

A P P E N D I X I

**1A - REPORT BY THE EXTERNAL ADVISORY COMMITTEE
OF THE
*ESCOLA DE CIÊNCIAS DA SAÚDE***

**1B - REPORT BY THE EXTERNAL ADVISORY COMMITTEE
OF THE
*INSTITUTO DE CIÊNCIAS DA VIDA E DA SAÚDE***

Report of the External Advisory Committee (EAC)

10 October 2007

The following members were present at the site visit:

Alistair Warren (University of Sheffield)
Arsélio Pato de Carvalho (Universidade de Coimbra)
David McFadyen (World Health Organization)
Eduardo Marçal Grilo (Fundação Calouste Gulbekian)
Fernando Lopes da Silva (University of Amsterdam)
Henry Walton (University of Edinburgh)
Joseph S. Gonnella (Thomas Jefferson University)
Walter Friedrich Osswald (Universidade do Porto)

1. Introduction

The EAC visited the School of Health Sciences of the University of Minho on 8 – 9 October 2007. The meeting started on a particularly significant date, namely Monday October 8. This is a very special date for two reasons: first, on this day the new building of the School was officially opened by the Minister of Health, Dr. A. Correia de Campos; second, this was the day of the graduation of the first contingent of students who completed the Medical course at the University of Minho. In total 50 new young medical doctors received their diplomas at a most memorable ceremony that marked the end of the first cycle of the School's life.

The majority of the EAC have been involved with the School from the very beginning. The EAC has had the privilege of being part of the process that led to the creation of the School and wishes unanimously to congratulate the School and the University on this most remarkable success.

As on previous occasions the EAC also complimented the Faculty regarding the quality and availability of the information it received, notably the Annual Reports of the School and of the Life and Health Sciences Research Institute (Instituto de Investigação das Ciências da Vida e Saúde, ICVS).

2. Role of the EAC and its renewal

With the graduation of the first students and the inauguration of the new building the EAC considers that an important phase of the life of the School has been completed and that a new phase is now beginning. Consequently, some of the members who have participated in the EAC since 2001 felt that their participation should now end. Henry Walton, Walter Osswald and Eduardo Marçal Grilo intimated they will therefore terminate their membership. Their contribution has been substantial and is acknowledged gratefully by the group.

Additionally there is a new law relating to Portuguese Universities that includes some dispositions that are likely to change the governance of Universities and of their Advisory Groups. Accordingly, the EAC agreed with the proposal of the incoming Administration to postpone, for the time being, the straightforward substitution of departing members by new ones, at least until the legal situation becomes clearer. Meanwhile the University of Minho had already decided to invite a new member, Allan Cumming of Edinburgh University, to join the ECA, and Professor Cumming has accepted.

The EAC recommended that the School should consider whether it needs two separate Advisory Committees, one for the School and the other for the ICVS, or if it would be better to form a single group. The EAC regrets that it was not possible on this occasion to have a joint meeting with members of the Advisory Board of the ICVS.

3. Finances and other general questions

There remains a concern over the financial situation of the School in general, and the ICVS in particular. The transfer of funds previously agreed upon by the Foundation for Science and Technology (FCT) is lagging behind schedule. The most pressing issue is the lack of funds for the Animal House, without which research potential is severely limited. Efforts are actively being made by the Faculty to solve these financial problems.

The EAC also discussed with the Director of the School a number of general issues that were raised while reading the Reports, in particular:

- (a) the recruitment, function, recognition and remuneration of the staff responsible for the clinical teaching; and
- (b) the fact that the contribution of the teaching staff of the Hospitals and the Health Centres is often differently appraised by the students doing their clerkships.

Regarding the former, the EAC was convinced that the Faculty is well aware of these problems and is dealing with them adequately. Nevertheless the need to consider the appointment of clinical Professors in the near future was again stressed by the EAC. The latter is important because in Health Centres the students depend normally on only a single tutor while in the Hospital there are commonly several tutors available who can provide support in depth. The development of Family Health Units may help solving the problems encountered by some students in the Health Centres.

4. The undergraduate curriculum

Very special emphasis should be given to the enormous enthusiasm expressed by the students for the unfailing accessibility of the teaching staff, both in the medical school and in the hospitals; and for the long-term relationships between students themselves promoted by their small group teaching.

In general terms the School has made good progress in maintaining the successful programme and improving some aspects, for example "Statistics" and "Pharmacology". An important asset of the School is the student-staff ratio of 1:1 in clerkships and the average ratio of 6:1 throughout the overall curriculum. This staffing ratio should be maintained even in the face of increasing student numbers, such as the near doubling of students currently in first year. This increase in student numbers, which will roll forward into every year, represents an important challenge to the Faculty. However the EAC is confident that the School has recognized this problem and hopes it will be able to organize the curriculum in such a way that the student-staff ratio will be kept at the current level. Feedback from the students/graduates suggested that more flexibility in the organization of some clerkships would be appropriate, for example lengthening the Cardiology/Respiratory unit.

