

NIREAS - INTERNATIONAL WATER RESEARCH CENTER



DECENNIAL ACTIVITY REPORT

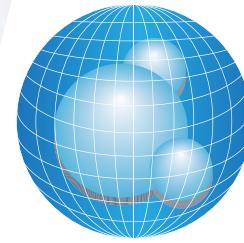
2011 - 2021

MARCH



University
of Cyprus





nreas
International Water Research Center

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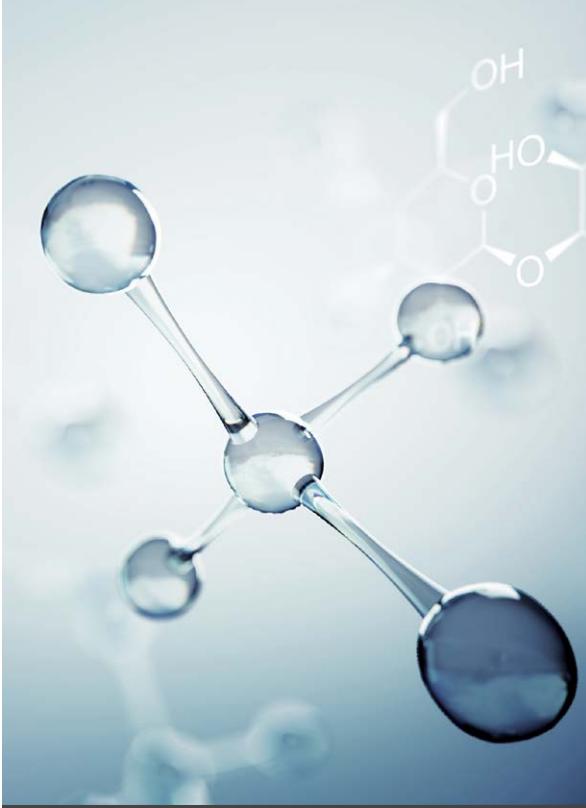


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Foreword

In March 2021, Nireas International Water Research Center (Nireas-IWRC) completes its first ten years of operation. Ten years of fruitful, scientifically engaging and socially stimulating contributions of the Center's national and international activities. To celebrate this milestone, I have the honor of introducing the **Nireas-IWRC's Decennial Report** summarizing the Center's activities and achievements to date and chronicling our research teams' journey in achieving the Center's scope and objectives.

The activities of Nireas-IWRC were launched on the 31st of December 2010, with the Center's official inauguration held on the 22nd of March 2011 to coincide with the celebration of the International Water Day. The establishment of the Center was made possible following the successful evaluation of a proposal submitted by our research group to the Cyprus Research Promotion Foundation (recently renamed to Research & Innovation Foundation) under the "Strategic Infrastructure" Research Call for the establishment of research units and for laying the foundations for substantial growth of research in Cyprus. Our research Center was co-financed, between 2011 and 2015, by the European Regional Development Fund and the Republic of Cyprus (through the Research Promotion Foundation) and by the University of Cyprus. Further, in December of 2013, after a decision taken by the Council of the University, the Council of Ministers and the Cyprus Parliament, the Center became one of the official Research Units of the University of Cyprus.

The primary objective of the Center is to conduct research of high international caliber, while at the same time serving the research needs of the Cypriot society, economy and industry.

For Cyprus, water availability has historically been a challenge and through the ages several extended periods of drought have been recorded that decimated the population. In modern times,

Cyprus has responded with the creation of a network of fresh-water reservoirs, and the water supply has, in recent years, been enhanced by a network of desalination plants and wastewater reuse schemes. These large infrastructure projects have made the problem of water scarcity in modern Cyprus less pressing, but at the same time there are a number of other issues that must be faced. Among the most important ones are the presence of xenobiotics in the aquatic environment and in wastewater, water quality, salt-water intrusion in coastal aquifers, water loss to evaporation, infrastructure integrity, etc.

Nireas-IWRC was created with the vision to leverage scientific and engineering expertise in order to tackle these important problems in Cyprus. However, these problems are not unique to Cyprus; they are faced in almost all countries around the world. Thus, while placing emphasis on solving the local water-related problems, Nireas-IWRC has maintained an outward view, evidenced by establishing international collaborations and partnerships. Water is one of the most important issues that humanity will have to deal with in the 21st Century, and Nireas-IWRC was from the very beginning created with the vision of reaching out to the wider scientific community for the exchange of know-how and of best practices. At the core of our research collaboration initiatives and knowledge exchange lies our strong belief in mutually beneficial synergies and the value of citizens' engagement in strengthening awareness on water-related issues.

This report provides information on the organizational structure of the Center, its main scientific and research pillars and operations, its network of collaborators and partners and on its main research outputs and achievements during the first decade of the Center's operation.

Nireas-IWRC is an important player in the scientific water arena not only at the national level, but

also at the European and international levels. Its productivity, translated both into scientific outputs and activities that benefit relevant stakeholders and the wider public, are timely, relevant and wide-ranging. Its contribution is nicely reflected in the various publications in the most prominent scientific journals of the Center's core research fields, including *Water Research*, *Science of the Total Environment*, *Journal of Hazardous Materials*, *Chemical Engineering Journal*, *Applied Catalysis B: Environmental*, *Environment International*, *Science*, *Science Advances*, *Nature Reviews Microbiology*, and *Water Resources Management*, and in the development of networks and conferences all around the world.

Water is perhaps the most vital natural resource on the planet. It is necessary for human survival and a critical input into our food, manufacturing and energy systems. It also sustains the ecosystems and climates upon which both our built and natural world rely. Today we are putting more pressure on freshwater resources than ever. Because of the rapidly growing population and the shifting climate, water stress, and therefore water risk, is increasing around the world. The activities of Nireas-IWRC are continuously adapting to the changing challenges trying to tackle emerging issues in the framework of a rapidly changing world, providing a continuously increasing societal impact.

A recent example of the Center's continuous research adaptation is Nireas-IWRC's engagement with the COVID-19 pandemic, through the analysis of the RNA fragments of the SARS-CoV-2 in urban wastewater. COVID-19 is the worst pandemic the world has faced since the Spanish Influenza of 1918, which claimed the lives of millions of people. As we still watch the death toll climb, we dream of the day when the virus will be eradicated, and our lives will go back to normal. Our admiration and respect go to the front-line healthcare workers, nurses, and physicians and to those maintaining the society's infrastructure.

What hasn't changed in this time period, and what is perhaps coming even more to the fore, is the role of science. The wastewater community is to be commended on the huge efforts it made during the current COVID-19 pandemic. As history has shown, necessity is the mother of invention. And in this case, the need is pushing science and research towards important advances in relation to the current state of knowledge as to how resilience can be achieved in relation to the water systems or what, for example, wastewater monitoring can achieve, opening at the same time new directions towards transforming the wastewater infrastructure into a source of obtaining credible information for the benefit of the health sector and our societies.

In closing this foreword, on behalf of the Academic Council, I would like to take this opportunity to warmly thank the Nireas-IWRC researchers, junior and senior, from Cyprus and abroad, for their work, support and commitment, enthusiasm and dedication. Nireas-IWRC has thrived on the shoulders of our researchers and through significant help from our managerial staff, especially Mr Toumazis Toumazi and Ms Eleni Toxqui, who over the last decade showed steady dedication to the Center and its mission. The Center acknowledges their contributions and thanks them. I would also like to thank our University for its continuous support and all the stakeholders involved in our work and efforts to date.

I hope you will find the information presented in this report, useful and interesting.

Despo Fatta-Kassinos

Professor, Department of Civil and Environmental Engineering
Director of Nireas-IWRC

Nireas-IWRC at a Glance

In today's environment, society, individuals and organizations are confronted with ever increasing demands for water quantity and quality, with the demands raising profound questions regarding the society's ability to synthesize efficient solutions to these rapidly proliferating problems. Nireas-IWRC helps counter this trend through the creation of a "home" for water-related research, and through the hosting of an internationally-recognized research institute for the advancement of water-related research. Consequently, Nireas-IWRC ultimately offers a platform not just for more effective technologies, but also for an entirely new generation of functionality for sustainable management of water resources, harnessing the synergies of integrated interdisciplinary research on water quality, quantity, and management and economics through a single knowledge repository. Nireas-IWRC generates a responsive environment for technology-enhanced research to motivate, engage and inspire citizens, and one that is embedded directly in the social web.



The activities of the Center aim at dependable, flexible and user-centric shared solutions for sustainable use of water resources and for better management of ecosystems including the mitigation of environmental degradation and associated threats. Nireas-IWRC's research delivers visionary concepts and techniques, and strategic integrated approaches addressing water-related applications that are cost-effective, easy to set up and to operate.

The aforementioned activities include interdisciplinary research aiming at the solution of complex scientific and engineering problems under the unifying theme of water management. The goal is to develop further expertise that will enable an integrated approach to this important issue, coupling chemistry, biology, hydrology,

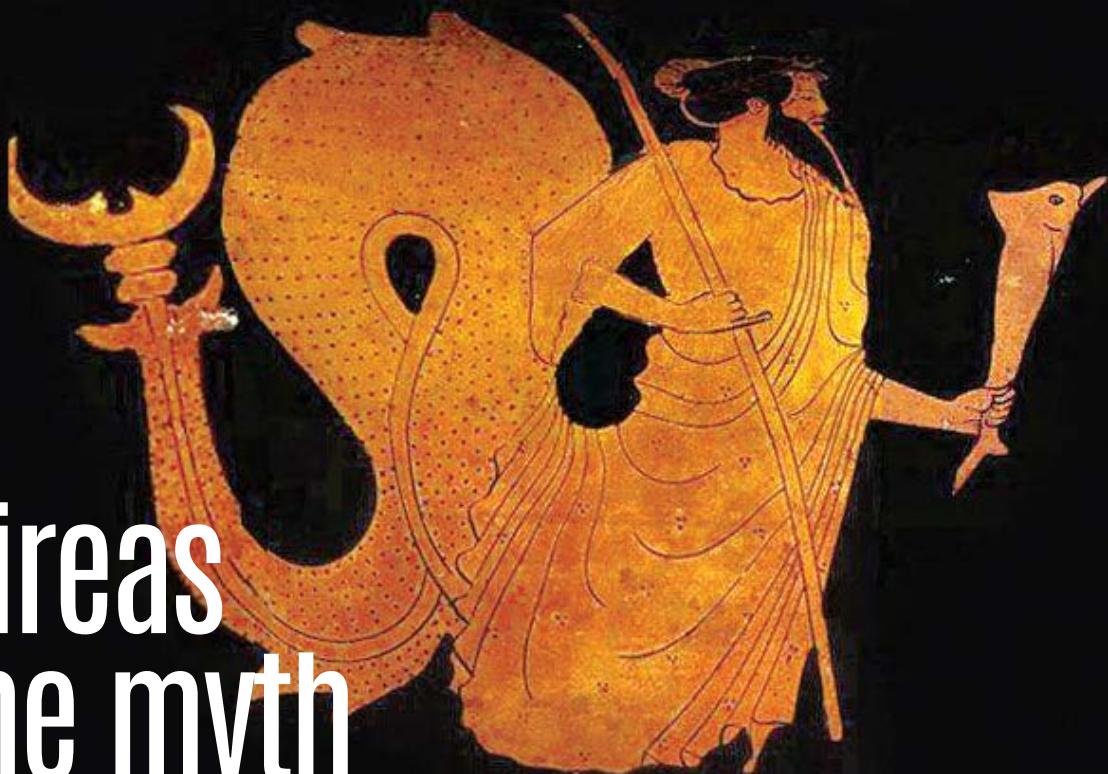


geohydrology, hydraulics, advanced modeling capabilities and experimental/analytical work, computational mechanics, risk assessment, environmental science and education, economics and of course various specialties of engineering in order to face various emerging problems in this field. The implementation of the various projects at the Center is spearhead research at a pioneering level internationally. The projects of Nireas-IWRC are true inter-sectorial, effectively linked and integrated since the working schedule is structured so that various members are involved in several inter-related projects and activities. Each of the research pillars and tasks described below promotes competence and practical skills in various disciplines within the thematic area of water management. The overarching aim of Nireas-IWRC is to integrate

and leverage this interdisciplinary research for the solution of complex scientific and engineering problems. Although distinct, the pillars have commonalities both in the scientific content and the industrial and real-life scale applications.

Nireas-IWRC focuses on 7 research pillars:

- Water/Wastewater quality, monitoring and treatment
- Drinking water supply, distribution and management
- Environmental Biotechnology
- Subsurface processes and engineering
- Hydrologic, hydro-geomorphic and hydro-climatic processes
- Geophysical hydrodynamics
- Socioeconomic analysis of water-related issues.



Nireas The myth

Nireas (Nereus) is one of the most important water deities of Greek mythology, known for his truthfulness and virtue and often referred to as the "old man of the sea".

<https://www.theoi.com/Pontios/Nereus.html>

<https://harvardartmuseums.org>

In the Greek language, the name NIREAS connotes flowing water. Nireas (Greek: Νηρεύς) was according to Greek mythology the eldest son of Pontus (the Sea) and Gaia (the Earth). Nireas was a Titan who with Doris fathered 50 daughters (the Nereids), with whom Nireas lived in the Aegean Sea. Nireas and Proteus seem to be two manifestations of the god of the sea who was supplanted by Poseidon when Zeus overthrew Cronus. Nireas, who dwelled in the Aegean Sea, was a god who could turn himself into all kinds of shapes. Nireas was also known for his truthfulness and virtue. Nireas was father to Thetis, one of the Nereids, who in turn was mother to the great Greek hero Achilles, and Amphitrite, who married Poseidon.

Nireas-IWRC's Mission

The mission of the Nireas-International Water Research Center is:

- to address ambitious research questions
- to develop cutting-edge water technologies
- to contribute to policy development
- to disseminate knowledge concerning water science and engineering in layman form to the wider public

Nireas-IWRC offers a platform not just for more effective technologies but for an entirely new generation of functionality for sustainable management of water resources, harnessing the synergies of integrated multidisciplinary research on water quality, quantity, and management and by linking previously stand-alone content through a single knowledge repository.

Equally important, Nireas-IWRC generates a responsive environment for technology-enhanced research to motivate, engage and inspire citizens, and one that will be embedded directly in the social web. The acquired knowledge and know-how are transmitted internationally by publications, lectures, teaching, and consulting to the private and public sector.



Nireas-IWRC Establishment

The official inauguration of Nireas-IWRC was on the 22nd of March 2011, and was held to coincide with the celebration of the International Water Day.



Πανεπιστήμιο Κύπρου
University of Cyprus

Πολυτεχνική Σχολή
Τμήμα Πολιτικών Μηχανικών
και Μηχανικών Περιβάλλοντος

10 Μαρτίου 2011

Ίδρυση Διεθνούς Κέντρου Έρευνας σε Θέματα Νερού - NIREAS

Αξιότιμοι Συνάδελφοι και Φίλοι,

Με ιδιαίτερη χαρά σας προσκαλούμε στην τελετή ίδρυσης του Διεθνούς Κέντρου Έρευνας σε θέματα Νερού NIREAS στις 22 Μαρτίου 2011 στο Πανεπιστήμιο Κύπρου, (Κτήριο Συμβουλίου-Συγκλήτου 'Αναστάσιος Γ. Λεβέντης', Αίθουσα B108).

Η δημιουργία του Ερευνητικού Κέντρου χρηματοδοτείται από το Ίδρυμα Πρωθυπουργού Έρευνας Κύπρου μέσω της Δέσμους 2008, έργο ΝΕΑ ΥΠΟΔΟΜΗ/ΣΤΡΑΤΗ/0308/09, το οποίο υποχριματοδοτείται από την Κυπριακή Δημοκρατία και το Ευρωπαϊκό Ταμείο Περιφερειακής Ανάπτυξης της Ε.Ε. και αιτούει στρατηγικό έργο για την ανάπτυξη νέας ερευνητικής υποδομής στον τόπο μας.

Η έρευνα και οι γενικότερες δραστηριότητες του ερευνητικού κέντρου βασίζονται σε διακριτές θεματικές ενότητες ως ακόλουθων:

- 1) προσδιορισμός και έλεγχος της ποιότητας του νερού
- 2) ανάπτυξη και μελέτη προχωρημένων και οικονομικά βιώσιμων τεχνολογιών επεξεργασίας υγρών αποβλήτων και νερού
- 3) διαχείριση αποτύπων δικτύων παροχής νερού και μη συμβατικών υδατικών πόρων
- 4) κοινωνικο-οικονομική ανάλυση διαφόρων θεμάτων που απότομα της χρήσης νερού, εκπαίδευση νέου επιστημονικού δυναμικού και κοινωνική επιμέρωμα
- 5) προσλογιση ταλαντούχου ερευνητικού προσωπικού και ενδυνάμωση του επιστημονικού δυναμικού στην Κύπρο
- 6) διάνυση επιστημονικών αποτελεσμάτων και εργασιών σε εθνικό και διεθνές επίπεδο
- 7) συνεισφορά στην ενημέρωση μαθητών και νέων σε θέματα διαχείρισης νερού.



ΔΕΛΤΙΟ ΤΥΠΟΥ

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ΠΡΟΣ ΔΗΜΟΣΙΕΥΣΗ

Λευκωσία, 05 Απριλίου 2011
ΣΕ ΛΥΓΕΙΣ Η ΚΑΛΥΤΕΡΗ ΔΙΑΧΕΙΡΙΣΗ ΤΟΥ ΝΕΡΟΥ ΣΤΟΧΕΥΕΙ ΤΟ ΔΙΕΘΝΕΣ ΕΡΕΥΝΗΤΙΚΟ ΚΕΝΤΡΟ ΝΕΡΟΥ «ΝΗΡΕΑΣ» ΔΙΕΘΝΕΣ ΕΡΕΥΝΗΤΙΚΟ ΚΕΝΤΡΟ ΝΕΡΟΥ «ΝΗΡΕΑΣ» ΠΟΥ ΖΕΚΙΝΗΣΗ ΤΗ ΛΕΙΤΟΥΡΓΙΑ ΤΟΥ ΣΤΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ

Την Παρασκευή 22 Μαρτίου επέλεξε για να ξεκινήσει τις εργασίες του το Διεθνές Ερευνητικό Κέντρο Νερού του Πανεπιστημίου Κύπρου ΝΗΡΕΑΣ. Την κήρυξη της έναρξης των εργασιών που έλαβε χώρα στην Πανεπιστημιουπόλη τέλεσε ο Πρόεδρος της Επιτροπής Παιδείας της Βουλής και μέλος της Επιτροπής Περιβάλλοντος κ. Νίκος Τορναφίτης. Χαιρετισμούς στην τελετή απήνθιναν, ο Πρύτανης του Πανεπιστημίου Κύπρου, Καθηγητής Κωνσταντίνος Χριστοδίλης, ο Κοσμήτορας της Πολυτεχνικής Σχολής, Καθηγητής Πάνος Παπαναστασίου, η Γενική Διεύθυνση του Υπουργείου Γεωργίας, Φυλοτόπορον και Περιβάλλοντος κ. Αιγάλη Πανελάκη και η Επιστημονική Λειτουργός του Ιδρύματος Προσθήτης Έρευνας Δρ. Άννα Μαρία Χριστοφόρου. Το Κέντρο που έχει προϋπολογισμό 1,4 εκ. ευρώ για τα πρώτα τέσσερα χρόνια, συγχρηματοδοτείται από την Κυπριακή Δημοκρατία και το Ευρωπαϊκό Ταμείο Περιφερειακής Ανάπτυξης της Ε.Ε. μέσω του Ιδρύματος Προσθήτης Έρευνας της Κύπρου.

Αναφερόμενη στο έργο, η διευθύντρια του Δρ. Δέσποινα Φάττα-Κάσινου, Επίκουρη Καθηγήτρια του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Περιβάλλοντος, σημείωσε την έντονη κοινωνική διάσταση της έρευνας αφού τα πορίσματά της θα είναι σε θέση να προσφέρουν πρακτικές λύσεις στους δημόσιους αρμόδιους φορείς και να συνεισφέρουν ουσιαστικά σε διάφορα θέματα διαχείρισης του νερού που αποτελεί για την Κύπρο μία σημαντική προτεραιότητα λόγω γου προβλήματας περιοδικής λειψηδρίας με αποτέλεσμα τα μειωμένα υδατικά αποτέλεσματα. Τόσο η ποσοτική



Management Structure

Academic Council (2020-Present)

The Academic Council oversees the day-to-day operation of Nireas-IWRC.



**DR. DESPO
FATTA-KASSINOS**

Professor in the Department of Civil and Environmental Engineering, University of Cyprus

Director



**DR. SYMEON
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Professor in the Department of Civil and Environmental Engineering, University of Cyprus



**DR. STAVROS
KASSINOS**

Professor in the Department of Mechanical and Manufacturing Engineering, University of Cyprus



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Lecturer in the Department of Business and Public Administration, University of Cyprus



**DR. LOUKAS
DIMITRIOU**

Assistant Professor in the Department of Civil and Environmental Engineering, University of Cyprus

Before the creation of the Academic Council in 2020 the Research Center was operating under the supervision of its Board of Directors, presented in page 14.

Research Council (2020-Present)

The role of the Center's Research Council is advisory to the Academic Council, in support of the Center's mission and objectives.



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Professor in the Department of Civil and Environmental Engineering, University of Cyprus



DR. COSTAS MICHAEL

Senior Scientist of Nireas-IWRC, UCY, Former Director of the Cyprus State General Laboratory, Cyprus



MS. VALERIA DULIO

Executive Secretary of the NORMAN Association INERIS, Direction Milieu et Impact sur le Vivant (MIV), France



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Director of the Water Development Department, Ministry of Agriculture Rural Development and the Environment, Cyprus



**MR. SAVVAS
HADJINEOCLEOUS**

Technical Director of the Sewerage Board of Nicosia, Cyprus



**MR. CONSTANTINOS
PARMAKLIS**

Director of the Water Board of Nicosia, Cyprus



**DR. DIONYSIOS
D. DIONYSIOU**

Professor of Environmental Engineering, Sustainable Solutions Laboratories (SSLs), Center of Sustainable Urban Engineering, Drinking Water, Water Supply, Quality, and Treatment, and Environmental Nanotechnology Laboratories, Department of Chemical and Environmental Engineering University of Cincinnati, USA



DR. DAMIA BARCELÓ

Director of Catalan Institute for Water Research (ICRA), Research Professor of Institute of Environmental Assessment and Water Research (IDAEA), Consejo Superior de Investigaciones Científicas/Spanish National Research Council (CSIC), Spain

Before the creation of the Research Council in 2020 the Research Center was supported by the Scientific Advisory Board presented in page 15.

Board of Directors (2011-2019)

The Board of Directors ensured the efficient implementation of the management plan and the quality control of all Nireas-IWRC activities.



**DR. DESPO
FATTA-KASSINIS**

Professor in the Department of Civil and Environmental Engineering,
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Director



**DR. SYMEON
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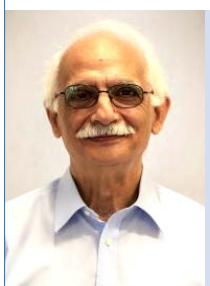
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**DR. KONSTANTINOS
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Associate Professor in the
Department of Petroleum
Engineering,
Cullen College of
Engineering,
University of Huston, USA
Assistant Professor in the
Department of Civil and
Environmental Engineering,
University of Cyprus

Scientific Advisory Board (SAB) (2011-2019)

The SAB provided input to the Director and BOD of Nireas-IWRC on issues of scientific significance.



DR. FRITZ FRIMMEL

Professor (retired),
Previous Chairholder and
Director of the DVGW -
Research Center for Water
Technology,
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**DR. SUSAN
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EAWAG, Swiss Federal
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Adjunct Professor
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Switzerland

Affiliated Members

**DR. DIONISSIOS
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Professor in the Department of Chemical Engineering
Vice-Rector of Academic & International Affairs
University of Patras, Greece

**DR. ANDREAS
ALEXANDROU[†]**

(2012 - 2018)
Professor in the Department of Mechanical and Manufacturing Engineering,
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Dialynas S.A. – Environmental Technology, Crete, Greece

**DR. ANASTASIS
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Agricultural Research Officer A' in the Agricultural Research Institute of the Ministry of Agriculture, Rural Development and Environment of the Republic of Cyprus

**DR. GEORGIOS
NIKOLOPOULOS**

Assistant Professor in the Medical School, University of Cyprus

**DR. MICHALIS
FRAGIADAKIS**

Associate Professor in the School of Civil Engineering, National Technical University of Athens, Greece





Timeline of Significant Nireas-IWRC Achievements



2011



- Creation of Nireas-IWRC, through co-funding by the European Regional Development Fund and the Republic of Cyprus.
- Inauguration ceremony of the Nireas-IWRC (22 March 2011).
- Funding is received for two Nireas-IWRC research projects (*Medolico, UCyAMR*).



2012



- Prof. Despo Fatta-Kassinos receives the national "2011 Nikos Symeonides Research Award".
- Two Nireas-IWRC journal articles receive top scientific honors for being among the most-cited.
 - "Removal of residual pharmaceuticals from aqueous systems by advanced oxidation processes", *Environment International*.
 - "Pharmaceutical residues in environmental waters and wastewater: current state of knowledge and future research", *Analytical and Bioanalytical Chemistry*.
- Funding is received for two Nireas-IWRC research projects (*I-WEB, PhotoGraph*).
- Prof. Despo Fatta-Kassinos becomes editor of the Journal Environmental Chemical Engineering, Elsevier.

- Nireas-IWRC participates in the "Researchers' Night" (27 September 2013, Nicosia, Cyprus); a first of many similar Nireas-IWRC participations over the years.
- The Nireas-IWRC stand is voted by the visiting public as the best scientific stand of the event (among a total of 45 stands).
- Funding is received for four Nireas-IWRC research projects (*SEDITIONS, GAPS, PRODROMOS, ISES*).
- Nireas-IWRC establishes WG5 of the Norman Network (A network of reference laboratories, research centers and related organizations for monitoring of emerging environmental substances) on Wastewater Reuse.



2013

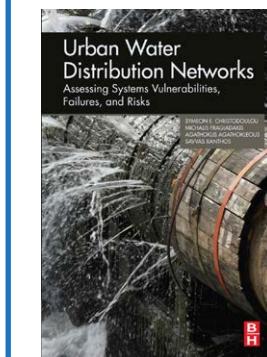
- The MSCA-ITN "Answer" is initiated, with Nireas-IWRC as the Project Coordinator.
- Prof. Symeon Christodoulou receives the "Excellence in Research" Award of the "2015 Transport and Logistics Awards", granted by the Hellenic Association of Transport Engineers, for the advancement of research in the field of 'Safety in Transport' and the contributions made to the field by the "PRODROMOS" research project.
- Funding is received for three Nireas-IWRC research projects (*ANSWER, IRGP 45, ECOSI*).
- Prof. Despo Fatta-Kassinios is elected as the Chair of the Scientific and Technological Advisory Board of the European JPI on Water Challenges for a Changing World.

2015

2014

- Nireas-IWRC receives funding for StARE project under the first Water JPI Pilot Call, while Prof. Despo Fatta-Kassinios becomes the Chair of the Cost Action ES1403, and Nireas-IWRC its Grant Holder.

- Funding is received for two Nireas-IWRC research projects (ALICE, ECVET-Lab).
- Two books are published: "Wastewater Reuse and Current Challenges" and "Advanced Treatment Technologies for Urban Wastewater Reuse".
- Funding is received for two Nireas-IWRC research projects (BIOGASMENA, BIOSORB).
- Publication of the book "Urban water distribution networks: Assessing Systems Vulnerabilities, Failures, and Risks".



2016

2017

2018



- Completion of the NEREUS COST ACTION ES1403 and organization by Nireas-IWRC of the XENOWAC II Conference in Limassol, Cyprus.



- Publication of the book and ebook "*The Secret Handbook of the Blue Circle*" in English and Greek language.
- The book was awarded first place in the Public Awards 2019 under the category "Greek Children's Literature" and second place in the Anagnostis Awards under the category "Educational Books".
- Production of a theatrical performance "*A voyage in the blue cycle*", attended by more than 1000 students of Elementary schools.
- Funding is received for seven Nireas-IWRC research projects (PANIWATER, REWATERGY, DSWAP, NANO-CARRIERS, MODFRAC, SuWaNu Europe, SMART-Control).
- Prof. Despo Fatta-Kassinos becomes a member of the core group of the Global Panel on Chemical Pollution of the Environment (GPCPE), which is an initiative of the French National Water Academy.
- Dr. Argyro Tsipa a new Lecturer of the Civil and Environmental Engineering Department joins Nireas-IWRC and establishes EmBIOsysTech Laboratory.
- Nireas-IWRC achieves a major milestone in 2019 of having in its track record over 100 peer-reviewed articles in international scientific journals.

2019

2020

- Funding is received for two Nireas-IWRC research projects (PHOENIX, T4H).
- Dr. Christos Nicolaides and Dr. Dimokratis Grigoriadis join the Academic Council of Nireas-IWRC.

Nireas-IWRC Research Pillars

Nireas-IWRC's research activities are founded on seven equally important pillars



Research Pillar 01

Water/Wastewater quality, monitoring and treatment

- Water/wastewater and contaminants of emerging concern (CECs).
- Identification/quantification of organic compounds, inorganic species, and reaction intermediates in aqueous matrices.
- Water quality assessment by advanced chemical analysis.
- Advanced technologies efficient to meet the current wastewater reuse challenges.
- Effect-based bioassays required for wastewater reuse and contaminants risk assessment.
- Antibiotic resistance spread in the aquatic and terrestrial environment.
- Assessment of the potential uptake of CECs and antibiotic-resistant bacteria and antibiotic resistance genes (ARB&ARGs) by crops.
- Environmental surveillance – Wastewater epidemiology.

Drinking water supply, distribution and management

- Evaluation of the current water resources capabilities in Cyprus.
- Numerical simulations for groundwater recharge.
- Development of numerical simulation tools for:
 - The prediction of evaporative losses from freshwater reservoirs, and
 - The dynamic behaviour of dams in earthquake conditions, their integrity in hydraulic fracture conditions and the risk of subsoil erosion
- Development of numerical simulation code for the prediction of salt-water intrusion.
- Water Distribution Networks (WDN): Leak detection, Sensor placement optimization, Data mining and Machine Learning, Spatio-temporal analysis and data clustering, Decision-support systems, Automated meter reading (AMR).
- Vulnerability Analysis of WDN: Fragility/Vulnerability analysis of pipes under normal and abnormal operating conditions, Survival analysis, Intermittent water supply and its effects on WDNs, Real-time WDN anomaly detection.
- Intermittent water supply.

Research Pillar 02

Research Pillar 03

Environmental Biotechnology

- Wastewater biotreatment for:
 - Natural antibiotics production, and
 - Production of biodegradable and biobased materials
- Omics approaches to connect gene and proteins expression, and metabolites formation to physiological status of biological systems in aquatic environments.
- Data-driven kinetic modelling in aquatic environments for:
 - Quantitative understanding of gene regulatory networks of interest
 - Prediction of genes' expression and metabolic activities of biological systems
 - Prediction of biodegradable and biobased materials' formation patterns, and
 - Optimization of wastewater bioprocesses
- Systems and synthetic biology approaches to improve and optimize wastewater biotreatment.
- Development of wastewater biotreatment technologies.

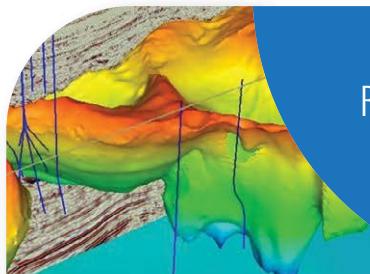


Subsurface processes and engineering

- Groundwater resources.
- Soil and groundwater remediation.
- Water infrastructure projects
- Development of in-situ chemical sensors for geo-environmental applications.
- CO₂ geological storage
- Enhanced geothermal systems



Research Pillar
04



Research Pillar
06

Geophysical hydrodynamics

- Developing efficient numerical methodologies for high-fidelity numerical simulations of:
 - Thermally driven hydrodynamics with strong property variations
 - Sediment transport and bed morphodynamics
 - Extreme wave conditions and wave induced loads.
- Numerical modeling of sediment transport in coastal regions.
- Gravity currents driven by concentration or density gradients.
- Flows over ripples, dunes or vegetation.
- Wave induced loads from solitary and regular waves on structures.
- Wave energy conversion and converters (WECs).

Hydrologic, hydro-geomorphic and hydro-climatic processes

- High-resolution coupled models of hydrologic and hydro-geomorphic processes that explain observations in the Earth's Critical Zone.
- Characterization of effects of different natural and anthropogenic perturbations (e.g. climate change and land use change) in hydrologic systems and quantification of associated uncertainties at the watershed scale in temperate and tropical forest ecosystems.
- Stochastic modeling of hydrologic and hydro-climatic processes.

Research Pillar
05



Research Pillar
07



Socioeconomic analysis of water-related issues

- Virtual water and water pricing.
- Socioeconomic studies.
- Strengthening public awareness.
- Life Cycle Analysis, PESTLE, SWOT analysis, etc.
- Implementation of the principles of green and circular economy.

Infrastructure and Facilities



NIREAS-IWRC's central office and laboratories are modern facilities that adopt the latest in research and learning technologies and encourage greater innovation and collaboration, whilst also supporting individual scholarship.

They also enhance the vital relationships with industry and various research centers by providing space for joint research activity. Even though Nireas-IWRC's permanent facilities are still in development and eventually be housed at the currently-built School of Engineering buildings of the University of Cyprus, the Center operates fully-equipped laboratories and office spaces in close proximity to the University campus.

Through Nireas-IWRC, several research laboratories and office facilities are integrated, physically and scientifically, into a single Research Center and their research efforts are focused on the achievement of the common and shared vision of Nireas-IWRC. The laboratories and core research groups of Nireas-IWRC include: GAIA, EUPALINOS, UCY-CompSci, EmBIOSysTech, and GREE.





GAIA - Laboratory of Environmental Engineering

GAIA is a laboratory of water/wastewater treatment processes, to respond to global challenges related to water/wastewater quality, monitoring and treatment, and wastewater reuse. The laboratory's fundamental and applied research focuses on the development and application of (i) advanced analytical methods for the detection and quantification of organic and inorganic chemical compounds as well as bacteria, viruses, DNA, RNA and various genes in several environmental matrices such as water, wastewater, soil and crops, and (ii) biological, chemical, physical and other advanced wastewater treatment technologies including disinfection, to remove contaminants of emerging concern such as antibiotic resistant bacteria, resistance genes and other mobile genetic elements from aqueous matrices, both at bench and pilot scale. GAIA is led by Prof. Despo Fatta-Kassinos.



UCY-CompSci - Computational Sciences Laboratory

UCY-CompSci was established as a Marie Curie Transfer of Knowledge Center (TOK-DEV) aiming at the promotion of excellence in the Computational Science and Engineering at the University of Cyprus. It operates a state-of-the-art High Performance Computer (HPC) system and carries out research related to the application of computational sciences to a range of environmental, engineering and biomedical challenges. UCY-CompSci is led by Prof. Stavros Kassinos.



GREE - Geomechanics Research for Energy and the Environment

The Geomechanics Research for Energy and the Environment (GREE) group is working on engineering problems related to energy (hydrocarbon exploitation) and energy transition (CO_2 geological storage and enhanced geothermal systems) and on subsurface environmental problems (groundwater resources and ground pollution). These applications are characterized by coupled physical processes such as time-dependent thermo-hydro-mechanical ones which may include changes in the geometry as well. The research work aims at understanding of the involved processes, to express them in mathematical models and to develop efficient computational techniques for the solution of such problems. GREE is led by Prof. Panos Papanastasiou.



EUPALINOS - Construction Engineering and Water Networks Management Laboratory

EUPALINOS is a laboratory of urban water distribution networks (UWDN), focused on scientific and industrial research pertaining to the sustainable management of UWDN. Research areas and expertise include operations analysis of UWDN under normal and intermittent water supply operations, vulnerability analysis, water informatics, and waterloss detection. EUPALINOS is led by Prof. Symeon Christodoulou.



EmBIO SysTech - Laboratory of Environmental Biotechnology

The EnvironMental BIological Systems Laboratory (EmBIOS) combats environmental pollution taking advantage of microorganisms' vast capabilities. Wastewater biotreatment is optimized through in-depth understanding of microorganisms' metabolism using omics technologies, mathematical modelling of gene regulatory networks, resources recovery and added-value compounds biosynthesis. EmBIO SysTech is led by Dr. Argyro Tsipa (Lecturer).



SRL - Subsurface Research Laboratory

The Subsurface Research Laboratory operated during 2010 and 2013 and was led by Dr. Kostarelos who was an Assistant professor at the Department of Civil and Environmental Engineering. The laboratory focused its research on subsurface remediation technologies for contaminated soil and water (surface and groundwater), soil and groundwater remediation, and soil and groundwater environmental site assessment. Research projects included: use of surfactants to recover coal tar contamination from soil, partitioning interwell tracer testing for NAPL detection and estimation, treatment of dredged sediments, development of in-situ chemical sensor for geo-environmental applications, and in-situ treatment options for hexavalent chromium, environmental assessment of abandoned sulfide mine.

Indicative Local Partnerships

Nireas-IWRC prides itself for having a strong network of local associates. These associates are not only from academia but also from the industry, public and municipal agencies, and various social stakeholder groups. The network of associates is interdisciplinary, multi-faceted and of different research maturity levels, complimenting each other with their know-how and their proximity to research and the society. An indicative list of our local partners is presented below.



AGRICULTURAL RESEARCH INSTITUTE (ARI)



AYIA NAPA SEWERAGE BOARD



CYPRUS NATIONAL ADDICTIONS AUTHORITY



CYPRUS UNIVERSITY OF TECHNOLOGY



CYPRUS PORTS AUTHORITY



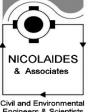
DEPARTMENT OF AGRICULTURE



DEPARTMENT OF ENVIRONMENT



GEOLOGICAL SURVEY DEPARTMENT

	LARNACA SEWERAGE AND DRAINAGE BOARD		SEWERAGE BOARD OF LIMASSOL - AMATHUS
	LARNACA WATER BOARD		SEWERAGE BOARD OF NICOSIA
	MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT		SEWERAGE BOARD OF PAPHOS
	MINISTRY OF THE INTERIOR		SIGNALGENERIX LTD
	MINISTRY OF ENERGY, COMMERCE AND INDUSTRY		S.K. EUROMARKET LTD
	MINISTRY OF TRANSPORTS COMMUNICATIONS AND WORKS, DEPARTMENT OF PUBLIC WORKS		THE CYPRUS INSTITUTE OF NEUROLOGY & GENETICS
	NICOSIA MUNICIPALITY		TSIAKKAS WINERY
	P. NICOLAIDES & ASSOCIATES LTD		WATER BOARD OF LEMESOS
	RTD TALOS LTD		WATER BOARD OF NICOSIA

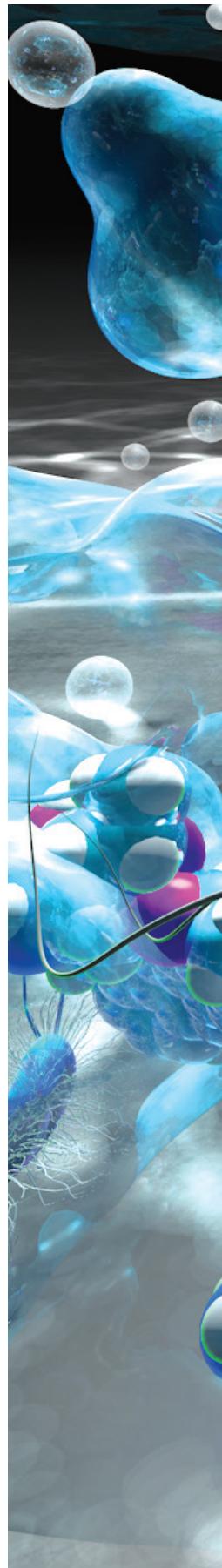
Coordination of, and Participation in, Competitive R&I Funded Projects

Research in water-related issues requires innovative solutions and a multidisciplinary approach in order to efficiently tackle the multifaceted challenges stemming from the rising water demands due to population growth and global climate change, whilst also not compromising water quality and the local ecosystem. A combination of scientific, technological, and management solutions are needed to address these challenges, with the ultimate goal of improving existing methods or developing new ones for treating wastewater and drinking water, while minimizing water supply problems.

These methods should be sustainable, cost-effective and socially acceptable, and Nireas-IWRC combines the knowledge and expertise of a wide spectrum of scientists specializing in multidisciplinary areas focusing on water to bring about such new technologies.

Further to performing scientific and applied research, Nireas-IWRC has early-on recognized the importance of open access to the Center's scientific outputs and of its publications. At first, based on the needs of the MSCA-ITN project "ANSWER", the Center created a space on the Zenodo platform for hosting the publications

of that particular project. Subsequently, and towards the objective of enhancing scientific dissemination, the Center created the Nireas-IWRC Open knowledge Community, which is an online repository that stores and manages all research-related papers produced at the Nireas-IWRC. Zenodo is a general-purpose open-access repository developed under the European OpenAIRE program. It allows researchers to deposit research papers, data sets, research software, reports, and any other research related digital artifacts. For each submission, a persistent digital object identifier (DOI) is minted, which makes the stored items easily citable.



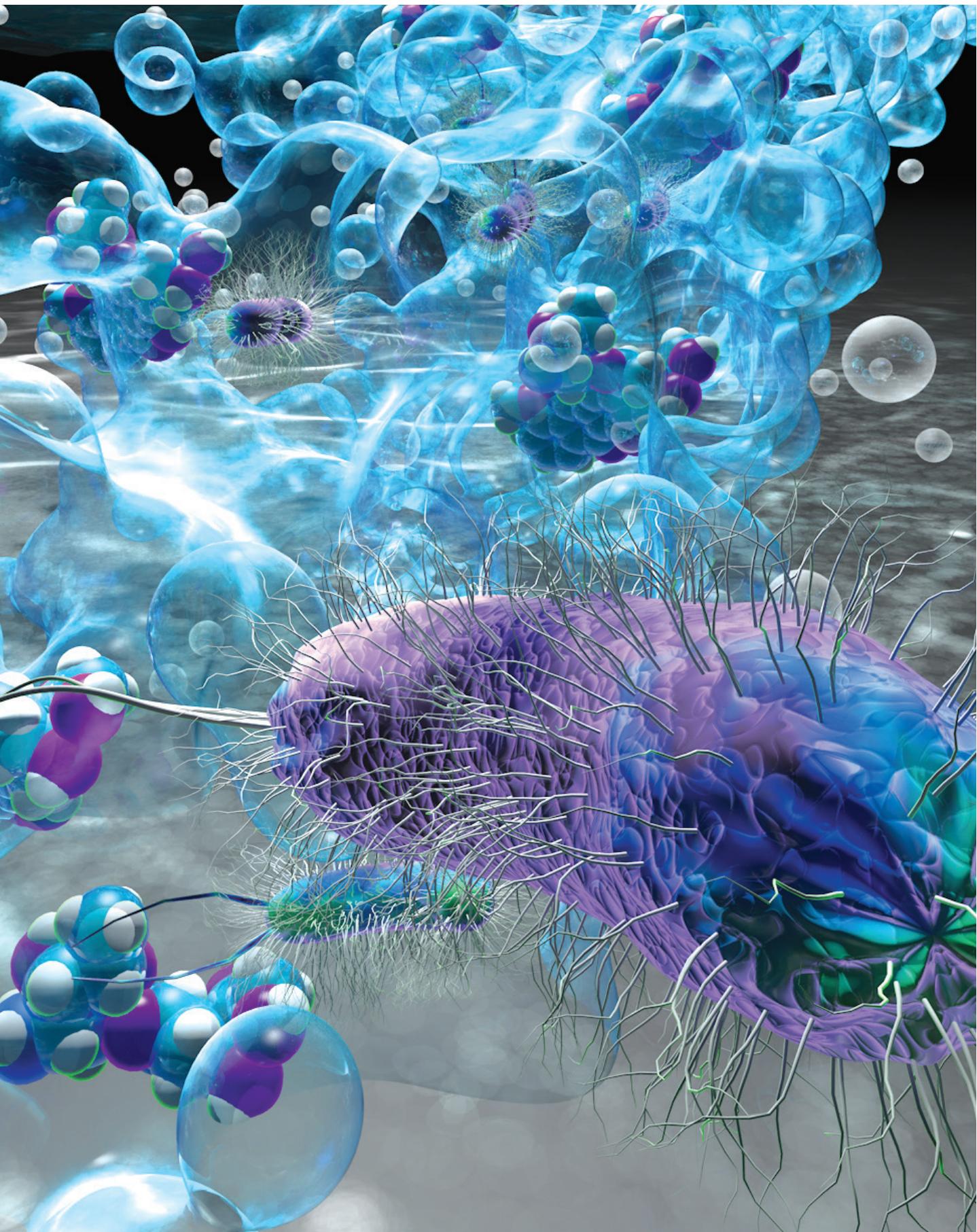


TABLE 01

Nireas-IWRC projects, budgets and funding periods (in alphabetical order).

