



Trainers

Trainers of Day 1:

(in tandem with ANSWER/H2020-MSCA-ITN-2015/675530 Summer School)

Despo Fatta-Kassinou - Nireas International Water Research Center,
University of Cyprus, Cyprus

Teik Thye Lim - Nanyang Technical University, Singapore

Yunho Lee - Gwangju Inst. of Science & Technology, South Korea

Celia Manaia - Universidade Catolica Portuguesa, Portugal

Thomas Schwartz - Karlsruhe Institute of Technology, Germany

Trainers of Days 2 and 3:

Senior Teaching Staff

Celia Manaia - Universidade Catolica Portuguesa, Portugal

Benjamin Pina - Consejo Superior de Investigaciones Científicas, Spain

Thomas Schwartz - Karlsruhe Institute of Technology, Germany

Thomas Berendonk - Technische Universität Dresden, Germany

Eddie Cytryn - Agricultural Research Organization, Volcani Center, Israel




Teaching Assistants




Damiano Cacace - Technische Universität Dresden, Germany

Joao Gatica - The Hebrew University of Jerusalem, Israel

Vijay Tripathi - Agricultural Research Organization, Volcani Center, Israel

Marta Casado - Consejo Superior de Investigaciones Científicas, Spain

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|  <p>Who can attend?</p> | <ul style="list-style-type: none"> ▪ Young researchers starting their research activities in the field of environmental antibiotic resistance. ▪ Researchers and/or technical/policy-making staff with a background in microbiology, biochemistry, chemistry, environmental and chemical engineering etc, interested in antibiotic resistance assessment. |
|  <p>Course requirements</p> | <ul style="list-style-type: none"> ▪ Laptop computer with installed "bioinformatics" software (freeware, details will be sent to course participants). ▪ Journal club* manuscripts (will be sent to course participants). <p><i>* A journal club is a group of individuals who meet regularly to critically evaluate recent articles in the academic literature, generally of some branch of science. Journal clubs are usually organized around a defined subject in basic or applied research.</i></p> |
|  <p>Applications</p> | <p>To apply, please provide:</p> <ul style="list-style-type: none"> ▪ A cover letter with an expression of interest and a paragraph describing the relevant scientific activities with this Training School; ▪ A Curriculum Vitae (CV). <p>Number of applicants to be reimbursed: 20-25</p> <p>All applications should be submitted to Mr. Toumazis Toumazi (info@nereus-cost.eu) no later than 20 April 2016.</p> <p>Successful applicants will be contacted directly by e-mail by 28 April 2016.</p> |

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|  <p>Eligibility Criteria</p> | <p>Applicants eligible to be reimbursed:</p> <ol style="list-style-type: none"> 1. <u>Applicants from all COST Countries:</u> <ol style="list-style-type: none"> a. List of COST countries: http://www.cost.eu/about_cost/cost_countries 2. <u>Applicants from the following approved Near Neighbour Countries institutions:</u> <ol style="list-style-type: none"> a. Jordan University of Science and Technology b. Institute for Rural Engineering, Water and Forestry c. Kiev National University of Construction and Architecture d. G. Eliava Institute of Bacteriophage, Microbiology & Virology (IBMV) |
|  <p>Selection Criteria</p> | <p>Applicants will be evaluated on the basis of two main criteria:</p> <ol style="list-style-type: none"> 1. Relevance of applicants' studies and research experience to the topics of the Training School programme; 2. Balanced distribution of educational background (e.g. chemical engineering; environmental engineering; chemistry; microbiology; etc.). |
|  <p>Financial Support Accommodation</p> | <p>Fees: FREE Each applicant will receive a financial support grant of 780 EUR</p> <ul style="list-style-type: none"> ▪ Travel Grant: 300 EUR ▪ Accommodation and meals: 160 EUR per day (3 days covered) <p>The Grant will be provided after the completion of the training school through the e-COST system https://e-services.cost.eu.</p> <p>Travel and accommodation must be arranged by each participant after the receipt of the acceptance email and the official e-COST invitation.</p> |

Training School Schedule

Monday June 13th, 2016

| Time | Description |
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| 9:00-10:00 | An overview on the wastewater reuse practices and current challenges D. Fatta-Kassinis , Nireas International Water Research Center, University of Cyprus, Cyprus |
| 10:00-11:00 | Presentation of the NEREUS COST Action & other related ongoing projects D. Fatta-Kassinis , Nireas International Water Research Center, University of Cyprus, Cyprus |
| 11:00-12:00 | Wastewater reuse in Singapore: Technology overview and challenges T.T. Lim , Nanyang Technical University, Singapore |
| 12:00-13:30 | LUNCH |
| 13:30-14:30 | Oxidative treatment of municipal wastewater effluent for micropollutant elimination and disinfection: options and limitations Y. Lee , Gwangju Inst. of Science & Technology, South Korea |
| 14:30-15:30 | Bacterial diversity and eco-physiology in water and soil C. Manaia , Universidade Catolica Portuguesa, Portugal |
| 15:30-16:30 | Biotic/abiotic factors stimulating horizontal gene transfer in aquatic microbiomes T. Schwartz , Karlsruhe Institute of Technology, Germany |

Tuesday, June 14th, 2016

| Time | Description |
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| 9:00-10:30 | Welcome and introduction to antibiotic resistance in wastewater and agro-environments Celia Manaia , Universidade Catolica Portuguesa, Portugal Benjamín Piña , Consejo Superior de Investigaciones Científicas, Spain Thomas Berendonk , Technische Universität Dresden, Germany Eddie Cytryn , Agricultural Research Organization, Volcani Center, Israel |
| 10:30-11:00 | Coffee Break |
| 11:00-12:30 | Culture based techniques Celia Mania , Universidade Catolica Portuguesa, Portugal |
| 12:30-13:30 | LUNCH |
| 13:30-15:00 | Introduction to molecular techniques-emphasis on PCR and qPCR Benjamín Piña , Consejo Superior de Investigaciones Científicas, Spain |
| 15:00-15:30 | Coffee Break |

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| 15:30-16:30 | qPCR- from primer design to data analysis Thomas Schwartz , Karlsruhe Institute of Technology, Germany |
| 16:30-17:30 | Journal Club * Thomas Berendonk , Technische Universität Dresden, Germany |

* **Journal club** - papers on antibiotic resistance (will be sent to participants prior to the workshop)

Wednesday, June 15th, 2016

| Time | Description |
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| 9:00-10:45 | Genome based methodologies Eddie Cytryn , Agricultural Research Organization, Volcani Center, Israel |
| 11:00-12:30 | Workshop: introduction to group projects - 4-5 hands-on projects with tasks focusing on qPCR and bioinformatics hands case study analyses ** Teaching assistants |
| 12:30 - 13:30 | LUNCH |
| 13:30-16:00 | Workshop (continued) |
| 16:00-16:30 | Coffee Break |
| 16:30-18:00 | Project presentations (20 min each) |

****Workshop:** divide into 4-5 groups, each will receive a "project"