Job posting

Type of position

☒ scientific
☐ administrative

Target group

☒ graduates
☒ post docs
☐ other

Title Fourteen Research Positions in bio-diagnosis and chemical structure elucidation (13 PhD students and 1 postdoc)

Institution Within the 7th Framework Programme “Innovative biodiagnosis meets chemical structure elucidation – Novel tools in effect-directed analysis to support the identification and monitoring of emerging toxicants on a European scale“ – EDA-EMERGE.
Modern bio-diagnosis and effect directed analysis (EDA) are interdisciplinary approaches requiring biological as well as chemical skills to be successful. While the monitoring of priority pollutants in European river basins is well developed there is an increasing awareness that non-priority “emerging” chemical substances may pose a risk to aquatic ecosystems and human health. Typically, environmental samples are contaminated with thousands of compounds from different sources that may impact organisms and communities inhabiting surface waters and eventually penetrate ground and drinking water. Integrated and interdisciplinary approaches such as EDA including bio-diagnosis, effect-based monitoring, fractionation and chemical analysis are required, which requires a new generation of well trained young scientists.
Salaries will be in accordance with Marie Curie rules of the European Commission (http://ec.europa.eu/research/mariecurieactions/careers_en.htm).
Women are explicitly encouraged to apply to increase their share in science and research. Physically handicapped persons will be favoured if they are equally qualified.

Position PhD project 1
Title: Mechanism-specific screening tools in early life stages of Danio rerio
Required expertise: environmental science or biochemistry or similar
Location: RWTH Aachen University, Institute for Environmental Research, Department of Ecosystem Analysis, Aachen, Germany
Contact: Prof. Dr. Henner Hollert; email: Henner.Hollert@bio5.rwth-aachen.de
Link:http://www.zhv.rwth-aachen.de/mainzhv.php?scriptid=job&param=vorschau&nr=9925&typ=engl

PhD project 2
Title: Novel fish-based biological tools for EDA of endocrine disrupting chemicals (EDCs)
Required expertise: cell biology and/or analytical chemistry

Location: Institut National de l'Environnement Industriel et des Risques, Unité ECOT, France
Contact: Dr Selim Aït-Aïssa, email: selim.ait-aissa@ineris.fr
Link: http://www.ineris.fr/emplois/emploi-theses-details.php?id=1192

PhD project 3
Title: Fluorescing vertebrate models to detect endocrine disrupting compounds
Required expertise: Transgenesis, molecular biology
Location: WatchFrog, France
Contact: Dr. Andrew Tindall, email: Tindall@WatchFrog.fr
Link: http://watchfrog.fr/company/news_en.html#20100970

PhD project 4
Title: DNA microarray fingerprints directing EDA
Required expertise: Molecular biology
Location: Norwegian Institute for Water Research, Oslo, Norway;
Contact: Dr. Kevin Thomas, Tel: +47 92265694; email: kth@niva.no
Link: http://niva.easycruit.com/vacancy/652199/44555?iso=no

PhD project 5
Title: Proteomics approach to validate in vitro readouts and direct EDA
Required expertise: Biochemistry or analytical chemistry
Location: Swiss Federal Institute of Aquatic Science and Technology, Department of Environmental Chemistry, Switzerland
Contact: Prof. Kristin Schirmer, email: Kristin.Schirmer@eawag.ch
Link:
http://internet1.refline.ch/673277/0095/++publications++/1/index.html

PhD project 6
Title: Organisms metabolic functioning directing toxicant identification
Required expertise: analytical chemistry or environmental sciences, with an interest in biochemistry
Location: Vrije Universiteit Amsterdam, Faculty of Earth and Life Sciences, Institute for Environmental Studies, Amsterdam, Netherlands
Contact: Dr. Pim Leonards, Tel: +31(0) 20 598 9509; email: pim.leonards@ivm.vu.nl
Link: http://www.vu.nl/nl/Images/1.2012.00002_tcm9-249334.pdf

PhD project 7
Title: Fractionation procedures for comprehensive characterisation of contaminants using EDA
Required expertise: environmental or analytical chemistry
Location: Rudjer Boskovic Institute, Division for Marine and Environmental Research, Croatia
Contact: Prof. Dr. Marijan Ahel; Tel:+385-1-4560940, email: ahel@irb.hr
Link: http://www.irb.hr/files./eda-emerge

PhD project 8
Title: Identification and high-throughput quantitative chemical screening

of environmental pollutants using comprehensive multidimensional gas chromatography – mass spectrometry
Required expertise: analytical chemistry, mass spectrometry, chromatography
Location: Environmental Institute, Slovakia
Contact: Dr. Jaroslav Slobodnik, email: slobodnik@ei.sk
Link: http://www.ei.sk/?id=1_3_0_0