Research Project	Nireas-IWRC as Project Coordinator	Funding Period	Total Budget	Nireas-IWRC Budget
ALICE		2016-2020	900.000 €	36.000 €
ANSWER	✓	2015-2019	3.708.689 €	753.925 €
BIOGASMENA		2017-2020	1.349.062 €	99.973 €
BIOSORB	✓	2017-2019	29.700 €	29.700 €
DARE ¹		2009-2013	- €	- €
DSWAP		2019-2022	2.000.000 €	245.000 €
ECOSI ²		2015-2016	3.685 €	1.660 €
ECVET-Lab		2016-2018	215.043 €	32.260 €
GAPS	✓	2013-2015	50.000 €	50.000 €
IRGP 45 ³		2015-2018	190.000 €	- €
ISES		2013-2015	4.410.000 €	114.560 €
I-WEB		2012-2015	928.266 €	77.951 €
IX-AQUA	✓	2009-2013	396.372 €	387.172 €
MEDOLICO	✓	2011-2015	1.964.499 €	294.009 €
MODFRAC	✓	2019-2022	209.340 €	209.340 €
NANO-CARRIERS		2019-2022	864.621 €	174.990 €
NEREUS ⁴	✓	2014-2018	591.028 €	190.241 €
NIREAS-IWRC	✓	2010-2015	1.398.945 €	1.269.330 €
PANIWATER		2019-2023	3.576.533 €	300.000 €
PHOENIX ¹		2020-2024	500.000 €	- €
PhotoGraph	✓	2012-2014	159.964 €	88.476 €
PRODROMOS	✓	2013-2015	1.950.000 €	430.000 €
REPT		2009-2011	878.272 €	196.911 €
REWATERGY ⁵		2019-2023	2.174.048 €	- €
SEDIRTRANS		2013-2017	3.734.062 €	397.470 €
SMART-Control		2019-2021	1.370.910 €	174.960 €
SOLIVAL	✓	2010-2012	122.320 €	85.312 €
StARE		2014-2017	1.970.093 €	99.998 €
SuWaNu Europe		2019-2021	1.999.926 €	69.384 €
T4H		2020-2022	999.000 €	220.750 €
TOMIXX	✓	2010-2012	69.936 €	69.936 €
UCyAMR	✓	2011-2012	159.924 €	56.800 €
UCyMSAD	✓	2009-2011	90.000 €	90.000 €
WATERTOP ¹		2019-2023	- €	- €
WINEC	✓	2010-2013	1.366.183 €	563.742 €
Grand Total			40.330.421 € ✓ 12.266.900 €	6.809.850 €

NOTES:

1. The project is a COST Action, and thus no direct budgets were assigned to Nireas-IWRC.
2. Nireas-IWRC served as the Grant Holder of the project.
3. The project covered consumables of joint work performed by researchers of Nireas-IWRC in Australia and their cost of stay.
4. The project is a COST Action. Nireas-IWRC was the Chair (Despo Fatta-Kassinos) and the Grant holder.
5. This project is a MSCA-ITN in which Nireas-IWRC participates as a partner; No direct budgets were assigned to Nireas-IWRC.

TABLE 02

Annual budgets earned by Nireas-IWRC (2010-2020), or allocated to it for execution (2009), through competitive calls and the corresponding total consortium budgets.

Year	Total Nireas-IWRC Budgets Earned	Total Consortium Budgets Earned (*)
2009	674.083 €	1.364.644 €
2010	1.988.320 €	2.957.384 €
2011	350.809 €	2.124.423 €
2012	166.427 €	1.088.230 €
2013	992.030 €	10.144.062 €
2014	290.239 €	2.561.121 €
2015	755.585 €	3.902.374 €
2016	68.260 €	1.115.043 €
2017	129.673 €	1.378.762 €
2019	1.173.674 €	12.195.378 €
2020	220.750 €	1.499.000 €
Grand Total	6.809.850 €	40.330.421 €

* The budgets presented in this column correspond to projects either coordinated by Nireas-IWRC or other organizations.

TABLE 03

Nireas-IWRC's and total consortium budgets, by funding source.

Funding Source	Total Nireas-IWRC Budgets	Total Consortium Budgets
European	3.295.292 €	29.067.278 €
Cyprus Research Promotion Foundation	220.750 €	999.000 €
European Commission	2.829.542 €	26.068.278 €
PRIMA – Partnership for Research and Innovation in the Mediterranean Area	245.000 €	2.000.000 €
International	1.660 €	193.685 €
South Australian Government Premier's Research and Industry Fund		190.000 €
UNESCO	1.660 €	3.685 €
National	3.512.898 €	11.069.459 €
Cyprus Research and Innovation Foundation	309.313 €	1.558.402 €
Cyprus Research Promotion Foundation	2.743.885 €	7.531.357 €
INTERREG	430.000 €	1.950.000 €
University Of Cyprus	29.700 €	29.700 €
Grand Total	6.809.850 €	40.330.421 €

CHART 01

A. Number of projects in Nireas-IWRC's project portfolio which were funded by European (or international) funding sources.

B. Nireas-IWRC's budgets funded by European (or international) funding sources.

C. Number of projects for which Nireas-IWRC served as project coordinator.

CHART 02

Annual budgets earned by Nireas-IWRC (2010-2020), or allocated to it for execution (2009), through competitive calls and the corresponding total consortium budgets.

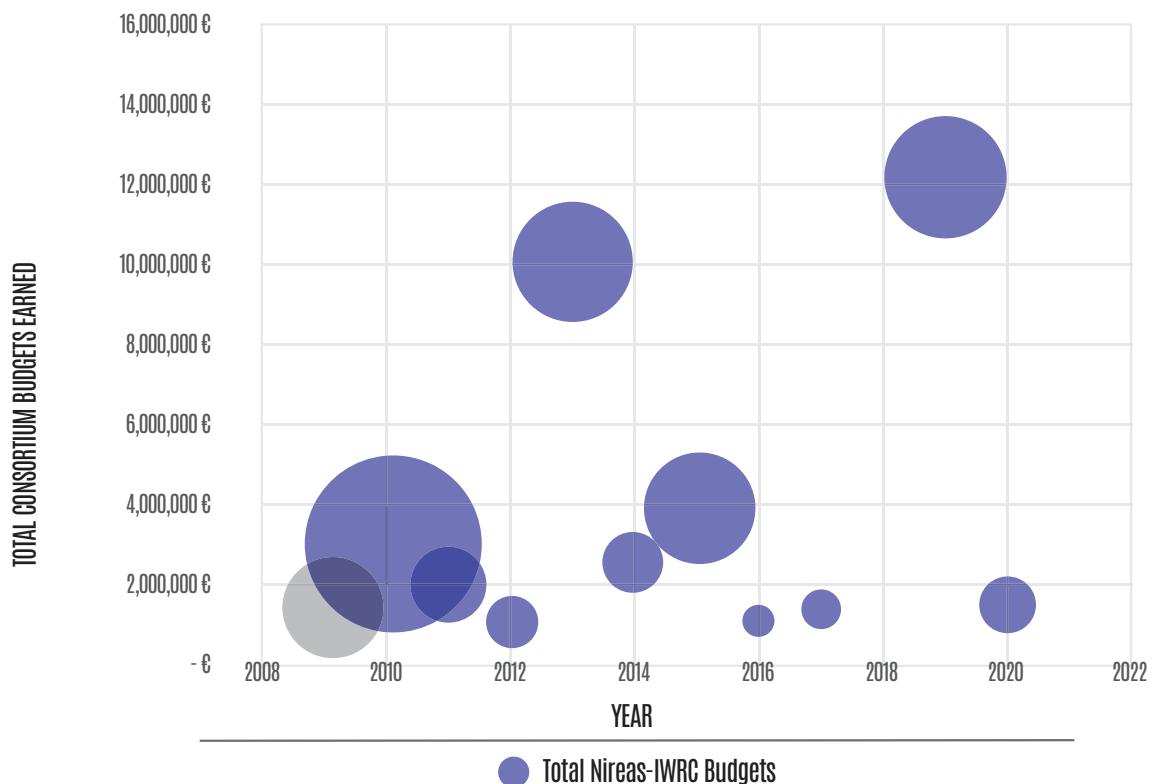


CHART 03

Total budgets earned by Nireas-IWRC as Project Coordinator (2010-2020), or allocated to it for execution (2009), through competitive calls and the cumulative amount to date.

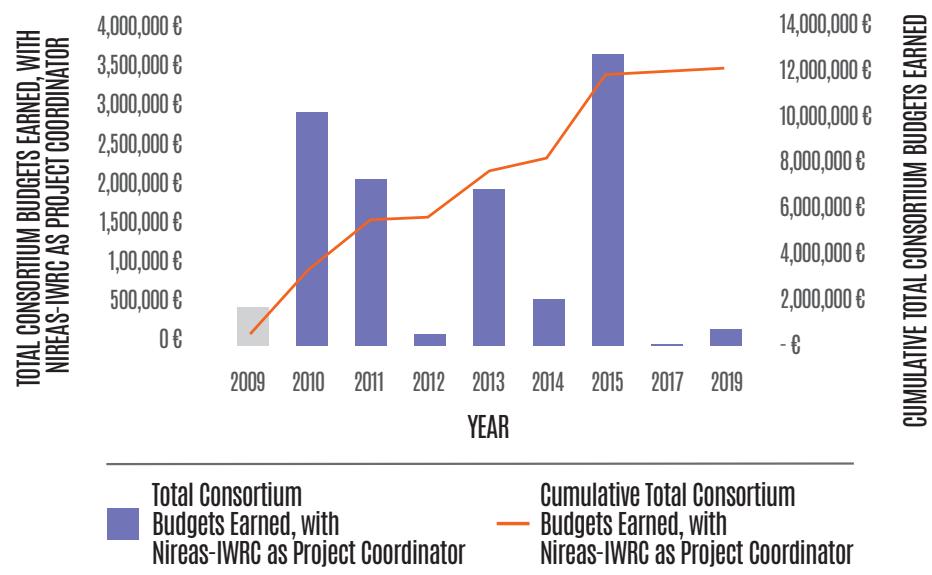


CHART 04

Total Nireas-IWRC budgets earned by (2010-2020), or allocated to the Center for execution (carried over from 2009/10), through competitive calls and the cumulative amount to date.

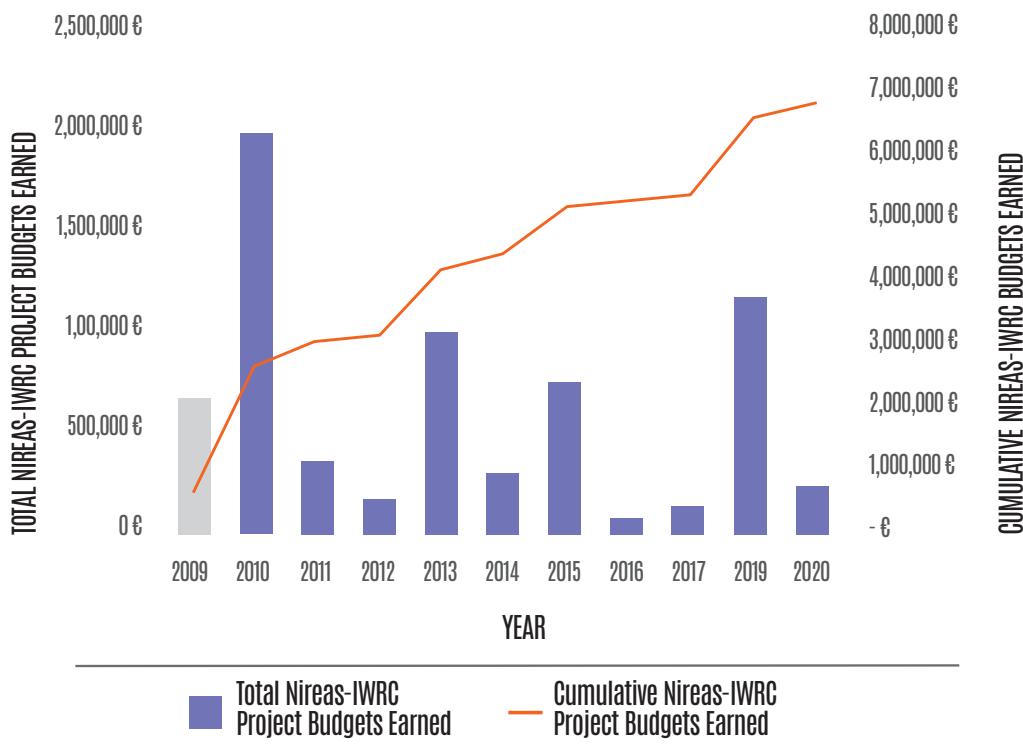
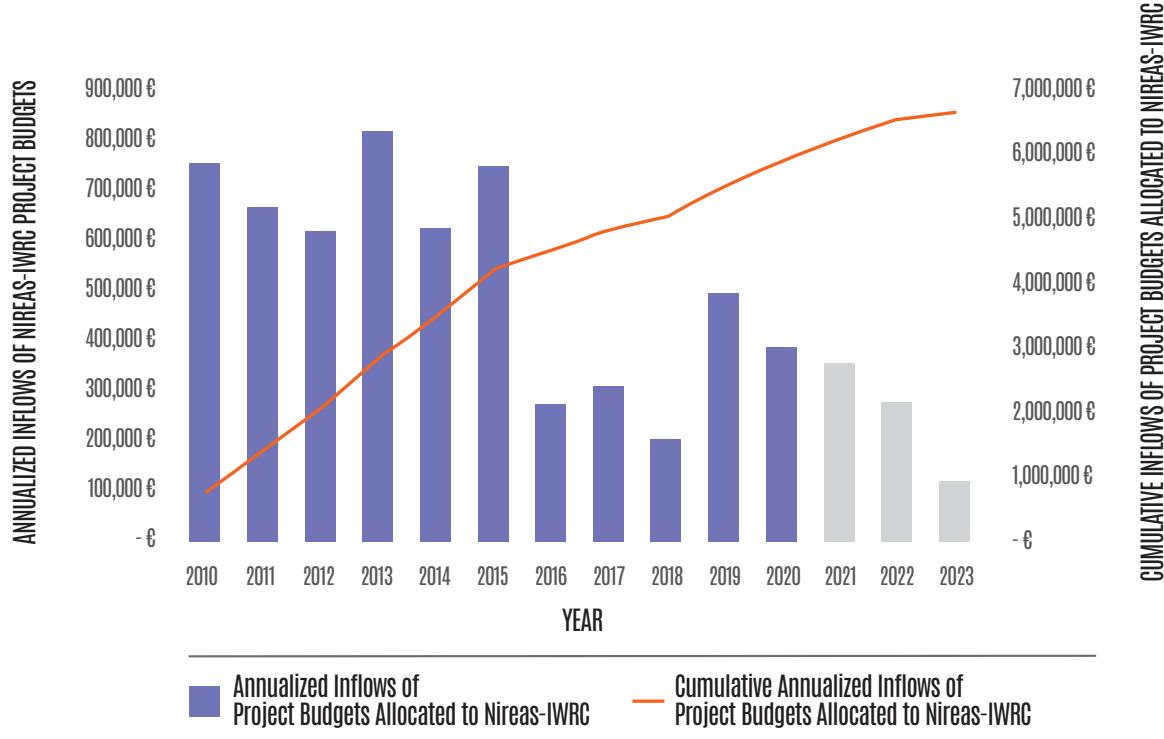


CHART 05

Total annualized (and total cumulative) Nireas-IWRC budget inflows (2010-2020) generated from funded projects, and the forward balance of existing grants (2021-2023).





T4H**Hospital Wastewater Treatment for the Improvement of the Efficiency of Urban Wastewater Treatment Plants and the Potential of Wastewater for Use****PROGRAM AT A GLANCE**

Funding Agencies	Interreg V-A Greece-Cyprus 2014-2020
Program Period	2021-2022
Project Acronym	T4H
Project Title	Hospital Wastewater Treatment for the Improvement of the Efficiency of Urban Wastewater Treatment Plants and the Potential of Wastewater for Use
Project Coordinator	Charalambos Papadogiannis, Municipal Water Supply and Sewerage Service of Heraklion (D.E.Y.A.I.), Greece
Partners	<ol style="list-style-type: none"> 1. Municipal Water Supply and Sewerage Service of Heraklion (D.E.Y.A.I.), Greece 2. Larnaca Sewerage and Drainage Board, Cyprus 3. Greek Mediterranean University / Special Account of Research Fund, Greece 4. Nireas-International Water Research Center, University of Cyprus, Cyprus 5. University of the Aegean- Special Account of research Fund, School of the Environment, Greece
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	999,000 €
Budget for Nireas-IWRC	220,750 €

PROJECT SUMMARY

The main objectives of the project include the design and installation of pilot wastewater treatment plants at the hospitals of Heraklion, Greece and Larnaca, Cyprus for the removal of antibiotic resistant bacteria and antibiotic resistance genes. The units will consist of anaerobic MBR, phytoremediation through Lemna minor, photocatalysis and microfiltration. The project includes also the economic and environmental evaluation of the operation of the pilot units and the development of guidelines and design models, for full implementation of the total outflow of hospital units, both in the participating hospitals (scale up) and in other hospitals of other areas (transferability and replicability).

PHOENIX COST ACTION CA 19123

Protection, Resilience, Rehabilitation of Damaged Environment



PROGRAM AT A GLANCE

Funding Agencies	European Cooperation in Science and Technology (COST)
Program Period	2020-2024
Action Acronym	PHOENIX
Project Code	CA19123
Action Title	Protection, Resilience, Rehabilitation of Damaged Environment
Chair of the Action	Dr. Andrea Pietrelli, University of Lumière Lyon
Vice Chair of the Action	Prof. Ioannis Ieropoulos, University of the West of England Bristol
Grant Holder Institution	University Lumière Lyon
Member of the Management Committee	Dr. Argyro Tsipa, Nireas International Water Research Center, University of Cyprus
Leader of Working Group 2	Dr. Argyro Tsipa, Nireas International Water Research Center, University of Cyprus
Total Budget	Approximately 500.000 €

PROJECT SUMMARY

Humanity faces unprecedented challenges: global warming, overuse of fossil fuel energy and rapidly growing urbanisation. While the development, validation and cost-efficiency improvement of energy-aware and limited complexity solutions are becoming increasingly time-consuming, microorganisms represent one realistic hope. For millennia microbes have tirelessly been shaping the Earth's ecosystems and with the right approach, they can help re-introduce environmental equilibrium. PHOENIX aims to demonstrate the effectiveness of Bio-electrochemical systems (BESs); BESs are low environmental impact systems that exploit the biological activity of live organisms for pollutant

reduction, recycling of useful elements, synthesis of new products and production of electricity, in the case of microbial fuel cells (MFC). Recent advances in the field of low power electronics enable the exploitation of these sustainable and environmentally-friendly technologies. The activities of PHOENIX will be related to the characterization of BESs technologies and their implementation as bio-remediator, bio-sensors, and bio-reactors connected to sustainable urban planning, educational and socio-economic aspects. The integration of bio-technologies in the urban context is a key priority for appropriate rational urban planning and minimum environmental impact.



Photo-Irradiation and Adsorption Based Novel Innovations for Water-Treatment

PROGRAM AT A GLANCE

Funding Agencies	European Commission, Horizon 2020, EU - India Water Co-operation
Program Period	2019-2023
Project Acronym	PANIWATER
Project Code	H2020-SC5-2018-1/820718
Project Title	Photo-Irradiation and Adsorption Based Novel Innovations for Water-Treatment
Project Coordinator	Prof. Kevin McGuigan, Royal College of Surgeons in Ireland, Ireland
Partners	<ol style="list-style-type: none"> 1. Royal college of Surgeons in Ireland, Ireland (European Coordinator) 2. National Environmental Engineering Research Institute, India (Indian Coordinator) 3. Universidad Rey Juan Carlos, Spain 4. National University of Ireland Maynooth, Ireland 5. Society for Development Alternatives, India 6. Innova SRL., Italy 7. Kquality Photonics Private TTD., India 8. Centro de investigaciones Energeticas, Medioambientales y Tecnologicas, Spain 9. Nireas-International Water Research Center, University of Cyprus, Cyprus 10. University of Ulster, United Kingdom 11. Institute of Technology Sligo, Ireland 12. AQUASOIL SRL., Italy 13. Universita del Salento, Italy 14. Buckinghamshire New University, United Kingdom 15. Universidad de Santiago de Compostela, Spain 16. Society for Technology and Action for Rural Development, India 17. Birla Institute of Technology and Science, India 18. Auroville Foundation, India
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	3,576,533 €
Budget for Nireas-IWRC	300,000 €
Project Website	https://paniwater.eu





PROJECT SUMMARY

About 2.1 billion people live without access to safe water sources. Contaminants of Emerging Concern (CECs) such as pharmaceuticals, personal care products, pesticides and nanoparticles are increasingly being detected in wastewater and in drinking water around the world in addition to geogenic pollutants, pathogens, antibiotic-resistant bacteria (ARB) and antibiotic resistance genes (ARGs). Water treatment systems that remove common contaminants and CECs from wastewater and drinking water are therefore urgently needed. PANIWATER is developing, with the purpose of

deploying and validating, six prototypes for the removal of contaminants including CECs, pathogens and ARB&ARGs from wastewater and drinking water in real-field conditions, in India. These prototypes will be deployed and validated in peri-urban and rural areas of India. The project consortium will work closely with the communities at the real-field sites and will carry out various water quality analyses, health and social impact assessments and will also advocate for safe reuse of treated wastewater for irrigation purposes and preservation of drinking water sources.

REWATERGY

Sustainable Reactor Engineering for Applications on the Water-Energy Nexus



PROGRAM AT A GLANCE

Funding Agencies	European Commission, Horizon 2020, Marie Skłodowska-Curie: Innovative Training Networks – European Industrial Doctorates (ITN-EID)		
Program Period	2019-2023	Project Acronym	REWATERGY
Project Code	H2020-MSCA-ITN-EID-2018/812574		
Project Title	Sustainable Reactor Engineering for Applications on the Water-Energy Nexus		
Project Coordinator	Prof. Javier Marugán, Universidad Rey Juan Carlos, Spain		
Beneficiaries	<ol style="list-style-type: none"> 1. University of Cambridge, United Kingdom 2. Ulster University, United Kingdom 3. Delft IMP, The Netherlands 4. ProPhotonix, Ireland 5. FCC Aqualia, Spain 		
Partners	<ol style="list-style-type: none"> 1. Waterschap De Dommel, The Netherlands 2. Università degli Studi di Salerno, Italy 3. National University of Ireland, Maynooth, Ireland 4. Open Data Institute, United Kingdom 5. Nireas-International Water Research Center, University of Cyprus, Cyprus 6. Fundación IMDEA Energía, Spain 7. Universidade Católica Portuguesa, Portugal 8. Institut Català de Recerca de l'Aigua, Spain 		
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos		
Total Budget	2,174,048 €	Project Website	http://rewatergy.eu/

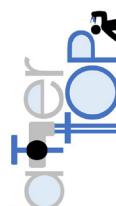
PROJECT SUMMARY

The overall aim of the REWATERGY Innovative Training Network, aligned to the current initiatives of the European Commission in the water-energy nexus, is to guarantee the competitiveness of the water industrial sector by the development of a tailored integrated Industrial European Doctorate programme for the provision of a generation of highly skilled scientists and engineers co-trained by industry and World-leading research institutions, capable of developing fundamental understanding and technologies in the field and its implementation in the European market. Three research objectives set the foundation of this ambitious program: (i) enhance the energy recovery from wastewater streams inspired by the circular economy concept, (ii) improve the energy efficiency of water disinfection and removal of contaminants of emerging concern, and (iii) increase the resilience of distributed household safe drinking water systems addressing potential health and safety challenges. The program is particularly designed to cultivate an entrepreneurial spirit by the collaborative design, development and manufacturing of new prototypes aligned with the three research objectives. This training concept will have a long-term impact by providing a stream of highly trained innovative scientists and engineers able to communicate ideas and to develop creative solutions for the adoption of novel technologies in the market.



WATERTOP

Taste and Odor in Early Diagnosis of Source and Drinking Water Problems

 COST ACTION CA18225

PROGRAM AT A GLANCE

Funding Agencies	European Commission (COST Organisation)
Program Period	2019-2023
Project Acronym	WATERTOP
Project Code	CA18225
Project Title	Taste and Odor in Early Diagnosis of Source and Drinking Water Problems
Chair of the Action	Dr. Triantafyllos Kaloudis, NCSR DEMOKRITOS Institute of Nuclear and Particle Physics, Greece
Vice Chair of the Action	Prof. Reyhan Akcaalan Albay, Istanbul University, Turkey
Member of the Management Committee	Prof. Despo Fatta-Kassinos, Nireas International Water Research Center, University of Cyprus
Participation in Working Group 4	Dr. Popi Karaolia, Nireas International Water Research Center, University of Cyprus
Project Website	https://watertopnet.eu/

PROJECT SUMMARY

The main aim of waterTOP is to increase capabilities and capacities in Europe for solving water T&O, by creating the first European network of multi-disciplinary experts, end-users and stakeholders in the field. An “innovation by integration” approach is adopted, incorporating novel cross-sector knowledge transfer from the food sector, new international collaborations, vertical “source to tap” risk assessment strategies and horizontal integration with overlapping sectors, i.e. aquaculture, manufacturers of materials in contact with water, sensors and analytical technologies. WaterTOP will have strong impact in improving protection of public health and water resources, quality of life, use of tap water, consumer’s awareness and involvement in water quality issues and professional development of young researchers in the field. It will largely contribute to the implementation of the new (recast) EU Drinking Water Directive and to the development of European leadership in the science and technology of water quality.

DSWAP

Decision Support-based Approach for Sustainable Water
Reuse Application in Agricultural Production



PROGRAM AT A GLANCE

Funding Agencies	PRIMA – Partnership for Research and Innovation in the Mediterranean Area – Section 1 – 2018
Program Period	2019-2022
Project Acronym	DSWAP
Project Code	PRIMA/1822
Project Title	Decision Support-based Approach for Sustainable Water Reuse Application in Agricultural Production
Project Coordinator	Dr. Eddie Cytryn, Agricultural Research Organization (ARO), Volcani Center, Israel
Partners	<ol style="list-style-type: none"> 1. Fluence Corp. (FLC), Israel 2. Technical University of Dresden (TUD), Germany 3. Nireas-International Water Research Center, University of Cyprus, Cyprus 4. S.K. Euromarket LTD (SKE), Cyprus 5. Spanish National Research Council (CSIC), Spain 6. Apria Systems (APRIA), Spain 7. University of Loraine, CNRS (LCPME), France 8. University of Salerno (UNISA), Italy 9. Catholic University of Portugal (UCP), Portugal
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	2,000,000 €
Budget for Nireas-IWRC	245,000 €
Project Website	https://www.dswap-prima.eu

PROJECT SUMMARY

This project adopts a circular economy approach, aiming for safe and sustainable valorization of wastewater for irrigation, with minimized ecological and agronomic impacts. The overall concept is to develop cost-effective modular, de-centralized wastewater treatment/irrigation systems coupled to decision support tools that enables coupling/decoupling of treatment modules for the removal of pathogens, CECs and salinity as a function of the wastewater source and measured quality parameters, to ensure optimal reused water quality for irrigation and long-term sustainability of irrigated soils. Individual modules within these networks (compiled based on specific requirements) will be coupled to alternative energy sources to reduce costs and greenhouse gas emissions.

NANO-CARRIERS

Micro and Nanoplastics as Carriers for the Spread of Chemicals and
Antimicrobial Resistance in the Aquatic Environment

PROGRAM AT A GLANCE

Funding Agencies	Water JPI Programme (IC4Water), Cyprus Research Promotion Foundation – Restart 2016-2020
Program Period	2019-2022
Project Acronym	NANO-CARRIERS
Project Code	P2P/WATER/1017/0004
Project Title	Micro and Nanoplastics as Carriers for the Spread of Chemicals and Antimicrobial Resistance in the Aquatic Environment
Project Coordinator	Dr. Ian Allan, NIVA, Norway
Partners	<ol style="list-style-type: none"> 1. Norwegian Institute for Water Research (NIVA), Norway 2. Durban University of Technology (DUT), South Africa, Africa 3. University of Rennes (GR), France 4. University of Pau (IPREM), France 5. Nireas-International Water Research Center, University of Cyprus, Cyprus
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	864,621 €
Budget for Nireas-IWRC	174,990 €



PROJECT SUMMARY

Microplastics have been the subject of increasing focus over the last decade since they have been found in virtually all waters and oceans around the globe. While rivers are assumed to be a major contributor of microplastic pollution to the marine environment, urban wastewater treatment plants are expected to be a significant emission source of not only microplastic particles but also of the less studied nano-size plastic to freshwaters. The NANO-CARRIERS project aims through an inter-disciplinary approach at developing new understanding of the risk posed emission of micro- and nanoplastics into aquatic ecosystems in the context of emission and spread of chemical additives, contaminants of emerging concern and antibiotic resistance genes through laboratory experiments, field measurements and focused case studies.

MODFRAC

Modified Hydraulic Fracturing for Unconsolidated Reservoirs

PROGRAM AT A GLANCE

Funding Agency	Restart 2016-2020 (Cyprus Research and Innovation Foundation) - Excellence
Program Period	2019 - 2022
Project Acronym	MODFRAC
Project Code	EXCELLENCE/1216/0481
Project Title	Modified Hydraulic Fracturing for Unconsolidated Reservoirs
Project Coordinator	Prof. Panos Papanastasiou, Nireas – International Water Research Center, University of Cyprus, Cyprus
Total Budget	209,340€
Budget for Nireas-IWRC	209,340€

PROJECT SUMMARY

Hydraulic fracture is a complex multiphysical phenomenon encountered in many man-made and natural processes. The most notable example of its intended application is fracking, a method widely used to enhance the recovery of hydrocarbons from unconventional reservoirs. Unintentionally induced hydraulic fracture can have a detrimental impact on the environment in the areas of CO₂ sequestration or underground waste disposal. All these applications create demand for a proper understanding and

prediction of process through accurate mathematical modeling and numerical simulations. The objective of the projects is the development of the mathematical and computational modeling of the hydraulic fracturing process in weak gas and oil reservoirs. This improved modeling will optimize the design of hydraulic fracture in unconsolidated reservoirs and enhance the interpretation of the mini-frac test that is used for the determination of insitu reservoir parameters.

SuWaNu Europe

Network for Effective Knowledge Transfer on Safe and Economic
Wastewater Reuse in Agriculture in Europe SuWaNu Europe



**SUWANU
EUROPE**

PROGRAM AT A GLANCE

Funding Agencies	European Commission, Horizon 2020
Program Period	2019-2021
Project Acronym	SuWaNu Europe
Project Code	H2020-RUR-2018-2020/818088
Project Title	Sustainable Water Treatment and Agricultural Reuse Options in Europe
Project Coordinator	Rafael Casielles Restoy, Bioazul S. L., Spain
Partners	<ol style="list-style-type: none"> 1. Bioazul S. L., Spain 2. Federacion Nacional de Comunidades de Regantes 3. Asociación Española de Reutilización Sostenible del Agua (ASERSA) 4. Universidad de Cordoba 5. Verein zur Förderung des Technologietransfers an der Hochschule Bremerhaven e. V 6. Abwasserverband Braunschweig 7. Development agency of Thessaloniki s.a. 8. Aristotelio Panepistimio Thessalonikis 9. Agraren Universitet of plovdiv 10. Confederazione Generale dell'Agricoltura Italiana 11. Universita degli Studi di Torino 12. Canale Emiliano Romagnolo 13. MEKOROT water company limited 14. CONSULAI-Consultoria Agro Industriatral IDA 15. FENAREG-Federacao Nacional de Regantes de Portugal 16. Nireas-International Water Research Center, University of Cyprus, Cyprus 17. Agricultural Chamber of Cyprus 18. Ecofilae 19. Confederación (de ámbito estatal) de Consumidores y Usuarios 20. Proefstation voor de Groenteteelt
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	1,999,926 €
Budget for Nireas-IWRC	69,384 €
Project Website	https://suwanu-europe.eu



PROJECT SUMMARY

Based on the results of a previous EU project called "SuWaNu" whose main result was to set research-driven clusters in the field of water reuse in 5 target countries (Malta, Spain, Germany, Greece and Bulgaria), SuWaNu Europe intends to bridge the current innovation gaps and achieve an effective implementation of reuse solutions in agriculture. SuWaNu Europe aims to extend the geographical coverage of its predecessor and summarize, share and present existing and upcoming knowledge and skills in the field of water reuse in agriculture to

the relevant stakeholders such as farmers and farming advisory groups. SuWaNu Europe also aims to create regional working groups for the development of Action Plans. These Action Plans will ultimately set strategies at regional level with the objective of boosting innovation in the agricultural and water sectors, improving best practice development and identifying the most appropriate channels to reach stakeholders. In addition to this, dissemination and training will create the capacity and competencies needed to implement these results.

“**Practical knowledge about
use of reclaimed water for
agriculture irrigation in Europe**



SMART-Control

Smart Framework for Real-Time Monitoring and Control of
Subsurface Processes in Managed Aquifer Recharge Applications

PROGRAM AT A GLANCE

Funding Agency	Water JPI Programme (IC4Water), Cyprus Research Promotion Foundation – Restart 2016-2020
Program Period	2019-2021
Project Acronym	SMART-Control
Project Code	P2P/WATER/1017/0007
Project Title	Smart Framework for Real-Time Monitoring and Control of Subsurface Processes in Managed Aquifer Recharge Applications
Project Coordinator	Dr. Catalin Stefan, Technical University of Dresden, Germany
Partners	<ol style="list-style-type: none"> 1. Federal University of Paraiba, Brazil 2. Federal University of Pernambuco, Brazil 3. The French Geological Survey, France 4. Nireas-International Water Research Center, University of Cyprus, Cyprus 5. The Berlin Center of Competence for Water, Germany 6. SUEZ, France 7. Adelphi, Germany 8. UIT, Germany
Nireas-IWRC Principal Investigator	Prof. Panos Papanastasiou
Total Budget	1,370,910 €
Budget for Nireas-IWRC	174,960 €
Project Website	https://smart-control.inowas.com/



PROJECT SUMMARY

Enhancing groundwater recharge by storing surplus water in the subsurface in times of high availability followed by recovery in times of high demand represents a low cost technology that increases the resilience of water supply infrastructures to extreme hydro-climatic events. This technique, referred to as managed aquifer recharge (MAR), represents a viable adaptation

solution for sustainable water resources management while it reduces the impact of water scarcity by increasing seasonal water availability. MAR can improve food security and reduce harvest failure risks as the resilience against extreme weather events such as droughts is increased.

“**MAR can improve food security and reduce harvest failure risks as the resilience against extreme weather events such as droughts is increased.**



PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research and Innovation Foundation (ERANETMED)
Program Period	2017-2020
Project Acronym	BIOGASMENA
Project Code	KOINA/ERANETMED/0316/01
Project Title	Demonstration of Dry Fermentation and Optimization of Biogas Technology for Rural Communities in the MENA Region
Project Coordinator	Dr. Hans Oechsner, University of Hohenheim, Germany
Partners	<ol style="list-style-type: none"> 1. University of Verona, Italy 2. AUA (Agricultural University of Athens), Greece 3. EGE University, Turkey 4. Université des Sciences et Technologies d'Oran (USTO), Algeria 5. Nireas-International Water Research Center, University of Cyprus, Cyprus 6. LBE (Laboratoire de Biotechnologie de l'Environnement) of INRA, France 7. IMDEA (Madrid Institute of Advanced Studies), Spain 8. CBS (Centre de Biotechnologie de Sfax), Tunisia 9. Nenufar, France 10. ERM, France 11. FnBB e.V. (Fördergesellschaft für nachhaltige Biogas- und Bioenergienutzung), Germany 12. University of Cairo, Egypt 13. RTD Talos Ltd, Cyprus 14. S.K. Euromarket Ltd, Cyprus
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	1,349,062 €
Budget for Nireas-IWRC	99,973 €
Project Website	https://openilias.uni-hohenheim.de/



BIOGASMENA

PROJECT SUMMARY

The project BIOGASMENA followed an innovative, integrated and multi-disciplinary approach for the development of biogas technology and know-how in the ERA and the MENA region, combining technology transfer and laboratory research with academic exchanges, communication and training activities directed to both the general public, especially small farmers from the MENA region, and the academic community, with a particular focus on young researchers. The project included the following tasks: (1) building dry fermentation biogas plant at pilot scale, (2) building a hybrid energy system at pilot scale, combining biogas, solar and wind energies for autonomous electricity supply, (3) equipping biogas laboratories

in Algeria and Tunisia, 4) investigating biogas production in the MENA region, in particular via dry fermentation in lab-scale and bench-scale experiments, (5) including results into an online database for modeling of bioconversion kinetics, (6) optimizing digestate treatment, characterization and utilization, (7) investigating the combination of biogas production with microalgae cultivation, (8) LCA and techno-economic analyzes of designs for biogas production in the MENA region, (9) training young researchers from the MENA region in EU, in particular by following CIHEAM courses, and (10) informing of the research community, farmers, and the general public about biogas technology.



PROGRAM AT A GLANCE

Funding Agency	European Commission, Horizon 2020, MARIE Skłodowska-CURIE ACTIONS
Program Period	2016-2020
Project Acronym	ALICE
Project Code	H2020-MSCA-RISE-2016/734560
Project Title	Accelerate Innovation in Urban Wastewater Management for Climate Change
Project Coordinator	Dr. Caterina Brandoni, University of Ulster, UK
Beneficiaries	<ol style="list-style-type: none"> 1. Northern Ireland Water Ltd, United Kingdom 2. The Queen's University of Belfast, United Kingdom 3. Dublin City University, Ireland 4. Dionergy Ltd, Ireland 5. BC3 Basque Centre for Climate Change – Klima Aldaketa Ikergai, Spain 6. Region de Murcia, Spain 7. Universita degli Studi di Macerata, Italy 8. Redinn SRL, Italy 9. ASET, Italy 10. Nireas-International Water Research Center, University of Cyprus, Cyprus 11. Militios Symvouleutiki A.E., Greece
Nireas-IWRC Project Investigator	Prof. Despo Fatta-Kassinos
Total Budget	900,000 €
Budget for Nireas-IWRC	36,000 €
Project Website	http://www.alice-wastewater-project.eu



PROJECT SUMMARY

The challenges facing society in urban wastewater management cannot be solved by any one sector alone. ALICE (Accelerate Innovation in urban wastewater management for Climate change) accelerated innovation by bringing together and exchanging knowledge between the key players who can, together, address the future techno-economic, governance and societal challenges arising from climate change. It helped boost international and interdisciplinary

skills, as well as careers perspective of Experienced Researchers, Early Stage Researchers, and the workforce of industry, water utilities and public organizations. The results will 1) benefit water utilities, 2) support political and managerial decisions in wastewater, 3) benefit wastewater equipment manufacturers, identifying new market opportunities in the EU, 4) benefit EU citizens from the improved wastewater infrastructure, the environment and job creations.



“ ALICE will go beyond the state-of-the-art, suggesting new tools, methodologies and knowledge to boost innovation in the wastewater sector. ”

BIOSORB

Development of Low-cost Sorbents for Environmental Applications

PROGRAM AT A GLANCE

Funding Agencies	University of Cyprus "ΜΕΤΑΔΙΔΑΚΤΟΡΙΚΟΙ ΕΠΕΥΝΗΤΕΣ 2017 - 2018" Programme
Program Period	2017-2019
Project Acronym	BIOSORB
Project Title	Development of Low-cost Sorbents for Environmental Applications
Partners	<ul style="list-style-type: none"> 1. Prof. Despo Fatta-Kassinios, Nireas International Water Research Center, University of Cyprus, Cyprus 2. Prof. Panos Papanastasiou, Nireas International Water Research Center, University of Cyprus, Cyprus
Consortium	<ul style="list-style-type: none"> 1. Agricultural Research Institute (ARI) 2. Department of Chemistry (UCY)
Total Budget	29,700 €
Budget for Nireas-IWRC	29,700 €

PROJECT SUMMARY

In recent years it has been recognized that among the so-called contaminants of emerging concern, antibiotics present in treated wastewaters and biosolids are problematic compounds in regard to their disposal. Such substances are not removed completely by conventional methods of purification, moreover, are bioaccumulated and therefore may present a potential risk to human health. The present research utilized the biosolid from the conventional urban wastewater treatment plants to produce biochar through its pyrolysis in order to enhance wastewater reuse in agriculture by adding biochar as a barrier.

ANSWER



Antibiotics and Mobile Resistance Elements in Wastewater Reuse Applications: Risks and Innovative Solutions

PROGRAM AT A GLANCE

Funding Agencies	European Commission, Horizon 2020, Marie Skłodowska-Curie Actions: Innovative Training Networks – European training Networks (ITN-ETN)		
Program Period	2015-2019	Project Acronym	ANSWER
Project Code	H2020-MSCA-ITN-2015/675530		
Project Title	Antibiotics and Mobile Resistance Elements in Wastewater Reuse Applications: Risks and Innovative Solutions		
Project Coordinator	Prof. Despo Fatta-Kassinios, Nireas-International Water Research Center, University of Cyprus		
Beneficiaries	<ol style="list-style-type: none"> 1. Environmental Institute S.R.O, Slovakia 2. KWR Watercycle Research Institute, Netherlands 3. The Agriculture Research Organisation of Israel – The Volcani Center, Israel 4. Agencia Estatal Consejo Superior de Investigaciones Científicas, Spain 5. Adventech – Advanced Environmental Technologies, Lda, Portugal 6. Universidade Católica Portuguesa, Portugal 7. Technische Universität Dresden, Germany 8. Università Degli Studi di Salerno, Italy 9. Technische Universität Wien, Austria 		
Partners	<ol style="list-style-type: none"> 1. Austrian Agency for Health and Food Safety, Austria 2. Abwasserverband Braunschweig, Germany 3. BioDetection Systems bv, Netherlands 4. HighChem, Slovakia 5. The Hebrew University of Jerusalem, Israel 6. Istituto Superiore di Sanità, Italy 7. Karlsruhe Institute of Technology, Germany 8. VA TECH WABAG GmbH, Austria 		
Total Budget	3,708,689 €	Budget for Nireas-IWRC	753,925 €
Project website	http://www.answer-itn.eu		

PROJECT SUMMARY

The major mission of the ANSWER project was to train fifteen ESRs to address the risks associated with chemical and biological contaminants of emerging concern, i.e. antibiotics, antibiotic-resistant bacteria and antibiotic resistance genes (A&ARB&ARGs) and urban wastewater reuse. To achieve its overall scientific goal, ANSWER was structured on a multidisciplinary consortium (10 Beneficiaries and 8 Partners from 9 countries) involving experienced researchers (academic/non-academic) from diverse disciplines. In addition, scientists with recognised expertise in the field were involved in the project (either as members of the Advisory Board or as Visiting Scientists) contributing to the training of the ESRs and providing expert opinions and experiences on the scientific aspects of the project.