5. The transition at the graduation stage

Graduating students displayed an entirely justified concern about the forthcoming examination to obtain a position in the Portuguese Health System. Indeed the so-called "Harrison Book Examination" is not only outmoded but also completely alien to the basic philosophy of Minho's Medical Course. The students in the Núcleo de Estudantes de Medicina da Universidade do Minho (UEMUM) showed a strong determination to

lobby at a national level for a change to this examination requirement, to make it more relevant to medical practitioners and their patients. (Unfortunately, they did not get the appropriate support for their effort from student organizations in other schools). The EAC recommends that the Faculty should support the efforts of the students for modernization of this system of evaluating the capacities of the young doctors at the threshold of their professional careers.

The EAC was happy to hear that the graduates are forming an Alumni Society with the aim of helping the School achieve its general goals in the field of Medical Education. Among other activities the students are planning fund raising activities that are most welcome. The Faculty should cherish this initiative and establish a strong, focused collaboration with the student Association.

6. Research at the ICVS and Postgraduate teaching

The EAC did not evaluate the research carried out at the ICVS since this is the task of the ICVS External Advisory committee, although it was noted that there are clear and strong links between research and teaching at the Medical School. The EAC regrets that it was not possible to exchange views with the other Committee, particularly with respect to post-graduate teaching. Nevertheless the EAC was impressed by the level and increasing quality of the research being carried out at the Institute, as indicated by the increasing number of publications and their impact factor. The EAC was happy to hear that the ICVS was evaluated as “Excellent” by the last FCT review panel.

The School is achieving a comprehensive programme of postgraduate courses making good use of the research expertise of staff. The EAC considers that this is a most important activity of the School that merits careful planning and financial investment. Moreover the EAC recommends that the School clearly defines its priorities in the Postgraduate field so that the visibility of the Postgraduate teaching at the School will be enhanced not only in Portugal but also internationally.

7. Research dimension: MD/PhD programme

Currently two students are engaged in the MD/PhD programme at Thomas Jefferson and Columbia Universities. In the preparatory phase of this programme there are 12 students involved in laboratory rotations. The graduates informed the EAC that even more candidates might have been interested in taking part in this programme had it had started earlier. The majority of the students appreciated having a period dedicated to research in the basic curriculum. The lack of clinical tutors with experience in clinical research was considered by graduates to be a handicap.

8. Medical Education Unit (MEU)

The EAC was very impressed by the activities of the Medical Education Unit, especially for its efforts to provide training in the education goals and methodology of the School for the clinical tutors. The EAC strongly repeats its recommendation that the MEU should pursue a long term research programme into the later professional careers of their graduates.

9. Concluding remarks

During this visit the Steering Committee chaired by Professor Sérgio Machado dos Santos ceased to exist and the Medical Course Director Professor Joaquim Pinto Machado relinquished this function. Both were most appropriately honoured by the University at the graduation ceremony. The EAC also wishes to express its great

admiration and respect for these two pioneers of the project and for their outstanding contributions to its success.

To mark the beginning of the new phase in the life of the Medical School Professor Cecília Leão was appointed as the new Dean of the School, and Professors Nuno de Sousa and Jorge Pedrosa as vice-Deans. The EAC welcomes this new team, and is convinced that it will be able to continue the leadership of the School at the highest level.

The EAC suggested that the School should set up a special Committee with two main aims:

- (a) to promote public relations with the aim of providing greater visibility of the achievements of the School both in Portugal and abroad; and
- (b) to organize fund raising activities, that are pressingly needed given the uncertain flow of funds from the Ministries and FCT. The EAC suggested that Professor Sérgio Machado dos Santos would be an excellent Chair for such a Committee.

The EAC warmly praised the staff of the School for the outstanding achievements already realized, and summarized these by paraphrasing the words of Eduardo Marçal Grilo that the School demonstrated “a visionary strategy, a clear sense of mission, a strong leadership, the commitment of the staff to a common goal, and the motivation of the students”.

Report by the External Advisory Committee of the *Instituto the Ciências da Vida e da Saúde (ICVS)*

The External Advisory Committee (EAC) of the ICVS is composed of Drs. Marina Bentivoglio (University of Verona, Verona), Alan Flake (University of Pennsylvania, Philadelphia) and Paulo Vieira (Pasteur Institute, Paris). On June 20th 2006 the Committee visited the facilities of the ICVS, interviewed the research staff, post-docs and students, and met with the Board of Directors of the Health School (ECS) and of the ICVS. This report summarizes our opinions and advice regarding the research activities of the ICVS.