PhD project 9
Title: Structure elucidation combining accurate mass LC-MS/MS approaches with models and computer tools to predict retention and fragmentation
Required expertise: analytical chemistry or environmental sciences
Location: Department of Effect Directed Analysis, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany
Contact: Dr. Werner Brack, Tel: +49(0) 341 2351531; email: werner.brack@ufz.de
Link:http://www.ufz.de/index.php?de=11426&coma4_data[ske_stl_id]=1200&coma4_data[ske_seite]=detail

PhD project 10
Title: Diagnostic derivatisation in LC-MS/MS to provide new functional group-specific classifiers in structure elucidation
Required expertise: analytical chemistry or environmental sciences
Location: Department of Effect Directed Analysis, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany
Contact: Dr. Werner Brack, Tel: +49(0) 341 2351531; email: werner.brack@ufz.de
Link:http://www.ufz.de/index.php?de=11426&coma4_data[ske_stl_id]=1200&coma4_data[ske_seite]=detail

PhD project 11
Title: Development of a feasible procedure to monitor persistent toxic organic compounds or by-products formed during treatment processes such as drinking water production or wastewater treatment.
Required expertise: environmental or analytical chemistry with knowledge or interest in statistics and informatics
Location: Swiss Federal Institute of Aquatic Science and Technology, Department of Environmental Chemistry, Switzerland
Contact: Prof. Dr. Juliane Hollender; email: Juliane.Hollender@eawag.ch
Link: http://internet1.refline.ch/673277/0097/++publications++/1/index.html

PhD project 12
Title: High-throughput EDA – automated approaches to directly link fractionation, biotesting and identification
Required expertise: analytical chemistry or environmental sciences
Location: Norwegian Institute for Water Research, Oslo, Norway;
Contact: Dr. Kevin Thomas, Tel: +4792265694; email:

kth@niva.no
Link: http://niva.easycruit.com/vacancy/652239/44555?iso=no

PhD project 13
Title: Two-dimensional micro-fractionation approaches for separation of complex mixtures combined with bioassays and mass spectrometry
Required expertise: analytical chemistry or environmental sciences, with an interest in toxicology
Location: Vrije Universiteit Amsterdam, Faculty of Earth and Life Sciences, Institute for Environmental Studies, Amsterdam, Netherlands
Contact: Dr. Marja Lamoree, Tel: +31(0) 20 598 9573; email: marja.lamoree@ivm.vu.nl
Link: http://www.vu.nl/nl/Images/1.2012.00001_tcm9-249333.pdf

Postdoc project 1
Title: Innovative hybrid sample preparation techniques and compilation of a comprehensive chemical analytical toolbox for EDA
Required expertise: a PhD in environmental (analytical) chemistry or environmental (eco) toxicology, preferably with experience in Effect Directed Analysis (EDA) and/or related bioassays.
Location: KWR, Watercycle Research Institute, The Netherlands
Contact: Dr. Merijn Schriks; email: Merijn.Schriks@kwrwater.nl
Link: http://www.kwrwater.nl/page.aspx?id=4618

Responsibilities

The objective of the initial training network EDA-EMERGE is to train 14 young scientists (13 early stage researchers and 1 experienced researcher) with the skills to successfully address complex mixtures of chemicals impacting biological systems in European water bodies and human health, and to identify and prioritise major toxicants in these mixtures. An extensive training program will thus be implemented to provide competences in biological and chemical analysis, experimental and modelling approaches to link both toxicant identification and assessment. Furthermore, practical experience in organising and running actual monitoring campaigns on a European scale will be facilitated.

Requirements

Positions are intended to encourage mobility of researchers and are therefore subject to specific regulations of the European Commission. Applicants can be of any nationality but must not have resided or carried out their main activity (work, studies, etc) in the country of their host organisation for more than 12 months in the 3 years immediately prior to the starting date of the fellowship. PhD candidates (early stage researchers) should have an MSc degree or equivalent and less than 4 years of equivalent research experience from the date of the award of the degree that allows them to undertake doctoral studies. The experienced researcher (postdoc) must at the time of recruitment by the host organization, be in possession of a doctoral degree and have less than 5 years of full-time equivalent research experience.
Please see the specific requirements for each of the advertised

position.

Application procedure (deadline etc.)	Please follow the instructions related to each specific project. Applications should be submitted directly to the respective hosts.
Contact	For more information about the main project please contact: eda-emerge@ufz.de. For further details regarding specific positions, please contact the responsible scientists indicated in the specific advertisement.