NORMAN

NORMAN Association Working Group 5: Wastewater Reuse and Contaminants of Emerging Concern

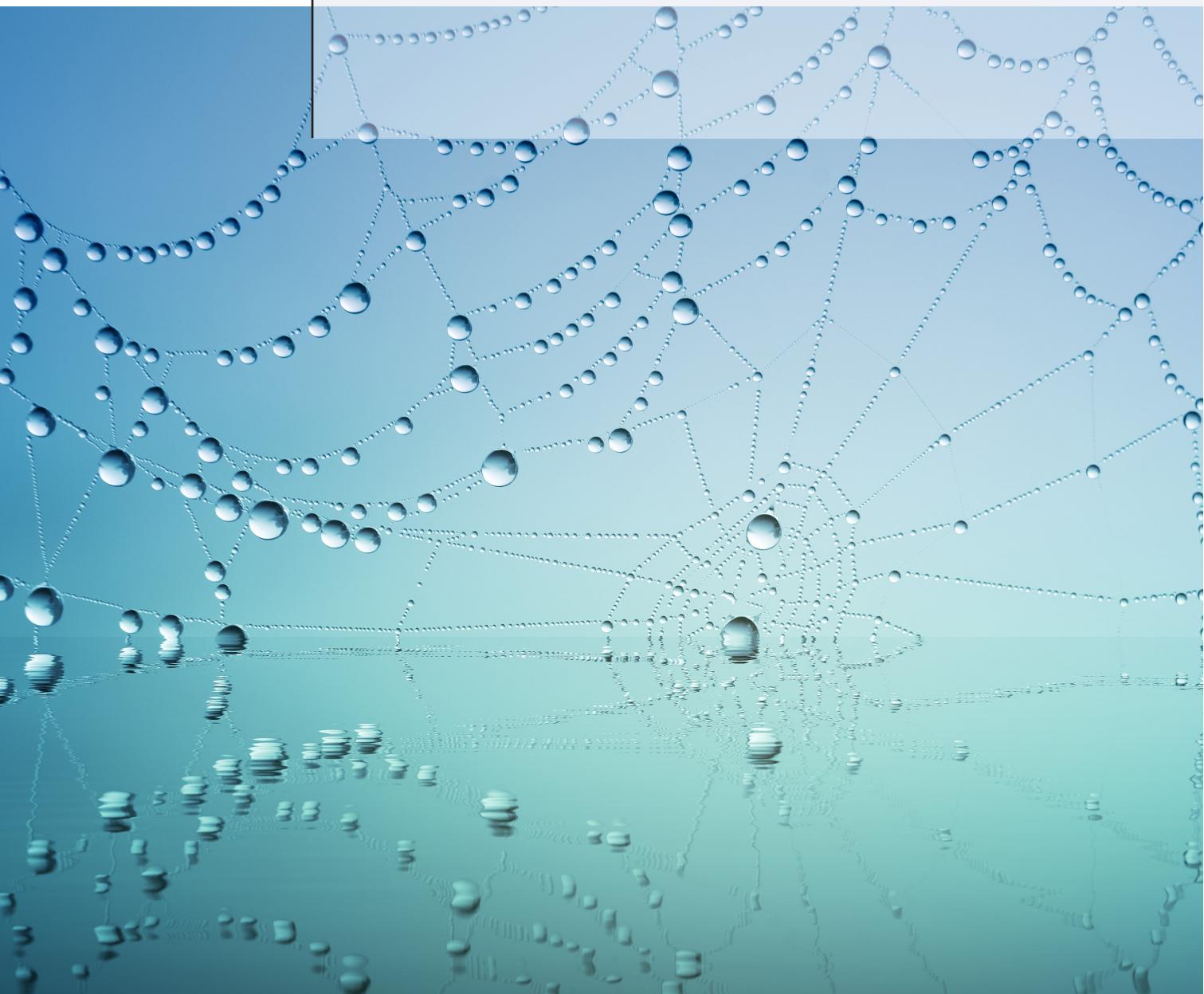
PROGRAM AT A GLANCE

Funding Agencies	NORMAN Association
Program Period	2013-2019
Project Acronym	NORMAN
Project Code	N° W604002510
Project Title	NORMAN Association Working Group 5: Wastewater Reuse and Contaminants of Emerging Concern
Leader of the Activity and Grant Holder	Prof. Despo Fatta-Kassinos, Nireas-International Water Research Center, University of Cyprus, Cyprus
Participants	<ol style="list-style-type: none"> 1. Anja Derksen, AD Ecoaladvice 2. Anne Togola, Benjamin Lopez, BRGM 3. Alfieri Pollice, Claudio Giovanni Roscioli, Francesca Cappelli, Giuseppe Mascolo, Maria Concetta Tomei, Sara Valsecchi, Stefano Polesello, CNR-IRSA 4. Fiona Regan, DCU 5. Christa McArdell, Juliane Hollender, Qiuguo Fu, EA WAG 6. Jaroslav Slobodnik, Environmental Institute 7. Eric Penders, Ruud Steen, Het Waterlaboratorium 8. Gago-Ferrero Pablo, ICRA 9. Miren Lopez de Alda, Laura Ponce Robles, Sandra Perez Solsona, IDAEA-CSIC 10. Valeria Dulio, INERIS 11. Andrea Brunner, Luc Hornstra, Milou Dingemans, Stefan Kools, KWR 12. Pawel Krzeminski, NIVA 13. Prieto Ailette, Plentzia Marine Station 14. Joanne de Jonge, RIWA – Rijn 15. Foon Yin Lai, Swedish University of Agricultural Sciences 16. Katharina Lenz, Umweltbundesamt Austria 17. Helene Budzinski, University of Bordeaux 18. Giorgio Tomasi, University of Copenhagen 19. Sarit Kaserzon, University of Queensland 20. Norbert Kreuzinger, Vienna University of Technology 21. Griet Jacobs, Jos Bessem, VITO
Total Budget	23,000 €
Project Website	http://www.norman-network.net



PROJECT SUMMARY

In response to the escalating problem of water scarcity, treated wastewater and stormwater are increasingly identified as reliable alternative water sources for a range of applications. Although the reuse practice is accompanied by a number of benefits relating to the enhancement of water balance and soil nutrition, a number of questions are still open regarding the release of contaminants of emerging concern. Current open challenges include the spreading of biological contaminants (e.g. SARS-CoV-2) and antibiotic resistance, the uptake by plants/crops, the effects that these contaminants and their degradation products may induce in humans and the environment, the identification of technologies that are able to remove such contaminants from wastewater, and means and solutions to overcome these problems and promote safe reuse practices further.



ECVET-Lab

Implementation and Validation of Non-Formal Training on Sustainability for Environmental Testing Laboratories works



PROGRAM AT A GLANCE

Funding Agencies	European Commission, Erasmus+
Program Period	2016-2018
Project Acronym	ECVET-Lab
Project Code	2016-1-ES-KA202-024977
Project Title	Implementation and Validation of Non-formal Training on Sustainability for Environmental Testing Laboratories works
Project Coordinator	Alfonso Cadenas Cañamás, Fundación Equipo Humano
Partners	<ol style="list-style-type: none"> 1. Fundación Equipo Humano 2. NOVOTEC CONSULTORES S.A. 3. M.M.C. Management Center Ltd. 4. Instytut Technologii Eksplotacji-Panstwowy Instytut Badawczy 5. Nireas-International Water Research Center, University of Cyprus, Cyprus 6. 3S Research Laboratory – Forschungsverein 7. EUROLAB
Nireas-IWRC Project Investigator	Prof. Despo Fatta-Kassinos
Total Budget	215,043 €
Budget for Nireas-IWRC	32,260 €

PROJECT SUMMARY

ECVET-Lab project's main aim was the promotion of the recognition and validation of competences acquired especially for the laboratory workplace, and through various learning pathways. The project's framework included all persons employed in Laboratories of Environmental Sciences and Engineering that were willing to work for the accomplishment of the project's objectives.

IRGP 45

Transfer and Control of Antibiotic Resistant Bacteria and their Genes During Wastewater Treatment and Reuse

PROGRAM AT A GLANCE

Funding Agencies	South Australian Government Premier's Research and Industry Fund), Australian International Research Grant Program
Program Period	2015-2018
Project Acronym	IRGP 45
Project Code	DFEEST/14/123963
Project Title	Transfer and Control of Antibiotic Resistant Bacteria and their Genes During Wastewater Treatment and Reuse
Project Coordinator	Prof. Erica Donner, University of South Australia, Australia
Partners	<ol style="list-style-type: none"> 1. University of South Australia, Centre for Environmental Risk Assessment and Remediation (CERAR), South Australia, Australia 2. Nireas-International Water Research Center, University of Cyprus, Cyprus 3. Agricultural Research Organization, Volcani Center, Institute of Soil, Water and Environmental Sciences, Israel
Nireas-IWRC Project Investigator	Prof. Despo Fatta-Kassinos
Total Budget	Approximately 190,000 €

PROJECT SUMMARY

IRGP 45 project's main aim was to investigate the extent of metal/antibiotic resistant bacteria in South Australian wastewater and downstream environments and provide advice on their control to the relevant policymakers.

NEREUS COST Action ES1403

New and Emerging Challenges and Opportunities in Wastewater Reuse



PROGRAM AT A GLANCE

Funding Agencies	European Cooperation in Science and Technology (COST)
Program Period	2014-2018
Action Acronym	NEREUS
Action Code	OC-2013-2-16816
Action Title	New and Emerging Challenges and Opportunities in Wastewater Reuse
Chair of the Action	Prof. Despo Fatta-Kassinos
Vice Chair of the Action	Dr. Celia Manaia, Universidade Católica Portuguesa, Portugal
Total Budget	591,028 €
Budget for Nireas-IWRC	190,241 €
Action Website	http://www.nereus-cost.eu

PROJECT SUMMARY

This COST Action aimed at answering critical questions related to wastewater reuse under the threat of the various current challenges with regard to contaminants of emerging concern including antibiotic resistant bacteria and genes (ARB&G), and in particular to provide consolidated insight on the potential effects of the reuse practice with regard to microcontaminants and ARB&G, data on crops' uptake, establish criteria and specs on technologies and assessment methods, and suggest new effluent quality criteria to overcome current barriers and enhance further the reuse.



PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2009-2010) – Water JPI Pilot Call
Program Period	2014-2017
Project Acronym	StARE
Project Code	KOINA/ΠΚΠΙ-WATER/1113/15
Project Title	Stopping Antibiotic Resistance Evolution
Project Coordinator	Dr. Celia Manaia, Universidade Católica Portuguesa, Portugal
Partners	<ol style="list-style-type: none"> 1. University of Helsinki (UHel) 2. Karlsruhe Institute of Technology 3. University of aveiro (UA) 4. National University of Ireland, Maynooth (NUIM) 5. Catalan Institute for Water Research (ICRA) 6. Aquantec GmbH 7. Nireas International Water Research Center, University of Cyprus, Cyprus 8. Technische Universität Dresden (TUD) 9. Norwegian University of Life Sciences (NMBU) 10. Universidade Católica Portuguesa (UCP) 11. Spanish National Biotechnology Centre (CNB)
Nireas-IWRC Principal Investigator	Prof. Despo Fatta-Kassinos
Total Budget	1,970,093 €
Budget for Nireas-IWRC	99,998 €
Project Website	https://stareeurope.wordpress.com

PROJECT SUMMARY

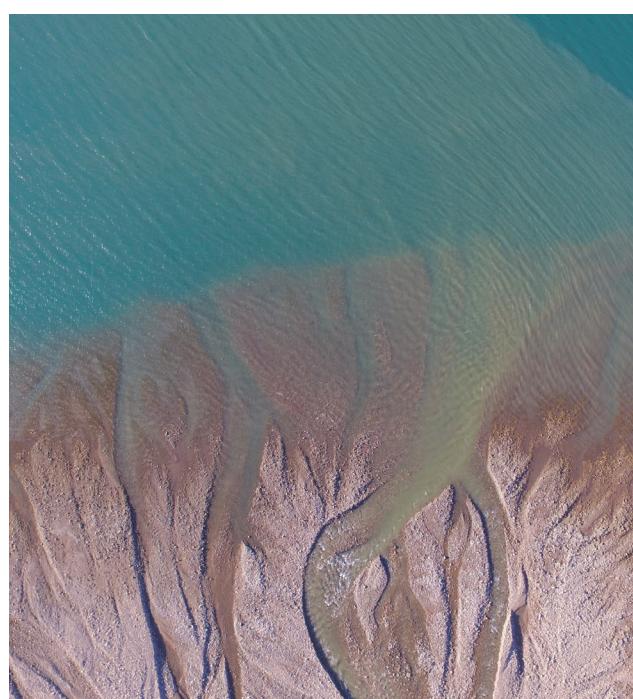
The goal of StARE (Stopping Antibiotic Resistance Evolution) was to protect European citizens' health and the environment via water quality research, aimed at minimizing the impact of discharges from urban wastewater treatment plants (UWTPs) and sustaining safe water cycles. According to WHO, antibiotic resistance is a global human health threat driven by many interconnected factors, where water plays a key role. UWTPs are a major source of antibiotic residues, antibiotic resistant bacteria (ARB) and antibiotic resistance genes (ARGs) released into the environment, thus representing crucial control points for efficient technological interventions. ARB&ARGs are well characterized clinically but the occurrence in aquatic environments, relation to regional antibiotic uses or temporal/geographical variations are poorly understood.

PROGRAM AT A GLANCE

Funding Agencies	Research Executive Agency of the European Commission GRANT AGREEMENT No 607394, Marie-Curie Network for Initial Training (ITN)
Program Period	2013-2017
Project Acronym	SEDITRANS
Project Code	FP7-PEOPLE-2013-ITN-607394
Project Title	Sediment Transport in Fluvial, Estuarine and Coastal Environment
Project Coordinator	Prof. Athanassios Dimas, University of Patras (UPAT), Greece
Beneficiaries	<ol style="list-style-type: none"> 1. Department of Mechanical and Manufacturing Engineering, NIREAS – International Water Research Center, University of Cyprus, Cyprus 2. Catholic University of Louvain (UCL), Belgium 3. Instituto Superior Técnico (IST), Portugal 4. University of Trieste (UTR), Switzerland 5. National Laboratory for Civil Engineering (LNEC), Portugal 6. FUGRO Geoconsulting (FU), Belgium 7. Idrostudii (IDR), Italy 8. STUCKY (STU), Switzerland
Principal Investigator	Dr. D. Grigoriadis
Total Budget	3,734,062€
Nireas-IWRC Budget	397,470€

PROJECT SUMMARY

Sediment transport in the fluvial, estuarine and coastal environment causes significant morphological changes and results in the amplification of floods, storm surges and other inundation hazards. This increases considerably the risk of failure of structures, disruption of function of networks (water, energy), destruction of ecosystems and natural resources, as well as property and human loss. The impact of sediment transport is expected to be incremented due to climate change. Thus, it is very important to advance knowledge and train future engineers in this field.



ECOSI

Contaminants of Emerging Concern in Oued Souhil Area, Nabeul, Tunisia: Occurrence in Irrigation Water and Implications

PROGRAM AT A GLANCE

Funding Agencies	UNESCO Programme and Budget for 2014-2015, Major Programme II, MLA6, International Hydrological Programme
Program Period	2015-2016
Project Acronym	ECOSI
Project Title	Contaminants of Emerging Concern in Oued Souhil Area, Nabeul, Tunisia: Occurrence in Irrigation Water and Implications
Project Coordinator	Dr. Olfa Mahjoub, National Research Institute for Rural Engineering, Water, and Forestry, University of Carthage, Tunisia
Partners	<ol style="list-style-type: none"> 1. National Research Institute for Rural Engineering, Water, and Forestry, University of Carthage, Tunisia 2. Hydrological Consultant, Montreal, Canada 3. Nireas-International Water Research Center, School of Engineering, University of Cyprus, Cyprus 4. Research Institute for Development, University of Montpellier, France 5. Federal Institute for Geosciences and Natural Resources, Germany
Total Budget	3,685 €
Budget for Nireas-IWRC	1,660 €

PROJECT SUMMARY

ECOSI aimed at investigating the occurrence of selected contaminants of emerging concern (CECs) in irrigation water (wastewater and groundwater) and in soil in Oued Souhil area (Tunisia). Specifically, CECs' relevance in these matrices with respect to fate, behaviour, and risks to ecosystem based on available data and literature was investigated.

GAPS

Closing Gaps of Knowledge with Respect to Advanced Chemical Oxidation Processes for the Removal of Contaminants of Emerging Concern



PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2009-2010)
Program Period	2013-2015
Project Acronym	GAPS
Project Code	KOULTOURA/VENS/0412/24
Project Title	Closing Gaps of Knowledge with Respect to Advanced Chemical Oxidation Processes for the Removal of Contaminants of Emerging Concern
Project Coordinator	Prof. Despo Fatta-Kassinos, Nireas – International Water Research Center, University of Cyprus, Cyprus
Total Budget	50,000 €
Nireas-IWRC Budget	50,000 €

PROJECT SUMMARY

GAPS was a research project following the “2011 Nikos Symeonides Research Award” to Dr. Despo Fatta-Kassinos, Director of Nireas-IWRC, by the Cyprus Research Promotion Foundation on 3 October 2012, in recognition of her outstanding research achievements and for the project “Development and application of innovative advanced chemical oxidation processes for the removal of xenobiotic compounds from sewage and assessment of their biological potency”. The award, the highest national distinction granted to a researcher in Cyprus, is a point of reference for Nireas-IWRC, its staff and its research work.

GAPS was an innovative project which aimed at providing answers to specific gaps of knowledge with relation to (i) the dissolved organic matter (DOM) present in aqueous matrices, (ii) the capacity of solar Fenton oxidation in removing antibiotics and antibiotic-resistant bacteria, (iii) the efficiency of UV light-activated persulphate oxidation for the removal of pharmaceuticals and personal care products (PPCPs) from aqueous matrices and (iv) the efficiency of ozonation for the removal of PPCPs from aqueous matrices.

PRODROMOS

Integrated Platform for Security, Information and Accessibility in Intelligent Marine Transport



integrated platform for security, information and accessibility in intelligent multimodal transport

PROGRAM AT A GLANCE

Funding Agencies	Programme of Transnational Cooperation Hellas-Cyprus (INTERREG) 2007-2013
Program Period	2013-2015
Project Acronym	PRODROMOS
Project Code	INTERREG/2938/08-05-2013
Project Title	Integrated Platform for Security, Information and Accessibility in Intelligent Marine Transport
Project Coordinator	Ministry of Communications and Works-Dept. of Public Works, Cyprus
Partners	<ol style="list-style-type: none"> 1. Ministry of Communications and Works-Dept. of Public Works, Cyprus 2. Cyprus Ports Authority, Cyprus 3. Heraclion Port Authority, Greece 4. Ministry of Infrastructure, Transport and Networks, Greece 5. Foundation for Research and Technology, Greece
Nireas-IWRC Principal Investigator	Prof. Symeon Christodoulou
Total Budget	1,950,000 €
NIREAS/UCY Budget	430,000 €
Project Website	https://sites.google.com/site/itsPRODROMOS/home

PROJECT SUMMARY

The project "PRODROMOS" dealt with the creation and implementation of an integrated methodology to complement a "single window" platform, for the security, information and operation of intelligent marine transport. The platform in development aimed at the improvement of the efficiency and security of supply chains and of trafficking through seaports. The project built on previous actions, especially regarding the creation

of a "single window" portal by the Cyprus Ports Authority, and systems studies made by the Department of Public Works of the Ministry of Transport (Cyprus). PRODROMOS focused on the following RTD issues: (1) safety of transport & the exchange of information between ports, (2) identification and monitoring of cargo/ containers in and out of port.

ISES

Intelligent Services for Energy-efficient
Design and Life Cycle Simulation



PROGRAM AT A GLANCE

Funding Agencies | EU – 7th Framework Programme Cooperation

Program Period | 2013-2015

Project Acronym | ISES

Project Code | FP7-ICT-2011-7/288819

Project Title | Intelligent Services for Energy-Efficient Design and Life Cycle Simulation

Project Coordinator | Prof. Raimar J. Scherer, TU Dresden, Germany

- Partners**
1. Technische Universität Dresden, Germany
 2. Granlund Oy, Finland
 3. University of Ljubljana, Slovenia
 4. SOFiSTiK Hellas S.A., Greece
 5. Nyskopunarmidstod Islands, Iceland
 6. National Observatory of Athens, Greece
 7. Leonhardt, Andra und Partner, Germany
 8. Trimo d.d., Slovenia
 9. Russian Academy of Sciences-Institute for System Programming, Russia
 - 10. Nireas – International Water Research Center, University of Cyprus, Cyprus**

Nireas-IWRC Principal Investigator | Prof. Symeon Christodoulou

Total Budget | 4,410,000 €

Budget for Nireas-IWRC/UCY | 114,560 €

PROJECT SUMMARY

ISES developed ICT building blocks to integrate and complement existing tools for design and operation management into a Virtual Energy Lab capable of evaluating, simulating and optimizing the energy efficiency of products and facilities, in particular components for buildings and facilities, before their realization and taking into account their stochastic life-cycle nature. For the energy-efficient design and operation

of products the semantic contexts of several different roles were integrated. A holistic approach was applied to enable efficient use of today's loosely connected numerical analysis tools, modellers and graphical presentation tools and new stochastic methods were developed to deal with the random nature of energy profiles and consumption through the product life-cycle.





Integrating Water Cycle Management: Building Capability,
Capacity and Impact in Education and Business

PROGRAM AT A GLANCE

Funding Agencies	European Commission (TEMPUS IV)
Program Period	2012-2015
Project Acronym	I-WEB
Project Code	530718-TEMPUS-1-2012-1-UK-TEMPUS-JPCR
Project Title	Integrating Water Cycle Management: Building Capability, Capacity and Impact in Education and Business
Project Coordinating Beneficiary	Prof. Lian Lundy, Middlesex University, United Kingdom
Partners	<ol style="list-style-type: none"> 1. Al-Farabi Kazakh National University 2. Ahmed Yasawi International Kazak-Turkish University, Kazakhstan 3. Kokshetau State University named after Shokan Ualikhanov, Kazakhstan 4. Universität Leipzig, Germany 5. Universitat Politecnica de Valencia, Spain 6. Nireas – International Water Research Center, University of Cyprus, Cyprus 7. Institute of Geography of RK, Kazakhstan 8. The Regional Environmental Centre for Central Asia, Kazakhstan 9. Kazakh Scientific Research Institute of Water Economy, Kazakhstan 10. Kazakh Research Institute of Fishery, Kazakhstan 11. Institute of Professional Development and Retraining, Kazakhstan 12. Ministry of Education and Science Control Committee, Kazakhstan 13. National Accreditation Centre; Ministry Education & Science, Kazakhstan 14. CORPORATE FUND "FUND "ZHAS OTAN" IN AKMOLA REGION, Kazakhstan
Nireas-IWRC Principal Investigator	Prof. Despo Fatta Kassinos
Total Budget	928,266 €
Budget for CEE* / Nireas-IWRC	77,951 €

* CEE: Department of Civil and Environmental Engineering

PROJECT SUMMARY

I-WEB aimed at supporting KAZNU, IKTU and KokSU to work collaboratively with business, professional bodies and regulatory organisations at a national and international level to develop and deliver Integrated Water Cycle Management (IWCM) Masters and PhD programmes. The main features of I-WEB were the establishment of an International Advisory Board (IAB) consisting of KZ and EU academic partners and representatives of professional scientific and national curricula bodies. Representatives from other sectors were invited to join the IAB as I-WEB progresses, with its role being the scoping of programme content and delivery mechanisms to be met multi-sectorial needs. Key I-WEB activities included a critical evaluation of the current status of training in IWCM, educational practice, CPD and

QA procedures, intensive retraining of KZ staff in IWCM and curricula reform and the development of Bologna compliant MSc and PhD educational frameworks. Internal and external project and programme QA procedures were developed and IWCM laboratories were established. Selected aspects of modules were piloted (free events for students and practitioners) and, CPD courses were developed. I-WEB activities were the development and launch of a communication plan and the establishment of the I-WEB website. Sustainability of I-WEB was demonstrated by adoption of the IAB, institutionalisation of the QA procedures, validation and ongoing running of the programmes, the publication of two IWCM textbooks and hosting of an international meeting.

PhotoGraph

Photocatalytic Removal of Organic Micro-pollutants from the Aqueous Phase Using TiO_2 Coupled with Graphene as a Photocatalyst

PROGRAM AT A GLANCE

Funding Agency	Co-financed by the European Regional Development Fund and the Republic of Cyprus through the Cyprus Research Promotion Foundation (DESMI 2009-2010)
Program Period	2012-2014
Project Acronym	PhotoGraph
Project Code	ΑΕΙΦΟΡΙΑ/ΦΥΣΗ/0311(BIE)/33
Project Title	Photocatalytic Removal of Organic Micro-pollutants from the Aqueous Phase using TiO_2 Coupled with Graphene as a Photocatalyst
Project Coordinator	Prof. Despo Fatta-Kassinos, Nireas – International Water Research Center, University of Cyprus
Partners	<ol style="list-style-type: none"> 1. Department of Environmental Engineering, Technical University of Crete 2. S.K. Euromarket Ltd.
Total Budget	159,964 €
Budget for Nireas-IWRC	88,476 €
Project Website	www.PhotoGraphProject.com

PROJECT SUMMARY

The aim of the project entitled "Photocatalytic removal of organic micro-pollutants from the aqueous phase using TiO_2 coupled with graphene as a photocatalyst (PhotoGraph)" was to develop simple and efficient methods for synthesizing TiO_2 catalysts coupled with graphene, and to study their photocatalytic performance under solar radiation for the degradation of various contaminants of emerging concern, including pharmaceuticals. Graphene was chosen because it was an interesting material with exceptional properties, isolated for the first time in 2004.





PROGRAM AT A GLANCE

Funding Agencies	ENPI CBCMED, European Union
Program Period	2011-2015
Project Acronym	MEDOLICO
Project Code	I-B/2.1/090
Project Title	Mediterranean Cooperation in the Treatment and Valorization of Olive Mill Wastewater
Project Coordinator	Prof. Despo Fatta Kassinos, NIREAS – International Water Research Center, University of Cyprus
Partners	<ol style="list-style-type: none"> 1. Matimop, Israel Industry for R&D, Israel 2. Unioncamere Liguria, Italy 3. Unidade de Bioenergia, Laboratorio Nacional de Energia e Geologia, LNEG, Portugal 4. Jordan University of Science and Technology, Jordan 5. The Ben-Gurion University, Israel 6. University of Genoa, Italy
Total Budget	1,964,499 €
Budget for Nireas-IWRC	294,009 €
Project Website	www.medolico.com

PROJECT SUMMARY

MEDOLICO (ENPI CBCMED) was a joint Mediterranean initiative bringing together regions from the East-end (Cyprus, Israel, Jordan) to the West-end (Portugal) and from the North-end (Italy) of the Mediterranean basin that are highly active in olive oil production and all face environmental and economic challenges posed by the management of olive mill wastewater (OMW). The overall goal of the MEDOLICO project was to prevent and reduce the environmental

risk presented by OMW by collaborating on the evaluation of the performance of various advanced treatment technologies at both bench and pilot scale and actively valorizing, in an integrated manner, the phenolic compounds (i.e. by-products) recovered from the OMW in order to provide solutions that significantly reduce the environmental impact of olive mills and sustainably protect the natural heritage of the Mediterranean basin.

DARE

Detecting Evolutionary Hot Spots of
Antibiotic Resistances in Europe

PROGRAM AT A GLANCE

Funding Agencies	European Science Foundation, European Commission
Program Period	2009-2013
Action Acronym	DARE
Project Code	COST Action TD0803
Project Title	Detecting Evolutionary Hot Spots of Antibiotic Resistances in Europe
Chair of the Action	Prof. Thomas Berendonk, TU Dresden, Germany
Vice Chair of the Action	Prof. Despo Fatta Kassinos, Nireas - International Water Research Center, University of Cyprus, Cyprus
Project Website	http://www.cost-dare.eu

PROJECT SUMMARY

The main objective of DARE COST Action was to identify and characterize environmental hot spots for antimicrobial resistance (AR) emergence and spreading of antibiotics and antibiotic resistance patterns, aiming at the development of measures to control antibiotic resistance evolution. A network between medical researchers, urban water engineers, chemists, epidemiologists, microbiologists, environmental biologists and evolutionary biologists agreed on the following objectives: (a) assess the potential of wastewater treatment

plants (UWTPs) and animal production as environmental hot spots for antimicrobial resistance emergence and spreading, (b) identify key processes, which foster or stabilize antibiotic resistances in different environments and assess measures to reduce the evolution of new AR, (c) develop an appropriate risk assessment and (d) identify key requirements for a (molecular) screening system of AR. Dr. Despo Fatta-Kassinos was a member of the Management Committee and the Vice Chair of the Action.

IX-Aqua

Fate, Effect and Removal Potential of Xenobiotics Present in Aqueous Matrices

PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2008), Republic of Cyprus, European Regional Development Fund
Program Period	2009-2013
Project Acronym	IX-AQUA
Project Code	UPGRADING/DURABLE/0308/07
Project Title	Fate, Effect and Removal Potential of Xenobiotics Present in Aqueous Matrices
Project Coordinator	Prof. Despo Fatta Kassinos, Department of Civil and Environmental Engineering, and Nireas – International Water Research Center, University of Cyprus
Partners	Instituto de Diagnóstico Ambiental y Estudios del Agua (IDAEA)
Total Budget	396,372 €
Budget for Nireas-IWRC	387,172 €
Project Website	www.eng.ucy.ac.cy/ix%2Daqua

PROJECT SUMMARY

The innovation of IX-AQUA research was based on the development and implementation of advanced analytical techniques that spearheaded the investigations on the following three topics: (1) existence of pharmaceuticals and drugs abuse in aqueous matrices down to the ppt level by development of new techniques on UPLC; (2) evaluation of the degradation/removal efficiency during existing and new/advanced treatment methods through investigations in industrial/pilot/bench scale plants using

the techniques that will be developed (use of UPLC) and (3) assessment of the impact of pharmaceuticals/drugs abuse and of their transformation products towards environment and humans (i) use of mechanistic understanding of toxic effects to develop more informative and efficient test systems, (ii) study of the potential disruption on cultured human cells, and (iii) develop a system able to screen substances for effects on human genes.

UCyAMR

Ad-Hoc Wireless Sensor Networks for Automatic Meter Reading
and Vulnerability Assessment of Water Distribution Networks

PROGRAM AT A GLANCE

Funding Agencies	Co-Funded by the European Regional Development Fund and the Republic of Cyprus, thru the Cyprus Research Promotion Foundation (DESMI 2008)
Program Period	2011-2012
Project Acronym	UCyAMR
Project Code	AEIFORIA/ASTI/0609(BIE)/07
Project Title	Ad-Hoc Wireless Sensor Networks for Automatic Meter Reading and Vulnerability Assessment of Water Distribution Networks
Project Coordinator	Prof. Symeon Christodoulou, Department of Civil and Environmental Engineering, and Nireas- International Water Research Center, University of Cyprus, Cyprus
Partners	1. SignalGeneriX Ltd 2. FWS Ltd
Total Budget	159,924 €
Budget for Nireas-IWRC / UCY	56,800 €
Project Website	https://sites.google.com/site/ucyamr/home

PROJECT SUMMARY

The UCyAMR research project aimed at: (1) Expanding current research at the Host Organization on water-loss reduction; (2) Performing vulnerability assessment of lifeline systems (e.g. water, natural gas, electricity), with a focus on urban water distribution networks; (3) Developing prediction and evaluation methods for evaluating the social and economic vulnerability with a view to integrating these methods with engineering-based vulnerability or fragility evaluation methods. The aim was to provide indicators of engineering,

social and economic vulnerability based on a number of factors that represent engineering principles, community demographics, socio-economic and risk perception characteristics; (4) Developing a comprehensive hardware and software solution for the monitoring of piping systems with ad-hoc wireless sensors; (5) Developing a comprehensive hardware and software solution for the automatic meter reading of water meters, providing online monitoring of water consumption in the network; and (6) Implementing the developed system at a pilot location.



Advanced Systems for the Enhancement of the Environmental Performance of Wineries in Cyprus

PROGRAM AT A GLANCE

Funding Agencies	European Commission, LIFE+ program
Program Period	2010-2013
Project Acronym	WINEC
Project Code	LIFE08 ENV/CY/000455
Project Title	Advanced Systems for the Enhancement of the Environmental Performance of Wineries in Cyprus
Project Coordinator	Prof. Despo Fatta Kassinos, Department of Civil and Environmental Engineering, and Nireas – International Water Research Center, University of Cyprus, Cyprus
Associated Beneficiaries	<ul style="list-style-type: none"> 1. Department of Environmental Engineering, Technical University of Crete 2. S.K. Euromarket Ltd 3. RTD Talos Ltd 4. Department of Environment, Ministry of Agriculture, Natural Resources and Environment 5. Tsiaakkas Winery
Total Budget	1,366,183 €
Budget for CEE* / Nireas-IWRC	563,742 €
Project Website	www.eng.ucy.ac.cy/winec

PROJECT SUMMARY

WINEC project aimed at identifying the major environmental problems specifically associated with the operation of wineries and establishing environmentally friendly and effective solutions in order to effectively deal with those problems. Potential environmental improvements for wineries are evident through the implementation of effective Environmental Management Systems

aiming at the effective treatment of their wastewater, minimization of solid waste disposal and maximization of their reuse potential, reduced electricity, fuel and water consumption, reduced emissions and discharges to the environment, reduced packaging waste production, reduced chemicals use and compliance with the relevant environmental legislation in all sectors.

* CEE: Department of Civil and Environmental Engineering

TOMIXX

Development of Novel Methods for the Toxicity Assessment of Multi-component Chemical Mixtures to Humans and the Ecosystem

PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2009-2010), Republic of Cyprus, European Regional Development Fund
Program Period	2010-2012
Project Acronym	TOMIXX
Project Code	PENEK/0609/24
Project Title	Development of Novel Methods for the Toxicity Assessment of Multi-component Chemical Mixtures to Humans and the Ecosystem
Project Coordinator	Prof. Despo Fatta Kassinos, Department of Civil and Environmental Engineering, and Nireas-International Water Research Center, University of Cyprus, Cyprus
Partners	<ol style="list-style-type: none"> 1. Laboratory of Department of Life and Health Sciences, University of Nicosia 2. Medical Research Center, Faculty for Clinical Medicine Mannheim, Ruprecht-Karls-University Heidelberg
Total Budget	69,936 €
Project Website	http://www.eng.ucy.ac.cy/tomixx

PROJECT SUMMARY



The TOMIXX research project aimed at: (1) leveraging and integrating existing expertise currently distributed among partners, thus leading to an upgraded profile for them in the field of multi-component impact assessment and to new relevant scientific insights in the field of environmental science, (2) transferring specialized knowledge and promoting lasting professional cooperation between the participant organisations, governmental and private sector in the field of xenobiotics' impact assessment and water resources quality protection, (3) promoting excellence in the research field of advanced water management and developing and/or enhance local expertise in the field of xenobiotics in

water and wastewater, (4) evaluating the potential impacts of active pharmaceutical ingredients and their multi-component mixtures to humans and the ecosystem, which is a new field of scientific research attracting intense worldwide interest, (5) contributing to the implementation of the Water Framework Directive since the project would provide new insights for developing emission limit values and environmental quality standards with respect to active pharmaceutical ingredients currently absent from the priority lists circulated; and (6) enhancing the acceptance and practices related to wastewater reuse by determining the most relevant issues relating to reuse and adverse effects.

SOLIVAL

**Sustainable Management of Agro-industrial Wastes: Valorization
and Solar-Fenton Post-treatment of Olive Mill Effluents**

PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2009-2010)
Program Period	2010-2012
Project Acronym	SOLIVAL
Project Code	AEIFORIA/FISI/0609(BE)/12
Project Title	Sustainable Management of Agro-industrial Wastes: Valorization and Solar-Fenton Post-treatment of Olive Mill Effluents
Project Coordinator	Prof. Despo Fatta Kassinos, Department of Civil and Environmental Engineering, and Nireas-International Water Research Center, University of Cyprus, Cyprus
Partners	Department of Environmental Engineering of the Technical University of Crete
Total Budget	122,320 €
Budget for CEE* / Nireas-IWRC	85,312 €



* CEE: Department of Civil and Environmental Engineering

UCyMSAD

**UWDN Modelling, Simulation and Optimization
of Leakage Detection via Sensing Technologies**

PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation (DESMI 2008), Republic of Cyprus
Program Period	2009-2011
Project Acronym	UCyMSAD
Project Code	PENEK/ENISH/0308/34
Project Title	UWDN Modelling, Simulation and Optimization of Leakage Detection via Sensing Technologies
Project Coordinator	Prof. Symeon Christodoulou, Department of Civil and Environmental Engineering, and Nireas – International Water Research Center, University of Cyprus, Cyprus
Partners	Department of Civil and Environmental Engineering, University of Cyprus, Cyprus
Total Budget	90,000 €
Budget for Nireas-IWRC / UCY	90,000 €
Project Website	https://www.sites.google.com/site/ucymsad/home

PROJECT SUMMARY

The project aimed at: (1) The creation of a mathematical model to study urban water distribution networks (UWDN); (2) The development of “repair-or-replace” pipeline management decisions and prioritization of work in UWDN based on risk-of-failure and financial parameters, through the use of a variety of tools (statistical analysis, survival analysis), artificial neural networks, fuzzy logic,

graph theory, and life cycle costing); (3) The correlation between intermittent water supply and subsequent leakage; (4) The use of an integrated wireless sensor network (WSN) for early leakage detection, through a real-life pilot implementation; (5) The development of related software based on Geographic Information System (GIS) and database management systems.



REPT Recycling Environmental Policy Tool, Environmental Policy Support Tool for Recycling in Islands

PROGRAM AT A GLANCE

Funding Agencies	Cyprus Research Promotion Foundation LIFE programme of the European Commission
Program Period	2009-2011
Project Acronym	REPT
Project Code	LIFE07 ENV/CY/000081
Project Title	Recycling Environmental Policy Tool, Environmental Policy Support Tool for Recycling in Islands
Coordinating Beneficiary	Mr Constantinos Papamichael, Cyprus Ministry of Interior (MOI)
Associated Beneficiaries	<ol style="list-style-type: none"> 1. Department of Civil and Environmental Engineering, and Nireas - International Water Research Center, University of Cyprus, Cyprus 2. P. Nicolaides & Associates Ltd (N&A) 3. Green Dot (Cyprus) Public Co. Ltd 4. Hellenic Recovery Recycling Corporation (HERRCo) 5. GreenPak Ltd 6. Eco-emballages S.A. 7. Cyprus Environment Service
Nireas-IWRC Principal Investigator	Prof. Despo Fatta Kassinos
Total Budget	878,272 €
Budget for CEE* / Nireas-IWRC	196,911 €
Project Website	http://www.eng.ucy.ac.cy/rept/EN/indexEN_frames.htm

PROJECT SUMMARY

REPT project brought together the island states of Cyprus and Malta as well as the countries of Greece and France. One of the main aims of the project was the development of a decision support tool that would allow national authorities and other involved stakeholders to calculate the environmental benefit and financial cost of alternative ways of waste management, especially focusing on packaging waste (paper, glass, plastic and metals) and waste from electrical, electronic equipment (cooling equipment, CRT screens and fluorescent lamps). This tool developed is applicable to state islands and countries with many or distant islands in order to assess and determine the optimal economic and environmental solutions.

* CEE: Department of Civil and Environmental Engineering



PROGRAM AT A GLANCE

Funding Agencies	Co-Funded by the Republic of Cyprus and the European Regional Development Fund of the EU
Program Period	2010-2015
Project Acronym	NIREAS-IWRC
Project Code	NEA IPODOMI/STRATH/0308/09
Project Title	NIREAS - International Water Research Center
Project Coordinator	Prof. Despo Fatta Kassinos, Nireas - International Water Research Center, University of Cyprus, Cyprus
Partners	University of Cincinnati
Total Budget	1,398,945 €
Budget for Nireas-IWRC/UCY	1,269,330 €
Website	www.nireas-iwrc.org

PROJECT SUMMARY

The activities of NIREAS-International Water Research Center included interdisciplinary research aiming at the solution of complex scientific and engineering problems under the unifying theme of water management. The goal was to develop further expertise that will enable an integrated approach to this important issue, coupling chemistry, biology, hydrology, geohydrology, hydraulics, advanced modeling

capabilities and experimental/analytical work, computational mechanics, risk assessment, environmental science and education, economics and of course various specialties of engineering in order to face various emerging problems in this field. The overarching aim of Nireas-IWRC was to integrate and leverage this interdisciplinary research for the solution of complex scientific and engineering problems.

Participation in other Projects/Networks

Removal of antibiotic-resistant bacteria and genes from urban wastewater effluents by solar- and UV-C-driven oxidation processes (RESISTANCE), Plataforma Solar de Almeria under SFERA Project "G. Agreement no: P1503040133" funded by the European Commission, September/October 2015, (SFERA Project coordinator: Dr. P. Fernández-Ibáñez / RESISTANCE Project Coordinator: Dr. D. Fatta-Kassinos).

Disinfection of WWTP secondary effluents by solar photo-fenton process in raceway pond reactors. Effect on antibiotic resistance transfer (SOFENDIS), CTQ2016-78255-R, 2016-2019, funded by Spanish National Council, (Project coordinators: Dr. Jose Antonio Sánchez-Pérez and Dr. Ana Agüera).

Sewage analysis CORe group-Europe (SCORE), COST Action ES1307, 2014-2018, (Coordinator and Chair: Dr. Kevin Thomas), http://www.cost.eu/domains_actions/essem/Actions/ES1407.

Investigation of the potential adverse effects to the soil and the environment caused by wastewater reuse for irrigation and assessment of public health risks in Cyprus. Beneficiary: Agricultural Research Institute, Funded by Cyprus Government (UCY Principal Investigator), 2011-2016, (70,000 €, managed by ARI).

Sustainable Water Management in Greek Households: Greywater Treatment and Reuse, REGREW. General Secretariat for Research and Technology (GSRT) - Ministry of Education, Lifelong Learning and Religious Affairs - Hellenic Republic, 2012-2015, Hellenic Host Organization: Aristotle University and International Host Organization: University of Cyprus. Post-doctoral funding for Dr Th. Velegraki. (Scientific Responsible: I. Poulios and D. Fatta-Kassinos).

Antibiotic resistance removal and disinfection potential of urban wastewater by solar-Fenton at a pilot plant scale- (SOLAR2D), Plataforma Solar de Almeria under SFERA Project "G. Agreement no: 228296 FP7-INFRASTRUCTURES-2008-1" funded by the European Commission, September/October 2012, (SFERA Project coordinator: Dr. Sixto Malato / SOLAR2D Project Coordinator: Dr. D. Fatta-Kassinos).

Treatment of Two Antibiotics at Pilot Plant Scale Project (SOL-TROF), Plataforma Solar de Almeria under SFERA Project "G. Agreement no: 228296 FP7-INFRASTRUCTURES-2008-1" funded by the European Commission, June 2010, (SFERA Project coordinator: Dr. Sixto Malato / SOL-TROF Project Coordinator: Dr. D. Fatta-Kassinos).



Services Offered (including pro bono)

2020

Sewerage Board of Limassol-Amathus:

"Monitoring of SARS-CoV-2 in wastewater influents of the wastewater treatment plant (WWTP) of Limassol".

Scientist in Charge:
Prof. Despo Fatta-Kassinou

2020

Water Board of Nicosia:

"Evaluation of technologies and capabilities of telematics in the network of the Nicosia Water Supply Council".

Scientist in Charge:
Prof. Symeon Christodoulou

2020

Water Board of Nicosia:

"Provision of professional expert services, in the framework of the program WATenERgy, for the appraisal of remote sensing technologies in the water distribution network of Nicosia".

Scientist in Charge:
Prof. Symeon Christodoulou

2020

Blue Island Ltd:

"Developing in-situ biological treatment technologies for efficient management of the company's fish waste stream before reaching the sewage system of Nicosia".

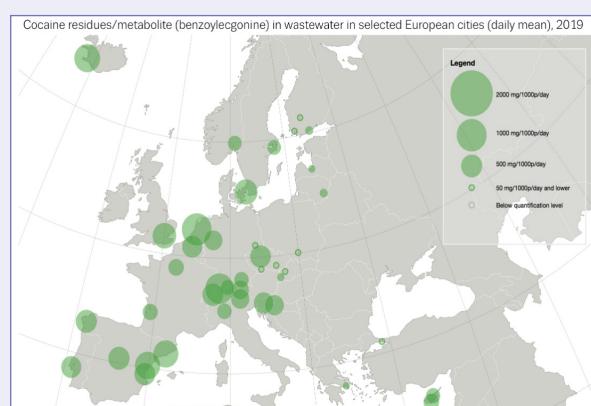
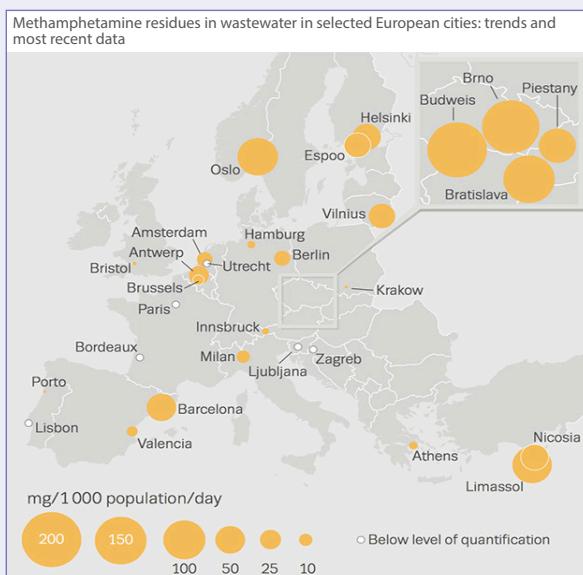
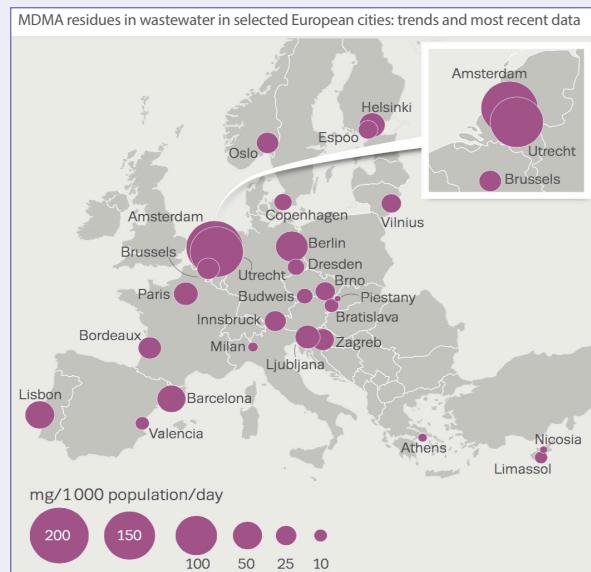
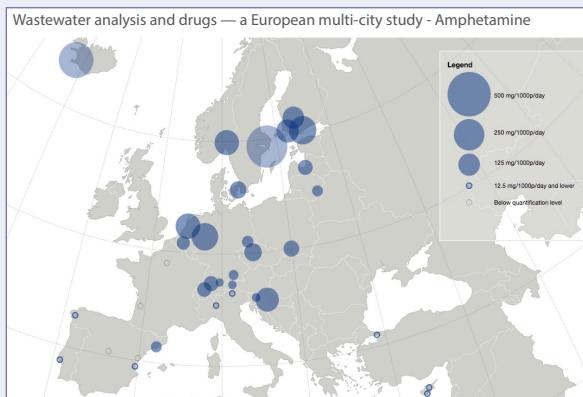
Scientist in Charge:
Dr Argyro Tsipa, Lecturer

Duration:
2016 - 2020

Cyprus National Addictions Authority:

"Monitoring and wastewater-based epidemiology of illegal drugs in the influents of wastewater treatment plants of Cyprus".

Scientist in Charge:
Prof. Despo Fatta-Kassinios



Duration:
2016 - 2017

Cyprus Water Development Department:

"Monitoring of xenobiotic substances in the aquifer CY-9 Akrotiri during its enrichment with recycled water from the wastewater treatment plant in Limassol".

Scientist in Charge:
Prof. Despo Fatta-Kassinios

Duration:
2016 - 2017

GSI Environmental Inc:

"Feasibility Study (numerical simulation) for Surfactant assisted recovery of Jet A".

