Committee for the Evaluation of Medical Schools In Israel

General Report

October 2007

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Chapter 1 - Executive Summary

At its meeting on March 8th, 2005 the Council for Higher Education (CHE) decided to evaluate study programs in the field of Medicine during the academic year 2005-2006. Following the decision of the CHE, the Minister of Education, who serves ex officio as a Chairperson of the CHE, appointed the Committee for the Evaluation of Medical Schools in Israel.

This report deals with **the Medical Schools within the Israeli system of Higher Education.**

The Committee was impressed by the generally high quality of medical education in all four of Israel's medical schools. Nevertheless, a number of problems confront the system of medical education as a whole; some of them are sufficiently serious to require prompt intervention:

1. **Clinical teaching** – Largely for historical reasons, each medical school has evolved its own arrangement with a health-care organization to obtain access to patients and medical staff for clinical teaching. The present state of the Israeli health-care system, unfortunately, has strained these arrangements economically and academically. Economically, the greatest threat to the continued quality of medical education in Israel is the absence of a central agency charged with determining and paying the costs of clinical teaching. As a consequence, those doing most of the clinical teaching do not receive suitable academic appointment or payment for devoted teaching time. The Committee concludes that the CHE should play a critical role in determining the real costs for clinical teaching time and staff academic appointment; the CHE should explore ways by which these costs might be covered by the health-care providers, the universities and/or the government.
2. **Teaching beds** – Teaching beds are a national resource. An inventory should be made of suitable teaching beds leading to a rational division of this resource among the schools.
3. **Ambulatory teaching** – Relevant medical education now demands that future doctors must receive significant training in ambulatory care centers, and not only in hospital wards. Ambulatory teaching resources need to be surveyed, characterized, registered and upgraded.

4. **Employing students as physician and research assistants** – It is important to supply additional openings for salaried work by students within the framework of medical care and research; students should not have to seek employment outside the educational system.
5. **Basic science teaching** – Basic science curricula must be made more relevant to medicine and integrated with medical education.
6. **Self-education** – Educating students for continuing self-education is one of the most important goals of medical education. The curricula need to foster this goal.
7. **Research programs** –MD/PhD programs currently attract a few excellent students, but the programs can be better designed and supported to attract greater numbers.
8. **Increasing numbers of medical graduates** – The Pazi report concludes that Israel's medical schools must produce more doctors to maintain an acceptable physician/population ratio. The Committee judges that the quality of medical education will suffer if Israel attempts to solve the problem merely by obliging the existing medical schools to greatly increase the size of their classes. Quality planning is required.
9. **Foreign medical teaching programs** – Three of the four medical schools teach four-year medical programs for tuition-paying foreign students. The Committee is concerned that these programs divert teachers and teaching resources from Israel's expanding needs in medical education.

In summary, the Committee sees the need to increase the numbers of medical graduates and the brewing conflicts with the health-care providers as an opportunity for the system to address and fix organizational and economic anomalies that have long plagued Israel's medical education. The medical schools, however, cannot solve these issues within the limitations of existing resources; strategic issues involving the interface between medical education and health care must be resolved with the help of the CHE. These matters need careful planning and follow-up.

Chapter 2 - Background

At its meeting on March 8th, 2005 the Council for Higher Education (CHE) decided to evaluate study programs in the field of Medicine during the academic year 2005-2006. Following the decision of the CHE, the Minister of Education, who serves ex officio as a Chairperson of the CHE, appointed a committee consisting of:

- ***Prof. Irun R. Cohen*** - Department of Immunology, Weizmann Institute of Science. Committee Chairperson.
- ***Prof. Haim Bitterman*** - Chairman of Medicine, Carmel Medicine Center, Faculty of Medicine, Technion – Israel Institute of Technology.
- ***Prof. Dina Ben-Yehuda*** - Director of the Hematology Department, Hadassah University Hospital, Faculty of Medicine, The Hebrew University of Jerusalem.
- ***Prof. Chaim-Howard Cedar*** - The Institute of Microbiology, Faculty of Medicine, The Hebrew University of Jerusalem.
- ***Prof. Menahem Fainaru*** - Sackler Faculty of Medicine, Tel-Aviv University.
- ***Prof. Shimon Glick*** - The Joyce and Irving Goldman Medical School, Ben-Gurion University of the Negev.
- ***Prof. Howard L. Weiner*** - Department of Neurology, Harvard Medical School, Harvard University, Massachusetts, USA.

