



2023 FEAM Forum Annual Lecture

**FEAM European Biomedical Policy Forum
Annual Lecture**

HOSPITALS DEALING WITH MASSIVE DATA OF PATIENT SEQUENCING

17 November 2023 | 14.30 – 16.30 (CET)

This event was supported by Novartis

SUMMARY REPORT

Speakers:



Prof. Stefan Constantinescu - FEAM President

Moderator



Prof. Harry De Koning - Deputy Head and Professor of Public Health & Screening Evaluation, Department of Public Health, Erasmus MC University Medical Centre (Rotterdam)

Keynote lecturer



Andreea Păstîrnac - Her Excellence the Ambassador of Romania in the Kingdom of Belgium



Dr. Gordana Raicevic Toungouz - Scientific Coordinator at Sciensano



Dr. Pedro Marques Ramos - Executive Director, Global Biomarker and Diagnostic Lead at Novartis

Introduction

In the opening address of the FEAM Forum Annual Lecture 2023, the President Stefan Constantinescu welcomed attendees and provided an overview of the Federation's significant contributions to healthcare policy and biomedical research in Europe since its establishment in 1993. Emphasizing FEAM's crucial role during the recent pandemic, the President highlighted the creation of the FEAM European Biomedical Policy Forum, a collaborative platform with 31 members, including influential entities such as Novartis, the sponsor of this year's Annual Lecture. The Forum enables discussions on critical societal issues.

Prof. Constantinescu expressed his gratitude to the organisers for hosting the event within the European hospitals convention (CONVEHO) and announced that the subject of the lecture would be "Precision Medicine in Oncology". FEAM's involvement in a European Commission project on cancer screening, leading to recommendations adopted by the European Parliament, was mentioned.

The President introduced Prof. Harry De Koning, Co-chair of the SAPEA report "Improving cancer screening in the EU", as the guest speaker, setting the stage for subsequent presentations by experts in the field. The President concluded by expressing appreciation for participants' contributions and anticipated that the insights shared during the annual lecture would inspire future collaborative initiatives in the field of medicine.

Prof. Harry De Koning

The lecture focused on cancer screening in the European Union, emphasizing the importance of precision medicine in oncology. Prof. De Koning highlighted the enthusiasm for prevention programs in Europe, referencing a survey in the Netherlands showing high intention to participate in breast, colorectal, cervix, and prostate cancer screenings.

The European Code against Cancer recommends screening only for cancers where the life-saving effect outweighs potential harm, emphasizing the need for adequate screening quality. EU citizens are encouraged to participate in cancer screening, considering the balance between benefits and harms.

The example of breast cancer screening showed a significant reduction in mortality with high-quality screening due to early detection. The average participation rate in breast cancer screening across EU countries is 60%, and the first invitation plays a crucial role in subsequent participation.

Prof. De Koning acknowledged that while screening contributes to mortality reduction, approximately half of the decline may be attributed to advancements in treatment. Nevertheless, breast cancer screening alone is estimated to save about 22,000 lives annually in the EU.

The discussion touched on the challenges of balancing benefits and harms, including false positives and overdiagnosis. Cost-effectiveness is a crucial consideration in screening programs. The presentation introduced the concept of risk-based screening, suggesting a stratified approach based on individual risk factors.

A European study, "My PeBs," is exploring personalized breast cancer screening by evaluating genetic risk through saliva samples, with promising initial results. The future may involve incorporating genetic information to tailor screening recommendations.

The lecture addressed the challenges of risk-based screening, including public acceptance of reduced screenings for low-risk individuals. Prof. De Koning emphasized ongoing developments in technology, such as liquid biopsy and artificial intelligence, and discussed the potential benefits of adding lung cancer screening for high-risk populations.

The lecture also covered the potential expansion of risk-based screening to include other diseases, such as cardiovascular diseases. The idea of precision multimorbidity disease screening was proposed, challenging the one-size-fits-all approach.

