AOP or by adsorption.

- **Impact:** The main impact will be the reduction of health risks associated to the presence of cytostatic in ecosystems, as demanded by Society. The project will generate new knowledge for the development of a solution to remove the discharge of cytostatic compounds to the environment. The best treatment trains and segregation alternatives will be discussed with hospital to study their potential implementation at medium-term.

- **Expected outputs:** Removal of cytostatics from the wastewaters at the source to significantly reduce the health risks associated with the presence of cytostatic in ecosystems. Segregation and treatment of hospital effluents.

Other contact points:

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Complutense University of Madrid
Senior researcher

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Areas of expertise: chemical engineering; water treatments; industrial processes

OTHER CLUSTER MEMBERS

HOPEM

Surface water quality assessment using effect-based methods in the context of the Water Framework Directive

Effect-based methods (EBM) will be used to evaluate the 'ecotoxicological' status of the aquatic environment. Developed methodology can, as a part of water monitoring programs, guide to subsequent identification of hazardous substances in the water.

Water Framework Directive (WFD), 2000/60/EC was developed and enforced at the EU level, stating that all waters should achieve good status by 2015. The implementation of theWFD is in a direct relationship with the River Basin Management Plans of all Member States and the monitoring programs designed for the control of current pollutants, including the priority pollutants and contaminants of emerging concern.

The current assessment of the chemical status of waters is focused on the monitoring of selected chemical substances. However, these chemicals constitute only a fraction of the total toxicity of waters and the information on their presence in waters does not provide sufficient information on the actual effects of the total amount of chemicals present in the aquatic environment. In addition, the substances present in the water form mixtures whose effect isnot predictable on the basis of the chemical analysis itself.

The use of effect-based monitoring can help identify reasons for failing to achieve good status for surface waters and identify substances that may pose a threat to aquatic ecosystems and human health. In this project, we use EBM as a battery of four standardized ecotoxicological bioassays to determine toxic hazard of substances present in the surface water of three river basins in the Czech Republic based on their mechanism of action (ecotoxicity, genotoxicity, endocrine disruption).

Water management institutions involved in water monitoring can use the developed methodology to optimize the scope of chemical analyzes and focus on the contaminants that actually cause the human end environmental risk. Further, based on the identified pollutants, measures can be proposed to eliminate them.

Keywords: effect-based methods, surface water monitoring, ecotoxity, genotoxicity, endocrine disruption, estrogenic activity

Lead organisation:
T. G. Masaryk Water Research Institute, public research institution

Project duration: **01/2021 – 12/2023**

Přemysl Soldán

Coordinator and main contact point

Areas of expertise: ecotoxicology; use of the effect based methods approach for evaluation of the ecological status of water bodies; continuous monitoring of the biological quality of water; early warning of pollution spill accidents in water; tools for detection a reaction to pollution spills in water

- **Funding agency (Country):** Technology Agency of the Czech Republic (Czech Republic)
- **Abstract:** Effect-based methods will be used to evaluate the ecotoxicological status of the aquatic environment. Developed methodology can, as a part of water monitoring programs, guide to subsequent identification of hazardous substances in the water.
- **Expected outputs:** Methodology of surface water status assessment using effect-based methods, peer-reviewed article on project results, summary research report, project website.

heis.vuv.cz/projekty/hopem

Change4Water

Water systems and water management in the Czech Republic in conditions of climate change

Keywords: integrated water resources management, adaptation to climate change, adaptation measures, industrial wastewater, exosystem protection, flood protection

Lead organisation:
T. G. Masaryk Water Research Institute, public research institution

Project duration: **07/2020 – 12/2026**

Lada Stejskalová

Main contact point

Areas of expertise: wastewater treatment, industrial wastewater, municipal wastewater, point sources of pollution, pharmaceuticals, water footprint, sustainability assessment

- **Other Partner Organisations:** Czech Technical University; Czech University of Life Sciences; University of Chemistry and Technology; Nature Conservation Agency; CzechGlobe; Research Institute for Landscape and Ornamental Gardening, Czech Hydrometeorological Institute

- **Funding agency (Country):** Technology Agency of the Czech Republic (Czech Republic)

