



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

HELLENIC REPUBLIC

**Α.ΔΙ.Π.**

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ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΠΟΙΟΤΗΤΑΣ

HELLENIC QUALITY ASSURANCE AGENCY

ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

FOR HIGHER EDUCATION

## **EXTERNAL EVALUATION REPORT**

# **MEDICAL SCHOOL**

## **ARISTOTELEION UNIVERSITY OF THESSALONIKI**

**February 2011**

## External Evaluation Committee

The Committee responsible for the External Evaluation of the **Department of Medicine (Medical School)** of the University/Technical Institution of the **University of Thessaloniki**, consisted of the following five (5) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005 :

### 1. **Prof. Constantine A. Stratakis (President)**

*Eunice Kennedy Shriver* National Institute of Child Health & Human Development,  
National Institutes of Health, Bethesda, MD, USA

### 2. **Prof. Spyridon Kollias**

University Hospital of Zurich, Zurich, Switzerland

### 3. **Prof. Constantinos Pournaras**

University of Geneva, Geneva, Switzerland

### 4. **Prof. Philippos Tsihchlis**

Tufts University School of Medicine, Boston, MA, USA

### 5. **Prof. Helen Vlassara**

The Mount Sinai School of Medicine, New York, NY, USA

***Introduction***

On Monday February 14th (9.30-12 noon) at ADIP's offices, the 5 members of the committee met with ADIP staff and Prof. Achilleas Gravanis, who briefed them all in the process of the evaluation. Thereafter, the group was transported to the airport and from there by air to Thessaloniki.

At the airport, the committee was warmly welcomed by the Head of the School of Medicine, Dr. Dobros, the Deputy Head of the School, Dr. Tarlatzis, and Dr. Karakioulakis who oversaw the process of internal evaluation of the Medical School. The group was then taken to the Rector's office.

Although the Rector (Prof. Milopoulos) was listed in the program as the one meeting with the committee, he was replaced by the vice-Rector Prof. Pantis. We were told that the Rector was at a planned trip in Europe; it is unclear whether this was planned before the final planning of the Site Visit took place. In either case, it was unfortunate that the Rector was not available during the visit of this committee.

Prof. Pantis was joined by the Associate Rector for research affairs who also oversees the Research Committee and financing of the research effort of the University, Prof. Kouidou. The Associate Rector for academic affairs was also away at a planned trip which, however, had been mentioned in the final program of the Site Visit (unlike that of the Rector).

The Vice Rector discussed the overall importance of the evaluation process for the planning of the University. Associate Rector Prof. Kouidou agreed and discussed her oversight of research and the overhead costs which average 10%, significantly lower than most US and European Universities. However, the services the University provides to its faculty are also significantly below the services provided to the faculties of most US and perhaps European Universities. It is also important to understand that whereas the Medical School is the major contributor to the grant portfolio of the University, only a portion of the overhead budget is used to service the faculty of the Medical School. A significant portion of this money is used to support Schools and departments which do not contribute to this fund. Neither the portion of the overhead budget that is being used for this purpose, nor justification for its stated use, was provided.

The rest of the meeting took place at the Electra Palace Hotel because the University Campus was regarded as inappropriate because of possible student unrest. The meeting took place between 6 pm and 9 pm on Monday February 14th. There were presentations by the Head Prof. Dobros, Deputy Head Prof. Tarlatzis, the head of the Internal Evaluation committee, Prof. Karakioulakis, the former Rector of the University and Chair, Department of Histology and Embryology, Prof. Manthos, and others, on the pre-graduate curriculum, the internal evaluation process, the 2-year Master's program, the primary care program and the thesis work.

On the 2nd day of the Site Visit, at the Electra Palace Hotel, the group heard presentations by faculty members on the postgraduate and doctorate studies, metrics on research quality and quantity (use the commonly accepted impact and  $h$  factors), clinical research programs, the evaluation of laboratories from the pregraduate students, and of the Master's program by the postgraduate students.

In the early afternoon, the group site-visited some laboratories in the campus, including the laboratories of histology-embryology, physiology, anatomy, biochemistry, and others. The group met with students, support staff and others at these basic science departments. Everybody was extraordinarily welcoming and accommodating, providing details of their work and the efforts they go through to accomplish their teaching and other duties under difficult circumstances. The group did not see any obvious objections to the presence of the Site Visitors other than a single sign put on a single wall (around the students' area) against any Site Visit; the sign was signed by a group of students.

In the late afternoon, the site visitors met with groups of the junior faculty (approximately 10% of the junior faculty of the School), first, and pre-graduate and post-graduate students, second (less than 1% of the total), at the Electra Palace Hotel. Some of the medical students attending this meeting told us that they had not been informed about the exact program of the site visit, which may explain the small percentage of students in attendance. The students and junior faculty were very eager to participate and truly impressed the site visitors with their openness and comments. They were enthusiastic about the process of evaluation but were less optimistic about the prospects of improvement following the completion of this Site Visit. The members of the committee thanked the attending junior faculty and students for their participation and encouraged them to continue their strong commitment to improvement.

On the 3rd and final day of the Site Visit, the group visited the Papageorgiou, Ippokrateion, and AHEPA Hospitals. Everybody visited the first, and Drs. Stratakis and Tsihchlis visited the Ippokrateion Hospital, whereas the AHEPA Hospital was visited by Professors Kollias, Pournaras and Vlassara. The clinics we visited included Gynecology, Surgery, Pediatrics and Internal Medicine. Again, the group was welcomed everywhere, got the opportunity to meet with students and staff completely unhindered, and was impressed by the warm welcoming by all. The group then met with Prof. Dobros and Prof. Tarlantzis who drove all to the airport.

The Site Visit team met in the Royal Olympic Hotel in Athens for 2 1/2 days, from 9 am to 6 pm (on 2/17 and 2/18) and from 9 am to 12 noon on 2/19 to draft and finalize the report.

The committee members feel that they were extraordinarily welcomed and all were impressed by the commitment of all to the process of evaluation. The visit was well organized by the Head of the School and Deputy Head. The talks and material from the Medical School were adequate.

The members of the committee were also impressed with the commitment of the students and junior faculty that we were able to meet. Although we met with only a small and not necessarily random fraction of the student and junior faculty bodies, we were quite impressed with their commitment to succeed under conditions that are not always optimal. This gives us hope for the future. We feel the urgent need to bring this to the attention of both the University and Governmental authorities because it is clear that most of these people, unless given the appropriate attention and support will seek opportunities outside the country. One problem with the visit was the poor preparation of the office of the Dean (no numbers were given from the University and the Rector and the Associate Rector for Academic affairs were absent, without adequate justification for such an event that was planned long time ago). Certain other deficiencies will be mentioned in the individual sections of the site visit report.

The internal evaluation committee report is sufficiently detailed indicating the considerable effort of the academic authorities of the School to verify the application of the goals defined by the curriculum.

The problem is that, because of deficiencies in infrastructure and because of the lack of established procedures for the monitoring of the Educational/Academic and Research activities of the school, documentation is not always easy to achieve. Therefore, despite the commendable effort of the committee of internal evaluation, the report leaves significant questions unanswered.