Ms. Chen Hadad - Coordinator of the Committee on behalf of the Council for Higher Education.

Within the framework of its activity, the Committee was requested to[1]:

1. Examine the self-evaluation reports submitted by institutions that provide study programs in medicine and to conduct on-site visits at those institutions.
2. Present the CHE with reports for the evaluated academic units and study programs - a separate report for each institution, including the Committee's findings and recommendations.
3. Submit to the CHE a general report regarding the examined field of study within the Israeli system of higher education.

The entire process was conducted in accordance with the CHE's Guidelines for Self-Evaluation (of October 2005) and on the basis of the Specific Questions for the Fields of Medicine which were compiled by the Committee.

[1]The Document with Terms of Reference of the committee is attached as **Appendix 1**

Chapter 3 - Committee Procedures

The Committee held its first meeting on December 27, 2006, during which it discussed fundamental issues concerning the medical schools in Israel and the quality assessment activity.

During the months of June-July 2006, the Committee members received the self-evaluation reports, and in September 2006, they began to hold discussions regarding these reports.

In November-December 2006 the Committee members conducted on-site visits of 2 days at each institution. During the visits, the Committee met with officials of each institution as well as faculty and students.

In accordance with the Committee's request, each institution publicized in advance the Committee's visit and invited academic staff members, administrative staff and students to meet with the Committee to express their opinions concerning the study program of the Medical School.

This report deals with **the Medical Schools within the Israeli system of higher education.**

Chapter 4: General observations regarding Medical Education in all four Universities in Israel[2]

Introduction

This report summarizes the recommendations of the Committee relating to Israel's medical education as a whole. A detailed evaluation of each of the four medical schools is attached separately.

The Committee did not receive a report of the decisions and actions taken by the CHE in response to the previous evaluation of medical education submitted on November 2001. The present Committee respectfully requests timely feedback on its recommendations to the CHE

4.1. Administration

The Committee was impressed by the enthusiasm, dedication, and professional competence of the deans and the others responsible for managing the medical schools. The four administrations made use of the external evaluation process as an incentive to advance their own interest in self-evaluation and to hear objective feedback from the Committee. We felt welcomed as allies in the effort to improve medical education and as a conduit to advise the CHE of critical issues perceived by the medical schools.

4.2. Clinical Education

Clinical teaching in all of the medical schools suffers from a number of problems inherent in the present organizational, institutional, and economic structuring of medical education in Israel:

4.2.1. Clinical teaching beds

The hospital beds available for clinical teaching (Tel Aviv has many; Beer Sheva has few) are a national resource that must be apportioned rationally to the different medical schools by an independent body; reapportionment of teaching beds is beyond the mandate of the schools themselves. The need to increase student numbers (determined by the Pazi report) makes the disproportion of teaching beds an increasingly critical issue.

4.2.2. Clinical teaching - economic support

Probably the greatest threat to the continued quality of medical education in Israel is the absence of a central agency charged with determining and paying the cost of clinical teaching. The four medical schools were each founded on ad hoc

[2] References to he \ him \ his should be understood to include she \ her \ hers.

agreements between different academic institutions and interested hospitals or providers of health care: witness the alliance between the Hadassah Medical Organization and the Hebrew University in Jerusalem; the agreement between Kupat Holim and Ben-Gurion University in Beer Sheva; the consortium of hospitals and the Tel Aviv University; and the hospitals in Haifa and the Technion. In each instance, it was agreed that the provider of health care would furnish the clinical facilities and the clinical staff needed to teach the medical students. By now, however, the cost of medical care has increased to the point where the providers of health care have no excess funds available to support clinical teaching. Although affiliation to a medical school greatly enhances the quality of health care, health-care providers claim that they are legally responsible for providing health care, and not medical education. Moreover, computer accounting has made it all but impossible to hide or dilute the costs of medical education within the costs of health care, as had been done in the past. The universities, for their part, have little or no budget for clinicians and other personnel required for teaching medical students in hospital or ambulatory settings. As a consequence, each of the medical schools already faces (or will soon face) a serious crisis. Indeed, open conflicts have emerged between Hadassah and the Hebrew University and between Kupat Holim and Ben-Gurion University in the budgeting of personnel, time, effort and resources for clinical teaching. The conflict will soon become overt in the other two schools too.