- **Abstract:** The project focuses on finding ways to reduce the amount of industrial wastewater, and assessing treatment techniques and treatment efficiency. It focuses mainly on priority substances acc. Directive 2013/39/EU. Standards of wastewater treatment plants (of different industrial sectors) shall be assessed to ensure they meet modern requirements and use the best available technologies. Special attention is paid to cases when industrial wastewater is discharged into municipal sewers and treated on municipal/urban WWTPs – these are not usually well adapted for industrial WW treatment, and therefore it is necessary to prepare a proposal for such treatment or reconstruction.
  Another workpackage of the Change4Water project focuses on assessing the importance ofpathways of antropogenic pollutants in the environment resulting in water pollution. Main substances of interest (besides nutrients) are heavy metals, PAH and pesticides. Especially the contribution of agriculture, urban run offs, storm water overflows of sewage systems and atmosferic deposition are considered as the main diffuse sources of pollution.

- **The main areas:** future water requirements, identification of water deficit areas, the impact of climate change on ecosystems, reducing the amount and level of pollution in industrial wastewater, inputs, paths and the effects of water pollution

- **Expected outputs:** Analysis of industries in terms of their water needs, production technologies used, and emissions of discharged substances with emphasis on particularly hazardous substances and priority substances; inventory of the current most important industrial pollutants, which are not efficiently removable at municipal WWTPs, and their categorization according to the industry and the pollutant nature; study locating sources of new significant pollutants, which removal at municipal WWTPs is limited + proposed procedures to reduce or eliminate their occurrence in discharged wastewater; possible proposals to tighten emission standards; methodology on recirculation technologies in industrial sectors; methodology on investment allocation for effective reduction of pollution caused by industrial wastewater; methodology of identification relevant pressures on water bodies; evaluation of effectivness of measures to improve water quality.

www.centrum-voda.cz/en

Other contact points:

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Areas of expertise: wastewater and sewage sludge treatment, waste recycling, environmental protection, biogas technologies, bio-based production, non-linear processes in ecosystems

Petr Březina

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Coordinator

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Areas of expertise: project management, water supply, river basin water management, water structures systems

ARG Tech
Technologies for removal of antibiotic resistance genes from sewage sludge applied in agriculture

Keywords: antibiotic resistance genes; bacteria; sewage sludge; WWTP

Lead organisation:
University of Chemistry and Technology, Prague

Project duration: **06/2020 – 12/2022**

Jan Bartáček
Coordinator and main contact point

- **Other partner organisations:** PVK a.s.
- **Funding agency (Country):** Technology Agency of the Czech Republic (Czech Republic)
- **Abstract:** The project tests the effectiveness of available technologies for sanitation of sewage sludge. The aim is to propose parameters of sludge disinfection processes that safely ensure the removal of ARB and ARGs so that sludge can be used as fertilizer.
- **Expected outputs:** Pilot unit for sludge pasteurisation, utility model for thermal hydrolysis of sludge, reports and articles on ARGs present in sludge produced by full scale technologies.

tvp.vscht.cz/research/projects-grants/arg-tech

Other contact points:

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Areas of expertise: water technology

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Areas of expertise: microbiology, GMO

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PVK a.s.
project manager

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Mic GIVER
MICromycete tarGeted biotechnological Valorizations for Environmental bioremediation

