Title: Vaccines: A case for Science, Society and Policies Interactions in the Quest of STI for SDGs

Introduction:

COVID-19 Pandemic revealed, in a dramatic way, how health plays a central role in sustainable development. The pandemic disrupted on a big scale peoples' well-being, the economy, and society, and the crucial role of STI in coping with these challenges is undisputable.

Like epidemics, the individual and collective experience of public vaccination campaigns are conditioned by - and contribute to - socio-technical constructs that help shape beliefs, ways to cope with risks, international and global health strategies, national institutional building, social cohesion, identity, sovereignty, and citizenship.

Second, to water, sanitation, and hygiene (WASH), vaccines are the most cost-effective tools for public health and were widely and effectively adopted to prevent diseases, including the COVID19. The World Health Organization called the international scientific society to collaborate under the "WHO Blueprint Research and Development Program." This action established one of the most successful international collaborations in Science, Technology, and Innovation.

Several institutions have accepted this challenge to collaborate and produce the necessary tools to combat the pandemic. Examples of such technologies include protocols that have led to the development of the COVID-19 vaccine and tests for COVID-19. These technologies are helping the world to overcome the current pandemic.

The fight against COVID-19 became a showcase on the relevance of vaccines. The unprecedented speed of having a vaccine was made possible due to the convergence of mission-based innovation, global sharing of genomics banks and epidemiological data, and significant funding from member-states, multilateral organizations, and private companies.

On the negative side, there is a "War on Vaccines," determined by revenue competition, nationalism, and geopolitical rationale opposing the values of vaccines as public goods and global solidarity and the ideological and political use of social media and fake news to hinder vaccine acceptance.

Vaccine hesitancy is generally associated with risk perception, values of individual liberties, and trust in state policies. This process should not be analyzed as a simple opposition between rational and irrational, civilization and backwardness, faith in science, and charlatanism. Historically, there were analytical reasoning on controversies opposing vaccines sprung from safety, efficacy, cultural beliefs, and public health policies' conflicting strategies. Therefore, one has to distinguish "historical controversies" from "ideological revisionism." From the 1990s, fake news and social media dynamics added a new ingredient to this issue by purposefully using misinformation as a political and ideological agenda.
**Objective:**
Discuss vaccines as a case for social-technical interactions and the challenges on STI during the COVID-19 pandemic and collect insights and suggestions for STI for SDGs and related to HLPF’s six entry points the 2030 Agenda.

**Program:**

Coordinator: Paulo Gadelha, FIOCRUZ and 10 UN 10 MG for TFM

Speakers:

- Sciences on the COVID-19 (Ines Hassan and Heide Hackmann, International Science Council - ISC)
- The vaccine in the Global South (Marco Krieger, FIOCRUZ)
- The politics of Vaccination (Stuart Blume, University of Amsterdam)
- Vaccine hesitancy (Jennifer Reich, University of Colorado Denver)
- Engagement of minority groups vaccine (Gwenetta D. Curry, University of Edinburgh)
- Global Challenge on access to vaccines (Mariângela Simão, WHO)