



SEMMELWEIS  
UNIVERSITY 1769

# SEMMELWEIS SYMPOSIUM 2024

Network Medicine for  
Future Healthcare

**Organized Jointly with  
Network Medicine Alliance**

**CONGRESS  
INFORMATION**

BUDAPEST, HUNGARY  
11-13 NOV 2024





# ABOUT THE CONGRESS

We are excited to announce that the 32<sup>nd</sup> Semmelweis Symposium, the most prestigious scientific event of Semmelweis University, will be held on 11-13 November 2024 in Budapest, on the topic:

## **Network Medicine for Future Healthcare**

with the contribution of distinguished speakers from around the globe, sharing insights and research results in areas encompassing network sciences, systems biology and human dynamics.

The main partner of the event will be the Network Medicine Alliance (NMA), led by Harvard Medical School and founded by Prof. Albert-László Barabási and Prof. Joseph Loscalzo. The Alliance represents 34 leading universities and research institutions worldwide and is committed to improve global health and to develop the field of Network Medicine.

More than 500 participants are expected to attend the event, including medical specialists, pharmacists, researchers and PhD students.

Come and discover with us the future where innovation meets science!

We are looking forward to welcoming you and have an excellent time together in Budapest!

**Béla Merkely**  
Rector

**Péter Ferdinandy**  
Vice-Rector for

**Joseph Loscalzo**  
NMA Founder

**Enrico Petrillo**  
NMA Cofounder

Semmelweis University Science & Innovations  
Semmelweis University

Harvard Medical  
School

Harvard Medical  
School





# MAIN TOPICS & MORE INFO

## MAIN TOPICS & PROGRAMS

- Disease and Comorbidities
- Drug Development and Repurposing
- Multiomic Analysis
- Clinical Phenotyping and applications
- AI and Network Medicine
- Bioinformatics Methods

## SHORT SUMMARY OF NETWORK MEDICINE

Cardiovascular diseases and cancer, while being the leading causes of death worldwide, are important examples of multifactorial diseases, meaning that they are determined by intricate interactions between several genetic and environmental factors. Elucidation of the complex mechanisms leading to the development of such multifactorial diseases, **requires a collaboration between seemingly distant scientific areas** including mathematics, biostatistics, bioinformatics, genetics, molecular biology and clinical sciences.

The need for this interdisciplinary coordination gave rise to a novel paradigm, called network medicine, that by relying on the power of network theory provides a unified framework for the understanding of molecular biological processes involved in multifactorial diseases. Therefore, **network medicine could be the key** for the prevention, diagnosis and cure of even those diseases that were considered so far incurable.



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## CONTACT

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