Lung cancer screening emerged as a significant example, with evidence supporting the potential for early detection through CT scans. An ongoing implementation trial, "4-in-the-lung-run," is assessing the feasibility of this approach in six European countries.

The recent adoption of new EU cancer screening recommendations was highlighted, emphasizing the importance of evidence-based policies. Prof. De Koning concluded by suggesting a move towards precision multimorbidity disease screening and risk-based screening intervals for more equitable and effective cancer prevention.

Andreea Păstîrnac

Andreea Păstîrnac, serving as Romania's bilateral Ambassador to Belgium, highlighted the focus on leveraging the significant presence of Romanian medical professionals in Belgium and other OECD countries for the purpose of revitalizing health diplomacy. The COVID-19 pandemic served as a catalyst for reexamining discussions around distance, diplomacy, and negotiations related to sanitary security and health services.

The initiative prompted support from key figures, including the presidential medical advisor, Dr. Diana-Loreta Păun, Romanian deputies and senators who are also medical professionals, and the Belgian medical system. Notably, the Ambassador emphasized the collaboration with Belgium, a country where nearly 2% of the medical workforce originates from Romania. She presented the establishment of a volunteer-based medical platform involving over 1,000 Romanian doctors in Belgium.

Several events and discussions were organized under this platform, covering topics such as hospital construction, cooperation, university conferences, e-Health, oncology, and nuclear medicine. Achievements included signing a memorandum to treat severely burned Romanian patients in Belgium, transferring medical competencies to Romania, and initiating the production of medical isotopes in Romania.

The Ambassador underscored the importance of interdisciplinary collaboration, involving not only medical specialists but individuals from various fields to expedite political and diplomatic solutions. The focus on oncology was highlighted, with achievements in legislation related to cancer prevention and combat. A national plan to address cancer was adopted, combining medical and legal approaches.

Additional legislative initiatives were discussed, including the right to be forgotten, a national cancer survivors' day, and provisions supporting families and caregivers. The speaker acknowledged the ongoing progress and emphasized the need for continued diplomatic and political support for biomedical advancements.

Prof. Constantinescu expressed gratitude for the importance of the discussion on cancer prevention, emphasizing that the focus should extend beyond the medical community to include diplomats, political leaders, and patient groups in the effort to successfully prevent cancer in Europe. He highlighted Senator Nicoleta Pauliuc, Chair of the Defense Commission of the Senate in Romania, who, as a survivor of pancreatic cancer, played a crucial role in enacting legislation for reimbursement of molecular tests, personalized medicine, a paid day for treatment, and the right to be forgotten. This legislation was instrumental in inspiring trust among members of the Romanian Parliament and Senate in supporting cancer screening efforts at the European level. Prof. Constantinescu invited Dr. Gordana from Public Health Belgium to share insights before introducing the final speaker and posing questions to the panel.

Dr. Gordana Raicevic Toungouz

Dr. Gordana Raicevic Toungouz is a molecular biologist with a Ph.D. in Medical and Pharmaceutical Sciences. She currently works at Sciensano, a public health and research institute in Belgium. Within the Federal Cancer Center department, she outlined three primary objectives of her work: monitoring and evaluating cancer-related policies in Belgium, proposing new measures for cancer control, and serving as a consultative scientific body for control measures.

Dr. Toungouz serves as the scientific coordinator for various European projects that Sciensano is involved with. Sciensano is an integral part of the Belgian Cancer Research Alliance and actively participates in the European Cancer Research Alliance project, focusing on expanding infrastructure for cancer detection.

Dr. Pedro Marques Ramos

Dr. Pedro Marques Ramos, a leader in biomarker and diagnostic development at Novartis for their stage development programs, emphasized the crucial role of the pharmaceutical industry in advancing precision medicine, echoing Prof. Constantinescu's sentiments. The focus is on comprehending diverse cancer dependencies to develop more effective therapies. This necessitates shaping decision diagnostics and equipping the healthcare and hospital ecosystem to appropriately diagnose patients, reflecting a commitment to advancing precision medicine in the pharmaceutical industry.

