



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ	HELLENIC REPUBLIC
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ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΠΟΙΟΤΗΤΑΣ	HELLENIC QUALITY ASSURANCE AGENCY
ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ	FOR HIGHER EDUCATION

## **EXTERNAL EVALUATION REPORT**

# **SCHOOL OF MEDICINE UNIVERSITY OF CRETE**

**MΑΡΤΙΟΣ 2010**

### **External Evaluation Committee**

The Committee responsible for the External Evaluation of the of the School of Medicine of the University of Crete consisted of the following four (4) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005 :

1. **PROFESSOR HARALAMPOS GAVRAS, MD, FRCP** (President)

BOSTON UNIVERSITY, USA

2. **PROFESSOR NIKANDROS BOURAS, MD, PhD, FRCPsych**

UNIVERSITY OF LONDON, KING'S COLLEGE, UK

3. **PROFESSOR CHARALABOS POTHOUKAKIS, MD**

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA), USA

4. **PROFESSOR GEORGE KITAS, MD, PhD, FRCP**

UNIVERSITY OF MANCHESTER AND UNIVERSITY OF BIRMINGHAM, UK

*N.B. The structure of the “Template” proposed for the External Evaluation Report mirrors the requirements of Law 3374/2005 and corresponds overall to the structure of the Internal Evaluation Report submitted by the Department.*

## **Introduction**

The Committee visited The Medical School of the University of Crete at Irakleion from Monday 15<sup>th</sup> to Wednesday 17<sup>th</sup> March 2010. The members of the Committee had been provided with the Internal Evaluation report (July 2008) prior to the visit and had the opportunity to consider this in detail. The Committee was also briefed in Athens by the Chairman of ADIP, Professor Spyros Amourgis, prior to the visit.

On arrival, the Committee met with the Dean, Professor Pallikaris, Associate Dean, Professor Papamathiakis, the President of the School, Professor Zoras, and members of the OMEA. During the visit, the Committee met with multiple undergraduate and postgraduate students, teaching, research and administrative staff at the University and the University Hospital (please see Appendix 1 for detailed program of the visit). The Committee held separate meetings exclusively with students (both undergraduates and postgraduates), in addition to combined meetings with students, faculty and trainees. Reports, documents and other data examined by the Committee are listed in Appendix 2). The University provided the Committee throughout the visit with additional information/data as requested.

### Facilities visited included:

- a. Medical School: teaching theatres, classes, teaching laboratories (incl. anatomy, physiology, biochemistry etc), research laboratories, administration areas, student and staff restaurant, amongst others.
- b. University Hospital: multiple inpatient wards and clinics in most clinical departments including the Centre of Primary and Family Care and the Department of Psychiatry.

The Committee found the internal evaluation report and associated relevant

documentation very informative and essential for understanding the functions and components of the School. The Committee felt that the objectives of the internal evaluation process were fully met and expresses its gratitude to Professor Plaitakis and all other members of OM. E.A. (Drs. Boumpas, Georgopoulos, Kardassis, Margioris, Filalithios and Chlouverakis) for putting together such a detailed document. The organization and coordination of the visit program by Ms. Emannuella Xenikaki was outstanding and the Committee felt she was an essential contributor to the successful accomplishment of the visit particularly because of the strict time constraints.

The Committee felt that the outcomes of the internal evaluation had already been considered by the School and several issues had already been discussed. However, it was felt that no significant progress has been made in addressing several of the identified issues within the period between the end of the internal evaluation (July 2008) and the beginning (March 2010) of the external evaluations.

## ***A. Curriculum***

For reasons of clarity, the committee will consider the curriculum as follows:

### **1. Undergraduate curriculum leading to MD degree:**

- (a) basic sciences (years 1 and 2)
- (b) preclinical (years 3 and 4) and clinical (years 5 and 6)

### **2. Postgraduate curriculum:**

- (a) leading to Masters degree
- (b) leading to PhD degree

### **Undergraduate Curriculum (UC): general points**

The goals of the Medical School of Crete are as stated in page 39, internal evaluation report. Since the inception of the Medical School of Crete (School), there has been an emphasis on basic sciences and its integration with clinical practice and research. The curriculum reflects this original objective clearly.