We were very satisfied to see that the ICVS laboratories are organized in a network of shared facilities that support the research groups in a multidisciplinary way. This type of organization, as well as the centralized system for the management of reagents and consumables, is very efficient and contributes decisively to the maximization of the available resources.

In general terms we were very favorably impressed with the achievements of the research staff in such a short period of time (the Institute initiated its activities in 2003). The Institute has managed to publish an impressive number of scientific papers, in spite of the serious constraints resulting from the insufficient space they work in, and the cramped conditions of the support facilities (we mention in particular the reduced size of the Animal Quarters). The new facilities under construction in the Gualtar Campus, which we visited, are however ample and should provide a significant opportunity to further strengthen the research work at the ICVS and permit development of new areas of research.

The ICVS is structured around 3 main "Domains of Research": "Development and Neoplasia", "Infectious Diseases" and "Neurosciences".

It makes sense that a new and competitive Institute, such as the ICVS, has chosen a restricted number of strategic areas where to concentrate their research efforts. In the near future, available resources should not be dispersed, but used primarily to reinforce those areas that can produce competitive research. The specific areas of research selected at the launching of ICVS are important and internationally competitive and seem adequate to the needs of a country like Portugal.

Additionally, the ICVS plays a critically important role in the context of the ECS edical course. The opportunity given to students to integrate competitive research groups in diversified areas of biomedical science contributes to the high quality of the medical teaching at ECS as well as the PhD and other postgraduate programs of the school. The ICVS will also play a fundamental role in the future MD/PhD program of the ECS.

The investigators in the 3 "Domains" interact easily with each other and pursue a number of "cross-Domain" collaborative projects. The friendly relations between the members of the staff and the development of collaborative projects are a very strong point of the Institute, and we encourage its Directors to pay special care that future expansion of the ICVS, and the recruitment of new research groups, does not interfere with the nice spirit of close solidarity we observed in our visit.

The ICVS also has a number of PhD students and post-Docs for research training. This personnel, having no obligatory teaching duties, are naturally the most active at the bench. As is always the case, the supervisors should ensure that their other teaching and managerial duties do not prevent them from adequately supervising and training this class of researchers. The number of post-Docs is somewhat small and in our opinion the recruitment of more post-Docs would benefit research at the Institute.

Given that the Institute is still in its "infancy" special care is needed to encourage its continued development.

We urge the National Authorities, the University of Minho (UM) and the ECS to be serious and consequent in the support they are prepared to offer the ICVS. We identified in particular the following areas where special support from the University, the School and the National Authorities is vital for the transformation of the ICVS into a solid, internationally renowned Research Institute:

- The Animal Facilities are exiguous and represent at the moment the most serious impediment to the research carried out at the ICVS. It is urgent that funding be made available to build an animal facility of a reasonable size and with a spacious containment facility. This is particularly urgent in view of the impending move to the new Institute (under construction), when the physical distance that will separate the Labs from the animal quarters will rapidly become a major handicap. We advise that a new animal facility be built in close proximity to the new Institute, in time for it to commence operations at the time of the move.

- The Institute does not have a Library and lacks subscriptions to major Research Journals. The ability to read the scientific literature in a timely fashion is of major importance in conducting research that is internationally competitive. We strongly advocate the allocation of a specific budgetary item (eventually with financial support from the relevant authorities) to correct this.

- All of the academic staff of the ECS accumulate their research activities with teaching duties at ECS.

The pedagogic approaches followed in the school lead to the concentration of the teaching activities in specific periods of the academic year, which favors the research activities of the academic staff members. On average the annual workload of their pedagogic activities is 40% whereas research activities occupy 60% of their time.

It is very important that this policy be kept and continuous care should be taken to prevent the teaching duties from becoming an unbearable burden and interfering seriously with the conduct of research. The recruitment of staff

whose primary duty is to do research should be a priority. In this context, the attribution to the ICVS of a number of research positions (with no teaching duties) would be a significant improvement on the current situation. Allocation of financial resources for the recruitment of highly differentiated technical staff would also be very important for the research activities of the ICVS.

- The institute has already a number of pieces of scientific equipments acquired with financial resources, allocated mainly by ECS. Recently, Portuguese governmental agencies for science granted the ICVS with funds that will be used to purchase heavy scientific equipments such as a confocal microscope, a microdissector microscope and a DHPLC. This amount is clearly insufficient for the challenge of equipping the new ICVS building with state of the art scientific equipment as well as other pieces of fundamental heavy equipment such as a cell sorter, an electron microscope, electrophysiology apparatus, etc. The support of governmental agencies, through the allocation of further funding to allow the purchase of more scientific equipment, is necessary to establish a high standard, internationally competitive, institute in biomedical research at the UM.

Paulo Vieira (on behalf of the members of the EAC: **Marina Bentivoglio, Alan Flake**)

Unité du Développement des Lymphocytes.
Institut Pasteur de Paris