Volume 5 Number 1 1989

Medical Physics World

Bulletin of the International Organization for Medical Physics

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President's Message

It is a considered opinion of mine that Medical Physics is one of the most International of all professions. This may seem strange at first but I think there are some good reasons for this being so. In the first place our numbers are relatively small and in many countries there are not very many of us so we must seek colleagues outside of our borders. We are curious about the world, or else we wouldn't be physicists and this makes us look a little farther afield than do many people. As physicists though, we are also interested in people, or else we wouldn't be in this branch of physics, and this makes us a somewhat gregarious lot. It is true, of course that much of our everyday work is applied and rather oriented toward the solution of local problems but because of the already mentioned reasons, even this pulls us together. We want to find out how others have solved, or avoided, these problems.

For all of these reasons, our meetings are really important to us. Their scientific content, that is the papers presented, is important, but what, in my opinion, is more important, is the social exchange of ideas and experience that takes place at them. Friendships are made and channels of communication are set up. Many a collaborative project has had its beginning in this manner.

There is a meeting planned for October in Beijing, China. The Medical Physicists of that great country joined the IOMP last year and they have already shown themselves to be active and eager participants in IOMP activities.

Continued on page 2

TABLE OF CONTENTS

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Continued from page 1

President's Message

I'm sure I can speak for all my IOMP colleagues when I say we are watching events in China very closely and we are hoping things are not going badly for our medical physics colleagues there and that their meeting may go ahead as planned.

After China joined the IOMP, Larry Lanzl, our former President estimated that the IOMP covered about 66% of the world's population. That's a lot, but there still remains a sizeable part of the world whose medical physicists are not members of the IOMP. One noteable absence is the Soviet Union. We must have many colleagues in that populous and advanced land. I can say that there has already been some very preliminary correspondence that might ultimately lead to their membership. As President, I would welcome their participation in our affairs.

There seems to be many things happening in many parts of the world these days. I'm sure I speak for all of us when I say we are watching the news reports very closely.

J. R. Cunningham, President, IOMP

Announcement

A guide to "Quality Assurance in Radiotherapy" published by the World Health Organization, Geneva, 1988, ISBN: 92 4 154224 1 Price: Sw fr. $11.00. This guide was prepared following a workshop held at Schloss Reisenburg, Federal Republic of Germany, 3-7 December, 1984. The guide summarizes the factors to be considered in establishing a programme of quality assurance at local or national level. In addition to the operational aspects of the programme, it covers the physical and technical checks needed to verify the correct functioning of the equipment and the clinical aspects of quality assurance, aimed at ensuring the best possible patient management.

Announcement

The IOMP and Institute of Physical Sciences in Medicine (IPSM) recently signed an agreement by which the IOMP recognizes the journal "Clinical Physics and Physiological Measurement" as an official journal of the IOMP.

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Colin G. Orton, Ph.D., Prof., (ex officio)

Editorial and Business correspondence should be addressed to Dr. Richard Maughan.
Events information should be addressed to Mr. Geoffrey Ibbott. IOMP correspondence should be addressed to Dr. John Cunningham and Dr. Colin Orton.

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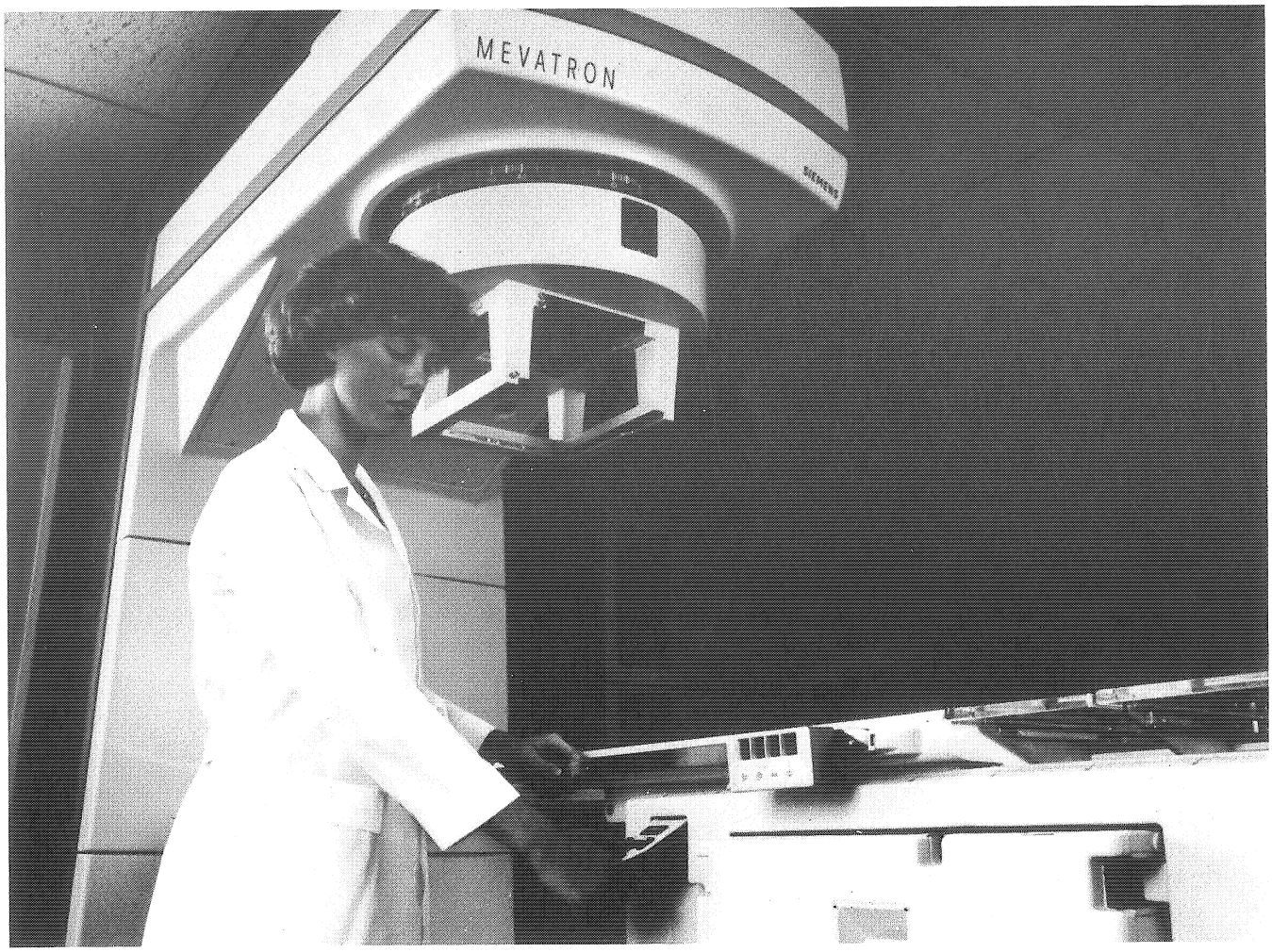

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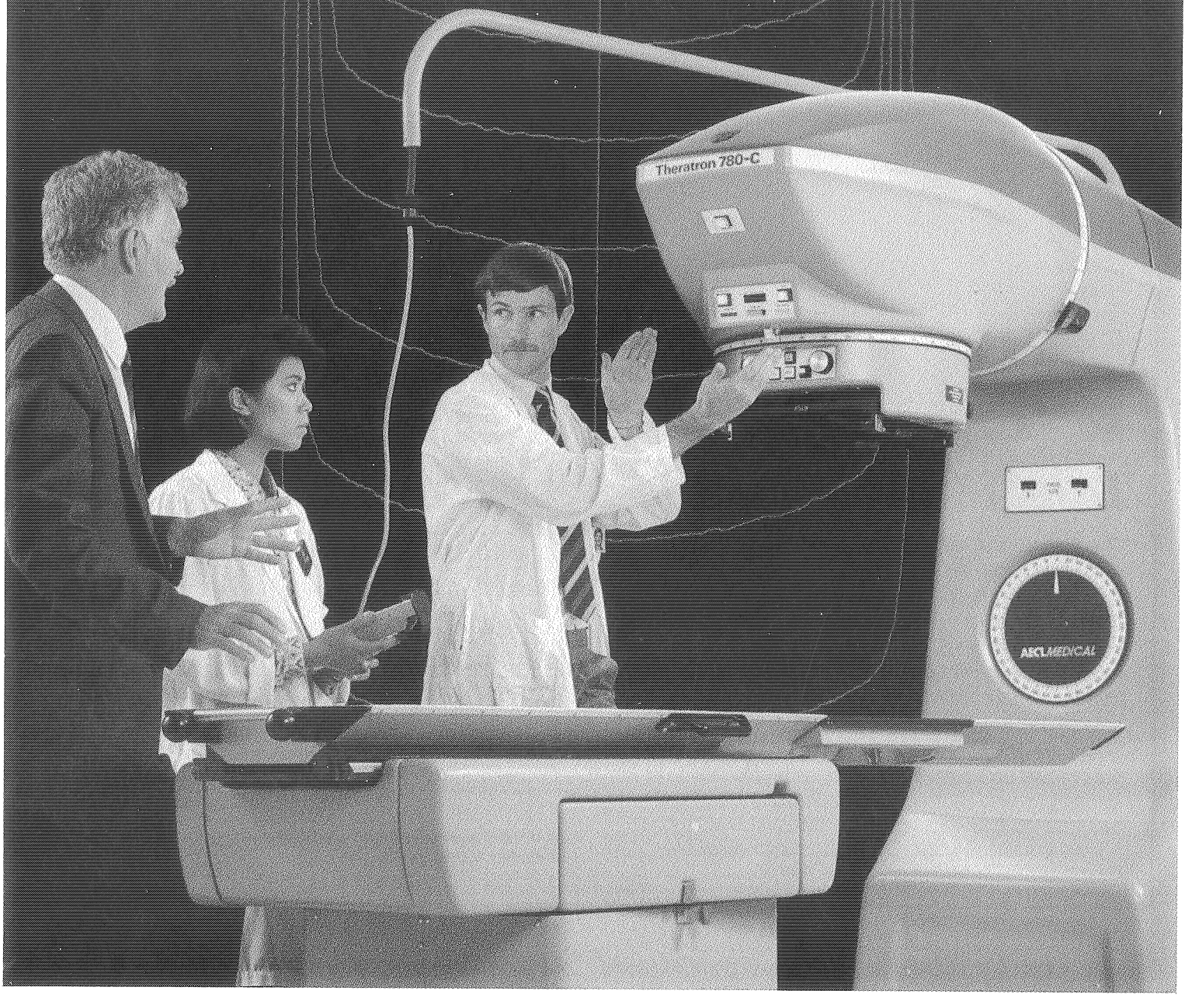

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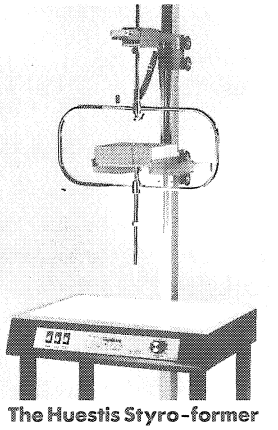

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Secretary-General's Report

New Official Journal

An agreement has now been signed between the Institute of Physical Sciences in Medicine (IPSM) and the IOMP which makes the journal *"Clinical Physics and Physiological Measurement"* (CPPM) an official journal of the IOMP. We now have two journals, CPPM and "Physics in Medicine and Biology" (PMB). This agreement contains two items of special interest to IOMP members. Firstly, a reduced subscription rate will be offered to members of all the constituent societies of the IOMP. Secondly, the IPSM will provide 10 complimentary subscriptions per year for distribution to libraries or organizations in developing countries, with recipients as specified by the IOMP. **Please contact me as soon as possible if your library or society would like to be considered as a recipient of a set of CPPM journals for 1990.** I need to inform the IPSM of our selected recipients by November 1, 1989, so please send me your application in time to meet this deadline. I am trying to negotiate a similar agreement for PMB.