Though different stakeholders have been involved with the development of the curriculum there is no clear structured mechanism for regular revision. The significant expansion in the number of medical students, with virtually no expansion of the faculty, is causing serious difficulties in the implementation of the curriculum, in spite of the fact that the School enjoys high standards of faculty. The School and faculty have recognized that the internal and external evaluations offer a good opportunity for reappraisal of the curriculum.

A significant problem with the implementation of the curriculum is the variable and inconsistent student attendance, mainly to lectures, but even more importantly to clinical training sessions. The reasons might include the nature and structure of the curriculum, the quality of implementation, the perceived relevant value of securing employment after qualification, and activities related to students' attitudes, for example frequent disruptions of varied nature. This may create a vicious cycle of ever diminishing returns. The Committee believes that these issues have to be recognized and addressed with urgency by the School, the faculty, but also the students' relevant bodies.

#### Basic sciences (years 1 and 2):

There is an appropriate mixture of subjects and topics. The Committee felt it is important that basic science departments which have recruited high quality faculty continue to underpin the whole curriculum. This is consistent with universally accepted standards in medical academia.

The following issues require attention:

(a) suboptimal coordination resulting on occasions in gaps or unnecessary

overlap.

(b) the lengthy separation from clinical exposure may give the impression to students that there is a weak relationship between basic sciences and clinical practice.

(c) there is an imbalance between the scope and size of some topics.

(d) the program is heavily loaded on didactic educational approaches, rather than small group discussions, problem-based learning and practical laboratory sessions.

(e) There are considerable constraints on time, space and the capacity of the faculty, in view of the significant increase in the number of students in recent years. This needs to be considered very carefully.

The above mentioned difficulties are shared by both faculty and students, and should be dealt with as a matter of priority. This is very important because an increasing number of students fail the exams on basic sciences prior to starting their pre-clinical/clinical training. This has serious implications for the clinical training of the students, as they focus their efforts to pass their exams while also lacking knowledge essential for clinical training. Although passing certain exams of the basic sciences is a clear requirement in order to progress to clinical training, this requirement is no longer adhered universally across the clinical departments. The Committee believes that this practice deviates significantly from the original goals of the curriculum.

Specific attention should also be paid to:

(a) the use of cadavers for teaching anatomy over and above the current facilities

(b) the ratio of students/faculty in practical laboratory sessions should be improved.

(c) the transfer of basic courses to the clinical years should be avoided, as it disrupts the clinical training of the students and creates unnecessary work for

the faculty, who have to deal with repeated exams before a student manages to pass a course.

Possible models that could be considered include:

(a) a modular approach to teaching of certain topics (e.g. 3 months continuous, intensive biochemistry simultaneously with laboratory training and small group tutorials, as well as several intermediate exams).

(b) efforts should be made to link basic science to clinical problem-solving.

Preclinical (years 3 and 4) and clinical (years 5 and 6) training:

The Committee has noticed the following problems with the delivery and implementation of the curriculum:

(a) Defined goals that should be attained by each individual student are usually lacking, while monitoring is not applied universally in all fields and specialties.

(b) Lack of continuity between the first part of preclinical training (last 6 months of year 3), year 4 (which is all lecture based), and the clinical years 5 and 6.

(c) Significant variation among clinics in the quantity and quality of clinical exposure and training (e.g. limited training in clinical examination of the abdomen, pelvis, rectal examination etc). Psychiatric department needs also to include the current modern trends in mental health.

(d) Participation of the faculty to teaching and training is at best inconsistent. Quantity and quality of training appears to be trainer-based rather than system-enforced. Significant parts of training appear to be delivered by specialty trainees, who are themselves very pressured by the need to deliver a clinical service with limited administrative support.