In a future site visit, the committee members would like to see:

1. Greater participation by the students. Perhaps, this could be corrected by establishing procedures to properly inform the students of the program of the visit.

2. The Rector's office being more involved and better prepared. Perhaps the Dean should be informed of the importance of the process of evaluation.

3. More data about the evaluation from students: this site visit was somewhat hindered by the fact that electronic evaluation had taken place only recently (one month).

4. It is urgent that the Medical school establishes procedures to monitor its Academic/Educational and Research activities and their outcome. This will allow the school to assemble more data about scientific productivity and quality. Due to the lack of such mechanisms, only averages were provided on publications and grants. A list of publications, when requested, was assembled by consulting public databases and was not sufficiently comprehensive. Also, the leadership of the school could not name even a single notable scientific contribution made by the school faculty. This committee believes that any improvement requires a full understanding of the current status of the school and considers the establishment of procedures to monitor this status as a major priority.

5. The Research Committee should provide a full account and justification for the allocation of the overhead they collect from grants awarded to the Medical School and other Schools at the University. It is imperative that these funds are allocated with full transparency.

ADIP should also:

1. Consider changing the allocation of time for large University School Site Visits; this Site Visit was somewhat rushed; if the first half day had not been held in Athens, the time would have been adequate.

2. Request certain items in advance – members of the team in Thessaloniki told the committee that they did not have clear instructions in all that they needed to prepare.

3. The structure and time allocation of the external visit should be according to the directives of EU, appropriate for the evaluation of individual departments that should precede and form the basis for the evaluation of larger organizations like a medical school.

The committee members were overall very pleased with the warm welcome by the leadership and faculty of the Medical School of the University of Thessaloniki (I.Σ. Α.Π.Θ./MS-UT for the rest of the document). The committee members also recognize that several of the deficiencies and problems mentioned in this report are not unique to this School but represent practices and realities that are spread throughout the academic institutions in Greece. The committee members felt that they had to mention what they saw as problematic, regardless of whether they represented systemic issues or local deficiencies; the report is presented, thus, in the spirit of constructive criticism and with the hope that it will spearhead changes that will not improve only this School but will be useful for tackling the Greek academia systemic problems. Once again, perhaps, the most positive aspect of this site visit (and what almost guarantees that things will improve) is the warm welcome by the School's leadership, the participation of many of its Faculty, and the wide recognition and acceptance of the issues that are reported in this document.

## **A. Curriculum**

### **Undergraduate curriculum**

The actual curriculum, as was presented, was appropriate.

Both, medical students and post-graduates are very enthusiastic about the textbook guide provided, which is new and extensive.

However, the actual curriculum contains wide objectives which appear unchanged since long time.

This is also recognized by the internal evaluation committee report which proposes a redefinition of goals and objectives based to the European Core Curriculum, containing more accurate subjects with high priority for the public health care.

The internal curriculum evaluation pre-graduate committee should be aware of the revision and application of the undergraduate curriculum goals and objectives focusing on the introduction and teaching of additional subjects of education, accepted by the Medical School General Assembly and their evaluation by the students.

### **Postgraduate curriculum**

The post graduate (2 year Master's program) curriculum is focused on the subjects of methodology in medical research, although instructing only basic laboratory methods in medicine and lacking information in recently developed advanced technologies.

### **The residency training curriculum:**

Although the curriculum is determined by the ministry of education, with the active participation of the University members, these do not have an active input, that being determined by the ministry of health and national organ of health.

Because of the novelty of the process of internal evaluation we did not observe, nor discussed – the mechanisms for incorporating and implementing changes as a response to the internal evaluation of the curriculum.

The electronic system of evaluation, operating since 2004 for the postgraduate program (PROMESI), or similar systems for the evaluation, should be extended for any component of the curriculum.

Curriculum is a dynamic not a static state and we advised that a mechanism recognizing the constantly shifting/dynamic state is incorporated. The undergraduate students felt that the printed curriculum was not followed consistently. In contrast, the post-graduates felt that they were aware of it and could take advantage of it.

### **Staff members' curriculum:**

There is a lack of academic staff curriculum. All the instructors, assistants, associated and regular professors obtain their academic positions based on defined minimum criteria in order to apply. The only official criteria are the diploma of medical studies and the certificates of medical thesis.

IMPLEMENTATION:

### **Undergraduate curriculum:**

We felt that the undergraduate Curriculum although supporting comprehensively the theory of medicine, it was evident by the interviews of both junior faculty and all the students we met that the Curriculum lacked the practical method. There is an effort to cover this section, as a systematic program of clinical skills has been established.

There were several approaches to reinforce the clinical skills of the students which should be further strengthened. There were marked inequalities, namely only 30 % have access to the well organized, systematic program of clinical skills.

### **Post graduate curriculum:**

There is a post graduate program PROMESI contains four main sections: Medical research methodology, Medical informatics, Medical physics-radiophysics and Advanced computer and communications Systems, leading to the achievement of master degree.

The 2 year masters program, it was reasonably design, had appropriate objectives, although restricted to only clinical and basic research design. We believe the goals and objectives were appropriate, but a medical school of this size should have a wider range.

These programs should be intensified, expanded, as per other similar programs.

One way to identify resources is to allow international applicants to participate and use an international language such as English. Another way is to form specific courses linked to the PhD program, in association to the basic sciences departments.

The doctoral degree awarding program is a seriously flawed system (see other parts of this report, too), not unlike other medical schools in Greece and elsewhere. This is an historical issue We recognize that this problem is intensified by the requirement that a doctorate is required for any physician who wishes to advance in academic and national health organizations.

We are aware of the fact that Bologna reforms propose the establishment of a system of credits (such as the ECTS system) as a proper means of promoting the most widespread student mobility, as an attempt to standardize degree awarding programs throughout Europe. We believe that I.Σ. A.Π.Θ./MS-UT should be at the forefront of these changes by addressing what was felt by the committee to be a "two speed" doctoral system. It was clear that the students were not aware of the difference of the doctoral degree acquired through the existing process and the internationally recognized PhD. This is a serious issue that the University must address immediately recognizing that this involves multiple parties. In addition, for the establishment of the PhD program, it is necessary to define grants and research programs assuring the realization of the projects and the financial support of the candidates.



The number of students is exceedingly high, which affects resources. Several students pay for the costs of their own projects. This is unacceptable.

We advise that the University provides a real PhD-awarding program that will comply with the Bologna reforms and international standards that will accept a limited number of students, fully supported throughout studies by existing resources.

The current practice of awarding doctoral degrees without this process should be eliminated.

### **The residency training curriculum:**

The committee identified several problems:

- There are far too many trainees with uneven distribution through available teaching programs at clinics.
- The curriculum determined by the ministry of education, is adapted in some clinics according to high standards of education in residency; however, the committee had not received an objective output representative of the majority of the departments.
- The decisions of whom and how many trainees are actually trained are up to the Ministry of health, leading to mass exodus of graduates abroad. We feel that the post graduate residency training in medicine should be regulated by the ministry of education and be linked to the rest of the curriculum. We also felt that the positions were unevenly distributed. This is important because by linking the selection of residents to a national selection process based on merit, like the American matching process and other European programs, the exodus of the best and brightest can be avoided.