New IOMP Library Program

On several occasions, IOMP members have offered to donate their personal journal collections to libraries and societies in developing countries, and have asked the IOMP to make the necessary arrangements. Unfortunately, transportation of these collections to their final destination is expensive and the IOMP has not had sufficient funding available. Also, once established, it would be remiss of the IOMP not to keep these libraries up-to-date with new journals. Again, an expensive proposition. Consequently, I have initiated a program by which our Corporate Members can choose to allocate their annual dues toward the establishment of such libraries. We are especially interested in libraries which will be available to most of the medical physicists in a specific country or region. **I invite readers in developing countries to consider the establishment of such a library and send me a letter detailing where such a library will be situated and how it will service the needs of physicists in the region.**

Committees

The terms of office of members of our Developing Countries Committee have expired and the committee is now being restructured under the Chairmanship of Prof. Xie Nan-Zhu, Peoples' Republic of China. Potential members of this committee are being contacted. The terms of office of members of our Education and Training Committee are also expiring this year but, as yet, no new Chairman has been appointed. **Anyone interested in working on this committee should contact me as soon as possible.**

Finally, a new ad hoc Committee on Long Range Planning has been formed and is to be Chaired by Dr. Cari Borras, Pan American Health Organization, HSD, 525 23rd St., N.W., Washington, D.C. 20037, U.S.A.

I am sure Cari will be pleased to receive any suggestions for new IOMP projects.

With best wishes.

Colin G. Orton, Ph.D.

Announcement

MEDICAL PHYSICS '90

Some 300 participants attended the very successful conference Medical Physics '87, the first European Congress of Medical Physics held in Innsbruck, Austria. The second Congress in this triennial series sponsored by EFOMP has been organized in conjunction with the IPSM and HPA, and will take place in Keeble College, Oxford, on 13th and 15th September 1990. Associated with the Congress there will be a substantial technical exhibition HEXPA 90 and an interesting social programme. The Congress is recognized by IOMP as a Regional meeting and international contributions to the scientific sessions and the technical exhibition will be welcome.

Parallel scientific sessions for invited and proffered papers, poster, and teaching sessions, will be organized on a series of themes which will cover a wide range of topics of interest to medical physicists. The programme will also include two keynote addresses, the Association Lecture of the HPA and the Federation Lecture of EFOMP.

For further information on Medical Physics '90 please write to: The General Secretary, IPSM, 2 Low Ousegate, York, Y01 1QU, England.

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Report of the Education & Training Committee

Carlos E. de Almeida, Ph.D.
Chairman

Duties of the Education & Training Committee:

1) To develop task-oriented training programmes.
2) To make available useful publications, i.e. publications on matters which are important for daily physical routine in a hospital.
3) To publish periodically circular letters on various subjects such as quality assurance in diagnostic radiology, nuclear medicine and radiotherapy.
4) To organize short refresher courses, seminars and workshops where access will be easy for medical physicists from the countries concerned, i.e. in connection with local, regional, inter-regional or international congresses.
5) To stimulate the foundation of regional centers for education and training in cooperation with IAEA and WHO.

Members:

C. E. de Almeida	Brazil (Chairman)
A. Benini	Italy (Secretary)
A. Bose	India
W. Tole	Kenya
O. Chomicki	Poland
P. S. Iyer	India
M. Gustaffsson	IAEA

A. The following documents are being prepared by the Committee to be published as a special issue of Medical Physics World in English, Spanish and possibly in Chinese.

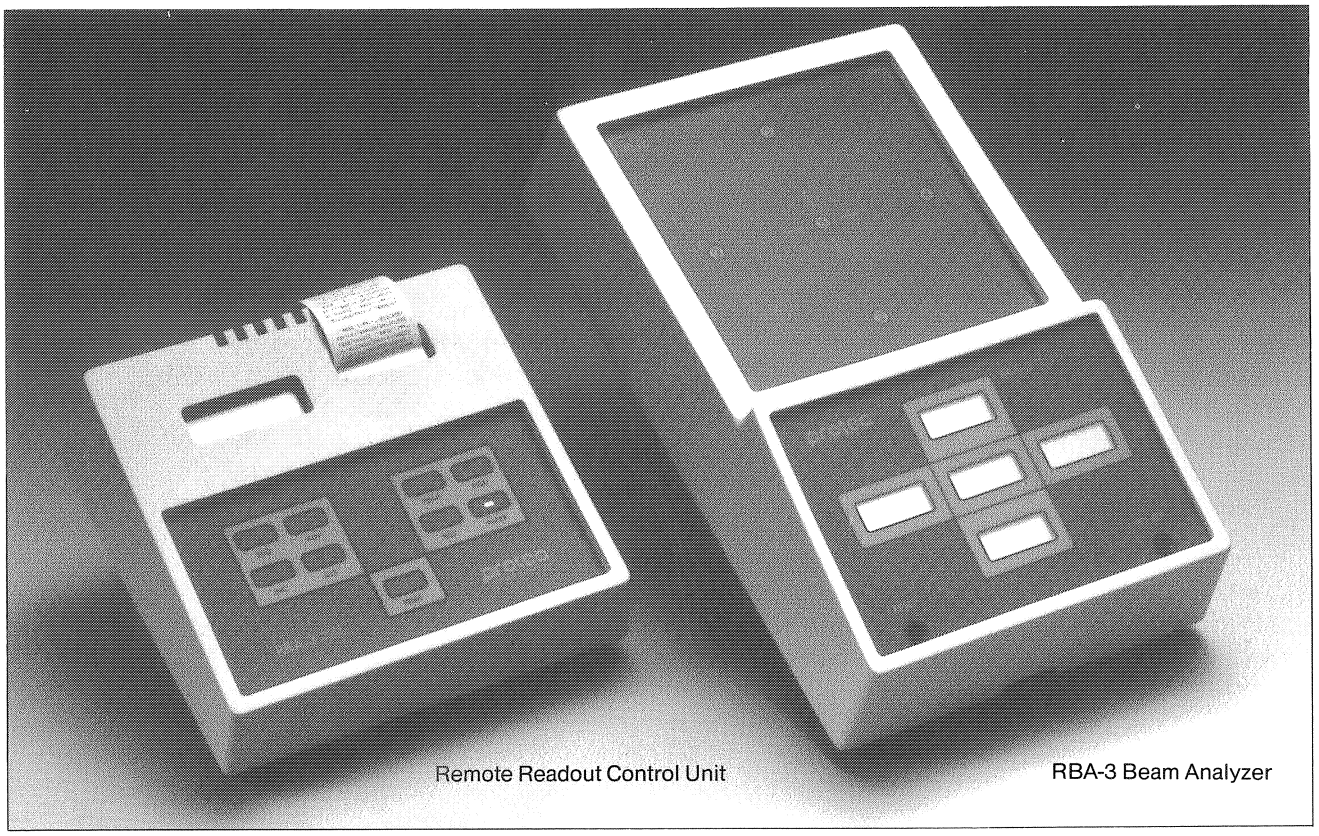
1) Q.A. in Nuclear Medicine — Gamma Camera and Software
   - Audrey Wegst (USA)
   - Leopoldino Mendes (BRA)
2) Q.A. in Diagnostic Radiology
   - Larry Rothemberg (USA)
   - Monica Gustaffson (Sweden)
3) Q.A. in Telecobalt Machines
   - Maria Cristina Plazas (Columbia)
   - Vitor Tovar (Mexico)
   - Mari Cruz Lizuain (Spain)
4) Q.A. in Linacs
   - Peter Almond (USA)
   - Bengt Bjarngard (USA)
5) Q.A. in Treatment Planning
   - A. Chung Bin (USA)
   - Claudio Sibata (USA)
6) Q.A. in Dosimetric Instrumentation
   - Leroy Humphreys (USA)
   - Alan Rawlinsson (CAN)
7) Q.A. in Brachytherapy
   - C. H. Jones (UK) (Yet to confirm)
   - J. C. Rosenwald (FRA)
8) Proposed Training Program
   - P. S. Iyer (IND)
   - A. Dutreix (FRA)
   - O. Chomicki (POL)
   - P. P. Pereira (BRA)
   - L. Lanzl (USA)
   - A. Kaul (GER)
   - J. Cunningham (CAN)
   - R. Walstam (Sweden)
9) Q.A. in Oral Radiology
   - J. E. Peixoto (BRA)
   - J. H. Hewitt (UK)
10) Q.A. in Ultrasound
   - Ana Benini (ITAL)
11) Q.A. in Acceptance Test of NMR
   - Jose Bencomo (USA)
12) Q.A. in CT Scanner
   Authors not yet chosen.

B. Seminars and Workshops:

1) Workshop on the new IAEA Dosimetry Code of Practice and the TG-21.
   Invited speakers:
   Dr. David Rogers, NRC - Canada
   Dr. Pedro Andreo - Sweden
   Local speakers: Several
   Number of participants: 45 medical physicists.
   Promoted by the National Cancer Institute and Brazilian Association of Physicists in Medicine.
2) Dosimetry Course in San Antonio — Texas — August 1988
   Coordinated by Cari Boras
   Promoted by AAPM/LAMPA/IOMP/SEFM/AAPM
   Number of participants: 48
   Speakers: Several, including one member of the Education & Training Committee.

