



**28th International Conference on Laboratory Medicine and
Pathobiology:
An Expert forum on Innovation in Integrated Diagnostics and
New Technologies (ISE2025)**

July 12-16, 2025, Kefalonia Island, Greece



Congress Venue: [Mediterranee Hotel, Lassi , Kefalonia Island, Greece](#)

ISE2025

Under the auspices of the: International Society for Enzymology

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Congress organizer: Heraklio travel SA

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Scientific Programme

Invited Speakers' Abstracts

Poster Abstracts

Saturday, 12th July 2025

17:00 - 18:00. Registration – Information

Opening Ceremonies: 18:00 - 20:30 (11:00-1:30pm EST)

***Chairs: Andreas Scorilas, Ioannis Prassas
George Yousef & Eleftherios P. Diamandis***

18:00 - 18:30 History of Kefalonia Island (I. Prassas)

18:30 - 19:15 Plenary Lecture

*The four paradigms of aging, the most precocious
personalized prevention and the proposal for a «health
score»*

Francesco Salvatore

Department of Molecular Medicine & Medical Biotechnologies,
University of Naples Federico II and Ceinge-Biotecnologie Avanzate
and Naples, Italy

Sunday, 13th July 2025

Session I: Coordinators:

Francesco Salvatore & Andreas Scorilas

10:15 - 10:40. *Ethical Issues and Editorial Policies in the Era of Artificial Intelligence*

Mario Plebani

Honorary Professor of Clinical Biochemistry and Clinical Molecular Biology, University of Padova-Italy.

President, European Federation of Laboratory Medicine (EFLM)

10:40-11:05. *Targeting the sweet to improve the sour: towards novel cancer diagnosis.*

Panagiota Filippou

Laboratory of Biological Chemistry, School of Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece

11:05-11:35. *Integrating RNAseq and Transcriptome Analysis in Clinical Laboratories to Accelerate Diagnoses in Pediatrics.*

Lianna Kyriakopoulou

The Hospital for Sick Children, Genome Diagnostics and Research Institute & University of Toronto, Laboratory Medicine and Pathobiology, Toronto, Canada

11:35-12:05. Questions & Discussion

12:05 -12:45 BREAK

Sunday, 13th July 2025

Session II: Coordinators:

George Yousef, & Panagiota Filippou

12:45-13:10. Mechanisms of the Beneficial Effects of Exercise on the Brain.

Margaret Fahnestock

McMaster University, Hamilton, Canada

13:10-13:35. Genetic Paradox: A PSA Variant That Masks Prostate Cancer and Promotes Metastasis.

Jyotsna Batra

School of Biomedical Sciences, Faculty of Health and Translational Research Institute, Queensland University of Technology and Centre for Genomic and Personalised Health, Queensland University of Technology, Brisbane, QLD, Australia.

13:35-13:55. VIRMA m6A writer copy number alteration drives bladder cancer progression.

Katerina-Marina Pilala

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

13:55-14:15. MDM2 as a therapeutic target in muscle-invasive bladder cancer: Insights from Copy Number Alteration analysis in clinical cohorts and PDX models.

Marilia Papadimitriou

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

14:15-14:45. Questions & Discussion

Monday, 14th July 2025

Session III: Coordinators:

Jyotsna Batra & Marios Diamantopoulos

10:15- 10:40. *Beyond the Scale: The Expanding Therapeutic Horizon of GLP-1 Receptor Agonists.*

Steven Boyages

The University of Sydney, Department of Diabetes and Endocrinology, Westmead Hospital, Westmead.

10:40-11:00. *Decoding the m5C epitranscriptome in breast cancer: genome editing meets direct RNA nanopore sequencing.*

Konstantina Athanasopoulou

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

11:00-11:20. *Investigating m6A dynamics in HeLa cells though ALKBH5 knockout and nanopore sequencing.*

Glykeria Daneva

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

11:20-11:35. *Full-length characterization of alternative transcripts in the ALKBH gene family using direct RNA sequencing.*

Vasiliki-Ioanna Michalopoulou

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

11:35-12:00. Questions & Discussion

12:00 -12:45 BREAK (e-poster viewing)

Monday, 14th July 2025

Session IV: Coordinators:

Margaret Fahnestock & Lianna Kyriakopoulou

12:45-13:05. *Exploring the mRNA epitranscriptome in breast cancer.*

Panagiotis G. Adamopoulos

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

13:05-13:25. *Circular RNAs: highly promising molecular biomarkers in hematological malignancies.*

Christos K. Kontos

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

13:25-13:40. *Suppressing PPP1R15A sensitizes acute myeloid leukemia cells to chemotherapeutic agents by disrupting DNA repair mechanisms.*

Christina D. Sotiropoulou

Second Department of Internal Medicine and Research Institute, National and Kapodistrian University of Athens, Athens, Greece

13:40-14:05. *Targeting Human Tissue Kallikreins: Discovery of Novel KLK Inhibitors as Broad-Spectrum Antivirals Against Respiratory Viral Infections.*

Ioannis Prassas

Laboratory Medicine Program, University Health Network.
Department of Laboratory Medicine & Pathobiology
University of Toronto, Canada

14:05-14:45. Questions & Discussion

Tuesday, 15th July 2025

Session V: Coordinators:

Ioannis Prassas & Marcella Nunziato

10:15-10:40. *The digital pathology transformation: Playing a winning tune together.*

George Yousef

Laboratory Medicine Program, University Health Network.
Department of Laboratory Medicine & Pathobiology
University of Toronto, Canada

10:40-11:05. *From Strategy to Impact: European Joint Actions – with a focus on Cancer Prevention.*

Torben Frøstrup Hansen

Department of Oncology, Lillebaelt Hospital, Vejle, Denmark

11:05-11:30. *Unraveling novel mRNA transcripts of the human DNA N-glycosylase 1 (NTHL1) gene with the implementation of an innovative targeted DNA-seq assay.*

Marios A Diamantopoulos

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

11:30-12:00. Questions & Discussion

12:00 -12:30 BREAK (e-poster viewing)

Tuesday, 15th July 2025

Session VI: Coordinators:

Francesco Salvatore & Torben Frøstrup Hansen

12:30-12:55. *Predictive genomic medicine expands the spectrum of predisposing mutations in head and neck cancers through the use of a 56-gene panel specifically selected for cancer susceptibility.*

Marcella Nunziato

Ceinge-Biotecnologie Avanzate and Department of Molecular Medicine & Medical Biotechnologies, University of Naples Federico II, Naples, Italy

12:55-13:15. *Circulating miRNAs as robust liquid biopsy tools in multiple myeloma management.*

Konstantinos Soureas

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

13:15-13:35. *Exploring circulating tRNA-derived fragments: 5' tRNA-halves as non-invasive prognostic indicators in multiple myeloma.*

Andreas-Evangelia Spathis

Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Greece

13:35-14:05. Questions & Discussion

14:05 -14:45 (e-poster viewing)

Wednesday, 16th July 2025

Session VII: Coordinators:

*Andreas Scorilas, George Yousef, Ioannis Prassas &
Eleftherios Diamandis*

10:00-11:00. *Closing Remarks of the ISE2025 – the
ISE2026 meeting*

11:00-11:15. **Questions & Discussion**

11:15 - 13:00. *E-poster viewing and discussion*

13:00-15:00. *ISE Board meeting*

ABSTRACTS

