

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, 22<sup>nd</sup> 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".

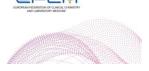
The conference will be held as hybrid (physical presence and virtual) facilitating colleagues who cannot attend.

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.

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 Hubert Vesper Konstantinos Makris

Chair Member Vice-Chair

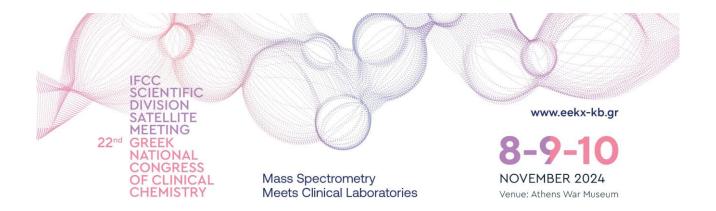
## For the GSCC-CB

Nikos Galiatsatos Christos Tsatsanis Evgenia Konsta
Congress President Scientific Committee President Organizing Committee President









# PRELIMINARY PROGRAM

# Friday, November 8

# 09:00- 09:05 Welcome Christa Cobbaert, IFCC SD chair

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

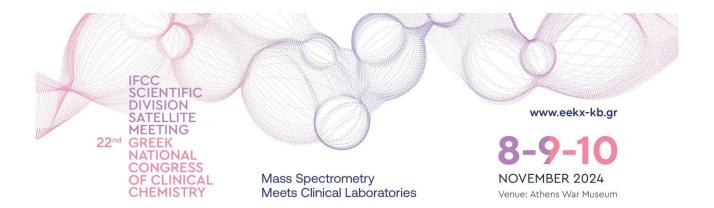
Presentation Title: Starting with the Basics: How Does Mass Spectrometry Work

Speaker: William (Bill) Clarke

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

mass spectrometry
Speaker: Brian Keevil





### 10:35-11:50 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

Moderator: Christoph Seger

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: The use of mass spectrometry in clinical medicine: an example from

endocrinology

Speaker: Constantine Stratakis

Presentation Title: Enhancing primary Newborn Screening for Congenital Adrenal Hyperplasia with

LC-MS<sup>3</sup> methodology

Speaker: Alexander Gaudl

13:15- 14:00 Light Lunch

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

# Main Room

Presentation Title: Sample preparation with paramagnetic particles - an innovation in clinical

mass spectrometry

Speaker: Michael Vogeser

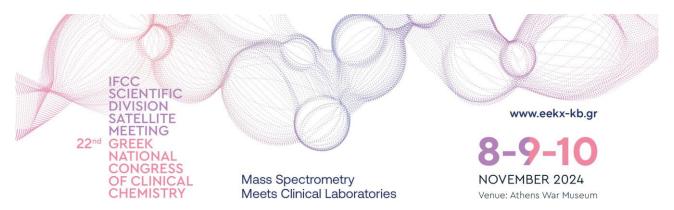
Presentation Title: Our vision of clinical mass spectrometry

Speaker: Martina Wiesgigl









#### Parallel Room

Presentation Title: Expanding capabilities towards mass spectrometry workflows in precision medicine.

Speaker:Edward Goucher

#### Parallel Room 2

Presentation Title Title - Design and Development of The EXENT System: a Closed Mass Spectrometry Solution for Routine Clinical Use. Key learning objectives - to understand (1) the rationale for a closed mass spectrometry solution, (2) the design approach for a closed mass spectrometry solution and (3) the automated approaches to data review.

Speaker: Katie Horton

#### 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









Moderators: Christa Cobbaert, Alexander Haliassos

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: EQA and formal standardization programs – Tools and services available to

laboratories to improve and maintain quality testing

Speaker: Hubert Vesper









# Saturday, November 9

# 09:00- 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

Moderators: Kostantinos Makris, Hubert Vesper Presentation Title: The laboratory viewpoint

Speaker: Uta Ceglarek

Presentation Title: The IVD-industry viewpoint

Speaker: Elie Fux

Presentation Title: Mass spectrometry as a new tool in the laboratory portfolio – Is it value for

money? An Endocrinologist's viewpoint

Speaker: Andrew Margioris

Presentation Title: The IFCC SD viewpoint

Speaker: Christa Cobbaert

10:15-10:30 Break









## 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: Anne Bendt

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

Speaker: Claudia Swart (VIRTUAL)

Presentation Title: Demonstrating Clinical Performance and Clinical Effectiveness of a multi plex

serum Apolipoprotein Panel in the Odyssey Outcomes Trial.

