

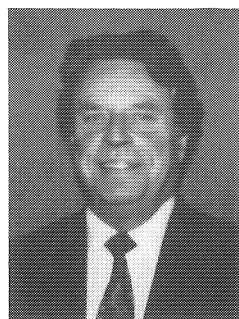
MEDICAL PHYSICS WORLD

Bulletin of the International Organization for Medical Physics

Adhering National Organizations 1995

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President's Message



Dear Fellow Member of IOMP,

This letter from the President is being written in the early Spring and even in "tropical" Britain, plants and trees are showing new, sturdy growth and birds are returning from their winter homes around the world. Hopefully, we can adopt the model of Nature for IOMP in seeking to make progress. In this letter, I shall try to bring you up to date with my own activities on behalf of IOMP and the state of play with our Action Plan. The individual reports of our Officers and Chairmen provide some details of progress on the Action Plan from their perspectives.

The Vice-President and I met by serendipity in December 1994. Colin Orton was making a Christmas visit to members of his family living in Britain and we took the opportunity to review the Action Plan and tasks we would undertake respectively. I am trying to ensure that his family does not immigrate so that similar adventitious meetings will occur at least annually in the future.

During Colin's visit, Dr. David Thwaites indicated that his work commitments had become even more onerous than expected. Consequently, it would be extremely difficult for him to function actively and urgently as Treasurer. With his agreement, our regret and the approval of Officers, an alternative was sought. We are very fortunate that Mrs. Ann Dixon-Brown "volunteered" to fulfill this role and is already doing so with her customary enthusiasm, energy and cheerfulness.

In the previous issue of our *Medical Physics World*, the Vice-President produced a preliminary list of (principally) international organizations which offer financial support for study/training abroad. However, it seemed possible that national governments may also have some resources for these purposes. Consequently, the maze of Government Departments in the UK was entered to seek sources of support for training and education, particularly in Developing Countries. Persistence has led to some success in identifying schemes to fund training and education missions by British Medical Physicists to, so far, certain Developing Countries or for visits to Britain by their Medical Physicists for that purpose. The search continues. EFOMP has been requested, via Dr. P. Dendy, to undertake a similar exercise for each of its constituent countries. Other Regional Groups will be asked to carry out corresponding exercises so that we can identify as many sources as possible for the benefit of our members.

It is already apparent that international and national agencies, as well as some corporate bodies, are understandably unable or disinclined to provide funding for general or unspecified purposes. We are most likely to receive support for specific well-documented and costed proposals, such as detailed Courses of Training and Education. It is essential, therefore, that submissions are carefully prepared, with appropriate details of expected benefits, participation and costings to attract appropriate support which IOMP is continuing to seek. Clearly, the very limited cash reserves of IOMP would be rapidly exhausted if they had to be committed for these purposes without supplementation from external sources.

External funding was found so that I could represent IOMP, without cost to our organization, at the Council Meeting of IUPESM held on 14 January 1995

(Continued on page 4)

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Secretary-General's Report

"Rising the Profile" was one important issue in the Action Plan by the President presented at the Rio Meeting. The situation for therapy physicists is now very much under discussion. I will indicate some of the problems and ongoing activities.

There are today, according to WHO, about 9 million new cancer cases each year in the world, somewhat more than half of them in developed countries. It is projected that there will be about 15 million cases per year in 2015, and about 75% of them in developing countries. The increase is thus mainly in less advanced countries. It has been estimated that at that time about 10,000 external beam therapy machines would be needed only in developing countries and in addition a large number of brachytherapy units. This creates a number of problems, e.g. resources are needed for equipment and training, improvement is needed in radiation protection and in organization of quality assurance. What will happen with all the used sources and malfunctioning accelerators? An acceptable treatment quality would hardly be achieved without medical physicists or with inadequately trained physicists.

The developing countries will probably experience all the problems we have seen regarding physics staffing in some western countries and have still not always solved. For instance, there are still some radiotherapy centers in Europe without support from a medical physicist. What actions are taken to improve the situation? A working party including representatives of the National Societies of Radiotherapy and Medical Physics from European countries are now preparing a document on "Quality Assurance in Radiotherapy." In this document the need for support by physicists is stressed — EFOMP and ESTRO (European Society for Therapeutic Radiology and Oncology) have set up a working party to outline the professional rules of the therapy physicist. Their report will be discussed in a European Therapy Physicists meeting in Gardone Riviera, 8-11 October 1995.

Similar steps are taken by the international organizations. International Organization on Radiation Oncology, ISRO, has organized a meeting on Quality Assurance in cooperation with IOMP and IAEA in Vienna, 8-9 May 1995. Regional and national societies of medical physics and radiotherapy will participate. It is expected that this meeting will result in a document.

These activities are of great importance as the first step should be to make strong recommendations, IAEA and WHO may help. IAEA has today about 40 technical assistance projects in radiotherapy in developing countries. The safety and quality assurance have always been important parts of the support, and physicists are generally required to be included in new centers that are set up. IOMP, ISRO, IAEA and WHO have much to gain to cooperate. These activities should in the long run improve the professional situation for medical physicists in the field of radiotherapy.

Hans Svensson, Ph.D.
Secretary-General

Vice-President's Report

The working group on Funding Resources, established by Professor Boddy at our World Congress in Rio, has begun its efforts to raise our financial status so that we can reach the goals stated in the President's Action Plan. As reviewed in the President's Message on page 1, our new Treasurer, Ann Dixon-Brown, has developed an attractive brochure to be sent to prospective supporters, and Professor Boddy has already begun to mail these to various governmental agencies and corporations, especially in Europe. We are about to continue this effort on the other side of the Atlantic, where we will also attempt to attract several philanthropic organizations to become supporters of our many endeavors. Hopefully, we will have some positive responses to report in the next issue of *Medical Physics World*.

Members of the working group are:

Colin G. Orton, Chairman	M. M. S. Murthy
Keith Boddy	Nagalingam Suntharalingam
Ann Dixon-Brown	Naimuddin Shaikh
Hans Svensson	Eric vant' Hoof (Consultant)
Azam Niroomand-Rad	

Readers who have good ideas as to where we might try to find such support are encouraged to contact any of your Officers or indeed, any members of the working group.

Colin G. Orton, Ph.D.
Vice-President

Officers of the IOMP/Council

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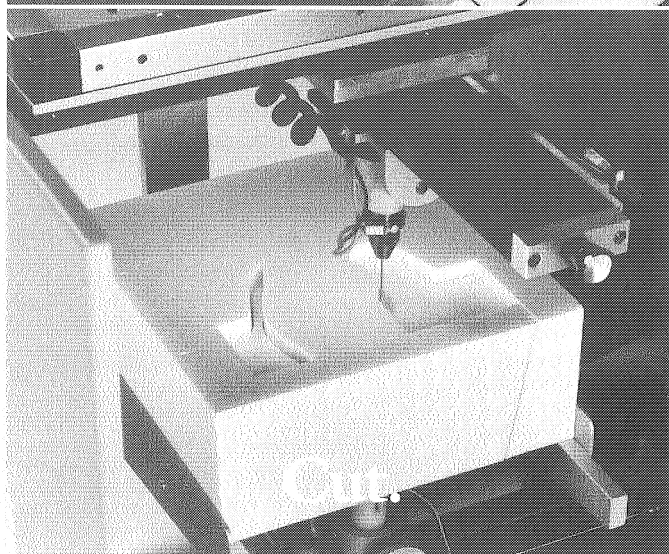
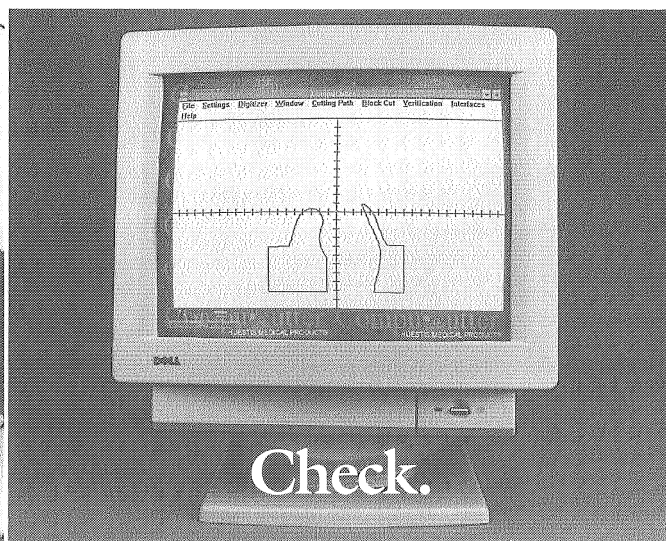
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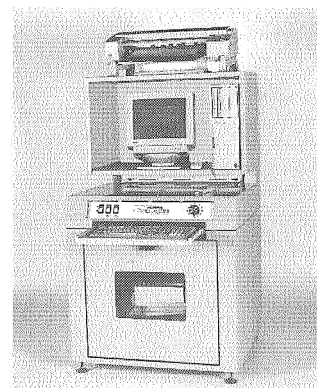
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(Continued from page 1)

