

COST CLINIMARK TRAINING SCHOOL

Approaches for Biomarker Discovery and Validation



CA16113 - ClineiMARK



Exact dates of the Training School:	September 23 rd to 27 th 2019 Venue: Spetses Hotel, Greece
Number of working days (nights):	41/4 days (5 nights)
Deadline for applications	16 th June 2019

Participants

Instructors: 23 Senior Researchers from Academia, Industry and Regulatory Agencies

Trainees: 60 PhD and MSc students involved in biomarker research

The topics that will be covered during the workshop are the following:

- A) Introduction to the different **biomarker types** (diagnostic, prognostic, etc.)
- B) Introduction to the different **omics approaches** and their application in the context of biomarker research
- C) Emphasis on the importance of **defining the biomarker context of use** in the clinical setting before initiating a research protocol on biomarker discovery and validation
- D) Presentation of **good biomarker practice guidelines** on:
 1. **study design** (number and type of samples, proper statistical analysis, reporting of all findings, etc.)
 2. **analytical validation of assays** (reproducibility, LOD, linearity, etc.)
 3. **clinical performance** (sensitivity, specificity, etc.), validation in an independent large set of samples (ideally multi-center study) by different researchers (external independent validation)
 4. comparison of the performance of the new biomarker with biomarkers already used in clinical practice (umbrella reviews)
 5. tools for assessing if biomarkers are effective in improving concrete patient clinical outcomes (randomized trials, etc.)
 6. implementation in sub-optimal conditions and different populations.

Mon, Sep 23		Tue, Sep 24		Wed, Sep 25		Thu, Sep 26		Fri, Sep 27	
09:00	Arrival and Registration	Introduction to omics and Biomarkers Vlahou		Biomarkers for doping Köks		Clinical needs for biomarkers in COPD Penque		Biomarkers for psychiatric disorders Turck	
09:30		Biomarker panels by CE-MS Mischak		Biomarker clinical implementation Caceres		Proteomics for anxiety disorders: mind the mitochondria Filiou		Predictive biomarkers for CVD Simm	
10:00		Coffee break		Coffee break		Coffee break		Coffee break	
10:30		Targeted proteomics assays for biomarkers Brun		Quality control in biomarker research Wutte		Towards a paradigm change in biomarker implementation Groenen		Biomarkers of healthy ageing Chondrogianni	
11:00		Student talks 1-12		Student talks 19-30		Student talks 37-48		Student talks 49-60	
11:30		Lunch Break Poster viewing Discussions Free time		Lunch Break Poster viewing Discussions Free time		Lunch Break Poster viewing Discussions Free time		Lunch Break Poster viewing Discussions Free time	
12:00		Multiplex protein immunoassays Pongrac		Analytical validation of sRAGE MRM assay Bischoff		Meet the expert Study design, MRM data analysis Manuscript dissection		Meet the expert Biomarker assay validation Manuscript dissection	
12.30		Student talks 13-18		Student talks 31-36		Cultural excursion		Eureka: biomarker failures Zoidakis	
13:00		Coffee break		Coffee break				Coffee break	
13.30		Proteomics for biomarker discovery Aivaliotis		Biomarkers for Multiple Sclerosis Oliver				Epigenetics and Redox Biomarkers Bürkle	
14:00		Genomics, transcriptomics and metabolomics for biomarker discovery Koumandou		Liquid biopsy preparation Chris Sutton				Oxidative stress and biomarkers Grune	
14:30		Welcome Chondrogianni Zoidakis		Antibody Quality Control Saara Wittfooth					
15:00		Biomarkers at the interphase of academia and industry Van Gool		Poster session discussions		Poster session discussions		Summing-Up Round Table	
15.30		Welcome reception		Dinner		Dinner		Dinner	
16:00								Farewell reception / awards	
16:30									
17:00									
17:30									
18:00									
18:30									
19:00									
19:30									
20:00									
20:30									

Registration fee

Total all-inclusive registration fee for young scientists is (in €uro): **550 €**

This all-inclusive registration fee **breaks down** into costs for the whole duration of the workshop:

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| 1. Meals (breakfast, lunch & dinner) : | 229 | € |
| 2. Accommodation (double): | 290 | € |
| 3. Administrative part of registration fee: | 31 | € |

Venue information

The course will be held at Spetses Hotel in Greece (<https://spetses-hotel.gr/en/>)

The island of Spetses is easily accessible from and very well connected to Athens. Spetses is a well-established location for scientific training events and this hotel has successfully hosted many FEBS and IUBMB Advanced Courses in the past, with consistently positive experience and feedback. The hotel is easily accessible, but is in a quiet and secluded area of Spetses, allowing the participants to focus fully on the training course, and ensuring a perfect atmosphere for a relaxed but intensive interaction between the senior scientists and the trainees.

The hotel has full lecture facilities (the B. Clark lecture theatre with audio-visual aids, photocopiers, computers and free internet access) as well as ample space for poster sessions and informal meetings allowing direct interaction between participants, including the daily “meet the experts” sessions in the afternoons.

The meeting is on a full-board residential basis, so participants and lecturers will have all meals together, thus allowing additional informal discussions during these periods. The hotel has already confirmed reservation of the venue for the duration of the course and offers special group rates for the participants and lecturers of the course

Instructions for applicants and selection criteria

The training school will target early stage researchers (ESRs) with a background on molecular biology, biochemistry, chemistry, and medicine, primarily experienced PhD students and post-doctoral level scientists within 5 years after completion of their doctorate. Trainees will be selected primarily based on their qualifications relevant for the course content, their potential to contribute to the breadth of science and the benefit they are likely to obtain with respect to their future careers, while ensuring a broad participation from different countries.

Applicants should send to izoidakis@bioacademy.gr the following documents:

1. A two-page CV
2. A letter of intent that clearly states why she/he intends to participate in this training school (300 words maximum).
3. An essay (300 words maximum) supporting or opposing the use of PSA in a specific clinical context.

Deadline for applications: 16th of June 2019

For additional information contact Makis Zoidakis (izoidakis@bioacademy.gr)