



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

Dear colleagues, friends, and partners,

On behalf of the IFCC Scientific Division and the Greek Society of Clinical Chemistry- Clinical Biochemistry, we have the pleasure of **announcing** our Annual Scientific Conference, 22nd National Congress of the GSCC-CB on Mass Spectrometry in the Clinical Laboratory. This event is scheduled to take place in **Athens, Greece, from November 8 - 10, 2024**, and is conducted in conjunction with the IFCC Scientific Division (IFCC SD). The Presentation Title of this event is "**Mass Spectrometry Meets Clinical Laboratories**".

The conference will be held as hybrid (physical presence and virtual) facilitating colleagues who cannot attend.

This event aims to approach the new laboratory developments, through a special theme, which we have chosen for 2024, focusing, on the one hand, of informing laboratory professionals and clinicians about the strengths and challenges of this new technology and on the other hand, on understanding of aspects specific to mass spectrometry-based assays, including test standardization and compliance with ISO standards, understanding of the role of mass spectrometry technology among the various technologies available to the clinical laboratory, highlighting the opportunities created nowadays.

The Scientific and Organizing Committee will make every effort to submit an education program that is as focused as possible. This will be done with the scientifically targeted work of colleagues and with presentations of industry activities to promote innovation in our country.

For this reason, we invite you to participate actively, either by presenting your scientific work or your observations from daily work in routine workshops. By sharing your knowledge and experience, you will be able to not only gain insight into the current state but also to help shape the future of the field with your ideas. Additionally, by participating actively in the Conference, you will have the opportunity to network with experts in the field and learn from their experiences.

Organization



Under the Auspices of





22nd IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

The conference is expected to be attended by specialized laboratory scientists (Biochemists, Chemists, Biologists, Microbiologists, Pathologists, etc.) from Greece and abroad.

During the conference there will be presentations of distinguished Greek and foreign scientists, Symposia, Round Tables, as also as exhibition of IVD instruments and reagents and Satellite Symposia organized from IVD Companies for the presentation of new methodologies or instruments.

The Organizing Committee believes that the success of the congress will depend to a large extent on your cooperation and participation.

Yours sincerely

For the IFCC SD

Christa Cobbaert
Chair

Hubert Vesper
Member

Konstantinos Makris
Vice-Chair

For the GSCC-CB

Nikos Galiatsatos
Congress President

Christos Tsatsanis
Scientific Committee President

Evgenia Konsta
Organizing Committee President

Organization



Under the Auspices of



PRELIMINARY PROGRAM

Friday, November 8

09:00- 09:05 Welcome

09:05- 10:05 Session 1

Mass spectrometry in the clinical laboratory – What is it about?

The aim of this session is to provide a general overview of the principle of mass spectrometry, the different mass spectrometry instruments and different method principles (direct injection, sample preparation prior to analysis, single and multianalyte analysis). Applications related to these different instruments and methodological approaches relevant to laboratory medicine will be provided.

At the end of this session, participants should be able to:

- Describe the principle of mass spectrometry
- Understand different methodological approaches used to measure analytes in laboratory medicine
- Summarize different areas in laboratory medicine where mass spectrometry is being used

Moderator: Hubert Vesper

Presentation Title:

Speaker: William (Bill) Clark

Presentation Title: When and how to make the transition from conventional technology towards mass spectrometry

Speaker: Brian Keevil

10:05- 10:20 Break

10:20- 11:50 Session 2

LC-MS/MS in TDM – Addressing new clinical needs fast

The aim of this session is to provide insights in use of mass spectrometry for therapeutic drug monitoring and its advantages over other conventional methodologies. Examples will be provided on how mass spectrometry provides the clinical laboratory with flexibility to effectively address new challenging situations in patient care.