The Committee concludes that the CHE, as the central authority responsible for medical education, could play a critical role in determining the real cost of clinical teaching and in exploring ways by which this cost might be covered by the health-care providers and/or the government. The quality of medical education and, ultimately, of medical care in Israel requires staff positions for clinical teachers and support for teaching time.

4.2.3. Clinical academic appointments

Related to the anomalous relationship between health-care providers and medical education is the failure of all four medical schools to remunerate clinical teachers in wages and in academic recognition. Clinical teachers, for the most part, teach without any payment for their time and effort and without suitable academic appointment. The increasing load of patient care on these clinicians will soon make it all but impossible for them to continue to volunteer teaching services. A reformation in the criteria for academic appointment, overseen by the

CHE, must accompany reforms in the budgeting of facilities and staff for clinical teaching.

4.2.4. Ambulatory teaching

The balance between patient hospitalization and ambulatory medical care has shifted greatly in recent decades; relevant medical education demands that future doctors must receive significant training in ambulatory care centers, and not only in hospital wards. Although the quality of ambulatory health care will benefit enormously from a connection to medical education, ambulatory centers are not presently built to accommodate students, ambulatory physicians are not given the time and resources to teach, and they lack, for the most part, academic recognition and academic standards. Parts of the ambulatory medical care system, including model clinics and key personnel, will have to be integrated into teaching programs; yet most ambulatory medicine is organizationally, structurally and economically determined by health-care providers outside the medical school and university worlds. Thus the medical schools will not succeed in developing adequate ambulatory teaching by merely changing the curriculum; the relevant health-care providers will have agree to costly changes in clinic design and personnel deployment. We conclude that the CHE, or another national agency, will have to play a major role in designing and implementing the collaboration between medical education and the health-care providers needed for optimal ambulatory health-care teaching.

4.3. Student employment

4.3.1. Physician assistants

Most medical students in Israel have to earn salaries to support themselves during their studies. We judge that it is essential both to medical education and to the quality of academic medical practice that medical students be employed within the health-care system. It is not reasonable that a medical student deliver pizza rather than use his or her precious time to perform medical work; it is equally pointless that the undermanned health care system not benefit from the energy, ideals, dedication and knowledge of medical students. Experience with the physician assistant program has been outstanding.

However, there are not enough funds available to allow the employment of large numbers of students in this program. A regular source of adequate funds for physician-assistant programs must be organized so that all students who want or need to work can find employment within the academic health-care establishment - both

inpatient and ambulatory. Additionally, particularly in view of the shortage of nurses expected to develop in the near future, it would be helpful to start working towards an arrangement that would enable medical students to work as nursing assistants.

4.3.2. Research assistants

One way to encourage "research mindedness" is to provide small fellowships for students who wish to work in a laboratory setting under the direction of a chosen faculty member. Another approach is to offer summer research positions. These research programs would allow students to earn money within the framework of the medical campus while gaining a valuable exposure to research. In parallel to the physicians-assistant programs, we suggest offering research assistant appointments to interested students.

4.4. Basic Science

A problem common to all four schools (albeit not to the same extent) is a lack of relevance of the basic science curriculum to the science and practice of medicine. For example, physics, mathematics and chemistry are usually taught to the medical students by scientists requisitioned from outside the medical school who teach material that is deemed important in their particular field, but not necessarily in medicine. Thus, many teaching hours are invested in teaching and learning material that does not provide a basis for subsequent medical studies or for later medical practice. The waste in time, energy and resources is compounded by the fact that subjects in physics and mathematics critical to the study and practice of medicine are not always taught adequately, such as the physics and mathematics of complex medical imaging or the mathematics and statistics needed for planning biomedical research, understanding systems biology, and analyzing complex data. Basic science curricula must be made relevant to medicine and integrated with medical education; this will require renewed negotiation between the medical schools and the universities. A broad medical education, for its part, can contribute much to innovative basic research; witness the large number of Nobel prizes awarded to scientists bearing the MD degree. Thus, a proportion of basic scientists should be graduates of medical schools.