(e) There is a trend for decreasing presence of students in the training sessions, possibly due to carrying over other conflicting educational

commitments from previous years. In some programs there is lack of structured supervision. In addition there are no clear and consistent mechanisms for monitoring and enforcing student presence to such sessions.

- (f) In certain cases, there is a very high number of students for the number of trainers.
- (g) There are no obvious ways to guarantee that students qualifying from the School after completing clinical training have all attained an agreed minimum standard of knowledge and more importantly have acquired basic competencies in practical skills and procedures. Particular problems appear to occur in surgical training, possibly due to the highly practical nature of the specialty.
- (h) There are some obvious tensions between the demands of delivering a clinical service and meeting the needs of clinical training. The co-ordination between the School and the University hospital is suboptimal. Integration with other hospitals in Irakleion and Crete is at embryonic stages, perhaps depriving the School of some important training resources.
- (i) There is a clear deviation from existing agreements and rules (that exist for good reasons) about completing examinations in subjects which are a pre-requisite for clinical training, before students are allowed entry in clinical training. These rules are not applied in all specialties, indeed they are applied only in a minority of specialties. The School must demonstrate its resolve to adhere to these rules strictly. Many students expressed the view that all that is required is clarity and consistency of approach.

### **Recommendations:**

The Committee felt that the content of the curriculum does not require significant improvements. However mechanisms need to be put in place for regular review of both content and delivery (see teaching). Implementation and delivery are the major areas that require immediate attention and action,



by setting clear targets and deadlines.

The Committee supports the suggestions made in the internal evaluation report (pages 45, 46) and in addition recommends the following for consideration by the School:

- (a) The introduction of problem-based learning approaches, in the form of clinical case-based discussions in early stages in the course of the studies (in order to achieve a better understanding of the clinical application of basic science, e.g. integration of physiology and pathophysiology through disease examples)
- (b) Continuous assessment of individual students to monitor satisfactory attainment of required knowledge and competencies (e.g., by giving intermediate progress exams as opposed to waiting until the final examination)
- (c) Development of a formal mentoring program to provide educational supervision, advice and guidance of students on an individual student basis
- (d) Development of specific educational objectives in all specialties, including mechanisms of systematic assessment as to whether these are met.
- (e) Explore the possibility of seamless integration and collaboration, and efficient utilization of resources available for clinical training within the School, the University Hospital and other hospitals in Irakleion and other areas in Crete.
- (f) Identify topics or medical fields that either are not present in the current curriculum or need strengthening (e.g. courses in Geriatrics are absent).

Postgraduate curriculum:

The postgraduate programs of the School cover a wide range of topics, representing a very significant strength and producing internationally competitive outputs. A very positive aspect is the fact that the School has developed a large number of productive links with several leading

Universities and other research institutions in the world.

The following require further consideration:

- a. Some courses lack critical mass of student numbers, while others do not appear to be attractive to medical graduates.
- b. There appear to be limitations to audiovisual teaching resources in some cases.
- c. There is no clear link between the postgraduate courses and career orientation (in fact there is little evidence that the latter is considered at all at any stage of the training).

The Committee felt that although the postgraduate activities are of high quality and major importance to the School, the local community and the advancement of science in all of Greece, the program might not be viable in its entirety for the future. In particular the Committee was concerned about the current lack of obvious means of guaranteed funding as the government has not invited competitive tenders for a long time. Fundraising for support of postgraduate programs should be considered by the School. Fee-paying courses may also be considered, in accordance with common practice in other parts of the world. Indeed this committee finds it surprising that such high quality courses may be literally free to all, including citizens of non-EU countries, when Greek students are expected to pay substantial amounts for fees to attend similar courses for obtaining similar degrees in other countries.

With regards to the utilization of the Masters vs. the alternative route towards PhD training, the committee felt that both should be maintained, as they offer flexibility for students of differing abilities, ambitions and career structures.