Scientist in Charge:
Assist. Prof. Konstantinos Kostarelos,
Prof. Despo Fatta-Kassinios.

Examples of Nireas-IWRC Contribution to Policy Development and EU Activities

2020

SARS-CoV-2 Surveillance employing Sewers, European Union's Umbrella Study



EU Umbrella Study@ UN World Water Quality Alliance

SARS-CoV-2 Monitoring employing Sewers

2nd TOWN HALL Meeting

Context of the Event

The EU Umbrella Study

The European Commission has created a pan-European Umbrella Study to better understand the limitations and challenges of this approach. This includes the development of a roadmap for a systemic rollout of complementing ongoing national and regional surveillances in a unique approach. Upon suggestion from the Dutch Water Research Institute (KWR) and the Rheinisch-Westfälische Technische Hochschule (RWTH) and supported by EurEau and Water Europe, the European Commission's Joint Research Centre and the Directorate-General Environment with involvement of the Directorate-General Health and Food Safety set up a spontaneous research alliance and organised a study engaging directly with some 90 waste water treatment plants in Europe. The umbrella currently spreads out to 20 countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Estonia, Finland, Germany, Greece, Ireland, Italy, Latvia, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Spain and Sweden), which decided to create an overlap with the EU study. Another 7 countries (Czech Republic, Denmark, France, Hungary, Israel, Slovenia and the UK) consider to join the second round of the Umbrella Study, scheduled for August 2020. While first results indicate the viability of the approach, they are currently being critically reviewed to develop a consensus on the use of generated datasets. In an inclusive and open approach critical topics and limitations are reviewed jointly with private and public entities which joined the initiative: CEDEX - Centro de Estudios y Experimentación de Obras Públicas (CEDEX), Eurecat - Technology Centre of Catalonia (Spain), the Helmholtz Centre for Environmental Research, NIREAS - The International Water Research Center, NORMAN Network, SUEZ, University of Thessaly and National Technical University of Athens (Greece) and the University of Exeter (UK) to name, but a few.

2017

Member of the 5-member Committee for the DG RTD - Directorate-General for Research and Innovation Initiative for P4P (Projects for Policy), European Commission

November
2017

Participation in the Second Tripartite Meeting of the Presidents of the Cyprus-Greece-Israel Parliaments, House of Representatives, Nicosia, Cyprus



March
-October
2014

Contribution to the preparation of the position paper on “Wastewater reuse and implications for future standardization”, CEN: European Committee for Standardization, SABE: Strategic Advisory Body of Environment, Brussels

2014

Water Reuse in Europe, Relevant guidelines, needs for and barriers to innovation, A synoptic overview, by Laura Alcalde Sanz and Bernd Manfred Gawlik

JRC SCIENCE AND POLICY REPORTS

Water Reuse in Europe
Relevant guidelines, needs for and barriers to innovation

A synoptic overview

Laura Alcalde Sanz, Bernd Manfred Gawlik
2014

WATER REUSE IN EUROPE

Acknowledgements

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Participation in Editorial Boards of Scientific Journals

Editorial Board Member: Case Studies in Chemical and Environmental Engineering, Elsevier, 2021-Present, Prof. Despo Fatta-Kassinos.

Editorial Board Member: Flow, Turbulence and Combustion (FTaC), Springer, 2017-Present, Prof. Stavros Kassinos.

Editorial Board Member: International Journal of Heat and Fluid Flow, Elsevier, 2015-Present, Prof. Stavros Kassinos.

Editorial Board Member: Environmental Science and Pollution Research, Springer, 2012-Present, Dr. Costas Michael.

Associate Editor: Water Research, Elsevier, 2020-Present, Prof. Despo Fatta-Kassinos.

Associate Editor: Rock Mechanics and Rock Engineering journal, Springer, 2020-Present, Prof. Panos Papanastasiou.

Editorial Advisor: International Journal of Geomechanics, ASCE, 1996-Present, Prof. Panos Papanastasiou.

Editorial Board Member: Petroleum Science, Springer Open, 2015-Present, Prof. Panos Papanastasiou.

Editorial Board Member: Geomechanics for Energy and the Environment journal, Elsevier, 2019-Present, Prof. Panos Papanastasiou.

Editorial Board Member: Geo-Energies section, MDPI, 2020-2021 resigned,
Prof. Panos Papanastasiou.

Editorial Board Member: Current Opinion in Environmental Science & Health, Elsevier, 2018-Present,
Prof. Despo Fatta-Kassinos.

Editorial Board Member: Rock Mechanics and Rock Engineering journal, Springer, 2016-2020,
Prof. Panos Papanastasiou.

Associate Editor: European Water, European Water Resources Association, EWRA, 2015-2018,
Prof. Symeon Christodoulou.

Editorial Board Member: Journal of Smart Cities, Whioce Publishing Pte Ltd, Singapore, 2009-2018,
Prof. Symeon Christodoulou.

Editor: Journal of Environmental Chemical Engineering, Elsevier, 2012-Present,
Prof. Despo Fatta-Kassinos.

Editor: Water Science and Technology: Water Supply, IWA, August 2009-January 2013,
Prof. Despo Fatta-Kassinos.

Editor: Water Science and Technology, IWA, August 2009-January 2013,
Prof. Despo Fatta-Kassinos.

Editor: Water Practice and Technology, IWA, August 2009-January 2013,
Prof. Despo Fatta-Kassinos.

Honors and Awards

Prof. Despo Fatta-Kassinios, **Scientist/Academic Woman of the Year**, Madame Figaro Women of the Year Awards 2020, presented by Estée Lauder.

Prof. Despo Fatta-Kassinios, **"Highly Cited Researcher, 2020"**, in recognition of the production of multiple highly cited papers that rank in the top 1% by citations for field and year in **Environment and Ecology**; Web of Science, Clarivate Analytics. The 2020 list is based on citations in papers published between 2009 and 2019.

Prof. Despo Fatta-Kassinios, **"Highly Cited Researcher, 2019"**, in recognition of the production of multiple highly cited papers that rank in the top 1% by citations for field and year in **Environment and Ecology**; Web of Science, Clarivate Analytics. The 2019 list is based on citations in papers published between 2008 and 2018.

Prof. Despo Fatta-Kassinios, **"Highly Cited Researcher, 2018"**, in recognition of the production of multiple highly cited papers that rank in the top 1% by citations for field and year in **Cross-field**; Web of Science, Clarivate Analytics. The 2018 list was based on citations in papers published between 2006 and 2016.

Prof. Despo Fatta-Kassinios, Recipient of the honorary award for her long-standing contribution and activity in the research area of Environmental Protection, awarded by the Hellenic Open University, Greece in 2017.



Prof. S. Christodoulou, Excellence in Research Award 2015

Prof. Symeon Christodoulou, **"Excellence in Research" Award**, Transport and Logistics Awards 2015, Greece 2015. Awarded by the Hellenic Association of Transport Engineers, for the advancement of research in the field of 'Safety in Transport' and the contributions made to the field by the PRODROMOS research project.



Prof. D. Fatta-Kassinios, 2011 Nikos Symeonides National Research Award



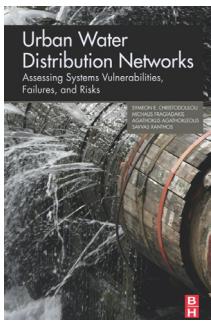
Prof. S. C. Kassinos, 2010 Nikos Symeonides National Research

Prof. S. C. Kassinos, 2010 Nikos Symeonides **National Research Award**, awarded by the Cyprus Research Promotion Foundation, 2011 (highest national research recognition).





Edited Books, Books



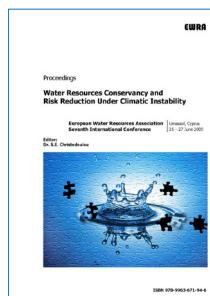
S.E. Christodoulou, M. Fragiadakis, A. Agathokleous and S. Xanthos, 2017: "Urban water distribution networks: Assessing systems vulnerabilities, failures, and risks", Butterworth-Heinemann, ISBN: 978-0-12-813652-2.

K. Kümmerer, D. Dionysiou, D. Fatta-Kassinos (Eds), 2016: "Advanced Treatment Technologies for Urban Wastewater Reuse", The Handbook of Environmental Chemistry Series, 45, Springer, ISSN: 1867-979X (print), ISSN: 1616-864X (electronic).



K. Kümmerer, D. Dionysiou, D. Fatta-Kassinos (Eds), 2016: "Wastewater Reuse and Current Challenges", The Handbook of Environmental Chemistry Series, 44, Springer, ISSN: 1867-979X (print), ISSN: 1616-864X (electronic).

S.E. Christodoulou (Ed), 2010: "Water resources conservancy and risk reduction under climatic instability", European Water Resources Association (EWRA), ISBN: 978-9963-671-94-6.





Scientific Journal Publications

CHART 06

Nireas-IWRC's total and cumulative publication output (journal and conference papers), per annum.

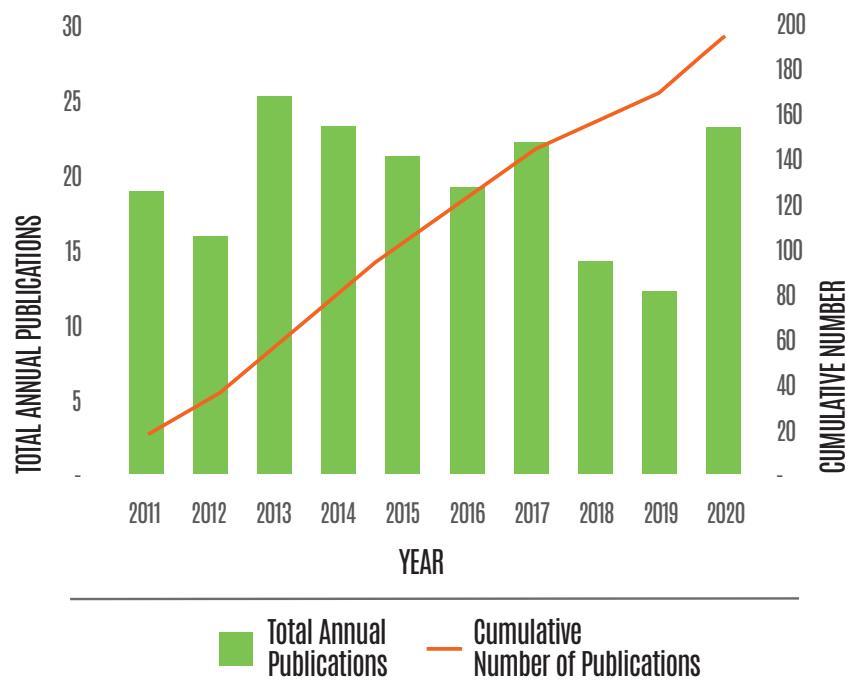
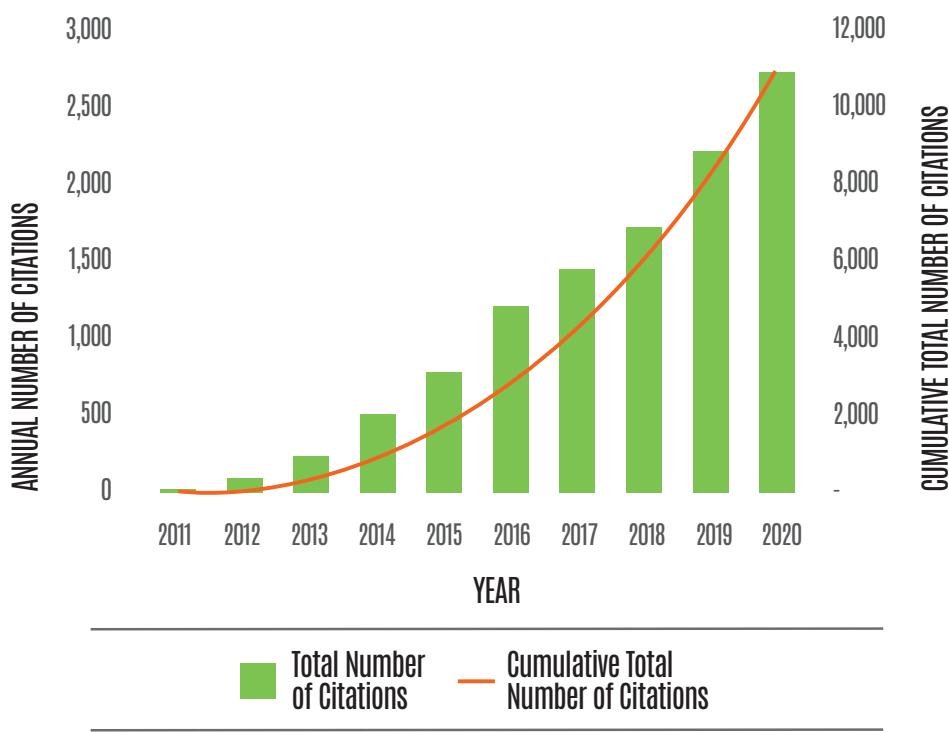


CHART 07

Nireas-IWRC publications' annual and cumulative number of citations, by year of publication.



- 130 D. Avraam, R. Wilson, O. Butters, T. Burton, C. Nicolaides, E. Jones, A. Boyd and P. Burton, "Privacy preserving data visualizations", **EPJ Data Science**, 2021, 10, 2.
- 129 C. F. Panagiotou, F. S. Stylianou, S. C. Kassinos, "Structure-based transient models for scalar dissipation rate in homogeneous turbulence", **International Journal of Heat and Fluid Flow**, 2020, 82, 108557.
- 128 P. G. Koullapis, F. S. Stylianou, J. Sznitman, B. Olsson, S. C. Kassinos , "Towards whole-lung simulations of aerosol deposition: A model of the deep lung", **Journal of Aerosol Science** 2020, 144, 105541.
- 127 A. A. Bayode, E. Maria Vieira, R. Moodley, S. Akpotu, A. S. S. de Camargo, D. Fatta-Kassinos, E. I. Unuabonah, "Tuning ZnO p-n Heterostructure with carbon interlayer supported on clay for visible-light catalysis: Removal of steroid estrogens in water", **Chemical Engineering Journal**, <https://doi.org/10.1016/j.cej>, 2020, 127668.
- 126 L. Lundy, D. M. Revitt, D. Fatta-Kassinos, "Development of a qualitative approach to assessing risks associated with the use of treated wastewater in agricultural irrigation", **Journal of Hazardous Materials**, 2020, 406, 124286.
- 125 D. Wu, Q. Sui, X. Yu, W. Zhao, Q. Li, D. Fatta-Kassinos, S. Lyu, "Identification of indicator PPCPs in landfill leachates and livestock wastewaters using multi-residue analysis of 70 PPCPs: Analytical method development and application in Yangtze River Delta, China", **Science of the Total Environment**, 2020, 753, 141653.

- 124 R. B. M. Marano, T. Fernandes, C. M. Manaia, O. Nunes, D. Morrison, T. U. Berendonk, N. Kreuzinger, T. Telson, G. Corno, D. Fatta-Kassinos, C. Merlin, E. Topp, E. Jurkewitch, L. Henn, A. Scott, S. Heß, K. Slipko, M. Laht, V. Kisand, A. Di Cesare, P. Karaolia, S. G. Michael, A. L. Petre, R. Rosal, A. Pruden, V. Riquelme, A. Agüera, B. Esteban, A. Luczkiewicz, A. Kalinowska, A. Leonard, W. H. Gaze, A. A. Adegoke, T. A. Stenstrom, A. Pollice, C. Salerno, C. U. Schwermer, P. Krzeminski, H. Guilloteau, E. Donner, B. Drigo, G. Libralato, M. Guida, H. Bürgmann, K. Beck, H. Garellick, M. Tacão, I. Henriques, I. Martínez-Alcalá, J. M. Guillén-Navarro, M. Popowska, M. Piotrowska, M. Quintela-Baluja, J. T. Bunce, M. I. Polo-López, S. Nahim-Granados, M.-N. Pons, M. Milakovic, N. Udikovic-Kolic, J. Ory, T. Ousmane, P. Caballero, A. Oliver, S. Rodriguez-Mozaz, J. L. Balcazar, T. Jäger, T. Schwartz, Y. Yang, S. Zou, Y. Lee, Y. Yoon, B. Herzog, H. Mayrhofer, O. Prakash, Y. Nimonkar, E. Heath, A. Baraniak, J. Abreu-Silva, M. Choudhury, L. P. Munoz, S. Krizanovic, G. Brunetti, A. Maile-Moskowitz, C. Brown, E. Cytryn, "A global multinational survey of cefotaxime-resistant coliforms in urban wastewater treatment plants", **Environment International**, 2020, 144, 106035.
- 123 I. Michael-Kordatou, P. Karaolia, D. Fatta-Kassinos, "Sewage analysis as a tool for the COVID-19 pandemic response and management: the urgent need for optimized protocols for SARS-CoV-2 detection and quantification", **Journal of Environmental Chemical Engineering**, 2020, 8 (5), 104306.
- 122 V. Dulio, J. Koschorreck, B. van Bavel, P. van den Brink, J. Hollender, J. Munthe, M. Schlabach, R. Aalizadeh, M. Agerstrand, L. Ahrens, I. Allan, N. Alygizakis, D. Barcelo, P. Bohlin-Nizzetto, S. Boutroup, W. Brack, A. Bressy, J. H. Christensen, L. Cirka, A. Covaci, A. Derksen, G. Deviller, M. M. L. Dingemans, M. Engwall, D. Fatta-Kassinos, P. Gago-Ferrero, F. Hernández, D. Herzke, K. Hilscherová, H. Hollert, M. Junghans, B. Kasprzyk-Hordern, S. Keiter, S. A. E. Kools, A. Kruve, D. Lambropoulou, M. Lamoree, P. Leonards, B. Lopez, M. López de Alda, L. Lundy, J. Makovinská, I. Marigómez, J.W. Martin, B. McHugh, C. Miège, S. O'Toole, N. Perkola, S. Polesello, L. Posthuma, S. Rodriguez-Mozaz, I. Roessink, P. Rostkowski, H. Ruedel, S. Samanipour, T. Schulze, E.L. Schymanski, M. Sengl, P. Tarábek, D. Ten Hulscher, N. Thomaidis, A. Togola, S. Valsecchi, S. van Leeuwen, P. von der Ohe, K. Vorkamp, B. Vrana and J. Slobodník, "The NORMAN Association and the European Partnership for Chemicals Risk Assessment (PARC): let's cooperate!", **Environmental Sciences Europe**, 2020, 32, 100.
- 121 V. G. Beretsou, I. Michael-Kordatou, C. Michael, D. Santoro, M. El-Halwagy, T. Jäger, H. Besselink, T. Schwartz, D. Fatta-Kassinos, "A chemical, microbiological and (eco)toxicological scheme to understand the efficiency of UV-C/H₂O₂ oxidation on antibiotic-related microcontaminants in treated urban wastewater", **Science of the Total Environment**, 2020, 744, 140835.
- 120 F. Cerqueira, A. Christou, D. Fatta-Kassinos, M. Vila-Costa, J. M. Bayona, B. Pina, "Effects of prescription antibiotics on soil- and root-associated microbiomes and resistomes in an agricultural context", **Journal of Hazardous Materials**, 2020, 400, 123208.
- 119 E. M. Eckert, A. Di Cesare, D. Fontaneto, T. U. Berendonk, H. Bürgmann, E. Cytryn, D. Fatta-Kassinos, A. Franzetti, D. G. J. Larsson, C. M. Manaia, A. Pruden, A. C. Singer, N. Udikovic-Kolic, G. Corno, "Every fifth published metagenome is not available to science", **PLOS Biology**, 2020, 18(4), e3000698.
- 118 S. Rodriguez-Mozaz, I. Vaz-Moreira, S. Varela della Giustina, M. Llorca, D. Barcelo, S. Schubert, T. Berendonk, I. Michael-Kordatou, D. Fatta-Kassinos, J. Martinez, C. Elpers, I. Henriques, T. Jaeger, T. Schwartz, E. Paulshus, K. O'Sullivan, P. Katariina, M. Virta, T. Do, F. Walsh, C. Manaia, S. Rodriguez-Mozaz, "Antibiotic residues in final effluents of European wastewater treatment plants and their impact on the aquatic environment", **Environment International**, 2020, 140, 105733.

- 117 N. A. Alygizakis, J. Urík, V. G. Beretsou, I. Kampouris, A. Galani, M. Oswaldova, T. Berendonk, P. Oswald, N. S. Thomaidis, J. Slobodnik, B. Vrana, D. Fatta-Kassinos, "Evaluation of chemical and biological contaminants of emerging concern in treated wastewater intended for agricultural reuse", **Environment International**, 2020, 138, 105597.
- 116 M. Stylianou, A. Christou, P. Dalias, P. Polycarpou, C. Michael, A. Agapiou, P. Papanastasiou, D. Fatta-Kassinos, "Physicochemical and structural characterization of biochar derived from the pyrolysis of biosolids, cattle manure and spent coffee grounds", **Journal of the Energy Institute**, 2020, 93 (5), 2063-2073.
- 115 M. Stylianou, C. F. Panagiotou, E. Andreou, F. Frixou, A. Christou, P. Papanastasiou, "Assessing the influence of three biochars on the hydraulic properties of a loamy sand soil", **Biomass Conversion and Biorefinery**, 2020.
- 114 S. G. Michael, I. Michael-Kordatou, S. Nahim-Granados, M. I. Polo-López, J. Rocha, A. B. Martínez-Piernas, P. Fernández-Ibáñez, A. Agüera, C. M. Manaia, D. Fatta-Kassinos, "Investigating the impact of UV-C/H₂O₂ and sunlight/H₂O₂ on the removal of antibiotics, antibiotic resistance determinants and toxicity present in urban wastewater", **Chemical Engineering Journal**, 2020, 388, 124383.
- 113 L. Rizzo, W. Gernjak, P. Krzeminski, S. Malato, C. S. McArdell, J. A. Sanchez Perez, H. Schaar, D. Fatta-Kassinos, "Best available technologies and treatment trains to address current challenges in urban wastewater reuse for irrigation of crops in EU countries", **Science of the Total Environment**, 2020, 710, 136312.
- 112 G. Deviller, L. Lundy, D. Fatta-Kassinos, "Recommendations to derive quality standards for chemical pollutants in reclaimed water intended for reuse in agricultural irrigation", **Chemosphere**, 2020, 240, 124911.
- 111 J. Rocha, D. Cacace, I. Kampouris, H. Guilloteau, T. Jäger, R. B. M. Marano, P. Karaolia, C. M. Manaia, C. Merlin, D. Fatta-Kassinos, E. Cytryn, T. U. Berendonk, T. Schwartz, "Inter-laboratory calibration of quantitative analyses of antibiotic resistance genes", **Journal of Environmental Chemical Engineering**, 2020, 8 (1), 102214.
- 110 B. Piña, J. M. Bayona, A. Christou, D. Fatta-Kassinos, E. Guillon, D. Lambropoulou, C. Michael, F. Polesel, S. Sayen, "On the contribution of reclaimed wastewater irrigation to the potential exposure of humans to antibiotics, antibiotic resistant bacteria and antibiotic resistance genes – NEREUS COST Action ES1403 position paper", **Journal of Environmental Chemical Engineering**, 2020, 8 (1), 102131.
- 109 C. L. Tague, S. A. Papuga, C. Gerlein-Safdi, S. Dymond, R. R. Morrison, E. W. Boyer, D. Riveros-Iregui, E. Agee, B. Arora, Y. G. Dialynas, A. Hansen, S. Krause, S. Kuppel, S. P. Loheide, S. J. Schymanski, S. C. Zipper, "Adding our leaves: a community-wide perspective on research directions in ecohydrology", **Hydrological Processes**, 2020, 34, 1665-1673.

- 108 I. González-Mariño, J. A. Baz-Lomba, N. Alygizakis, M. J. Andrés-Costa, R. Bade, L. P. Barron, F. Been, J.D. Berset, L. Bijlsma, I. Bodík, A. Brenner, A. L. Brock, D. A. Burgard, E. Castrignanò, C. E. Christophoridis, A. Covaci, P. de Voogt, D. A. Devault, M. J. Dias, E. Emke, D. Fatta-Kassinos, G. Fedorova, K. Fytianos, C. Gerber, R. Grabic, S. Grüner, T. Gunnar, E. Hapeshi, E. Heath, B. Helm, F. Hernández, A. Kankaanpaa, S. Karolak, B. Kasprzyk-Hordern, I. Krizman-Matasic, F. Y. Lai, W. Lechowicz, A. Lopes, M. L. de Alda, E. López-García, A. S. C. Löve, N. Mastrianni, G. L. McEneff, R. Montes, K. Munro, T. Nefau, H. Oberacher, J. W. O'Brien, K. Olafsdottir, Y. Picó, B. G. Plósz, F. Polesel, C. Postigo, J. B. Quintana, P. Ramin, M. J. Reid, J. Rice, R. Rodil, I. Senta, S. M. Simões, M. M. Sremacki, K. Styszko, S. Terzic, N. S. Thomaidis, K. V. Thomas, B. J. Tscharke, A. L. N. van Nuijs, V. Yargeau, E. Zuccato, S. Castiglioni, C. Ort, "Spatio-temporal assessment of illicit drug use at large scale: evidence from seven years of international wastewater monitoring", **Addiction**, 2019, 115 (1), 109-120.
- 107 D. Cacace, D. Fatta-Kassinos, C. M. Manaia, E. Cytryn, N. Kreuzinger, L. Rizzo, P. Karaolia, T. Schwartz, J. Alexander, C. Merlin, H. Garellick, H. Schmitt, D. de Vries, C. U. Schwermer, S. Meric, C. B. Ozkal, M. N. Pons, D. Kneis, T.U. Berendonk, "Antibiotic resistance genes in treated wastewater and in the receiving water bodies: A pan-European survey of urban settings", **Water Research**, 2019, 162, 320-330.
- 106 I. C. Iakovides, I. Michael-Kordatou, N. F. F. Moreira, A. R. Ribeiro, T. Fernandes, M. F. R. Pereira, O. C. Nunes, C. M. Manaia, A. M. T. Silva, D. Fatta-Kassinos, "Continuous ozonation of urban wastewater: removal of antibiotics, antibiotic-resistant bacteria and antibiotic resistance genes and phytotoxicity", **Water Research**, 2019, 159, 333-347.
- 105 K. M. M. Pärnänen, C. Narciso-da-Rocha, D. Kneis, T. U. Berendonk, D. Cacace, T. Thuy Do, C. Elpers, D. Fatta-Kassinos, I. Henriques, T. Jaeger, A. Karkman, J. L. Martinez, S. G. Michael, I. Michael-Kordatou, K. O'Sullivan, S. Rodriguez-Mozaz, T. Schwartz, H. Sheng, H. Sørum, R. D. Stedtfeld, J. M. Tiedje, S. Varela Della Giustina, F. Walsh, I. Vaz-Moreira, M. Virta, C. M. Manaia, "Antibiotic resistance in European wastewater treatment plants mirrors the pattern of clinical antibiotic resistance prevalence", **Science Advances**, 2019, 5, eaau9124.
- 104 A. Christou, G. Papadavid, P. Dalias, V. Fotopoulos, C. Michael, J. M. Bayona, B. Piña, D. Fatta-Kassinos, "Ranking of crop plants according to their potential to uptake and accumulate contaminants of emerging concern", **Environmental Research**, 2019, 17, 422-432.
- 103 S. G. Michael, I. Michael-Kordatou, V. G. Beretsou, T. Jäger, C. Michael, T. Schwartz, D. Fatta-Kassinos, "Solar photo-Fenton oxidation followed by adsorption on activated carbon for the minimisation of antibiotic resistance determinants and toxicity present in urban wastewater", **Applied Catalysis B: Environmental**, 2019, 244, 871-880.
- 102 L. Rizzo, S. Malato, D. Antakyali, V. G. Beretsou, M. B. Đolić, W. Gernjak, E. Heath, I. Ivancev-Tumbas, P. Karaolia, A. R. Lado Ribeiro, G. Mascolo, C. S. McArdell, H. Schaer; A. M. Silva, D. Fatta-Kassinos, "Consolidated vs new advanced treatment methods for the removal of contaminants of emerging concern from urban wastewater", **Science of the Total Environment**, 2019, 655, 986-1008.
- 101 L. Ioannou-Ttofa, S. Raj, H. Prakash, D. Fatta Kassinos, "Solar photo-Fenton oxidation for the removal of ampicillin, total cultivable and resistant *E. coli* and ecotoxicity from secondary-treated wastewater effluents", **Chemical Engineering Journal**, 2019, 355, 91-102.

- 100 A. Christou, M. C. Kyriacou, E. C. Georgiadou, R. Papamarkou, E. Hapeshi, P. Karaolia, C. Michael, V. Fotopoulos, D. Fatta-Kassinos, "Uptake and bioaccumulation of three widely prescribed pharmaceutically active compounds in tomato fruits and mediated effects on fruit quality attributes", **Science of the Total Environment**, 2019, 647, 1169-1178.
- 99 P. Krzeminski, M. C. Tomei, P. Karaolia, A. Langenhoff, C. M. R. Almeida, E. Felis, F. Gritten, H. R. Andersen, T. Fernandez, C. Manaia, L. Rizzo, D. Fatta-Kassinos, "Performance of secondary wastewater treatment methods for the removal of contaminants of emerging concern implicated in crop uptake and antibiotic resistance spread: a review", **Science of the Total Environment**, 2019, 648, 1052-1081.
- 98 K. Kümmerer, D. D. Dionysiou, O. Olsson, D. Fatta-Kassinos, "Reducing aquatic micropollutants – increasing the focus on input prevention and integrated emission management", **Science of the Total Environment**, 2018, 652, 836-850.
- 97 K. Kümmerer, D. D. Dionysiou, O. Olsson, D. Fatta-Kassinos, "A path to clean water", **Science**, 2018, 361, 222-224.
- 96 K. Stylianou, E. Hapeshi, M. Vasquez, D. Fatta-Kassinos, I. Vyrides, "Diclofenac biodegradation by newly isolated *Klebsiella sp.* KSC: microbial intermediates and ecotoxicological assessment", **Journal of Environmental Chemical Engineering**, 2018, 6 (2), 3242-3248.
- 95 A. L. N. van Nuijs, F. Yin Lai, F. Been, M. J. Andres-Costa, L. Barron, J. A. Baz-Lomba, J-D Berset, L. Benaglia, L. Bijlsma, D. Burgard, S. Castiglioni, C. Christophidis, A. Covaci, P. de Voogt, E. Emke, D. Fatta-Kassinos, J. Fick, F. Hernandez, C. Gerber, I. Gonzalez-Marino, R. Grabic, T. Gunnar, K. Kannan, S. Karolak, B. Kasprzyk-Hordern, Z. Kokot, I. Krizman-Matasic, A. Li, X. Li, A.S.C. Love, M. Lopez de Alda, A-K McCall, M. R. Meyer, H. Oberacher, J. O'Brien, J. B. Quintana, M. Reid, S. Schneider, S. S. Simoes, N. S. Thomaidis, K. Thomas, V. Yargeau, C. Ort, "Multi-year interlaboratory exercises for the analysis of illicit drugs and metabolites in wastewater: development of a quality control system", **Trends in Analytical Chemistry**, 2018, 103, 34-43.
- 94 A. Christou, C. Michael, D. Fatta-Kassinos, V. Fotopoulos, "Can the pharmaceutically active compounds released in agroecosystems be considered as emerging plant stressors?", **Environment International**, 2018, 114, 360-364.
- 93 P. Karaolia, I. Michael-Kordatou, E. Hapeshi, C. Drosou, Y. Bertakis, D. Christofilos, G. S. Armatas, L. Sygellou, T. Schwartz, N. P. Xekoukoulakis, D. Fatta-Kassinos, "Removal of antibiotics, antibiotic-resistant bacteria and their associated genes by graphene-based TiO₂ composite photocatalysts under solar radiation in urban wastewaters", **Applied Catalysis B: Environmental**, 2018, 224, 810-824.
- 92 I. Michael-Kordatou, P. Karaolia, D. Fatta-Kassinos, "The role of operating parameters and oxidative damage mechanisms of Advanced Chemical Oxidation Processes in the combat against antibiotic-resistant bacteria and resistance genes present in urban wastewater", **Water Research**, 2018, 128, 1-23.
- 91 B. Moslah, E. Hapeshi, A. Jrad, D. Fatta-Kassinos, A. Hedhili, "Pharmaceuticals and illicit drugs in wastewater samples in north-eastern Tunisia", **Environmental Science and Pollution Research**, 2018, 25 (19), 18226-18241.

- 90 A. Parpounas, V. Litskas, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Assessing the presence of enrofloxacin and ciprofloxacin in piggery wastewater and their adsorption behaviour onto solid materials, with a newly developed chromatographic method", **Environmental Science and Pollution Research**, 2017, 24 (29), 23371-23381.
- 89 A. T. Christou, A. Agüera, J. M. Bayona, E. Cytryn, V. Fotopoulos, D. Lambropoulou, C. M. Manaia, C. Michael, M. Revitt, P. Schröder, D. Fatta-Kassinos, "The potential implications of reclaimed wastewater reuse for irrigation on the agricultural environment: the knowns and unknowns of the fate of antibiotics and antibiotic resistant bacteria and resistance genes – A review", **Water Research**, 2017, 123, 448-467.
- 88 C. Michael, J. M. Bayona, D. Lambropoulou, A. Agüera, D. Fatta-Kassinos, "Two important limitations relating to the spiking of environmental samples with contaminants of emerging concern: How close to the real analyte concentrations are the reported recovered values?", **Environmental Science and Pollution Research**, 2017, 24, 15202-15205.
- 87 L. Ioannou-Ttofa, I. Michael-Kordatou, S. C. Fattas, A. Eusebio, B. Ribeiro, M. Rusan, A. R. B. Amer, S. Zuraiqi, M. Waismand, C. Linder, Z. Wiesman, J. Gilron, D. Fatta-Kassinos, "Treatment efficiency and economic feasibility of biological oxidation, membrane filtration and separation processes, and advanced oxidation for the purification and valorization of olive mill wastewater", **Water Research**, 2017, 114, 1-13.
- 86 A. Christou, P. Karaolia, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Long-term wastewater irrigation of vegetables in real agricultural systems: Concentration of pharmaceuticals in soil, uptake and bioaccumulation in tomato fruits and human health risk assessment", **Water Research**, 2017, 109, 24-34.
- 85 P. Karaolia, I. Michael-Kordatou, E. Hapeshi, J. Alexander, T. Schwartz, D. Fatta-Kassinos, "Investigation of the potential of a membrane bioreactor followed by solar Fenton oxidation to remove antibiotic-related microcontaminants", **Chemical Engineering Journal**, 2017, 310, 491-502.
- 84 I. Michael-Kordatou, R. Andreou, M. Iacovou, Z. Frontistis, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "On the capacity of ozonation to remove antimicrobial compounds, resistant bacteria and toxicity from urban wastewater effluents", **Journal of Hazardous Materials**, 2017, 323, Part A, 414-425.
- 83 L. Ioannou-Ttofa, S. Foteinis, E. Chatzisymeon, I. Michael-Kordatou, D. Fatta-Kassinos, "Life Cycle Assessment of solar-driven oxidation as a polishing step of secondary-treated urban effluents", **Journal of Chemical Technology and Biotechnology**, 2017, 92, 1315-1327.
- 82 A. Agathokleous, S. Christodoulou, "Component-holistic condition assessment of water distribution networks", **Journal of Water Supply: Research and Technology—AQUA**, 2017, 66 (7), 509-519.
- 81 A. Agathokleous, C. Christodoulou, S. E. Christodoulou, "Influence of intermittent water supply operations on the vulnerability of water distribution networks", **Journal of Hydroinformatics**, 2017, 19 (6), 838-852.
- 80 A. Agathokleous, C. Christodoulou, S. Christodoulou, "Robustness and vulnerability assessment of water networks by use of centrality metrics", **European Water**, 2017, 58, 489-495.

- 79 A. Agathokleous, C. Christodoulou, S. E. Christodoulou, "Topological robustness and vulnerability assessment of water distribution networks", **Water Resources Management**, 2017, 31 (12), 4007-4021.
- 78 S. E. Christodoulou, E. Kourtzi, A. Agathokleous, "Waterloss detection in water distribution networks using wavelet change-point detection", **Water Resources Management**, 2017, 31 (3), 979-994.
- 77 S. Christodoulou, E. Kourtzi, A. Agathokleous, "Waterloss detection in streaming water flow timeseries using change-point anomaly methods", **European Waters**, 2017, 58, 429-434.
- 76 F. S. Stylianou, S. C. Kassinos, "The Contribution of Active and Inactive Structures to the Statistics of a Turbulent Pipe Flow", **International Journal of Heat and Fluid Flow**, 2017, 68, 216-224.



- 75 L. Boudriche, I. Michael-Kordatou, S. Michael, P. Karaolia, D. Fatta-Kassinos, "UV-C-driven oxidation of ciprofloxacin in conventionally treated urban wastewater: Degradation kinetics, ecotoxicity and phytotoxicity assessment and inactivation of ciprofloxacin-resistant *Escherichia coli*", **Journal of Chemical Technology and Biotechnology**, 2016, 92, 1380-1388.
- 74 J. Gatica, V. Tripathi, S. Green, C. M. Manaia, T. Berendonk, D. Cacace, C. Merlin, N. Kreuzinger, T. Schwartz, D. Fatta-Kassinos, L. Rizzo, C. U. Schwermer, H. Garellick, E. Jurkevitch, E. Cytryn, "High throughput analysis of integron gene cassettes in wastewater environments", **Environmental Science and Technology**, 2016, 50, 11825-11836.
- 73 L. Ioannou-Ttofa, S. Fotinis, E. Chatzisymeon, D. Fatta-Kassinos, "The environmental footprint of a membrane bioreactor treatment process through Life Cycle Analysis", **Science of the Total Environment**, 2016, 568, 306-318. [This paper was selected as a hand-picked choice of authors' research and scientific articles from *Science of the Total Environment*].
- 72 M. I. Vasquez, M. Tarapoulouzi, N. Lambrianides, E. Hapeshi, K. Felekkis, M. Saile, C. Sticht, N. Gretz, D. Fatta-Kassinos, "Assessing the potential of pharmaceuticals and their transformation products to cause mutagenic effects: Implications for gene expression profiling", **Environmental Toxicology and Chemistry**, 2016, 35, 2753-2764.
- 71 A. Christou, G. Maratheftis; M. Elia, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Effects of wastewater applied with discrete irrigation techniques on strawberry plants' productivity and the safety, quality characteristics and antioxidant capacity of fruits", **Agricultural Water Management**, 2016, 173, 48-54.
- 70 A. Christou, C. Antoniou, C. Christodoulou, E. Hapeshi, I. Stavrou, C. Michael, D. Fatta-Kassinos, V. Fotopoulos, "Stress-related phenomena and detoxification mechanisms induced by common pharmaceuticals in alfalfa (*Medicago sativa L.*) plants", **Science of the Total Environment**, 2016, 557-558, 652-664.
- 69 Y. Liu, X. He, X. Duan, Y. Fu, D. Fatta-Kassinos, D. Dionysiou, "Significant role of UV and carbonate radical on the degradation of oxytetracycline in UV-AOPs: Kinetics and mechanism", **Water Research**, 2016, 95, 195-204.

- 68 C. M. Manaia, G. Macedo, D. Fatta-Kassinos, O. C. Nunes, "Antibiotic resistance in urban aquatic environments: can it be controlled?", **Applied Microbiology and Biotechnology**, 2016, 100 (4), 1543-1557.
- 67 C. Atkinson, E. Sarris, E. Gravanis, P. Papanastasiou, "On certain singular integral equations arising in the analysis of wellbore recharge in anisotropic formations", **Applied Mathematical Modelling**, 2016, 40 (1), 343-362.
- 66 A. Agathokleous, S. Christodoulou, "An expanded methodology for imprinting the condition of an urban water distribution network", **Procedia Engineering**, 2016, 162, 196-203.
- 65 A. Agathokleous, S. Christodoulou, "The impact of intermittent water supply policies on urban water distribution networks", **Procedia Engineering**, 2016, 162 (1), 204-211.
- 64 A. Agathokleous, S. Christodoulou, "Vulnerability of urban water distribution networks under intermittent water supply operations", **Water Resources Management**, 2016, 30 (13), 4731-4750.
- 63 F. S. Stylianou, R. Pecnik, S.C. Kassinos, "Analyzing a Turbulent Pipe Flow via the Structure Tensors", **Computers and Fluids**, 2016, 140, 450-477.

-
- 62 I. Michael-Kordatou, M. Iacovou, Z. Frontistis, E. Hapeshi, D. D. Dionysiou, D. Fatta-Kassinos, "Erythromycin oxidation and ERY-resistant *E. coli* inactivation in urban wastewater by sulfate radical-based oxidation process under UV-C irradiation", **Water Research**, 2015, 85, 346-358.
- 61 I. Michael-Kordatou, C. Michael, X. Duan, X. He, D. Dionysiou, M. A. Mills, D. Fatta-Kassinos, "Dissolved effluent organic matter: characteristics and potential implications in wastewater treatment and reuse applications", **Water Research**, 2015, 77, 213-248.
- 60 C. A. Georgiou, M. S. Constantinou, R. Andreou, E. Hapeshi, D. Fatta-Kassinos, C. P. Kapnissi-Christodoulou, "Novel approach to fast determination of cholesterol oxidation products in Cypriot foodstuffs using ultra-performance liquid chromatography-tandem mass spectrometry", **Electrophoresis**, 2015, 37 (7-8), 1101-1108.
- 59 D. Fatta-Kassinos, C. Manaia, T.U. Berendonk, E. Cytryn, J. Bayona, B. Chefetz, J. Slobodnik, N. Kreuzinger, L. Rizzo, S. Malato, L. Lundy, A. Ledin, "COST Action ES1403: New and Emerging challenges and opportunities in wastewater REUSe (NEREUS)", **Environmental Science and Pollution Research**, 2015, 22 (9), 7183-7186.
- 58 E. Gravanis, E. Sarris, P. Papanastasiou, "Hydro-Mechanical Erosion Models for Sand Production", **International Journal for Numerical and Analytical Methods in Geomechanics**, 2015, 39, 2017-2036.
- 57 T. U. Berendonk, C. M. Manaia, C. Merlin, D. Fatta-Kassinos, E. Cytryn, F. Walsh, H. Bürgmann, H. Sørum, M. Norström, M. N. Pons, N. Kreuzinger, P. Huovinen, S. Stefani, T. Schwartz, V. Kisand, F. Baquero, J. L. Martinez, "Tackling antibiotic resistance: the environmental framework", **Nature Reviews Microbiology**, 2015, 13 (5), 310-317.

- 56 L. A. Ioannou, G. Li Puma, D. Fatta-Kassinos, "Treatment of winery wastewater by physicochemical, biological and advanced processes: A review", **Journal of Hazardous Materials**, 2015, 286, 343-368.
- 55 Z. Frontistis, E. Hapeshi, D. Fatta-Kassinos, D. Mantzavinos, "Ultraviolet-activated persulfate oxidation of methyl orange: A comparison between artificial neural networks and factorial design for process modelling", **Photochemical and Photobiological Sciences**, 2015, 14 (3), 528-535.
- 54 E. Hapeshi, M. Gros, R. Lopez-Serna, M.R. Boleda, F. Ventura, M. Petrovic, D. Barcelo, D. Fatta-Kassinos, "Licit and illicit drugs in urban wastewater in Cyprus", **Clean-Soil, Air, Water**, 2015, 43 (9), 1272-1278.
- 53 I. K. Kalavrouziotis, P. Kokkinos, G. Oron, F. Fatone, D. Bolzonella, M. Vatyliotou, D. Fatta-Kassinos, P. H. Koukoulakis, S., P. Varnavas. "Current status in wastewater treatment, reuse, and research in some Mediterranean countries", **Desalination and Water Treatment**, 2015, 53 (8), 2015-2030.
- 52 T. Velegraki, E. Hapeshi, D. Fatta-Kassinos, I. Poulios, "Solar-induced heterogeneous photocatalytic degradation of methyl-paraben", **Applied Catalysis B: Environmental**, 2015, 178, 2-11.
- 51 Z. Frontistis, M. Kouramanos, S. Moraitis, E. Chatzisymeon, E. Hapeshi, D. Fatta-Kassinos, N. P. Xekoukoulotakis, D. Mantzavinos, "UV and simulated solar photodegradation of 17a-ethynylestradiol in secondary-treated wastewater by hydrogen peroxide or iron addition", **Catalysis Today**, 2015, 252, 84-92.
- 50 E. Gravanis, E. Sarris, P. Papanastasiou, "Hydro-mechanical erosion models for sand production", **International Journal for Numerical and Analytical Methods in Geomechanics**, 2015, 39 (18), 2017-2036.
- 49 A. Agathokleous, S. Xanthos, S. E. Christodoulou, "Real-time monitoring of water distribution networks", **Water Utility Journal**, 2015, 10 (15-24), 56.
- 48 S. E. Christodoulou, M. Fragiadakis, "Vulnerability assessment of water distribution networks considering performance data", **Journal of Infrastructure Systems**, 2015, 21 (2), 04014040.