C. Dissemination of Scientific Information

A contract is now been made with the Texas Regional Medical Physics Association in order to extend to all National Organizations the excellent work being done by TRMP regarding the literature survey. Each National Organization will be responsible to disseminate the information in their own country.



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Trevor D. Cradduck, Ph.D.
Victoria Hospital
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The universities, colleges, academic institutions and major commercial research laboratories around the world are linked by a number of computer communications networks. These networks provide an extremely valuable communications path between many thousands of researchers world-wide.

E-mail, as it is more generally called, provides a very rapid link to other users via the academic networks of Bitnet (Because It's Time Network) in the US, NetNorth in Canada, EARN (European Academic and Research Network), and JPNET in Japan; as well as ARPANET (Advanced Research Projects Agency); MILNET (the military network); CSNET (the computer science network); NSFNET (National Science Foundation Network); USENET/UUCP (linking UNIX machines) and many other more locally defined networks such as THEnet (Texas Higher Education Network). Computer users connected to one or other of these networks can usually establish contact with users on one of the other networks.

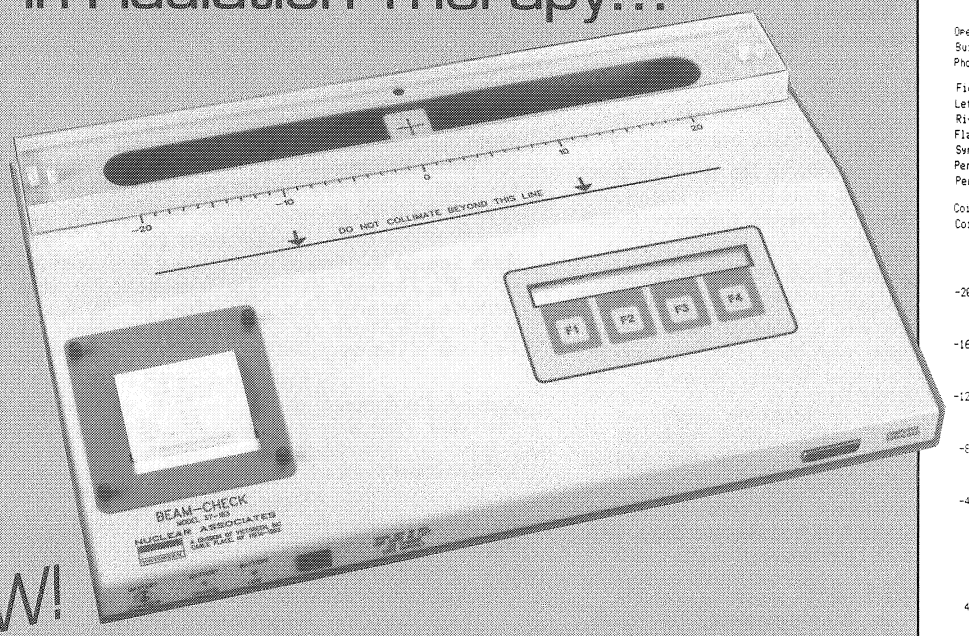
For the past year, Trevor Cradduck, who is chairing an AAPM Task Group on e-mail and computer communications, has been building a directory of nuclear medicine personnel (NUCMED) who have electronic mail facilities. That directory recently reached the 150 mark and includes users as far afield as Finland and Austria in the east, Argentina and Chile in the south and Australia and Japan in the west. A directory of about 30 physicists (MEDPHYS) more directly concerned with radiotherapy is maintained by George Sherouse at the University of North Carolina, Chapel Hill. Yet another list of persons interested in radiology (RADSIG) is maintained by Alan Rowberg at the University of Washington, Seattle.

At the same time as these lists of users have been growing a number of investigators have been interested in the problems associated with transferring nuclear medicine images between different computers. As a result of their deliberations, which have primarily been conducted using the e-mail facilities, they have adopted the model file format published by the AAPM in report #10 — "A Standard Format for Digital Image Exchange" (AIP, New York, 1982) which uses keywords. This has demonstrated a need for a central repository for a keyword index to which e-mail users have excess to determine the latest format that is being used.

Such a central facility has been established in a rudimentary form using e-mail facilities to provide the enquirer with an immediate response to a request for a particular file to be sent. The user sends a message to SERVICE@-UWOVAX.UWO.CA (the list server located at the University of Western Ontario, Canada) and in the Subject: line of the message gives either a request for HELP, for a LIST of the files available, or the name of a specific file required. The data requested by the user are then automatically sent by return mail to the requester. The list server has a small section reserved for medical physics files and, so far, includes the directory of e-mail users, the most up to date draft of the keyword list for nuclear medicine images, several FORTRAN programs in source code form and other files of general interest to the medical physics community. Other files of specific interest to medical physicists will be added as the need arises and they become available. Access to this service is free for users of the academic networks who can contact UWOVAX.UWO.CA via Bitnet, Internet or UUCP. We would urge persons working in developing countries to investigate the possibilities of establishing contact via e-mail. This is one mechanism by which they might be in a better position to receive software support. A good start might be to contact the Computer Science Department of the local university to determine if the university has any links to the international networks.

Persons who wish to be added to the directory of users or who require details about how to use the list server are urged to send a message to NUCMED-REQUEST@UWOVAX.UWO.CA. In addition, if e-mail users wish to send a message or an announcement to the whole nuclear medicine e-mail community they may send their message to NUCMED@UWOVAX.UWO.CA and the message will be distributed to all those registered in the directory via an automatic mail burster. Trevor Cradduck (TREVORC@-UWOVAX.UWO.CA) looks forward to hearing from you by e-mail and would like to have your comments concerning the use and availability of the list server.

For Quality Assurance in Radiation Therapy...



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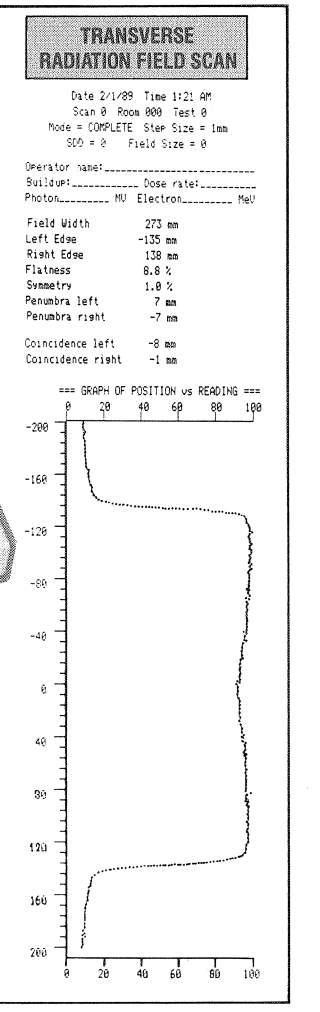

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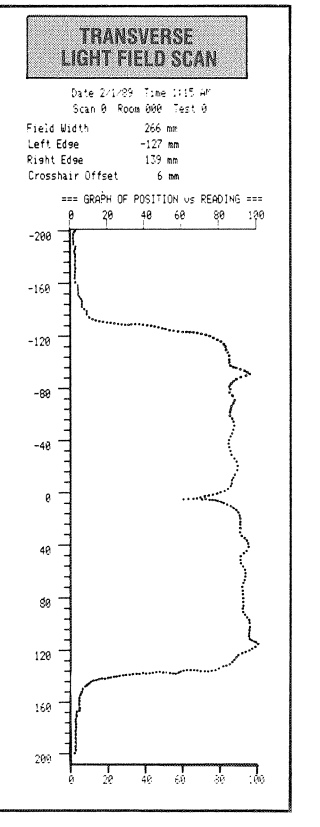

Printed Output of Light Field Scan

*Developed by Lawrence E. Reinstein, Ph.D., Radiation Oncology Department, State University of New York at Stony Brook.

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CALENDAR OF EVENTS

Geoffrey S. Ibbott, Editor

1989

July 30 - August 4

33rd Annual International Technological Symposium on Optics and Optoelectronic Applied Science and Engineering, San Francisco, California, U.S.A. (SPIE, POB 10, Bellingham, Washington 98227-0010, U.S.A.).

July 31 - August 5

International X-ray Conference, University of Denver Department of Engineering, Denver, Colorado, U.S.A. (Paul Predecki, Department of Engineering, University of Denver, Denver, Colorado 80208 [303-871-2102]).

August 7 - 11

Massachusetts Institute of Technology, "Course #2.77S Non-Ionizing Radiations: Biophysical and Biological Basis, Applications, and Hazards in Industry and Medicine," Cambridge, Massachusetts, U.S.A. (Director of Summer Sessions, Room E19-356, M.I.T., Cambridge, Massachusetts 02139, U.S.A.).

August 12 - 18

The Society of Magnetic Resonance in Medicine 8th Annual Scientific Meeting and Exhibition, Amsterdam, The Netherlands (Society of Magnetic Resonance in Medicine, 1918 University Avenue, Suite 3C, Berkeley, California 94704, U.S.A. [415-841-2340, FAX #415-841-2340]).

August 14 - 18

7th International Conference on Biomagnetism, New York, New York, U.S.A. (Samuel J. Williamson, Department of Physics, 4 Washington Place, New York University, New York, New York 10003, U.S.A. [212-998-7879]).

August 28 - 31

Annual Conference, Australasian College of Physical Scientists in Medicine, "Engineering and the Physical Sciences in Medicine," Hamilton, New Zealand (Dr. W. H. Round, ACPSM (NZ Branch) c/o Physics Department, University of Waikato, Private Bag, Hamilton, New Zealand).

August 29 - September 1

Mediterranean Conference on Medical and Biological Engineering Regional Meeting of the IFMBE, University of Patras, Greece (Department of Medical Physics University of Patras, 265 00 Patras, Greece [0030-61-991512]).

September 1- 2

ESTRO Teaching Course, Brain Tumors, Imperial College, London, England (ESTRO Secretariat, Department of Radiotherapy, University Hospital St, Rafael, Capucijnenvoer 35, 3000 Leuven, Belgium [Tel. 32(0)16/21.22.13; FAX 32(0)16/21.22.28]).

September 1 - 2

ESTRO Teaching Course, Early Breast Cancer, Imperial College, London, England (ESTRO Secretariat, Department of Radiotherapy, University Hospital St. Rafael, Capucijnenvoer 35, 3000 Leuven, Belgium [Tel. 32(0)16/21.11.13; FAX 32(0)16/21.22.28]).

