Webinar Agenda: Pancreatic Cancer Screening and Early Diagnosis
Moderators: Prof. Mariana Jinga, Prof. Cristian Gheorghe

Topic 1: Advances in AI and Machine Learning for Early Detection
Speaker: Adrian Saftoiu, UMF Carol Davila Bucharest, ROMANIA
Duration: 30 minutes (20 min presentation + 10 minutes discussion)

Description:
This session will explore the revolutionary impact of AI and machine learning models, such as the PrismNN or PANDA, on early detection of pancreatic cancer. The discussion will include:
- Overview of generative AI models (for e.g. PrismNN developed by researchers at Beth Israel Deaconess Medical Center and MIT which analyses vast amounts of electronic health records (EHRs) to identify high-risk individuals up to 18 months before a traditional diagnosis), as well as other computer vision models (for e.g. PANDA which can detect and classify pancreatic lesions with high-accuracy via non-contrast CT) used for early diagnosis.
- The potential for AI to expand screening beyond individuals with known genetic predispositions and how AI models flag high-risk patients based on EHR data / computer viosn models, improving early detection and personalised interventions.

Key Points:
- AI models can detect pancreatic cancer in patients who might otherwise be missed by current screening guidelines.
- The use of electronic health records data can identify risk factors not apparent through genetic screening alone.
- Implications of computer vision models for wider adoption in diverse healthcare settings.

Topic 2: High-Risk Individual Screening Protocols
Speaker: Rogier Voermans, Amsterdam University Medical Center, THE NETHERLANDS
Duration: 30 minutes (20 min presentation + 10 minutes discussion)

Description:
This session will focus on the latest protocols for screening high-risk individuals, such as those with a family history of pancreatic cancer or specific genetic mutations (e.g., BRCA1/2). Key studies, including the CAPS5 study, will be reviewed to illustrate the benefits of regular surveillance.
- Overview of CAPS5 and other cohort studies focusing on high-risk populations.
- Screening methods used, such as endoscopic ultrasound (EUS) and MRI.
- Impact of routine surveillance on survival rates and early-stage diagnosis.

Key Points:
- Regular screening in high-risk individuals leads to earlier detection and significantly

improved survival rates.
- Surveillance recommendations and their practical implementation in clinical settings.
- Genetic testing's role in identifying high-risk individuals.

Topic 3: Role of Biomarkers and Liquid Biopsies in Early Detection
Speaker: Steve Pereira, University College London, UNITED KINGDOM
Duration: 30 minutes (20 min presentation + 10 minutes discussion)

Description:
This session will delve into the emerging role of biomarkers and liquid biopsy techniques in the early detection of pancreatic cancer. These minimally invasive tests can detect cancer-related changes in blood or other bodily fluids, potentially identifying cancers at a much earlier stage.
- Types of biomarkers currently being researched for early detection.
- The effectiveness of liquid biopsies in identifying pancreatic cancer.
- Case studies and clinical trials highlighting successes and ongoing research.

Key Points:
- Biomarkers and liquid biopsies offer a promising avenue for early detection.
- Potential for these methods to complement existing screening protocols.
- Ongoing research and future directions in biomarker development.

Topic 4: Challenges in Pancreatic Cancer Screening: How to Design a Registry for High-Risk Patients
Speaker: Cristian Țieranu, Vasile Balaban, UMF Carol Davila, ROMANIA
Duration: 30 minutes (20 min presentation + 10 minutes discussion)

Description:
The final session will address the current challenges in pancreatic cancer screening and (early) diagnosis, including barriers to widespread implementation, cost issues, and patient compliance. It will also highlight ongoing research efforts and future directions aimed at overcoming these hurdles.
- Discussion of barriers such as cost, access, and patient compliance to high-resolution imaging like EUS and MRI.
- Future directions in early diagnosis and screening technology and personalized screening strategies.

- Potential policy changes and advocacy efforts to support broader screening initiatives.

Key Points:
- Overcoming barriers to ensure more widespread adoption of screening programs.
- The importance of personalized screening strategies.
- The role of advocacy and policy in advancing screening practices.
- Development of a High-Risk Pancreatic Cancer Screening Registry at UMFCD