- 47 A. Christou, E. Eliadou, C. Michael, E. Hapeshi, D. Fatta-Kassinos, "Assessment of long-term wastewater irrigation impacts on the soil geochemical properties and the bioaccumulation of heavy metals to the agricultural products", **Environmental Monitoring and Assessment**, 2014, 186 (8), 4857-4870.
- 46 V. Naddeo, A. Cesaro, D. Mantzavinos, D. Fatta-Kassinos, V. Belgiorno, "Water and wastewater disinfection by ultrasound irradiation – a critical review", **Global NEST Journal**, 2014, 16 (3), 561-577.
- 45 C. Ort, A. L. N. van Nuijs, J. D. Berset, L. Bijlsma, S. Castiglioni, A. Covaci, P. de Voogt, E. Emke, D. Fatta-Kassinos, P. Griffiths, F. Hernández, I. González-Mariño, R. Grbic, B. Kasprzyk-Hordern, N. Mastroianni, A. Meierjohann, T. Nefau, M. Ostman, Y. Pico, M. Reid, J. Slobodnik, S. Terzic, N. Thomaidis, K. V. Thomas, "Spatial differences and temporal changes in illicit drug use in Europe quantified by wastewater analysis", **Addiction**, 2014, 109 (8), 1338-1352.
- 44 X. He, S. P. Mezyk, I. Michael, D. Fatta-Kassinos, D. D. Dionysiou, "Degradation kinetics and mechanism of β -lactam antibiotics by the activation of H_2O_2 and $Na_2S_2O_8$ under UV-254 nm irradiation", **Journal of Hazardous Materials**, 2014, 279, 375-383.
- 43 M. I. Vasquez, A. Lambrianides, M. Schneider, K. Kümmeler, D. Fatta-Kassinos, "Environmental side effects of pharmaceutical cocktails: What we know and what we should know", **Journal of Hazardous Materials**, 2014, 279, 169-189.
- 42 J. A. Khan, X. He, N. S. Shah, H. M. Khan, E. Hapeshi, D. Fatta-Kassinos, D. D. Dionysiou, "Kinetic and mechanism investigation on the photochemical degradation of atrazine with activated H_2O_2 , $S_2O_8^{2-}$ and HSO_5^- ", **Chemical Engineering Journal**, 2014, 252, 393-403.
- 41 A. Christou, G. Maratheftis, E. Eliadou, C. Michael, E. Hapeshi, D. Fatta-Kassinos, "Impact assessment of the reuse of two discrete treated wastewaters for the irrigation of tomato crop on the soil geochemical properties, fruit safety and crop productivity", **Agriculture, Ecosystems and Environment**, 2014, 192, 105-114.
- 40 I. Michael, A. Panayi, L. A. Ioannou, Z. Frontistis, D. Fatta-Kassinos, "Utilizing solar energy for the purification of olive mill wastewater using a pilot-scale photocatalytic reactor after coagulation-flocculation", **Water Research**, 2014, 60, 28-40.
- 39 P. Karaolia, I. Michael, I. García-Fernández, A. Agüera, S. Malato, P. Fernández-Ibáñez, D. Fatta-Kassinos, "Reduction of clarithromycin and sulfamethoxazole-resistant Enterococcus by pilot-scale solar-driven Fenton oxidation", **Science of the Total Environment**, 2014, 468-469, 19-27.
- 38 I. Michael, A. Achilleos, D. Lambropoulou, V. Osorio Torrens, S. Pérez, M. Petrović, D. Barcelo, D. Fatta-Kassinos, 2014. "Proposed transformation pathway and evolution profile of diclofenac and ibuprofen transformation products during (sono)photocatalysis", **Applied Catalysis B: Environmental**, 2014, 147, 1015-1027.
- 37 L. A. Ioannou, C. Michael, S. Kuriakou, D. Fatta-Kassinos, "Solar Fenton: From pilot to industrial scale application for polishing winery wastewater pretreated by MBR", **Journal of Chemical Technology and Biotechnology**, 2014, 89 (7), 1067-1076.
- 36 M. Fragiadakis, S. E. Christodoulou, "Seismic reliability assessment of urban water networks", **Earthquake Engineering & Structural Dynamics**, 2014, 43 (3), 357-374.



- 35 L. A. Ioannou, D. Fatta-Kassinos, "Solar photo-Fenton oxidation against the bioresistant fractions of winery wastewater", **Journal of Environmental Chemical Engineering**, 2013, 1 (4), 703-712.
- 34 A. Jelic, I. Michael, A. Achilleos, E. Hapeshi, D. Lambropoulou, S. Perez Solsona, M. Petrovic, D. Fatta-Kassinos, D. Barceló, "Transformation products and reaction pathways of carbamazepine during photocatalytic and sonophotocatalytic treatment", **Journal of Hazardous Materials**, 2013, 263, 177-186.
- 33 L. A. Ioannou, C. Michael, N. Vakondios, K. Drosou, N.P. Xekoukoulotakis, E. Diamadopoulos, D. Fatta-Kassinos, "Winery wastewater purification by reverse osmosis and oxidation of the concentrate by solar photo-Fenton", **Separation and Purification Technology**, 2013, 118, 659-669.
- 32 E. Hapeshi, I. Fotiou, D. Fatta-Kassinos, "Sonophotocatalytic treatment of ofloxacin in secondary treated effluent and elucidation of its transformation products", **Chemical Engineering Journal**, 2013, 224 (1), 96-105.
- 31 P. C. Papaphilippou, C. Yiannapas, M. Politi, V. M. Daskalaki, C. Michael, N. Kalogerakis, D. Mantzavinos, D. Fatta-Kassinos, "Sequential coagulation-flocculation, solvent extraction and photo-Fenton oxidation for the valorization and treatment of olive mill effluent", **Chemical Engineering Journal**, 2013, 224 (1), 82-88.
- 30 I. Michael, E. Hapeshi, S. Pèrez, M. Petrović, A. Zapata, S. Malato, D. Barceló, D. Fatta-Kassinos, "Light-induced catalytic transformation of ofloxacin by solar Fenton in various water matrices at a pilot plant: Mineralization and characterization of major intermediate products", **Science of the Total Environment**, 2013, 461-462, 39-48.
- 29 M. I. Vasquez, M. Garcia-Käufer, E. Hapeshi, J. Menz, K. Kostarelos, D. Fatta-Kassinos, K. Kümmerer, "Chronic ecotoxic effects to *Pseudomonas putida* and *Vibrio fischeri*, and cytostatic and genotoxic effects to the hepatoma cell line (HepG2) of ofloxacin photo(cata)lytically treated solutions", **Science of the Total Environment**, 2013, 450-451, 356-365.
- 28 M. I. Vasquez, D. Fatta-Kassinos, "Is the evaluation of traditional physicochemical parameters sufficient to explain the potential toxicity of the treated wastewater at sewage treatment plants?", **Environmental Science and Pollution Research**, 2013, 20 (6), 3516-3528.
- 27 E. Hapeshi, A. Lambrianides, P. Koutsoftas, E. Kastanos, C. Michael, D. Fatta-Kassinos, "Investigating the fate of the iodinated X-ray contrast media iohexol and diatrizoate during microbial degradation in an MBBR system treating urban wastewater", **Environmental Science and Pollution Research**, 2013, 20 (6), 3592-3606.
- 26 L. A. Ioannou, T. Velegraki, C. Michael, D. Mantzavinos, D. Fatta-Kassinos, "Sunlight, iron and radicals to tackle the resistant leftovers of biotreated winery wastewaters", **Photochemical & Photobiological Sciences**, 2013, 12 (4), 664-670.
- 25 I. Michael, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Superiority of solar Fenton oxidation over TiO₂ photocatalysis for the degradation of trimethoprim in secondary treated effluents", **Water Science and Technology**, 2013, 67 (6), 1260-1271.

- 24 L. Rizzo, C. M. Manaia, C. Merlin, T. Schwartz, C. Dagot, M. C. Ploy, I. Michael, D. Fatta-Kassinos, "Urban wastewater treatment plants as hotspots for antibiotic resistance bacteria and genes spread into the environment: A review", **Science of the Total Environment**, 2013, 447, 345-360.
- 23 C. Zhao, M. Pelaez, X. Duan, H. Deng, K. O'Shea, D. Fatta-Kassinos, D. D. Dionysiou, "Role of pH on photolytic and photocatalytic degradation of antibiotic oxytetracycline in aqueous solution under visible/solar light: Kinetics and mechanism studies", **Applied Catalysis B: Environmental**, 2013, 134-135, 83-92.
- 22 I. Michael, L. Rizzo, C. S. McArdell, C. M. Manaia, C. Merlin, T. Schwartz, C. Dagot, D. Fatta-Kassinos, "Urban wastewater treatment plants as hotspots for the release of antibiotics in the environment: A review", **Water Research**, 2013, 47 (3), 957-995. [*One of the most cited articles of Water Research published since 2012*].
- 21 X. Albets-Chico and S. C. Kassinos, "A consistent velocity approximation for variable-density flow and transport in porous media", **Journal of Hydrology**, 2013, 507, 33-51.
- 20 S. E. Christodoulou, A. Gagatsis, S. Xanthos, S. Kranioti, A. Agathokleous, M. Fragiadakis, "Entropy-based sensor placement optimization for waterloss detection in water distribution networks", **Water Resources Management**, 2013, 27 (13), 4443-4468.
- 19 M. Fragiadakis, S. E. Christodoulou, D. Vamvatsikos, "Reliability assessment of urban water distribution networks under seismic loads", **Water Resources Management**, 2013, 27 (10), 3739-3764.

2012

- 18 M. I. Vasquez, E. Hapeshi, D. Fatta-Kassinos, K. Kümmeler, "Biodegradation potential of ofloxacin and its resulting transformation products during photolytic and photocatalytic treatment", **Environmental Science and Pollution Research**, 2012, 20 (3), 1302-1309.
- 17 Z. Frontistis, C. Drosou, K. Tyrovolas, D. Mantzavinos, D. Fatta-Kassinos, D. Venieri and N. P. Xekoukoulotakis, "Experimental and modeling studies of the degradation of estrogen hormones in aqueous TiO₂ suspensions under simulated solar radiation", **Industrial & Engineering Chemistry Research**, 2012, 51 (51), 16552-16563.
- 16 I. Michael, E. Hapeshi, C. Michael, A. R. Varela, S. Kuriakou, C. Manaia, D. Fatta-Kassinos, "Solar photo-Fenton process on the abatement of antibiotics at a pilot scale: Degradation kinetics, ecotoxicity and phytotoxicity assessment and removal of antibiotic resistant enterococci", **Water Research**, 2012, 46 (17), 5621-5634.
- 15 I. Michael, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Development and validation of a UPLC-MS/MS method for studying the degradation kinetics of ofloxacin and trimethoprim during the application of solar Fenton process in secondary treated sewage", **Water Science and Technology**, 2012, 66 (7), 1574-1581.
- 14 Z. Frontistis, D. Venieri, E. Hapeshi, C. Drosou, D. Fatta-Kassinos, N. P. Xekoukoulotakis, D. Mantzavinos, "Photocatalytic (UV-A/TiO₂) degradation of 17a-ethynylestradiol in environmental matrices: experimental studies and artificial neural network modelling", **Journal of Photochemistry and Photobiology A: Chemistry**, 2012, 240, 33-41.
- 13 I. Michael, E. Hapeshi, V. Osorio, S. Perez, M. Petrovic, A. Zapata, S. Malato, D. Barcelo, D. Fatta-Kassinos, "Solar photocatalytic treatment of trimethoprim in four environmental matrices at a pilot scale: transformation products and ecotoxicity evaluation", **Science of the Total Environment**, 2012, 430, 167-173. [*This paper was part of the virtual special issue on "Pharmaceuticals and Illicit Drugs in Aquatic Systems" published by STOTEN in October 2012. The papers selected, based on the editors' opinion, represented excellent examples of the active research in this field.*]
- 12 Z. Frontistis, D. Fatta-Kassinos, D. Mantzavinos, N. P. Xekoukoulotakis, "Photocatalytic degradation of 17a-ethynylestradiol in environmental samples by ZnO under simulated solar radiation", **Journal of Chemical Technology and Biotechnology**, 2012, 87 (8), 1051-1058.
- 11 M. Al-Sari', I. A. Al-Khatib, M. Avraamides, D. Fatta-Kassinos, "A Study on the attitudes and behavioural influence of construction waste management in Occupied Palestinian Territory", **Waste Management and Research**, 2012, 30 (2), 122-136.
- 10 S. Christodoulou, A. Agathokleous, "A study on the effects of intermittent water supply on the vulnerability of urban water distribution networks", **Water Science and Technology: Water Supply**, 2012, 12(4), 523-530.
- 9 E. Sarris, P. Papanastasiou, "Modeling of hydraulic fracturing in a poroelastic cohesive formation", **ASCE, International Journal of Geomechanics**, 2012, 12 (2), 160-167.

- 8 Z. Frontistis, N. P. Xekoukoulotakis, E. Hapeshi, D. Venieri, D. Fatta-Kassinos, D. Mantzavinos, "Fast degradation of estrogen hormones in environmental matrices by photo-Fenton oxidation under simulated solar radiation", **Chemical Engineering Journal**, 2011, 178, 175-182.
- 7 D. Fatta-Kassinos, M. Vasquez, K. Kümmerer, "Transformation products of pharmaceuticals in surface waters and wastewater formed during photolysis and advanced oxidation processes – degradation, elucidation of byproducts and assessment of their biological potency", **Chemosphere**, 2011, 85 (5), 693-709.
- 6 L. A. Ioannou, E. Hapeshi, M. I. Vasquez, D. Mantzavinos, D. Fatta-Kassinos, "Solar/TiO₂ photocatalytic decomposition of β-blockers atenolol and propanolol in water and wastewater", **Solar Energy**, 2011, 85 (9), 1915-1926.
- 5 D. Fatta-Kassinos, I. K. Kalavrouziotis, P. H. Koukoulakis, M. I. Vasquez, "The risks associated with wastewater reuse and xenobiotics in the agroecological environment", **Science of the Total Environment**, 2011, 409, 3555-3563. [*This paper was part of the virtual special issue on "Pharmaceuticals and Illicit Drugs in Aquatic Systems" published by STOTEN in October 2012. The papers selected, based on the editors' opinion, represented excellent examples of the active research in this field.*]
- 4 D. Fatta-Kassinos, S. Meric, A. Nikolaou, "Pharmaceutical residues in environmental waters and wastewater: Current state of knowledge and future research", **Analytical and Bioanalytical Chemistry**, 2011, 399 (1), 251-275. [*Selected for the 2011 opening issue, listed no. 1 among the top 10 most-cited articles published in 2011 in 'Analytical and Bioanalytical Chemistry'.*]
- 3 N. P. Xekoukoulotakis, C. Drosou, C. Brebou, E. Chatzisymeon, E. Hapeshi, D. Fatta-Kassinos, D. Mantzavinos, "Kinetics of UV-A/TiO₂ photocatalytic degradation and mineralization of the antibiotic sulfamethoxazole in aqueous matrices", **Catalysis Today**, 2011, 161 (1), 163-168.
- 2 D. Fatta-Kassinos, E. Hapeshi, A. Achilleos, S. Meric, M. Gros, M. Petrovic, D. Barcelo, "Existence of pharmaceutical compounds in tertiary treated urban wastewater that is utilized for reuse applications", **Water Resources Management**, 2011, 25 (4), 1183-1193.
- 1 N. Kanaris, D. Grigoriadis, S. C. Kassinos, "Three dimensional flow around a circular cylinder confined in a plane channel", **Physics of Fluids**, 2011, 23 (6), 064106.

Conference papers

2020

- 65 G. Deviller, L. Lundy, D. Fatta-Kassinos, "Recommendations to derive quality standards for chemical pollutants in reclaimed water intended for reuse in agricultural irrigation", SETAC Europe 30th Annual Meeting, Open Science for Enhanced Global Environmental Protection, SETACSciCon, 3-7 May 2020 (online conference).
- 64 V. G. Beretsou, I. Michael-Kordatou, N. S. Thomaidis, H. Besselink, E. Cytryn, M. Nademan, R. B. M. Marano, D. Fatta-Kassinos, "Novel insights into the toxicological and antibacterial perspectives of transformation products of antibiotics formed during UV-C/H₂O₂ oxidation in ultrapure water and wastewater effluent matrices", SETAC Europe 30th Annual Meeting, Open Science for Enhanced Global Environmental Protection, SETACSciCon, 3-7 May 2020 (online conference).

2019

- 63 P. Karaolia, A. Antoniades, T. Schwartz, D. Fatta-Kassinos, "Changes in urban wastewater bacterial community structure after the application of an MBR combined with solar photo-Fenton oxidation", IV Iberoamerican Conference on Advanced Oxidation Technologies (IV CIPOA), Natal, Brazil, 18-22 November 2019.
Best oral conference presentation award.
- 62 O. Mahjoub, L. Benyahya, D. Fatta-Kassinos, S. Chiron, E. Fries, S. Zandaryaa, "Contaminants of Emerging Concern in (Waste)Water: Evaluating Knowledge Status Among Decision-makers and Stakeholders in Tunisia", 2nd Euro-Mediterranean Conference for Environmental Integration (EMCEI), Sousse, Tunisia, 10-13 October 2019.

2018

- 61 A. Christou, M. Kyriakou, E. Georgiadou, E. Hapeshi, P. Karaolia, C. Michael, V. Fotopoulos, D. Fatta-Kassinos, "Effects on tomato fruit quality attributes resulted from the exposure of plants to three widely prescribed pharmaceutically active compounds", Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society (XENOWAC II), Limassol, Cyprus, 10-12 October 2018.
- 60 M. Tarapoulouzi, M. Vasquez, D. Lambropoulou, D. Fatta-Kassinos, "On the ecotoxicity of pharmaceuticals and their photo-transformation mixtures", Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society (XENOWAC II), Limassol, Cyprus, 10-12 October 2018.
- 59 N. Alygizakis, J. Urík, V. G. Beretsou, P. Oswald, B. Vrana, D. Fatta-Kassinos, N. S. Thomaidis, J. Slobodnik, "Application of passive sampling to evaluate the chemical pollution of treated wastewater intended for reuse", Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society (XENOWAC II), Limassol, Cyprus, 10-12 October 2018.
- 58 D. Cacace, D. Fatta-Kassinos, C. Manaia, N. Kreuzinger, E. Cytryn, C. Merlin, L. Rizzo, T. Schwartz, M. Rybicki, L. Ioannou-Ttofa, P. Karaolia, H. Garellick, H. Schmitt, D. DeVries, C. Schwermer, S. Merik, T. Berendonk, "Impact of wastewater treatment plants on the occurrence of antibiotic resistance genes in the plant effluent and the receiving surface water. A European overview", Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society (XENOWAC II), Limassol, Cyprus, 10-12 October 2018.
- 57 S. G. Michael, I. Michael-Kordatou, M. I. Polo López, J. Rocha, A. B. Martínez-Piernas, P. Fernández-Ibáñez, A. Agüera, C. M. Manaia, D. Fatta-Kassinos, "Removal of antibiotic-resistant bacteria and resistance genes from urban wastewater effluents by solar- and UV-C-driven oxidation processes", Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society (XENOWAC II), Limassol, Cyprus, 10-12 October 2018.

- 56 I. C. Iakovides, L. Ioannou-Ttofa, I. Michael-Kordatou, D. Fatta-Kassinos, "Removal of antibiotics, antibiotic resistance and toxicity from secondary-treated wastewater effluents by ozonation", 3rd EWaS International Conference on "Insights on the Water-Energy-Food Nexus", Lefkada Island, Greece, 27-30 June 2018.

2017

- 55 B. Moslah, E. Hapeshi, A. Jrad, D. Fatta-Kassinos, A. Hedhill, "Simultaneous decontamination of seven residual antibiotics in secondary treated effluents by solar photo-Fenton and solar TiO₂ catalytic process", 1st Euro-Mediterranean Conference for Environmental Integration (EMCEI), Sousse, Tunisia, 22-25 November 2017.
Springer award for Best Paper presented in Session 6 "Intelligence Techniques in Renewably Energy (Biomass, Wind, Waste, Solar)".
- 54 A. Politi, A. Nikolaou, D. Fatta-Kassinos, G. Lofrano, M. Kostopoulou, "Could marine life cure cancer? Perspectives and challenges", 15th International Conference on Environmental Science and Technology (CEST2017), Rhodes, Greece, 31 August-2 September 2017.
- 53 S. Michael, I. Michael-Kordatou, T. Schwartz, D. Fatta-Kassinos, "Pilot-scale solar photo-Fenton followed by adsorption on activated carbon for the decontamination of urban wastewater: Removal of antibiotics, antibiotic-resistance determinants and toxicity", 15th International Conference on Environmental Science and Technology (CEST2017), Rhodes, Greece, 31 August-2 September 2017.
- 52 V. G. Beretsou, I. Michael-Kordatou, N. S. Thomaidis, D. Fatta-Kassinos, "Assessment of sulfamethoxazole UV-C/H₂O₂ oxidation: Elucidation and stability of transformation products", 15th International Conference on Environmental Science and Technology (CEST2017), Rhodes, Greece, 31 August-2 September 2017.
- 51 A. Agathokleous, C. Christodoulou, S. E. Christodoulou, "Robustness and Vulnerability Assessment of Water Networks by Use of Centrality Metrics", Proceedings, 10th World Congress on Water Resources and Environment ('Panta Rhei'), (EWRA 2017), Athens, Greece, 5-7 July 2017.

- 50 E. Kourti, S. E. Christodoulou, A. Agathokleous, "Waterloss Detection in Streaming Water Flow Timeseries Using Change-Point Anomaly Detection Methods", Proceedings, 10th World Congress on Water Resources and Environment ('Panta Rhei'), (EWRA 2017), Athens, Greece, 5-7 July 2017.
- 49 O. Mahjoub, L. Benyahya, D. Fatta-Kassinos, S. Chiron, E. Fries, D. Rückamp, S. Zandaraya, "The-state-of-the-art of knowledge, research and data on emerging contaminants in (waste)water used for agricultural irrigation in Oued Souhil, Nabeul, Tunisia", 4th Arab Water Week 2017 on "Managing Water Systems within Fragile Environments in the Arab Region", Dead Sea, Jordan, 19-23 March 2017.

2016

- 48 P. Karaolia, E. Hapeshi, I. Michael, C. Drosou, N. Xekoukoulotakis, D. Fatta-Kassinos, "Removal of antibiotics and antibiotic-resistant bacteria in urban MBR wastewater using novel graphene-based composites", 4th International Conference on Advanced Oxidation Processes (AOP2016), Goa, India, 17-20 December 2016.
- 47 A. Agathokleous, C. Christodoulou, S. E. Christodoulou, "Topological Robustness and Vulnerability Assessment of Water Distribution Networks", Proceedings, Eleventh European Conference on Product and Process Modeling [ECPPM 2016], Limassol, Cyprus, 6-9 September 2016.
- 46 S. E. Christodoulou, E. Kourti, A. Agathokleous, C. Christodoulou, "Waterloss Detection in Streaming Water Meter Data Using Wavelet Change-Point Anomaly Detection", Proceedings, Eleventh European Conference on Product and Process Modeling (ECPPM 2016), Limassol, Cyprus, 6-9 September 2016.
- 45 A. Agathokleous, S. Christodoulou, "The Impact of Intermittent Water Supply Policies on Urban Water Distribution Networks", Proceedings, 2nd EWaS International Conference: Efficient & Sustainable Water Systems Management toward Worth Living Development (EWaS 2016), Chania, Crete, 1-4 June 2016.

- 44** A. Agathokleous, S. Christodoulou, "An Expanded Methodology for Imprinting the Condition of an Urban Water Distribution Network", Proceedings, 2nd EWaS International Conference: Efficient & Sustainable Water Systems Management toward Worth Living Development (EWaS 2016), Chania, Crete, 1-4 June 2016.
- 43** A. Agathokleous, S. E. Christodoulou, "Modeling and Analysis of Urban Water Distribution Networks Using Intermittent Water Supply Periods", Proceedings, IEEE's 18th Mediterranean Electrotechnical Conference (MELECON 2016), Limassol, Cyprus, 18-20 April 2016.

2015

- 42** S. Christodoulou, "Project PRODROMOS - Information and safety in the multimodal transfer of hazardous cargo", Proceedings, 1st ETCP Capitalization Workshop - Innovation in harmonized & Sustainable solutions for increased competitiveness in smart ports and regions, Athens, Greece, 17 December 2015.
- 41** S. Christodoulou, A. Gagatsis, S. Kranioti, C. Kyriakou, E. Toxqui, A. Agathokleous, V. Gkana, "A GIS-based integrated platform for the safe transport of dangerous cargo through seaports and roadways", Proceedings, The Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing (CIVIL-COMP 2015), Prague, Czech Republic, 1-4 September 2015.
- 40** P. Karaolia, J. Alexander, T. Schwartz, D. Fatta-Kassinos, "Exploration of the removal potential of wastewater antibiotic resistance genes by selected photocatalytic and biological treatment technologies", Federation of European Microbiological Societies, 6th Congress of Microbiologists, FEMS 2015, Maastricht, Netherlands, 7-11 June 2015.
- 39** A. Gagatsis, S. Kranioti, S. Christodoulou, "Development of a platform for monitoring hazardous cargo to and from ports", Proceedings, Third Cyprus Sustainable Mobility and Intelligent Transport Conference, (Sustainable Mobility Cyprus 2015), Nicosia, Cyprus, 11-12 May 2015.

- 38 M. I. Vasquez, M. Tarapoulouzi, N. Lambrianides, K. Felekkis, C. Sticht, M. Saile, N. Gretz, D. Fatta-Kassinos, "Assessing the cytotoxic, estrogenic and mutagenic effects of pharmaceutical residues and their photo-transformation products in water", Session: Developing end-points and effect-based methodologies for characterization of emerging pollutants at relevant exposure concentrations, SETAC Europe 25th Annual Meeting, Barcelona, Catalonia, Spain, 3-7 May 2015.
- 37 V. Litskas, A. Parpounas, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Monitoring of fluoroquinolone antibiotics in piggery wastewater and their mobility in solid materials after the application of the slurry as fertilizer", Session: Soil and water pollutants' assessment, monitoring and remediation, SETAC Europe 25th Annual Meeting, Barcelona, Catalonia, Spain, 3-7 May 2015.

2014

- 36 A. Gagatsis, S. Kranioti, S. Christodoulou, "Development of a platform for monitoring hazardous cargo to and from ports", Proceedings, ITS and Smart Cities 2014, Patra, Greece, 19-22 November 2014.
- 35 A. Gagatsis, S. Kranioti, S. Christodoulou, "Development of a platform for monitoring hazardous cargo to and from ports", Proceedings, ITS and Smart Cities 2014, Patra, Greece, 19-22 November 2014.
- 34 M. Fragiadakis, S. Xanthos, A. Gagatsis, S. Christodoulou, "Assessing the overall reliability of water distribution networks under seismic conditions", Proceedings, 2014 Intelligent Distribution for Efficient and Affordable Supplies (Water IDEAS 2014), Bologna, Italy, 22-24 October 2014.
- 33 S. Xanthos, A. Agathokleous, A. Gagatsis, S. Kranioti, S. Christodoulou, "Experimental and numerical investigation of water-loss in water distribution networks", Proceedings, 2014 Intelligent Distribution for Efficient and Affordable Supplies (Water IDEAS 2014), Bologna, Italy, 22-24 October 2014.

- 32 M. Fragiadakis, S. Xanthos, D. Eliades, A. Gagatsis, S. Christodoulou, "Graph-based hydraulic vulnerability assessment of water distribution networks", Proceedings, 9th International Conference on Critical Information Infrastructures Security (CRITIS 2014), Limassol, Cyprus, 13-15 October 2014.
- 31 P. Karaolia, J. Alexander, T. Schwartz, D. Fatta-Kassinos, "Evaluation of the removal potential of antibiotic resistant bacteria by selected photocatalytic and biological treatment technologies", 3rd International Conference on Advanced Oxidation Processes (AOP2014), Munnar, Kerala, India, 25-28 September 2014.
- 30 S. Christodoulou, M. Fragiadakis, "Seismic reliability assessment of water distribution networks Extending the ALA guidelines", Proceedings, 2014 IWA World Water Congress, Lisbon, Portugal, 21-26 September 2014.
- 29 C. Drosou, N. P. Xekoukoulotakis, D. Fatta-Kassinos, "Removal of the antidepressant sertraline from aqueous solution by graphene oxide adsorption", 4th International Conference on Industrial and Hazardous Waste Management, CRETE 2014, Chania, Crete, Greece, 2-5 September 2014.
- 28 M. Fragiadakis, S. Christodoulou, "Vulnerability Assessment of Water Distribution Networks Using Survival Analysis", Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey, 25-29 August 2014.
- 27 I. Michael, M. Iacovou, Z. Frontistis, P. Karaolia, E. Hapeshi, D. Dionysiou, D. Fatta-Kassinos, "UV light-activated persulfate oxidation of erythromycin in aqueous matrices: Evaluation of operational parameters and removal of antibiotic resistance", 8th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA8), Thessaloniki, Greece, 25-28 June 2014.
- 26 S. Christodoulou, M. Fragiadakis, "Seismic Reliability Assessment of Lifeline Systems". Proceedings, The Fourteenth International Conference on Computing in Civil and Building Engineering (ICCCBE2014), Orlando, Florida, 23-25 June 2014.



2013

- 25 E. Hapeshi, D. Fatta-Kassinios, "Assessing the presence of drugs of abuse and relevant metabolites in urban wastewater by liquid chromatography tandem mass spectrometry", International Symposium on Emerging Pollutants in Irrigation Waters: Origins, Fate, Risks, and Mitigation, Hammamet, Tunisia, 25-28 November 2013.
- 24 A. Gagatsis, S. Kranioti, S. Christodoulou, "Towards and integrated platform for security, information and accessibility in intelligent marine transport", Proceedings, Second Cyprus Sustainable Mobility and Intelligent Transport Conference (Sustainable Mobility Cyprus 2014), Nicosia, Cyprus, 3-4 December 2013.
- 23 P. Karaolia, K. Drosou, I. Michael, N. Xekoukoulotakis, D. Fatta-Kassinios, "Photocatalytic removal of licit and illicit drugs from the aqueous phase using TiO₂ coupled with graphene as a photocatalyst", International Symposium on Emerging Pollutants in Irrigation Waters: Origins, Fate, Risks, and Mitigation, Hammamet, Tunisia, 25-28 November 2013.
- 22 L. A. Ioannou, C. Michael, D. Fatta-Kassinios, "Upscaling the solar Fenton treatment - at pilot and industrial scale - for further treatment of a biologically pretreated winery effluent", 3rd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP3), Almeria, Spain, 28-30 October 2013.
- 21 S. Christodoulou, M. Fragiadakis, "Reliability assessment of urban water distribution networks under seismic load", Proceedings, EWRA's Eighth International Conference, Porto, Portugal, 26-29 June 2013.
- 20 M. Vasquez, M. Tarapoulouzi, E. Hapeshi, D. Lambropoulou, D. Fatta-Kassinios, "Ecotoxic and mutagenic effects of photolytic transformation products of pharmaceuticals: An experimental design for the investigation of mixtures", ICCE2013, 14th EuCheMS International Conference on Chemistry and the Environment, Barcelona, Spain, 25-28 June 2013
- 19 I. Michael, E. Hapeshi, C. Michael, A. R. Varela, C. Manaia, D. Fatta-Kassinios, "Pilot scale evaluation of solar Fenton on the removal of antibiotics and antibiotic resistant enterococci from secondary effluents: Degradation kinetics, ecotoxicity and phytotoxicity assessment", IWA conference, Micropol & Ecohazard Conference, Zurich, Switzerland, 16-20 June 2013.

- 18 M. Fragiadakis, S. Christodoulou, "Reliability assessment of pipe networks under seismic loads", Proceedings, COMPDYN 2013 Forth ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island, Greece, 12-14 June 2013.

2012

- 17 A. Gagatsis, S. Kranioti, S. Christodoulou, A. Agathokleous, S. Xanthos, "An integrated software solution for identifying, monitoring and visualizing water leak incidents in Water Distribution Networks", Proceedings, IWA's International Conference on New Developments in IT&Water, Amsterdam, Netherlands, 4-6 November 2012.
- 16 A. Agathokleous, S. Christodoulou, S. Xanthos, A. Gagatsis, S. Kranioti, "Understanding Water Distribution Network Behavior: A case study for the island of Cyprus", Proceedings, IWA's International Conference on New Developments in IT & Water, Amsterdam, Netherlands, 4-6 November 2012.
- 15 C. Drosou, N. P. Xekoukoulotakis, D. Fatta-Kassinos, "Synthesis of TiO₂ reduced graphene oxide composites for the degradation of organic pollutants", 12th Panhellenic Catalysis Symposium, Chania, Greece, 25-27 October 2012.
- 14 M. Fragiadakis, D. Vamvatsikos, S. Christodoulou, "Reliability Assessment of Urban Water Networks", Proceedings, The Fifteenth World Conference on Earthquake Engineering, Lisbon, Portugal, 24-28 September 2012.
- 13 S. Christodoulou, A. Gagatsis, A. Agathokleous, S. Xanthos, S. Kranioti, "Urban Water Distribution Network Asset Management Using Spatio-Temporal Analysis of Pipe-Failure Data", Proceedings, The Fourteenth International Conference on Computing in Civil and Building Engineering, Moscow, Russia, 27-29 June 2012.
- 12 S. Christodoulou, "The Effects of Intermittent Water Supply on Urban Water Distribution Networks in Cyprus", Proceedings, IWA's Water Utility Management and Pricing Policy Workshop, Limassol, Cyprus, 3 April 2012.

2011

- 11 G. Kirkos, K. Makris, M. Vatyliotou, D. Fatta-Kassinos, "Evaluation of the implementation of the PPW and WEEE directives in island member states and member states that include islands", Sardinia 2011, Thirteenth International Waste Management and Landfill Symposium, S. Margherita di Pula, Cagliari, Sardinia, Italy, 3-7 October 2011.
- 10 E. Hapeshi, M. Gros, M. R. Boleda, F. Ventura, M. Petrovic, D. Barcelo, D. Fatta-Kassinos, "Investigating the occurrence and fate of licit and illicit drugs in urban wastewater treatment plants in Cyprus", 12th International Conference on Environmental Science and Technology, Rhodes, Greece, 8-10 September 2011.
- 9 M. I. Vasquez, E. Hapeshi, J. Menz, K. Kümmerer, D. Fatta-Kassinos, "Active pharmaceutical ingredients as multi-component matrices: Focus on effects of mixtures and photo transformation products", 15th International Symposium on Toxicity Assessment, Hong Kong, 3-8 July 2011.
- 8 A. Agathokleous, S. Christodoulou, "Waterloss Modelling for Urban Water Distribution Networks", Proceedings, European Water Resources Association's Sixth International Symposium, Catania, Italy, 29 June-2 July 2011.
- 7 S. Christodoulou, A. Agathokleous, B. Charalambous, "Urban Water Distribution Network Performance Under Intermittent Water Supply Conditions", Proceedings, European Water Resources Association's Sixth International Symposium, Catania, Italy, 29 June-2 July 2011.
- 6 S. Christodoulou, A. Agathokleous, "Urban Water Distribution Network Performance Under Intermittent Water Supply Conditions", Proceedings, International Water Association's Eighth Symposium on Systems Analysis and Integrated Assessment, San Sebastian, Spain, 20-22 June 2011.

- 5 A. Agathokleous, C. Papadopoulou, S. Christodoulou, "Real-Time Monitoring of Water Distribution Networks", Proceedings, International Water Association's Eighth Symposium on Systems Analysis and Integrated Assessment, San Sebastian, Spain, 20-22 June 2011.
- 4 I. Michael, E. Hapeshi, C. Michael, D. Fatta-Kassinos, "Ofloxacin removal from secondary treated domestic effluents by solar catalytic processes", IWA SSS 4 WATER, Venice, Italy, 18-21 April 2011.
- 3 S. Christodoulou, A. Agathokleous, "A Study on the Effects of Intermittent Water Supply on the Vulnerability of Urban Water Distribution Networks", Proceedings, The 6th IWA Specialist Conference on Efficient Use & Management of Water, Dead Sea, Jordan, 29 March-2 April 2011.
- 2 A. Agathokleous, S. Christodoulou, "In-Situ Water Loss Modeling and Detection", Proceedings, The 6th IWA Specialist Conference on Efficient Use & Management of Water, Dead Sea, Jordan, 29 March-2 April 2011.
- 1 S. Christodoulou, "Sustainable Strategies for Managing Water Distribution Networks". Keynote Speech, 2011 MEDIWAT Stakeholders Workshop, Limassol, Cyprus, 18 March 2011.

Organization and Co-Organization of Workshops / Conferences / Sessions - Roundtable and Panel Discussions

This section provides examples of Nireas-IWRC activity with regard to the organization, or co-organization, of workshops, conferences etc. at national and international level.

2021

22 February 2021

Online National Workshop

Production of biogas intended for governmental and industrial end users in Cyprus, organized in the framework of BIOGASMENA project (KOINA/ERANETMED/0316/01).

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, RTD Talos Ltd, S.K. Euromarket Ltd.

2020

23 November 2020

Online Public Workshop

Smart framework for real-time monitoring and control of subsurface processes in managed aquifer recharge applications (SMART Control, P2P/WATER/1017/0007).

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, Technical University of Dresden, Adelphi, Competence Center for Water.

2019

Nicosia, Cyprus, 5-6 June 2019

Second Project Meeting and First General Meeting

Of the Network of effective knowledge transfer on safe and economic wastewater reuse in agriculture in Europe (SuWaNu Europe, H2020-RUR-2018-2020/818088).

ORGANIZER: Nireas-IWRC, University of Cyprus.



1, 2. SuWaNu Meeting in June 2019, Nicosia.

2018

Limassol, Cyprus, 10-12 October 2018

International Conference on Challenges and solutions related to xenobiotics and antimicrobial resistance in the framework of urban wastewater reuse: Towards a blue circle society (XENOWAC II).

Organized in the framework of the NEREUS COST ACTION (ES1403).

ORGANIZER: Nireas-IWRC, University of Cyprus.

► Panel Discussion: The future of water management



1. Panel discussion on the 12th of October 2018, during the XENOWAC II International Conference.

► Roundtable Discussion I: Wastewater reuse in the circular economy era.

• Session 1: From a threatening inevitability to an array of benefits.

Moderators: David Weinberg, Ministry of Health, Israel
Thomas Berendonk, Technische Universität Dresden, Germany

• Session 2: How can we apply the “polluter pays” principle in wastewater reuse scenarios?

Moderators: Lian Lundy, Middlesex University, United Kingdom
Bernd Gawlik, Joint Research Center, European Commission

• Session 3: How can we enhance the communication between scientists and policy makers?

Moderators: Norbert Kreuzinger, Vienna University of Technology, Austria
Dominique Darmendrail, Water JPI Coordinator



Roundtable Discussion II: Tackling unknowns, risks and barriers for enhancing wastewater reuse.

- **Session 1: The big unknowns concerning a safe and sustainable wastewater reuse**

Moderators: Ed Topp, Agriculture and Agri-Food Canada and University of Western Ontario, Canada
Ernesto Liebana, European Food Safety Authority, Italy

- **Session 2: Monitoring big or monitoring smart?**

Moderators: Jaroslav Slobodník, Environmental Institute, Slovakia
Susan Richardson, University of South Carolina, USA

- **Session 3: Risks associated to human and ecological health.**

Moderators: Célia Manaia, Catholic University of Portugal, Portugal
Jim Lazorchak, United States Environmental Protection Agency (US EPA), USA



1, 2. Title: The big unknowns concerning a safe and sustainable wastewater reuse, Roundtable Discussion II on the 10th of October 2018, during the XENOWAC II International Conference.

3. Title: Monitoring big or monitoring smart?, Roundtable Discussion II on the 10th of October 2018, during the XENOWAC II International Conference.

4. Title: Risks associated to human and ecological health, Roundtable Discussion II on the 10th of October 2018, during the XENOWAC II International Conference.



Roundtable Discussion III: Wastewater treatment and reuse cost.

- Session 1: State of the art of existing technologies with respect to sustainable and safe wastewater reuse.

Moderators: Luigi Rizzo, University of Salerno, Italy

Wolfgang Gernjak, Catalan Institute for Water Research & Catalan Institute for Research and Advanced Studies, Spain

- Session 2: Current, emerging and future cost related to technologies and wastewater reuse.

Moderators: Heidemarie Schaar, Vienna University of Technology, Austria

Dionissios Mantzavinos, University of Patras, Greece



1. Title: State of the art of existing technologies with respect to sustainable and safe wastewater reuse, Roundtable Discussion III on the 11th of October 2018 during the XENOWAC II International Conference.

2. Title: Current, emerging and future cost related to technologies and wastewater reuse, Roundtable Discussion III on the 11th of October 2018 during the XENOWAC II International Conference.



► Water JPI Event

- Session 1: Knowledge hub on emerging pollutants.
- Session 2: Future research funding: ERA-Net cofund on emerging pollutants.



1, 2. Water JPI Event on the 11 of October 2018, during the XENOWAC II International Conference.

2017

Nicosia, Cyprus, 2 March 2017

National Workshop

Challenges and perspectives of wastewater reuse in agriculture.

Organized in the framework of the project "Investigation of the potential adverse effects to the soil and the environment caused by wastewater reuse for irrigation and assessment of public health risks in Cyprus" (funded by Cyprus Government) and StARE project (KOINA/ΠΚΠ/0113/15).

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus and Agriculture Research Institute.



1. StaRe National Workshop in March 2017, Nicosia.

Nicosia, Cyprus, 19 May 2017

National Workshop

Implementation and validation of non-formal training on sustainability for environmental testing workers.

Organized in the framework of the project "ECVET-Lab", Erasmus+, KA2 (2016-1-ES-KA202-024977)

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. ECVET-Lab National Workshop in May 2017, Nicosia.

2016

Limassol, Cyprus, 6-9 September 2016

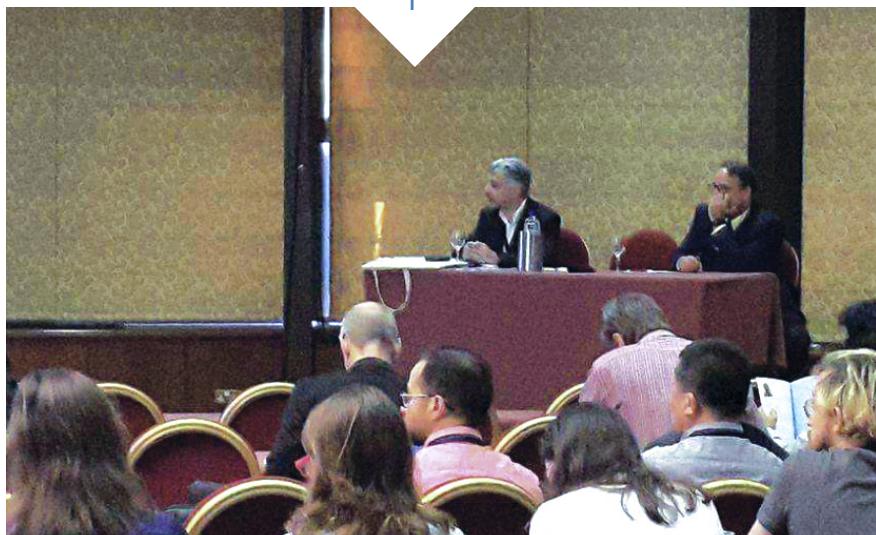
Eleventh European Conference

Product and Process Modeling (ECPPM 2016), European Association of Product and Process Modeling.

ORGANIZER: Nireas-IWRC, University of Cyprus.



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1. Eleventh European Conference on Product and Process Modeling in September 2016, Limassol.

2015

Lythrodontas, Cyprus, 7 April 2015

National Workshop

New technologies for olive mill wastewater treatment and valorization of agro-industrial products.

ORGANIZER: Nireas-IWRC, University of Cyprus.



Project funded by the
EUROPEAN UNION

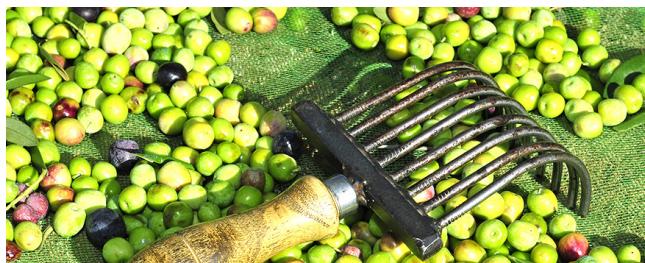


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- Αποτελέσματα κοινωνικο-οικονομικής αξιολόγησης διαθέσιμων τεχνολογιών
- Οικονομικά οφέλη από την αξιοποίηση ουσιών υψηλής αξίας που μπορούν να ανακτηθούν από τα απόβλητα



Nicosia, Cyprus, 8 June 2015

National Workshop

Closing gaps of knowledge with respect to advanced chemical oxidation processes for the removal of contaminants of emerging concern (GAPS, KOULTOURA/VENS/0412/24).

ORGANIZER: Nireas-IWRC, University of Cyprus.

2014

Nicosia, Cyprus, 16-17 July 2014

National Workshop

Photocatalytic removal of organic micropollutants from the aqueous phase using graphene as a photocatalyst
(PhotoGraph, ΑΕΙΦΟΡΙΑ/ΦΥΣΗ/0311(BIE)/33).

ORGANIZER: Nireas-IWRC, University of Cyprus.



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1. PhotoGraph National Workshop in July 2014, Nicosia.

2013

Cleopatra Hotel, Nicosia, Cyprus, 20 June 2013

National Workshop

Fate, effect and removal potential of xenobiotics present in aqueous matrices
(IX-Aqua, UPGRADING/DURABLE/0308/07).

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. IX-Aqua National Workshop in June 2013, Nicosia.