4.5. Self-education

The relatively advanced age of the Israeli medical student and the lack of pre-medical university study reinforce the desire of medical students to be "spoon-fed" with "essential" information and deter them from undertaking self-education programs. Self-education, however, may be one of the most important goals of medical education; consider the need of the physician to keep apace with the continuous advance of bio-medical science and technology; medical practice requires life-long self-education. Indeed, Israeli medical-school teachers report that the foreign medical students, with their pre-medical academic training, are better equipped for self-study than are many Israeli medical students. Medical schools in Israel, whether 4 or 6 years, must provide their graduates with the tools for continuing self-education.

4.6. Admission criteria

The Committee applauds the adoption by all the medical schools of varied criteria for student selection that take account of their personal qualifications as well as of their intellectual talents.

4.7. Increasing medical graduates

The Pazi report concludes that Israel's medical schools must produce more doctors to maintain an acceptable physician/population ratio. The Committee judges that the quality of medical education will suffer if Israel attempts to solve the problem merely by obliging the existing medical schools to increase the size of their classes; mere quantity can threaten quality, unless appropriate reformation of the system of education is undertaken. The CHE should safeguard the quality of medical education despite the need to increase the number of medical graduates.

4.8. Four-year medical schools

The successful experience of Israel's medical schools in teaching four-year foreign programs indicates to the Committee that adequate medical education can also be provided by four-year medical programs preceded by suitable pre-medical training (American-style). Whether such programs (being planned in Tel Aviv, for example) would increase the output of doctors needs to be determined.

4.9. Foreign medical student programs

Three of the four medical schools teach four-year medical programs for tuition-paying foreign students. The Committee is concerned that these programs divert teachers and teaching resources from the medical education of Israel's students; these foreign programs will make it even more difficult for the medical schools to increase the numbers of Israeli graduates. The Committee hopes that the rational funding of medical teaching described above will free the medical schools from the need to raise money through foreign student programs. Experience teaching four-year programs, however, has been useful.

4.10. Summary

In summary, the Committee sees the need to increase the numbers of medical graduates and the brewing conflicts with the health-care providers as an opportunity for the system to address and fix organizational and economic anomalies that have long plagued Israel's medical education. The medical schools, however, cannot solve these issues within the limitations of existing resources; strategic issues involving the interface between medical education and health care must be resolved with the help of the CHE. These matters need careful planning and follow-up.

Chapter 5 – Science and Research in Medical Education

A physician who does not incorporate scientific thinking into his or her medical practice cannot practice rational, evidence-based medicine. Thus, medical education must teach the medical student to analyze medical problems and institute prevention, diagnosis, and therapy based on scientific thinking. Moreover, the advance of medicine is propelled by the fruits of scientific research. In view of the importance to medicine of science and research, the Committee prepared an extensive statement on these issues.

5.1. Science education

The ideal way to obtain proper training for understanding and applying research acumen by putting an early emphasis on the basic skills of science: mathematics, chemistry, physics and biology. In Israel, this is mainly accomplished at the high school level. While many students attain a high level of competence in these subjects, even the best acquire only a relatively superficial command of these basic tools. In the first year of pre-clinical studies all of the medical schools provide courses to strengthen basic sciences, but these are largely aimed at filling in background information that individual students are lacking from their high school education and actually serve as a refresher course for most students who begin their medical education 4-5 years after completing high school. As a result, the majority of students never have the opportunity to strengthen their basic understanding of science and thus begin to learn medical biology without this important foundation. While medical sciences are often taught from a research perspective, the student is not adequately prepared and thus loses interest in what appears to him to be irrelevant to the study of medicine.

As opposed to the Israeli and European system of medical education, the study of medicine in the United States is based on a two-tier system, beginning with a four year course of college or university and followed by an additional four years of medical school, composed of two years of pre-clinical studies and another two years of clinical training. In this system, students have the opportunity to learn mathematics, physics, chemistry and biology at a university level and indeed are able to acquire a better understanding of science. As a result, they are better equipped to handle medically oriented basic sciences such as microbiology, physiology, biochemistry, etc. Even subjects like anatomy, histology or pathology are better received because

students have already been exposed to morphological tools acquired during basic college courses in biology.

The contrast between these two different learning approaches comes to the fore at TAU, the Technion and BGU where both American and Israeli students often learn side by side, and in all of these schools, the teaching staff noted that the American students are clearly more equipped to deal with scientific aspects of their medical education. Despite the advantages of the two-step approach, it is obviously impractical to change the manner in which Israeli students are prepared for medicine by adding additional years to their training. As an alternative, it may be possible to strengthen basic science skills through a "short-cut" approach that puts more emphasis on medically oriented science within the framework of the current time restraints.