At the end of this session, participants will be able to:

- Describe commonly used applications of mass spectrometry in TDM
- Explain using examples how mass spectrometry can address clinical needs
- Discuss different applications used in TDM

IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

LC-MS/MS in TDM – Addressing new clinical needs fast

Moderator: Christoph Seger

Presentation Title: Overview of mass spectrometry in TDM

Speaker: Maria Shipkova

Presentation Title: Measurement of CFTR modulators in Cystic Fibrosis

Speaker: Katharina Habler

Presentation Title: TDM of immunosuppressive drugs in organ transplant patients by LC-MS/MS

Speaker: Christoph Seger

12:00- 13:15 Session 3

LC-MS/MS applications in Endocrinology – Improving the diagnosis and treatment of endocrine diseases

The aim of this session is to describe current challenges in endocrine testing and approaches to overcome them by use of mass spectrometry.

At the end of this session, participants will be able to:

- Summarize the analytical performance of traditional technologies measuring hormones and other endocrine biomarkers
- Explain how mass spectrometry can address current limitations with endocrine testing
- List examples of established applications for endocrine analytes

Moderator: Uta Ceglarek

Presentation Title: Mass spectrometry in pediatric endocrinology a physician's perspective

Speaker: Constantinos Stratakis

Presentation Title: Enhancing primary Newborn Screening for Congenital Adrenal Hyperplasia with LC-MS³ methodology

Speaker: Alexander Gaudi

Organization



Under the Auspices of



13:15- 14:00 Light Lunch

14:00- 15:30 Manufacturer's viewpoint on the future of Mass Spectrometry in diagnostics

15:30- 16:45 Session 4

Ensuring the quality of measurements for mass spectrometry assays – is there anything special?

This session provides an overview on how mass spectrometry assays can be integrated in the existing laboratory infrastructure and on tools available to the laboratory to ensure quality and consistency of patient results. It provides information about experiences with operating LDTs and fully automated systems.

At the end of this session, participants will be able to:

- Describe parameters unique to mass spectrometry methods that need to be controlled to ensure appropriate quality
- Understand approaches to integrate mass spectrometry methods in the laboratory quality system
- List tools available to laboratories to ensure quality and reliability of measurements

Moderator: Alexander Haliassos, Serafeim Karathanos

Presentation Title: Quality systems for commercial and lab developed mass spec tests – Is there a difference?

Speaker: Michael Vogeser

Presentation Title: Guidelines for implementation and use of mass spectrometry in laboratory medicine

Speaker: Brian Rappold

Presentation Title: From EQA to formal standardization programs – QA Tools and services available to laboratories

Speaker: Hubert Vesper

17:00- 18:00 Manufacturer's viewpoint on the future of Mass Spectrometry in diagnostics

Social Event

Saturday, November 9

09:00- 09:05 Welcome

09:05- 10:15 Session 5

Mass spectrometry as a new tool in the laboratory portfolio – Is it value for money?

In this interactive session the advantages, challenges and opportunities of clinical LC-MS/MS as alternate to, or as addition to, traditional clinical analyzer-based assays will be discussed. Brief presentations describing the viewpoints from different stakeholders will provided and then discussed with the audience.

At the end of this session, participants will be able to:

- *Explain how mass spectrometry can complement current testing options in the laboratory*
- *Understand limitations of mass spectrometry and administrative challenges in implementing this technology in clinical laboratories*
- *Describe the impact mass spectrometry can have to patient care*

Moderator: Kostas Makris/ Hubert Vesper

Presentation Title: The laboratory viewpoint

Speaker: Uta Ceglarek

Presentation Title: The IVD-industry viewpoint

Speaker: Elie Fux

Presentation Title: The Physician's viewpoint

Speaker: Andrew Margioris

Presentation Title: The IFCC SD viewpoint

Speaker: Christa Cobbaert

10:15- 10:30 Break

IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

10:30- 11:45 Session 6

Clinical mass spectrometry - beyond small molecules: Quo Vadis?

This session provides an outlook of new and emerging applications of mass spectrometry in laboratory medicine and insights into challenges of transferring research methods into clinical practice.