Q&A Session on Cancer Screening and Genomic Sequencing

The Q&A session, moderated by Prof. Constantinescu, focused on the use of molecular testing on blood samples for cancer screening and the integration of genomic sequencing data in medical practice. The panelists included Prof. Harry de Koning, Dr. Ramos, Dr. Toungouz, and Prof. Constantinescu himself.

• **Molecular Testing for Cancer Screening:**

The first question raised was about the preparation for the use of molecular testing on blood samples for cancer screening. Harry de Koning emphasized the need for trials to determine the effectiveness of screening and to assess potential harms. Dr. Ramos highlighted the promising nature of the field, emphasizing the importance of generating accurate data to maximize the risk-benefit ratio.

• **Liquid Biopsy and Data Integration:**

The discussion delved into the concept of liquid biopsy, with Dr. Toungouz emphasizing the need to clarify the type of fluid being tested and the material under examination, whether circulating tumor cells or DNA released during cancer cell necrosis. Prof. Constantinescu added insights about the potential of liquid biopsy in detecting various tumor DNA clones.

• **Sharing Genomic Sequencing Data:**

The second part of the session addressed the vast amount of genomic sequencing data generated by hospitals. The panelists discussed the importance of sharing this data to advance scientific understanding. Dr. Ramos advocated for anonymizing datasets to protect patient privacy while contributing to larger data pools. Prof. Constantinescu highlighted the need for a platform to share information about special mutations and pathology to benefit physicians encountering similar cases.

• **Pediatric Cancer Sequencing:**

The final question pertained to the lack of systematic sequencing of pediatric cancers at diagnosis. The panelists expressed support for sequencing all pediatric cancers at diagnosis, emphasizing the potential benefits for patient outcomes. Dr. Toungouz discussed ongoing discussions with the Ministry of Health to include comprehensive gene profiling for all pediatric cancer patients.

In conclusion, the panelists underscored the need for collaboration and data sharing to advance research and treatment in the field of cancer screening and genomics. The session concluded with a call for harmonizing reimbursement procedures across European countries to facilitate standardized investigation and clinical studies, ultimately contributing to the progress of medicine in Europe.

Additional material available:

- [Agenda](#)
- Full recording of the event

For general enquiries:

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Disclaimer: the summary report is a neutral reflection of the discussion which has taken place, and it does not represent the views of any particular organization, supporting parties or individual. Those opinions may not be shared by all participating companies and attendees.

Acknowledgments:

FEAM wishes to thank the speakers and the organisers of CONVEHO for their valued contribution and support during this event:

Prof. Stefan Constantinescu - FEAM President

Prof. Harry De Koning - Deputy Head and Professor of Public Health & Screening Evaluation, Department of Public Health, Erasmus MC University Medical Centre (Rotterdam)

Andreea Păstîrnac - Her Excellence the Ambassador of Romania in the Kingdom of Belgium

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Dr. Pedro Marques Ramos - Executive Director, Global Biomarker and Diagnostic Lead at Novartis

Bogdan Romaniuc and the team of Boro Communication

This event was supported by Novartis.

About FEAM, the Federation of European Academies of Medicine:

FEAM is the European umbrella group of national Academies of Medicine, Pharmacy and Veterinary Science, or national Academies via their medical division. It brings together under one umbrella 23 National Academies representing thousands of the best scientists in Europe. FEAM's mission is to promote cooperation between National Academies of Medicine and Medical Sections of Academies of Sciences in Europe; to provide a platform to formulate their collective voice on matters concerning human and animal medicine, biomedical research, education, and health with a European dimension; and to extend to the European authorities the advisory role that they exercise in their own countries on these matters.

About the FEAM European Biomedical Policy Forum:

The FEAM European Biomedical Policy Forum provides a platform for discussion on key policy issues for the biomedical community. The Forum is an initiative from the Federation of European Academies of Medicine (FEAM). It aims to bring together representatives from academia, research charities, industry, European and national trade associations and professional bodies, regulators, public health bodies, and patient and consumers groups.