The committee supports the point relating to the critical assessment of postgraduate activity stated in the internal evaluation report (pages 65-67). It also concurs with the proposed solutions and wishes to emphasize the importance of sustained state funding for some of this activity.

Other issues for consideration include:

- (a) The dependence of large parts of postgraduate (and in some cases undergraduate) teaching on “researchers” who are funded through

temporary research grants and are employed obviously with research as their primary concern. This may have major implications, particularly if research funding is diminished, not only for the ability of the School to continue to produce research, but also its ability to be able to deliver the postgraduate and undergraduate curriculum.

- (b) The possibility of employing advanced graduate students as teaching assistants in undergraduate and graduate teaching and small group tutorials.
- (c) The lack of a clear recognition of the role of “researcher”, with clear career development pathways and recognition of their input to the research and educational efforts of the University.
- (d) Establishment of some way to honor excellence in teaching and research on an annual basis (e.g., a “Teacher of the year award”). This would enhance competition among faculty members for quality teaching, as well as promote faculty satisfaction and morale.
- (e) Taking actions to advance social interaction and collegiality among faculty and between faculty and students (e.g., by creating a faculty club).

## ***B. Teaching***

The committee has paid particular attention to this area and has considered several sources of information, including the internal evaluation report, several presentations made by faculty members, extensive material provided by various departments and interviews with faculty members. We found, however, particularly helpful and insightful our meetings with medical students, both with and without the presence of their teachers. There are areas of excellence in teaching provision, including a well developed programme of international exchanges. However there are some areas with significant deficiencies. Overall, this committee felt that together with management, teaching and training is an important weakness of this medical school. This is rather disappointing, since the quality of the faculty is in most

part very high and the potential for great improvements is palpable. The causes for the underperformance in the above mentioned areas might be multi-factorial and should be considered carefully by the School.

The Committee felt that in addition to shortage of human resources in places (which needs to be addressed), there are the following other important causes:

- (a) lack of optimal organisation and utilisation of all available resources
- (b) that teaching and clinical training has not been put at the core of top priorities of the School (and is easily outrun by research as the top priority);
- (c) that most faculty members, mostly in clinical disciplines, experience serious time constraints because of their service delivery demands followed by their research commitments, so that their teaching and clinical training of students fall last in their priorities. It is encouraging that the School has recognised several of these shortcomings in the organisation and delivery of teaching and clinical training and is making some inroads towards addressing them.

The School utilizes a variety of teaching methods, ranging from lectures and tutorials, to practical laboratory-based teaching and clinical training. More emphasis should be given to practical laboratory and clinic-based teaching methods in smaller groups, but this may of course have human resource implications.

The teaching staff/student ratio has been affected significantly due to additional substantial extra student numbers without a commensurate increase in the number of teachers and the related infrastructure. This has clearly introduced limitations to the effectiveness of teaching delivery.

The Committee felt that teacher/student interaction needs to be strengthened (as already mentioned in section A). There appears to be some lack of commitment and reluctance by senior faculty members of clinical specialties to be fully engaged in teaching. This might be partially due to conflicting priorities with research and clinical responsibilities within and outside of the

medical school, but needs to be addressed as a matter of urgency.

There appears to be adequate space and facilities for lectures, but audiovisual facilities (including IT) require modernisation. There is also a need for harmonisation between the IT facilities and access available at the University and those available at the University Hospital. Laboratory facilities and space available for teaching need to be further developed, in view of the increased number of students: the staffing implications also need to be considered.

Examination systems are generally adequate. However, the committee feels that increasingly more emphasis should be given to the development of skills-based rather than only knowledge-based examinations, towards the 5<sup>th</sup> and 6<sup>th</sup> years of study.

There is no systematic assessment of the quality of teaching that might lead to redesign of teaching approaches. There is also evidence of significant variations in the quality of teaching among different specialties. These issues have also been identified by the internal evaluation and offer an excellent opportunity to start developing this area. It appears that the School is already working towards this aim. Robust systems need to be developed and adhered to, that will guarantee at least an evaluable minimum quality of teaching and training across the board.