Keywords: bioremediation, contamination, micromycete, surfactant, biotechnology

Lead organisation: **CEDRE**

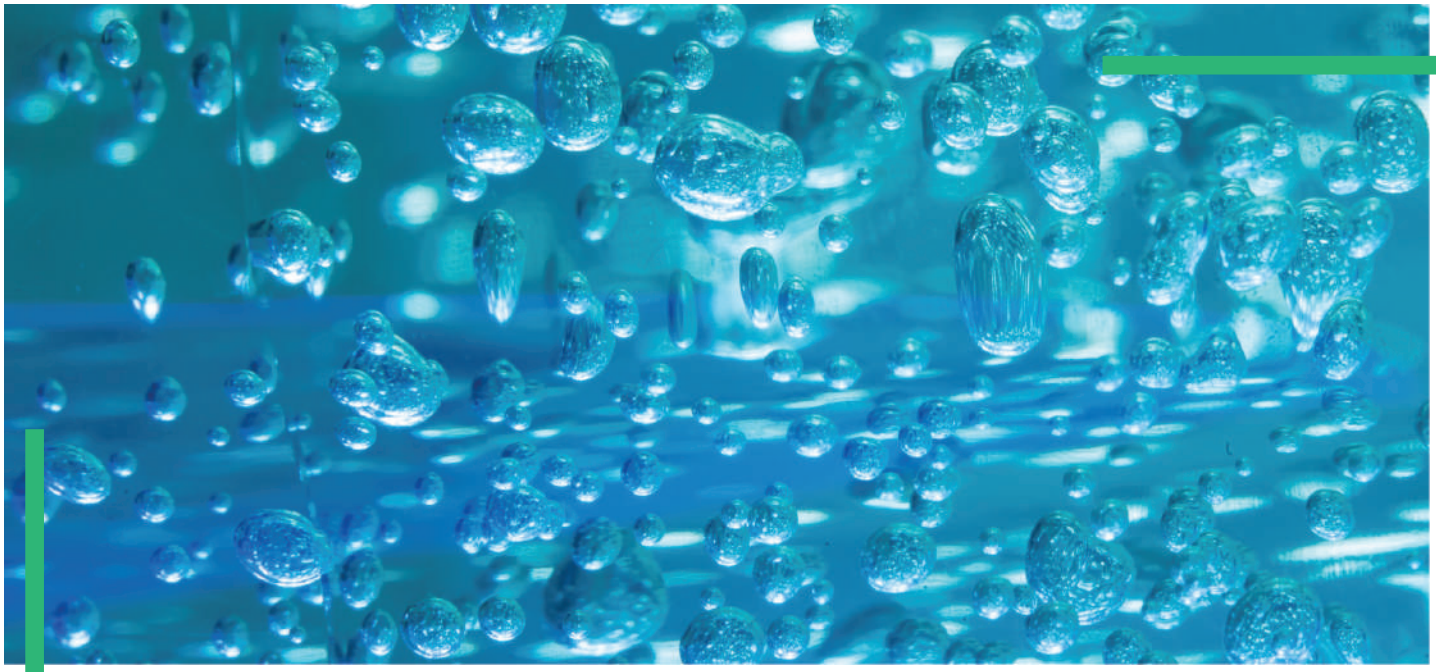
Project duration: **02/2022 - 01/2026**

Stéphane LE FLOCH

Coordinator and main contact point

Areas of expertise: water pollution, OIL & Chemical & solids wastes, analytical chemistry, environmental chemistry

- **Other partner organisations:** Universities of Brest, Rouen, Orleans, Paris
- **Funding agency (Country):** French National Research Agency (France)
- **Abstract:** Mic GIVER will allow the development of new fungal bioremediation bioprocesses for industrial stakeholders in the field of pollution control. The project is to explore the biotechnological potential of micromycetes for the in-situ bioremediation of 4 groups of various but emblematic HNS (Hazardous and Noxious Substances): Glyphosate and AMPA (AminoMethyl Phosphonic acid), Picric acid (2,4,6-trinitrophenol), Petroleum cut n°1 (Diesel) and Petroleum cut n°2 (Waxes, from C10 to C20).
- **Expected outputs:** new bio processes for soil treatment



Other contact points:

