REPORT OF THE 5th SCIENTIFIC ADVISORY BOARD (SAB) OF THE GLOBAL HEALTH AND TROPICAL MEDICINE RESEARCH CENTRE AT THE INSTITUTE OF HYGIENE AND TROPICAL MEDICINE – UNIVERSIDADE NOVA DE LISBOA (IHMT/NOVA)

Dates: 07-08 June 2024

Members of the SAB:

Present on site (OS) or online (OL): Prof Sylvie Manguin (SM)-OS	Institut de Recherche pour le Développement, Montpellier, France
Prof Afranio Kritski (AK)-OS	Federal University of Rio de Janeiro, Brazil
Dr Mateus Webba da Silva (MWS)-OS	Ulster University, United Kingdom
Apologies for absence: Dr Maria do Rosário Bragança Sambo (OK)	Ministério do Ensino Superior, Ciência, Tecnologia e Inovação - República de Angola
Prof Umberto D'Alessandro, Chair (UDA)-OS	London School of Hygiene and Tropical Medicine, United Kingdom

The meeting was held at the IHTM in Lisbon on Friday 07 and Saturday 08 June 2024. The meeting was opened by Prof Filomeno Fortes, Director of the IHMT/NOVA, who welcomed the SAB members.

Prof Miguel Viveiros (MV), the scientific coordinator of the Global Health and Tropical Medicine Research Centre (GHTM), provided an overview of the 2023 activities and outcomes, as well as the implementation of the SAB's recommendations formulated last year. In addition, a summary of the Activity Plan for 2025-2029 was presented. For 2025-2029, GHTM aims to consolidate itself as a leading Biomedical RDCI Unit fostering collaboration among Portuguese-speaking institutions at a global level. The strategic objectives are: 1) to improve equitable health and well-being of populations, promoting Universal Health Coverage for all; 2) to investigate interactions of pathogens, vectors, hosts, and environment to strengthen local and global control capacities; 3) to assist control of infectious diseases minimizing emergence of antimicrobial resistance; 4) to generate high-quality evidence to improve the clinical care of tropical diseases in high disease- burden settings and to prevent travel-associated health conditions.

The current GHTM project with the Fundação para a Ciência e a Tecnologia (FCT) started in January 2020, the contract was signed in September 2020, and the project was extended to December 2024. GHTM has positioned itself as an interdisciplinary hub dedicated to research, postgraduate education, interventions aimed at integrated sustainable solutions for addressing complex health issues across borders and improving health for all.

GHTM's achievements for the current period were: 1) work contributes to all SDGs (except 2; SDG 7 and 14), with special emphasis on SDG3 - Good Health and Well-being; 2) host the WHO Collaborating Center (WHOCC) on Health Workforce Policy and Planning that supports the WHO's strategic goal of

optimizing the impact of current and future health workforce on achieving healthy lives, universal health coverage through research, training, and strategic advice; 3) is working towards integration into in the new Associated Laboratory of Translation and Innovation for Global Health (REAL) at NOVA University, a fundamental pillar of the National System of Science and Technology; 4) combines population-level research with state-of-the-art laboratory investigation of pathogens and vectors and environmental research, supported by specialized infrastructures, being the Portuguese research institution with the highest success rate at EDCTP grants (European C Developing Countries Clinical Trials Partnership); 5) high quality science, working with migrants, focusing on social problems, using interdisciplinary and intersetoral approach; 6) an excellent track record of 180 internationally research outputs/year (full list https://novaresearch.unl.pt/en/organisations/global-health-and-tropical-medicineat ghtm/publications/) with an average weighted citation impact of 1.1.53 for the current period of assessment placing the GHTM 30% above the world average for the respective areas; 7) around 70 research projects were managed by GHTM, coordinating/participating in 6-8 EU-funded consortiums per year (full list at https://ghtm.ihmt.unl.pt/projects/); 8) strengthened the post-graduation offered at IHMT NOVA (IHMT), in a total of 3 PhD and 7 MSc programs awarding 12 PhD grants upon open calls, and the International advanced training that includes 2 accredited optional courses in the TropMEd Network for Education in Global Health MSc program, the PhD Program on Biomedical Sciences (ANG), the MSc in Medical Parasitology (ANG) and the MSc in Public Health (CV) and the Advanced Course on Clinical Investigation to 30 junior researchers from PALOP; 9) promotion of international collaboration, namely networks focused in CPLP, including capacity building at country level; 10) provides a good gender balance with women at key positions, 11) leading the National Fair Research Partnership; and 12) providing specialized professional training in Travel Medicine (annual course for 35 medical doctors)