There is evidence that research is linked with teaching and this is very positive. However, the Committee is concerned that an increasing amount of teaching appears to be dependent upon “researchers”, and there is a risk that this will create unproductive conflicts. The Committee wants to emphasize that excellence in research must be matched by excellence in teaching.

There is no systematic training of clinical trainers in novel and effective teaching approaches. This has already been recognised by the School and efforts have been made towards improving the situation, including a congress on medical education with the participation of experts. This needs to become a regular and evaluable occurrence.

With the existing School structures and practices is extremely difficult to evaluate the outcomes of teaching and training and identify their shortcomings. In view of the lack of competitive exams to gain entry to post-qualification clinical career stages in Greece, it is also impossible to compare the competitive strength and medical knowledge of the graduates of this School to those of the other medical schools in Greece. This is a wider issue that needs to be addressed by the medical community and relevant authorities in the country.

The main recommendations are:

- (a) That teaching and clinical training should be considered as the top priority by the School, and this should be clearly reflected in the overall School strategy;
- (b) That a formal directorate of teaching and clinical training be established, led by an Associate Dean for Education, supported by a team of faculty with a special interest in teaching and training. This directorate should be responsible for the overall development, efficient co-ordination, and monitoring of effectiveness of all teaching activities within the School, and should systematically address the issues mentioned above, within specific timeframes.

### ***C. Research***

All members of the Committee agreed that research represents an important component and major strength of the Medical School of Crete. The School has had a strategy of attracting individual investigators that have excelled in their areas of interest and allowed them to develop and expand their research programs through local collaborations with other research institutions of excellence in Greece and abroad. This strategy appears to have paid significant dividends and could be continued and refined further. The School's success is reflected in the impressive productivity in quality and quantity of publications. The School facilitates collaboration with major

research institutions abroad in producing research, but also in training new physicians/investigators, abroad and locally through its organized graduate programs. A positive consequence of this is demonstrated by the significant number of competitive grants awarded to several faculty members from a variety of sources, including the EU and other funding organizations at the local and international level. Research has also been facilitated by close collaborations with members of ITE, one of the strongest research institutions in the country. Overall, the research activity and productivity of the School is considered to be of the highest standard and is also well recognised internationally.

The School applies widely accepted standards for assessing research and has provided detailed data on this in its internal evaluation report. The School also provided the Committee with CVs of individual faculty members. We felt that faculty in all research active departments was on average very good to excellent. This is a vibrant human resource that needs to be further cultivated in order to continue to flourish. There is an obvious culture for supporting research and individual researchers in this institution. It is of serious concern to the Committee, as well as to the School's leadership and faculty, that this excellent substrate may be under threat due to lack of sufficient support from the central government, particularly as research support from other sources, including the EU, is also diminishing .

There is a wide range of physical infrastructure for research, the overwhelming majority of which has been purchased through external research grants. There is no clear mechanism either for maintenance or replacement of essential research equipment and this is of concern. There is a need for the creation of a modern animal facility meeting international standards. The research effort would also further be facilitated by the development of other core laboratory facilities that can be shared among investigators. Optimisations of collaboration between basic scientists and clinical researchers towards development of translational research should also be emphasized. We would strongly recommend that a detailed research plan

and appropriate budgets be developed to facilitate such developments.

The School has produced a large number of publications in top quality international journals, in a sustained fashion over a period of years. The number of projects has also increased and supported by the excellent postgraduate Masters and Doctorate programmes, and the excellent network of research collaborators nationally and internationally. There is however some evidence of suboptimal collaboration between the various disciplines and between basic and clinical scientists within the medical school, particularly towards the development of translational research. The medical school has obvious potential in this area, and this should be developed to its fullness. The School's research productivity is internationally visible. This productivity may be under threat due to funding constraints though this is an international phenomenon. Greek research institutions, including this one, may be under particular pressure due to lack of central funding. This threat and potential ways to address it needs to be seriously considered by the School, with the development of a strategy to retain the most productive and essential staff and support the most outstanding of its graduate programs as a minimum, particularly since a lot of the research productivity depends on well trained graduate students and non-permanent "researchers".