September 3 - 6

Biological Engineering Society, 1989 Annual Scientific Meeting: Engineering for Health (including Diagnostic Radiology), The Royal College of Surgeons, London, England (The Royal College of Surgeons, 34/43 Lincoln's Inn Fields, London WC2A 3PN, England [01-242-7750]).

September 3- 7

8th Annual Meeting, European Society for Therapeutic Radiology and Oncology, London, England (ESTRO Secretariat, University Hospital St. Rafael, Department of Radiotherapy, Capucijnenvoer 35, B-3000 Leuven, Belgium).

September 6 - 8

3rd International Symposium on Technetium in Chemistry and Nuclear Medicine, Padua, Italy (Ulderico Mazzi, Department of Pharmaceutical Sciences, University of Padua, Via Marzolo, 5, 35131 Padova, Italy).

September 10 - 14

IRPA Regional Congress on The Radioecology of Natural and Artificial Radionuclides, sponsored by the Nordic Society for Radiation Protection, Visby, Gotland (Sweden) (GotlandsResor AB, Konf avd, Box 2081, S-62102 Visby, Sweden).

September 11 - 15

Nuclear Medicine Computer Course (Standard), Victoria Hospital, London, Ontario, Canada (Dr. T. D. Cradduck, Department of Nuclear Medicine, Victoria Hospital, 375 South Street, London, Ontario N6A 4G5 Canada).

September 12 - 16

22nd Annual Scientific Meeting of the European Society for Radiation Biology, Brussels, Belgium (Prof. J. R. Maisin, Catholic University of Louvain, Radiobiology and Radioprotection Unit, Ave. Hippocrate 54/69, B-1200 Brussels, Belgium).

September 13 - 16

20th Annual Meeting of the German Society of Medical Physics (DGMP), Themes: Radiation Treatment Planning, Quality Assurance, Homburg/Saar, FRG (Prof. Dr. H. K. Leetz, Institut fur Radiologische Physik der Universitatskliniken, D-6650 Homburg/Saar. Fed. Rep. of Germany [06841/164634]).

September 13 - 16

Annual Conference of the Institute of Physical Sciences in Medicine, Aberdeen, Scotland, United Kingdom (Institute of Physical Sciences in Medicine, 2 Low Ousegate, York Y01 1QU, England, United Kingdom).

September 18 - 22

Radiation Physics for Clinical Radiotherapy — ESTRO Teaching Course, Groot Begijnhof, Leuven, Belgium (ESTRO Secretariat, Department of Radiotherapy, University Hospital, 3000 Leuven, Belgium [Tel. 32-16212213; FAX 32-1612228]).

September 18 - 22

Nuclear Medicine Computer Course (Advanced), Victoria Hospital, London, Ontario, Canada (Dr. T. D. Cradduck, Department of Nuclear Medicine, Victoria Hospital, 375 South Street, London, Ontario N6A 4G5 Canada).

September 20 - 22

Polish Medical Physics Conference and International Regional Symposium on the Training and Education of and by Medical Physicists, (Oskar A. Chomicki, Klinika Endokrynologii, Szpital Bielanski, 01-809 Warszawa, Poland).

September 20 - 23

Annual Scientific Meeting of the Royal College of Radiologists, Liverpool, United Kingdom (The Conference Officer, Royal College of Radiologists, 38 Portland Place, London, England W1N 3DG [01-636 4432]).

September 25 - 28

Electron and Photon Transport Using the EGS4 Monte Carlo System, National Physical Laboratory (Dr. S. Duane, NPL, Teddington, Middlex TW11 OLW, United Kingdom [Tel. 01 977 3222, ext. 6568]).

October 1 - 6

American Society for Therapeutic Radiology and Oncology, San Francisco, California, U.S.A. (American Society for Therapeutic Radiology and Oncology, 1101 Market Street - 14th Floor, Philadelphia, Pennsylvania 19107-2990, U.S.A. [215-574-3180]).

October 2 - 6

International Symposium 'Selected Topics on Radiation Protection,' Durbrovnik, Yugoslavia (Mr. H. Ninkovic, Boris Kidric Institute of Nuclear Sciences, Vinca, P.O. Box 522, YU-11001 Beograd, Yugoslavia [Tel. 11/4440-871, Telex YU 11563]).

October 2 - 6

Regional Seminar for Latin America on Calibration Procedures in Secondary Standard Dosimetry Laboratories (SSDLs), Rio de Janeiro, Brazil (Conference Service Section, IAEA, P.O. Box 100, A-1400 Vienna, Austria).

October 2 - 8

2nd International School Electromagnetic and Biomembranes, Pleven, Bulgaria (Prof. Marko Markov, Department of Biophysics, Biological Faculty, Sofia University, 8 Dragan Tzankov Blvd., Sofia 1000, Bulgaria).

October 3

Meeting on Human Exposure to Natural Radiation — Its Variation, Regulation and Consequences, Sponsor: The Society for Radiological Protection, London, United Kingdom (Dr. D. N. S. Dixon, 67 Oatlands Park, Linlithgow, W. Lothian, Scotland EH^{49} 6AS, United Kingdom [031/244 2253]).

October 3 - 6

Annual Meeting, American Institute of Ultrasound in Medicine, San Francisco, California, U.S.A. (AIUM Convention Department, 4405 East-West Highway, Suite 504, Bethesda, Maryland 20814, U.S.A.).

October 5 - 7

12th Annual Seminar in Diagnostic Ultrasound, Towsley Center, Ann Arbor, Michigan, U.S.A. (Debra DeSmyther, Program Assistant, Office of Continuing Medical Education, G-1100 Towsley Center-Box 0201, University of Michigan Medical School, Ann Arbor, Michigan 48109-0201, U.S.A. [313-763-1400]).

October 8 - 11

Beijing International Congress on Medical Radiation Physics, Beijing, China (Raymond K. Wu, Ph.D., Division of Physics, Department of Radiation Oncology, Eastern Virginia Medical School, 600 Gresham Drive, Norfolk, Virginia 23507, U.S.A. [FAX #804-446-5172],
Jan Van Dam, Ph.D., Chief Physicist, Department of Radiotherapy, University Hospital, St. Rafael, Leuven, Belgium; Yimin Hu, Chief Physicist and Associate Professor, Department of Radiation Oncology, Cancer Institute (Hospital), Chinese Academy of Medical Sciences, Beijing, China 100021).

October 11 - 14

1st International Conference on Eicosandoids and Bioactive Lipids in Cancer and Radiation Injury, Detroit, Michigan, U.S.A. (K. V. Honn and L. J. Marnett, Wayne State University, Chemistry Building, Detroit, Michigan 48202, U.S.A. [313-577-1018]).

October 19 - 21

3rd International Symposium and Workshop on the Biological and Therapeutic Effects of Low-Dose Ionizing Radiation, Bad Muenster AM Stein-Ebernburg, F. R. Germany (Prof. Dr. P. Deetjen, Institute f. Physiologie, Universitat Innsbruck, Fritz-Pregel-Str. 3, A-6010 Innsbruck, Austria [5222/507-2200]).

October 19 - 21

2nd International Symposium and Workshop on Quality Assurance in Nuclear Medicine, Washington, D.C., U.S.A. (Dr. N. E. Herrera, Department of Laboratory Medicine, Danbury Hospital, Community Health Center, Danbury, Connecticut 06810, U.S.A. [203-797-7000]).

October 30 - November 1

International Conference on Nuclear Technology in Medicine, Stratford-Upon-Avon, United Kingdom (Conference Secretary, Institute of Nuclear Engineers, Allan House, 1 Penerley Road, London SE6 2LQ, United Kingdom [1-698 1500]).

November 5 - 8

13th Symposium on Computer Applications in Medical Care, Sheraton Washington Hotel, Washington, D.C., U.S.A. (The George Washington University Medical Center, Office of Continuing Education, 2300 K Street, N.W., Washington, D.C. 20037, U.S.A.).

November 6 - 10

9th International Conference on Solid State Dosimetry, Vienna, Austria (Dr. A. Hefner, Austrian Research Center at Seibersdorf, A-244 Seibersdorf, Austria [02254 80 ext. 2500]).

November 6 - 10

Nuclear Medicine Computer Course (Standard), Victoria Hospital, London, Ontario, Canada (Dr. T. D. Cradduck, Department of Nuclear Medicine, Victoria Hospital, 375 South Street, London, Ontario N6A 4G5 Canada).

November 10 - 12

11th Conference on Medical Physics, Association of Medical Physicists of India, Gwalior, India (Shri S. P. Tiwai, Department of Radiotherapy, Cancer Hospital and Research Institute, Gwalior 474 001, Madhya Pradesh, India).

November 12 - 15

3rd International Symposium on Intraoperative Radiation Therapy, Kyoto, Japan (Mitsuyuki Abe, M.D., Professor and Chairman, Department of Radiology, Faculty of Medicine, Kyoto University, Shogoin-Kawaharacho, Sakyo-ku, Kyoto 606, Japan).

November 20 - 22

International Symposium on Radiological Protection, Beijing, China (Dr. Wei Kedao, Secretary General, ISRP, Laboratory of Industrial Hygiene, Ministry of Public Health, 2 Xinkang Street, Deshengmenwal, Beijing 100088, China [Tel. 201-2501, Telex 210080 CMA CH, Telexfax 5123754]).

November 26 - December 1

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

November 26 - December 1

American Nuclear Society Winter Meeting, San Francisco Hilton, San Francisco, California, U.S.A. (Barbara Morris, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A. [312-352-6611]).

December 3 - 8

Issues in Science and Technology Policy, Williamsburg, Virginia, U.S.A. (Stan Wellborn, The Brookings Institution, 1775 Massachusetts Avenue, N.W., Washington, D.C. 20036, U.S.A. [202-797-6105]).

December 11 - 15

Regional Seminar for Developing Countries in Africa on Organization and Training in Radiotherapy, Cairo, Egypt (Conference Service Secretary, IAEA, P.O. Box 100, A-1400 Vienna, Austria).

1990

January 14 - 19

OE LASE '90 Optics, Electro-Optics and Laser Applications in Science and Engineering, Los Angeles Airport Hilton, Airport Marriott, and Viscount Hotels, Los Angeles, California, U.S.A. (SPIE - Society of Photo-Optical Instrumentation Engineers, P.O. Box 10, Bellingham, Washington 98227-0010, U.S.A.).

January 22 - 25

American Association of Physics Teachers Annual Winter Meeting, Atlanta Hilton and Towers, Atlanta, Georgia, U.S.A. (American Association of Physics Teachers, 5112 Berwyn Road, College Park, Maryland 20740, U.S.A.).