### **Faculty training.**

- The existing faculty training program should be reinforced and extended to all faculty members.
- It is mandatory to establish minimum scientific and academic criteria for each step of the faculty members' promotions, comparable to those already existing in numerous European universities.
- Given the poor scientific impact (although some departments have an excellent scientific output, reflected by the high total impact factor and citations index, the mean  $h$  factor was much lower compared to Western standards, in particular with regards to the position of Full Professors).

### **Development of specific areas of excellence:**

The committee observed lack of focus on specific areas of excellence: There is no emphasis on the hot scientific topics of both international and Greek interest. The limited number of international collaborations should be extended and reinforced. This can be achieved by the creation of an interaction with national and international centers, resulting to the improvement of local infrastructures and scientific income.

In addition to the internal evaluation committee report proposals, new goals and objectives should be added in the curriculum in state-of-the-art areas such as:

- Aging-related conditions, diseases,
- Geriatrics
- Global health issues
- Medical Genetics
- Regenerative medicine
- Rehabilitation medicine
- Biomedical Engineering

After the completion of the Site Visit, in their response, the School's leadership indicated their intent to start courses on some of these state-of-the-art areas, but it remains unclear to what extent this has been materialized.

### **Results**

During the discussion with the Faculty members, the necessity to improve the scientific production was recognized, as well as an effort to promote the scientific quality of the Faculty member's curriculum. Similarly, nepotism seems to be reduced recently, but still remains a significant problem, as is mentioned in other parts of this report. The committee members understand that nepotism and the other problems mentioned in this report may be systemic problems in Greek academia; the members also applaud the efforts of the leadership to tackle these problems recently.

### **Improvements**

The Internal Evaluation Committee has already identified most of the main issues cited above and is going to focus their efforts to improve the existing curriculum and to introduce improvements of their curriculum in agreement with international standards. However, the success of such a goal depends on the economical and political support, provided by the Ministries of Education and Public Health.

## **B. Teaching**

### APPROACH:

- Although the I.Σ.Α.Π.Θ./MS-UT distributes a clearly structured and timely undergraduate teaching program both for the preclinical and clinical studies, the Committee following the discussion with the students without the presence of their teachers (but also some of the staff) felt that there is a loose and inconsistent adherence to this program mainly due to constraints on time by the limited faculty, increased number of students far beyond the number entering the MS-UT, space and resources availability.
- This problem becomes more prominent during the clinical training, when the teaching commitments of the senior faculty are in conflict with their clinical duties resulting in junior staff (i.e., candidates for doctoral diploma) overtaking large number of the teaching duties without the required supervision by a senior staff member, or even worse, cancelling of lectures without this being previously announced to the students.
- This deviates significantly from the original goals of the structured teaching program and has serious implications for the clinical training of the students. The Committee felt that the School should undertake measures for reinforcing adherence to the teaching obligations of the senior staff members by giving the possibility to the students to report similar incidences directly to the office of the School President. At the same time incentives for the fulfilment of teaching obligations should be created for the faculty members (i.e., establishment of teaching awards like in most Medical Schools of Europe and US) with consequences for their further career advancement. Training should become system-enforced and constantly reviewed both for its quality and delivery rather than trainer-dependent. A positive step in this direction, is the recently introduced by the MS-UT electronic system for the evaluation of lectures by the students, which should be further applied and reinforced beyond the actual 1% student participation.
- The teaching staff/ student ratio during the undergraduate studies should be improved, most probably by drastic reduction in the number of the students entering the School. This will improve the teacher/student collaboration, mutual feedback and interaction as it is presently achieved in the graduate masters program. The potential benefits and the necessity of a formal mentoring program is recognized in the plans of the School but so far, not achieved.
- Through the interviews with the senior and junior faculty, as well as with the students, the committee felt that there is a number of high quality and motivated individuals providing their teaching services on a voluntary basis and at the expense of their personal time (i.e., teachers of the graduate masters program) but also a large number of faculty with a public servant mentality that should not be members of the academic environment.
- There is a lack of appropriate teaching facilities (i.e. lack of appropriate amphitheatres with up to date audiovisual equipment for the large number of students in the preclinical years). The absence of a central library for a Medical School the size of MS-UT is not acceptable. Several of the issues related to the inadequacy of means and resources are related to the absence of a central medical campus and the lack of a dedicated University

Hospital with an infrastructure comparable to other European Universities. From the facilities visited by the Committee the only Hospital that is in a competitive position as it refers to European standards is the Papageorgiou, which unfortunately is University run only in a 50% of its capacity. Electronic availability of teaching materials and books for undergraduates is important in view of the ambition of the entire UT to enter the ranks of green universities. In this site visit there were notable examples of use of state-of the art teaching tools , i.e., in physiology lab, in Papageorgiou hospital Ophthalmology, and for the undergraduates the one used for the evaluation of the masters program by the postgraduate students. Particularly for the residency training, but also for the functioning of the MS-UT and the various clinics at a competitive level not only at an international level but also with private institutes within the city of Thessaloniki (Diavalkaniko Kentro) it is absolutely required the modernization of the existing laboratories (particularly imaging) with new technology. Presently the functioning of excellent and internationally recognized faculty is hindered by the lack of the appropriate means to pursue their teaching and academic interests.

- As it refers to the pedagogic policy with regard to teaching approach and methodology, and until a dedicated University Hospital is achieved, both faculty and students recognize the necessity for unification and standardization of both teaching, and examination procedures between the various university clinics in the different (or even within the same) hospitals. Standardization should depend on the specific discipline as it is done in certain cases (ex., Pediatrics) and not on the particular location of the Clinic or the Hospital that are presently participating in the education of the students.
- The attractiveness of the preclinical disciplines should be enhanced by emphasizing practical laboratory training and hands-on exposure of the students and importantly the link of the preclinical knowledge to clinical relevance. This requires a more intimate interaction of preclinical and clinical faculty and is presently achieved only in a minority of preclinical disciplines. As a result, the previously often noted and expected transition from the “memorization” style of medical learning to critical problem solving has not occurred nor permeated to the practice by the students. During the clinical years (5th and 6th) it was very evident the necessity and demand by the students for the acquisition of practical clinical skills. It is very encouraging that this necessity is also recognized and prioritized by the MS-UT. In this direction the creation of the “Laboratories of Clinical Skills”, the establishment of a Chair for Medical Education and the rotations of the students to Health Centers around Thessaloniki offering primary care with establishment of a logbook of required procedures before graduation are appropriate measures that need further support (mainly financial) in order to be successful. Presently, a large number of students end up in the final years without having passed preclinical disciplines from the first two years. To overcome this problem certain prerequisites for entering the clinical training should be established.
- With respect to the examination procedures, apart from the unification of the material and mode of examination among the various clinics, there was a reference by the interviewed students to a lack of “transparency” and fairness with respect to medical exams throughout the years. They recommended “closed” examinations and referred to the prototype used in the masters program, which raises important issues related to the trust and mutual respect between trainees and educators.
- A major issue, which is not unique to I.Σ. A.Π.Θ./MS-UT but represents a major problem of postgraduate medical education at the national level, is the selection process for entering a residency program, which is presently exclusively decided by the Ministry of Health in the frame of the national health system (ESY), solely based on waiting lists without any criteria of merit and excellence. The necessity of exams or a matching

system accompanied by personal interview (without however, leaving open windows for nepotism) for entering a residency program is required by faculty and students. This is something that it has to be resolved at the national level to stop the continuous brain drain occurring in Greece today particularly in the medical education and also for acquiring particularly in the university clinics excellent residents that also undertake many teaching duties for the students.