Gaetan LE FLOCH

University of Brest, UBO

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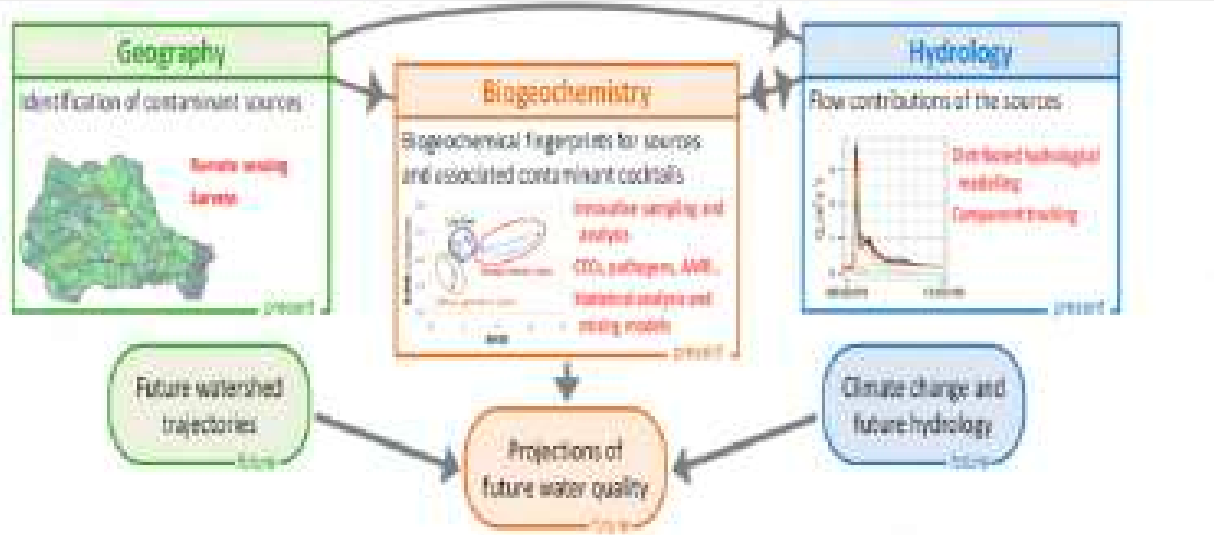
Areas of expertise: fungal bioremediation

CHYPSTER

Integrated biogeochemical, geographical and hydrological approaches to track sources of contaminants in mixed land-use watersheds



Interdisciplinary approach for the assessment of river contamination sources and projection of future water quality trajectories

Keywords: contaminants cocktails, modeling, ecosystems, fingerprinting, anthropogenic pressure, socioeconomic survey

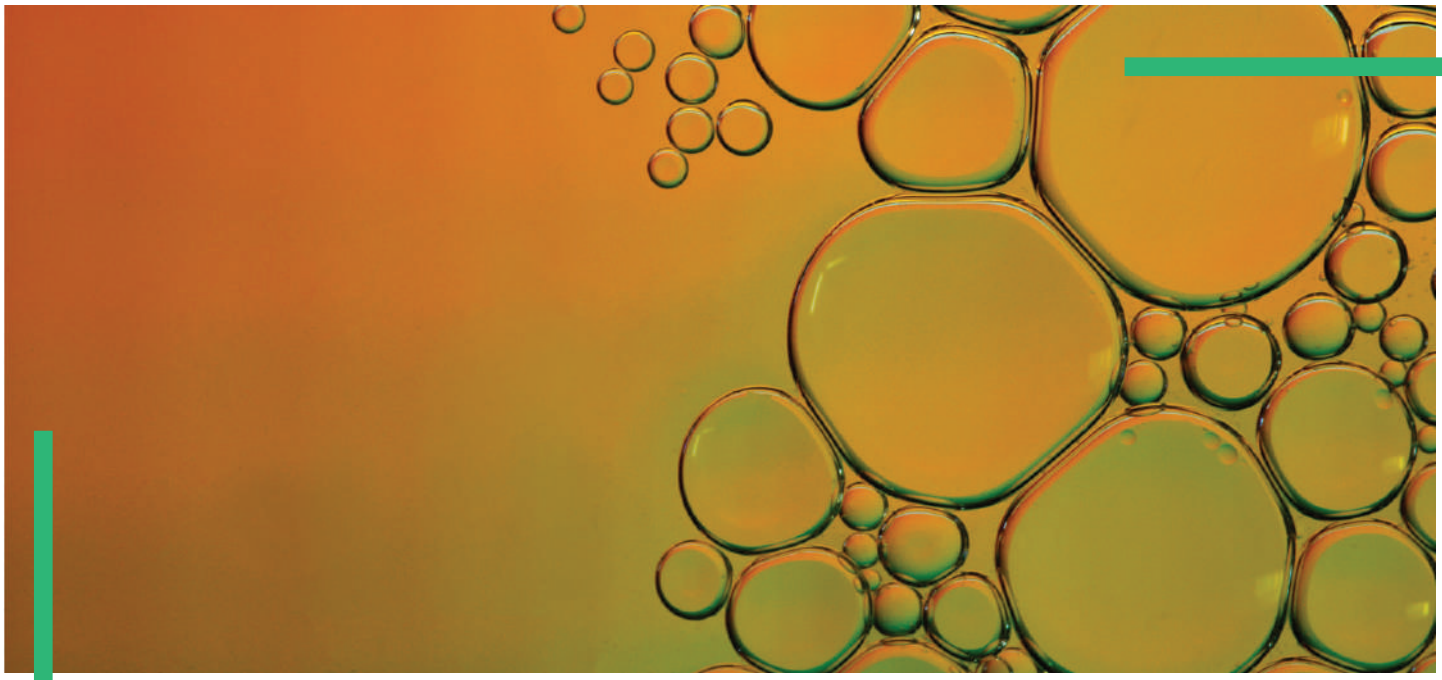
Lead organisation: **INRAE, Research unit RiverLy, Villeurbanne**