The Committee proposes that this may be accomplished by taking advantage of basic courses in physics, chemistry and mathematics usually given during the first year of study in order to present the knowledge base and skills specifically required for handling medical problems in biochemistry, physiology, molecular biology and neuro-sciences. Courses in mathematics, for example, should put emphasis on the types of formulas and mathematical logic needed to solve key equations in biochemistry and physiology. These skills are often then used during clinical practice for handling patients with fluid imbalance, respiratory problems, trauma or cardiac diseases. Preliminary courses in chemistry should put emphasis on both inorganic and organic chemical concepts needed for understanding problems in biochemistry, pharmacology or molecular biology. The biology of "metals" in human health and disease, for example, could be taught in a much more efficient and interesting manner if the student has already been exposed to the chemistry of metals early in his education. Similarly, in the field of physics, students should be taught basic mechanics needed to understand muscle function, the electronics needed for mastering nerve transmission and the dynamics involved in cardiac function.

Basic science courses in most universities are usually taught as a "service" from the parent faculty and the curriculum is often a watered-down version of more advanced courses offered to students majoring in the natural sciences. This arrangement, while convenient, does not properly prepare the medical student for his ultimate studies. It is strongly suggested that these courses be revamped by consultation with the medical science faculty. A change in the way these subjects are presented will not only better prepare students, but could also serve to improve their fundamental attitude towards medical sciences.

5.2. Research

The training of doctors in the modern world involves a complex process that must prepare the student for a wide range of disciplines and for coping with a rapidly changing universe of medical sciences. While this involves the ordered transfer of the current textbook of accumulated knowledge and tools for dealing with patients and their social environment, it must also take into consideration the fact that ongoing research is constantly updating and improving medical acumen, developing new approaches and even suggesting novel concepts that provide important insights into normal human biology and disease processes.

It is thus imperative that medical school education be aimed at providing future physicians with the intellectual and bibliographical tools for learning and applying the fruits of ongoing medical research. While all of the Israeli medical schools are keenly aware of this need, the Committee found that this aspect of student training is often neglected in favor of increased knowledge acquisition or "hands-on" clinical training. There are a number of basic, yet complex, reasons why this type of "research culture" is not being effectively transmitted. For one, the pre-clinical curriculum does not provide nearly enough training in the basic skills needed to understand the research process itself or the ability to acquire the results of this research through the reading of published materials. Secondly, medical education, both in the pre-clinical as well as clinical years, is not adequately presented from a research perspective using scientific logic to get to the depth of understanding. Finally, much of the blame also rests on student attitude, which is largely concentrated on accumulating knowledge and clinical experience without having to learn the scientific reasoning that lays at the foundation of this field. In this regard, it is important that medical schools begin early to imbue their students with a more positive and constructive perspective on the role and importance of basic research.

5.2.1 Research orientation

There is no question that a better understanding of medical research will help students comprehend the basic logic of medicine and at the same time provide him with the tools for keeping up with advances in this field once he has left the formal teaching environment. This may be accomplished in the following manner:

One of the most essential aspects of medicine is the ability to read and understand scientific articles, and it is important to inculcate this "culture" as soon as possible in the medical curriculum. One way of accomplishing this is by creating a

"reading" course where students are assigned scientific papers for in-depth reading and then given an opportunity to discuss the issues and methodologies presented in the articles in a small-class environment under the supervision of an instructor. Most importantly, the students must be required to actually "read" the papers from beginning to end, and perhaps even be tested on its content prior to the discussion forum. During the class, students should be encouraged to explain aspects of the paper and analyze the results. It is not sufficient to have the student be familiar with the overall results, as can be attained simply by reading the abstract, but the instructor must go over all of the methodology, point out how the controls are done and actually show how the data is analyzed. The students should also be exposed to the deficiencies of each article and if possible be made aware of other papers that either support or contradict the main article. The purpose should be to learn about the "research process" rather than the medical conclusions themselves.