- At the level of junior academic staff it was clear during the site visit the necessity for formal training in the preparation, writing and management of grants. This is particularly true for junior staff that had no experience on these procedures from training in foreign institutions. It is absolutely essential for the future of the school, grad students, post grads and faculty alike and it should be prioritized as a major issue by the MS-UT in order to become competitive in the international academic arena.
- Presently there is no MD/PhD program comparable to international standards and recognition. Organization and teaching in the existing doctorate (Didaktoriki Diatrivi) program should be reformed to adopt the recommendations made in the Curriculum, so that it is organized in the internationally recognized PhD programs.
- Currently and despite the efforts of the Ι.Σ. Α.Π.Θ./MS-UT on education by establishing of a Chair for Medical Education since 2004, there is no apparent activity related to an office of training that oversees education, evaluation and would provide a conduit for students to address their concerns. Such a service should be instituted for all levels of training and importantly for formalizing a program on continuing medical education that is presently essentially non-existent.

## IMPLEMENTATION

- Restructuring of preclinical education to meet and stimulate the students' interests.
- The MS-UT should be commented for embracing Erasmus and other int'l exchange student programs and is encouraged to seek additional such programs.
- There is a disconnect between basic and clinical science education. Recognizing that this is an international problem, the MS-UT must address the intimate link between the two following the example and models of other medical schools from Europe and the US.

## RESULTS

- We have reviewed in the approach section the results on the evaluation of teaching. We also noted that a large number of both undergrad and postgrad students either do not finish on time or prolong their studentship indefinitely. In particular, a number of ~1200 graduate students never finishes and languish indefinitely. This has a tremendous impact on resource allocation and planning.
- Young faculty is getting discouraged applying for competitive funding due to repeated rejections by European programs. This is direct result of the lack of appropriate training on grant application and writing and also of the lack of start-up University funding for the acquisition of preliminary results.

## IMPROVEMENTS

- In addition to the above, there should be requirements for specific courses, completed and tested for.
- We agree with the recommendation of the I.Σ. Α.Π.Θ./MS-UT to decrease the student class size per year. We recommend in addition that limits are set for how long the students can carry their courses (block examinations for continuing to the clinical training). There should be a finite length of time during which a course should be passed.
- The number of doctoral students should be significantly decreased, in accordance to the total reform program we suggested above and in agreement with the Bologna reforms and international standards.
- The I.Σ. Α.Π.Θ./MS-UT operates an office of education faculty on a voluntary basis. This is not standardized and neither the teachers nor the students get a reward. This should be enhanced, standardized, provided with resources and embrace the total faculty of med school. This is akin to continuous training and competence of the faculty.

## C. Research

### APPROACH

General comment:

Research and teaching are closely linked activities and the link between them is the guiding principle of all the major Medical Schools today. It is therefore not an accident that the Medical Schools that are most highly rated for their teaching programs are the same ones that are also most highly rated for their research activities. The role of a Medical School is not only to preserve and teach old knowledge but also to create new knowledge and to teach students how to think critically and how to contribute to the acquisition of new knowledge. This is especially important today because the tremendous advances in technology and in basic biology of the last 30-40 years have created an environment that is rapidly changing the face of Medicine. It is of course understood that to contribute to this effort effectively requires tremendous effort and concentration and it is not something that can be achieved if research is viewed as a secondary activity or as an afterthought.

- What is the Department's policy and main objective in research?

According to the internal evaluation report, the policy of the Medical School of the University of Thessaloniki (I.Σ. A.Π.Θ./MS-UT) is: 1) to promote the development of networks of laboratories with common research interests; 2) to develop a network of laboratories designed to support the research activities of the school; and 3) to develop mechanisms for the distribution of the results of research. However, the research supported by this policy does not have clearly articulated objectives and appears opportunistic. More important, the School does not have an effective instrument to monitor the research activities of its members. Because of this, the school is unable to evaluate its strengths and weaknesses and to plan for the future.

To understand the approach of the school toward research, one needs to understand its research philosophy and the evolution of its philosophy through the years. Research laboratories in MS-UT sprang up primarily as clinical laboratories that evolved into research laboratories with limited infrastructure and budgetary support only to facilitate the professional careers of their members and not to pursue the generation of cutting edge new knowledge. Partly responsible for this outcome was an old law that persists to this day and requires all faculty members of all Medical Schools to have completed a Medical Thesis (Diatrivi) prior to their appointment. The result is that a large number of young clinicians (~1200 for the I.Σ. A.Π.Θ./MS-UT at the present time) who have aspirations to assume a faculty position in one of the Medical Schools enroll as unpaid part time graduate students for a period of 4-5 years and perform low key and frequently unnecessary research, which is often self-funded and leads to a degree that is incorrectly perceived by both the students and some of the faculty as a PhD. The research philosophy initiated by this unnecessary and exploitative program has evolved into a system which exists primarily for the promotion of the professional careers of the participating physicians. Although there are exceptions, overall this system does not recognize that research is an intellectual activity that is worth performing only if it generates valuable and intellectually rewarding new knowledge.

- Has the Department set internal standards for assessing research?

As mentioned above, the Medical School does not currently have an effective instrument to monitor the research activities of its members. As a result, there are no clearly established standards of research excellence. According to the internal report, an effort has been made to monitor the funding and the publications of the faculty through the use of public data sources. The information obtained from this activity is not comprehensive but the picture emerging from this incomplete information is not favorable for the research image of the school. We should add that, perhaps because of the low emphasis in research, potential

foci of excellence are not recognized and they are not given the appropriate support.

## IMPLEMENTATION

- How does the Department promote and support research?

To implement its research policy, the University of Thessaloniki established a Research Committee which functions as a University-wide Department of Research Administration and is headed by the Associate Dean for Research. The committee charges all the incoming research funds with a 10% overhead, which is being used to support the research infrastructure of the University, including the Medical School. One of the services supported by these funds is information technology (IT). Although we did not have a chance to evaluate the quality of IT services, we do not have major concerns because we did not hear specific complaints about these services, in the course of our conversations with the research staff. Beyond IT, the Research Committee and the Medical School provide very few services to the research enterprise of the school. Thus, they do not provide support for the submission of new grants or for monitoring the activities of awarded grants. Also, the IRB and the animal experimentation committees are decentralized and they are not provided by the Research Committee, which could be the instrument that provides such services centrally and monitors them based on well established international standards. Finally, it appears that MS-UT does not currently support facilities that can provide technical services to research laboratories (core facilities) and lacks a centralized facility for small research animals.