Nicosia, Cyprus, 8-19 July 2013

International Workshop

Integrating water cycle management: building capability, capacity and impact in education and business
(I-Web, 530718-TEMPUS-1-2012-1-UK-TEMPUS-JPCR).

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. I-Web International Workshop in July 2013, Nicosia.

2012

Amathus Beach Hotel, Limassol, Cyprus, 11 June 2012

Workshop

Advanced systems for the enhancement of the environmental performance of wineries in Cyprus.

Organized in the framework of the project "WINEC", LIFE 08 ENV/CY/000455.

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. WINEC Workshop in June 2012, Limassol.

Columbia Resort, Limassol, Cyprus, 13-14 September 2012

International Workshop

Wastewater reuse applications and contaminants of emerging concern.

Organized in the framework of NORMAN network activities, DARE EU COST Action TD0803, and NIREAS-IWRC.

ORGANIZER: Nireas-IWRC, University of Cyprus.



1

1. Norman and Dare International Workshop in September 2012, Limassol.

Hilton Hotel, Nicosia, Cyprus, 19 October 2012

International Workshop

Environmental management of wineries and olive mills - current challenges and opportunities.

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. International Workshop in October 2012, Nicosia.

2011

Ayia Napa, Cyprus, 3-4 May 2011

Scientific Workshop

Detecting evolutionary hot spots of antibiotic resistances in Europe, EU COST Action TD 0803.

ORGANIZER: Nireas-IWRC, University of Cyprus.

Cyprus, 29 June 2011

Workshop

Environmental assessment of xenobiotics released in the environment.

Organized in the framework of the project "TOMIXX", PENEK/0609/24.

ORGANIZER: Nireas-IWRC, University of Cyprus.



1. TOMIXX Workshop in June 2011, Nicosia.

Organization of Training Schools

This section lists key training schools
organized by Nireas-IWRC.

Cyprus, 29-31 May 2018

Training School

Uptake of microcontaminants by crop plants and ARB&ARGs testing in wastewater and soil and plants samples.

Organized in the framework of Working Group 2 of NEREUS COST Action ES1403.

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, Agricultural Research Institute, Cyprus University of Technology.



Porto, Portugal, 10-14 July 2017

Summer School

Advanced treatment technologies and contaminants of emerging concern (NEREUS COST Action ES1403) and 2nd Summer School on Environmental applications of advanced oxidation processes (European AOPs PhD School).

Organized in the framework of NEREUS COST Action ES140.

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, European AOPs PhD School.



Rehovot, Israel, 5-10 March 2017

Training School

Microcontaminants in the aquatic water cycle - wastewater reuse - the Cypriot/Israeli experience.

Organized in the framework of the project "ANSWER", H2020-MSCA-ITN-2015/675530.

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, Agriculture Research Organization of Israel - The Volcani Center (ARO), Hebrew University of Jerusalem.



Barcelona, Spain, 13-23 June 2016

Summer School

Antibiotics and mobile resistance elements in wastewater reuse applications: risks and innovative solutions.

Organized in the framework of the project "ANSWER", H2020-MSCA-ITN-2015/675530.

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, Institute of Environmental Sciences and Water Research, Spanish Council for Scientific Research (IDAEA-CSIC).



Barcelona, Spain, 13-15 June 2016

Training School

"Cristina Becerra-Castro" on Methods for detecting and quantifying antibiotic-resistant bacteria and antibiotic resistance genes in the environment.

Organized in the framework of the COST Action "Nereus", ES1403.

CO-ORGANIZATION: Nireas-IWRC, University of Cyprus, Institute of Environmental Sciences and Water Research, Spanish Council for Scientific Research (IDAEA-CSIC).





Communication and Outreach Activities

Targeted and successful dissemination is a vital aim of NIREAS-IWRC. To help achieve this, Nireas-IWRC is devising targeted dissemination/training modules for engineers, public agencies, SMEs, other relevant stakeholders and the general public. Additional training elements include: (1) dissemination to proposed users of emerging tools, techniques and technologies arising from the individual engineering projects, (2) provision of comprehensive, timely, accessible, and reliable data to support and promote the developed tools, techniques and technologies, (3) fostering a general understanding within the target user group of developments in engineering-focused technology tools, (4) actively disseminating the findings of quality research evidence and promoting their use in practice and policy.

Much of this activity involves raising awareness of key messages from the research outputs and providing them in easily accessible formats (such as paper and electronic publications), making use of relevant scientific organizations, and promoting the work of the research group through peer-reviewed journal publications, conference proceedings, and presentations at conferences and workshops.

To date, there has been involvement of Nireas-IWRC in many public outreach activities, local and international competitions, training seminars, public lectures, etc., including, but not limited to Stockholm Junior Water Prize, World Water Monitoring Day, Researcher's Night, S-Factor contest, FameLab contest, NIREAS-IWRC "When Ideas Flow" Speaker Series, NIREAS-IWRC Educational Series Seminars, and the Water Development Department Open Day.

The activities and work of Nireas-IWRC have been in the media news (TV, news papers, press releases, news websites, interviews in magazines) numerous times during the last decade, and the Center has a steady presence on facebook (@nireasiwrc) and twitter (@NireasIWRC), while various of the projects coordinated by Nireas operated/operate their own social media accounts. A selection of the published items can be found at: <https://nireas-iwrc.org/category/outreach-activities/news/>

Outreach Activities

This section provides examples of outreach activities organized by Nireas-IWRC, or of outreach activities the Center participated in.



December 2020

Virtual Presentation

"The Secret Handbook of the Blue Circle" to the 5th Grade of Primary School of the European School of Brussels III.

CO-ORGANIZATION:

Nireas-IWRC, University of Cyprus,
European School of Brussels III.

2020

The Cyprus Young Water Professionals (CYWP) was recently established through the Cyprus Water Association (CWA) with the overall aim of advocating and empowering young professionals engaged in the water sector in Cyprus.

Dr. Yannis Dialynas, an affiliated member of the University of Cyprus' NIREAS International Water Research Center is a Member of the CYWP founding Steering Committee.



**YOUNG WATER
PROFESSIONALS
CYPRUS**



September 2019

Production of a theatrical performance

"A voyage in the blue cycle"

Based on the book developed by
Despo Fatta-Kassinou, Antonis
Papatheodolou and Iris Samartzi
"The Secret Handbook of the Blue
Circle".

CO-ORGANIZATION:
Nireas-IWRC, University of Cyprus,
Cyprus Foundation for Research
and Innovation.







2019

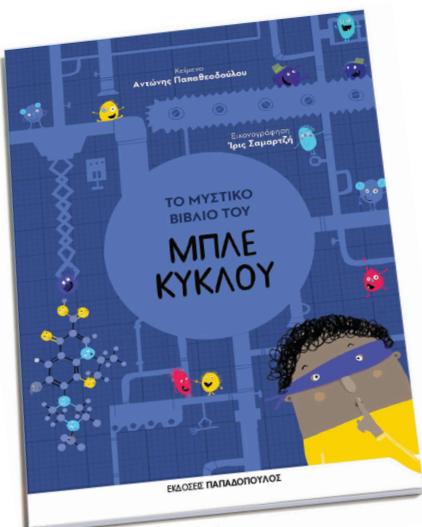
Publication of the book and ebook

"The Secret Handbook of the Blue Circle"

in English language by IWA Publishing.

ISBN: 9781789061086 (Paperback)

ISBN: 9781789061093 (eBook)



2018

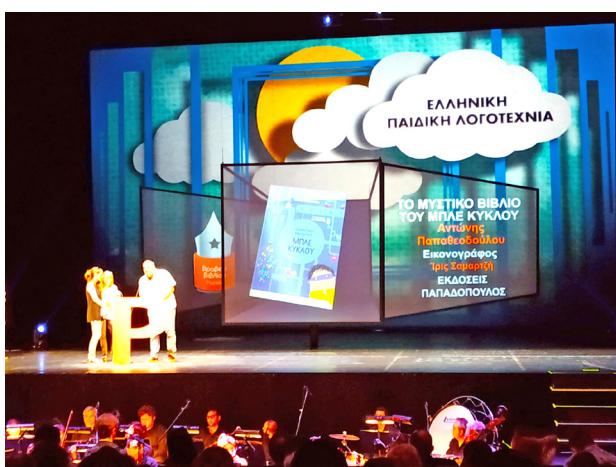
Development of an educational book for children:

"The Secret Handbook of the Blue Circle"

in Greek language by Papadopoulos Publishing S.A.

ISBN: 978-960-569-902-4

The book was awarded first place in the Public Awards 2019 under the category "Greek Children's Literature" and second place in the Anagnostis Awards under the category "Educational Books".



Filenews

ΕΙΔΗΣΕΙΣ • ΚΟΙΝΩΝΙΑ • INSIDER • ΑΠΟΙΓΕΙΣ • GOING OUT • ΠΟΛΙΤΙΣΜΟΣ • ΑΘΛΗΤΙΚΑ • AUTO • ΚΑΛΛΖΟΗ
ΚΥΠΡΟΣ • ΚΟΣΜΟΣ • ΚΡΙΤΙΚΕΣ • ΕΚΔΗΛΩΣΕΙΣ • ΠΡΟΣΩΠΑ

Αντ. Παπαθεοδούλου: Αγαπάτε τις ερωτήσεις πιο πολύ από τις απαντήσεις

ΑΡΧΙΚΗ • ΠΟΛΙΤΙΣΜΟΣ • ΠΡΟΣΩΠΑ • Αντ. Παπαθεοδούλου: Αγαπάτε τις ερωτήσεις πιο πολύ από τις...



Ο 23 Ιανουαρίου 2019, 10:28 πμ

«Να φτιάξεις ένα καλό βιβλίο για παιδιά ποτέ δεν είναι εύκολο»

- Ποιο ήταν το κίνητρο για το νέο σας βιβλίο, «Το Μυστικό Βιβλίο του Μπλε Κύκλου;» Το κίνητρο συνήθως είναι κάτι που θέλω πολύ να πω στα παιδιά. Σε αυτό το βιβλίο όμως το κίνητρο ήταν λίγο πρωτότυπο καθώς ήταν αυτό που θέλησε η ομάδα επιστημόνων του Διεθνούς Ερευητικού Κέντρου Νερού Νηρέας του Πανεπιστημίου Κύπρου να πει στα παιδιά. Και κρειαστήκε εμένα και την ίριδα μόνο για να το... «μεταφράσουμε» λίγο στη γλώσσα τους. Το βιβλίο αυτό για το νερό και την επαναχρησιμοποίηση του το γράμμει μαζί με τη Δέσποινα Φάττα-Κάσινου και την ομάδα της για να κάνουμε και τα παιδιά μέλη, κοινωνίες της «Κοινωνίας του Αέναου Μπλε Κύκλου» μιας ομάδας πραγματικών νέων επιστημόνων, ώστε να μάθουν να προστατεύουν και να φροντίζουν το ποι πολύτιμο αγαθό στη Γη: το νερό.



ΑΡΧΙΚΗ • ΤΑ ΒΡΑΒΕΙΑ • ΒΡΑΒΕΙΑ 2019 • Όλα για την Τελετή Απονομής των Λογοτεχνικών Βραβείων 2019, σήμερα 8μμ Μουσείο...

Όλα για την Τελετή Απονομής των Λογοτεχνικών Βραβείων 2019, σήμερα 8μμ Μουσείο Μπενάκη

10442



Τα Λογοτεχνικά Βραβεία του Αναγνώστη 2019 θα απονεμηθούν σήμερα Δευτέρα 10 Ιουνίου στις 8μμ στη Μουσείο Μπενάκη, Πειραιώς 138.

ΑΠΟΤΕΛΕΣΜΑΤΑ ΒΙΒΛΙΟ ΓΝΩΣΕΩΝ

- Ελένη Γερουλάνου, Ένας αρκούδος μια φορά, εικονογράφηση Τρίις Σαμαρτζή, Πατάκης.
- Κατερίνα Λαγού, Χαρίλαος: Τι νομίζεις αυτό; Εικονογράφηση Πετρούλα Κρίγκου, Ψυχογιος και Αντώνης Παπαθεοδούλου, Το μυστικό βιβλίο του μπλε κύκλου, εικονογράφηση Τρίις Σαμαρτζή, Παπαδόπουλος, (ιωνημηρία)
- Ροδούλα Παππά, Όστρων μεγαλώσω, εικονογράφηση Φίκος, Νεφέλη.

ΒΙΒΛΙΑ • ΠΡΟΣΩΠΑ • ΕΙΚΟΝΟΓΡΑΦΗΣΗ • ΔΕΣ ΚΙ ΑΥΤΟΙ • ΔΙΑΒΑΣΟ ΔΥΝΑΤΑ

Αρχική / Πρόσωπα / Συνεντεύξεις / Δέστια Φάττα – Κάσινου

Δέσποινα Φάττα – Κάσινου

Είναι ιδιάτερα σημαντικό να καταφέρει να κεντρίσει το ενδιαφέρον των μικρών αναγνωστών με στόχο την ενδυνάμωση της ενημέρωσης των ανθρώπων από μικρή ηλικία.

Δέστια Φάττα – Κάσινου

Χημικός Μηχανικός, αναπληρώτρια καθηγήτρια στο τμήμα Πολιτικών Μηχανικών και Μηχανικών Περιβάλλοντος, διευθύντρια του Διεθνούς Ερευητικού Κέντρου Νερού Μητρώος του Πανεπιστημίου Κύπρου, εκδρομία διεθνώς επιπτυμονικού περιοδικού, συντονίστρια ερευνητικών έργων, η κ. Δέσποινα Φάττα-Κάσινου πατή την κύκλου του μητρώου μεταφέραντες το Μυστικό βιβλίο του μητρώου κράτους στα χέρια μας. Μαζί με την επιπτυμονική της ουδέτερη και με τη βοήθεια του συγγραφέα Αντώνη Παπαθεοδούλου και της εικονογράφου Ιριδάς Σαμαρτζή, δημιουργήσαν ένα βιβλίο γνώστευν για το ποι σημαντικό στοιχείο πάνω στη Γη, το νερό, τη σημασία του για τη ζωή στον πλανήτη και κυρίως τους τρόπους με τους οποίους το νερό μπορεί να απορρίπτεται και να επαναχρησιμοποιείται. Η κ. Φάττα-Κάσινου μίλησε στην Κόκκινη Αλεπού και μας έλεγε όλες μας της απορίες σχετικά με τον κύκλο του νερού, την επαναχρησιμοποίηση των τεξεραγματένων αστικών λυμάνων, το πώς ασχολήθηκε με τη δημιουργία αυτού του βιβλίου, αλλά και με ποιον τρόπο μπορούμε όλοι να συμβάλουμε στην προστασία τόση της ποιότητας όσο και της ποσότητας του νερού.



IWA PUBLISHING
the International water association

iwapublishing.com

The Secret Handbook of the Blue Circle

Concept Development and Scientific Editing: Despo Fatta-Kassinios

The book was inspired by the scientific work carried out by the research group of Nireas International Water Research Center (Nireas-IWRC) at the University of Cyprus in the field of wastewater treatment and reuse. The work is led by Dr. Despo Fatta-Kassinios, who is an Associate Professor at the Department of Civil and Environmental Engineering and Director of Nireas-IWRC. The group worked together with Antonis Papathodorou, one of the Greece's best children's storytellers, and developed an interesting educational adventure through which children can understand the vital role of water in life.

There is increasing recognition of the power of children's early thinking and learning, as well as a belief that science may be of particular importance in early childhood, contributing not only to the future scientific understanding of children, but also to building important skills and attitudes for learning, establishing high levels of scientific literacy and strengthening scientific inquiry. Educating the young generation and increasing awareness on various aspects of the water cycle and wastewater reuse was the motivation for the development of 'The Secret Handbook of the Blue Circle'.



Six Water Scientists, who are defenders and protectors of the most important substance on the planet (i.e. water), Dr. Tom Atom, Dr. Celia Circle, Dr. Scot Water, Dr. Glow McCrystal, General Claire Clean and Dr. André Antip, are looking for helpers to become new members of their 'Eternal Blue Circle Society'. The eight Secret Chapters of the book, include among others: knowledge on what water is, its chemical structure and properties, its cycle, its uses and its significance, water scarcity, a historical retrospective of a city's water supply from antiquity to date, the typical treatment processes applied for the production of drinking water, the water pollution caused by traditional pollutants and contaminants of emerging concern, the processes applied in wastewater treatment plants, and the presence of such contaminants in the environment.

The mission of the members of the 'Eternal Blue Circle Society' is to carefully study contaminants of

Είπαν για το βιβλίο:

«Είναι πραγματικά ένα πρωτοποριακό βιβλίο γνώστευν για παιδιά, το οποίο μέσα από τον έξυπνο τρόπο προσέγγιση του θέματος και την πλούσια εικονογράφηση, είναι βέβαιος ότι θα συμβάλει οινοαστικά στην καλλιέργεια υδατικής και περιβάλλοντικής συνειδητούς, που τόσο έχουμε ανάγκη.»

Κώστας Καδής, Υπουργός Γεωργίας, Αγροτικής Ανάπτυξης και Περιβάλλοντος της Κυπριακής Δημοκρατίας.

«Είμαι βέβαιος πως η έκδοση "Το μυστικό βιβλίο του μπλε κύκλου" θα συμβάλει καθηρωτικά στην περιβαλλοντική ενισχυτοποίηση των παιδιών μας και ιδιαίτερα στην επίτευξη των στόχων για εξουκονόμηση νερού. Πρωτοβουλίες που έχουν στόχο την τεκμηρίωση και κατανοητό τρόπο να ενισχυθητούνται τα παιδιά μας για θέματα που απλαχολίνειν και επηρέαζουν όλους μας, θεωρούνται πολύ σημαντικές από το Υπουργείο Παιδείας και Πολιτισμού.»

Δρ. Κώστας Χαμπασώρης, Υπουργός Παιδείας και Πολιτισμού της Κυπριακής Δημοκρατίας



12 February 2019

Open Day

On Water and Wastewater Treatment.

ORGANIZER: Nireas-IWRC,
University of Cyprus.





June 2019

Visit

To the Junior and Senior English School of Nicosia to provide general research information about the ANSWER project and the issue of antibiotic resistance the spread in WWTP and the environment.

Invited by the School.





Limassol, Cyprus, 12 October 2018

“Science Slam” Competition.

Organized in the framework of the XENOWAC II Conference, “Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society”.

HOST AND ORGANIZER: Prof. D. Fatta-Kassinos, Nireas-IWRC, University of Cyprus.



XENOWAC II

Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse:
Towards a Blue Circle Society

PASSIONATE ABOUT SCIENCE AND WANT TO SHARE IT WITH THE XENOWAC II AUDIENCE IN A FUN AND ENTERTAINING WAY?
APPLY TO THE XENOWAC II SCIENCE SLAM AND GET THE OPPORTUNITY TO SHOW YOUR CREATIVE SKILLS!

Forget about introductions, results and discussion, and instead focus on your audience. The XENOWAC II audience will vote to name the XENOWAC II Science Slammer.
Luckily for all the passionate professors and career professionals thinking about participating, it is not necessary to be a student to participate!
So this is your chance to shine.

THE SCIENCE SLAM WILL TAKE PLACE ON OCTOBER 12, 2018

XENOWAC II SCIENCE SLAM RULES

APPLY Anyone can apply (students, technicians, researchers, postdocs, professors, etc.).

SUBMIT Applications through a description (max 1 page) of how you wish to convey your message.

REMEMBER Anything can fly (slides, songs, sketches, video) ... as long as you present your own research in 3-5 min.

COMPETE The XENOWAC II audience will select the best XENOWAC II Science Slammer, based on the 3Cs:
Charisma, Content and Clarity after the live competition.

Send your submissions before June 1, 2018 to synedrio@topkinisis.com

NEIREAS COST Action IS1403
<https://www.youtube.com/user/ScienceSlam>

H2020-MSCA-ITN-2015-675593 ANSWER
ANSWER



2018

Visit

To the Junior English School of Nicosia to provide general research information about the ANSWER project and the issue of antibiotic resistance the spread in WWTP and the environment.

Invited by the School.



2018

Visit

To the Elementary School of Archangelou Michael to provide general research information about the water.

Invited by the School.

2017

Visit

To the 3rd Elementary School Kaimakliou, High school Aradippou "Tasos Mitsopoulos".

Invited by the School.

September 2016

Researchers from our Center visited schools and delivered lectures.

Specifically, they visited the 6th Elementary School of Aglantzia, the Elementary School of Agiou Vassiliou, the High School of Athiainou, the High School of Aradippou, the High School of Aradippou "Tassos Mitsopoulos", the Pancyprian High School of Larnaca, the High School of Vergina.

Organized in the framework of the Research and Innovation Week, Cyprus Foundation for Research and Innovation.

Invited by the School.

March 2016

Invited Talk

Tackling the issue of antibiotic-related microcontaminants under the wastewater reuse framework.

CO-ORGANIZATION: Cyprus International Institute for Environmental and Public Health, Cyprus University of Technology, Nireas-IWRC, University of Cyprus.

December 2015

Invited Talk

Tackling the issue of antibiotic-related microcontaminants under the wastewater reuse framework.

CO-ORGANIZATION: Cyprus Institute of Neurology and Genetics (CING) – the CING, Nireas-IWRC, University of Cyprus

Nicosia, Cyprus, 27 March 2015

World Water Monitoring Challenge Activity.

ORGANIZER: Nireas-IWRC, University of Cyprus.

Larnaka, Cyprus, 25 September 2013

Café Scientifique talk entitled Unknown pollutants in water and our lives.

ORGANIZED BY the Research Promotion Foundation in the framework of the "Research and Innovation Week".





Nicosia, Cyprus, 2011

World Water Monitoring Day.

ORGANIZER: Nireas-IWRC, University of Cyprus.



“When Ideas Flow” Seminar Series

Academic Year 2020 - 2021

September 2020

Advanced dose control for chemical disinfection of urban wastewater.

Dr. Kyriakos Manoli.

In collaboration with the Civil and Environmental Engineering Department.

November 2020

The management of chemical compounds in Europe, the case of Cyprus.

Dr. Tasoula Kyprianidou-Leontidou.

In collaboration with the Civil and Environmental Engineering Department.

Academic Year 2019 - 2020

January 2020

The quo of water quality and water availability in Southern Africa:
Strategies and sustainable solutions.

Dr. Titus Msagati.

February 2020

Application of genomics and metagenomics tools for unfolding the functional capacity of different ecological niches.

Nishant A. Dafale.

Academic Year 2017 - 2018

September 2017

Measurement of the impact of antibiotic resistance discharge in wastewater and in soil: Ecological aspects.

Mr. Gianuario Fortunato.

October 2017

Solar photo-Fenton and adsorption on activated carbon for the removal of antibiotics, antibiotic resistance determinants and toxicity from urban wastewater.

Ms. Stella Michael.

November 2017

A CFD study of wave-flows in coastal and offshore zones.

Mr. Charalambos Frantzis.

December 2017

Occurrence of antibiotics and transformation products in effluent wastewater from Danub catchment;
The crucial role of the establishment of databases and data archiving.

Mr. Nikiforos Alygizakis.

January 2018

Quality of drinking water and technologies used in drinking water treatment in Lithuania.

Dr. Ramune Albrektiene.

February 2018

Exploring eukaryotic endomembrane systems with computational genomics tools.

Dr. Vasilis Promponas.

March 2018

Opportunities for participation in Climate-KIC actions (Knowledge and Innovation Community).

Dr. Stelios Yiatros.

Academic Year 2016 - 2017

October 2016

"Biochemical systems engineering" A systems approach for the production of chemicals, biofuels and biopolymers for the waste and biomass.

Mr. Michalis Koutinas.

February 2017

Funding opportunities under the territorial cooperation programs.

Ms. Constantia Constantinou.

March 2017

Competition "Students in Research – I STUDY 2017".

Ms. Ioanna Sergidou Loizou.

April 2017

Critical thinking and its relationship to the development of intelligence.

Dr. Socrates Ktistis.

June 2017

Activation of peroxy compounds using metal complexes for oxidative degradation of organic contaminants and inactivation of bacteria in water.

Dr. Halan Prakash.

Academic Year 2015 - 2016

October 2015

Life Cycle Assessment of a membrane bioreactor (MBR) and a solar photocatalytic pilot plant for the treatment of urban wastewater.

Dr. Lida Ioannou.

January 2016

Physicochemical methods for the treatment of different types of industrial wastewater.

Mr. Iacovos Iacovides.

February 2016

The center for technical and scientific research in physical-chemical analysis in Algeria (CRAPC).

Ms. Lilya Boudriche.

March 2016

The importance of strategic design.

Dr. Antonis Zorpas.

April 2016

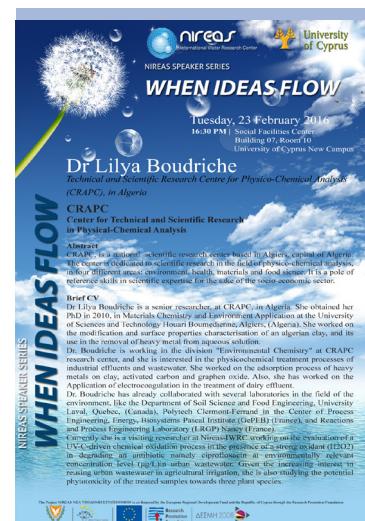
From "Dieselgate" to green tax reform: Regulations or economic incentives for a successful environmental policy?.

Dr. Theodoros Zachariades.

May 2016

A workflow for the orthogonal identification of biotransformation products of pharmaceuticals formed in activated sludge by LC-QTOF-MS.

Ms. Vasiliki Beretsou.



Academic Year 2014 - 2015

September 2014

Why do we educate ourselves?

Mr. Andreas Zaharoudis.

October 2014

Plant responses to environmental stress factors and possible means of amelioration.

Dr. Vasileios Fotopoulos.

November 2014

The activities of the Cyprus Center of Environmental Research and Education.

Dr. Andreas Chadjihambis.

December 2014

Animal Research pros & cons: The contribution of animal research to the medical revolution.

Dr. Myrtani Pieri.

January 2015

Advance bioassays for evaluating the effect of mixtures of pharmaceuticals.

Ms. Maria Tarapoulouzi.

February 2015

New electronic product development for better water management.

Dr. Tasos Kounoudes.

March 2015

Geographic Information System (GIS) Applications in research and businesses.

Mr. Loizos Tofas.

April 2015

Multifaceted identity and a successful work environment.

Dr. Areti Demosthenous.

May 2015

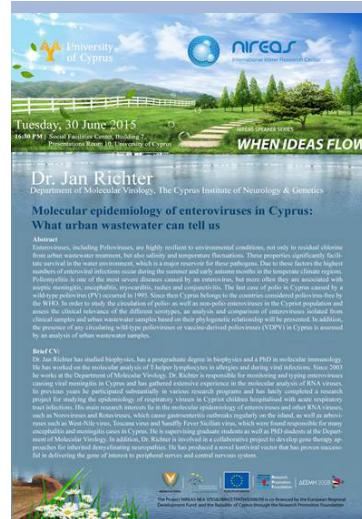
Cancer evolution: A dynamic interplay between living systems and the environment.

Dr. Andreani Odysseos.

June 2015

Molecular epidemiology of enteroviruses in Cyprus: What urban wastewater can tell us.

Dr. Jan Richter.



Academic Year 2013 - 2014

October 2013

Advanced chromatography and mass spectrometry for the analysis of trace contaminants in aqueous matrices.

Dr. Evroula Hapeshi.

November 2013

Utilization of livestock waste for energy production in Cyprus.

Ms. Anthi Charalampous.

December 2013

Drugs in the environment, knowledge and management of risks.

Dr. Christos Petrou.

January 2014

Veterinary medicines in the terrestrial and aquatic environment.

Dr. Vassilis Litskas.

February 2014

Jet Fuel recovery from shallow aquifers: An application of surfactant enhancement for fast and complete recovery of jet a fuel from sandy soils.

Dr. Konstantinos Kostarelos.

March 2014

Coping with climate change: Highlighting the role and the impacts of wastewater reuse and plant priming.

Mr. Anastasis Christou.

April 2014

Smart water networks.

Dr. Dimitris G. Eliades.

May 2014

Wastewater reuse and environmental protection.

Dr. Ioannis K. Kalavrouziotis

May 2014

Assessment of the occurrence of sulfonamides and trimethoprim residues in treated wastewater in Tunisia.

Mr. Bilel Moslah.

June 2014

Flood Barrier Technology for living with the floods.

Dr. Antonis Toumazis.



Academic Year 2012 - 2013

October 2012

Cyprus: A geological wonder; An introduction to geology focusing on the formation of the island.

Mr. Toumazis Toumazi.

November 2012

The use of Chemometrice in food and drinks authenticity certification.

Dr. Rebecca Kokkinofta-Diogenous.

December 2012

The effect of chlorination and UV radiation in controlling antibiotic resistant bacteria spread compared to solar driven and UV lamp – TiO₂ photocatalysis.

Dr. Luigi Rizzo.

January 2013

Ozonation as a tool to improve the quality of municipal wastewater effluent.

Dr. Zacharias Frontistis.

February 2013

Spectrophotometric micro-determination of Iron and Cobalt in plant and animal reference materials using Acod Alizarin Violet-N as a chromogenic reagent.

Mr. Anastasios Palios.

March 2013

Endocrine disrupting substances in some consumer products in Cyprus-The case of bisphenol A and phthalate esters- low vs. high concentrations.

Dr. Eleni Ioannou Kakouri.

March 2013

Reliability assesment of urban water distribution networks under seismic loads.

Dr. Michalis Fragiadakis.

April 2013

Identification of bacterial species present in the biofilm of a Moving Bed Biofilm Reactor (MBBR).

Dr. Evdokia Kastanou Kasini.

May 2013

The water footprint of crop production and supply utilization of Cyprus.

Mr. Christos Zoumides.

June 2013

Urban water distribution networks modeling and optimization of leakage detection via wireless sensors.

Mr. Agathoklis Agathokleous.

Academic Year 2011 - 2012

September 2011

Destruction of cyanotoxins in water using homogeneous and heterogeneous advanced oxidation technologies and nanotechnologies.

Prof. Dionysios Dionysiou.

October 2011

The importance of protection of marine mammals in America: Present status and future research topics.

Mr. Oswaldo Emiddio Vasquez Ravelo.

November 2011

Methods for estimating open water evaporation.

Dr. Evgeny Votyakov.

December 2011

An integrated numerical simulation tool for the monitoring and prediction of saltwater intrusion of coastal aquifers in response to human activity and other parameters.

Dr. Xavier Albets.

January 2012

Monitoring the water quality by advanced biological assays.

Ms. Marlen Ines Vasquez.

February 2012

Performance assessment and optimization of secondary settling tasks using CFD modeling.

Dr. Savvas Xanthos.

March 2012

Applied technologies for small-scale sewage treatment plants in Cyprus.

Mr. Stathis Kyriakou.

April 2012

Statistical analysis of groundwater and slate samples with special influences on rare earth elements.

Mrs. Anahita Pourjabbar.

April 2012

Fourteen years operating experience of the Dhekelia Desalination Plant (DDP).

Mrs. Olga Villa Sallangos.

June 2012

Improving groundwater levels; Bargaining and devolution in the upper Guadiana basin.

Dr. Carmen Marchiori.

June 2012

Applying the virtual water concept for sustainable water management policies.

Dr. Theodoros Zachariades.

Participation in Evaluation Committees of Science Competitions



Limassol, Cyprus, 2011-2020

Stockholm Junior Water Prize International Competition.

Organized by the Water Museum Limassol Water Board.

MEMBERS OF THE NATIONAL EVALUATION COMMITTEE: Prof. Despo Fatta-Kassinou (2015, 2018), Prof. Symeon Christodoulou (2011-2014, 2017, 2018), Dr. Irene Kordatou (2019), Dr. Agathoklis Agathokleous (2016), Dr. Kyriakos Manoli (2021).





Nicosia, Cyprus, 27 September 2013

S-Factor 2013

Organized by the Research Promotion Foundation in the framework of the "Researchers' Night".

MEMBER OF THE EVALUATION COMMITTEE: Prof. Despo Fatta-Kassinos.

Nicosia, Cyprus, 2013

FAMELAB

MEMBER OF THE NATIONAL EVALUATION COMMITTEE: Prof. Despo Fatta-Kassinos.



Participation in Science Events

Researchers' Night

The "Researchers' Night" is a creative evening dedicated to science and research, during which audiences of all ages have the opportunity to get in touch with the researchers and to be informed about their work, in a festive and friendly atmosphere. The event is organized by the Cyprus Foundation for Research and Innovation. Researchers present their work and inform the public about the role and importance of research in the modern world, demonstrating the impact of science and its applications in everyday life. At the same time, the public has the opportunity to engage in interactive experiments and games, and young and old can become "researchers" for one night! The event is an initiative of the European Commission and takes place simultaneously in almost all European countries.



2019 - Waterologists

A unique presentation of the book "The Secret Book of the Blue Circle" at the "Researchers' Night", September 27, 2019. Theatrical performance "A Journey to the Blue Circle".



2017 - Flow along

"Researchers' Night 2017" held at the Cyprus Expo in Nicosia on September 29, 2017. The Nireas-IWRC team presented two activities: an illustrated interactive story-game explaining the evolution of antibiotic resistance and its spread into the environment and an interactive quiz game with questions related with the water, wastewater reuse, antibiotics, antibiotic resistance etc.





2016 - Drops of Life

"Researchers' Night 2016" under the title "Research ∞ Unlimited" held at the Filoxenia Conference Center in Nicosia on September 30, 2016.



2014 - Nireas-IWRC, University of Cyprus

"Researchers' Night 2013" held at the Filoxenia Conference Center in Nicosia on November 28, 2014.



2013 - Water - Source of Life

On Friday, September 27, 2013, the Nireas-International Water Research Center participated in the "Researchers' Night" that took place in Limassol. At the stand of the Research Center, visitors were informed through various activities about the properties of water, soil erosion, the processes of removal of organic matter from wastewater and the assessment of the toxicity of water samples. They were also informed about the monitoring of cohesive turbulent flow structures created by turbulent ripples on the seabed surface with the help of computational models as well as about models for determining water loss points in underground drinking water transmission systems.

The stand of the Research Center was ranked first, as the most popular one based on public voting, among a total of 45.

Nireas in the News and Social Media

MUSIC.NET.CY
το πρώτο ΜΟΥΣΙΚΟ site

ΕΛΛΗΝΙΚΗ ΜΟΥΣΙΚΗ ▾ ENTEKHNI MΟΥΣΙΚΗ ▾ ΖΕΝΗ ΜΟΥΣΙΚΗ ▾ SHOWBIZ ▾ CINEMA ▾ ΘΕΑΤΡΟ ▾

ΤΑΞΙΔΙΑ ▾ MEDIA - RADIO - TV ▾ ΣΥΝΤΕΤΕΞΙΣ ▾ FASHION ▾ FITNESS ▾ ΖΩΔΙΑ ▾ ΥΓΕΙΑ ▾

Νέο πρωτόπορο επιστημονικό πεδίο για την Κύπρο «ανοίγει» το Διεθνές Ερευνητικό Κέντρο Νερού «Νηρέας» του Πανεπιστημίου Κύπρου για τον προσδιορισμό μικροπλαστικών και νανοπλαστικών σε αστικά λύματα και στο περιβάλλον

By Νίκος Παπαστάυρου - 04/09/2019

Studio shoot of microplastics from water samples taken by manta trawl (mesh size: 300µm) in different German rivers onboard the Beluga II (period: April–June 2016). Mikroplastik in Proben aus verschiedenen Deutschen Flüssen.

Σε πρωτόπορα έρευνα για την κατανόηση της διασποράς και της κατόληξης των μικροπλαστικών και νανοπλαστικών (MNP) σωματιδίων στο περιβάλλον μέσω της απόρριψης των επεξεργασμένων αστικών λυμάτων σε αυτό ή μέσω της επαναχρησιμοποίησής τους για διάφορους αποτελέσματα (π.χ. άρδευση καλλιεργειών, εμπλουτισμός υδροφόρων) και τη πιθανής συσχέτισή τους με πιθανών περιβαλλοντικούς κινδύνους, συμμετέχει το Διεθνές Ερευνητικό Κέντρο Νερού «Νηρέας» του Πανεπιστημίου Κύπρου (Nireas-IWRC).

Πρόκειται για το ερευνητικό πρόγραμμα με το οκτώνυμο **NANO-CARRIERS: "Micro- and nanoplastics as carriers for the spread of chemicals and antibiotic resistance in the aquatic environment"**, στο οποίο συμμετέχει ως εταίρος το Ερευνητικό Κέντρο Νερού «Νηρέας» και οποίο επιλέχθηκε για χρηματοδότηση μέσα από μία άκρως ανταγωνιστική διαδικασία υποβολής προτάσεων στο πλαίσιο του Ευρωπαϊκού Δικτύου IC4WATER της Πρωτοβουλίας Κοινού Προγραμματισμού «Water Challenges for a Changing World», στο οποίο συμμετέχει το Ίδρυμα «Ερευνας και Καινοτομία» (ΙΕΚΕ) μαζί με άλλους ευρωπαϊκούς χρηματοδοτούκους οργανισμούς έρευνας. Συνολικά 67 ερευνητικές προτάσεις υποβλήθηκαν στο πρώτο στάδιο εκ των οποίων 37 προχώρησαν στο δεύτερο στάδιο και 8 έργα επιλέχθηκαν για χρηματοδότηση.

Το έργο NANO-CARRIERS στοχεύει στην αξιολόγηση της τύχης μικροπλαστικών και νανοπλαστικών (MNP) στο περιβάλλον καθώς και ρύπων αναδύμενου ενδιάφεροντος, συμπεριλαμβανομένου και γενετικού υλικού (DNA, γονίδια) που προσφέρονται σε αυτό, μέσω της εφαρμογής σχεδίου δειγματοληψίας αστικών λυμάτων και ψεύρων σε περιοχές (Νότια Αφρική, Μεσόγειο, Αρκτική) που χαρακτηρίζονται από διαφορετικά χαρακτηριστικά (γεωμορφολογικό, κλιματικό, κοινωνικοοικονομικό) και που εφαρμόζουν διαφορετικές τεχνολογίες στην επεξεργασία αστικών λυμάτων και διαφορετικές πρακτικές επαναχρησιμοποίησης.

ΦΙΑΛΕΛΥΘΕΡΟΣ
μημορια: 23/10/2016, από σελίδα 22

Διεθνές Ερευνητικό Κέντρο Νερού Νηρέας
»Ανάπτυξη έρευνας και αειφόρος ανάπτυξη υδάτων πέρων από το Πανεπιστήμιο Κύπρου

O Νηρέας διεξάγει επιστημονική έρευνα αιχμής σε βέβαιον τρόπο στην επεξεργασία αστικών λυμάτων, όπως από τον αναθηματικό καθηγητή του Τμήματος Πολιτικών Μηχανολογίας και Κοινωνικών Συστημάτων του Πανεπιστημίου Κύπρου Γεώργιο Κάροντα.

(3) **UCY-CampSeA – Εργαστήριο Υπολογιστικής Μηχανολογίας** υπό τη διεύθυνσην του αναπληρωτή καθηγητή του Τμήματος Μηχανικών Μηχανολογίας και Κοινωνικών Συστημάτων του Πανεπιστημίου Κύπρου Γεώργιο Κάροντα.

(4) **Subsurface Research Lab (SRL)** – Εργαστήριο Υπεδαφών του Πανεπιστημίου Κύπρου δρόμο Νέου Παπαναστασίου.

Το Εργαστήριο του Νηρέα διδάσκειν έσπλασμα υπήκτικης τεχνολογίας συμπεριλαμβανομένου αναλυτικού εξέτασης των επεξεργασμάτων προβλημάτων, και συνεχίζει από την επεξεργασία υγρών αποβλήτων και αστικών λυμάτων, πλατοκάστρου συγκρότησης κύματος (clusters), κ.λπ. Ενδεικτικά, αναφέρεται ότι τα τελευταία πέντε χρόνια, έχουν αποκαλυπτεί στον Νηρέα 35 ερευνητές και 40 μεταπτυχιακούς και 15 διδακτορικούς συνεργάτες, με ειδικευση σύνθετη σε όλα τα βιολογικά, κτηνοτροφικά, γεωμορφολογικά, και μηχανικά προβλήματα, πολλούς μηχανικούς και μηχανολογία. Η πολιωνόδοκητης των επιπτημονικών περιοχών που συνεργάζονται στο Κέντρο και συντονίζονται από τα τέλευτα εργαστήρια του είναι μονοβόλη και οδηγεί σε επιστημονική αριτεία. Με κοντήρια δύναμη το ερευνητικό του προσωπικό και οποιοδήποτε αυτόν θα γίνεται πρωτόφυτο ερευνητικό και εκπαιδευτικό υπόριφο στην πρώτη θέση σε περιπτωματικές επιπτημονικές γηγενών στο τομέα της, αειφόρου διασχίσης του υγρού.

Συμμετοχή στα προγράμματα

Σύμφωνα με τη διεύθυνση εργασιών του Κέντρου Νηρέα

δέχεται τη διεύθυνση εργασιών στην Εργαστήριο Υπεδαφών για αντιβιοτικά στα αστικά λύματα

12.11.2014 11:14 | Κύπρος

sigmalive

SIGMALIVE

Αρχική Ειδήσεις Κορωνούς Κύπρος Ελλάδα Διεθνή Αθλητικά Magazine Economy Today

News/Local/ Παν. Κύπρος Έρευνα για αντιβιοτικά στα αστικά λύματα

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Παν. Κύπρος: Έρευνα για αντιβιοτικά στα αστικά λύματα

12.11.2014 11:14 | Κύπρος

sigmalive

Σε πρωτόπορά έρευνα για την προσδιορισμή αντιβιοτικών και βακτηρίων/γονιδίων ανθεκτικών σε αντιβιοτικά, σε αστικά λύματα στην Ευρώπη, συμμετέχει το Αιεθνές Ερευνητικό Κέντρο Νερού «Νηρέας» του Πανεπιστημίου Κύπρου.

Όποιος αναφέρεται σε σχετική ανακοίνωση, πρόκειται για το έργο με τίτλο «STARE - Stopping antibiotic Resistance Evolution», το οποίο έχει ως στόχο να δύσει τεκμηριωμένες απαντήσεις αναφορικά με την παροντα αντιβιοτικών και ανθεκτικών βακτηρίων/γονιδίων στα επεξεργασμένα αστικά λύματα διαφόρων ευρωπαϊκών χωρών και την εφαρμογή αποδοτικών και οικονομικά βιώσιμων προγράμματων για την απομάκρυνσή τους έτσι ώστε να είναι δυνατή η απαραίτηση τους στη περιβάλλον.

Κύπρος, Κυβέρνηση, Κυβερνητικός Εκπρόσωπος

www.vouli.net

ΣΤΟΙΧΕΙΑ

Τημερής Συνάντηση Προέδρων των Κοινοβουλίων Κύπρου - Ελλάδας - Ισραήλ

Τημερής Συνάντηση Προέδρων των Κοινοβουλίων
Κύπρου - Ελλάδας - Ισραήλ

Πρωτοβουλητικό μεδεῖνον πέμπτη, 2 Αυγούστου 2017, η 2η Τημερής Συνάντηση των Προέδρων των Κοινοβουλίων Κύπρου, Ελλάδας και Ισραήλ στη Βασιλεία των Αντιπροσώπων κ. Δημήτρη Συλλούρη, ο Πρόεδρος της Βουλής των Ελλήνων κ. Νικόλαος Βενιζέλος και ο Πρόεδρος της Κυνεστ. κ. Yuli Yael Edelstein, ο Πρόεδρος της Κοινοβούλιος της Κύπρου κ. Κυριάκο Βαρδινογιάννης και ο Πρόεδρος της Κοινοβούλιος της Ισραήλ κ. Yakov Margi. Από κυριαρχητικές πλευρές, θε περιπολούν οι Βουλευτές κ. κ. Ανδρέας Κουκαλάς, Αγγελος Βόστης, Nikos Νούρης, Δημήτρης Δημητρίου, Μιχάλης Γιωργαλλας και Χαρλαμπίδης Θεοφάνειος, μελήν των Ομίδων Εργασίας που συστάθηκαν στο πλαίσιο αυτού. Περισσότερες είναι οι Πρεσβετές της Ελλάδας κ. Ηλίας Φωτιάδης και ο Επιτρεπτερός της Πρεσβετείας του Ισραήλ κ. Sami Abu Jaber.

Τις εργασίες της 2η Τημερής Συνάντησης θα αποσχολήσουν γενικότερα θέματα συνεργασίας μεταξύ των Κοινοβουλίων των τριών χωρών, καθώς και θέματα που αφορούν ιδιαίτερα στους υδατικούς πόρους και στην επιχειρηματικότητα, έρευνα, καινοτομία και εκπαίδευση.

Στο πλαίσιο αυτής της συνεργασίας των κοινοβουλίων των τριών χωρών, προβλέψεις για μεμερισθέουν στην πρόσπλατη πλατφόρμα των επιμερισμάτων, η οποία θα γίνεται διαθέσιμη στους οδηγούς Εργασίας. Στην εντύπωση των παραδίδοντων πόρων, θα γίνεται εισήγηση από το έργο Διάσταση Φόρτου Κλάσμα, Αναπληρώτα Κοινότητα, Τιμής Πολιτικού Μηνονού και Μηνονικού Περιβάλλοντος. Διευθύνεται του Διεύθυντος Ερευνητικού Κέντρου Νερού «Νέαρες», Πανεπιστημίου Κύπρου, όπως θέμα «Επαναγραμμίση αστικών λαμπτήρων στη γεωργία και στρατηγικές προκλήσεις σε περιοχές ρύπων συνάντησης με περιβαλλοντικές φράσεων». Ως διάσταση προτίμης από το έργο Διάσταση Φόρτου Κλάσμα, Καρδιογενούς Τεχνολογικού Πανεπιστημίου Κύπρου, Σχολή Μηχανικών και Τεχνολογίας, Υπόθυμο Εκπαιδευτής EIT RIS Climate-KIC στην Κύπρο, με θέμα «Οδύσσεια Χάρτης για τη δημιουργία κύριου λαϊκής και καινοτόμας στην Κύπρο».