February 4 - 8

Health Physics Society 23rd Midyear Topical Meeting on Risk: Perception/Assessment/Management and Communication, Atlantic City, New Jersey, U.S.A. (Eva Celinski, Schering Laboratories, 60 Orange Street, Bloomfield, New Jersey 07003, U.S.A. [201-429-4270]).

February 8 - 9

1990 Measurement Science Conference, Anaheim Marriott, Anaheim, California, U.S.A. (John Gerhard, Program Chairman, Rockwell International Corporation, 3370 Miraloma Avenue, M/S HC02, Anaheim, California 92803, U.S.A.).

March 9 - 25

2nd International Endocurietherapy/Hyperthermia Conferences, New Delhi, Hyberadad, Bangalore, Agra,Srinagar (Kashmir), and Khatmandu (Nepal, India (M. K. Sheikh, Ph.D., Department of Radiation Oncology, Memorial Medical Center, 2801 Atlantic Avenue, Long Beach, California, U.S.A. [213-595-2929]).

April 7 - 10

10th Annual Meeting, North American Hyperthermia Group, New Orleans, Louisiana, U.S.A. (Ms. Meg Keiser, Radiation Research Society, 1101 Market Street, 14th Floor, Philadelphia, Pennsylvania 19107, U.S.A.).

April 8 - 12

38th Annual Meeting, Radiation Research Society, New Orleans, Louisiana, U.S.A. (Ms. Meg Keiser, Radiation Research Society, 1101 Market Street, 14th Floor, Philadelphia, Pennsylvania 19107, U.S.A. [215-574-3153]).

April 17 - 20

INTERMAG '90: International Magnetics Conference, Brighton, England, United Kingdom (Courtesy Associates Inc., 655 15th Street, NW, Suite 300, Washington, D.C. 20005, U.S.A. [202-639-5088]).

May 13 - 18

90th Annual Meeting of the American Roentgen Ray Society, Washington, D.C., U.S.A. (American Roentgen Ray Society, 1981 Preston White Drive, Reston, Virginia 22901, U.S.A. [703-648-8900]).

May 21 - 26

International Conference of the European Association of Nuclear Medicine, Amsterdam, Netherlands (QLT Convention Service, Ms. P. W. Wittebol, Keizersgracht 782, 2517 EC Amsterdam, Netherlands).

June

American Association of Physics Teachers Annual Summer Meeting, University of Minnesota, Minneapolis, Minnesota, U.S.A. (American Association of Physics Teachers, 5112 Berwyn Road, College Park, Maryland 20740, U.S.A.).

June 3 - 7

30th Annual Conference of the Canadian Nuclear Association and 11th Annual Conference of the Canadian Nuclear Society, Toronto, Ontario, Canada (Canadian Nuclear Association, 111 Elizabeth Street, Toronto, Ontario M5G 1P7, Canada).

June 6 - 7

NMR Imaging: Recent Developments and Future Prospects, London, United Kingdom (The Scientific Meetings Secretary, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG [01-839-5561 ext. 278]).

June 7 - 9

French Society of Hospital Physicists, Lille, France (tentative).

June 10 - 15

15th Annual Meeting of the American Association of Medical Dosimetrists, Westin Hotel, Tabor Hotel, Denver, Colorado, U.S.A. (Ms. Diane McCollum, University of Colorado Health Sciences Center, (A-031), Denver, Colorado 80262, U.S.A. (303-270-7819]).

June 10 - 15

Annual Meeting of the American Nuclear Society, Nashville, Tennessee, U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

June 11 - 13

Radiology '90, 48th Annual Congress of the British Institute of Radiology and Annual Conference of the College of Radiographers, Harrogate, Yorkshire, United Kingdom (Programme Office, The British Institute of Radiology, 36 Portland Place, London W1N 3DG, United Kingdom [01 580 4085]).

June 25 - 27

National Osteoporosis Society Joint Conference with Royal National Hospital for Rheumatic Diseases, Osteoporosis & Bone Mineral Measurement, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom (Mr. F. J. Ring, Royal National Hospital for Rheumatic Diseases, Bath BA1 1RL, United Kingdom [44-225-65941]).

July 22 - 26

American Association of Physicists in Medicine, 32nd Annual Meeting, St. Louis, Missouri, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A.).

August 16 - 22

15th International Cancer Congress and Exhibition, Hamburg, F. R. Germany (Hamburg Messe und Congress GmbH, Jungiusstrasse 13, Messehaus, Postfach 30 24 80, D-2000 Hamburg 36, F. R. Germany [040-3569 2245]).

August 26 - 31

5th World Congress of the World Federation of Nuclear Medicine and Biology, Montreal, Quebec, Canada (WFNMB Congress Secretariat, GEMS Conference Services, P.O. Box 997, Snowdon Station, Montreal, Quebec, Canada H3X 3Y1).

September

Inter-regional Seminar on Radiotherapy Dosimetry, Leuven, Belgium (Conference Service Station, IAEA, P.O. Box 100, A-1400 Vienna, Austria).

September 10 - 13

9th Annual Meeting of the European Society for Therapeutic Radiology and Oncology, Montecatini, Italy (Germaine Heeren, Public Relations Department ESTRO, University Hospital, St. Rafael, 3000 Leuven, Austria).

September 12 - 15

4th Congress of the South African Society of Nuclear Medicine, Kruger National Park, South Africa (Jan Esser, Department of Nuclear Medicine, Area 559, Johannesburg Hospital, P.O. Box 39, Johannesburg, 2000, South Africa).

September 14 - 19

Asian Oceanian Congress of Radiology, New Delhi, India (Dr. Sudarshan K. Aggarwall, Indian Radiological and Imatging Association, Dr. Dewan Chand Aggarwal X-ray Clinic, 10-B, Kasturba Gandhi Marg., New Delhi 110 001, India).

September 19 - 22

Annual Meeting of the Royal College of Radiologists, Edinburgh, Scotland, United Kingdom (The Conference Officer, The Royal College of Radiologists, 38 Portland Place, London W1N 3DG, United Kingdom).

September 30 - October 3

4th International Evoked Potentials Symposium, Toronto, Ontario, Canada (Colin Barber, Ph.D., Symposium Co-Director, Medical Physics Department, Queen's Medical Centre, Nottingham NG7 2UH, England [44 602 421421 Ext. 3531]).

November 4 - 7

14th Symposium on Computer Applications in Medical Care, Sheraton Washington Hotel, Washington, D.C., U.S.A. (The George Washington University Medical Center, Office of Continuing Education, 2300 K Street, N.W., Washington, D.C. 20037, U.S.A.).

November 11 - 14

10th International Conference on the Use of Computers in Radiotherapy, Sanjay Gandhi Post-Graduate Institute of Medical Sciences, Lucknow, India (Scientific Programme Contact Dr. P. S. Iyer, Head, MPSC, Division of Radiological Protection, Bhabha Atomic Research Centre, Bombay 400 085, India [Tel. 022-5514910, Ext. 2623]).

November 11 - 16

Winter Meeting of the American Nuclear Society, Washington, D.C., U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

November 25 - 30

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

1991

June 2- 6

Annual Meeting of the American Nuclear Society, Orlando, Florida, U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

July 5 - 6

2nd International Symposium on Biophysical Aspects of Auger Processes, University of Massachusetts, Amherst, Massachusetts, U.S.A. (Dandamudi V. Rao, Ph.D., Professor of Radiology, University of Medicine and Dentistry of New Jersey, 185 South Orange Avenue, Newark, New Jersey 07103-2757, U.S.A.).

July 7 - 12

9th International Congress of Radiation Research, Sheraton Center, Toronto, Ontario, Canada (Ms. Meg Keiser, Radiation Research Society, 1101 Market Street, 14th Floor, Philadelphia, Pennsylvania 19107, U.S.A. [215-574-3153]).

July 7 - 12

9th International Congress of Medical Physics, Kyoto, Japan (Dr. C. G. Orton, Secretary General, International Organization for Medical Physics, Gershenson Radiation Oncology Center, Harper-Grace Hospitals, 3990 John R., Detroit, Michigan 48201, U.S.A.).

July 28 - August 1

American Association of Physicists in Medicine, 33rd Annual Meeting, San Francisco, California, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A.).

September 2 - 6

6th Meeting World Federation for Ultrasound in Medicine and Biology, Copenhagen, Denmark (Soren Hanke, Ultralydlaboratoriet, Kobenhavns Amts Sygehus, Gentofte, DK-2900 Hellerup, Denmark).

September 8 - 14

International Conference on Magnetism, United Kingdom (The Meetings Officer, The Institute of Physics, 47 Belgrave Square, London SW1X 8QX, United Kingdom [01 235 6111]).

September 15 - 20

ECR '91; 7th European Congress of Radiology, Austria Center, Vienna, Austria (Mrs. Sylvia Altermann, Vienna Medical Academy, Alser Strasse 4, 1090 Vienna, Austria [Tel. 43-222 421383, Telex 134743 medak a]).

September 18 - 21

Annual Meeting of the Royal College of Radiologists, Warwick, United Kingdom (The Conference Officer, The Royal College of Radiologists, 38 Portland Place, London W1N 3DG, United Kingdom).

November 10 - 15

Winter Meeting of the American Nuclear Society, San Francisco, California, U.S.A. (Meetings Department, American Nuclear Society, 555 Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

November 17 - 20

15th Symposium on Computer Applications in Medical Care, Sheraton Washington Hotel, Washington, D.C., U.S.A. (The George Washington University Medical Center, Office of Continuing Education, 2300 K Street, N.W., Washington, D.C. 22037, U.S.A.).

December 1 - 6

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

1992

April 26 - May 1

6th International Symposium on Hyperthermic Oncology, Tucson, Arizona, U.S.A. (Ms. Meg Keiser, Radiation Research Society, 1101 Market Street, 14th Floor, Philadelphia, Pennsylvania 19107, U.S.A. [215-574-3153]).

June 7 - 12

Annual Meeting of the American Nuclear Society, Boston, Massachusetts, U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

August 23 - 27

Joint Meeting of American Association of Physicists in Medicine, 34th Annual Meeting with the Division of Medical and Biological Physics of the Canadian Association of Physicists, Calgary, Alberta, Canada (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A.).