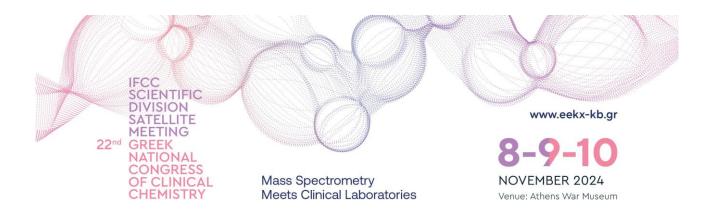
Speaker: Christa Cobbaert

# 11:45- 12:00 IFCC Symposium Closing Remarks









22<sup>nd</sup> National Congress of the Greek Society of Clinical Chemistry- Clinical Biochemistry

# 12:00- 12:30 Sponsored Satellite Symposium

Θέμα: Ανοσολογικός Αναλυτής DXI 9000 Beckman Coulter. Καθορίζοντας τα νέα πρότυπα

Ομιλητής: Ioannis Vamvoukakis

# 12:30-13:10 Oral Presentations

Moderators: Evgenia Konsta, Panagiota Spyropoulou

12:30-12:40

Presentation Title: M6A EPITRANSCRIPTOME-WIDE GENOMIC VARIATIONS IN BLADDER CANCER

PROGRESSION AND TREATMENT OUTCOME

Speaker: Margaritis Avgeris

12:40-12:50

Presentation Title: CIRCULATING TRNA-DERIVED FRAGMENTS SCREENING IN MULTIPLE MYELOMA:

5'-TRFGLYCCC AS A PROMISING NON-INVASIVE PROGNOSTIC INDICATOR

Speaker: Spathi Andreas-Evangelia

12:50-13:00

Presentation Title: DETECTION OF TARDBP GENE MUTATIONS IN FRONTOTEMPORAL

Speaker: Chrisanthi Tsingka

13:00-13:10

Presentation Title: PROGRESS ON THE STANDARDISATION OF A-SYNUCLEIN AND NEUROFILAMENT

LIGHT CHAIN BIOMARKERS IN NEURODEGENERATIVE DISEASES

Speaker: Luise Luckau









# 13:10- 14:00 Lecture on Mass Spectrometry

**Moderator: Christos Tsatsanis** 

Presentation Title: Clinical proteomics in the era of precision medicine

**Speaker: Michalis Aivaliotis** 

# 14:00-14:45 Sponsored Satellite Symposium

Moderators: George Karamanis, Eleni Gkika

Presentation Title: Unlocking Capabilities in Diagnostic Solutions

**Speaker: Anastasios Papadopoulos** 

# 14.45-15.30 Light Lunch Break

# 15:30- 16:30 Symposium on Mass Spectrometry

Moderators: Konstantinos Makris, Alexander Haliassos

Presentation Title: Endocrine testing using Mass Spectrometry

Speaker: Annemieke C. Heijboer

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

analysis

Speaker: George Theodoridis

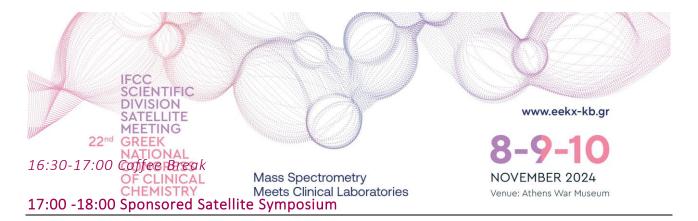
Presentation Title: Expanding the capabilities of LC-MS in newborn screening

Speaker: Giovanny Rodríguez-Blanco









# Inflammatory Biomarkers of Infection and Current Guidance on Procalcitonin

17:00-17:20

Presentation Title Inflammatory biomarkers of Infection

Speaker: Christos Tsatsanis

17:20-18:00

Presentation Title Current guidelines on use of PCT and practical guidance for clinical laboratories.

Speaker: Joshua Hayden (remotely)

Q&A

## 18:00-19:30 Guest Lectures

## 18:00-19:00

Moderator: Matteo Vidali, Konstantinos Makris

A step beyond the well-known HPLC

Presentation Title: The different approaches in the amino acid analysis in biological matrices

Speaker: Bruno Casetta

Presentation Title: iohexol measurement for true GFR evaluation..