in the Netherlands. Professor Mike Smith (UK) also participated. The meeting was cordial, constructive and productive. As the President of IUPESM will report in more detail, areas of collaboration were identified together with a more strategic and phased approach to seeking full membership of the International Council of Scientific Unions (ICSU).

Consequent to the IUPESM Council Meeting, it was necessary to identify three representatives for the joint Awards of Merit Committee. With the approval of your Officers, Dr. Anna Benini, Professor John Cameron and Dr. Philip Dendy were invited to fulfill these roles and have kindly agreed to do so.

A brief article on Medical Physics was written, at extremely short notice, in response to a request from the World Health Organization. In addition to brevity, the instructions were for it to be understandable and of interest to the layperson. This was a very difficult task; as one philosopher put it "*Please excuse this long letter but I did not have time to make it a short letter*" — or words to that effect. The article will appear in an issue of *World Health Magazine*.

Honouring a commitment given at the Rio International Congress, I participated in a meeting of the Scientific Committee in Wurzburg for the Roentgen Centenary Conference. It was a hectic but very productive weekend promising a highly successful and interesting scientific meeting and, from the glimpses limited by time, set in a beautiful small city.

Contact has been established with the International Labour Office with the eventual aim of "Medical Physicists" being included in the International Standard Classification of Occupations. There are clearly foreseeable obstacles (and presumably some which are less obvious) all of which we will try to jump, climb over, go around, go through or tunnel under! Nevertheless, supporting documentation is being gathered, letters of support are being sought and a submission is gradually being prepared — all of which will be seen by Officers for their comments before being submitted.

The substantial efforts to raise funding for IOMP have begun in earnest and are gathering pace. However, patience (for which I am not renowned!) will be needed in implementing appeals for support and gauging the levels of any success. In collaboration with our Treasurer, brief and hopefully eye-catching information leaflets, summarizing the activities of IOMP and of Medical Physicists, have been produced and approved by our Officers. The leaflets will be supporting material to accompany a letter from the President sent to as many potential benefactors or corporations as we can identify. The first trickle of "begging" letters have now been posted and I shall shortly sign personally more than 140 letters for distribution in North America and Europe. If you can identify potential donors, such as major manufacturers or philanthropists in your Region, please provide a list to the Chairman of your Regional Group and your Officers. Ideally, today before you forget about it! (I did say earlier that I am not an ideal model of patience!!).

So this is the story so far. A great many people are working very hard to enhance both the reputation of IOMP and our ability to help our members, particularly those in Developing Countries. IOMP belongs to all of us, so please help in any way you can as well as identifying how IOMP can help you.

Let us hope that Spring will herald a fruitful year.

Keith Boddy, Ph.D.
President

REQUEST FOR SUPPORT

INTERNATIONAL SCIENTIFIC EXCHANGE PROGRAM

THE PHYSICS OF RADIATION THERAPY
Istanbul, Turkey — September 11-15, 1995

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For information on becoming a sponsor, supporter, or contributor contact:

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Honorary Treasurer's Report

The request for Annual Subscriptions went out to 54 members and to 27 corporate members in March, and to date, we have received 22% renewals, which would seem to be reasonable for this time period; regrettably this was later than is usual and was entirely due to the lateness of my appointment.

As yet I have had little time to study the full set of IOMP accounts and hopefully this will be the subject of a more detailed appraisal for my next report, which also will hopefully contain details regarding the success or otherwise of our President, Treasurer and Secretary-General's targeted appeals for additional monies that is presently underway.

In Professor Boddy's first report to IOMP though *Medical Physics World*, he raised the subject of **TWINNING** and to date, I have only received one such request. I therefore propose to write an article on this subject for publication in the next *Medical Physics World*, in order that we might set this idea in motion, **SO WATCH THIS SPACE**. If in the meantime if anyone would like additional information about this subject, please write (or fax) directly to me at the address indicated on page 2 of this Bulletin.

Ann Dixon-Brown
Treasurer

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Medical Physics in Cuba

Clinical applications of x-rays and ionizing radiations started early in this century in Cuba. Francisco Dominguez y Roldan, head of the X-ray Medical Department of The School of Medicine at Havana University in 1906, recalled attention to the Cuban government about advantages of radium therapy applications and started the first commercial contacts with the Radium Institute at Paris. During the 5th Radiological and Medical Electrolological Congress at Barcelona, on September, 1910 he bought the so called Fabre's radioactivimeter, in order to start experimental research and applications of radioactive mineral waters.

The decade of the 30s became witness of busy radium therapy and x-ray diagnostic work at hospitals like Calixto Garcia, Maria Curie, Reina Mercedes and The Radium Institute. Artificial isotopes were first used in Cuba in 1950, when iodine 131 was applied to patients suffering from hyperthyroidism. By the middle of this decade some diploma thesis were made at the School of Physics at Havana University. At this University one of the first Latin American regional courses on medical and industrial applied radioisotopes organized by Marcelo Alonso took place. He was the first to publish papers related to Medical Physics. Also, Zoilo Marinello former director of the National Institute of Oncology and Radiobiology (INOR), bought the first cobalt 60 teletherapy unit.

In 1966, Jose Marco, from the Nuclear Physics Laboratory at Havana University and Jorge Gavilondo from INOR, acting as members of the Radiation Protection Commission. In the same year, just created by the Scientific Council of the Ministry of Public Health (MINSAP), started the first national courses on Medical Radiation Physics and Radiation Protection to medical doctors.

The systematic development of Medical Physics started in 1970, when Jose Marco became a staff member of INOR, regulations for permanent positions of medical physicists in hospitals were officially arranged, and a school for training medical radiation physics technicians was started with a three year study program. Two years later four more physicists also became members of the staff.

Physicists gained experience with their own effort, with scientific visits and courses at medical institutions in Czechoslovakia, Germany, France, Canada, Bulgaria, Brazil and Hungary. During the 60s and 70s, Jaroslav Trousil, Zdenek Spurny and Kamahl Abdel Mahmoud, visiting experts from the International Atomic Energy Agency (IAEA), gave a very valuable advisory work in Radiation Dosimetry and Medical Physics in Cuba.

Almost all of some 85 physicists and engineers working in medical physics in the main cities of our country (population 11 million) started as graduates from the Faculty of Physics at Havana University or The Institute of Nuclear Science and Technology (ISCTN) of The Ministry of Higher Education. Their training has been accomplished mainly through several postgraduate courses and on job training. At INOR, which is a research and higher learning national center for medical doctors in oncology, some of the most outstanding courses in upgrading medical physicists in recent years have been the following:

- First National Course on Medical Physics, co-sponsored by INOR and ISCT.
- Three regional courses on Medical Scintigraphy, co-sponsored by IAEA, SEAN and MINSAP.
- First National Course on Quality Control in Radiotherapy, co-sponsored by MINSAP, PAHO and IAEA.

