

AFRICAI-RI: Building Africa's First Federated Imaging Research Infrastructure for Trustworthy AI in Medical Imaging

AFRICAI-RI, A Pan-African Research Infrastructure for Collaborative Biomedical Imaging and Artificial Intelligence in Respiratory Care, is designed to substantially improve healthcare in Sub-Saharan Africa (SSA) by establishing the region's first federated, multi-institutional medical imaging research infrastructure. The project will leverage European and African expertise to adapt successful data infrastructures and imaging solutions to diverse environments across SSA.

The AFRICAI-RI project, funded by the European Commission under the Horizon Europe – Global Health EDCTP3 Joint Undertaking, officially launched to establish the first federated biomedical imaging research infrastructure in Africa. The project unites 14 leading institutions across Europe and Sub-Saharan Africa to advance ethical, inclusive, and trustworthy Artificial Intelligence (AI) for healthcare.

The project is coordinated by **Prof Karim Lekadir**, ICREA Research Professor and Artificial Intelligence in Medicine Lab (BCN-AIM) Director at the **Universitat de Barcelona**, Spain and **Dr Dinis Nguenha** from the **Centro de Investigação em Saúde de Manhiça**, Mozambique. AFRICAI-RI aims to strengthen African capacity in AI and medical imaging by connecting hospitals, universities, and research centres through a secure and privacy-preserving federated infrastructure, which will enable collaborative AI development without the need to centralise sensitive medical data.

“AFRICAI-RI represents a major step towards data sovereignty and equitable AI innovation in Africa. Our goal is to build with Africa, for Africa, empowering local researchers and clinicians to lead in developing AI solutions for the continent’s most pressing health and imaging diagnostic challenges.” Karim Lekadir, ICREA Research Professor and Director of BCN-AIM Lab, Universitat de Barcelona

AFRICAI-RI will address the critical challenges posed by infectious diseases and the scarcity of medical imaging experts in the region. Focusing initially on **tuberculosis (TB)** and **pneumonia**, two of the leading causes of mortality in Africa, AFRICAI-RI will develop, validate, and deploy AI diagnostic tools tailored to African clinical contexts. The project will also establish ethical, legal, and governance frameworks for responsible AI, ensuring alignment with both European and African data protection standards.

“We are building more than AI models; we are building a future where Africa drives the standards of ethical, scalable digital health.” Dinis Nguenha, MD, Centro de Investigação em Saúde de Manhiça

About AFRICAI-RI

AFRICAI-RI is a four-year Horizon Europe project (2025–2029) under the Global Health EDCTP3 programme (grant nº 101190731). It is coordinated by the **Universitat de Barcelona** (Spain) and **Manhiça Health Research Centre** (Mozambique). The following partners will collaborate in this consortium:

- Delft Imaging Ghana (Ghana)
- Jimma University Medical Centre (Ethiopia)
- Centre of Medical Research Lambaréné (Gabon)
- Infectious Diseases Research Collaboration (Uganda)
- University of Kinshasa (DR Congo)
- Nigerian Institute of Medical Research (Nigeria)

Funding statement

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- Iba Der Thiam University (Senegal)
- Kamuzu University of Health Sciences (Malawi)
- Medical Research Council Unit of The Gambia (The Gambia)
- Erasmus Medical Centre (The Netherlands)
- Foundation for Research and Technology (Greece) and
- Barcelona Institute for Global Health (Spain).

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