The external evaluation committee would like to bring the attention of the School Administration on complaints by the junior faculty regarding the lack of transparency in the choices of the Research Committee, the lack of mentoring and the lack of incentives for research excellence.

- Quality and adequacy of research infrastructure and support.

[Please, see comments above]

- Scientific publications.

The internal evaluation report and the presentations to the external advisory committee included statistical data on the impact factor and the h factor of the publications by members of the faculty. These indices were found by the committee to be lacking. Because of this, the committee requested a list of the publications of the last 5 years and information on successful projects that can be used to showcase the research activities of the school. The list of publications did not change the overall impression of the committee but confirmed that there are areas, such as Informatics, Oncology, Hypertension and Ophthalmology, which are active in clinical research and they have significant research potential. Finally, the list of publications and the Administration of the School failed to identify uniquely successful showcase projects.

- Research projects.

Please, see above under scientific publications. We would like to add that the research conducted by the Faculty is almost universally clinical and that it is supported by the pharmaceutical industry, internal sources, or the investigators themselves. Competitive Greek or European grants are very limited in number and monetary value. Based on the list of publications, current projects include the application of information technology on clinical research, epidemiological studies, phase I, II and III clinical trials, retrospective analyses of clinical data and case studies.

The majority of the research is conducted by part time unpaid graduate students, most of them physicians, who enroll in the graduate program to carry out research that fulfills the requirements of the school for a doctoral thesis (Diatrivi). Many of the projects pursued by these individuals are poorly funded and frequently



the student has to purchase the required reagents with his/hers personal funds. The lack of funding limits the success of many of these projects, which at the end are conducted to promote the professional and not the scientific aspirations of the students. Based on these considerations, the committee formed the opinion that the limited success of the research enterprise is due to the fact that the research philosophy of the school is based on old and outmoded models and that it is in great need of modernization. However, the committee also recognizes that important steps in the modernization process require the active involvement of the State.

- Research collaborations.

Based on the internal evaluation report ~20% of the faculty of the Medical School collaborate with other members of the University faculty, ~25% collaborate with faculty members of other Greek universities and ~30% collaborate with scientists and physicians abroad. These numbers are apparently estimates and no information was provided to validate them. Such information could include shared grants and shared publications. The external evaluation committee was unable to validate these data.

## RESULTS

- How successfully were the Department's research objectives implemented?

As stated above, I.Σ. A.Π.Θ./MS-UT does not have clearly articulated research objectives, but it has a research policy, which was outlined above under "approach". However, the external evaluation committee failed to document the implementation and the results of this research policy. Specifically, there was no objective evidence of networks of laboratories with common interests, there were no significant core facilities and it was not clear how the school facilitates the distribution of the research results. In addition to these problems, it is stated in the internal evaluation report that MS-UT lacks an effective instrument to monitor the research activities and scientific output of its faculty, essentially precluding the monitoring of the results of any present or future efforts to improve the research enterprise.

- Scientific publications.

Please, see above under implementation. In summary, both the number and the quality of the scientific publications is lacking for a school of the size and the potential of the Medical School of the University of Thessaloniki.

- Research projects.

Please, see above under implementation. The observed deficiencies appear to be the result of the old and outmoded philosophy of the school toward research. The outmoded philosophy appears, at least in part, to be the product of systemic defects in the administration of the universities and the mechanisms of research support, both of which are controlled at the national level.

- Research collaborations

Please, see above under implementation. The external evaluation committee could not validate the research collaborations described in the internal evaluation report and the results of these collaborations in terms of grant support and publications.

- Efficacy of research work. Applied results. Patents etc.

The internal evaluation report and the presentations provided no information on patents held by members of the MS-UT faculty on their research. Also, there was no information regarding the practical applications of their research. Finally, the external evaluation committee was given no information on the existence or function of a technology transfer office in the School or the University.

- Is the Department's research acknowledged and visible outside the Department? Rewards and awards.

The internal evaluation report discusses the number of citations for all the members of the faculty, their invited participation in scientific meetings and their participation in editorial boards of biomedical journals. The number of citations appears to be approximately 195 per faculty member (69,506/358). Other indices could not be validated by the external evaluation committee. In addition, the committee did not identify any studies of wide recognition and high impact that were initiated at MS-UT. The internal evaluation report also states that a number of faculty members received awards and honorary titles. However, there is no more information about these distinctions and the external evaluation committee could not validate these data.

#### IMPROVEMENT

Addressing the problems of the research environment in an academic institution of the size of MS-UT is understandably difficult. The difficulties increase when one considers the research environment in the context of the systemic national problems stemming from the outdated laws that govern the administration of the universities and from the limited and ineffectively distributed research support. The first priority therefore, should be to address these systemic problems at the National level.

- Improvements in research proposed by the Department, if necessary.

The Internal evaluation report proposes a number of changes that will improve the research infrastructure of the school. These changes focus on building usage and maintenance, IT support and the establishment of a centralized Animal Facility. The External evaluation committee finds the proposed improvements desirable, but not sufficient to change the quality of Research in the school.

- Initiatives in this direction undertaken by the Department.

The initiatives of the I.Σ. A.Π.Θ./MS-UT toward improving the current status of research are plagued by the fact that they underestimate the enormity of the problem. If MS-UT is to function as a modern Medical school with cutting edge research competitive to that of the best Universities in Greece and abroad, dramatic changes need to be adopted at both the national and university levels.

1. First and foremost, the school has to change its research philosophy. Low key research activities performed solely to support the careers of the clinicians graduating from the school are unnecessary and they should be eliminated by removing the law that provides the incentive for such activities.
2. Changes in philosophy can only be achieved with infusion of new blood. The retirement of a large number of the current faculty over the next 2-3 years provides an enormous opportunity for change. To not lose this opportunity, it will be important that all the positions that open with the retirement of the older faculty and not only 1 in 5 are refilled. However, given the less than optimal record of the current faculty in the hiring of new faculty members, new procedures should be established to accomplish the renewal. The hiring of new members should take into account potential areas of excellence throughout the university which could be strengthened with the new hires. Also, it may be used to establish areas of excellence within exciting new topics, such as translational science, which will benefit by the large amount of high quality clinical material in the very active clinical departments of the school.
3. The research infrastructure of the school needs to undergo a major overhaul, which can be achieved only by an inspired and knowledgeable faculty, working within a national system that recognizes the importance of research for the country and not just for the university. Such a system will give the freedom to the faculty to enact meaningful changes and will reward it for its successes while holding it accountable for its failures.

4. The University and the Medical School need an effective instrument to monitor their research activities. This instrument will allow them to reward the successful activities and eliminate those that are underperforming. This is needed to boost the morale of the intellectually active faculty members, and to prevent the waste of limited resources in unnecessary and wasteful programs.