### **Recommendations:**

This committee believes that the very significant achievements in research of the School should act as a beacon at the National level. However, the School finds itself at present at an extremely sensitive stage, a major cross-roads, that may result either in further ascendance, or major decline. It is of paramount importance to sustain the practice of continuing to recruit on the basis of excellence and provide new recruits with access to existing resources and recruitment packages even at limited fashion. . As a number of senior faculty who was selected by international review panels is reaching retirement age within a few years, it is extremely important to create a fine balance between new recruits (based the School's already successful strategy linked to excellence) and the ability to promote existing promising faculty.



In view of the international phenomenon of limited research funding predicted for the next few years, the medical school should consider ways of optimising fund-raising activities locally, nationally and internationally (for example from active Cretan Diaspora).

There is an obvious lack of robust mechanisms to address the possibility of scientific fraud (e.g., by auditing of records). This committee wishes to emphasise that this recommendation is not made because we have any specific suspicion or saw any evidence of fraud in this organisation, but because this and other Greek research organisations of international standing, should comply with internationally acceptable standards of governance.

The Committee supports most of the proposals made in the internal evaluation report. We felt that the organisation needs to develop its critical mass and sustainable resources further, in order to be able to move towards models of specialized group grant applications around common research themes, for example, collaborative efforts in the format of a Program Project with 3-5 related research projects and with common Administrative and Core technical facilities.

#### ***D. All Other Services***

Due to time constraints, the committee had limited opportunity to consider in detail the managerial and administrative infrastructure of the School. There appears to be some core support staff, but the managerial services do not appear to be as well developed or coordinated as in major academic organisations in other countries (e.g. central support for human resource management, updates for grant opportunities, provision of financial expertise for grant writing). This may make administrative procedures more complex

than necessary. A lot of administrative support is provided through “soft funds”, and as a result, it is highly variable amongst departments. A School-wide “overhead” to create basic administrative infrastructure for ALL departments may be an appropriate model to follow. Electronic infrastructure would also help with management and is of paramount importance.

There is an expressed wish, but no obvious strategy or mechanisms to try and increase, and monitor, student presence on Campus, courses or lectures. This is of major importance and needs to be addressed as a matter of priority.

There is no obvious mechanism to deal with grievances, both for personal professional issues (e.g. promotion procedures – for which several faculty members expressed serious concerns), and for interdepartmental “differences” (e.g. removal of a funded post from one department and placing it in another). This is an important shortcoming that might create serious repercussions to faculty, students and the local community.

Library facilities and PC rooms are available on campus and are being updated. However, there is a large discrepancy in IT development and internet access to online resources between the School and the University Hospital. Subscriptions to a large number of scientific journals have lapsed. This creates enormous difficulties for students and faculty, both of whom have to spend large amounts of their time at the Hospital. Mechanisms should be developed to harmonise IT infrastructure between the sites. The hours during which the library is open should be considerably extended, e.g., up to 10 or 11 p.m., and include the weekend.

Athletic facilities for students are being built at present within the campus. The design of the campus as such is excellent and provides the opportunity for cultural and recreational events to occur.

There is no obvious mechanism for individual student counselling and “coaching” by faculty members, however the development of a mentorship mechanism is in plan. It needs to be emphasised that this will create further pressures on faculty time and may need to be accompanied by increasing numbers of faculty specifically trained in supervising, mentoring, and counselling.

### **Collaboration with social, cultural and production organizations**

The School has developed a large number of excellent initiatives involving local social and cultural organisations. It has also facilitated the development of disease-specific patient groups. There is an obvious culture of integration with local community groups, and the Committee recognises these very commendable accomplishments. It is particularly impressive that the School also supports and promotes activities in remote areas of Greece, having wider impact outside Crete. It has initiated and organised a large number of innovative congresses, some of which took part for the first time in Greece. The continuation of these activities is very desirable, as it would be expected to have a positive effect on a wider-than-Crete basis.