Speaker: Fabiola Carrara

19:00-19:30

Presentation Title: Positive impact of LC-MS/MS methods in the clinical laboratories for various

Endocrine Disorders Speaker:Ravinder J. Singh

# 19:30 Welcome

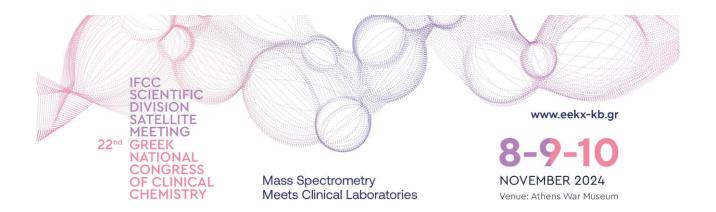
Alexander Haliassos, Christos Tsatsanis

# Welcome Cocktail









# **Sunday November 10**

# 09.00-09.50 Oral presentations

Moderators: Irini Leimoni, Marilena Stamouli

09:00-09:10

Presentation Title: INCREASED SPECIFICITY OF THE "GFAP/UCH-L1" MTBI RULE-OUT TEST BY AGE

DEPENDENT CUT-OFFS.

Speaker: George Vavoulis

09:10-09:20

Presentation Title: COMBINING METABOLOMICS AND LIQUID BIOPSY TO IDENTIFY DIAGNOSTIC

AND PROGNOSTIC BIOMARKERS IN PATIENTS WITH NON-SMALL CELL LUNG CANCER

Speaker: Alexandra Delipetrou

09:20-09.30

REFERENCE INTERVALS FOR PLASMA CONCENTRATIONS OF C-TERMINAL TELOPEPTIDE OF TYPE-I

COLLAGEN (CTX)FOR GREEK ADULT POPULATION

Speaker: Ioulia Trifonidi

09:30-09:40

Presentation Title:

ΑΝΑΠΤΥΞΗ ΜΕΘΟΔΟΥ ΑΝΙΧΝΕΥΣΗΣ ΚΑΙ ΠΟΣΟΤΙΚΟΠΟΙΗΣΗΣ ΔΟΞΟΡΟΥΒΙΚΙΝΗΣ ΜΕ ΧΡΗΣΗ ΤΗΣ

ΜΕΘΟΔΟΥ LC-MS

Speaker: Νικόλαος Δόγκας

09:40-09:50

Presentation Title:

IS OUR ICT INFRASTRUCTURE SECURE ENOUGH? AN ANALYSIS OF SOFTWARE AND HARDWARE

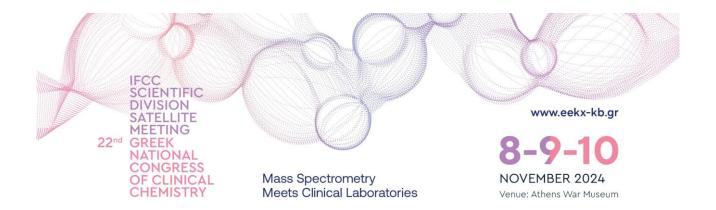
VULNERABILITIES IN THE CLOUD COMPUTING AND CHATGPT ERA.

Speaker: Serafeim Karathanos









# 10:00-11:00 Symposium on Mass Spectrometry applications

Moderators: Christos Tsatsanis, George Koutsodontis

Presentation Title: Multi-omics for the identification of biomarkers for Coronary Artery disease

Speaker: Paolo Magni, Thomas Matulli

Presentation Title: Untargeted proteomics for identification of biomarkers

Speaker: Martina Samiotaki

11:00-11:30 Coffee Break

# 11:30-12:30 Symposium on Mass Spectrometry Moderators: Maria Venychaki, Alexandros Haliassos

Wioderators. Waria Verryeriaki, Alexandros rianassos

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: Services provided by a Metrology Laboratory relevant to Laboratory Medicine