## **D. All Other Services**

*For each particular matter, please distinguish between under- and post-graduate level, if necessary.*

### APPROACH

- How does the Department view the various services provided to the members of the academic community (teaching staff, students).
- Does the Department have a policy to simplify administrative procedures? Are most procedures processed electronically?
- Does the Department have a policy to increase student presence on Campus?

### IMPLEMENTATION

- Organization and infrastructure of the Department's administration (e.g. secretariat of the Department).
- Form and function of academic services and infrastructure for students (e.g. library, PCs and free internet access, student counseling, athletic- cultural activity etc.).

### RESULTS

- Are administrative and other services adequate and functional?
- How does the Department view the particular results.

### IMPROVEMENTS

- Has the Department identified ways and methods to improve the services provided?
- Initiatives undertaken in this direction.

## D. Other Services

### APPROACH:

The committee was told that in the last several years significant improvements were implemented with respect to the administrative and technical support of the I.Σ. A.Π.Θ./MS-UT, although these were subject to continuous reductions in personnel and budget. The internal report stated that renovations were initiated in web/electronic systems for dissemination of developments, improvement of communication and awareness of new procedures.

I.Σ. A.Π.Θ./MS-UT has recently improved the administration's offices which appear adequate and with efficient personnel, able to provide timely services electronically. These developments have resulted in simplified procedures. There was a four-year plan which included the continuous improvement of chronically problematic services for teaching staff and students, this however was since discarded, as a result of the larger

economic crisis.

Overall, the committee formed the opinion that the MS-UT operates on an overly aging physically and geographically fractured structure. It serves an extraordinarily high number of graduate, post-grad students and young faculty, vastly disproportional to its budget size. There is a notion expressed that the number of students per year will be reduced.

#### IMPLEMENTATION

There are numerous improvements and isolated areas of highly efficacious operations, including but not limited to those at the Hospital Papageorgiou. An important and notable development in modern infrastructure has been the area of Informatics and Medical Research Methodology (Assistant Professor P. Bamidis). However there is a plethora of plans that have been handed down for many years, largely unfinished. In addition to certain areas identified and described by the MS-UT internal reports, the following points were made by the external committee:

**Pre-clinical:** The buildings and facilities for pre-clinical teaching (amphitheaters, class rooms) require upgrading and refurbishing. Technical support for instructing and supervising pre-clinical students was reported, by both students and faculty, as inadequate and often non-existing. While efforts to utilize internet-based educational systems were initiated since 2006, students are largely relying on a variety of text book materials of variable content.

The availability of audio-visual and other equipment is inconsistent throughout the teaching areas, preventing the access of a reliable and unified body of material by all students. While graduate students are encouraged to act as teaching assistants, and attending to equipment/instrument needs can be instructive, this may occur at the cost of their own time for study.

**Clinical students:** Clinics and laboratories are widely spread throughout 8 hospitals and as a result, are highly inconsistent. There were multiple instances whereby students asserted that they did not get to examine a patient or to be instructed in simple clinical skills until the end of their training. Clinics are dispersed within the hospital system of the city. Both faculty and students agreed it would be extremely advantageous to the research and training missions to consolidate univ clinics and wards and laboratories in 2-3 university hospitals. Web support appeared to be available, however timely dissemination of information is not yet established due to the fact that it is only recently established.

**Post-graduate/doctorate students:** There was limited information on facilities available to doctorate students and young faculty, namely laboratory space dedicated to the execution of research projects. This parallels the inconsistent access and largely absent mentorship and commensurate funds which are necessary for the execution of any research program, especially if intended for appraisal against international standards. Multiple reports stated that candidates of doctoral degrees are often forced to provide the tools and reagents for their research programs from their personal funds. This practice is judged as Absolutely Unacceptable by this committee.

Concerning basic secretarial aid for executing and completing doctoral theses in a timely fashion, we noted an uneven distribution of secretarial support, and often it did not exist. The faculty also functions largely without the most basic level of secretarial assistance. This likely compromises its own efficacy and productivity. This also includes the complete absence of an office for grant support, training young faculty the skills for obtaining

external grants and assembling the financial and administrative information necessary for competitive rank of support.

Library: The building for a library continues to remain incomplete and unusable. A small number of hospital libraries with select medical journals were spread throughout the teaching hospital units.

There was no mention of an institutional review committee for animal research. No information was provided concerning Animal Research facilities which are necessary for this size of a medical school with functional research

Student housing for medical students is shared by that of all other university students and is proximal to the main campus. Most often students are housed in privately owned apartments at their own expense. This is similar to all other Universities in Greece.

## RESULTS

The committee did not meet with the Rector of the University and therefore it was not able to directly assess the current overall plan for the School. Based on discussions with vice-rector, Prof. Pantis and Associate Rector for research, Prof. Koidis, there was confidence expressed with respect to the current standing of the MS-UT in the Greek community. There were plans for significant reforms of the infrastructure with emphasis placed on development, excellence in research, and reduction of nepotism. Also plans included the hope of making the MS-UT the first “green” med school (and University).

The committee was presented MS-UT as one of the pre-eminent schools in the country and largest sources of revenue to the UT. However a limited proportion of this revenue is re-allocated to the MS-UT to improve its infrastructure, used instead for other UT needs. One of the reasons stated was the fact that the current budget, initially projected at ~800K euro, was reduced to ~650 K euros by the government.

As stated above, the physical setting and services for the pre-clinical training appear inadequate. With the exception of a few large professors’ office suites manned by numerous secretaries, the faculty mostly operates without the most basic level of secretarial assistance which greatly compromises its own efficacy and productivity. In addition, the clinical training facilities are served by eight hospitals spread throughout the entire prefecture of Thessaloniki and environs. Students are forced to spend significant time commuting to and from different locations. Housing facilities for students are available but remain inadequate for a school of this size and are shared by the entire UT.

Concerning Institutional Review Committees for clinical investigation, the committee was assured of their existence. However, no specifics were given concerning the process by which bioethics committees review all protocols across all university-linked projects.

## IMPROVEMENT

Since we did not meet with the Dean we could not assess plans for development and expansion of MS-UT or its facilities. However the committee felt that a major handicap cutting across all aspects of operations of the MS appears to be the conflicting jurisdictions and interests of the ministries of Education and Health, between which the mission and needs of the MS – including those concerning infrastructure - are squeezed and often

disrupted or delayed. This is apparently an old *modus operandi* that no government has succeeded in modifying effectively thus far.

As a result neither the senior administration of the MS nor those of the 8 hospitals with teaching programs have been able to define their separate set of responsibilities to the infrastructure needs of medical students, nor their respective “job description”. The confusion and conflicts resulting from this results in a low level of training of medical practitioners and to the dissatisfaction and disappointment clearly expressed by students and young faculty. It should be noted that all senior faculty, from the President down are keenly aware of these problems which persist despite their own personal efforts to resolve them and has deeply disturbed them.

In strong agreement with the MS-UT’s President and many senior academic faculty, the committee feels that the post-graduate clinical residency training program should be regulated by the Ministry of Education only, and that it be better linked to the rest of the curriculum. Given that a large number of both undergraduate and post-graduate students either do not finish on time or prolong their studentship indefinitely, this greatly impacts on available resources and thus, facilities and space allocation and planning.