Research orientation should be an integral part of the entire course of medical studies. During the pre-clinical years, frontal lectures should present the subject matter by referral to the actual experiments that were carried out to prove each point. The instructors should also emphasize the methodology used to derive each "fact" and point out the limitations of each technique, including alternate approaches for understanding the same phenomenon. It is important for the student to understand that every medical or biological "fact" is actually a reflection of the methods used for each observation, and that subsequent work may ultimately modify the initial way of looking at things.

In addition to the use of a "research approach" to formal teaching, an excellent way to train students in "research thinking" is to include research oriented questions on exams. This can be accomplished by providing "data" which then has to be analyzed in order to draw conclusions, using either a standard simple-answer format, or by building it into multiple-choice questions. In the basic sciences such as physiology, pharmacology, biochemistry or even genetics, research oriented questions can often be constructed around the subject of normal or disease states in order to provide the student with additional medically oriented motivation. Indeed, questions of this nature are already an integral part of standard international medical exams such as the USMLE.

The major format for providing "research oriented" education is during the clinical years, where this approach can actually provide the student with important tools that will serve him in his future occupation as a physician. While clinical

instructors often introduce new research results into their conversations with students either at the bedside or during formal sessions, the most effective way of introducing this method is by assigning students to read up-to-date research papers on clinical situations that they encounter on the wards. These papers can either be designated by the instructor, or they can be chosen by the student himself as part of his patient directed quest for knowledge.

In general, the Committee noted that the Israeli medical student has a very poor "reading culture," and is not apt to search out new information by reading scientific papers. Like many other aspects of medical education, this problem can be alleviated by starting early in the clinical years to have students read papers and report on them in the clinic. This will encourage him to widen his knowledge and also develop a keen critical approach to medicine by sharpening his logical and research skills. This will also prepare him, in a general way, for continued education in any subfield he ultimately chooses to pursue. Overall, this approach will help produce thinking physicians with an open mind to dynamic advances in medicine.

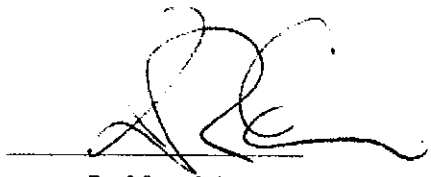
A very nice aspect of Israeli medical schools is that each student is required to write an M.D. thesis before graduating. Most students chose a topic that can be covered by reading and then reporting on a series of papers relevant to a specific field of medicine. This is an important part of his education that provides the student with a formal for developing organizational and presentation skills. One way to improve this program, however, is to encourage more students to actually base their M.D. thesis on small research projects carried out in established laboratories. One way to promote this program would be to offer students designated time for the research (i.e. instead of clinical electives) or by reducing the written scope of the thesis for those students that actually carry out experiments.

5.2. 2. M.D.-Ph.D. program

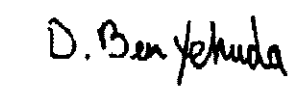
The first official M.D.-Ph.D. program was initiated in the USA during the 1960's and had two complementary goals, to generate physicians who would be able to practice medicine, while also carrying out active research, and to produce a new class of research scientist whose work would be guided by his broad knowledge of medicine. Both of these objectives are still very much a part of modern medicine, and all of the medical schools in Israel indeed offer programs that allow select students to carry out research at a Ph.D. level while fulfilling all of the requirements for an M.D. degree. While this is an important program, there are a number of small steps that could be taken to improve its effectiveness.

- **Flexibility** – the program should be constructed to allow maximum flexibility in terms of timing. While some students may be able to finish their Ph.D. within two research years others may require more time, and the program director should be empowered to permit students to choose the time and schedule for returning to clinical studies that is fitting for them. Flexibility in the starting date for internship would also be of great assistance.
- **Electives** – It may be possible to help M.D.-Ph.D. students fulfill their requirements for the double degree program by allowing them to substitute research time for clinical electives, thus reducing the pressure that these students feel in their attempt to carry out both courses of study.
- **Fellowship** – M.D.-Ph.D. students end up adding extra years to their period of study, and in many cases this involves students who must provide some income to support their families. For this reason, it is important that they are provided with generous fellowships. While all of the M.D.-Ph.D. programs in Israel do provide support during the research years, this is almost always insufficient. In addition to fellowship money, students should receive a full exemption from tuition. Furthermore, this support should be continued during the years following the Ph.D. research while the student is completing his clinical studies. For comparison, it should be noted that the federally funded M.D.-Ph.D. program in the USA provides full tuition and fellowship money for the entire seven year period of study.

