

The biological collection being established at the University of Cabo Verde (Uni-CV): A Lusophone biobank node to strengthen research capacity in Cabo Verde

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Introduction

Biobanking capacity remains uneven across Portuguese-speaking African countries, limiting biomedical, epidemiological and environmental research. Cabo Verde has strong ethical and data protection structures but lacks dedicated biobank regulation and harmonised infrastructures.

Within the RESPIRA-CV study—assessing asthma and atopy among 8-9-year-old children in Santiago Island—a biological collection is being established at the University of Cabo Verde (Uni-CV). This collection integrates human samples and metadata as the foundation for a future national biobank.

The initiative aligns with the emerging Lusophone Network of Biobanks and Biological Collections, promoting interoperability, capacity building and equitable benefit-sharing across Lusophone countries.

Objectives

- Establish a structured biological collection at Uni-CV using RESPIRA-CV samples.
- Implement harmonised forms and SOPs (Standard Operating Procedures), ethical governance and internationally aligned quality standards.
- Develop the foundations for a sustainable, national biobank supporting health research.
- Contribute to the Lusophone Biobank Network, strengthening South-South-Europe scientific collaboration.



Methods

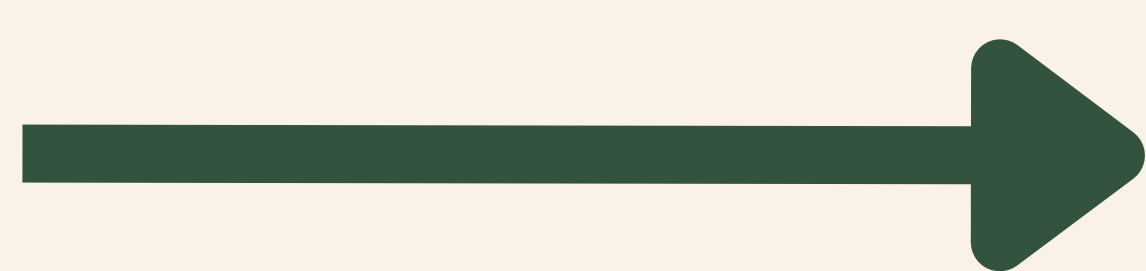
- Samples (whole blood, serum, nasal swabs)
- SOP and form-based workflows
- Quality control (routine checks, traceability procedures)

SAMPLE COLLECTION & PROCESSING



- First national biological collection in Cabo Verde for human and microbial samples
- Stronger diagnostic & research capacity for respiratory disease
- Reliable, multicentre-ready datasets

DATA & GOVERNANCE



- Data Management (interoperable databases + Laboratory Information Systems)
- Ethics & data protection in alignment with national ethics and data protection authorities
- Transparent governance and access policies

- Governable, coherent research asset
- Responsible sample-sharing governance
- Fair benefit-sharing

CAPACITY BUILDING



- Training in biosafety and biobanking techniques
- Training in data governance

- Integration into Lusophone Biobanks and Biological Collections Network
- Sustained national research capacity

Conclusion

The development of a biological collection at Uni-CV represents a strategic step in strengthening Cabo Verde's scientific infrastructure. By integrating RESPIRA-CV research with international biobanking standards and Lusophone collaboration, this initiative transforms dispersed biological resources into shared scientific value, fostering preparedness, innovation, and equitable participation in global health research.

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