We also feel that the clinical training locations and the number and quality of positions available are more evenly distributed to reduce the huge backlog, which forces, among other, many young graduates to leave the country in the interest of reducing the protracted non-productive “limbo” phase in their lives.

It is also important that these long-standing issues are promptly corrected because they foster the generation of many ill-equipped medical graduates, for those who stay. This can begin to be addressed by establishing 2-3 large university hospitals in close proximity to the MS-UT, a notion already existing among the senior faculty. It can also be immediately addressed by linking together all prospective clinical residents throughout a national selection process, based on merit, similar to the American matching process or that of other European programs. This could help reduce the brain drain of exceptional graduates.

Post-graduates: The committee finds it necessary that infrastructure be strengthened to facilitate the operation of a serious doctoral program and for the development of young competitive research faculty. It is unacceptable for post-graduate students to pay for their own reagents etc.

It was clear that an office for the formal instruction for preparation of research grants be instituted, beyond the existing programs on Medical trainers/Educators.

Such a Grants and Contracts Office, that is created specifically around the need for teaching and handling the highly sophisticated skills of grant management, is absolutely essential for the survival and future of the MS-UT, including students, post graduates and faculty alike.

There is a need for a centralized institutional review board for clinical research according to international standards. Similarly appropriate structures for laboratory animal review committees must be instituted.

There is an altogether lack of student counselling services. An office dedicated to this crucial function is extremely important for assisting and guiding students throughout their formative years of critical development.

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

#### ***Please, comment on quality, originality and significance of the Department's initiatives.***

There appears to be significant integration of the School within the local society; the local population of the city is very supportive and proud of the University. This is also why it is so important that this process leads to an overall improvement – for this School to continue to be the pride of the city and serve the aspirations and the dreams of the people of Thessaloniki and Greece!

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

The leadership presented their plans for improvement, and attached the strategic plan (appendices 6 and 7). The leadership and all faculty members that participated in the Site Visit are fully aware of the potential inhibiting factors and they are to be congratulated for recognizing the needs in the documents that were submitted and in their presentations.

The overall status of the Medical School of the University of Thessaloniki (I.Σ. Α.Π.Θ./MS-UT) is affected by chronic problems that are caused by factors at the level of the State:

1. Extraordinarily low research funding, which became almost non-existent currently due to the recent economic crisis that has frozen new funding and renewals for prominent research programs such as THALES and others; underfunded education programs, and underpaid staff.
2. Aging and, in certain places, completely inappropriate infrastructure for cutting edge research and state-of-the-art clinical care and teaching.
3. A student body that is divided and hindered by the frequent, extraordinarily disrupting unrest caused by a minority of students; the institutional weakness to control this minority is evident in MS-UT but it is not different from that seen elsewhere in Greece.
4. A pre-graduate curriculum that is focused in theory and not in the progressive acquisition of clinical skills; the latter are provided in the last few semesters but crowding and other problems do not allow their proper acquisition by the medical students.
5. A post-graduate research program that leads to the massive production of relatively low quality doctorate degrees (with fine exceptions) by many who need this doctorate for their professional qualifications (by Law) rather than for true academic progress; and, a Master's program, that like elsewhere, is generally well designed (due to their recent start, unlike the age-old practices followed in the doctorate degree-awarding programs) but lacks proper and consistent funding, as well as it lacks proper integration in the overall academic curriculum and focus in areas of excellence.



6. Overcrowding by a large number of medical students (approximately 400 per class, despite an entering class of less than 200/year) and a problematic and equally large number of languishing doctorate students (approx. 1200 currently).
7. Post-graduate medical training suffers from the inability to control positions and salaries (and, therefore, offer academic incentives) of interns, residents, and fellows. These positions are controlled by the Ministry of Health, and not by the University or the Ministry of Education. However, this creates a conundrum since these are medical trainees who receive training from MS-UT faculty and provide training to MS-UT students.
8. Lack of complete transparency and (to some extent) meritocracy in budget and personnel decisions, especially with regards to faculty promotions or recruitment and the appearance (if not true) of nepotism.
9. Lack of a clear separation and, accordingly, reward for the 3 elements of what constitutes medical academia: research, education/training, and clinical care. Throughout Greek Medical Schools there are no separate tracks that recognize excellence in these individual elements of the definition of a medical academic, which hinders rewarding excellence in any of the 3 and creates conflicts between primarily teachers, primarily clinical care providers, and primarily researchers.
10. There is no continuing medical education (CME) system for monitoring post-graduate training and through-life education of practicing physicians.
11. As a result of the recent economic crisis, a decision was made to replace outgoing staff at a 5:1 ratio (one coming in for every five that are leaving); this is going to limit a potentially large renewal of the staff at MS-UT which happens to be retiring now. It is a unique opportunity for renewal that will be lost if the 5:1 ratio is implemented.

There are additional problems that are more specific to MS-UT, and not necessarily shared by all Greek Universities (although elements may be present in some other Schools, as well):

1. Ι.Σ. Α.Π.Θ./MS-UT lacks a true University Hospital, almost uniquely in Greece. The University Clinics & Wards are served by 7-8 hospitals spread throughout the city, the best one (Papageorgiou) being in the suburbs, far from the University and the City center, where almost everything else is. The large number of university clinics & wards leads to spreading the students, hinders communication, and provides very unequal training experience; it also leads to conflicts (due to the inequality), lowers morale of students and faculty, and increases operating expenses.
2. MS-UT is the second oldest university medical school in Greece; as such, and because of the historically low research interest and funding in Greece prior to the recent era, old practices “die hard” and there is a certain inertia of this large medical school in the required changes in culture to embrace research, innovate curriculum, and adopt modern practices. The Site Visitors were impressed by the efforts made recently by the leadership and the junior faculty that were interviewed, but overall quantity and quality of competitive research funding and scientific papers remain low and non-impressive; the Site Visitors were also impressed by the

recent changes in curriculum but a lot remains to be done, and there was clearly a disconnect between the enthusiasm of the staff involved (mostly the leadership and the junior faculty) and the unmet expectations of the pre-graduate and post-graduate students that were interviewed. Undoubtedly, this is because these changes are so recent, but MS-UT needs to know that a lot remains to be done to improve morale and for the students to embrace the changes, realize their importance, and leave behind a certain fatalism detected by the committee members that were repeatedly told by the students and some junior faculty that “nothing changes”.

3. During the Site Visit, the office of the Rector did not provide any long term plans for the University or the Medical School. There is a strategic plan (appendix 6 and 7) referred to in the evaluation report. However, this was not known by all interviewed. This is a deficiency in strategic planning, a process that involves in all academic centers the office of the Rector along with the leadership of the School. This deficiency in long-range strategic planning affected the long terms plans presented by the UT-MS leadership; their ambitious start, with instituting an internal evaluation process, efforts to retain and recruit some exceptional junior faculty, provide a comprehensive 2-year Master’s program, and attempts to institute a new culture of competitive research funding, interactive and supported by high quality informatics training, needs to have a 5- and a 10-year horizon, which were not presented. Also, it was not clear where everybody wanted UT-MS to be 20-30 years from now. Again, the current leadership and participating faculty are to be congratulated for their efforts but, here too, like in the item (2), above, a lot remains to be done, and in a future Site Visit a comprehensive long range needs to be presented by the Head of the School and the Rector, complete with contingencies and coherent with existing efforts and deficiencies (see also recommendations below). The only long-range plan we heard was the possible transfer of the UT-MS to a new campus outside the city, sometime in the next 2-3 decades.

