

## Introduction

- In recent decades, the rapid exponential progress of science and technology, and in particular molecular biology, has led to significant social transformations across various domains
- These advancements have impacted human beliefs and values with some concerning elements
- Developing countries are not exempt from this challenge, with the emergence of genetic biotechnology associated artificial intelligence (AI):



This domain is not limited to medicine alone, as life emerges even in an inanimate world through the exploration and utilization of information contained in physical structures, where techne  $(\tau \xi \chi \nu \eta)$  plays a fundamental role



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New paradigm could potentially lead to the

"objectification of people"



Developing countries face distinct health challenges at the beginning of the 21st century, differing significantly in quality and intensity from their traditional concerns

These challenges have also compromised research endeavors

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Declaration of Helsinki, first published by the World Medical Association (WMA) in 1964

WORLD MEDICAL ASSOCIATION DECLARATION OF HELSINKI Ethical Principles for Medical Resear Involving Human Subjects • Adopted in 1964

Last updated in 2000

Link to full do

## Characterization of Developing Countries in Scientific Research and Cultural Impact



- Developing countries exhibit a less stable and diversified economy, featuring a low level of industrialization and a limited presence of multinational companies.
- These nations typically experience low per capita income, a high unemployment rate, and a constrained service sector.



- Economic challenges are heightened due to lower industrialization and underdeveloped infrastructure, subsequently limiting employment opportunities and impeding economic growth, impacting the quality of life for their inhabitants.
- The developmental level of a country significantly influences its population, affecting quality of life, employment opportunities, and access to basic services.

- The developmental level of a country significantly influences its population, affecting:
- Substantial challenges in key areas related to quality of life, employment opportunities, and access to basic services.

The consequences of these characteristics manifest not only in a scarcity of exploitable resources for scientific research in their environment but also in the delayed or non-existent historical emergence of a scientific work culture, hindering progress and asserting the "status quo" in the scientific world

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The ethical, moral, and political repercussions of such environments have notable effects, with the United Nations acknowledging poverty as a

"Moral responsibility of our time."



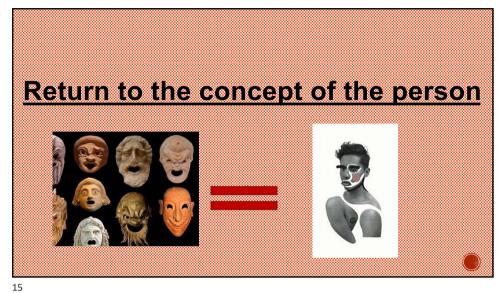
## Fostering a culture of scientific research

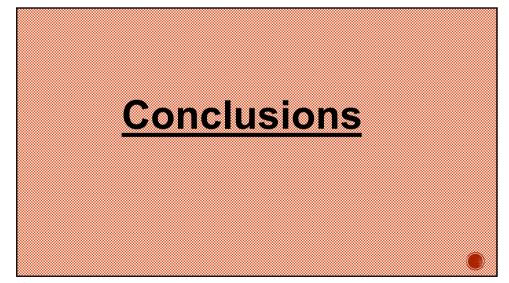
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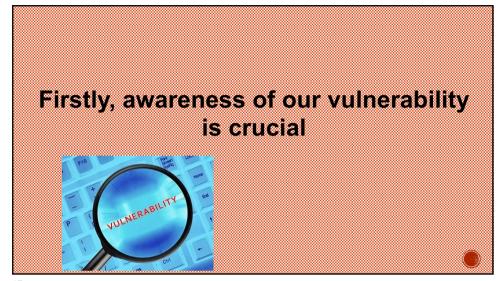
## Scientific research culture

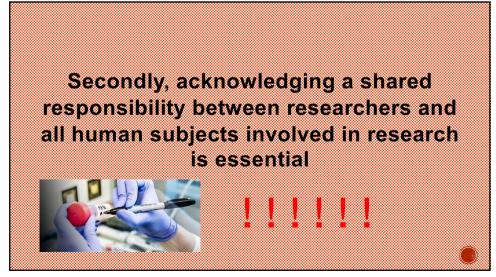


"Knowledge society"

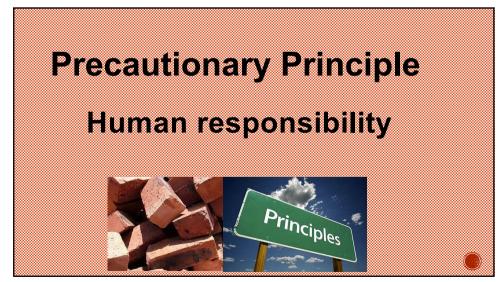














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Ecological conversion becomes an ethical imperative, rescuing the humanist ethos and the preferential option for the poor



**Pope Francis** 



- Solidarity Responsibility
- Creative Hope