Speaker: Elias Kakoulidis

# 12:30-13:30 Sponsored Satellite Symposium

**peaker:** Mr. Apostolos Belimezis, Snibe Representative **Title of the Lecture:** How MAGLUMI X Illuminating Your Lab

Title of the Lecture: How MAGLUMI X Illuminating Your Lab

Speaker: Apostolos Belimezis, Snibe Representative









# 13:30-14:30 Light Lunch Break

# 14:30-15:30 Cardiovascular Disease biomarkers

Moderators: Christos Kroupis, Nikos Galiatsatos

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

Speaker: Kalliopi Grigoriou

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

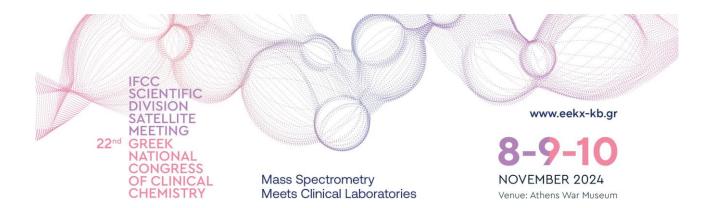
therapeutic approaches

Speaker: Ioannis Andrikou









# 15:30-16:30 EQA in clinical laboratories

Moderators: Maria Trapali, Alexander Haliassos

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

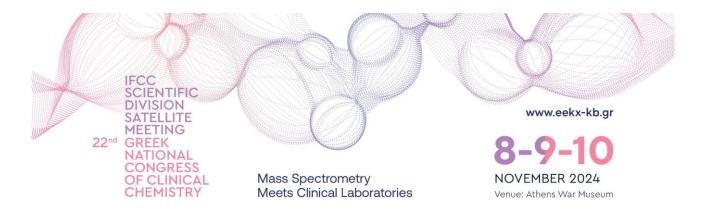
Speaker: Serafeim Karathanos

# 16:30 AWARDS -CLOSING REMARKS









## **IFCC SYMPOSIUM**

#### **BENDT ANNE**

Deputy Director & Principal Investigator Singapore Lipidomics Incubator (SLING) National University of Singapore

## **CEGLAREK UTA**

Dr, EurSPLM, Associate Professor, Head of Clinical Mass Spectrometry Section University Medical Center Leipzig, Institute of Laboratory Medicine, Clinical Chemistry and Molecular Diagnostics, Germany

## CLARK WILLIAM (BILL)

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

# COBBAERT CHRISTA

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

#### **FUX ELIE**

R&D Roche Diagnostics -Germany

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Dr., Senior Scientist, Institute of Laboratory Medicine, LMU University Hospital, LMU Munich Germany

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Dr Clinical Chemist, MD, ESEAP Proficiency Testing Scheme for Clinical Laboratories Athens, Greece

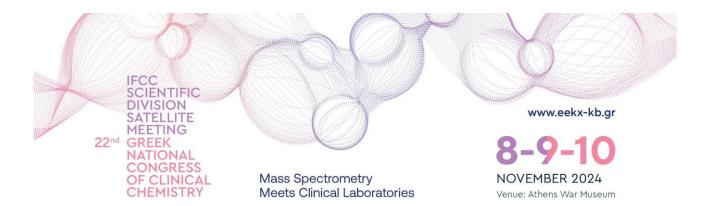
#### HORTON KATIE

Medical Scientific Liaison Specialist - EXENT









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

#### STRATAKIS CONSTANTINOS

Senior Associate & Former Scientific Director, NICHD, NIH, Bethesda, MD, USA Director, Human Genetics & Precision Medicine, IMBB, FORTH, Heraklion, Greece CSO, Healthspan Digital, Canada & Medical Director, Sterotherapeutics, USA

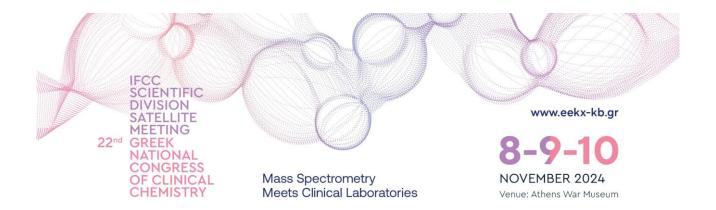
# **SWART CLAUDIA**

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









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

#### ANDRIKOU IOANNIS

Consultant Cardiologist, Intensive Care Unit, Hippokration G.H.A.

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#### CARRARA FABIOLA

Researcher, Mario Negri Institute for Pharmacological Research | Mario Negri · Department of Renal Medicine

#### CASETTA BRUNO

Scientific Director, B.S.N. srl, Castelleone Italy

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Analysis of Circulating Tumor Cells Lab, Laboratory of Analytical Chemistry, Department of Chemistry, National and Kapodistrian University of Athens

#### **DOGKAS NIKOLAOS**

Clinical Biochemistry Department, Metaxa Hospital

#### **GALIATSATOS NIKOS**

Clinical Biochemist, Director of the Clinical Biochemistry Department Hippocration Hospital

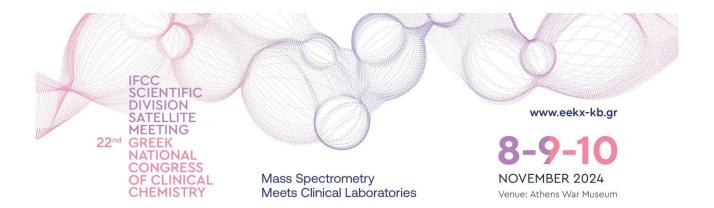
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#### JOSHUA HAYDEN

Dr, DABCC, FADLM, Norton Healthcare Chief of Chemistry, Louisville, Kentucky.

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#### LEIMONI IRINI

Dr. Biologist, Quality Assurance Manager, AFFIDEA GR

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Organization







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