The School has trend-setting programmes in public health and can act / is acting as a regional centre at least in the Mediterranean region.

The School has been having a major contribution to the Irakleion and the wide Cretan community by radically changing the medical services landscape over the last 25 years to very high standard indeed. This has obviously been highly appreciated by the local community, who have, in return, supported the School with major donations. It is important that this relationship is cultivated, even more so at these financially difficult times.

The School has developed trend-setting exchange student programmes, has

links and contributes to the function of the World Health Organisation and promotes health education of the young locally.

### ***E. Strategic Planning, Perspectives for Improvement and Dealing with Potential Inhibiting Factors***

The Committee was very pleased to meet with a large number of students, both undergraduates and postgraduates, both in small group sessions and in larger meetings. It was gratifying to see the high level of motivation and enthusiasm of these students and their thirst for better education and hope of fulfilment of their future goals. This closely matched the Committee members' experience from their own institutions abroad. It was equally obvious however, that this enthusiasm was not mirrored in regular and frequent attendance to the undergraduate educational activities of the institution, or indeed enthusiasm to participate in its excellent postgraduate courses. There may be several reasons for this, including reasons external to the organisation and others that the School can control.

To start with, there are some issues endemic in Greek society that may act as inhibitors beyond the control of the School. Most of them could be included under the umbrella of "uncertainty for the future", such as uncertainty for future employment, career development and success. The very long time required to secure a position for postgraduate specialty training, several years in many cases, together with the overproduction of doctors (compared with European norms) from Greek and foreign institutions, and the lack of competitive systems of entry to the career grades (e.g. for specialisation) may all act as major disincentives at the personal (i.e. individual student) level, and collectively within the student community. Additionally, the lack thus far of systematic evaluation of academic institutions in Greece, results in inability to compare and rank them. This is also a major disincentive for continuing improvement of the organisations, and strongly supports in this committee's

view the current drive for evaluation. The Committee was therefore quite perplexed that a small group of students expressed significant opposition to the very process of evaluation on the basis of ethical concerns

about certain members of the faculty and concerns that the evaluation process might be politically motivated.

Central funding is another factor that may be beyond the control of the organisation, although it should not stop asking for a renegotiation of this. It is evident that the number of students has markedly increased while funds from central government remained at the same level for several years. Together with the diminished opportunities for funding from the EU and other sources, there is a serious concern that education will suffer even more, while the excellent research productivity will not be sustainable. There is also lack of clarity about financial resources from the Ministry of Health used for education and from the Ministry of Education used for provision of clinical training: this significantly impairs the School's ability to plan ahead in a rational manner (and possibly the government's ability to understand exactly how various resources are used for potentially complementary but also conflicting objectives). This may be a particularly acute problem in organisations expected to deliver education, research and health service, such as this School.

Whereas this committee believes that such factors beyond the control of the School are extremely important and need to be addressed, it also believes that they do not absolve the School from its responsibility to look critically through all of its resources and processes, and see how it can achieve the best possible results within existing constraints.

There appears to be a significant conflict of priorities of the School. These include the provision of top quality teaching and training, continuing excellence in research, and the delivery of top quality clinical care to the local population. The School needs to reassess its overall strategy and re-evaluate its objectives on a frequent basis, due to the continuing changes occurring around and within it. It should then develop a clear plan for addressing each

and every one of these objectives, in a constructive way, that does not constitute either a “wish-list” expected to be funded in its entirety by central government, or an internal war for a piece of its admittedly limited resources.