At the end of this session, participants will be able to:

- Describe new research methods in lipidomics and challenges to implement them in the clinical laboratory
- Understand approaches used to analyze large, complex proteins by mass spectrometry
- Explain how measurements of multiple analytes can assist with precision medicine

Moderator: Christa Cobbaert

Presentation Title: Lipidomics biomarker discovery – the Ceramide Case study

Speaker: Dr Anne Bendt

Presentation Title: Towards an MS-based reference measurement procedure for cardiac troponin

Speaker: Claudia Swart

Presentation Title: Demonstrating Clinical Performance and Clinical Effectiveness of a 7-plex serum Apolipoprotein Panel in the Odyssey Outcomes Trial.

Speaker: Christa Cobbaert

11:45- 12:00 IFCC Symposium Closing Remarks

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

22nd National Congress of the Greek Society of Clinical Chemistry- Clinical Biochemistry

12:00- 13:00 Oral Presentations

13:00- 13:45 Lecture on Mass Spectrometry

Presentation Title: Clinical proteomics in the era of precision medicine

Speaker: Michalis Aivaliotis

13:45-14:30 Sponsored Satellite Symposium

14.30-15.30 Light Lunch Break

15:30- 16:30 Symposium on Mass Spectrometry

Moderator: TBA

Presentation Title: Endocrine testing using Mass Spectrometry

Speaker: Anemieke C. Heijboer

Presentation Title: Identification of biomarkers using Mass Spectrometry-based metabolomics analysis

Speaker: George Theodoridis

Presentation Title: Expanding the capabilities of LC-MS in newborn screening

Speaker: Giovanni Rodríguez-Blanco

17:00 -18:00 Guest Lecture

The future of standalone HPLC as an analytical technique in the Clinical Laboratory

19:00 Welcome

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

Sunday November 10th

09.00-10.00 Oral presentations

10.00-11.00 Symposium on Mass Spectrometry

Presentation Title: The role of Mass Spectrometry in the measurement of vitamins and their metabolites (focus on vitamin D metabolites)

Speaker: Markus Herrmann

Presentation Title: Human sports drug testing (monitoring doping) by mass spectrometry
TBD

Presentation Title: Services provided by a Metrology Laboratory relevant to Laboratory Medicine

Speaker: Elias Kakoulidis

11.00-11.30 Coffee Break

11.30-12.30 Symposium on Mass Spectrometry applications

Presentation Title: Untargeted proteomics for identification of biomarkers

Speaker: Martina Samiotaki

Presentation Title: Metabolomic and molecular insights into sickle cell disease and innovative therapies

Speaker: TBA

Presentation Title: Mass spectrometry for the identification of biomarkers for Coronary Artery disease

Speaker: Paolo Magni

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

12:30-13:30 Sponsored Satellite Symposium

13:30-14:30 Light Lunch Break

14:30-15:30 Cardiovascular Disease biomarkers

Presentation Title: Hypertriglyceridemia, what should we do in clinical practice?

Speaker: Kalliopi Grigoriou

Presentation Title: Lp(a), structure and metabolism

Speaker: Adamantia Kalyva

Presentation Title: Lp(a), laboratory analysis, reliability of measurement methods, interferences, errors, new methods.

Speaker: Georgia Konisti

Presentation Title: The role of Lp(a) in the pathophysiology of aortic stenosis and cardiovascular disease.

Speaker: Charalambos Papastamos

Presentation Title: Lp(a) and cardiovascular disease, evidence from clinical studies.

Speaker: Spyridon Simantiris

Presentation Title: Management of the patient with elevated Lp(a): current practice and novel therapeutic approaches

Speaker: Ioannis Andrikou

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

Mass Spectrometry
Meets Clinical Laboratories

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

15:30-16:30 EQA in clinical laboratories

Presentation Title: The Utility of Horizontal Guidelines for the Assessment of Clinical Laboratories

Speaker: Panagiotis Kanellopoulos

Presentation Title: Artificial intelligence in External Quality Assessment - Proficiency Testing schemes (EQA-PT) in Laboratory Medicine

Speaker: Alexander Haliassos

18:00 CLOSING REMARKS

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

Mass Spectrometry
Meets Clinical Laboratories

INDEX:

AIVALIOTIS MICHAEL

Associate Professor of Biochemistry, Medicine Department, Aristotle University of Thessaloniki GR