SAB discussion, feedback, and recommendations

The SAB's overall impression was extremely positive. The GHTM has continued demonstrate substantive to progress, with significant achievements by the different research groups. The expertise on management of human health resources at GHTM is being recognized by the Portuguese government and by Portuguese speaking countries of the expertise on management of human health resources at GHTM. GHTM improved the collaboration with industry, with 11 patents so far. Of notice, the large European project CLIMOS, a programme addressing aspects of climate change migration of species specifically impacting EU populations, is the first to be led by GHTM.

The SAB was also pleased to see that the CTM (ex IHC) group has started the collaboration with the Clinical Research Unit (CRU) at the medical school of Nova University. Both VIASEF and Biotrop have progressed substantially; Biotrop has produced a website in Portuguese, with plans to have it in English. Moreover, Biotrop created a network of biobanks in Lusophone countries for capacity building. A common laboratory platform has started at GHTM, but not finalized yet.

The SAB recognises the unique position of GHTM in leading global health research in one health vision.

After discussion, the SAB recommends the following:

- 1. The SAB recognises the importance for IHMT to be part of the new Associated Laboratory of Translation and Innovation for Global Health (REAL) from NOVA University and reinforces the necessity for the development of a framework for integration.
- The GHTM research portfolio is broad and should be supported by adequate tenured human resources, including junior scientists. The SAB agrees with the 10 new positions proposed in the Activity Plan for 2025-202G to work specifically in the following areas: a) in Molecular and Cellular Biology, b) in Computer Aided Drug Discovery (CADD), Chemogenomics, Cheminformatics, Experimental Drug screening in Tropical and Vector-borne Parasitic

Diseases; c) in Statistics in Global Public Health; d) in Antimicrobial resistance, drug repurposing and sustainable infection models; e) in Clinical Tropical Medicine; f) Biobanking and Infectious Diseases; g) Experimental Models; h) Genomic surveillance and phylodynamics; i) Global Public Health and Digital Health; j) Clinical Epidemiology

- 3. Comparing to the past, the current structure of the GHTM and its four research groups (RGs) and six CCIs has shown their complementarity and intergroup partnership is growing. The VBD and THOP (PRIME) is working with IHC (CTM) on clinical research, however linked with PPS should be made on health system research and implementation science. Although progress has been made, it would be helpful to streamline how these groups could improve their connections and complementarity. Then, using the experiences learned during the Covid-19 epidemic, preparedness research program for new epidemics could be an important axis to develop.
- 4. Viasef the SAB recognises the important progress done over the last year and suggests support to be continued as required while other national and international sources of funding are being attempted.
- 5. In the current One Health Program, environmental research became an important area of research being part of the CCI "Genomic surveillance, population mobility and environment". However, environmental research needs to be better defined by each RG not only to increase the visibility of this scientific area, but also to allow bridges among different RGs.
- 6. The SAB notices the current positive impact of the CCI "Fair research partnership". Outputs should be disseminated more widely through scientific publications as this field needs better recognition.
- 7. The SAB suggests considering establishing collaboration with PAHO, as improving the interaction with Afro WHO office and promoting closer interaction with Foreign Affairs Ministries from CPLP.
- 8. The SAB suggests GHTM to create a Resource Mobilization Plan for the next 5 years, focusing on big stakeholders such as Global Fund, NIAID/NIH-USA, World Bank, Bill and Melinda Gates Foundation, and improvement the interaction with private sector.
- 9. The IHC group has successfully established collaboration with the CRU of the medical school of Nova University, which has the capacities to run clinical trials, mainly on chronic diseases. The SAB considers this is a good opportunity to establish clinical care for tropical medicine through new cohorts among vulnerable populations that will enable Clinical Trials and Implementation Science activities in Portugal and in CPLPs, as the IHC group has expertise in infectious diseases.
- 10. The SAB suggests the implementation of quality assurance on effectiveness of advanced courses delivered in CPLP and devise plans with incentives to address shortcomings and sustainability.
- 11. The SAB suggests the use of indicators to monitor the achievements and identification of the impacts made by different RGs and highlight them to increase the visibility of the GHTM.
- 12. SAB suggests evaluating the outputs of CCIs through evidence base and decide if the number of six is justified.