



Kick-off Meeting Launches RHYTHM Project to Enhance Radiation Safety and Imaging Quality for Young Patients in Europe

Vienna, Austria – October 22, 2025 - The 4-year RHYTHM project (Radiation, Health, Safety and Quality for Youth: A Comprehensive Approach to Justification, Optimisation, and Education) officially launched with a kick-off meeting on 21–22 October 2025 in Vienna. Co-funded by the EU4Health Programme of the European Commission and coordinated by the European Institute for Biomedical Imaging Research (EIBIR), RHYTHM brings together leading experts in radiology, nuclear medicine, medical physics, healthcare management, and patient advocacy from across Europe.

RHYTHM aims to improve the quality, safety, and accessibility of medical imaging for children, adolescents, and young adults, groups particularly sensitive to ionising radiation. The project addresses key challenges in imaging justification, optimisation, and education across modalities such as computed tomography (CT), hybrid imaging (SPECT/CT and PET/CT), and CT for radiotherapy planning.

Through interdisciplinary collaboration, RHYTHM will:

- Develop evidence-based referral and clinical guidelines and enhance clinical decision support systems (CDSS) to promote appropriate and justified imaging.
- Establish a European repository for benchmarking CT doses and image quality, supporting standardised and optimised imaging practices across healthcare institutions.
- Deliver comprehensive education and training programmes for healthcare professionals to strengthen knowledge in radiation protection and effective patient communication.
- Implement awareness campaigns for parents, carers, and young patients to improve understanding of the benefits and potential risks of medical imaging.

RHYTHM will establish a European dose and image repository that will serve as a practical tool for benchmarking and optimisation. By enabling hospitals to compare scanner settings, dose levels, and image quality across institutions using similar equipment, the repository will help standardise imaging practices, reduce unnecessary radiation exposure, and improve diagnostic consistency throughout Europe.

In parallel, the project will focus on capacity building and sustainability through the development of multidisciplinary training materials, online modules, and CME-accredited webinars. These resources will be made widely accessible to radiologists, medical physicists, radiographers, and other healthcare professionals, ensuring that

advances in radiation protection and imaging optimisation continue to benefit patients well beyond the project's duration.

The project unites 20 partners from 12 EU Member States, including hospitals, universities, research institutions, patients' organisations, and professional societies, ensuring a strong, multi-sector approach to improving imaging safety and quality for Europe's youngest patients.

"RHYTHM reflects our collective responsibility to protect young patients and to give them access to the best that modern medical imaging can offer," said Scientific Coordinator Prof. John Damilakis (University of Crete, GR). "By connecting hospitals across Europe and enabling data-driven benchmarking, RHYTHM sets new standards for how we understand and optimise radiological practice."

"As Clinical Coordinator of the RHYTHM project, I believe this initiative is crucial for advancing the quality and safety of paediatric radiology across Europe", added Clinical Coordinator Dr. Claudio Granata (Paediatric Institute Burlo Garofolo, IT). "I'm excited to work alongside an international multidisciplinary team to develop evidence-based practices, educational resources, and tools that will support long-term improvements in radiation protection. I look forward to seeing RHYTHM's impact on paediatric imaging, fostering consistency, safety, and confidence in care for children and their families."

By combining scientific expertise, technological innovation, and a patient-centred perspective, RHYTHM will strengthen Europe's capacity to deliver safe, effective, and equitable imaging services for children and young adults. The project's results will contribute to the European Commission's SAMIRA Action Plan and advance the long-term goal of improving radiation protection and healthcare quality across the EU.

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More information on the project:

<https://www.eibir.org/projects/rhythm/>

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**Co-funded by
the European Union**

RHYTHM is co-funded under the EU4Health Programme 2021–2027 under grant agreement no. 101232948. Funded by the European Union. Views and opinions

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