BLANCO GIOVANNI RODRÍGUEZ

Dr. Chief Scientist, Special Analytics and Pediatric Metabolism Area, CIMCL, University Hospital LKH Graz AU

GRIGORIOU KALLIOPI

Consultant Cardiologist, 1st Cardiology Department, Hippokration Hospital, National and Kapodistrian University of Athens

HEIJBOER ANNEMIEKE

Prof. Dr. Head Endocrine Laboratory, Amsterdam NL

HERMANN MARKUS

Prof. Dr. med. habil. FRCPA

Chair of Institute, Clinical Institute of Medical and Chemical Laboratory Diagnostics Medical University of Graz AU

KANELLOPOULOS PANAGIOTIS

Dr. Biologist, Biochemistry Department, Laiko Hospital GR

KROUPIS CHRISTOS

Professor of Biochemistry Dept. of Clinical Biochemistry Attikon University General Hospital, Medical School National and Kapodistrian University of Athens GR

MAGNI PAOLO

MD-PhD, Dipartimento di Scienze Farmacologiche e Biomolecolari "Rodolfo Paoletti" (DiSFeB), Università degli Studi di Milano IT

MAKRIS KONSTANTINOS

Dr. Clinical Biochemist Director of Clinical Biochemistry Department KAT General Hospital GR

Organization



Under the Auspices of



IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

Mass Spectrometry
Meets Clinical Laboratories

SAMIOTAKI MARTINA

Dr. Biomedical Sciences Research Center "Alexander Fleming", Institute for Bioinnovation, Vari GR

STRATAKIS CONSTANTINOS

Professor of Pediatrics,
Director, EDIMO & Human Genetics and Precision Medicine, Institute for Molecular Biology & Biotechnology (IMBB), Foundation for Research & Technology Hellas (FORTH), Heraklion, Greece

TSATSANIS CHRISTOS

Professor of Clinical Chemistry, Medical School, University of Crete GR

IFCC SYMPOSIUM

CLARK WILLIAM (BILL)

Professor of Pathology, Deputy Director, Quality and Regulatory Affairs; Pathology Johns Hopkins Medical Institutions US

COBBAERT CHRISTA

Dr. Head of the Department of Clinical Chemistry and Laboratory Medicine, Leiden University Medical Center NE

HABLER KATHARINA

Dr. Scientific Associate Department of Special Analytics LMU Clinic Institute of Laboratory Medicine DE

HALIASSOS ALEXANDER

Dr. Clinical Chemist, ESEAP GR

GAUDL, ALEXANDER

Dr. Research Lab Supervisor Institute of Laboratory Medicine, Clinical Chemistry, and Molecular Diagnostics Section Clinical Mass Spectrometry DE

KARATHANOS SERAFEIM

MSc, Biologist, ESEAP (External Quality Assessment Schemes for Clinical Laboratories), Athens, GR

Organization



Under the Auspices of





IFCC
SCIENTIFIC
DIVISION
SATELLITE
MEETING
22nd GREEK
NATIONAL
CONGRESS
OF CLINICAL
CHEMISTRY

www.eekx-kb.gr

8-9-10

NOVEMBER 2024

Venue: Athens War Museum

Mass Spectrometry
Meets Clinical Laboratories

KEEVIL BRIAN

Prof. Consultant Clinical Scientist Directorate of Clinical Biochemistry, Manchester University NHS Foundation Trust, Wythenshawe Hospital US

MARGIORIS ANDREW

Emeritus Professor, University of Crete School of Medicine

VESPER HUBERT

Dr. Director clinical Standardization Programs Protein Biomarker Laboratory and Lipid Reference Laboratory Atlanta, Georgia US

VOGESER MICHAEL

Senior Physician LMU University Hospital, LMU Munich Institute of Laboratory Medicine DE

SEGER CHRISTOPH

PD Dr. FAMH Klinische Chemie, EuSpLM, Labordiagnostic St. Gallen DE

SWART CLAUDIA

Dr. Physical-Technical Federal Institute Department: Biochemistry Working group: Species analysis DE

Organization



Under the Auspices of