Project duration: **10/2021 - 9/2025**

Marina Coquery

Coordinator and main contact point

Areas of expertise: biogeochemistry, freshwater pollution, trends of contamination, sampling and analytical methods, inorganic contaminants



- **Other partner organisations:** Université Grenoble Alpes, IGE - Institut des géosciences de l'environnement et Pacte - Laboratoire de sciences sociales ; VetAgro Sup, LEM - Laboratoire d'Ecologie microbienne, Villeurbanne
- **Funding agency (Country):** Agence Nationale De La Recherche (France)
- **Abstract:** This project aims to define and test a new interdisciplinary approach to identify the sources of anthropogenic contaminants and predict future water quality trajectories based on hydrological processes, changes in land-use and anthropogenic activities.
- **Expected outputs:** The validated model will be applied on selected scenarios to predict sources contributions and resulting contaminant cocktails in the river under different watersheds trajectories evaluated with local socio-economic actors.

Other contact points:

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LEM, VetAgroSup, Villeurbanne, France

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Areas of expertise: microbiology, water pollution, pathogens

Céline Duwig

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Task leader, partner representative

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Areas of expertise: biogeochemistry, watershed pollution

Pharma_CARE
Low concentrations of pharmaceuticals: action and reaction of freshwater invertebrates

Keywords: Psychoactive drugs, Freshwater molluscs, Read across, Risk assessment

Lead organisation: **LIEC - Lorraine University, CNRS**

Project duration: **4/2022 - 9/2025**

Laetitia Minguez

Scientific coordinator and main contact point

Areas of expertise: aquatic ecotoxicology, ecophysiology, ecology, environmental parasitology

- **Funding agency (Country):** Agence Nationale De La Recherche (France)

- **Abstract:** The hazard characterization of all pharmaceutical compounds is not only technically challenging but resource and time demanding. Grouping and read-across approaches are essential to assure the hazard assessment of all pharmaceuticals in due time and at lower cost. These approaches assume that substances which are structurally similar will have reasonably similar physical-chemical properties, behave similarly, and elicit similar biological effects across species if their molecular targets are present. Aquatic invertebrates have most of these targets, however the risks to these organisms after prolonged exposure to low environmental concentrations are still unknown and therefore remain to be determined. Therefore, this project aims to assess and understand the (sub)chronic effects of pharmaceuticals at low concentrations, after single or mixture exposures, on several invertebrates with a key ecological function in freshwater ecosystems, by combining the study of the fate of drugs and their biological action in organisms. With these data, the feasibility of grouping and read-across methods, between psychoactive compounds (chemical read-across) and between molluscs (biological read-across) will be tested.

- **Expected outputs:** Decipher pharmacokinetic and pharmacodynamic properties of chosen drugs for non-target organisms, Refine PBT classification of psychoactive compounds, Aid decision making with regards to their risks

Other contact points:

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Collaborator

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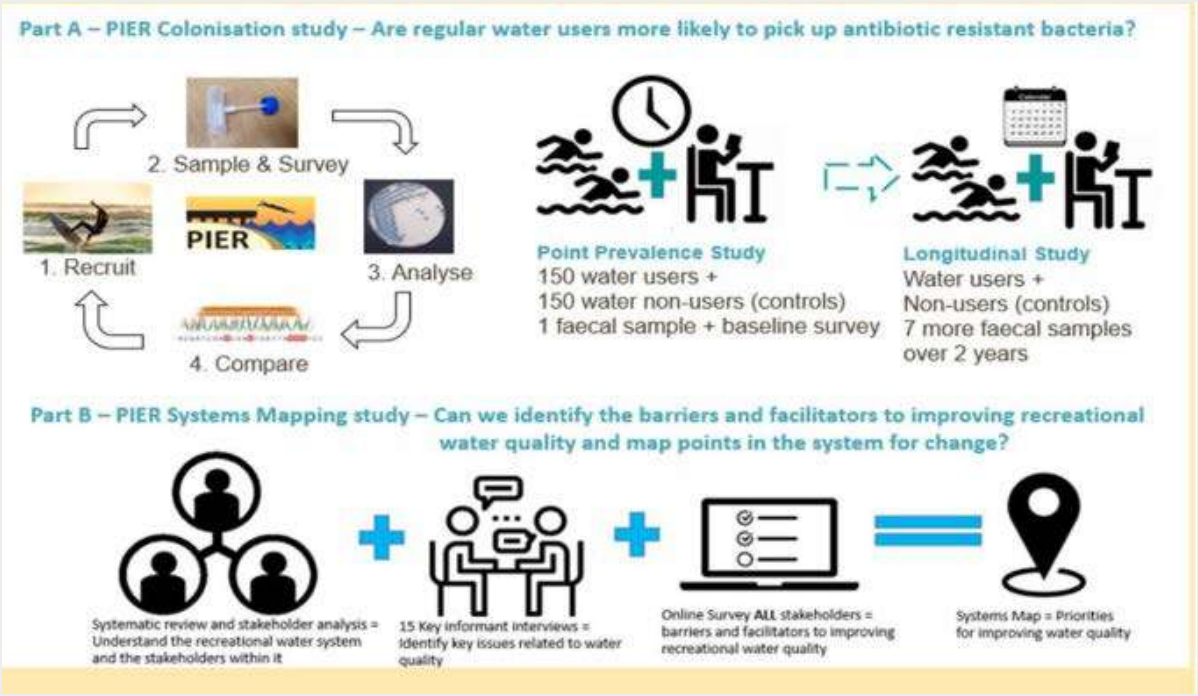
Areas of expertise: aquatic ecotoxicology, animal histophysiology, environmental parasitology

PIER

Public health impact of Exposure to Antibiotic Resistance in recreational waters



Keywords: antibiotic resistance, recreational waters, exposure

Lead organisation: **University of Galway**

Project duration: **03/2019 - 09/2023**

Dearbháile Morris

Scientific coordinator and main contact point:

Areas of expertise: antimicrobial resistance; food and water borne infection, emerging contaminants, One Health, wider societal impact of infection, microbiology

- **Other partner organisations:** Health Service Executive; University of Exeter; Queens University Belfast
- **Funding agency (Country):** Irish Environmental Protection Agency (Ireland)
- **Abstract:** Antimicrobial resistance (AMR) is recognised globally as one of the greatest threats to human health. The role the environment plays in transmission of AMR is poorly understood. It is estimated that almost half of adults in Ireland use recreational waters at least once a year. There are potential health implications from exposure to antimicrobial resistant organisms (ARO) if present in recreational waters. Recent work completed by the members of the PIER project team have revealed consistent contamination of coastal waters with ARO. By the established regulatory standards, the bathing water quality in the area concerned has been consistently of sufficient quality. Findings of ARO in recreational waters point to limitations of the use the number of E. coli per 100mL as an indicator of bathing water quality. This approach does not adequately reflect the public health risk posed by some variants of E. coli, such as antimicrobial resistant E. coli. The PIER project will examine the relative risk of colonisation with ARO following exposure to coastal waters. Baseline data on colonisation of regular water users and non-water users with ARO will be generated. A cohort of participants will be invited to join the longitudinal survey during which the persistence of colonisation with ARO will be assessed over a 2 year period. The PIER project will also identify barriers and facilitators to improve recreational water quality and map potential points in the system for change. Findings of the PIER project will inform policy makers and water regulators.
- **Expected outputs:** Review of current knowledge on public health risk of AROs in the aquatic environment, Peer-reviewed papers in high-impact journals, Project webpage, media publicity, social media engagement, Public health consequence of exposure to ARO in waters.

www.nuigalway.ie/pier/

Other contact points:

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Areas of expertise: antimicrobial resistance, mobile resistance elements, STEC, water borne infection, One Health

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CATAD3.0
Advanced adsorption-oxidation technologies for the removal of emerging contaminants

Keywords: cytostatics, neocotinoids, sewage sludge, structured-carbon materials, wastewater, 3D printing

Lead organisation:
Universidad Complutense-Catalysis and Unit Operations Group (CyPS)

Project duration: **09/2021 - 08/2024**

Juan García Rodríguez

Coordinator and main contact point:

Areas of expertise: adsorption, oxidation, regeneration of catalysts and adsorbents, synthesis of carbon materials, water treatment, advanced oxidation processes, sludge treatment, valorization, circular economy

- **Funding agency (Country):** Agencia Estatal de Investigación (Spain)
- **Abstract:** The main objective of this proposal is the application of fixed-bed catalytic oxidation and adsorption processes using 3D-structured carbon materials synthesized from urban and industrial WWTPs sludge for efficient removal of substances in watch list.
- **Expected outputs:** 3D-structured carbon materials synthesized from urban and industrial WWTPs sludge, Removal of cytostatic compounds in wastewater.

sites.google.com/ucm.es/catad3d

Other contact points:

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Areas of expertise: adsorption

Silvia Álvarez Torrellas

Universidad Complutense
-CyPS Group

Investigator

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Areas of expertise: adsorption, synthesis of carbon materials, advanced oxidation processes

ABRA

Antibiotic resistance: The role of chemical pollution in urban wastewater

Keywords: Antibiotic resistance, Non-target chemical analysis, Water sampling, Bacteriophages, Wastewater pollution

Lead organisation: **Lund University, Sweden**

Project duration: **01/2022 - 12/2024**

Charlotta Turner

Coordinator and main contact point

Areas of expertise: Analytical chemistry, Extraction, Supercritical fluid technology, Green analytical chemistry

- **Other partner organisations:** Dhaka University, Bangladesh; and the University of the Witwatersrand, South Africa
- **Funding agency (Country):** The Swedish Research Council VR
- **Abstract:** The aim of the proposed research is to determine the chemical fingerprint of urban wastewater, and to unravel correlations to antibiotic resistance transmission through bacteriophages
- **Expected outputs:** Advanced non-target chemical analysis methods. Knowledge about the impact of chemical pollutants in water for bacteriophage induction and spread of antibiotic resistance. Analytical methods targeting potential chemical markers.

Other contact points:

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Areas of expertise: Experimental Infection Medicine and Antibiotic resistance

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Areas of expertise: Analytical chemistry, mass spectrometry, metabolomics, chemometrics

I-CRECT

Keywords: Antibiotic Resistance, Global Health

Lead organisation: **Linköping University**

Project duration: **02/2022 - 06/2025**

Håkan Hanberger

Coordinator and main contact point

Areas of expertise: Antibiotic Resistance

- **Other Partner Organisations:** Universities in Vietnam, France, Denmark, Germany and Vietnam National Children Hospital in Hanoi
- **Funding agency (Country):** JPI AMR and Swedish Research council
- **Abstract:** This WP in the One Health project aims to assess the effectiveness of existing wastewater treatment systems at hospitals in reducing discharged AMR pathogens and genes and propose optimum treatment method(s) providing the best reduction rate.
- **Expected outputs:** Identification of the most efficient hospital sewage treatment method

Other contact points:

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Areas of expertise: Microbiota and ESBL

APRIAM

Keywords: Antibiotic residues, antibiotic resistant bacteria, water treatment

Lead organisation: **Karolinska Institutet**

Project duration: **01/2022-12/2025**

Cecilia Stålsby Lundborg

Coordinator and main contact point

Areas of expertise: Public health, water treatment, microbiology

- **Other partner organisations:** Kalinga Institute Industrial Technology

- **Funding agency (Country):** Swedish Research Council

- **Abstract:** Our project has two sub-studies relating to the TAP action (i) Pre and post treatment of wastewater at 10 different wastewater treatment plant (WTP) units. Metagenomics-based approach will be used to understand the overall effect of WTPs on the wastewater bacterial composition. Research suggests the role of antibiotic residues and metal ions present in the wastewater in promoting the antibiotic resistant (ABR) bacteria burden. Thus, our objective is to estimate the concentration of different antibiotic residues and metal ions present in the inlet and outlet of selected WTPs. These data will be used to understand the changes in the physicochemical parameters such as pH and conductivity. Further, to identify the potential role of antibiotics and metals in the selection of ABR bacteria in wastewater. (ii) An off-grid point-of-use water disinfection device to contain antibiotic resistance and improve public health. Traditional disinfection methods of water treatment are generally ineffective in dealing with the global threat of ABR including Multi Drug Resistant and Extremely Drug Resistant organisms, however, photocatalytic disinfection deals effectively with this, as complete disinfection of the target strains is noticed. 'PhotoBot' is an acronym for Photocatalysis in a bottle.

- **Expected outputs:** Two webinars concerning (i) Analysis of the antibiotic residues and Transcriptomic analysis and (ii) Kinetic modeling and Evaluation of environmental hazards and risk assessment. Further published articles and possibly patent applications.

Other contact points:

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Areas of expertise: Chemical engineering, water treatment, nanotechnology

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Areas of expertise: Clinical microbiology, public health, water treatment

1.1 The TAP Scientific Coordinator

Composition

The TAP Action will be chaired by a Scientific Coordinator. The Scientific Coordinator will be selected among the researchers involved in the TAP Action during the kick-off meeting (in January 2022) by the TAP Action members themselves. Afterwards, the TAP Scientific Coordinator has to be confirmed by the TAP Steering Committee. Candidacy for this role will be on a voluntary basis.

Role

The role of the TAP Action Scientific Coordinator is to:

1 Ensure the scientific coordination of the TAP Action activities.	**2** Lead the work in developing the TAP Implementation Plan.	**3** Lead the work in developing the proposed TAP Action outputs.
4 Represent the clusterat the midterm guided dialogue with the TAP Steering Committee.	**5** Lead the work in developing the final follow up of the TAP Implementation Plan.	**6** If requested, support additional foresight exercises carried out by the JPIs in the selected scientific area of the TAP Action.

TAP EXPECTATION

Share good and bad experience, results and knowledge

Discuss on common methodologies

Establishing contacts and future cooperation

Align levels in the given field

Identify new knowledge gaps

Combine expertise from different disciplines

Discuss ongoing national research on the EU level

Increase the number of studied compounds

Identify the best available technology in partner countries

Reduce the content of CECs and pathogens

Increase the number of wastewater technologies studied

Better understand research priorities and approaches in other countries

Learn to target procedures and methodologies more precisely

Transfer with international researchers in the field

Improve definitions

TOP TOPICS

- implementation of effect-based methods (EBM)
- effect-directed analysis and identification of CECs
- antimicrobial resistance assessment
- use of EBM for evaluation of wastewater treatment efficiency
- use of ecotoxicological data for environmental and human health risk assessment
- Suitable technologies for separation, treatment, and reduction of industrial wastewater at producers
- to reduce the content of CECs and pathogens, to establish contacts for further cooperation of institutions and individuals.
- wastewater treatment technology
- physiological pathways disturbed by selected pharmaceutical compounds
- common biological pathways involved in the response of CADs and between mollusc species
- treatment trains and their integration

Steering Committee Chair

The TAP Steering Committee is chaired by TA CR (the Czech Republic) who has the overall responsibility for carrying out and coordinating the setting up, implementation and evaluation of the AquaticPollutants TAP Action.

Contact

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TA CR as lead for this ERA-NET Cofund AquaticPollutants TAP Action will act as TAP Action Administrator, during the first two years of its existence. Costs will be covered by AquaticPollutants ERA-NET Cofund management costs assigned to TA CR in advance.

TA CR will help with:

- supporting the TAP Scientific Coordinator;
- organising meetings (agenda, documentation, minutes);
- facilitating communication within the TAP Action members and with the TAP Steering Committee;
- supporting the Cluster in the preparation of the Implementation Plan of the TAP Action and its implementation;
- external communication- disseminating and creating dissemination leaflets/contents for JPIs' web pages;
- ensuring regular updates and communication between the TAP Steering Committee,
- ERA-NET Cofund AquaticPollutants consortium and the three JPIs;
- circulating exploratory survey about expectations of the Action members.