Signed By:



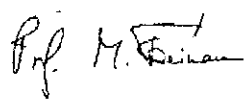
Prof. Irun Cohen
Chairperson



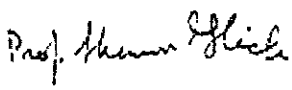
Prof. Dina Ben-Yehuda

Prof. Haim Bitterman

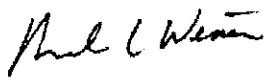
Prof. Howard Chaim Cedar



Prof. Menahem Fainaru



Prof. Shimon Glick



Prof. Howard L. Weiner

Appendix 1

Terms of Reference of the Committee

מדינת ישראל

STATE OF ISRAEL

Minister of Education Culture and Sports

November 7, 2005

To:

Professor Irun R. Cohen -	Department of Immunology, Weizmann Institute of Science
Professor Dina Ben-Yehuda -	Chairperson of the Hematology Department, Haddasah University Hospital, Faculty of Medicine, The Hebrew University of Jerusalem
Professor Chaim Bitterman -	Chairman of Medicine, Carmel Medicine Center, Faculty of Medicine, Technion – Israeli Institute of Technology, Haifa
Professor Chaim Cedar -	Faculty of Medicine, The Hebrew University of Jerusalem
Professor Menahem Fainaru –	Sakler Faculty of Medicine, Tel-Aviv University
Professor Shimon Glick -	The Joyce and Irving Goldman Medical School, Ben-Gurion University of the Negev
Professor Howard L. Weiner -	Harvard Medical School, Harvard University, Boston Massachusetts, U.S.A

Esteemed Professors,

I hereby appoint you as members of the Council for Higher Education's (CHE) Committee for the Evaluation of Medicine Study-programs (that have already received authorization) within institutions of higher education in Israel.
You are kindly requested to operate in accordance with the Appendix to the Terms of Reference of Evaluation Committees (study-programs), which is attached to this Terms of Reference document.

The Committee is requested within the framework of its activity to:

1. Examine the self-evaluation reports which shall be submitted by the institutions that provide study-programs in Medicine and hold on-site visits to those institutions.
2. Present the CHE- by January 2007 - with final reports regarding the evaluated academic units and study-programs- a separate report for each institution including the Committee's findings and recommendations, together with the institutions' responses to the reports.

Within the framework of the final reports, the Committee is requested to refer to the following topics, among others, in relation to each of the study-programs:

1. The goals and aims of the evaluated academic unit and study-programs.

2. The study-program and its standard.
3. The academic staff.
4. The students.
5. The organizational structure — both academic and administrative - of the academic unit and study-program.
6. The broad organizational structure (school/faculty) in which the academic unit and the study-program operate.
7. Physical and administrative infrastructure available to the study-program.
8. Internal mechanisms for quality assessment
9. Conclusions of the academic unit and the study-program.
10. Other topics to be decided upon by the Evaluation Committee.

In addition to its final report concerning each study program under examination, the committee shall submit to the CHE the following documents:

1. A report regarding its opinion as to the examined field of study within the Israeli system of higher education.
2. A proposal of standards for studies in Medicine.

Professor Iron R. Cohen shall preside over the Committee as Chairman.
Ms. Alisa Elon shall coordinate the Committee's activities.

Yours sincerely,

Limor Livnat
Minister of Education, Culture and Sport
Chairperson of The Council for Higher Education

cc: Mr. Naftali Weitman, Secretary of The Council for Higher Education
Ms. Alisa Elon, Committee Coordinator

Enclosure
Appendix to the Terms of Reference of Evaluation Committees (study-programs).

November 2005

Appendix to the Terms of Reference of Evaluation Committees (Study-Programs)

1. General

On June 3, 2003 the Council for Higher Education (CHE) decided to establish a system for quality assessment and assurance in Israeli higher education. Within this framework, study-programs are to be evaluated once in six years and institutions once in eight years. The quality assessment system came into effect in the academic year of 2004-2005.

The objectives of the quality assessment activity are:

- To enhance the quality of higher education in Israel;
- To create an awareness within institutions of higher education in Israel of the importance of this subject and to develop internal mechanisms for the evaluation of academic quality on a regular basis;
- To provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel;
- To ensure the continued integration of the Israeli system of higher education in the international academic arena.