Some of the issues that the School needs to assess accurately (but not an exhaustive list) include:

- (a) the numbers of staff members and skill mix required to deliver in all 3 of these areas. The School could consider the possibility of developing staff with different emphases for example in clinical, teaching and research roles.
- (b) the best way to interact with other institutions, notably the University Hospital and other health service organisations for health care delivery; ITE for research; etc. The School could consider entering negotiations for the development of cross-institutional boards to address these issues.
- (c) the current sources of funding particularly for the human resources, but also other resources required for the delivery of these objectives, and how these can be optimally utilised. The School may consider the development of an “overhead” charge that will allow it to develop centralised services that could be used by all teaching faculty, research groups or clinical groups. Development of a co-ordinated approach and strategy for fund-raising could be considered.
- (d) identifying methods to develop required skills of staff that are currently lacking but can be developed and sustained in the long term. Collaboration with organisations (usually abroad) with an established track record in this may be necessary (e.g. the Royal Colleges in the UK, universities and research institutions in North America and Europe or other alternatives).
- (e) the need for development of robust financial and operational management mechanisms, infrastructure and processes
- (f) develop clear mechanism for dealing with staff grievances and departmental disputes: this appears to be a major issue for both

individual staff members and departments.

- (g) record information on the career paths, as well as national and international presence and activities of alumni (e.g., participation or presentations in scientific meetings, contributions to or recognition by learned societies, etc). This would also facilitate the assessment of the educational outcome and promote collaborative efforts.

#### F. Final Conclusions and recommendations of the EEC

The development of the Medical School of Crete 25 years ago has been a landmark achievement in Greek Medical Academic Strategy. The impetus provided by the School has literally changed the landscape of clinical care provision of the whole of Crete and several Regional areas, from grossly underdeveloped services to nationally, and in some cases internationally recognized centres. The School's strategy of attracting academics with strong research achievements have put it in a leading position nationally and competitive position internally. Teaching and training medical students reflects the main weakness of the School, despite a very good quality faculty and reasonable access to relevant facilities. A lack of modern, efficient approach to management and lack of robust management and administration systems is another significant weakness.

The School is faced with the following main challenges, which are in order of importance according to this Committee's opinion:

- (a) Develop and implement a strategy leading to significant improvements in undergraduate teaching and training in a relatively short time-frame (1-2 years). The strategy will need to be sustainable and demonstrate clear potential for continuing improvement in the long-term.
- (b) Develop and implement a strategy that will help the School maintain (and improve) its current leading status in biomedical research in Greece, despite the present funding difficulties nationally and internationally.
- (c) Clarify its conceptual and operational association and collaboration with the University Hospital and other National Health Service Organizations in order to iron out existing tensions and conflicting

priorities, and in this way lead to mutual benefits for the organizations, their staff and the local population.

- (d) Continue to facilitate the process of evaluation by having an interim evaluation of progress in approximately 2 years from now, and sharing its experience with other Medical Schools in Greece and abroad. The development of an overall culture of quality assurance, with effective and transparent mechanisms to support it, and a strategy of dissemination of its positive effects to faculty and student is necessary and will be a great achievement.
- (e) The School needs to be prepared to successfully address and confront sensitive issues, utilizing internal processes. Such issues include: the application of consistent and transparent processes for acquisition of new and promotion of existing faculty; timely and transparent handling of ethical issues and grievances; tension between School policies and student preferences.

A particular challenge for this School, which requires special consideration relates to the fact that a significant number of senior staff that have in large part defined what this School is today, are due to retire in the forthcoming years. This creates obvious risks, but also opportunities that need to be weighed very carefully about their potential impact to the School's future. This is a major cross-road that may result in further ascendance or significant decline.

The Committee welcomes with great satisfaction the introduction of the evaluation process in Greek Medical Schools, in accordance with well established international practices and standards. It is believed that the evaluation process will become an important contributing factor in monitoring Quality Assurance and leading to considerable improvements in teaching, clinical training, research and developments as well as clinical practice.

### **Comments to ADIP**

It would be better to have three full days for the site visit, including briefing by the president or members of ADIP on location, rather than in Athens, and to provide secretarial assistance.