Στην ενότητα για την επιχειρηματικότητα, έρευνα, καινοτομία και εκπαίδευση, η και Ιανόνα Κλάδωντος, Διεύθυνση Προγραμματισμού, Διεύθυνση Έρευνας, Καινοτομίας και Αιγαίου Μεθόδων, Γενική Διεύθυνσην Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Και Αιγαίου Μεθόδων, θα παραδοθεί εισήγηση την ομάδα Επικοινωνίας της Τημερής Συνεργασίας Κύπρου, Ελλάδας, Ισραήλ στην Επιτροπή Επικοινωνίας, έρευνας και καινοτομίας». Ο δρ Μέρος Δ. Αικαπόδης, Κοινότητα Πληροφορικής Διευθύνθητος του Κέντρου Επιχειρηματικότητας, Πανεπιστημίου Κύπρου, θα αναντέσει το θέμα «Η τημερής συνεργασία Κύπρου, Ελλάδας, Ισραήλ σε θέματα έρευνας, καινοτομίας και επιχειρηματικότητας υπό το πρίσμα των διεθνών καλών πρακτικών».

Την έναρξη των εργασιών της Συνάντησης θα βραβεύεται η Πρεσβεία των Βασιλείων των Αντιπροσώπων κ. Δημήτρη Συλλούρη, στις 9.00 π.μ. Οι εργασίες θα ολοκληρωθούν

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TRUSTED 7/30/2018, 9:46:40 AM

Ερευνήτρια του Κέντρου Νερού Νηρέας σε Πανεπιστήμιο της Αυστραλίας για διεξαγωγή έρευνας

Στο πλαίσιο υλοποίησης ερευνητικού έργου για την ανθεκτικότητα των βακτηρίων στα αντιβιοτικά, στο οποίο συμμετέχει το Διεθνές Ερευνητικό Κέντρο Νερού Νηρέας του Πανεπιστημίου Κύπρου

Το Ινστιτούτο Μελλοντικών Βιομηχανιών (Future Industries Institute) του Πανεπιστημίου της Νότιας Αυστραλίας, φιλογενεύει την κ. Στέλλα Μιχαήλ ως ερευνήτρια για την καλοκαιρινή περίοδο Ιουλίου-Αυγούστου 2018. Η κ. Μιχαήλ είναι υποψήφιας διδακτορικής φοιτήτρια του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Περιβάλλοντος και ερευνήτρια του Διεθνούς Ερευνητικού Κέντρου Νερού Νηρέας του Πανεπιστημίου Κύπρου. Στόχος είναι η διεργασίγια έρευνας για τις ανάγκες του ερευνητικού έργου με τίτλο "Transfer and control of antibiotic-resistant bacteria and their genes during wastewater treatment and reuse" (IRGP 2015), το οποίο χρηματοδοτείται από την κυβερνόντη της Αυστραλίας μέσω του South Australian Premier's Research and Innovation Fund.

Το έργο αφορά στην υπαρκή μικροβιακής αντοχής στα αστικά λύματα καθώς και στη μεταφορά της στο περιβάλλον μέσω βακτηρίων και γονιδίων των αστικών λυμάτων. Ο γενικός συντονισμός του ερευνητικού έργου έχει η Αναπτυξιακή Κομητεία της Πανεπιστημίου της Νότιας Αυστραλίας, Dr. Erica Donnan, ενώ η συντονιστική από την Πανεπιστήμιο Κύπρου είναι η Αναπτυξιακή Καθηγητήρια του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Περιβάλλοντος του Πανεπιστημίου Κύπρου και Διευθύντρια του Διεθνούς Ερευνητικού Κέντρου Νηρέας του Πανεπιστημίου Κύπρου, Δρ. Λεόπολδος Φάττα-Κάσσιον.

Η κ. Μιχαήλ εκπαιδεύεται σε τεχνικές μοριακής βιολογίας και στη χρήση εξπόλιμου προηγμένης τεχνολογίας για την προσδιορίση της συγκεντρώσης διαφόρων γονιδίων σε δεγμάτια επεξεργασμένων αστικών λυμάτων. Η έρευνα εστάθη στην αποτελεσματική ρύπων αναδύομενου ενδιαφέροντος, θωσκών ανθεκτικών σε κάποια αντιβιοτικά και γονιδίων που φέρουν ανθεκτικότητα, από τα δευτεροβάθμια επεξεργασμένα αστικά λύματα με τη χρήση προηγμένων διεργασιών χημικής οξείδωσης και συστατικών μεμβρανών. Επιπλέον, γίνεται προσπάθεια για αναγνώριση των πλευρών διαδεδομένων ή και επικυρωμένων παθογόνων μικροοργανισμών, ανθεκτικών βακτηρίων και γονιδίων που έχουν την ικανότητα να επιβιώνουν την επεξεργασία, να «επανέλθουν» δηλαδή και να παραπλανώνται στα περιβάλλοντα. Η ανάπτιξη και η μεταφορά νέων συνδυασμών γονιδίων ανθεκτικότητας είναι ιδιαιτέρω πενθανόν να εφαρμόσεται σε τέτοια περιβάλλοντα, καθώς τα περιβαλλοντικά βακτήρια και τα βακτήρια που προέρχονται από τον δύναμικο βριόκοντα στενεί επαρθή και συστάρχουν με μικρές συγκεντρώσεις αντιβιοτικών.

Για να επιτελεύθουν οι στόχοι της τρευντικής εργασίας, πραγματοποιήθηκαν πατούλια χημικής οξείδωσης, χρησιμοποιώντας διευτελέβραμα αστικά λύματα, σε πιλοτικές μονάδες που δριζούνται στα εγκαταστήματα του Πανεπιστημίου Κύπρου. Ακολούθως, τα γονιδιωτικά DNA των δειγμάτων που οι πιλοτικές μονάδες φέρουν μεταθέτονται στο Πανεπιστήμιο της Νότιας Αυστραλίας για τον προσδιορισμό γονιδίων που φέρουν ανθεκτικότητα σε ορισμένα αντιβιοτικά (π.χ. 16S rRNA, sul^r, ams, tetM, bla_{TEM}, bla_{PER}, κ.ά.) με περιγόνων μικροοργανισμών (π.χ. *Pseudomonas aeruginosa*, *Enterococcus faecalis*, *Legionella spp.*, κ.ά.) χρησιμοποιώντας ποσοτικές μεθόδους αυτόνομης αντίδρασης πολυμεράζης (PCR) πραγματικού χρόνου (LightCycler® 480 Instrument II, Roche and QX200 Droplet Digital PCR™, BIO-RAD). Στόχος είναι να διαφέρει ένα τα συκριβέμενα γονίδιο είναι περισσότερο ή λιγότερο διαδεδομένα στα πιλοτικά βακτήρια που περιέχονται στην επεξεργασμένα αστικά λύματα.

Football news:

Oleg Ivanov is on Krasnozhan came in Akhmat a Fan of rod. After working with the weights, we could barely move on the field

Pochettino after 4-1 at Camp Nou: Don't be too cocky. PSG are waiting for the second leg

Moise Keanes on 4-1 at Camp Nou: I will remember this match for a long time

Italian journalist on Miranchuk: More of a flash player than a leader. Gasperini needs stability

Director of Wings: The situation with the field in Khimki alarming, but to carry the game nowhere Frankie de Jong on the chances of passing PSG: It will be hard, but we will try

Marcel Sabitzer: Of Leipzig there is an opportunity to Liverpool. We have a great team

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Nireas International Water Research Center
December 15, 2020 · 6

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**Έναρξη Συνεργασίας ΣΑΛΑ -
Πανεπιστημίου Κύπρου για εντοπισμό
γενετικού υλικού κορωνοϊού στα λύματα**

Το Συμβούλιο Αποχετεύσεων Λεμεσού –
Αμαθούντας (ΣΑΛΑ) και το Διεθνές Ερευνητικό...

KANALI 25

Αρχική Εκπομπές Στον ρυθμό της μέρας Ατζέντα Διαγωνισμοί/Live Links

**Συνεργασία ΣΑΛΑ – Πανεπιστημίου –
Κύπρου για ανίχνευση κορωνοϊού στα
αστικά λύματα**

14/03/2020

Αύξηση του γενετικού υλικού του κορωνοϊού καταγράφει σανάληση αστικών λυμάτων του ΣΑΛΑ, στο πλαίσιο συνεργασίας με το Διεθνές Ερευνητικό Κέντρο Νερού «ΝΗΡΕΑΣ» του Πανεπιστημίου Κύπρου, που στοχεύει στην ανάπτυξη ενός αξιόπιστου συστήματος έγκαιρης προειδοποίησης αναφορικά με την βαθμό εξάπλωσης της νόσου COVID-19.

Ανακοινώνοντας επίσημα τη συνεργασία του με το Πανεπιστήμιο Κύπρου, το Συμβούλιο Αποκετεύσεων Λεμεσού - Αμαδούντας αναφέρει πως η ερευνητική ομάδα του «ΝΗΡΕΑΣ», υπό την επίβλεψη της καθηγήτριας Δρ. Δέσπος Φώτα - Κάσινου και με κύρια ερευνήτρια την Δρ. Πότι Καρολία, ανέπτυξαν τη μεθοδολογία ανίχνευσης και ποσοτικοποίησης θραυσμάτων του γενετικού υλικού του ούδ στα αστικά λύματα.

Παράλληλα, προστίθεται, έκουν σταλεί από το ΣΑΛΑ δείγματα στο εξωτερικό, από το Εργοστασιο Επεξεργασίας Λυμάτων στην Μονή, στα πλαίσια έρευνας που διεξάγει η Ευρωπαϊκή Επτροπή, την οποία για την Κύπρο συντονίζει το Διεθνές Ερευνητικό Κέντρο Νερού ΝΗΡΕΑΣ.

Η πρώτη φορά που η ανάληση του γενετικού υλικού του ιού έδωσε θετική ένδειξη, ήταν μέρα στο πρώτο δεκαήμερο του Οκτωβρίου, αναφέρει η ανακοίνωση και σημειώνει πως «τα τελευταία δείγματα που αναλύθηκαν από το Πανεπιστήμιο Κύπρου ήταν στα μέσα

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Διεθνές Κέντρο Έρευνας ΝΗΡΕΑΣ

Ειδήσεις

Κυπριακή Οικονομία Ευρωπαϊκή Οικονομία Ελληνική Οικονομία Διεθνής Οικονομία Εμπορική Νέα Συνεντεύξεις

22/03/2011 11:41

Η δημοσίευση διέπει στο Διεθνές Κέντρου Έρευνας ΝΗΡΕΑΣ «μας δίνει ελπίδες πως η πρόσδοση της γνώσης στις περιοχές της επιστήμης και τεχνολογίας για τη διαχείριση του νερού θα επέφερε ανάπτυξη νέων μεθόδων, τεχνολογιών και συστημάτων για βιώσιμες λύσεις αειφόρου διαχείρισης αυτού του πολύτιμου αγαθού», δήλωσε την Τρίτη ο Νίκος Τονταρίτης. Πρόεδρος της Κοινοβουλευτικής Επιτροπής Παιδείας.

Σε καροτσάριο που απή κήρυξη των Εργασιών της Ιδρύματος του ΝΗΡΕΑΣ στο Πανεπιστήμιο Κύπρου, ο Κ. Τονταρίτης είπε ότι «έισον σημαντικό πιστεύω πως θα είναι το έργο του ΝΗΡΕΑΣ ως συνδετικό κρίκου ανάμεσα στον ακαδημαϊκό χώρο της βιομηχανίας, των ερευνητικών και εκπαιδευτικών οργανισμών και τέλος των αρμόδιων κρατικών φορέων».

Ο κ. Τονταρίτης είπε ότι «για την Κύπρο το Βέμα διασφάσισης των υδάτινων πόρων αποτελεί πάντα επίκαιρο και σοβαρό θέμα» με τη λητήτη να αυξάνεται διουσόλωνα με τους διαθέσιμους πόρους, λαμβάνοντας ταυτόχρονα υπόψη την έντονη προβλήμα της παραπατέμενης οικογενίας».

Προσθέτος ότι «δύο μέρους του μηχανισμού συγχρηματοδότησης από την Κυπριακή Δημοκρατία και του Ευρωπαϊκού Ταμείου Πειριφερειακής Ανάπτυξης στην πλούσια του Επιχειρησιακού Προγράμματος Λειψόρου Ανάπτυξης, το Πανεπιστήμιο Κύπρου με τη βοήθεια μιας αξέλογης επιστημονικής ομάδας, εδραιώνεται στον παγκόσμιο χάρτη της Έρευνας» με την ίδρυση του ΝΗΡΕΑΣ.

Καταλήγοντας, ο κ. Τονταρίτης συνέχισε «τη δρ. Δέσπος Φώτα-Κασίνου ως συντονίστρια της όλης προσπάθειας καθώς και ολόκληρη την ερευνητική ομάδα των καθηγητών που παρασύουν την προσπάθεια αυτή με την πειθαρχή στη πολι σύντομα το Διεθνές Κέντρο Έρευνας σε δέματα νερού «ΝΗΡΕΑΣ», όπου αποδέιξε τη μεγάλη σημασία και το ρόλο που μπορεί να διαθέσαμεις όχι μόνο στην Κύπρο αλλά και στο παγκόσμιο ερευνητικό κοινό».

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**Ερευνητικό Κέντρο Νερού «ΝΗΡΕΑΣ» του ΠΚ:
Ετήσια έρευνα παρακολούθησης ναρκωτικών
ουσιών στα αστικά λύματα**

**Ερευνητικό Κέντρο Νερού «ΝΗΡΕΑΣ» του ΠΚ:
Ετήσια έρευνα παρακολούθησης ναρκωτικών
ουσιών στα αστικά λύματα**

Η ανάληση των αστικών λυμάτων στο σημείο εισόδου στους σταθμούς επεξεργασίας, προέρχεται τη διανάστηση παρακολούθησης της κατανάλωσης ή/και χρήσης διστόφων κυριακών ουσιών από τον πληθυσμό σε δραστηριότητα, εξετάζοντας τις συγκεντρώσεις των ίδιων των ουσιών ή προϊόντων μεταβολισμού τους. Αυτή η μέθοδος επηρέπει την εκμέτωνση της κατανάλωσης φαρμακευτικών ή παρόντων ναρκωτικών ουσιών που καταναλώνονται σε μια πόλη και εμπίπτει στην παραπομπή επιστήμης της επιδημιολογίας με βάση την αστική λύματα (wastewater epidemiology).

Από το 2011, με τη σημετοχή αρχικά 19 ευρωπαϊκών χώρων, το Ευρωπαϊκό Δίκτυο SCORE, European Sewage analysis CORe group-Europe (SCORE), μετατόπισε την αγίδα του Ευρωπαϊκού Κέντρου Παρακολούθησης Ναρκωτικών και Τοξικούν (EMCDDA), από το 2011 διεξάγεται ετήσια έρευνα με τη συμμετοχή 20 χωρών, η οποία αφορά την παρακολούθηση ναρκωτικών ουσιών/ή και των μεταβολιτών τους, στα αστικά λύματα.

Το διεθνές Ερευνητικό Κέντρο Νερού-ΝΗΡΕΑΣ (Nires-IWRC) του Πανεπιστημίου Κύπρου που συμμετέχει αυτή τη μελέτη αποτελείναι ένα πολύτιμο εργαλείο, καθώς η ανάλυση δειγμάτων που προέρχονται από τις εισροές των σταθμών επεξεργασίας αστικών λυμάτων, είναι μια σχετικά δύσιτη στην ανίχνευση και ποσοτικοποίηση παρανόμων ναρκωτικών ουσιών που διατίθενται στην κοινωνία, σε μέρη όπου δεν υπάρχει τη διανάστηση παρακολούθησης δεδουλεύμαντων κατανάλωσης παρανόμων ναρκωτικών ουσιών ανάλογα με τις γεωγραφικές και χρονικές διακυμάνσεις.

Τα διεθνή Ερευνητικά Κέντρα Νερού-ΝΗΡΕΑΣ (Nires-IWRC) του Πανεπιστημίου Κύπρου συμμετέχει αυτή τη μελέτη Ευρωπαϊκής έρευνας από το 2012. Ο στόχος της έρευνας αυτής στο Κυπριακό πλαίσιο, είναι η ανίχνευση και ποσοτικοποίηση πέντε παρανόμων ναρκωτικών ουσιών/ή και των μεταβολιτών τους, οι οποίες περιλαμβάνουν την αμφεταμίνη, μεθαμφεταμίνη, MDMA (έκταση), κοκαΐνη και ένα μεταβόλητη της κοκαΐνης, τη βενζούλεγκονίνη. Πρέπει να σημειωθεί αυτή τη σταθερότητα αυτής της ερευνητικής δραστηριότητας χρησιμοποιείται ένα κοινό αναλυτικό πρωτόκολλο από όλους τους Ευρωπαϊκους συμμετέχοντες, το οποίο δίνει τη διανοτικότητα της συγκρίσιμης αποτελεσμάτων σε όλη την Ευρώπη, για χρονική περίοδο επάνω σε χρονικούς περιόδους.

Το διεθνές Ερευνητικό Κέντρο Νερού-ΝΗΡΕΑΣ (Nires-IWRC) του Πανεπιστημίου Κύπρου συμμετέχει αυτή τη μελέτη Ευρωπαϊκής έρευνας από το 2012. Ο στόχος της έρευνας αυτής στο Κυπριακό πλαίσιο, είναι η ανίχνευση και ποσοτικοποίηση πέντε παρανόμων ναρκωτικών ουσιών/ή και των μεταβολιτών τους, οι οποίες περιλαμβάνουν την αμφεταμίνη, μεθαμφεταμίνη, MDMA (έκταση), κοκαΐνη και ένα μεταβόλητη της κοκαΐνης, τη βενζούλεγκονίνη. Πρέπει να σημειωθεί αυτή τη σταθερότητα αυτής της ερευνητικής δραστηριότητας χρησιμοποιείται ένα κοινό αναλυτικό πρωτόκολλο από όλους τους Ευρωπαϊκους συμμετέχοντες, το οποίο δίνει τη διανοτικότητα της συγκρίσιμης αποτελεσμάτων σε όλη την Ευρώπη, για χρονική περίοδο επάνω σε χρονικούς περιόδους.

Τα ποσοτικά αποτελέσματα που προέρχονται από την παρακολούθηση των αστικών λυμάτων στην Κύπρο, προέρχονται από την ανακοίνωση της Αρχής Αντιμετώπισης Εξόργισης Κύπρου (ΑΕΚ) η οποία συγκρητίζεται σε συνεργασία με την Αρχή Αντιμετώπισης Εξόργισης Ελλάσης (ΑΕΕ). Η ΑΕΕ προστατεύεται από το Πανεπιστήμιο Κύπρου, η οποία επιστήμης της έρευνας συμμετέχει στην παρακολούθηση των αστικών λυμάτων στην Κύπρο, με την οποία αποτελείται το Πανεπιστήμιο Κύπρου-ΝΗΡΕΑΣ (Nires-IWRC).

Η έρευνα έχει στόχο την ανίχνευση και ποσοτικοποίηση τεσσάρων παρανόμων νησιών και πάροικων της Κύπρου, την Αργολίδα και την Λακωνία. Από το 2018, ο ΝΗΡΕΑΣ εργάζεται σε συνεργασία με την Αρχή Αντιμετώπισης Εξόργισης Κύπρου (ΑΕΚ) η οποία συγκρητίζεται σε συνεργασία με την Αρχή Αντιμετώπισης Εξόργισης Ελλάσης (ΑΕΕ). Η ΑΕΕ προστατεύεται από το Πανεπιστήμιο Κύπρου, η οποία επιστήμης της έρευνας συμμετέχει στην παρακολούθηση των αστικών λυμάτων στην Κύπρο, με την οποία αποτελείται το Πανεπιστήμιο Κύπρου-ΝΗΡΕΑΣ (Nires-IWRC).

Η εργασία παρακολούθησης αστικών λυμάτων για το 2019, περιλαμβάνει συλλογή πέπτωσης από εικοσιτετράρουμα σύνθετων δειγμάτων ειρηνίκων μερών, τον Αργόβιο από το 2019, από το σταθμό επεξεργασίας αστικών λυμάτων της κάθε πόλης. Τα δείγματα που συλλέγονται, αναλύθονται μέσω υψηλής κραματογραφίας σε συνδυασμό με διπλό φασματογράφο μέσος και προσδιοριστώνται οι συγκεντρώσεις καθε ναρκωτικής ουσίας.

Ακολούθως, με τη κρήτη αλγορίθμου στον οποίο αναπτύχθηκε για τους σκοπούς του Δικτύου αυτού, υπολογίζεται η ποσότητα της

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ΤΗΣ ΠΟΠΗΣ ΚΑΡΑΟΛΙΑ*

Στο πλαίσιο του Ευρυπατικού Δικτύου 'Sewage analysis CORe group-Europe (SCORE)' και υπό την αιγιάλη του Ευρυπατικού Κέντρου Παρακολούθησης Ναρκωτικών και Τοξικούν (EMCDDA), από το 2011 διεξάγεται ετήσια έρευνα με τη συμμετοχή 20 χωρών, η οποία αφορά την παρακολούθηση ναρκωτικών ουσιών/ή και των μεταβολιτών τους, στα αστικά λύματα.

Στις 14 Μαρτίου 2019 το Αίκτον αυτό, το οποίο είναι το μεγαλύτερο σήμερα στον τομέα της επιστήμης της ανάλυσης αστικών λυμάτων για την ανίχνευση και ποσοτικοποίηση παρανόμων ναρκωτικών ουσιών, παρουσιάζει δείγματα από σταθμούς επεξεργασίας αστικών λυμάτων οι οποίοι είναι εμπειρογνόμενοι περιουσιώδη σταθμοί σε 73 συνοικιακά Ευρωπαϊκά πολεούμενα. Τα αποτελέσματα της έρευνας έδωσαν χρήσιμες πληροφορίες δύον αφορά τις συνθήσεις κατανάλωσης παρανόμων ναρκωτικών ουσιών του πληθυσμού που ζει στις πόλεις αυτές.

Τα αποτελέσματα αυτής της μελέτης αποτελούν ένα πολύτιμο εργαλείο, καθώς η ανάλυση δειγμάτων που προέρχονται από τις εισροές των σταθμών επεξεργασίας αστικών λυμάτων, είναι μια σχετικά δύσιτη στην ανίχνευση και ποσοτικοποίηση παρανόμων ναρκωτικών ουσιών/ή και των μεταβολιτών τους, σε ποσοτήτα που περιέχει 20 χωρών, η οποία αφορά την καθε επειδεξιότητα της συγκρίσιμης αποτελεσμάτων σε όλη την Ευρώπη, για χρονική περίοδο επάνω σε χρονικούς περιόδους.

Η κυπριακή εκπατρίσια παρακολούθηση αστικών λυμάτων για την ανίχνευση και ποσοτικοποίηση παρανόμων ναρκωτικών ουσιών/ή και των μεταβολιτών τους, παρουσιάζει δείγματα που περιλαμβάνουν την αμφεταμίνη, μεθαμφεταμίνη, MDMA (έκταση), κοκαΐνη και ένα μεταβόλητη της κοκαΐνης, τη βενζούλεγκονίνη. Πρέπει να σημειωθεί αυτή τη σταθερότητα αυτής της ερευνητικής δραστηριότητας χρησιμοποιείται ένα κοινό αναλυτικό πρωτόκολλο από όλους τους Ευρωπαϊκους συμμετέχοντες, το οποίο δίνει τη διανοτική συνδικαλιστική της συγκρίσιμης αποτελεσμάτων σε όλη την Ευρώπη, για χρονική περίοδο επάνω σε χρονικούς περιόδους.

Τα ποσοτικά αποτελέσματα που προέρχονται από την παρακολούθηση των αστικών λυμάτων στην Κύπρο, προέρχονται από το 2012. Ο στόχος της έρευνας αυτής στο Κυπριακό πλαίσιο, είναι η ανίχνευση και ποσοτικοποίηση πέντε παρανόμων ναρκωτικών ουσιών/ή και των μεταβολιτών τους, οι οποίες περιλαμβάνουν την αμφεταμίνη, μεθαμφεταμίνη, MDMA (έκταση), κοκαΐνη και ένα μεταβόλητη της κοκαΐνης, τη βενζούλεγκονίνη. Πρέπει να σημειωθεί αυτή τη σταθερότητα αυτής της ερευνητικής δραστηριότητας χρησιμοποιείται ένα κοινό αναλυτικό πρωτόκολλο από όλους τους Ευρωπαϊκους συμμετέχοντες, το οποίο δίνει τη διανοτική συνδικαλιστική της συγκρίσιμης αποτελεσμάτων σε όλη την Ευρώπη, για χρονική περίοδο επάνω σε χρονικούς περιόδους.

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ΑΝΑΚΟΙΝΩΣΗ ΤΥΠΟΥ

Επικουρωνία:
Γραφείο Επικουρώνιας
Τομέας Προώθησης και Προβολής, Πανεπιστήμιο Κύπρου
Τηλ.: 22894304
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ιστοσελίδα: www.ucy.ac.cy/pr

Λευκωσία, 28 Ιουλίου 2016

ΕΠΙΤΥΧΗΜΕΝΗ ΔΙΟΡΓΑΝΩΣΗ ΘΕΡΙΝΟΥ ΣΧΟΛΕΙΟΥ ΑΠΟ ΤΟ ΔΙΕΘΝΕΣ ΕΡΕΥΝΗΤΙΚΟ ΚΕΝΤΡΟ ΝΙΡΕΑΣ ΣΤΟ ΠΛΑΙΣΙΟ ΤΟΥ ΕΡΕΥΝΗΤΙΚΟΥ ΈΡΓΟΥ ANSWER



Το Διεθνές Ερευνητικό Κέντρο Νερού Νηρέας, του Πανεπιστημίου Κύπρου, διοργάνωσε δεκαήμερο Θερινό σχολείο (Summer School) σχετικά με την επεξεργασία και επαναχρησιμοποίηση αστικών λυμάτων στο πλαίσιο του ερευνητικού έργου "Marie Skłodowska-Curie: Innovative Training Networks (ITN)" που εντάσσεται στο πρόγραμμα Ορίζοντα 2020, με τίτλο "Antibiotics and mobile resistance elements in wastewater reuse applications: risks and innovative solutions (ANSWER)", (H2020-MSCA-ITN-2015/675530). Συντονιστήρια του ερευνητικού έργου ANSWER είναι η διευθύντρια του Κέντρου, Δρ. Δέσποινα Φάττα-Κάσινου, Αναπληρώτρια Καθηγήτρια του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Περιβάλλοντος του Πανεπιστημίου Κύπρου.

Το Θερινό σχολείο έλαβε χώρα στις 13-23 Ιουνίου, στις εγκαταστάσεις του Spanish National Research Council, στην Ισπανία (Βαρκελώνη). Στο πλαίσιο του σχολείου, μεταπτυχιακοί φοιτητές στον τομέα της Μηχανικής Περιβάλλοντος, Χημικής Μηχανικής, Χημείας και Μικροβιολογίας είχαν την ευκαρία να παρακολουθήσουν ένα εντακτικό και διαδραστικό πρόγραμμα διαλέξεων με θέματα σχετικά με την επαναχρησιμοποίηση των αστικών λυμάτων, τις τρέχουσες προκλήσεις και ευκαρίες. Το Θερινό σχολείο έφερε κοντά επιστημόνες και επαγγελματίες από τον ακαδημαϊκό και μη ακαδημαϊκό τομέα, από διάφορες χώρες του κόσμου, όπως Ευρώπη, Ηνωμένες Πολιτείες, Νότια Κορέα, Συντακόπούρη, κ.ά., με αναγνωρισμένη εμπειρία στο συγκεκριμένο τομέα. Συγκεκριμένα, οι προσεκτήλημενοι ομήλητες που έδισαν διαλέξεις στο Θερινό σχολείο ήταν από τα πιο κάτω πανεπιστήμια, ινστιτούτα και κυβερνητικούς φορείς: (1) Διεθνές Ερευνητικό Κέντρο

ΠΟΛΙΤΗΣ, 21.8.2017



Κέντρο Νερού Νηρέας Εξοπλισμός υψηλής Τεχνολογίας

Το Διεθνές Ερευνητικό Κέντρο Νερού Νηρέας, με επικεφαλής την αναπληρώτρια καθηγήτρια Λέστινα Φάττα-Κάσινου, ιδρύθηκε το 2011 με γενικό στόχο την έρευνα σε θέματα που αφορούν την αερόφρο μεταχείριση των υδατών πόρων. Το κέντρο δραστηριοποιείται σε ένα ευρύ φάσμα τομέων: στην παρούσια μικρορύπων και μικροργανισμών σε υδατικά συστήματα / περιβάλλον, το σχεδιασμό προηγμένων τεχνολογιών επεξεργασίας αστικών λυμάτων, αστικά δίκτυα διανομής νερού, σχεδιασμό και εγκατάσταση αιολόθριμών για την ανίχνευση απώλειας νερού, κ.ά. Το Κέντρο Νηρέας έχει προσέλκυσε μέχρι στιγμής ερευνητικά έργα περίπου 12 εκατ. ευρώ και διαθέτει εξοπλισμό υψηλής τεχνολογίας αξίας 1,5 εκατ. ευρώ, περιλαμβανούντας αναλυτικού εξοπλισμού, πυλοτικών αντιδραστήρων και πλοτοικού δι-

κτίου αιγαγών παροχής νερού, συστοιχιών υπολογιστικών κόμβων κ.λπ. Ενδεικτικές επινοήσεις που διναντάνονται ακόμη πουθενός σε εμπορεύσιμα προϊόντα είναι οι εξής: (1) ενοποιημένη πλατφόρμα ΠΡΟΔΑΡΜΟΣ που περιέχει ουσιώδητα ασφαλείας, πληροφόρησης και προσβασιμότητας για θαλάσσιας μεταφορές (π.χ. παρακολούθηση επικίνδυνων φορτών από λιμάνι σε λιμάνι, και από λιμάνι στην ενδοχώρα) και (2) πλατφόρμα AMR για τη διαχείριση δικτύων υδατοπρομήθεως και για τον εντοπισμό διαρρών σε αυτά, δραστηριοποίητες που συντονίζονται από τον καθηγητή Συμεών Χριστοδούλου. Η έρευνα που διεξάγεται σχετικά με την επαναχρησιμοποίηση αστικών λυμάτων έχει σημαντικές κοινωνικές διαστάσεις, αφού είναι επωφελής για την αντιμετώπιση της λειψυδρίας.

ΠΟΛΙΤΗΣ, 19.6.2011

«Έλεγχος και Προστασία των υδάτων πόρων από μικρούς μαθητές»

Την 18 Ιουνίου 2011 πραγματοποιήθηκε από την ομάδα του Ανθυποκαθηγητού Κέντρου "ΝΙΡΕΑΣ" και το Εργαστήριο Μηχανικής Περιβάλλοντος ΤΑΙΑ' του Πανεπιστημίου Κύπρου (πιστούντας την προστασία των υδάτων πόρων από μικρούς μαθητές".

Η διάρκεια πραγματοποιήθηκε από το παρασκευήν της 18 Ιουνίου στην παραπομπή του πρώτου προγράμματος World Water Monitoring Day, υπό την εποπτεία του οργανού Water Environment Federation και του International Water Research Institute.

(ΙΩΑΝΝΗΣ ΚΑΡΑΓΙΑΝΝΗΣ)

Επίκουρη Καθηγήτρια Λέστινα Φάττα-Κάσινου



Απόσπασμα από τη συμμετοχή του Ερευνητικού Κέντρου Νηρέας του Πανεπιστημίου Κύπρου στην εκπομπή του CyBC Σπίτι στη Φύση. Μεταδιδακτορικοί και διδακτορικοί φοιτητές και ερευνητές δείχνουν τους φωτοκαταλυτικούς αντιδραστήρες που εφαρμόζονται στην επεξεργασία νερού και αστικών λυμάτων. Ο συνάδελφος Δρ. Συμεών Χριστοδούλου μιλά για την έρευνά μας.



Nireas International Water Research Center

Jan 19, 2016 · 0

Απόσπασμα από τη συμμετοχή του [Nireas International Water Research Center](#) στην εκπομπή του [CyBC Σπίτι στη Φύση](#)



Environmental Forensics performed by our research group !

Προσδιορισμός συγκεντρώσεων ναρκωτικών ουσιών σε αστικά λύματα. Η έρευνά μας παρουσιάστηκε χθες βράδυ στο κεντρικό δελτίο ειδήσεων του ALPHA Evroula Hapeshi Vasiliki Beretsou Jack Iacovides Popi Karaolia



Nireas International Water Research Center

Posted by Despo Fatta-Kassinos

Jan 19, 2017 · 0

Προσδιορισμός συγκεντρώσεων ναρκωτικών ουσιών σε αστικά λύματα. Η έρευνά μας παρουσιάστηκε χθες βράδυ στο κεντρικό δελτίο ειδήσεων του ALPHA



Offsite

ΠΟΛΙΤΙΚΗ

Άρχισε η Τριμερής Συνάντηση των Προέδρων Βουλής, Κύπρου, Ελλάδας, Ισραήλ

επιμέλεια: Τάσος Άναστασης

02.11.2017 - 09:30

[f](#) [t](#) [g](#) [s](#)

Στην αντζέντα θέματα που αφορούν επιχειρηματικότητα, έρευνα, καινοτομία και εκπαίδευση

Με θέματα που αφορούν τους υδάτινους πόρους, την επιχειρηματικότητα, την έρευνα, την καινοτομία και την εκπαίδευση, σήμερα στη Βουλή των Αντιπροσώπων η 2η Τριμερής Συνάντηση των Προέδρων των Κοινοβουλίων Κύπρου, Ελλάδας, Ισραήλ.

Στην Συνάντηση, που οποία φιλοξενεί η Βουλή των Αντιπροσώπων, συμμετέχουν ο Γραμμής της Βουλής Δημήτρης Συλλούρης, ο Πρόεδρος της Βουλής των Ελλήνων Νικόλαος Βούτσης και ο Πρόεδρος της Κυβερνήσεως Yuli Yael Edelstein, συνοδευμένος από τον νέο Πρόεδρο της Ομάδας Φλίας Ισραήλ-Κύπρου στην Κυβερνήσεις Yakov Margi.

Από κυπριακής πλευράς παριστάνται οι βουλευτές Ανδρέας Κακαλίδης, Ανγγελος Βότσης, Νίκος Νουρής, Δημήτρης Δημητρίου, Μιχάλης Γιωργάδης και Χαράλαμπος Θραπεπίππος, μελή των Ομάδων Εργασίας που συστάθηκαν στο πλαίσιο αυτού. Παρόντες είναι επίσης ο Πρόεδρης της Ελλάδας στην Κύπρο Ηλίας Φωτόπουλος και ο Επιτελέμανος της Πρεσβείας του Ισραήλ Sami Abu Janeb.

Τις εργασίες της 2ης Τριμερούς Συνάντησης θα απασχολήσουν γενικότερα θέματα συνεργασίας μεταξύ των Κοινοβουλίων των τριών χωρών, καθώς και θέματα που αφορούν ιδιαίτερα στους υδάτινους πόρους και στην επιχειρηματικότητα, έρευνα, καινοτομία και εκπαίδευση. Στο πλαίσιο συζήτησης των συγκεκριμένων θεμάτων, προσκλήθηκαν να συμμετάσχουν με σχετικές παρουσιάσεις τους εμπειρογνώμονες, επίσης μέλη των Ομάδων Εργασίας.

Οι εργασίες θα αλοκωθούν στις 13:15, με την υιοθέτηση και υπογραφή Κοινής Διακήρυξης. Στη συνέχεια, οι Πρόεδροι των τριών Κοινοβουλίων θα προβούν σε σύντομες δηλώσεις. Στις 13:30 ο κ. Συλλούρης θα παραβάνει επίσημο γένιμα προς την έναρξη των Προέδρων των Κοινοβουλίων της Ελλάδας και του Ισραήλ και όλων των συμμετεχόντων στη Συνάντηση.

Ο Συλλούρης κήρυξε την έναρξη της τριμερούς

Ο Πρόεδρος της Βουλής των Αντιπροσώπων Δημήτρης Συλλούρης κήρυξε άρχισε την έναρξη της τριμερούς συνάντησης μεταξύ των Προέδρων των Κοινοβουλίων Κύπρου, Ελλάδας και Ισραήλ, σημειώνοντας ότι η συνεργασία των τριών χωρών εδράζεται σε κοινές αξίες και την διαπίνει ο κοινός πόθος για ειρήνη.

Ερευνητικό Κέντρο Νερού «ΝΗΡΕΑΣ» του ΠΚ: Ετήσια έρευνα παρακολούθησης ναρκωτικών ουσιών στα αστικά λύματα

Η ανάλυση των συστόκων λυμάτων στο σημείο εισόδου στους σταθμούς επενδργασίας, παρέκαστη την διανοτιστική ποροκαλίθησης της καταβόλωσης ή/και κρήσης διαφόρων κηματών ουσιών από τον πληθυσμό στο πραγματικό χρόνο, εξετάζοντας τις συγκεκριμένες των ίδων των ουσιών ή/ή ρύπωνταν μεταβολίμων τους. Αυτή η μεθόδωση επιτρέπει την εκτίμηση της κατανόλης, φαρμακευτικής ή παρανόμων ναρκωτικών ουσιών που κατανούνται σε μια πόλη και επιτρέπει στην πραγματούμενη επιπρόσθια της επιδημίας με βάση τη σπιτική λύματα (wastewater epidemiology).

Από το 2011, με τη συμμετοχή αρκετών 19 ευρωπαϊκών πλευρών, το Ευρωπαϊκό Δίκτυο SCORE (Seawage Analysis CORe group Europe), υπό την αιγαίνη του Ευρωπαϊκού Κέντρου Παρακολούθησης Νερωκών και Τοξικών (EKTINT) (European Monitoring Centre for Drugs and Drug Addiction - EMCDDA) διέλεγε έρευνα με τη συμμετοχή διαφόρων εργαστηρίων, η οποία αφορά στην παρακολούθηση παρανόμων ναρκωτικών ουσιών στα αστικά λύματα. Σήμερα, 55 από όλα τον κύριους συμμετέχοντα στο δίκτυο SCORE, την οποία αποτελεί το μεγαλύτερο διεθνές δίκτυο στον τομέα της επιπρόσθιας ανάλυσης των αστικών λυμάτων για την ανάκνηση και προστασία παρανόμων ναρκωτικών ουσιών.

Το Διεθνές Ερευνητικό Κέντρο του Πανεπιστημίου Κύπρου, υπό τη διεύθυνση και επίβλεψη της Αντεπίδρασης Καθηγητή, Δρ. Δάνιλος Φέστα-Κόπεν, συμμετέκει στο πρόγραμμα από το 2012. Διελέγεται φιλοξενώντας και παρακολούθησης δεύτερων για τους δύο μεγαλύτερους δημόσους του νησιού, της Ακαδημίας και της Περιφέρειας. Από την Πόλη Καραϊβη σε συνεργασία με την Αρχή Αντιμετώπισης Εργαστηρίου Κύπρου (AAEK), η οποία συνεργατεύεται μεταξύ του Πανεπιστημίου Κύπρου την έρευνα αυτή. Στην επιπλέοντα ζητήσεις οι εργαστήριοι της Νηρέας μεταβάλλουν την αμφιστάμενη, τη μεταφέρουν, την κοκαΐδη και ένα μεταβολίτη της κοκαΐδης, Δρ. Νίκος Χωνεύδη και Δρ. Κώνστας Μαζάρη.

Η Έρευνα έχει ως στόχο την δινομισία και ποσοτητική τεσταρίων παραδίδοντας ναρκωτικών ενώπιον και ενδιάμεση μεταβολίτης την αμφιστάμενη, τη μεταφέρουν, την κοκαΐδη και ένα μεταβολίτη της κοκαΐδης, Δρ. Νίκος Χωνεύδη και Δρ. Κώνστας Μαζάρη.

Για τη διεπαρτηση της συγκεκριμένης δραστηριότητας, κριτηριοποιήθηκε ένα κονιούσιο πρωτότοκόλλο, γεννήσας που δίνει τη δινομισία της απειλής συγκρίνοντας των αποτελεσμάτων των αναλύσεων μεταξύ όλων των συμμετεχόντων.

Η εκπατρήσια παρακολούθησης ουσιών λυμάτων για το 2019, περιλαμβάνει συλλογή επιτάχυτων τρεματών ευρωπίας σε επίπεδο προβολής, την επέρασμα της έρευνας του Απριλίου του 2019, από το σταθμό επεξεργασίας αστικών λυμάτων της κάθε πόλης. Τα δειγμάτα που αναλύεται, αναλύθηκαν μέσω υψηλής κρωταργορίας σε συνδυασμό με διπλό φασματογόφο μέδιας και προσδιορίζονται οι συγκεκριμένες κάθε ναρκωτικής ουσίας.

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ΑΝΩΤΑΤΗ / Πανεπιστήμιο Κύπρου / 18 Οκτ 2016 - 14:33



University of Cyprus nireas ANSWER EU

Συμμετοχή του Διεθνούς Ερευνητικού Κέντρου Νερού στην «Εβδομάδα Έρευνας και Καινοτομίας 2016»

ΤΗΣ ΒΑΣΙΛΙΚΗΣ ΜΠΕΡΕΤΖΟΥ*

Το Διεθνές Ερευνητικό Κέντρο Νερού Νηρέας του Πανεπιστημίου Κύπρου συμμετείχε για ακόμα μια χρονία στις δραστηριότητες της «Εβδομάδας Έρευνας και Καινοτομίας» που διοργάνωσε το Ίδρυμα Προώθησης Επιχειρήσεων (IPE) κατά την εβδομάδα 26-30 Σεπτεμβρίου 2016. Στόχος των δραστηριοτήτων ήταν η πρώτηση της έρευνας και της καινοτομίας που πραγματοποιείται στη χώρα μας και η εξοικείωση του ευρύτερου κοινού με αυτά.

Κατά τη διάρκεια της εβδομάδας, ερευνητές του Ερευνητικού Κέντρου επικεφτήθηκαν δημοτικά σχολεία, γυμνάσια και λύκεια σε Λευκωσία και Λάρνακα, όπου παρουσίασαν και συζήτησαν με τους μαθητές ποικιλά θέματα όπως είναι η παρούσια των ρύπων αναδύομενου ενδιαφέροντος στα αστικά λιμάνια και στο περιβάλλον, η ανάπτυξη ανθεκτικότητας των βακτηρίων στα αντιβιοτικά, η επαναχρησιμοποίηση των επειγραμμάνων αστικών λιμάνιων, η γεωλογία της Κύπρου, κ.ά.

Κορίφωση των εκδηλώσεων αποτέλεσε η «Βραδιά του Ερευνητή 2016» στον τίτλο «Research@Unlimited» που πραγματοποιήθηκε στο Συνεδριακό Κέντρο Φιλοθεία στη Λευκωσία στις 30 Σεπτεμβρίου 2016 (10:00-13:00 και 17:00-00:00). Η «Βραδιά του Ερευνητή» είναι μια δημόσιη εκδήλωση αφιερωμένη στην επιστήμη και στην έρευνα, που το ίδιο κοινό κάθε ηλικίας έχει την ευκαρία να έρθει στην επαφή με τους ερευνητές της χώρας και να ενημερωθεί για τέρη τους, σε μια εφαρματική και φιλική ατμόσφαιρα. Οι ερευνητές παρουσιάζουν τις εργασίες τους και ενημερώνουν το κοινό για το ρόλο και τη σημασία της έρευνας στο σύγχρονο κόσμο, επιδεινώνοντας τον αντίκτυπο την επιστήμης στην καθημερινή ζωή. Ταυτόχρονα, το κοινό έχει την ευκαρία να εμπλακεί σε διαδραστικά πειράματα και παιχνίδια και μικροί και μεγάλοι μητρούν γίνονται για μια βραδιά «ερευνητές!». Η εκδήλωση αποτελεί πρωτόβουλη της Ευρωπαϊκής Επιτροπής και πραγματοποιείται ταυτόχρονα σε όλες σχεδόν τις χώρες της Ευρώπης. Στην Κύπρο, πρεττινή εκδήλωση είχε επεισοδικό χαρακτήρα αφορούμενη με την προστασία της οικολογίας της Κύπρου, η οποία ελαύνε χώρα το 2006.