It is not the CHE's intention to rank the institutions of higher education according to the results of the quality assessment activity. The evaluation committee is requested not to make comparisons between the institutions.

2. The Evaluation Committee

2.1 The CHE shall appoint a Committee to carry out quality assessment of the study-programs.

2.2 A senior academic figure in the examined field shall be appointed as Chairman.

2.3 The Committee shall include 3 to 5 senior academic figures in the field from leading institutions in Israel and abroad. In exceptional cases, and in cooperation with the committee chairman, an authoritative figure who is not on the academic staff of an institution of higher education may be appointed as a committee member.

2.4 In the event that a member of the committee is also a faculty member in an institution being evaluated, he will not take part in discussions regarding that institution.

3. The work of the Evaluation Committee

3.1 The Committee shall hold meetings, as needed, before visiting the institution, in order to evaluate the material received.

3.2 The committee shall visit the institution and the academic unit being evaluated within 3-4 months of receiving the self-evaluation report. The purpose of the visit is to verify and update the information submitted in the self-study report, clarify matters where necessary, inspect the educational environment and facilities first hand, etc. During the visit the committee will meet with the heads of the

institution, faculty members, students, the administrative staff, and any other persons it considers necessary.

3.3 In a meeting at the beginning of the visit, the committee will meet with the heads of the institution (president/rector, dean), the head of the academic unit and the study-programs, in order to explain the purpose of the visit. At the end of the visit, the committee will summarize its findings, and formulate its recommendations.

3.4 The duration of the visits will be coordinated with the Chairman of the Committee according to the issue, and in any event will not be less than one day.

3.5 Following the visit, the committee will write its final report, including its recommendations, which will be delivered to the institution and the academic unit for their response. The institution's and the academic unit's response will not result in changes to the content of the Committee's report, unless they point out errors in the data or typographical errors in the Committee's report. In such cases, the committee will be able to make the required corrections in its final report.

4. The Evaluation Committee's Report

4.1 The final report of the evaluation committee shall address every institution separately.

4.2 The final report shall include recommendations on the subjects listed in the guidelines for self-evaluation, and in accordance with the Committee's Terms of Reference.

4.3 The recommendations can be classed as one of the five following alternatives:

- 4.3.1 ***Congratulatory remarks and minimal changes recommended, if any.***
- 4.3.2 ***Desirable changes recommended*** at the institution's convenience and follow-up in the next cycle of evaluation.
- 4.3.3 ***Important/needed changes requested for ensuring appropriate academic quality*** within a reasonable time, in coordination with the institution (1-3 years).
- 4.3.4 ***Essential and urgent changes required, on which continued authorization will be contingent*** (immediately or up to one year).
- 4.3.5 ***A combination of any of the above.***

4.4 The committee's report shall include the following:

- 4.4.1 **Part A — General background and an executive summary:**
  - 4.4.1.1 General background concerning the evaluation process, the names of the members of the committee, a general description of the institution and the academic unit being assessed, and the committee's work.
  - 4.4.1.2 An executive summary which will include a description of the strengths and weaknesses of the academic unit and program being evaluated, according to the subjects listed in the body of the report and a list of recommendations for action.
- 4.4.2 **Part B — In depth description of subjects examined:**
  - 4.4.2.1 This part will be composed according to the topics examined by the evaluation committee, in accordance with the committee's Terms of Reference and the report submitted by the institution, and at the discretion of the committee.
  - 4.4.2.2 For each topic examined - the report will present a summary of the findings, the relevant information and an analysis thereof, and conclusions and recommended actions.
- 4.4.3 **Part C — Summary and recommendations:**

4.4.3.1 A short summary of every one of the topics described in detail in Part B, including the committee's recommendations.

4.4.3.2 Comprehensive conclusion/s and recommendation/s regarding the evaluated academic unit and the study-programs.

4.4.4 **Part D- Appendices:**

The appendices shall contain the committee's Terms of Reference, relevant information about the institution and the evaluated academic unit, the schedule of the on-site visit.

4.5 The final report will be delivered to the institution, with the deadline for its and the academic unit's response noted.

4.6 The Committee's final report together with the response of the institution and the academic unit will be brought before the CHE.

4.7 The CHE will discuss these documents and formulate its decisions within (approximately) a year from the time the guidelines for self-evaluation were sent to the institutions.

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