

## HEALS Workshop- HEALS concepts and methodology

**Thessaloniki /Greece  
March 17 – 20, 2014**

**Hosted by  
Environmental Engineering Laboratory – Department of Chemical Engineering  
Aristotle University of Thessaloniki**

*To take place at the  
Research Dissemination Center of the Aristotle University of Thessaloniki  
Aristotle University Campus, 3rd Septemvriou street, 54636 Thessaloniki*

### AGENDA

#### Workshop on HEALS concept and methodology

##### Monday March 17, 2014

9:15 – 09:30 Welcome address and Opening of the meeting (S. Kouidou-Andreou, AUTH Vice-Rector)

9:30 – 9:45 Introduction – Aim of the meeting (D. Sarigiannis and I. Annesi-Maesano)

##### **Session 1: Progress reports of active Work Packages**

Each WP leader to report on progress, next steps, status and timeplan

09:45 – 10:45 Stream 1 (led by J. Cherrie)

09:45 – 10:05 WP1 (J. Cherrie)

10:05 – 10:25 WP2 (M. Horvat)

10:25 – 10:45 WP3 (D. Sarigiannis)

10:45 – 11:00 Coffee Break

11:00 – 12:30 Stream 2 (led by D. Sarigiannis)

11:00 – 11:20 WP4 (M. Horvat)

11:20 – 11:55 WP5 (R. Stierum)

11:55 – 12:15 WP6 (S. Karakitsios)

12:15 – 12:30 WP7 (D. Sarigiannis)

12:30 – 13:30 Lunch

13:30 – 14:15 Stream 3: (led by J. Bartzis)

13:30 – 13:50 WP8 (J. Bartzis)

13:50 – 14:15 WP9 (J. Cherrie)

14:15 – 14:45 Stream 4: (led by D. Sarigiannis)

14:15 – 14:45 WP12 (S. Nousiainen)

14:45 – 15:45 Stream 5: (led by I. Annesi-Maesano)

14:45 – 15:05 WP14 (G. Viegi)

15:05 – 15:25 WP15 (G. Calamandrei)

15:25 – 15:45 WP16 (I. Annesi-Maesano)

15.45 – 16.00 Coffee Break

16:00 – 16:45 WP17 - EXHES protocol (I. Annesi-Maesano)

16:45 – 17:30 Stream 6 (led by M. Schuhmacher)

16:45 – 17:10 WP18 (S. Bose-O'Reilly)

17:10 – 17:30 WP19 (J. Grimalt)

17:30 – 18:30 Start of the e-learning platform - live demonstration (S. Bose-O'Reilly)

21:00 Informal Concert of the European Union Youth Orchestra – Thessaloniki Concert Hall

**Tuesday March 18, 2014**

**Session 2: HEALS concept and methodology workshop**

*Methodology workshop part A: external exposome*

*Chairs: A. Gotti, E. Oliveira-Fernandes*

9:00 – 9:45 Measuring external exposome in the context of HEALS (J. Bartzis)  
9:45 – 10:30 How personal sensors can support external exposome at individual level (J. Cherrie)

10:30 – 11:00 Coffee break

11:00 – 11:45 The role of agent-based modeling in constructing the exposome (C Sabel)  
11:45 – 12:30 Data integration - exposure monitoring throughout lifetime (R. Friedrich)

12:30 – 13:30 Lunch

*Methodology workshop part B: internal exposome*

*Chairs: G. Calamandrei, L. Leondiadis*

13:30 – 14:15 Human Biomonitoring in the context of HEALS: links with -omics (M. Horvat)  
14:15 – 15:00 Functional integration of -omics technologies in the HEALS exposome concept (R. Stierum)

15:00 – 15:30 Coffee break

15:30 – 16:15 Internal dose modeling a bridge between external and internal exposure (D. Sarigiannis)

16:15 – 16:30 Administrative and financial issues update (A. Ostyn)

16:30 – 18:00 Management Board meeting

20:30 Social dinner

**Wednesday March 19, 2014**

*Methodology workshop part C: data management and modeling for EWAS*

*Chairs: S. Boese-O'Reilly, K. Polanska*

9:00 – 9:40 Building the HEALS Geodatabase platform (S. Nousiainen)  
9:40 – 10:10 Environmental data mining and management (K. Karagiannis)  
10:10 – 10:45 Novel bioinformatics strategies for biomarker prediction (C. Papaloukas)

10:45 – 11:15 Coffee break

11:15 – 11:50 Biostatistical methods for EWAS (S. Banerjee)  
11:50 – 12:30 The HEALS trademark: Environment-wide associations linking environmental exposures to health outcomes (D. Sarigiannis)  
12:30 – 13:00 HEALS methodology workshop closure (D. Sarigiannis, I. Annesi-Maesano)

13:00 – 14:00 Lunch

## **Workshop on Agilent exposomic workflows**

*Use of advanced analytical and -omics technologies for exposome research both in the EU and the USA. Implications for HEALS*

(co-hosted by Agilent)

### **AGENDA**

#### **Wednesday March 19, 2014**

*Chairs: D. Sarigiannis, R. Stierum*

- 14:00 – 14:45 Overview of Exposomics FP7 and NIEHS-funded projects (T. Karjalainen, D. Balshaw)
- 14:45 – 15:15 Agilent Overview (A. Macherone, M. Kontogiannis)
- 15:15 – 15:45 Coffee Break
- 15:45 – 16:30 Using the Blood Exposome to Discover Causes of Disease (A. Macherone)
- 16:30 – 17:30 Discussion and wrap-up

**21:00 Workshop Dinner**

#### **Thursday March 20, 2014**

*Chairs: A. Macherone, M. Horvat*

- 9:30 – 10:00 Data integration needs in exposomics research (D. Sarigiannis)
- 10:00 – 10:30 Example of omics work ongoing in FP exposomics consortium (G. Theodoridis)
  
- 10:30 – 11:00 Coffee break
  
- 11:00 – 11:45 Multi-omics data integration with GeneSpring including case studies (N. Skinner)
- 11:45 – 12:30 Live demonstration of Agilent technology and data analysis tools.
  
- 12:30 – 13:30 Lunch