At present the main fields of interest cover computer assisted treatment planning, secondary standard dosimetric calibration procedures, stereotactic radiosurgery and brachytherapy, total body irradiation, remote high dose rate afterloading brachytherapy, dynamic scintigraphy, SPECT, nuclear cardiology, nuclear nephrology, artificial intelligence and software developments applied to the diagnostic process in nuclear imaging, biomagnetism, medical lasers and ultrasound medical applications.

In our country Radium, which amounted to nearly 3 grams and 1,500 needles and tubes, is no longer used and has been substituted with Cs-137 manual afterloading applicators and high dose cobalt 60 remote afterloading units. There are 14 cobalt 60 teletherapy units, one linear accelerator and 30 x-ray therapy machines. Nuclear Medicine is covered by 21 services in the whole country, including 9 gamma cameras. Basic nuclear techniques are applied in oncology, cardiology, endocrinology, neurology and hematology. Also there are 10 CT scanners, nearly 3,000 diagnostic x-ray units and a large number of ultrasound equipment. There are three nuclear magnetic resonance systems imported and one manufactured by the Institute of Medical Biophysics from the city of Santiago de Cuba.

Since 1981 Radiation Protection is regulated by law by the Executive Secretary for Nuclear Affairs (SEAN) of the Cuban Atomic Energy Commission. Within the Ministry of Public Health the main tasks on this field are conducted by the Department of Radiation Hygiene at the Institute of Labor Medicine (IMT) and Radiation Protection Department at INOR. More than 4,000 occupationally exposed workers are under radiological surveillance.

Quality control of therapy units is accomplished by the medical physicists from INOR and the Medical Equipment State Control Center (CCEEM). They have prepared the "Quality Control Guide of Teletherapy Cobalt Units." In 1989 the medical physicists at INOR published the "National Standards on Quality Control of Nuclear Medicine Instrumentation." A task group from IMT, CCEEM and INOR is conducting a quality control program in diagnostic radiology with the cooperation of the Pan American Health Organization.

In 1992 more than 40 colleagues, started official steps toward the constitution of the Cuban Medical Physics Society (SCFM), with the aim to study and promote scientific and technical, theoretical and experimental knowledges related to medical physics, linked to the needs of our country, and to collaborate in an efficient way with the projects and programs of the Ministry of Public Health, to raise the health level of the Cuban people. The executive committee consists of: Jose Marco Hernandez, president; Ubaldo Huerta, vice president; Jose Alonso Samper, secretary; and Rodolfo Laguardia, treasurer. During the recent World Medical Physics Congress in Rio de Janeiro, one of our members, Jorge Fernandez was elected as a member of the executive committee of the Latin American Association of Medical Physics (ALFIM).

In spite of lack of financial resources and present economical difficulties in our country, with great enthusiasm we are organizing SCFM and the "First Medical Physics Cuban Congress." that was held in Havana April 26-28, 1995.

Finally we want to thank Dr. Caridad Borrás from PAHO and Dr. Colin Orton from IOMP, for their encouragement to our efforts in creating SCFM.

Jose M. Marco Hernandez
SCFM President

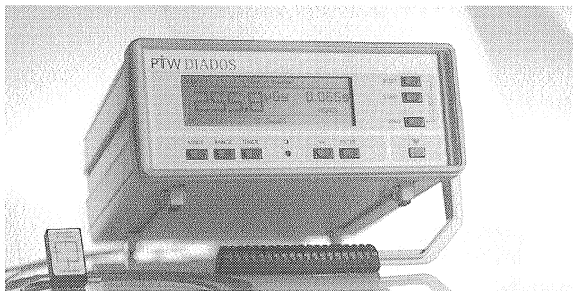
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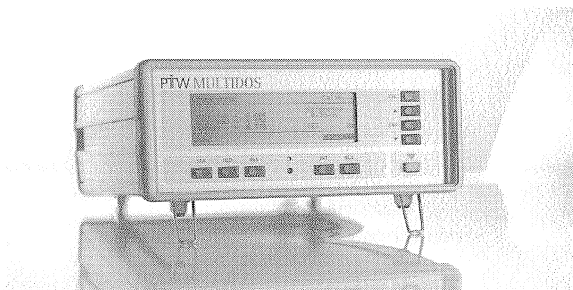
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IUPESM Report

The International Union for Physical and Engineering Sciences in Medicine (IUPESM) was established in 1981 as an international non-governmental and non-profit scientific organization. The Union has two constituent members the International Federation for Medical and Biological Engineering (IFMBE) and the International Organization for Medical Physics (IOMP). Through its constituent organizations the Union represents 20,000 biomedical engineers and medical physicists in 48 countries.

Objectives

- to contribute to the advancement of physical and engineering science in medicine for the benefit and well-being of humanity;
- to organize international cooperation and promote communication among those engaged in health-care science and technology;
- to coordinate activities of mutual interest to engineers and physical scientists within the health care field including international and regional scientific conferences, seminars, working groups, regional support programs and scientific and technical publications;
- to represent the professional interests and views of engineers and physical scientists in the health-care community.

In order to further the attainment of these objectives, IUPESM is empowered to:

- collaborate with the other international scientific and professional bodies;
- establish committees, commissions, working groups and other bodies for purposes within its mandate;
- organize and coordinate international meetings or conferences for the constituent organizations within the IUPESM, including the triennial World Congress on Medical Physics and Biomedical Engineering;
- represent the IUPESM Members in the International Council of Scientific Unions, in accordance with the statutes of ICSU;
- disseminate, promote and/or develop standards of practice in the fields of medical physics and biomedical engineering in order to enhance the quality of health care worldwide;
- assist developing countries to achieve appropriate levels of science and technology in medical physics and biomedical engineering;
- provide suitable channels for the exchange of information between nations.

Membership:

Constituent Organizations:

International non-governmental organizations which fully adhere to all the tenets of the IUPESM and fully support all its endeavours.

National Members:

Designated representative of a scientific academy, research council, scientific institution or an association of such institutions. The designated representatives shall represent the fields of physical and engineering sciences in medicine in that particular country.

Affiliates:

Affiliates can be associations and/or corporations.

Affiliate associations shall be scientific, non-governmental associations having activities in the field of physical and engineering sciences in medicine.

Affiliate corporations shall be companies with an interest in medical physics or biomedical engineering.

Activities:

Conference Organization: The IUPESM coordinates the triennial World Congress for Medical Physics and Biomedical Engineering. The Congress attracts more than 3,000 medical physicists and biomedical engineers from around the world and covers the full range of scientific and technological events.

Governing Bodies:

The governing bodies of the IUPESM are the General Assembly and the IUPESM Council.

General Assembly

The General Assembly, to which the IUPESM Council is responsible, consists of the representatives of the Constituent Organizations, the National Members, and representatives of the affiliates. The General Assembly is the highest authority of IUPESM and shall determine its general policy. The functions of the General Assembly shall be:

- to provide guidance for the administration of the IUPESM;
- to review, accept or reject recommendations of the Council;
- to elect Officers and Ordinary Members of IUPESM Council;
- to amend the Statutes and Bylaws of the IUPESM;
- to approve the audited accounts of the IUPESM;
- to ratify the creation or dissolution of Standing Committees, Special Committees, Commissions and other appropriate bodies recommended by the IUPESM Council;
- to approve applications for membership;
- to expel any member or associate of IUPESM which has failed to fulfill its obligation;
- to deal with any other item that may be referred to it.

Sessions of the General Assembly and voting procedures used by the delegates shall be as designated in the Bylaws.

Administration

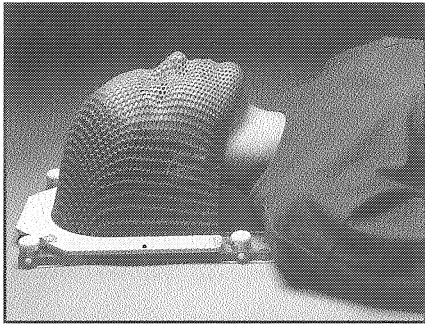
The activities of the IUPESM shall be administered by a Council which shall consist of:

- (a) the Officers as specified in Bylaw (3.1), and
- (b) Ordinary members as specified in the Bylaws (4.5.1).

Each Officer and Ordinary Member of Council shall have one vote with the exception of the President who shall only vote in the event of a tie. The Council shall be empowered to act on behalf of the IUPESM but shall be responsible to the General Assembly for its actions. The Council conducts the business of the IUPESM between

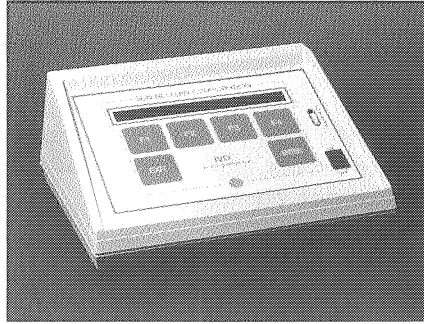
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r a d i a t i o n t h e r a p y a c c e s s o r i e s



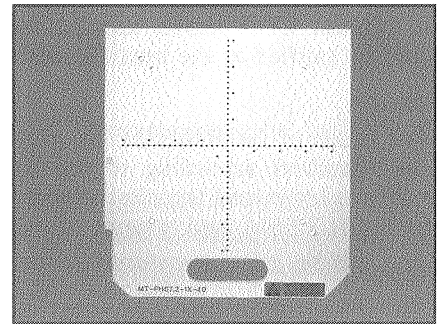
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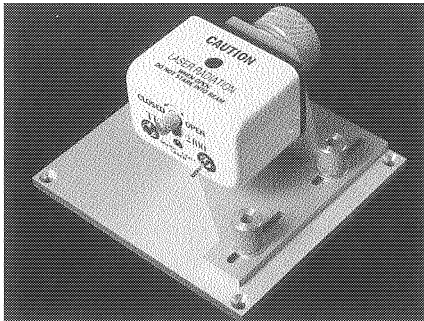
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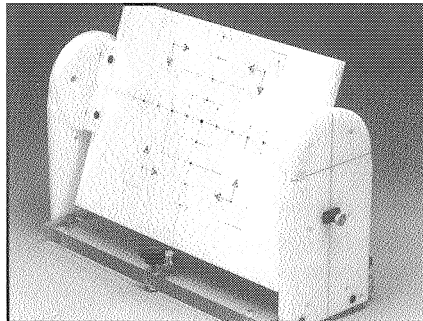
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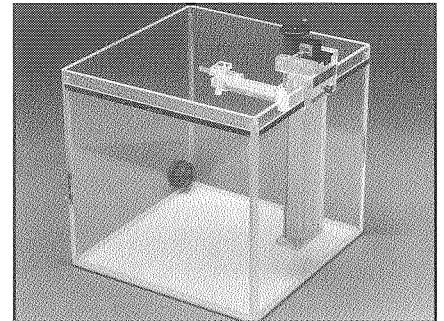
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(Continued from page 8)

sessions of the General Assembly. The business of the Council may be conducted at meetings or by correspondence. The Council may establish or dissolve Committees, etc., and appoint Chairperson and Members to them. This should be ratified at the next General Assembly Meeting.

Finance

The funds of the IUPESM are obtained from the dues of its Members according to the Bylaws, subventions, donations, levies and legacies accepted by the Council on behalf of IUPESM, and revenue from investment.

Corporate Responsibility

No Officer or Ordinary Member of Council shall bear individual responsibility for the Corporate debts and liabilities of the IUPESM or any of its Commissions or Committees.

Resignation or Expulsion

A Constituent Organization, National Member, or Affiliate member wishing to withdraw from the IUPESM must give three months' notice to the Secretary-General. The General Assembly may, with the approval of at least two-thirds of those voting, expel a Constituent Organization, National Member, or Affiliate Member for failure to fulfill its obligations. Voting may be by mail ballot or at a General Assembly meeting, and a quorum must be achieved.

Dissolution of the Union

If it is proposed to dissolve the IUPESM, the Secretary-General of each Constituent Organization, the National Members and Affiliates must be notified at least six months before a decisive vote is to be taken. A two-thirds majority of those voting is required, either by mail ballot or at a General Assembly meeting. In the event that the Union is dissolved the assets of the Union shall revert to the Constituent Organizations, National Members and Affiliates in proportion to their support of the Union over the previous two years.

Amendment of Statutes

Proposed amendments shall be circulated to the General Assembly delegates at least four months before a vote, and shall require approval by two-thirds of those voting. Voting may be by mail ballot or at a General Assembly meeting, and a quorum must be achieved.

Lawrence Lanzl, Ph.D.
IUPESM Past President

Need An Old Linear Accelerator Unit For Bangladesh

A hospital in Bangladesh is looking for someone to donate a used Linear Accelerator Unit. A registered not-for-profit organization, Bangladesh Development Initiative (BDI) in USA and/or the Hospital in Bangladesh will arrange transportation to Bangladesh. Please contact:

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Treasurer, BDI
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Tel: (412) 833-9372

OR Hasan Murshed
Medical Physicist
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Erie, PA 16505
Tel: (814) 838-9000

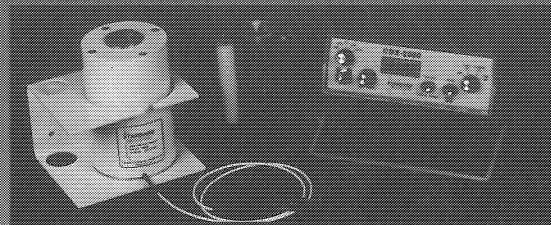
Partners In Physics

The Partners in Physics Program of the American Association of Physicists in Medicine, AAPM is now providing an opportunity for medical physicists in developing countries to become corresponding members of the AAPM and to develop cooperative activities with their partners in the United States. The exchanges include the sharing of information and ideas, working together on educational and research programs and visits.

For more information contact:

Perry Sprawls, Ph.D.
Emory University Hospital, Department of Radiology
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IUPESM Bylaws, 1992

1. GENERAL ASSEMBLY

- a) An Ordinary Session of the General Assembly is normally held every three years, at the place and during the World Congress.
- b) The Secretary-General shall inform Members at least six months in advance of the date and location of the General Assembly.
- c) Each Constituent Organization shall have the right to appoint 100 voting delegates, to attend the General Assembly and vote.
- d) Each National Member shall have the right to appoint two (2) delegates to attend the General Assembly and vote.
- e) Each member of the Council shall be a delegate to the General Assembly and have one vote.
- f) Constituent Organizations and National Members may designate alternates to normal delegates.
- g) Affiliate Members are entitled to attend General Assembly meetings with observer status.
- h) Attendance at a General Assembly is open to all members of Constituent Organizations, National Members and representatives of Affiliate Members.
- i) Extra-ordinary meetings of the General Assembly may be convened by petition to Council of one or more Constituent Organizations, or a majority of the National and Affiliate members.
- j) The President of the IUPESM shall be Chairman of the General Assembly.
- k) The Secretary-General of the IUPESM shall be Secretary of the General Assembly.
- l) It is the responsibility of the Members to provide, to the office of the IUPESM Secretariat, an updated list of their delegates.

2. VOTING PROCEDURES

- a) Voting delegates to the General Assembly shall be the delegates from the Constituent Organizations; two delegates from each National Member; and all Council members, with no individual having more than one vote.
- b) All issues, except amendments to the Statutes and proposals for expulsion, shall be decided by a simple majority vote of the delegates in attendance at a General Assembly Meeting (provided that a quorum is achieved) or sixty percent (60%) of those responding to a mail ballot.
- c) For all decisions a quorum must be achieved. A quorum at the General Assembly shall be one-third of all eligible voting delegates. If decisions have to be made by postal ballot, a quorum shall consist of one-half of all eligible voting delegates.

3. OFFICERS

3.1 The Officers of the IUPESM are:

- a) The President
- b) The Vice-President
- c) The Secretary-General
- d) The Treasurer
- e) The Past-President

3.2 The office of the Treasurer may be held by the Secretary-General.

3.3 The President shall be Chairman of all meetings of the General Assembly, and the Council. He or she shall be responsible for the implementation of the policy of IUPESM.

3.4 The Secretary-General shall be responsible for all matters concerning the administration of IUPESM and, in particular, for the conduct of correspondence, the preparation and distribution of publications and the safe keeping of the archives of IUPESM

- a) He or she shall prepare the Annual Report of the IUPESM for distribution to all members.
- b) The Secretary-General may be assisted by such staff as may be approved by the Council. The salary and terms of appointment shall be approved by the Council.

3.5 The Treasurer shall be responsible for the finances of IUPESM, in accordance with the directives of the Council.

- a) He or she shall be responsible for the preparation of the Annual Budget of the IUPESM.
- b) He or she shall submit to the Council and to the members of IUPESM, an audited statement of accounts.

3.6 The Vice-President shall be Chairman of the Awards Committee.

3.7 The Past-President shall be Chairman of the Nominating Committee.

3.8 With the approval of the Council, responsibility for a particular duty normally discharged by an Officer of the IUPESM may be delegated to another person.

4. ELECTIONS OF OFFICERS AND ORDINARY MEMBERS OF COUNCIL

The Terms of Office for Officers and Ordinary Members of Council, where succession is not automatic, shall normally be for the period between General Assembly meetings, with renewal for elected Ordinary Members by General Assembly, for a maximum of one extra period.

4.1 The President shall be the retiring President of one of the Constituent Organizations, and the Vice-President shall be the retiring President of another of the Constituent Organizations, these offices to be alternated between the organizations to give equal representation. They shall be designated one term prior to assuming offices, such recommendation to be the responsibility of the Nominating Committee.

(Continued on page 12)

(Continued from page 11)

- a) Where circumstances make the alternate appointment of President or Vice-President impossible, the Nominating Committee shall be empowered by Council to nominate a candidate for election.
- 4.2 The offices of Secretary-General and Treasurer shall alternate between the Constituent Organizations in a manner parallel to those of President and Vice-President.
 - a) The incumbent Secretary-General of Treasurer may, however, be re-elected to their respective offices, by the General Assembly, for up to three terms.
- 4.3 The Vice-President or, failing this, the Past-President shall normally fulfill the duties of the President should he or she become unable to discharge them. If the Past President is unable to fulfill the duties of the President, the Council shall decide who is to undertake these.
- 4.4 The Council shall also decide who shall undertake the duties of any other Officers if they are unable to discharge such duties.
- 4.5 **Ordinary Members of Council:**
 - 4.5.1 Ordinary Members of Council shall be the immediate Presidents, Vice-Presidents and Secretaries-General of the Constituent Organizations (if not already Officers as in Bylaws 4.1 and 4.2).

plus four (4) Ordinary Members elected by the General Assembly, with due consideration to a balance among the Constituent Organizations and National Members.
5. **ELECTION PROCEDURES**
 - 5.1 Election of Officers and Ordinary Members of Council shall be from a slate prepared by the Nominating Committee in accordance with Bylaws 4 and 5.
 - 5.2 Council shall appoint a Nominating Committee and Chairman immediately after each ordinary General Assembly meeting.
 - 5.3 The Nominating Committee shall nominate one candidate for each of the Offices of President and Vice-President in accordance with Bylaw 4.1.
 - 5.4 The Nominating Committee shall nominate one candidate for the Offices of Secretary-General and Treasurer in accordance with Bylaws 3.2 and 4.2.
 - 5.5 For the four elected Ordinary Members of Council, the Secretary-General shall solicit names of candidates from the Constituent Organizations and National Members one year before the ordinary meeting of the General Assembly.
 - 5.6 The Nominating Committee shall nominate at least one candidate for each position in the Council from the list of names resulting from the application of Bylaw 5.5 and in accordance with Bylaw 4.5.1. In addition, each Constituent Organization has the right to nominate one candidate.

- 5.7 The Nominating Committee shall conduct the election procedure, and shall have the authority to recruit assistants where required. Scrutineers, appointed by the Nominating Committee Chairman, shall check the voting credentials of delegates and supervise the balloting procedure.

6. COUNCIL

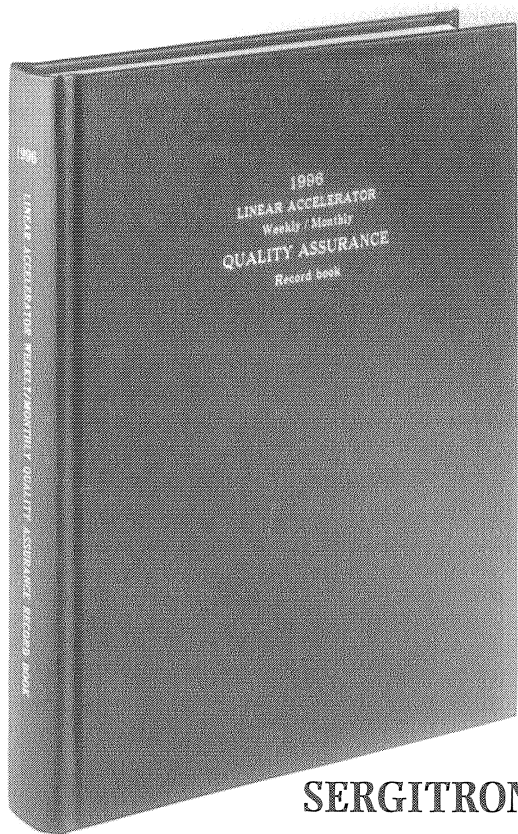
- 6.1 Meetings of the Council shall be convened by decision of the President.
- 6.2 Council shall be responsible for:
 - a) the preparation of a budget for IUPESM;
 - b) recommending the scale of annual dues to be paid by Members of IUPESM, for ratification by the General Assembly;
 - c) the appointment of Ad Hoc Committees or Working Groups with precise terms of reference;
 - d) the preparation of the Agenda for the General Assembly.
- 6.3 On receipt of applications for membership the Council shall recommend action to the General Assembly.
- 6.4 In between sessions of the General Assembly, formal action may be taken by the Council by mail ballot to the delegates as specified in Bylaw 2.

7. STANDING COMMITTEES AND AD HOC COMMITTEES

- 7.1 The Standing Committees of the IUPESM are:
 - a) The Congress Coordinating Committee: The duties of the Congress Coordinating Committee are:
 - to coordinate all activities relating to the selection of prospective sites for the World Congress,
 - development of site-election criteria,
 - solicitation of site proposals
 - preliminary review of proposals and coordination of presentations to the governing bodies of the Constituent Organizations,
 - coordinating of the balloting procedures,
 - preparation of Contracts,
 - monitoring of the progress of local Congress Organizing Committees, and liaison with them.
 - b) The Nominating Committee: the duties of the Nominating Committee are outlined in Bylaw 5.
 - Membership of the Nominating Committee should reflect a fair representation of the various membership groups in the IUPESM.
 - c) The Awards Committee: the duties of the Awards are to administer all awards programs of the IUPESM, including the Award of Merit.
 - Membership of the Awards Committee shall consist of the Vice-President of the IUPESM who shall be the Chairman, plus two representatives from each of the Constituent Organizations.
 - Each Committee member shall have one vote, except for the Chairman who shall vote in the event of a tie.

(Continued on page 14)

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(Continued from page 12)

7.2 The Ad Hoc Committees of IUPESM:
These Committees shall be appointed by the President with the approval of Council, as required.

8. FINANCES

- 8.1 Each Constituent Organization shall pay annual dues to the IUPESM which shall be recommended by Council acting in conjunction with the Officers of each Organization and approved by the General Assembly.
- 8.2 Each National Member of the IUPESM shall pay annual dues which shall be recommended by Council, and approved by the General Assembly.
- 8.3 Each Affiliate Member of IUPESM shall pay annual dues which shall be recommended by Council, and approved by the General Assembly.
- 8.4 The dues structure shall be reviewed by Council annually.
- 8.5 In the event of resignation or cancellation of membership, the Member concerned is liable to pay any dues owed including those for the current calendar year. Any Member that ceases to belong to IUPESM forfeits all rights to the assets of IUPESM from the moment of ceasing to be a Member.
- 8.6 On request, and with approval of the Council, IUPESM may reimburse the expenses of members of Council, Standing Committees or Ad Hoc Committees occurred when discharging their duties.

9. AMENDMENTS TO THE BYLAWS

- 9.1 Amendment of any Bylaw shall require a majority vote of delegates in attendance at a General Assembly or of those responding to a mail ballot at other times.

Lawrence Lanzl, Ph.D.
IUPESM Past President

An Appeal from Developing Countries Committee For Donations of New and Used Equipment to Developing Countries

Please help to improve health care in developing countries. Rapid advances in medical technology and the competitive nature of health services in the developed countries lead to frequent equipment upgrading resulting in excess inventories. Imaging equipment, radiotherapy equipment, dosimetry, calibration and treatment planning systems are just some of the items which can find a new and useful life in hospitals and clinics in the developing countries.

The International Organization for Medical Physics (IOMP) has charged the Developing Countries Committee with the responsibility of locating donors and recipient countries for a smooth transfer of useful equipment. It is essential that the equipment be in working condition and meet all the regulatory requirements of the donor country before transfer. IOMP has signed a memorandum of understanding with the International Atomic Energy Agency to help transport the equipment. If you are planning to declare any equipment as an excess inventory and are willing to donate to a developing country please contact:

Dr. M. M. S. Murthy,
Chair, Developing Countries Committee (IOMP),
Radiological Physics Division,
Bhabha Atomic Research Centre,
Trombay, Bombay - 400 085.
Tel: 5563060, Ext. 2201, Fax: 91-22-5560750

Report From ACPSEM New Zealand Branch

The Australian College of Physical Scientists and Engineers in Medicine, ACPSEM, was formed in 1977 and consists of six branches, five in Australia and one in New Zealand. The New Zealand Branch currently has 55 members, with the majority being employed in Medical Physics and Clinical Engineering departments based in public hospitals. The remaining members work in universities or at the National Radiation Laboratory. The primary objectives of the New Zealand Branch are:

1. To promote and develop physical sciences and engineering in medicine.
2. To promote communication with colleagues on techniques and ideas.
3. To encourage education and training.
4. To represent the interests of medical physics and engineering in other scientific and medical groups and also safety and regulatory committees.

This year the New Zealand Branch is the host for the Annual Conference of the ACPSEM which is being held in Queenstown, New Zealand on November 20-24, 1995. The conference will be hosting internationally recognized speakers and delegates from Australia, Asia, North America and Europe. For more information please contact:

Conference Secretariat
Engineering and Physics in Medicine '95
Centre for Continuing Education
University of Canterbury
Private Bag 4800
Christchurch, New Zealand
Tel: (64 3) 3642162
Fax: (64 3) 3642057
E-mail: m.brown@csc.canterbury.ac.nz

Latin American and Caribbean Medical Physicists* (August 1994)

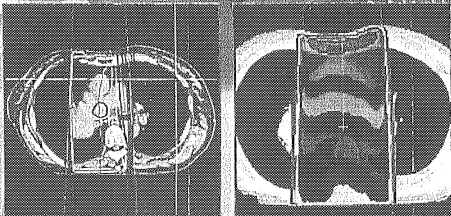
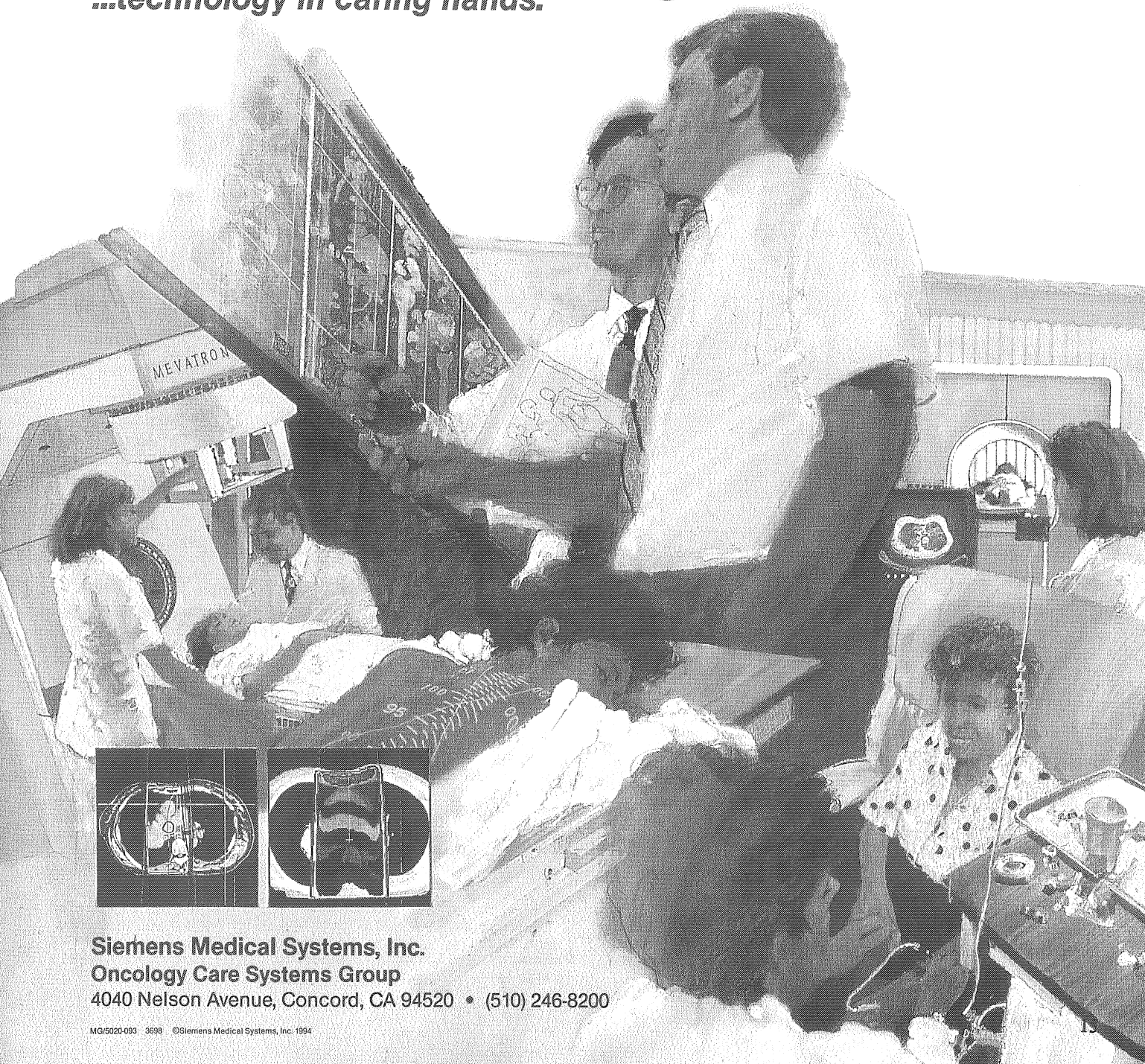
Country	Number of Medical Physicists	Medical Physics Society?
Argentina	108	Y
Barbados	1	
Bolivia	3	
Brazil	700	Y
Chile	5	
Colombia	17	Y
Costa Rica	3	
Cuba	20	Y
Ecuador	4	
Honduras	1	
Jamaica	1	
Mexico	30	Y
Panama	2	Y
Paraguay	1	
Peru	6	
Trinidad & Tobago	4	Y
Uruguay	2	
Venezuela	14	Y

*Information collected by the Pan American Health Organization/ Regional Office of World Health Organization for the Americas. Reported by Dr. Coridad Borrás.

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Buckinghamshire, England HP7 9NA
Contact: Mr. John Hilferty,
Business Director-Export
Ms. Rosemary King, Area Manager,
Indian Sub Continent
Tel: 494-544000, Fax: 494-542266

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Tel: 213/357-7921, Tel: 1-800/423-7169

RTI Electronics AB

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Sweden
Contact: Mr. Mats Alm
Tel: 46-31-275275, Fax: 46-31-270573

Siemens Medical Laboratories, Inc.

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4592 Northeast Second Street
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Contact: Ms. Cynthia Mitchell
Tel: 707/747-6648

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Contact: Mr. Martin Kandes,
Director of Marketing
Tel: 415/493-4000

Victoreen/Nuclear Associates

6000 Cochran Road
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Contact: Mr. Mark Marlowe,
International Sales Manager
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Calendar of Events

4-7, July 1995: **COMP/CCPM/CAR/CAMRT Annual Meeting**, Montreal, Quebec, (COMP/CCPM, Secretariat, 11328-88 St., Edmonton, Alberta, Canada T5B 3P8 [E-mail: 74063-2417@compuserve.com or gfallone@medphys.mgh.mcgill.ca, Tel: 514-934-8052]).

23-27, July 1995: **37th Annual Meeting, American Association of Physicists in Medicine, Joint Meeting with the Health Physics Society**, Boston, MA, U.S.A. (AAPM, One Physics Ellipse, College Park, MD 20740-3846 [Tel: 301-209-3350]).

27 August-1, September 1995: **10th International Congress of Radiation Research**, Institut für Medizinische Strahlenbiologie, Universitätsklinikum Essen, Hufelandstr. 55, D-4300 Würzburg, Germany. (Dr. C. Streffer, Institut für Medizinische Strahlenbiologie, Universitätsklinikum Essen, Hufelandstr. 55, D-4300 Essen, Germany [49-201-723-4152; Fax: 49-201-723-5966]).

11-15, September 1995: **AAPM/IOMP International Scientific Exchange Course/Workshop in Radiation Therapy Physics and V National Medical Physics Congress**, (Medical Radiophysics Dept. Oncology Institute, University of Istanbul, Prof. S. Kuter, Istanbul, (90)-34390, Capa, Turkey).

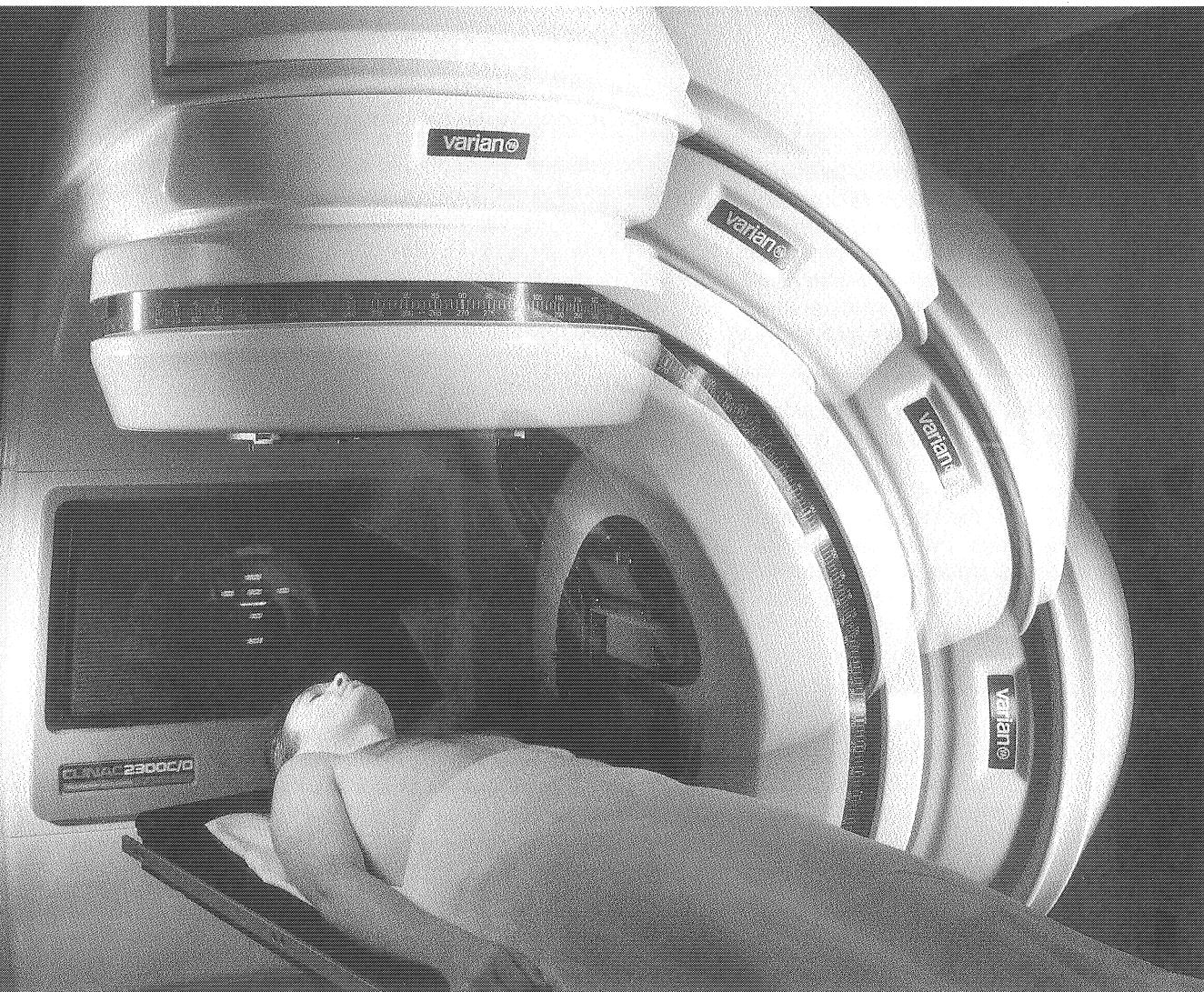
15-18, September 1995: **The 10th Congress of the Polish Society of Medical Physics**. Krakow, Poland. (Asst. Prof. Marta Wasilewska-Radwanska, Faculty of Physics and Nuclear Techniques, University of Mining and Metallurgy, al. Mickiewicza 30, 30-059 Krakow, Poland. [Tel: + 4812 338100, ext. 3002; Fax: + 4812 340010; E-mail: RADWANSKA@novell.ftj.agh.edu.pl]).

20-23, September 1995: **Röntgen Centennial Convention of the German Society of Medical Physics**, co-sponsored by IOMP, Würzburg, Germany. (Die Kongress-Partner, Eberhardt-Gastell & Neumann GmbH, Bottenhorner Weg 16, D-6000 Frankfurt/M. 90. [Tel: 49-69 78 50 50; Fax: 49-69 78 50 49]).

20-25, September 1995: **17th Annual International Conference, IEEE Engineering in Medicine and Biology Society and 21st Canadian Medical and Biological Engineering Conference**, Montreal, Canada. (Conference Secretariat, Coplanor Congress Inc., 511 Place d'Armes, Suite 600, Montreal, QC, Canada H2Y 2W7).

8-11, October 1995: **3rd Biennial ESTRO Meeting on Physics in Clinical Radiotherapy**, European Society for Therapeutic Radiology and Oncology, Gardone Riviera, Italy. (ESTRO, Department of Radiotherapy, University Hospital St. Rafael, Kapucijnenvoer 35, 3000 Leuven, Belgium. [Tel: +32.16.33.64.13; Fax: +32.16.33.64.28]).

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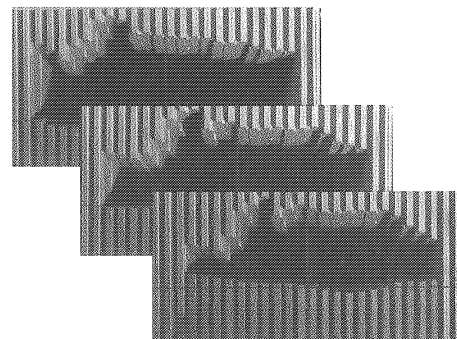
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The Romanian Medical Radiology and Radiation Protection In the Year of Rontgen Centenary

In 1995, the year when the scientific world celebrates 100 years since Wilhelm Conrad Rontgen discovered at Wurzburg University in Germany "a new kind of ray," which was named "X-ray," the medical radiology and the radiation protection in Romania are in transition stage, from one status to an improved one, like any other activities in the country.

According to the 1993 Report of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), for a population of 23 million inhabitants, in 1990 in Romania a total of 2,746 X-ray medical diagnostic units, 1,100 dental units and 202 X-ray machines for conventional radiotherapy were reported. More than 1,000 radiologists and 3,200 technicians are involved in these activities and are consequently professionally exposed to ionizing radiation.

In diagnostic radiology, about 660 X-ray examinations were performed in 1990 per 1,000 inhabitants, a value which represents a decrease in comparison with 1970, when more than 1,000 exams, per 1,000 were reported. Unfortunately, still about 26% of the total X-ray examinations are classical fluoroscopies (without image intensifier TV set), which give high doses to both patients and radiologists.

During the last two years, mainly in big hospitals, part of the old equipment was replaced by some CT scanners, as well as X-ray units for Angiography and Mammography. Magnetic Resonance Imaging was introduced for the first time in this period, by setting-up of an installation in Bucharest. Also some ultrasound scanners are now available, at modern diagnostic facilities.

The general standard of the old equipment in medical radiology is still very far from the minimum requirements, so that great financial efforts must be done in the near future, in order to improve the present situation.

The radiation protection of patients and staff in medical radiology was of concern from the beginning. Today, there is a national network, belonging to the Ministry of Health, having 21 Radiation Hygiene Laboratories (RHLs) in: Bucharest, Iassy, Cluj-Napoca, Timisoara, Pitesti, Ploiesti, Craiova, Brasov, Galati, Constanta, Tg.Mures, Bacau, Succava, Oradea, Resita, Sibiu and Baia Mare. The preoccupations in this field started with dose measurements around the X-ray installations. During the last three years, due by support from the International Atomic Energy Agency-Vienna and European Union-Brussels, within some research contracts and sub-contracts or Technical Co-operation Projects, it was possible to introduce in the RHL's activity the new concept of Quality Assurance (QA) and Quality Control (QC) in

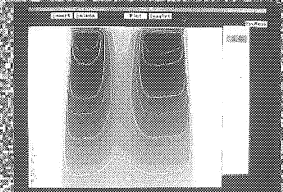
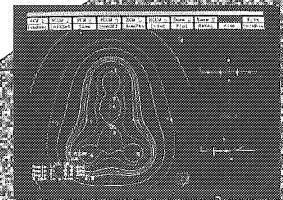
(Continued on page 19)

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(Continued from page 18)

diagnostic radiology. The investigations in this domain are still in progress, some test objects being further necessary for practical work.

An important step for the development of the radiation protection in Romania was the year 1990, when the Romanian Society for Radiological Protection (RSRP) was founded. This society now has 370 active members. Since 1992, the RSRP has the Associate Society status to the International Radiation Protection Association (IRPA). Good collaborations are already established with similar societies from Hungary and the Czech Republic.

In December 1994, a National Agency for Atomic Energy (ANEA) was officially formed, as authority for promotion of peaceful use of ionizing radiation, which hopefully will contribute to further development of medical radiology and radiation protection in Romania. A more appropriate training of staff members from both fields is necessary too.

Dr. C. Milu, Ph.D.
RSRP President

ANNOUNCEMENT Medical Physics Publishing

Annual Bibliography of Books in Print in Medical Physics and Related Fields is available on Internet.

To access it one must use "gopher" to select the University of Wisconsin-Madison and in the first menu choose "Library catalogs and services." At the next screen choose "Journal Information Databases" and on the next screen choose "Books in Print in Medical Physics and Related Fields." MPP plans to add additional books once a month. Prices will be updated once a year. There are various files that can be searched.

Users can send additions, corrections and suggestions to Medical Physics Publishing via mpp@macc.wisc.edu or via the more conventional routes: (608) 262-4021; 1-800-442-5778; Fax (608) 265-2121. MPP's address is: 4513 Vernon Blvd., Madison, WI 53705-4964.

If desperate contact John Cameron at: JRCAMERO@FACSTAFF.WISC.EDU.

IOMP Libraries Report

The International Conference in Rio provided a wonderful opportunity to meet many of the participants in the Libraries Program! It was a pleasure to see the faces which match the names in correspondence, and it was an ideal opportunity to discuss the effectiveness of the program and to clearly establish the needs of each library.

Complimentary subscriptions to the journals *Physics in Medicine and Biology* and *Physiologic Measurement* may now be available through Institute of Physics Publishing, IOPP, to those libraries who request them. Write to the following address with a justification explaining the needs of your library:

Mr. Philip Edge
IOP Publishing
Techno House Redcliff Way
Bristol BS1 6NX, England

IOPP will review each application on an individual basis. IOPP should be commended for expanding their already generous offer of assistance to medical physicists in developing countries.

Subscriptions of *Medical Physics* will now be donated to all libraries as a result of the efforts of the American Association of Physicists in Medicine, AAPM, International Affairs Committee. A listing was compiled of individual AAPM members who wish to donate their *Medical Physics* journals subscriptions, and the AAPM is now in the process of coordinating their shipment. Additionally, the AAPM agreed to send complete sets of its publications to the 13 new libraries who have not yet received them. A very special thanks to the AAPM for its continuing generosity.

If you would like to make a donation of medical physics books or journals, or if you wish to open a new regional library, please contact me at the following new address (also, please note my new name): Catherine Alekhteyar, M.S., 7649 Cedar Elm Dr., Irving, TX 75063, U.S.A. My office telephone number is (214)-372-7911.

Below is a list of IOMP/AAPM Libraries as of April 10, 1995. Additional information can be obtained from me.

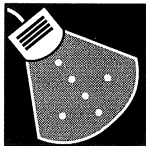
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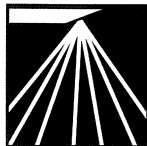
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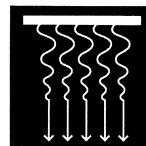
*Diagnostic
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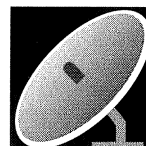
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