Τις πρωινές ώρες πραγματοποιήθηκαν οργανωμένες επισκέψεις σχολείων στο χώρο της εκδήλωσης, ενώ από το απόγευμα και μετά, η εισόδος ήταν ανοιχτή για το ευρύ κοινό. Αξιοσημείωτη ήταν η φετινή συμμετοχή σχολείων στην εκδήλωση, αποδεικνύοντας πώς καλή ήταν η οργάνωση και η ενημέρωση που υπήρχε από το ΙΠΕ. Μικροί και μεγάλοι επισκέπτηκαν το περιπτέρο του Ερευνητικού Κέντρου Νηρέας, «Στ'-ανώνες Ζωή», όπου είχαν την ευκαρία μέσα από διαδραστικά πειράματα να μάθουν για το νερό και τις ιδιότητές του, να γνωρίσουν τις προχωρημένες χημικές διεργασίες οξείδωσης των αστικών λιμάνιων, όπως είναι η επεργενής φωτοκατάλυψη, που χρησιμοποιήθηκε για την απομάκρυνση των ρύπων αναδύομενου ενδιαφέροντος και να γνωρίσουν τον οργανισμό *Daphnia magna*, ο οποίος χρησιμοποιείται ως «օργανισμός δείκτης», για τον ελέγχο της τοξικότητας δειγμάτων νερού.



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ΑΝΩΤΑΤΗ / Πανεπιστήμιο Κύπρου / 27 Μαΐ 2015 - 13:55



ΑΝΩΤΑΤΗ / Πανεπιστήμιο Κύπρου

Το συντονισμό του Marie Skłodowska-Curie αναλαμβάνει το διεθνές ερευνητικό κέντρο νερού Νηρέας Π.Κ.

Μεγάλη διάκριση αποτελεί η έκριση για χρηματοδότηση, από την Ευρωπαϊκή Επιτροπή, της ερευνητικής πρότασης που υπέβαλε η Διευθύντρια του Διεθνούς Ερευνητικού Κέντρου Νηρέας του Πανεπιστημίου Κύπρου, Δρ. Δέσποινα Φάττα-Κάσινη, στο πλαίσιο της δράσης «Marie Skłodowska-Curie Innovative Training Networks (ITN)» που εντάσσεται στο πρόγραμμα Ορίζοντα 2020 (H2020-MSCA-ITN-2015). Η ερευνητική πρόταση που εγκρίθηκε για χρηματοδότηση έχει τίτλο «Antibiotics and mobile resistance elements in wastewater reuse applications: risks and innovative solutions (ANSWER)» και συνολικός προϋπολογισμός αυτής ανέρχεται στα €3,708,689,76, εκ των οποίων περί τις €800,000 αιφορούν στις δραστηριότητες του Ερευνητικού Κέντρου Νηρέας.

Η πρόταση «ANSWER» απέσπασε πολύ υψηλή βαθμολογία (94%) βάσει συγκεκριμένων κριτήριων, μεταξύ αυτών η επιστημονική αριτεία, η μεθοδολογία/προσέγγιση και στρατηγική των εκπαιδευτικών προγραμμάτων, τα προσόντα και η εμπειρία των ερευνητικών ομάδων και η επάρκεια της υψηλότατης και της προτεινόντας υποδομής, καθώς και η προστιθέμενη αξία του έργου για την Ευρώπη.

Με την έκριση και χρηματοδότηση τη πρότασης αυτής αναγνωρίζεται σε διεθνές και ευρωπαϊκό επίπεδο το πόσο σημαντικό έργο διεξάγει το Διεθνές Ερευνητικό Κέντρο Νηρέας και δινέται η μοναδική ευκαρία να ηγηθεί η Κύπρος, μέσω του Νηρέα, των προσταθείων στον τομέα της ενίσχυσης και ενδυνάμωσης της ασφαλούς επαναχρησιμοποίησης πειραμάτων σε διαδραστικό τρόπο.



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Ανίχνευση κορωνοϊού σε λύματα

ΑΡΧΙΚΗ • KOINONIA • KOINONIA • Ανίχνευση κορωνοϊού σε λύματα



13 Σεπ 2020, 7:55 πμ

Άλλες Συναντήσεις
Ημερίδα με θέμα «Εργαμένης Επαναχρησιμοποίησης Λιμάνων και Ρύπων Αναδύομενου Ενδιαφέροντος»
13.09.2012 - 14.09.2012
Τοποθεσία: Ξενοδοχείο Columbia, Παναγία, Λεμεσός

Η Ημερίδα θα συζητήσει τις προκλήσεις των πρακτικών επαναχρησιμοποίησης των λιμάνων, υπό τη προσέλιξη των δύναμης αναδύομενου ενδιαφέροντος, τη δημιουργία περιπορειών των κηπεύτηκες και βιολογικές οξείδωσης αυτών στο περιβάλλον, τις δυνατότητες προδημήσης και εφαρμογώντας τους από τη φυτά και τις καλλιέργειες, κ.ά.

Διοργανωτής: Νηρέας Διεθνές Ερευνητικό Κέντρο Νηρέα, Πανεπιστήμιο Κύπρου

Άτομο εποφής: Δρ. Δέσποινα Φάττα - Κάσινη, τηλ: 22893515, email: dfatta@ucy.ac.cy

Άλλη έναντιμη στην Ευρώπη την γενετική υλικού του κορωνοϊού καταγράφει ανάλυση αστικών λυμάτων του ΣΑΛΑ, στο πλαίσιο συνεργασίας με το Διεθνές Ερευνητικό Κέντρου Νηρέας «NHPEA» του Πανεπιστημίου Κύπρου, που στοχεύει στην ανάπτυξη ενός αξιόπιστου συστήματος έγκαιρης προειδοποίησης αναφορικά με το βαθμό εξάπλωσης της νόσου COVID-19.

Ανακοινώνοντας επίσημα τη συνεργασία του με το Πανεπιστήμιο Κύπρου, το Συμβούλιο Αποκετεύσεων Λεμεσού - Αμαζονίτσας αναφέρει πως η ερευνητική ομάδα του «NHPEA» υπό την επιβλεψη της καθηγήτριας δρος Δέσποινα Φάττα - Κάσινη και με κύρια ερευνήτρια τη δρα Πότι Καραολά, ανέπτυξαν τη μεθοδολογία ανίχνευσης και ποσοτικοποίησης θραυσμάτων του γενετικού υλικού του ιού στα αστικά λυμάτα.

Παράλληλα, προστίθεται, έχουν σταλεί από το ΣΑΛΑ δειγμάτα στο εξωτερικό, από το Εργαστήριο Επεξεργασίας Λυμάτων στη Μονή, στα πλαίσια έρευνας που διεξάγει η Ευρωπαϊκή Επιτροπή, την οποία για την Κύπρο συντονίζει το Διεθνές Ερευνητικό Κέντρο Νηρέας NHPEA.

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Η υψηλής ποιότητα έρευνα του Νηρέα – IWRC Πλαν. Κύπρου αναγνωρίζεται από την ΠΚΠ για το Νερό της Ε.Ε.

03/04/2015

Η υψηλής ποιότητα έρευνα του Νηρέα – IWRC του Πανεπιστημίου Κύπρου αναγνωρίζεται από την Πρωτοβουλία Κοινού Προγραμματισμού για το Νερό της Ευρωπαϊκής Επιτροπής

Ως μέλος του Επιστημονικού και Τεχνολογικού Συμβουλίου (STB) της Πρωτοβουλίας Κοινού Προγραμματισμού (ΠΚΠ) «Water challenges for a changing world» επανελέγη, τον Μάρτιο του 2015, ως Διάδοτο Φότο-Κάνονα, Διευθύντριο του Διεθνούς Ερευνητικού Κέντρου Νερού Νηρέας του Πανεπιστημίου Κύπρου.

Η Πρωτοβουλία Κοινού Προγραμματισμού (ΠΚΠ) «Water challenges for a changing world» συγχρέεται με την έρευνα στον τομέα του νερού και των υδρολογικών επιστημών. Η διαβεβαγμέντα του νερού σε επαρκείς ποιότητες και σε κατάλληλη ποιότητα αποτελεί δημόσια ζήτημα υψηλής προτεραιότητας και μια πανευρωπαϊκή αλλά και ποικίλουμα περιβαλλοντική πρόβλημα.

Το Συμβούλιο της Ευρωπαϊκής Ένωσης αποφάσισε να ξεκινήσει τη συγκεκριμένη ΠΚΠ στην **6 Δεκεμβρίου του 2011** ως συμβολή στη μείωση του κατοικητηριασμού των προσπαθειών των κρατών μελών και της ενίσχυσης των δεσμοτήνων, γνωστών και πόρων, με στόχο την προώθηση της υπεροχής και ανταγωνιστικότητας της Ευρώπης στον τομέα της έρευνας και καινοτομίας σε θέματα που σχετίζονται με τη διαχείριση των υδάτων.

Στη συγκεκριμένη ΠΚΠ συμμετέχουν **20 χώρες**: Αυστρία, Κύπρος, Δανία, Εσθονία, Φινλανδία, Γαλλία, Γερμανία, Ιρλανδία, Ιταλία, Ολλανδία, Νορβηγία, Πολωνία, Πορτογαλία, Ρουμανία, Ισπανία, Τουρκία, Ηνωμένο Βασίλειο, Τη Μαλδίβια, Σαουδία. Επίσης 4 χώρες συμμετέχουν ως παραστήτες: Βέλγοι, Ελλάδα, Ουγγαρία, και τη Λετονία.

Σημειώνεται ότι ο Επιστημονικό και Τεχνολογικό Συμβούλιο της Πρωτοβουλίας Κοινού Προγραμματισμού (ΠΚΠ) αποτελείται πλέον από μόνο **δέκα μέλη**. Σύμφωνα με την ΠΚΠ, το Συμβούλιο αποτελείται από επιστήμονες, ερευνητές και εμπειρογνόμους από ποιοτιστικά και τη βιομηχανία που διεξέγονται έρευνα προς ενάπτυξη και καινοτομία στους τομείς ενδιαφέροντος του ΕΚΠ. Μέλη του Συμβουλίου είναι έμπειροι διακεκριμένοι επιστήμονες με αναγνωρισμένη γηγενή θέση στους σημειώσιμους τομείς που καλύπτονται από την ΠΚΠ.

Τα μέλη εκλέγονται συνέμεσα από τους πλέον διαπρεπείς επιστήμονες στον τομέα. Τα **κριτήρια** για το διαφορικό τους είναι τα εξής:

- Τεχνογνωμόνια σε ποιοτύτωντον έναν από τους στρατηγικούς τομείς έρευνας που συνδέονται με τις βασικές προκλήσεις για τα ζητήματα του νερού της Ε.Ε.
- Εξαιρετική ακαδημαϊκή επίδοση (δημοσιεύσεις σε έγκριτα διεθνή περιοδικά, κ.λπ) και διεθνή προβολή και φήμη
- Πρόσφατη και ενεργής συμμετοχή σε δραστηριότητες σχετικές με τη διαχείριση του νερού σε ευρωπαϊκό και διεθνής επίπεδο

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ΠΟΣΟ ΓΝΩΡΙΖΕΤΕ ΤΗΝ ΚΥΠΡΟ; ΠΟΙΟΙ ΓΙΟΡΤΑΖΟΥΝ; ΕΚΘΑΜΒΩΣΕΙΣ ΠΑΡΑΞΕΝΑ ΣΥΜΒΟΥΛΕΣ ΣΥΝΤΑΓΕΣ

Νέα διάκριση για το διεθνές ερευνητικό Κέντρο Νερού «ΝΗΡΕΑΣ»

29-05-2015 | 14:57

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Με το Βραβείο της Εξαιρετικής Επίδοσης τιμήθηκε η Πράξη «ΠΡΟΔΡΟΜΟΣ», του Διεθνούς Ερευνητικού Κέντρου Νερού «ΝΗΡΕΑΣ» του Πανεπιστημίου Κύπρου, για την κατηγορία Ασφάλεια Μεταφορών στο Διαγωνισμό "Transport and Logistics Awards 2015".

Ανακοίνωση του Πανεπιστημίου Κύπρου αναφέρει ότι η Πράξη «ΠΡΟΔΡΟΜΟΣ» αφορά στην ανάπτυξη διαδικασιών, τεχνολογιών και εργαλείων (λογισμικού και εξοπλισμού) για την ασφαλή μεταφορά επικινδύνων φορτίων από λιμάνι σε λιμάνι, και από λιμάνι σε τελικό προορισμό μέσω του χερσαίου οδικού δικτύου, και συγχρηματοδοτείται από το Ευρωπαϊκό Ταμείο Περιφερειακής Ανάπτυξης (ΕΤΠΑ) και από εθνικούς πόρους της Ελλάδας και της Κύπρου, μέσω του Προγράμματος Διασυνοριακής Συνεργασίας «Ελλάδα-Κύπρος 2007-2013».

Η Πράξη ΠΡΟΔΡΟΜΟΣ αποτελεί έργο ύψιστης στρατηγικής σημασίας για Ελλάδα και Κύπρο αφού, πέραν από την ανάπτυξη των σχετικών τεχνολογιών για την ασφάλεια στην εφοδιαστική αλυσίδα και την ενδυνάμωση της μεταξύ των δύο χωρών συνεργασίας, ενδυναμώνει τον ρόλο του δύο χωρών στους διεθνείς χερσαίους και θαλάσσιους ήδονες μεταφορών φορτίων.

Το δίκτυο συνεργασίας έργου αποτελείται από το Υπουργείο Σύγκοινωνιών και Έργων Κύπρου (Τμήμα Δημοσίων Έργων), το Πανεπιστήμιο Κύπρου, την Αρχή Λιμένων Κύπρου, το Υπουργείο Υποδομών, Μεταφορών και Δικτύων Ελλάδος, τον Οργανισμό Λιμένος Ηρακλείου και το Ίδρυμα Τεχνολογίας και Έρευνας Ελλάδος.

ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ

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KΟΙΝΩΝΙΑ ΠΟΛΙΤΙΚΗ ΕΛΛΑΣ ΚΟΖΜΟΣ ΠΑΡΑΓΟΝΤΑΚΑ IN TIMES LIFESTYLE -
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TAGS ΣΑΛΑ

Έναρξη συνεργασίας ΣΑΛΑ – Πανεπιστημίου ΚΥΠΡΟΥ για εντοπισμό του γενετικού υλικού κορονοϊού στα λύματα και ανάπτυξη εργαλείου για έγκαιρη πρόβλεψη της εξάπλωσης του

Το Συμβούλιο Απογευματικών Αεροιού – Αμαθούντας (ΣΑΛΑ) και το Διευθέντος Εργατικού Κέντρο Νέαρο – ΗΠΕΑΚΑ πανεπιστημίου Κύπρου, έχουν προχωρήσει σε συνεργασία για την μέτρησης της παρούσας του γενετικού υλικού του ως SARS-CoV-2 (COVID-19) στα λύματα που φτάνουν στο Εργοστάσιο Επεξεργασίας Λυμάτων της ΣΑΛΑ στη Μονή.

Η ερευνητική ομάδα της ΗΠΕΑΚΑ υπό την επιβλέψη της καθηγητήριας Δρ. Δημήτρια Φάτσα – Κάουνον και με κύρια ερευνητικής διεύθυνση την Δρ. Πάτη Καραβά, συνέπεια την ιεραρχολογία ανήκουσες και προσωποποίησης δραστηριάτων του γενετικού υλικού του στα αστικά λυμάτα. Προηλλόγησε στολεί από το ΣΑΛΑ δεύτερη από το Εργοστάσιο Επεξεργασίας Λυμάτων στη Μονή στο Εργοστάσιο στα πλαίσια έργου που διενήργη η Ευρωπαϊκή Επιτροπή, στην οποία για τη Κύπρου συντονίζεται το Διεθνές Ερευνητικό Κέντρο Νέαρο ΗΠΕΑΚΑ.

Η πρώτη φορά που η άνωση του γενετικού υλικού του ιουί έδωσε θετική απάντηση στην διάγνωση του ιού οικτυμάτων. Τα τελευταία δεύτερα που αναλύθηκαν από την Εργαστήρια Κύπρου του ιουί μέσω Νευρεπιζίου για δέκα συνεχείς περιόδους και έξιετην αύξηση σε σχέση με δεκάδες που λήφθησαν τον Οκτώβριο.

Η συνεργασία του ΣΑΛΑ με την Εργαστήρια Κύπρου προβλέπει τη συνεργασία ανάμεσα στην παραστολή του γενετικού υλικού του ιουί μέσω της λογιστικής της Αεροπορίας, για τους επιμελείς τεύχες ήμετα μέσα από παραγράφηση από το ΣΑΛΑ χρηματοδότησης και διάλυμα διευθύνουσαν στα Εργοστάσιο Κύπρου ΗΠΕΑΚΑ τον ποσοτησμό λύματος.

Η ανέγνωση του SARS-CoV-2 σε αστικά λύματα πραγματοποιεύεται μέσω:

- της αγενήσυρησης του δεύτερου
- της απομάνωσης του γενετικού υλικού RNA, και
- της μέτρησης των δραστηριών του γενετικού υλικού του ιουί μέσω της παραγράφησης από το ΣΑΛΑ χρηματοδότησης και διάλυμα διευθύνουσαν στα Εργοστάσιο Κύπρου ΗΠΕΑΚΑ τον ποσοτησμό λύματος

Η κοινή προσπάθεια ΣΑΛΑ και Πανεπιστημίου Κύπρου έχει ως στόχο την ανάπτυξη ενός αδιάπτυστου

People/Nireas-IWRC

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Agapiou Christina	M.Eng. student	2018	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2018): Petroleum industry waste management • Geomechanics Research for Energy and the Environment
Agathokleous Agathoklis	Ph.D. student / Researcher Postdoctoral researcher	2011 - 2015 2015 - 2017	Christodoulou Symeon	<ul style="list-style-type: none"> • Ph.D. (2015): Sensor-based sustainable management of urban water distribution networks utilizing survival analysis modeling • Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Alaamri Dhiba	Visiting researcher International Maritime College, Oman	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Albets Xavier	Postdoctoral researcher	2011 - 2013	Kassinios Stavros	UCY-CompSci - Computational Sciences Laboratory
Albrektienė Ramunė	Visiting researcher Vilnius Gediminas Technical University, Lithuania	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Alexandrou Andreas †	Affiliated Member Professor in the Department of Mechanical and Manufacturing Engineering, University of Cyprus, Cyprus	2012 - 2018		
Alygizakis Nikiforos	Visiting researcher Environmental Institute, Slovakia	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Aljardin Mohammad	Visiting researcher Tafile Technical University, Jordan	2015	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Allen Catherine	Visiting researcher Dublin City University, Ireland	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Anastasiadou Constantia	M.Sc. student	2014	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2014): Optimizing the solar photocatalytic treatment of parabens in municipal wastewater effluents: Evaluation of operational and kinetic parameters • GAIA - Laboratory of Environmental Engineering

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Andreou Anastasia	M.Eng. student	2019 - 2020	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2020): Literature survey on the impact that biochars have on soil properties • Geomechanics Research for Energy and the Environment
Andreou Emily	M.Sc. student	2019 - 2020	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Sc. (2020): Experimental assessment of the impact that biochar addition has on the hydraulic properties of loamy sand soil • Geomechanics Research for Energy and the Environment
Andreou Rafaella	M.Sc. student / Project assistant	2013 - 2015	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2015): Abatement of parabens in secondary treated wastewater by ozonation and UV-activated persulfate oxidation • GAIA - Laboratory of Environmental Engineering
Athanasiou Thomas	Researcher	2020 -	Christodoulou Symeon Dimitriou Loukas	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Balachandran Sanjana	Visiting researcher Technical University of Dresden, Germany	2020	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Ballis Theocharis	Researcher**	2019 - 2020	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
	Postdoctoral researcher	2020 -	Dimitriou Loukas	
Barceló Damià	Research Council Director of Catalan Institute for Water Research (ICRA), Research Professor of Institute of Environmental Assessment and Water Research (IDAEA), Consejo Superior de Investigaciones Científicas/Spanish National Research Council (CSIC), Spain	2020 -		
Benouis Khedidja	Visiting researcher Scientific and Technical Research Center in Physico-chemical Analyses, Algeria	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering

* Ph.D. student was admitted in the M.Sc. or Ph.D. Program prior to the establishment of Nireas-IWRC.

** The research carried out by the student while at the Center was unrelated to their M.Eng./M.Sc./Ph.D. thesis.

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Beretsou Vasiliki	Ph.D. student / Researcher	2016 -	Fatta-Kassinios Despo	<ul style="list-style-type: none"> Advanced chemical, microbiological and toxicological analysis for the understanding of the presence, fate and effects of antibiotics in natural and technical aqueous systems GAIA - Laboratory of Environmental Engineering
Biljsma Lubertus	Visiting researcher Universitat Jaume I, Spain	2013	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Boudriche Lilya	Visiting researcher Scientific and Technical Research Center in Physico-chemical Analyses, Algeria	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Brunetti Gianluca	Visiting researcher Researcher at University of South Australia, Australia	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Carlini Charamba Lívia Vieira	Visiting researcher Technical University of Dresden, Germany	2020	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Cerdeira Francisco	Visiting researcher Agencia Estatal Consejo Superior De Investigaciones Científicas, Spain	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Chari Andreas	M.Sc. student / Researcher	2015	Christodoulou Symeon	<ul style="list-style-type: none"> M.Sc. (2015): Stochastic assessment and energy predictive tools Mr. Chari, with the aforementioned research thesis, was subsequently the winner of Cyprus's national competition of the Institution of Engineering and Technology (EIT) Young Professionals Global Challenge (March 2015), representing Cyprus at the Regional Finals Eupalinos - Construction Engineering and Water Distribution
Chatzithanasiou Thanasis	Researcher	2016 - 2019	Kassinios Stavros	UCY-CompSci - Computational Sciences Laboratory
Chmingui Walid	Visiting researcher National Research Institute for Rural Engineering, Water, and Forestry, Tunisia	2017	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Christodoulou Christina	Researcher	2015 - 2017	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Christodoulou Chrystalleni	Researcher	2016	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Christodoulou Kyriakos	M.Eng. student	2019	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2019): Environmental impacts of tourism • Geomechanics Research for Energy and the Environment
Christodoulou Nicolas	M.Eng. student	2018	Christodoulou Symeon	<ul style="list-style-type: none"> • M.Eng. (2018): A decision support system for the efficient allocation of water resources in the Paphos District • Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Christodoulou Stella	M.Eng. student	2014	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2014): A comparative study of the effects of chloride, sulfate and carbonate ions on the rates of decomposition of ethyl paraben by solar photo-Fenton • GAIA - Laboratory of Environmental Engineering
Christodoulou Symeon	Academic Council / Board of Directors Professor in the Department of Civil and Environmental Engineering, University of Cyprus	2011 -		
Christou Anastasis	Affiliated Member Agricultural Research Officer A' in the Agricultural Research Institute of the Ministry of Agriculture, Rural Development and Environment of the Republic of Cyprus, in The Department of Natural Resources and Environment, Cyprus	2020 -		
Christou Simoni	Researcher	2016 -	Kassinos Stavros	UCY-CompSci - Computational Sciences Laboratory
Chrysanthou Eleni	Researcher	2020	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Constantinou Eleni	M.Eng. student	2014	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2014): Assessing the biological potency of urban wastewater • GAIA - Laboratory of Environmental Engineering

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Dafale Nishant	Visiting researcher Environmental Biotechnology & Genomics Division, CSIR-NEERI, India	2019	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Demou Andreas	Ph.D. student	2015 - 2019	Dimokratis Grigoriadis	Ph.D. (2019): Numerical study of thermally-driven flows with variable properties
Dialynas Yannis	Affiliated Member Dialynas S.A. – Environmental Technology, Crete, Greece	2020 -		
Dimitriou Loukas	Academic Council Assistant Professor in the Department Civil and Environmental Engineering, University of Cyprus	2020 -		
Dionysiou Dionysios	Research Council/Board of Directors Professor of Environmental Engineering, Sustainable Solutions Laboratories (SSLs), Center of Sustainable Urban Engineering, Drinking Water, Water Supply, Quality, and Treatment, and Environmental Nanotechnology Laboratories, Department of Chemical and Environmental Engineering University of Cincinnati, USA	2011 - 2019		
Dionysiou Maria	M.Sc. student / Researcher	2018 - 2020	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2020): Identification and quantification of illicit drugs in urban wastewater in Cyprus • GAIA - Laboratory of Environmental Engineering
Donner Erica	Visiting researcher Professor and Research Leader at Future Industries at University of South Australia, Australia	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Dulio Valeria	Research Council Executive Secretary of the NORMAN Association INERIS, Direction Milieu et Impact sur le Vivant (MIV), France	2020 -		

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Eliadou Elena	M.Sc. student	2013	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Sc. (2013): Heavy metals uptake by soil and crops in areas of intense wastewater reuse irrigation • GAIA - Laboratory of Environmental Engineering
Evagorou Andria	M.Eng. student	2018	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2018): Microplastics in the marine environment: major sources and already identified effects • GAIA - Laboratory of Environmental Engineering
Evangelou Maria	Researcher	2016	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Fatta-Kassinos Despo	Director of Nireas-IWRC Professor in the Department of Civil and Environmental Engineering, University of Cyprus	2011 -		
Fortunato Gianuario	Visiting researcher Universidade Catolica Portuguesa, Portugal	2017	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Foteinis Spyros	Researcher	2015 2019	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Fotiou Ioulia	M.Sc. student	2013	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Sc. (2013): Sonolysis and sonophotocatalysis for the treatment of wastewater laden with pharmaceutical compounds • GAIA - Laboratory
Fragiadakis Michalis	Affiliated Member Associate Professor in the School of Civil Engineering, National Technical University of Athens, Greece Postdoctoral researcher	2021 - 2013 - 2015	Christodoulou Symeon Papanastasiou Panos	<ul style="list-style-type: none"> • Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory • Geomechanics Research for Energy and the Environment
Frantzis Charalambos	Ph.D. student Postdoctoral researcher	2014 – 2020 2020	Dimokratis Grigoriadis	<ul style="list-style-type: none"> • Ph.D. (2020): Accelerating CFD simulations of two-fluid flows: Application in numerical wave tanks • UCY-CompSci – Computational Sciences Laboratory

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Frimmel Fritz	Scientific Advisory Board Professor (retired), Previous Chairholder and director of the DVGW - Research Center for Water Technology, Karlsruhe Institute of Technology, Karlsruhe, Germany	2011 - 2019		
Frixou Foidia	M.Sc. student	2019 - 2020	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Sc. (2020): Experimental and numerical evaluation of the biochar amendment on loamy sand soil • Geomechanics Research for Energy and the Environment
Frontistis Zacharias	Postdoctoral researcher	2012 - 2013	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Gagatsis Anastasis	Researcher	2013 - 2015	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Gavriel Gavriel	M.Sc. student / Researcher	2014	Kostarelos Konstantinos	<ul style="list-style-type: none"> • M.Sc. (2014): Optimized horizontal well configuration for secondary and tertiary oil recovery • SRL - Subsurface Research Laboratory
Georgiou Charalambos	Postdoctoral researcher	2013	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Gkania Vana	Researcher**	2015 - 2018	Dimitriou Loukas Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Gorelick Steven	Scientific Advisory Board Cyrus F. Tolman Professor in the Department of Earth System Science, Senior Fellow at the Woods Institute for the Environment, Stanford University, CA, Head of the Water Resource and Hydrogeology Program and Global Freshwater Initiative, USA	2011 - 2019		
Gravanis Elias	Postdoctoral researcher	2014 - 2015	Papanastasiou Panos	Geomechanics Research for Energy and the Environment

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Grigoriadis Dimokratis	Academic Council Associate Professor in the Department of Mechanical and Manufacturing Engineering, University of Cyprus	2020 -		
Hadjicosta Marina	M.Eng. student	2018	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2018): Economic analysis of the Larnaca desalination unit • Geomechanics Research for Energy and the Environment
Hadjidemetriou Georgios	Researcher** Postdoctoral researcher	2015 - 2018 2019 -	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Hadjineocleous Savvas	Research Council Technical Director of the Sewerage Board of Nicosia, Cyprus	2020 -		
Hadjipakkos Charalambos	Research Council Director of the Water Development Department, Ministry of Agriculture Rural Development and the Environment, Cyprus	2020 -		
Hadjiprokopiou Stephanie	M.Eng. student	2017	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Eng. (2017): Guidelines on the minimization of the environmental impacts caused by the operation of environmental science and technology laboratories • GAIA - Laboratory of Environmental Engineering
Hapeshi Evroula	Postdoctoral researcher	2011 - 2019	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Herzberg Jan	Visiting researcher Umwelt-Campus Birkenfeld, Germany	2013	Kostarelos Konstantinos	SRL - Subsurface Research Laboratory
Hollender Juliane	Scientific Advisory Board Head in the Department of Environmental Chemistry, EAWAG, Swiss Federal Institute of Aquatic Science and Technology, Adjunct Professor for Environmental Chemistry and Lecturer in the Department of Environmental Systems Science, ETH Zurich, Switzerland	2011 - 2019		

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Iacovou Maria	M.Eng. student	2015	Fatta-Kassinios Despo	<ul style="list-style-type: none"> M.Eng. (2015): Removal of clarythromycin from sewage and investigation of the parameters affecting the formation of bromate ions during ozonation GAIA - Laboratory of Environmental Engineering
Iakovides Iakovos	Ph.D. student / Researcher	2016 -	Fatta-Kassinios Despo	<ul style="list-style-type: none"> Fate of antibiotics, antibiotic-resistant bacteria and resistance genes during conventional and advanced wastewater treatment and irrigation in agriculture GAIA - Laboratory of Environmental Engineering
Ines Vasquez Hadjilyra Marlen	Ph.D. student*	2011 - 2012	Fatta-Kassinios Despo	<ul style="list-style-type: none"> Ph.D. (2012): Active pharmaceutical ingredients in aqueous matrices: An integrated approach for assessing effects GAIA - Laboratory of Environmental Engineering
	Postdoctoral researcher	2012 - 2013		
Ioannou Antonia	Researcher	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Ioannou Lida	Ph.D. student / Researcher*	2011 - 2013	Fatta-Kassinios Despo	<ul style="list-style-type: none"> Ph.D. (2013): Advanced systems for the enhancement of the environmental performance of wineries - wastewater purification combining biological, advanced chemical and reverse osmosis treatment GAIA - Laboratory of Environmental Engineering
	Postdoctoral researcher	2013 - 2020		
Irodotou Elena	Researcher / Project assistant	2020 -	Fatta-Kassinios Despo	Nireas - IWRC
Kanaris Nicolas	Ph.D. student	2011 - 2012	Kassinios Stavros	<ul style="list-style-type: none"> Ph.D. (2012): Three-dimensional direct numerical simulations of hydrodynamic and magnetohydrodynamic flows over an obstacle in a confined geometry UCY-CompSci - Computational Sciences Laboratory
	Researcher	2016		
Kannaouridou Elena	Researcher	2015 - 2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Karaolia Popi	Ph.D. student / Researcher	2012 - 2019	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • Ph.D. (2019): Evaluation of the efficiency of the combination of a membrane bioreactor with selected advanced oxidation processes for the removal of antibiotic-related microcontaminant • GAIA - Laboratory of Environmental Engineering
	Postdoctoral researcher	2019 -		
Kassinis George	Board of Directors Associate Professor in the Department of Business and Public Administration, University of Cyprus	2011 - 2019		
Kassinos Stavros	Academic Council / Board of Directors Professor in the Department of Mechanical and Manufacturing Engineering, University of Cyprus	2011 -		
Kitrou Panayiotis	M.Eng. student	2014	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Eng. (2014): Occurrence and fate of antibiotics in the terrestrial environment • GAIA - Laboratory of Environmental Engineering
Kodjiamani Morpho	M.Sc. student	2016	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2016): Removal of humic and fulvic acids during the application of light-driven oxidation processes • GAIA - Laboratory of Environmental Engineering
Korelidou Anna	Researcher	2018 - 2020	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Kostarelos Konstantinos	Board of Directors Assistant Professor in the Department of Civil and Environmental Engineering, University of Cyprus	2011 - 2019		
	Associate Professor in the Department of Petroleum Engineering, Cullen College of Engineering, University of Huston, USA			
Koullapis Pantelis	Researcher**	2013 - 2018	Kassinos Stavros	UCY-CompSci Computational Sciences Laboratory
	Postdoctoral researcher	2018 -		
Kouloumi Michalis	M.Eng. student	2018	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2018): Remediation of an underground aquifer, contaminated with hydrocarbons • Geomechanics Research for Energy and the Environment

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Kountoudi Theologia	Visiting researcher University of Ioannina, Greece	2019	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Kourti Elena	M.Sc. student / Researcher	2015 - 2018	Christodoulou Symeon	<ul style="list-style-type: none"> • M.Sc. (2018): Waterloss detection in streaming water meter data using change-point anomaly detection • Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Koutsoftas Petros	M.Sc. student / Researcher	2012 - 2013	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2013): Removal of x-ray contrast media by moving bed bio-reactor • GAIA - Laboratory of Environmental Engineering
Kranioti Sofia	Researcher	2013 - 2015	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Krayer Patricia	Visiting researcher Institute of Natural Resources Science Zurich University of Applied Sciences, Switzerland	2017	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Kyriakou Charalambos	Researcher** Postdoctoral researcher	2014 - 2018 2018 -	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Kyrou Kyriacos	Scientific Advisory Board Former Director of the Cyprus Water Development Department, Ministry of Agriculture Rural Development and the Environment, Cyprus	2011 - 2019		
Lada Vasiliki	M.Eng. student	2019	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2019): Waste management from breweries • Geomechanics Research for Energy and the Environment
Lambrianides Nancy	Postdoctoral researcher	2012 - 2013	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Li Puma Gianluca	Scientific Advisory Board Professor in the Department of Chemical and Environmental Engineering, Director of Environmental Nanocatalysis & Photoreaction Engineering, University of Loughborough, UK	2011 - 2019		
Litskas Vassilis	Postdoctoral researcher	2014 - 2015	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Lombi Enzo	Visiting researcher Professor at University of South Australia, Australia	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Luck Timo	Visiting researcher Umwelt-Campus Birkenfeld, Germany	2014	Kostarelos Konstantinos	SRL - Subsurface Research Laboratory
Maas Susanne	Visiting researcher University of Malta, Malta	2019, 2020	Dimitriou Loukas	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Manoli Kyriakos	Postdoctoral researcher	2020 -	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Mantzavinos Dionissios	Affiliated Member Professor in the Department of Chemical Engineering, Vice-Rector of Academic & International Affairs, University of Patras, Greece	2011 -		
Marčiulaitienė Eglė	Visiting researcher Vilnius Gediminas Technical University, Lithuania	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Michael Costas	Research Council / Board of Directors Senior Scientist of Nireas-IWRC, UCY, Former Director of the Cyprus State General Laboratory, Cyprus	2011 -		
Michael Irene	Ph.D. student / Researcher* Postdoctoral researcher	2011 - 2012 2012 - 2020	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • Ph.D. (2012): Investigating the solar-driven advanced chemical oxidation of ofloxacin and trimethoprim in sewage and other aqueous matrices • GAIA - Laboratory of Environmental Engineering

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Michael Michaella	M.Eng. student	2013	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2013): Development of public communication material using as examples winery wastewater management and the assessment of effects of pharmaceutical residues in the environment • GAIA - Laboratory of Environmental Engineering
Michael Stella	Researcher	2017 - 2020	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • Tackling antibiotics, antimicrobial resistance determinants, pathogenic microbes and toxicity in urban wastewater: A multibarrier technological approach • GAIA - Laboratory of Environmental Engineering
	Ph.D. student	2015 -		
Mina Konstantina	M.Eng. student	2018	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2018): Best practices for management of livestock waste • Geomechanics Research for Energy and the Environment
Mina Theoni	Researcher	2020 -	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Moslah Bilel	Visiting researcher Tunis International Center for Environmental Technologies, Tunisia	2014, 2015	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Msagati Titus	Visiting researcher Professor at University of South Africa, South Africa	2020	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Navani Akash	Visiting researcher BITS-Pilani, K.K. Birla Goa Campus, India	2017	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Nicolaides Christos	Academic Council Lecturer in the Department of Business and Public Administration, University of Cyprus	2020 -		
Nikolaou Eleftheria	M.Eng. student	2019	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2019): Determination and monitoring of the minimum inhibitory concentration (MIC) of cefotaxime in E. coli in an MBR-treated wastewater effluent • GAIA - Laboratory of Environmental Engineering
Nikolopoulos Georgios	Affiliated Member Assistant Professor in the Medical School, University of Cyprus	2021 -		

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Orthodoxou Yiannos	Diploma Thesis	2012	Kassinos Stavros	<ul style="list-style-type: none"> • Estimation of evaporation losses from Kouris and Asprokremmos • UCY-CompSci Computational Sciences Laboratory
Paisi Niki	Researcher / Project assistant	2018 - 2019	Fatta-Kassinos Despo	Nireas - IWRC
Palios Anastasios	Erasmus exchange student University of Ioannina, Greece	2013	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Panagiotou Constantinos	Ph.D. student / Researcher*	2011 - 2016	Kassinos Stavros	<ul style="list-style-type: none"> • Ph.D. (2016): Structure-based turbulence models: inclusion of additional physics and development of improved engineering closures • UCY-CompSci – Computational Sciences Laboratory • Geomechanics Research for Energy and the Environment
	Postdoctoral researcher	2019 -	Papanastasiou Panos	
Panayi Angeliki	M.Sc. student	2014	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Sc. (2014): Purification of olive mill wastewater by coagulation and solar Fenton oxidation at a pilot-scale • GAIA - Laboratory of Environmental Engineering
Panayiotou Erato	Researcher	2015	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Panayiotou Panayiotis	M.Eng. student	2015	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2015): Adsorption behavior of fluoroquinolone antibiotics in soils • GAIA - Laboratory of Environmental Engineering
Papalli Maria	Researcher	2020 -	Tsipa Argyro	EmBIOSysTech - Laboratory of Environmental Biotechnology
Papamarkou Rafail	M.Sc. student / Researcher	2017 - 2019	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Sc. (2019): Monitoring of cefotaxime-resistant bacteria in urban wastewater • GAIA - Laboratory of Environmental Engineering
Papanastasiou Panos	Academic Council / Board of Directors	2011 -		
	Professor in the Department of Civil and Environmental Engineering, University of Cyprus			
Papapetrou Spyros	Erasmus exchange student University of Ioannina, Greece	2014	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Papaphilippou Petri	Postdoctoral researcher	2011 - 2013	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Parmaklis Constantinos	Research Council Director of the Water Board of Nicosia, Cyprus	2020 -		
Parpi Maria	M.Eng. student	2014	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Eng. (2014): An environmental and socioeconomic approach of olive mill wastewater management - Current status in some Mediterranean countries • GAIA - Laboratory of Environmental Engineering
Parpounas Andreas	M.Sc. student	2015	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Sc. (2015): Development of an analytical method for the assessment of the presence of veterinary antibiotics in environmental matrices • GAIA - Laboratory of Environmental Engineering
Pavlou Pavlos	Visiting researcher Technical University of Denmark, Denmark	2017 2018	Fatta-Kassinios Despo Christodoulou Symeon	<ul style="list-style-type: none"> • GAIA - Laboratory of Environmental Engineering • Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Phaidonos Cleopatra	Researcher	2020 -	Christodoulou Symeon Dimitriou Loukas	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Photinis Spyros	Researcher	2015, 2019	Fatta- Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Photiou George	Lab assistant	2014 - 2015	Fatta- Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Photiou Panayiota	M.Eng. student / Researcher	2016 - 2017	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Eng. (2016): Insights into solid phase extraction methods for optimum recovery of pharmaceutical compounds from complex environmental matrices • GAIA - Laboratory of Environmental Engineering
Pothin Laurie	Visiting researcher Département Hydraulique et Mécanique des Fluides, France, Visitor	2015	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Pourjabbar Anahita	Postdoctoral researcher	2012 - 2014	Kostarelos Konstantinos	SRL - Subsurface Research Laboratory

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Prakash Halan	Visiting researcher Associate Professor in the Department of Chemistry, BITS-Pilani, K.K. Birla Goa Campus, India	2017	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Psychoudaki Magda	Postdoctoral researcher	2019 -	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Radu Elena	Visiting researcher Technische Universität Wien, Austria	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Raj Saurav	Visiting researcher BITS-Pilani, K.K. Birla Goa Campus, India	2017	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Richardson Susan	Scientific Advisory Board Professor in the Department of Chemistry and Biochemistry, University of South Carolina, USA	2011 - 2019		
Rosa Patrycja	Visiting researcher Silesian University of Technology, Poland	2019	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Sarris Ernestos	Postdoctoral researcher	2011 - 2015	Papanastasiou Panos	Geomechanics Research for Energy and the Environment
Seifelnasr Moustafa Amira	Visiting researcher University of Cairo, Egypt	2019	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Ślipko Katarzyna	Visiting researcher Technische Universität Wien, Austria	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Sophokleous Varvara	M.Eng. student	2011	Fatta-Kassinios Despo	<ul style="list-style-type: none"> • M.Eng. (2011): Evaluation of the potential biological effects of mixtures of pharmaceuticals in aqueous matrices • GAIA - Laboratory of Environmental Engineering
Stavrou Ioannis	Postdoctoral researcher	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Stylianou Fotos	Researcher** Postdoctoral researcher	2011 - 2016 2016 -	Kassinos Stavros	UCY-CompSci Computational Sciences Laboratory
Stylianou Katerina	Researcher**	2015 - 2018	Symeon Christodoulou	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Stylianou Konstantina	Researcher	2020	Tsipa Argyro	EmBIOsysTech - Laboratory of Environmental Biotechnology

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Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Stylianou Marinos	Postdoctoral researcher	2011 -	Kostarelos Konstantinos Fatta-Kassinios Despo Papanastasiou Panos	<ul style="list-style-type: none"> SRL - Subsurface Research Laboratory GAIA - Laboratory of Environmental Engineering Geomechanics Research for Energy and the Environment
Stylianou Stylianos	Diploma Thesis	2014	Kassinios Stavros	<ul style="list-style-type: none"> Estimation of evaporation losses from the Kouris Dam and methods to reduce evaporation UCY-CompSci Computational Sciences Laboratory
Tadić Đorđe	Visiting researcher Agencia Estatal Consejo Superior De Investigaciones Cientificas, Spain	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Tarapoulouzi Maria	M.Sc. student / Researcher	2013 - 2014	Fatta-Kassinios Despo	<ul style="list-style-type: none"> M.Sc. (2014): Advanced bioassays for evaluating the effects of pharmaceuticals to organisms and humans GAIA - Laboratory of Environmental Engineering
Theophanous Andreas	M.Eng. student	2017	Fatta-Kassinios Despo	<ul style="list-style-type: none"> M.Eng. (2017): Water and wastewater management - A glossary GAIA - Laboratory of Environmental Engineering
Torrens Osorio Victoria	Visiting researcher IDAEA-CSIC, Spain	2011	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Toumazi Toumazis	Researcher / Project manager	2012 - 2018	Fatta-Kassinios Despo	Nireas - IWRC
Toxqui Eleni	Researcher / Project manager	2012 -	Fatta-Kassinios Despo	Nireas - IWRC
Trapali Andrianna	Researcher	2020	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Tsangaris Michael	Researcher	2018 - 2019	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Tsionara Evangelia	Researcher / Project assistant	2019	Fatta-Kassinios Despo	Nireas - IWRC
Tsipa Argyro	Academic Council Lecturer in the Department of Civil and Environmental Engineering, University of Cyprus	2020 -		
Varela della Giustina Saulo	Visiting researcher Catalan Institute for Water Research, Spain	2016	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering
Vasileiadis Sotirios	Visiting researcher University of Thessaly, Greece	2018	Fatta-Kassinios Despo	GAIA - Laboratory of Environmental Engineering

Name	Role	Period	Supervisor(s)	Title of Thesis / Lab Associated
Vatyliotou Margarita	Researcher / Project manager	2011 - 2012	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Velegraki Theodora	Visiting researcher Technical University of Crete, Greece	2012 - 2014	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Vorka Flora	M.Eng. student	2018	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2018): Cyprus National Action Plan for 2020 • Geomechanics Research for Energy and the Environment
Voskaridou Theano	M.Eng. student	2014	Kostarelos Konstantinos	<ul style="list-style-type: none"> • M.Eng (2014): Anionic surfactant remediation of soil columns contaminated by Jet Fuel • SRL - Subsurface Research Laboratory
Votyakov Evgeny	Postdoctoral researcher	2011 - 2015	Kassinos Stavros	UCY-CompSci - Computational Sciences Laboratory
Voukkali Irene	M.Eng. student	2014	Kostarelos Konstantinos	<ul style="list-style-type: none"> • M.Eng. (2014): Coal tar recovery using surfactant enhanced treatment • SRL - Soil Remediation Laboratory
Waite David	Scientific Advisory Board Professor in the Department of Civil and Environmental Engineering, University of New South Wales, Executive Director and CEO, UNSW Centre for Transformational Environmental Technologies (CTET), Australia	2011 - 2019		
Wrobel Michal	Postdoctoral researcher	2019 -	Papanastasiou Panos	Geomechanics Research for Energy and the Environment
Xanthos Savvas	Postdoctoral researcher	2012 - 2015	Christodoulou Symeon	Eupalinos - Construction Engineering and Water Distribution Networks Management Laboratory
Xekoukoulotakis Nikos	Visiting researcher Technical University of Crete, Greece	2011	Fatta-Kassinos Despo	GAIA - Laboratory of Environmental Engineering
Yiangou Irene	M.Eng. student	2017	Papanastasiou Panos	<ul style="list-style-type: none"> • M.Eng. (2017): Environmental impact assessment of Aglantzia industrial area • Geomechanics Research for Energy and the Environment
Yiannapas Constantinos	M.Sc. student	2012 - 2013	Fatta-Kassinos Despo	<ul style="list-style-type: none"> • M.Eng. (2013): Optimising olive oil wastewater treatment by coagulation-flocculation and solar Fenton oxidation • GAIA - Laboratory of Environmental Engineering



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