### **Suggestions for improvements for the future include the following:**

1. Participation in research should be encouraged and rewarded throughout the academic process; this includes not only the production of papers but also participation in competitive research grant applications and other activities; the university needs to support an Office of Grant Applications that along with an Office of Education will coordinate efforts to train faculty and students in the art of grant writing and application process.
2. Recognition of 3 separate tracks of academic progress for medical faculty in research, education/training, and clinical care is essential for proper planning, faculty promotion and rewarding excellence.
3. Drastic reductions in the numbers of entering medical students, introduction of time-limits for credit/course transfer for current and entering medical students (so that students who do not take or pass their courses at the proper time are not allowed to continue), and complete reform of the doctorate degree awarding system to transform it into a real Ph.D program.
4. The new Ph.D program along with the Master’s program should be supported by an independently run Office of Education (that will work along with the existing office of faculty training), and seek funds by opening up to international students. The strategically placed MS-UT can attract paying students from throughout the Balkans and beyond, a potentially significant source of income.

5. Consolidate existing clinics and wards to a common university campus in 2-3 hospitals that will be run by the university.
6. Transfer the responsibility of graduate medical education (GME) from the ministry of health to the ministry of education or to the medical schools directly (under any ministry); the point being that GME needs to be run by the people that are affected, produce knowledge and provide clinical care.
7. Engage in practices of formal strategic planning through scientific and administrative retreats that should take place annually and involve as much faculty and other staff as possible. There are various formats for such retreats, and MS-UT is encouraged to look at the available models to choose from.
8. Introduce continuing medical education (CME) system for monitoring post-graduate training and through-life education of practicing physicians.
9. Throughout the Greek University system, the state and the academic community should protect the academic process from the exceedingly small minority of students (and perhaps faculty) that continuously disrupt the process with sit-ins, unrest and even violence.
10. The State-made decision to replace outgoing workers at a 5:1 ratio should not be applied at MS-UT. This is a Medical School with aging staff that approximates retirement at a strategically located University of National importance. This is a unique time to grab this opportunity to hire new staff. If the 5:1 ratio is applied, this opportunity will be lost for at least another generation. There was a condition for this recommendation that all the committee members felt very strongly about: if the exception is granted by the State and the Ministry, new hires should be based on merit *only* and from an international pool of applicants. That way MS-UT will be completely reinvented and the investment made in the new hires will pay off.

Once more, the members of the committee were very pleased with the I.Σ. A.Π.Θ./MS-UT leadership and all faculty members that participated in the Site Visit who showed that they are fully aware of the above issues (as demonstrated by the submitted documents and their presentations). Although, due to the limited time, the committee members only saw 10 of 36 laboratories and only 10 of 62 clinics, pockets of excellence were recognized within MS-UT. The committee members acknowledged that these pockets of excellence in the Departments of Physiology, Histology-Embryology, Pathology and Pediatrics at Ippokrateion, Ophthalmology, Gynecology, Urology and Oncology at Papageorgiou, and Pediatrics elsewhere, appear to cope successfully despite the structural issues mentioned above, and they provide guidance for the future. But without addressing the problems mentioned in this report it will become even harder to maintain what is good, and certainly it will be harder to improve what is not. The enthusiasm generated by this evaluation process may be used for pushing through these necessary changes.

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

The Medical School of the University of Thessaloniki (I.Σ. A.Π.Θ./MS-UT) was created in 1942; this is a strategically located Medical School in a University of National importance. It has 9

sections (“Tomeas”) where 470 faculty members teach, provide clinical care and participate in research. There are 3,600 medical students, 100 Master’s students, and 1200 students of the doctorate degree-awarding program. Already in 2001, an effort was started to improve curriculum, and in 2004 a strategic plan was made; a second strategic plan was designed in 2007 for the current years (2008-2012). In 2008, it conducted successfully its first internal evaluation.

It also appears that the general attitude towards research, the need for continuing efforts to achieve and maintain excellence, and the participation of the faculty and student body in these efforts, all have improved dramatically in the last few years. The committee members applaud the School’s leadership for these improvements, which were evident during the Site Visit.

The site visitors recognized these efforts and were impressed by the current MS-UT leadership and faculty members that assisted the leadership team in their efforts. The internal evaluation was thorough and objective. Unfortunately, electronic evaluation by the students is so recent and not widely used, so these data were not available or meaningful. Subsequent site visits will find these data very useful and the MS-UT faculty are to be congratulated for initiating it. Good practices within the MS-UT include a hospital that can serve as a model for the entire Greek Hospital system (Papageorgiou, which unfortunately is not entirely University-run), pockets of excellence in certain basic sciences and clinical departments that function at a good-to-exceptional level despite several weaknesses that were identified and ranged from an overall lack of direction in the research effort (“opportunistic” was one word that was used to describe it), to inbreeding, to having a doctorate degree-awarding program that needs to be redesigned from the beginning. There is some very energetic and well qualified junior faculty, some Department Heads that really care, and a very competent leadership provided by the current Head and Deputy Head of the MS-UT. However, the overall indices show a School that needs serious reforms to increase scientific productivity, to improve quality of Science and teaching, and to maintain a level of clinical care that is acceptable (for a University-level hospital system) in the future. Individual recommendations are provided in sections A-E and are not repeated here.

It appears that the School really wants these reforms; the faculty and students (with only few exceptions) embraced the evaluation process, and the leadership is eager to see MS-UT succeeding. Quality assurance (QA) was addressed by the internal evaluation process and current efforts were appreciated by the site visitors. However, there should be a consistent and specific plan for the future to strengthen QA. It is essential to widen evaluation of everything that the School does, and realize that research, curriculum, teaching and provision of clinical care are all intertwined in a dynamic, and in our times, rapidly changing state; so QA is absolutely essential.

The assistance of the State is also important and necessary, as we discussed in Sections C, D, and E (see recommendations there) but there are certain things that need to be done locally and immediately, like redesigning the doctorate degree-awarding program from scratch to form a real Ph.D program, eliminate any inbreeding, and isolate the minority of students that disrupt the academic process by unrest and sit ins. The State needs to support MS-UT (Section E recommendations) with the provision of a University Hospital, removing barriers to medical education that is overseen by the Ministry of Health, and certainly increase budget support for infrastructure (Section D recommendations, personnel and competitive research

grants, to allow for the realization of the existing plans (as presented by MS-UT leadership) and the reforms suggested by this evaluation process.

The committee members hope that the above recommendations will assist I.Σ. Α.Π.Θ./MS-UT and ADIP to achieve their goals.

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ARISTOTLE UNIVERSITY OF THESSALONIKI  
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