November 15 - 20

International Meeting of the American Nuclear Society, Washington, D.C., U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

November 29 - December 4

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

1993

June 6 - 11

Annual Meeting of the American Nuclear Society, Las Vegas, Nevada, U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

August 1 - 5

American Association of Physicists in Medicine, 35th Annual Meeting, Washington, D.C., U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

November 13 - 18

Winter Meeting of the American Nuclear Society, Washington, D.C., U.S.A. (Meetings Department, American Nuclear Society, 555 North Kensington Avenue, LaGrange Park, Illinois 60525, U.S.A.).

November 28 - December 3

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

1994

July 24 - 28

American Association of Physicists in Medicine, 36th Annual Meeting, Anaheim, California, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

July - August

10th International Congress of Medical Physics, Rio de Janeiro, Brazil.

November 27 - December 2

Joint Meeting of AAPM with the Radiological Society of North America, Chicago, Illinois, U.S.A. (AAPM Executive Officer, 335 East 45th Street, New York, New York 10017, U.S.A. [212-661-9404]).

Readers are invited to send to the ***Calendar of Events*** *Editor, Geoffrey S. Ibbott, M.S. (address on page 2), information on any events not listed in this issue of MPW and also additions or corrections to the items that are listed. Officers of national societies are especially encouraged to submit information on their future national meetings.*

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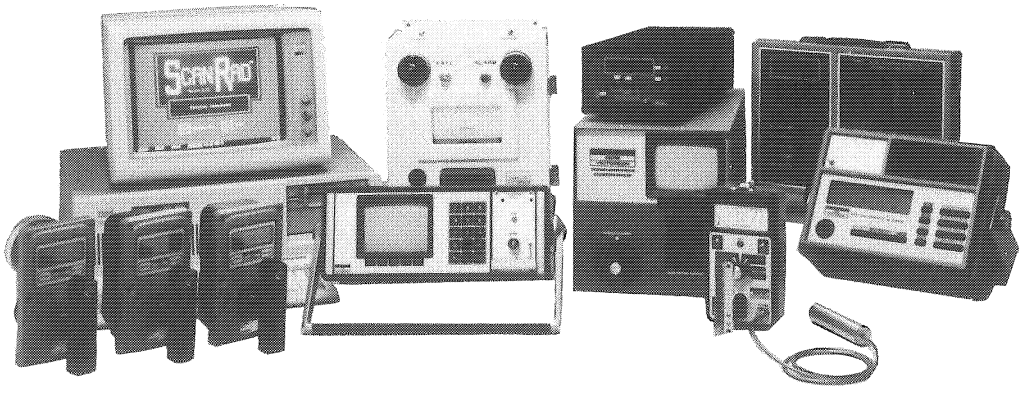

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Obituary

W. V. MAYNEORD
1902-1988

Past President of the IOMP

Prof. Christopher R. Hill
Institute of Cancer Research
Royal Marsden Hospital
United Kingdom

For almost 60 years Val Mayneord was the outstanding figure in the application of physics to medicine. Shortly after graduating from Birmingham, at the ripe age of 19, he joined F. L. Hopwood at Barts, where pioneering work was starting in radium therapy. Here, and subsequently at the Cancer (now The Royal Marsden) Hospital, he experienced the appalling consequences of unquantitative use of radium, and it was his vision of achieving physical understanding and control of this powerful tool that largely guided his career and has provided much of the basis for modern radiology.

The 1939-45 war took him, at Cockroft's request, to build up and run health physics at Chalk River — an experience that led him, in 1951, to become the pioneer outside the U.S.A. of two further major branches of physics-based medicine: radioisotope imaging and diagnostic ultrasound; and later to lay much of the ground work of our knowledge of environmental radiation exposure.

His science had breadth as well as depth and, back in 1927, he had made what Sir Ernest Kennaway has described as the 'fundamental observation' (using absorption spectroscopy) that led to the identification of the compound 3:4 benzpyrene as the carcino-genically active component of coal tar and thus, for the first time, documented a specific pathway for chemical carcinogenesis. The implications of his scientific work inevitably led him far outside the laboratory, although following his retirement he did major work on the mathematical modelling of radiation carcinogenesis.

In the 1930s he was involved in the formation of the International Commission on Radiological Protection. In 1956 he was appointed first chairman of the UK delegation to the United Nations Scientific Committee on the Effects of Atomic Radiations and, at about that time, was instrumental in setting up the UK Radiological Protection Service (now the NRPB). He was Chairman of the scientific committee of the Imperial Cancer Research Fund at a particicularly critical period of its existence, he was a trustee and chairman of the scientific advisory committee of the National Gallery, President of the British Institute of Radiology and, for a remarkable 64 years, a member of the IOP and the Physical Society.

These, and many other heavy commitments never diminished the sensitive warmth and good humour of his relationships with all those around him, from kitchen staff (whom he regarded as the best indicators of a well run hospital) through consultants to PhD students. He naturally, with his wife and close partner Audrey, attracted a wide circle of close friends and it is a measure of their respect and loyalty that he was already honoured in his lifetime by a public lectureship at the BIR, a ward in his hospital and a University of Surrey prize.

This obituary is reproduced from *"Physics World"* with the permission of the Institute of Physics, in the U.K.

Announcement

SYMPOSIUM ON LUMINESCENT X-RAY SCREENS – LXRS '89

There will be an International Symposium on Luminescent X-ray Screens — LXRS '89 in Moscow, U.S.S.R. on November 27-30, 1989. The meeting is being organized by the U.S.S.R. Ministry of Health and its Research Institute for Roentgenology and Radiology with the support of the U.S.S.R. Scientific Societies of Roentgenologists and Radiologists, the Russian Federation of Scientific Councils on Roentgenology and Radiology of the U.S.S.R. Academy of Medical Sciences, the Health Ministry of the Russian Federation and the U.S.S.R. Academy of Sciences Scientific Council on Luminescence.

The meeting will be held at the Moscow Research Institute for Roentgenology and Radiology. The working languages are English and Russian. It is planned to provide translation services.

For further information please write to:

Dr. V. Kh. Pankina
LXRS '89 Secretary
Profsoyuonaya 86
Research Institute for Roentgenology and Radiology
117837 Moscow, GSP-7
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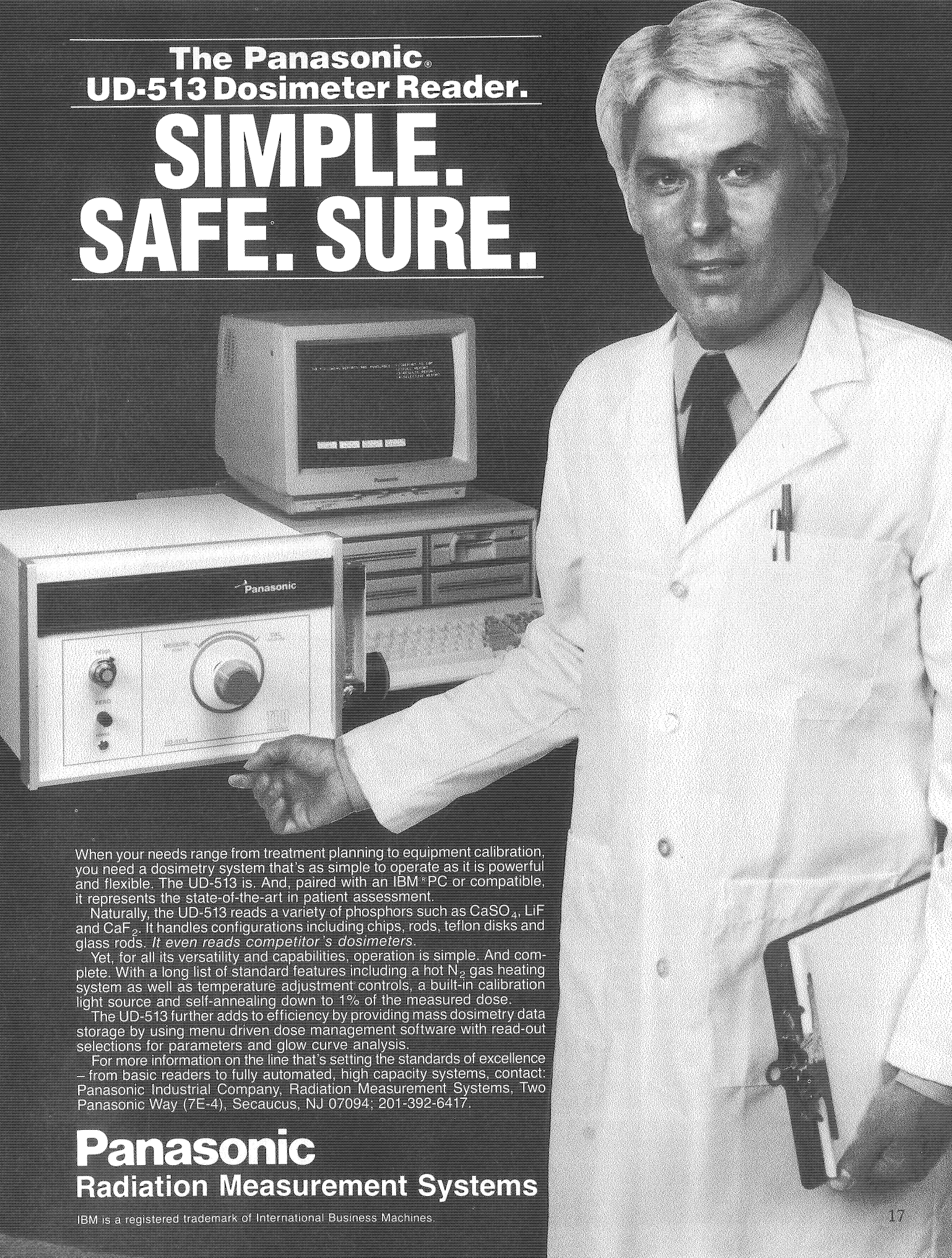

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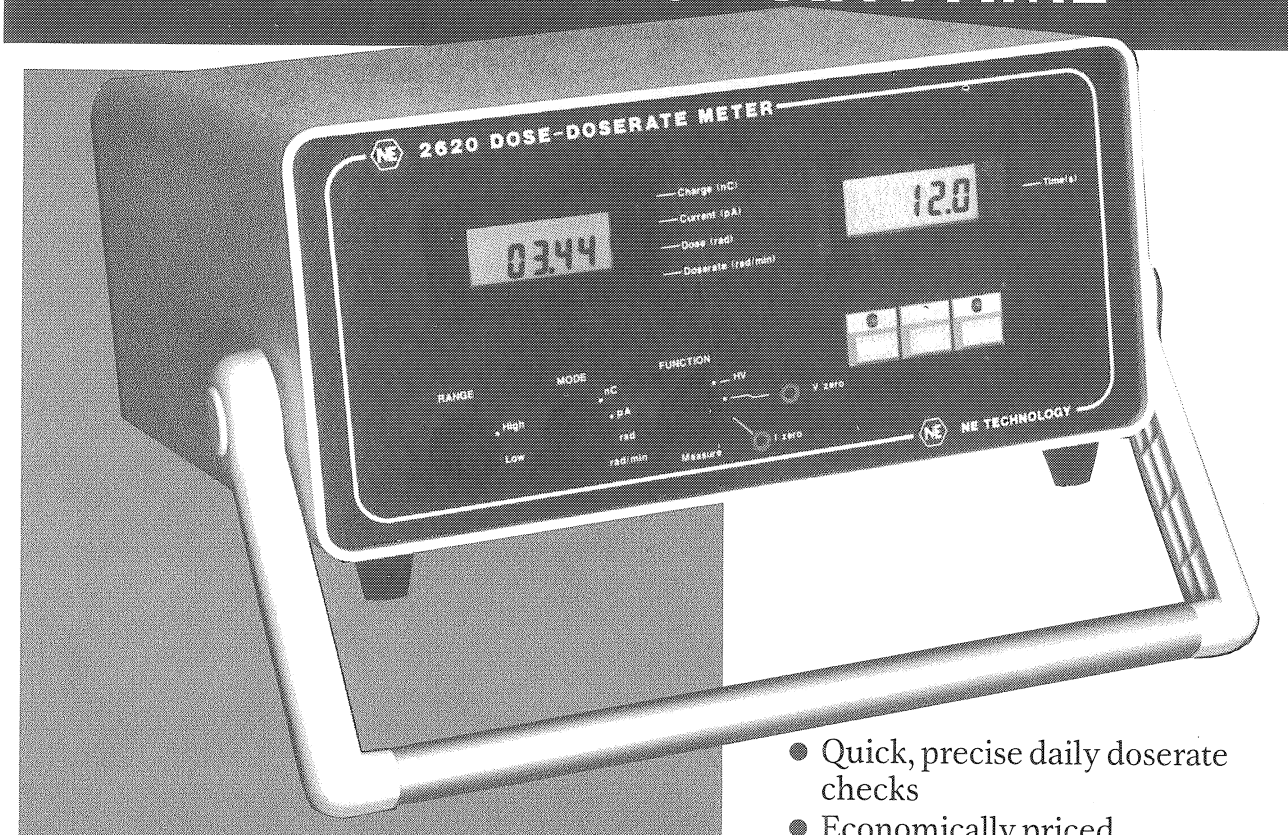

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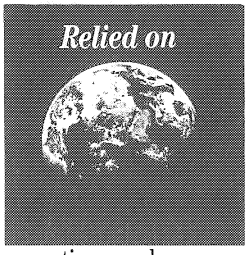

because the Varian Family of high to low energy Clinacs has proven its clinical excellence in over 1400 installations around the globe. ***Trusted*** because the Varian Ximatron radiotherapy simulator delivers "exact simulation" of patient treatment, saving time and money. ***Depended on*** because Varian service is there when you need it, anywhere you need it. ***Rely on*** Varian with full confidence . . . the only name you need in radiotherapy.

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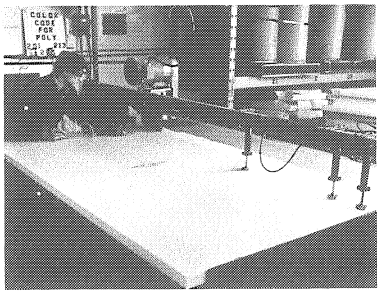
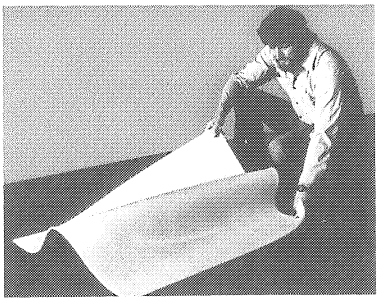
Shield Your Accelerator Room.



Boron-loaded polyethylene for shielding against neutrons

BORON-LOADED POLYETHYLENE

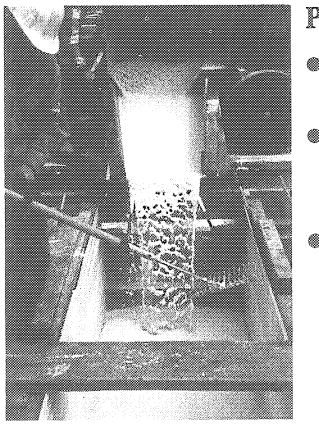
- High Attenuation of Neutrons
- Used in hundreds of accelerator rooms



Borated FLEX/PANEL minimizes activation of concrete walls in treatment rooms

BORATED FLEX/PANEL

- Large, easy-to-install sheets. Flexible or rigid
- Used on walls and ceilings of treatment rooms to reduce capture gammas and minimize activation of concrete



Installation of POLY/CAST in accelerator room roof for personnel protection

POLY/CAST

- Field-castable neutron shielding
- Used for walls and ceilings of accelerator installations
- Simple to use water-base mix

For further information contact:

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A Rural Oncology Centre in South India

S. S. Supe, M.Sc.
Karnataka Cancer Therapy and
Research Institute
Navanagar
Karnataka, India

The Karnataka Cancer Therapy and Research Institute was founded in the year 1974 and started functioning in 1977 and has already treated more than 20,000 cancer patients. This hospital is situated in northern Karnataka at a small township, Navanagar, which is situated between the twin cities Hubli and Oharwad. It is 500 km from Bangalore, which is the capital city of Karnataka State. This Institute has been recognized by the Indian Cancer Society, Bombay, and the International Union Against Cancer, Geneva, Switzerland.

The development of this Institute is unique since this is the only such institute in northern Karnataka. Almost 75% of the patients attending this Institute are from rural area villages. We treat not only the patients from Karnataka but also from adjoining areas of the States of Andhra Pradesh, Maharashtra and Goa. Ours is not only a hospital offering specialized treatment with modern sophisticated equipment, but we also look after the food and other needs of patients and offer personalized services. More than 40% of our patients get free treatment. All patients get free food. There are different types of accommodations like general wards, special rooms and free chatras for poor patients. The incidence of cancer at our Institute varies in males and females as in any other institute. The most common cancers in males are head and neck, oesophagus, and lung and the most common cancers amongst females are cervix, oesophagus, and head and neck.

Our radiotherapy department consists of three cobalt-60 teletherapy machines. Two of our teletherapy machines are locally made (Janus-fixed, Gammarex-rotational) and thus we have been promoting the machines manufactured in our own country. In addition we have a Theratron 780 rotational isocentric cobalt-60 teletherapy machine manufactured by AECL, Canada. For this machine, 40% of the cost was given by the central government. In addition to the teletherapy section, we have a full fledged brachytherapy section. We have been doing intracavitary treatment with manual afterloading techniques with Cs-137 sources. Previously we had used cobalt-60 tubes and needles for intracavitary and interstitial brachytherapy treatments, respectively. We have been using locally developed intracavitary applicators with great success. We also have a Sr-90 keloid applicator and a Sr-90 opthalmic applicator which we use for treatment of keloids and certain opthalmic conditions like pterygium and corneal vascularization. In addition to radiotherapy, we also treat cancer patients with surgery and chemotherapy.

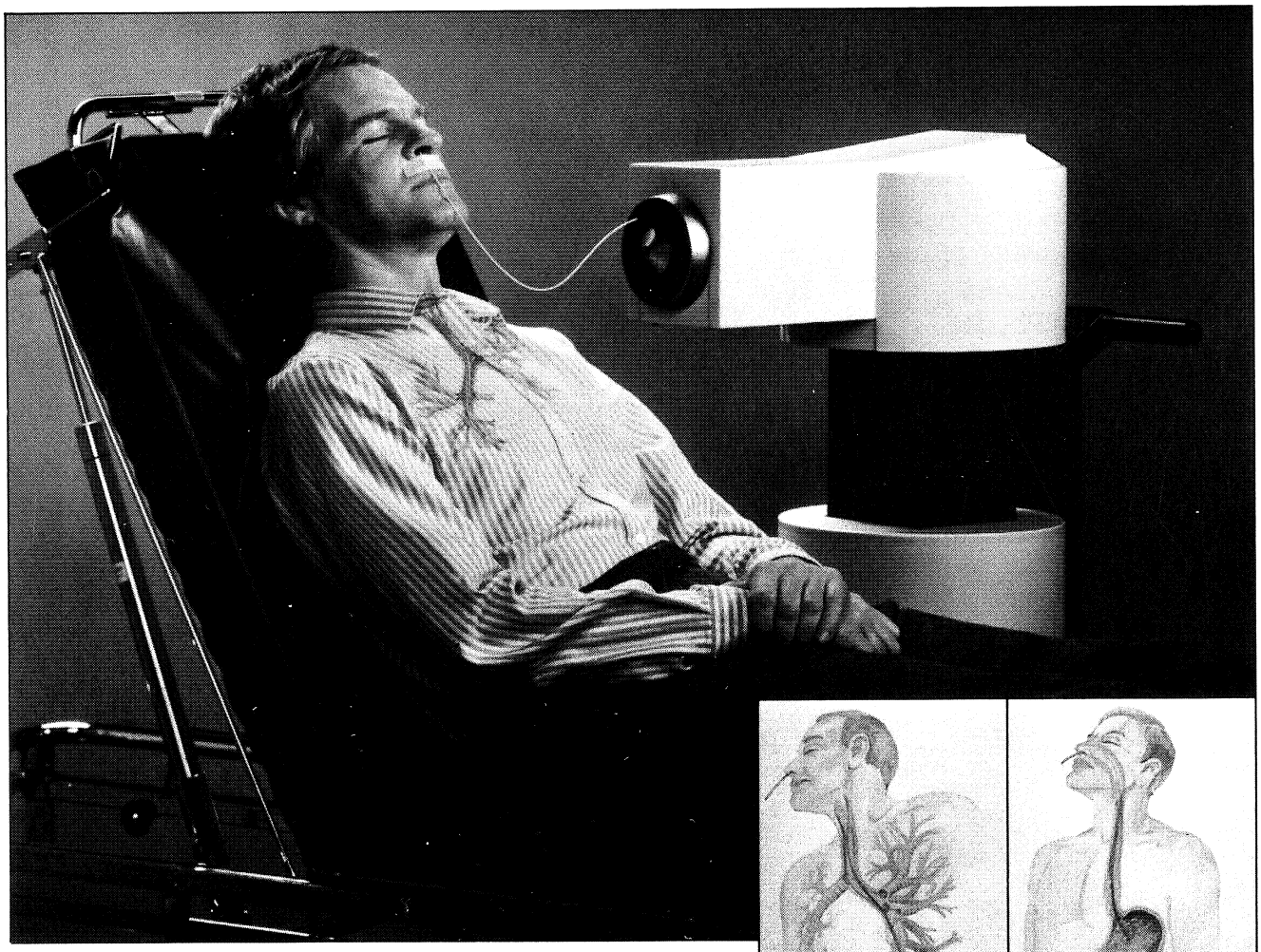
Our diagnostic section includes a pathology department, a radiology department, and a nuclear medicine department. The nuclear medicine department has a gamma camera manufactured by Philips, Holland. Our diagnostic procedures in the nuclear medicine department include liver, bone, kidney, brain, and thyroid scanning with Tc-99m. In the nuclear medicine department we have a technecium generator along with an isotope calibrator.

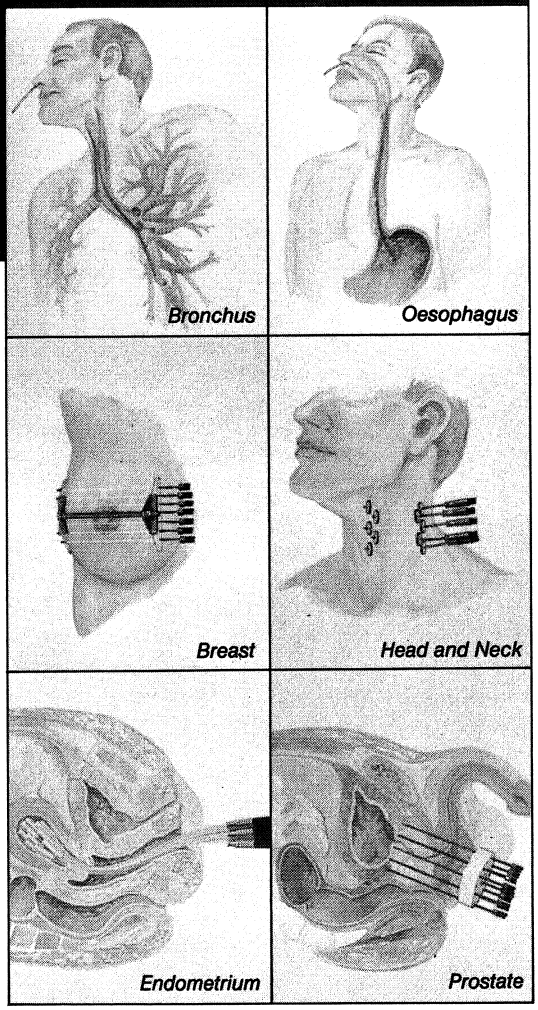
Monitoring equipment in the physics department include a secondary standard dosimeter, survey meters, exposure meters, area monitors, contamination monitors, rectal dosimeters, pocket dosimeters, film badges, and a Sr-90 check source. Our radiation safety officer routinely surveys our radiotherapy and nuclear medicine departments. We have all the modern equipment needed for radiation safety like lead apron, lead gloves, lead screen, lead transport trolley, lead transport containers and a lead radiation safe for storing brachytherapy sources.

Over the year we have taken up numerous research projects, such as a study of combination treatments in head and neck cancers recognized by the Indian Council of Medical Research. We have published more than 40 research papers in various journals. We successfully organized the 5th Congress of the Association of Radiation Oncologists of India in November 1984. We have also participated in

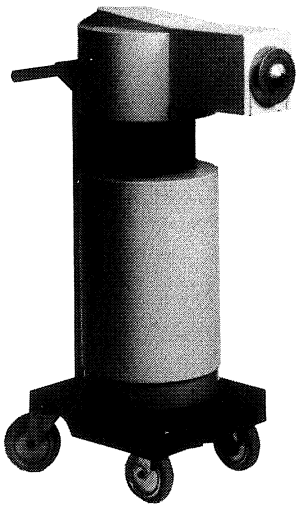
Continued on page 22

OUTPATIENT BRACHYTHERAPY TREATMENT





MicroSELECTRON-HDR ^{192}Ir



The microSelectron HDR is a high dose rate interstitial and intralumenal remote afterloading system. It consists of a treatment unit in which a single high intensity iridium source is stored within a shielded safe. The source can be remotely afterloaded into a small catheter (<2 mm) for treatment of bronchial and oesophageal carcinoma, or into an 18-channel indexing system, for high dose rate interstitial implants. The system has a microprocessor control unit with a memory for 100 standard treatments. The time is automatically corrected for the source decay.
A unique feature is an integrated simulator source used to check the system and applicator(s) before the active source leaves the safe. It also helps the therapist to set up or check the programmed source movements in the patient.

Treatment sites
Although principally designed for bronchial treatments the microSelectron HDR is also used for the treatment of: bile duct, bladder, brain, breast, cervix, endometrium, head and neck, intra operative, nasopharynx, oesophagus, prostate, rectum and others.

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Announcement

NEW JOURNAL

Physica Medica is an International Journal for the Applications of Physics to Biology and Medicine and is the official Journal of the Italian Association of Biomedical Physics (A.I.F.B.). The journal is published four times a year. Only contributions written in English will be published. For further information please contact:

Alberto Del Guerra
Professor of Physics
Editor in Chief of "Physica Medica"
University of Napoli
Department of Physical Sciences
Mostra d' Oltremare, Pad. 20
I-80125 Napoli, Italy

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Funding derived from these sources is allocated to the support of hospital physicists in developing countries. Corporations wishing to receive more information about Corporate Membership should contact: Colin G. Orton, Ph.D., Prof., IOMP Secretary-General, address on Page 2.

Advertising Rates

Companies interested in advertising in future issues of MPW should contact the Editor. Deadline for the next issue is December 1, 1989. Advertising rates in U.S. dollars are:

1/6 page	$245.00	1/3 page	$435.00
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Advertisers in this Issue

Continued from page 20

A Rural Oncology Centre in South India

dosimetry intercomparison programmes with the Bhabha Atomic Research Centre and International Atomic Energy Agency with thermoluminescent dosimeters. Our future research projects include multiple fractions per day schedules in head and neck cancers, analysis of treatment results of Ca Cervix for different treatment modalities, and application of the linear quadratic model of the dose-effect relationship to head and neck cancers. Our future development plan includes purchase of a radioimmunoassay kit in the nuclear medicine department, a Selectron remote afterloading brachytherapy unit, a simulator, a linear accelerator, a CT scanner, and a treatment planning system for the radiotherapy department.

Besides providing excellent facilities in surgery, radiation oncology, and chemotherapy, the hospital has an outrearch programme. Our staff members regularly attend screening programmes in various hospitals in the city. In addition, we are conducting cancer detection camps in remote villages and small towns. Over 60 cancer detection camps have been conducted till now. Many service organizations like the Rotary Club, the Jaycees, the Giants International, and the Lions Club are involved in sponsoring these cancer detection camps and other public education programmes. We also have taken up a cancer education programme. Seminars and clinical meetings are held regularly every month. We also undertake training students for the Diploma in X-ray Technology, undertake field training for two students from the Diploma in Hospital Physics and Radiological Physics course conducted by the Division of Radiological Protection, Bhabha Atomic Research Centre, who later take up the positions of physicists in various cancer hospitals all over the country. Educational programmes for the lay public are carried out through radiotalks, newspapers, cancer detection camps, and exhibitions in English and local Kannada languages.

The quality of treatment of various types of cancers at our hospital stands out because of the personalized attention to every individual. Our Chairman, Dr. R. B. Patil, has always guided us in this mission of selfless service dedicated to mankind. Without his guidance and service this hospital would not have reached this stage of development.

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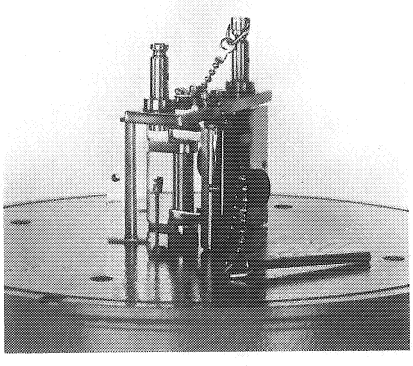

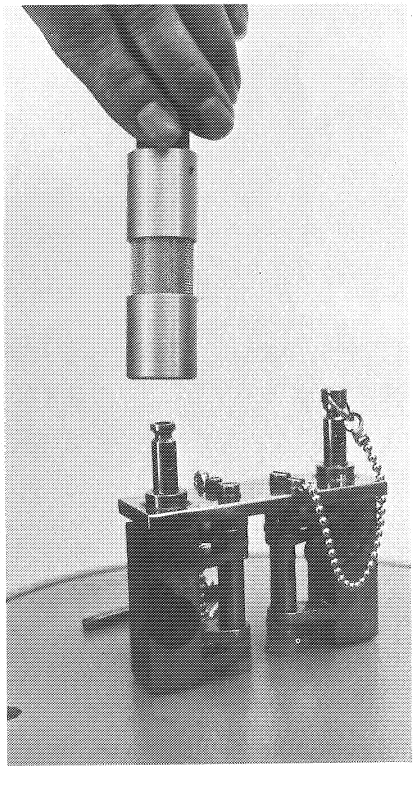

Regardless of equipment manufacturer, sources have to be handled from time to time, (eg during training, service or if sources are damaged).

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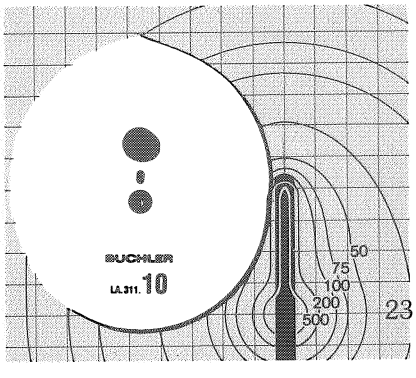
We will be pleased to provide further information on request.



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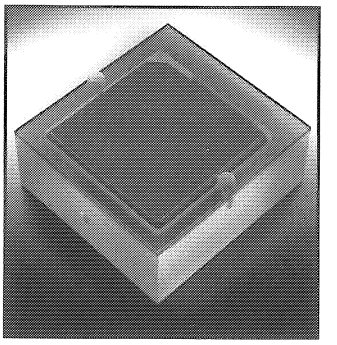
For detailed information, call or send your inquiries to one or more of the firms listed below.

GAMMEX

Gammex, