



HARVARD MEDICAL
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Dear

First, on behalf of the Harvard team, thank you and your colleagues very much for your hospitality during our recent visit. We have come away with a lot of information and ideas, which we have discussed internally during the last couple of weeks.

As you are aware in the Technical Annex, the Ministry for Science, Technology and Higher Education has as its major goals the **public understanding of science**, the creation of **research and education programs**, and the development of **graduate education programs for physicians**.

Areas of Focus

The Harvard team has discussed and shared with the Secretary of State the following four areas of focus that will serve as anchors and starting points to move towards those goals:

1. The development and implementation of educational and research opportunities in collaboration with Harvard Medical School that would ultimate lead to the creation of further PhD and MD-PhD programs in the biomedical sciences.
The Harvard team is fully aware of the many excellent research programs and degree programs in existence in Portugal at this time. The intention of this effort is to build on the existing programs and projects, develop further opportunities and provide new educational experiences that would as a secondary effect create new content as well. The ultimate intent is to create an internationally desirable research and higher education environment in Portugal in support of young scientists and physicians in the basic biomedical sciences.
2. The development and implementation of educational and research programs in translational and clinical research in Portugal.
During our visits many institutions expressed an interest in expanding their activities in translational research (basic research to proof of principle in man), clinical research (Phase I and II clinical trials) and outcomes research. In addition, there was an interest in the commercial application of research. We are interested

in working with institutions in the further development of these areas of research in Portugal, with the hope of attracting international investigators and industry to Portugal. HMS proposes working with Portuguese institutions in the development of educational and research programs directed at physicians, scientists, healthcare professionals and also lay people (IRB members) in order to build up the capacity and especially career paths in these areas of research.

3. The development of public content in the biomedical sciences directed at the public at large, but especially at intermediaries involved in the dissemination of content, such as teachers and journalists.

Further discussions will need to be held with the appropriate Portuguese authorities to define initial areas of content focus that will be specific and germane to Portugal and other Portuguese speaking countries.

4. Expansion and creation of infrastructures that can support the biomedical science community in Portugal.

The HMS team is aware of existing multi-institutional, regional and national centers of excellence in Portugal. We would like to invite institutions to list and describe existing centers, which they would like to expand, especially as they would support points 1 -3, and also possibly new centers or infrastructures that may further support the creation and expansion of the above mentioned efforts. These may include data bases, special techniques, dissemination networks, etc., which ultimately should be accessible to the entire scientific, academic and clinical community and the public at large, where appropriate.

Proposal Process and Guidelines

In order to move to the next step, the Ministry has suggested that the Harvard team invite interested institutions to submit in writing (maximally 3 pages) focused proposals in any of the above four areas. In creating these proposals, we would like you to keep in mind the following criteria:

- Benefit to Portugal on a national or regional level
- Strengthening Portugal's position in the global economy and biomedical sphere
- Expanding and building on existing strengths and filling existing needs
- Creation of opportunities that will build capacity
- Possible or existing consortia among the universities, institutes and other relevant parties
- Areas of interactions with HMS that will help to strengthen the effort in Portugal
- Achievable in terms of budget, resources and timeline

In submitting the brief proposal, please indicate

1. **which of the four above mentioned areas** the proposal is addressing
2. what the major features of the proposed **programs** are and how they relate to the area of focus and to existing efforts at your institution

3. what the expected **outputs** of the program would be; in other words, what are some of the expected quantifiable results
4. what the anticipated **outcomes** will be; in other words, what will be the benefits to the participants of the programs
5. what the **impact** will be; in other words, how will those benefits translate into positive changes for the Portuguese scientific and medical community, and the community at large
6. and finally, what are the **resources** that you would need in order to develop, implement and run the programs

At this time, please look in detail at a **two-year time horizon**, given that all programs will be subject to annual review, but also describe in general the development of the proposed programs over five years and beyond. Please keep in mind that the intent is in the creation of processes, programs, critical mass and capacity building and not necessarily final and complete products. Once we receive the proposals, we will review them and ask for clarification if necessary. We are planning on coming back to Portugal prior to the middle of July to meet with the teams from the various institutions according to the areas and types of proposals received. Please feel free to contact me by mobile phone or email with questions and comments (keeping in mind that Boston is five hours behind Portugal (GMT-5)). We would like to receive the proposals by **June 5** in electronic form (MS Word document). Please send them to me at my email address as indicated above.

Many thanks in advance and we are looking forward to working with you.

Sincerely,

H. Thomas Aretz, M.D.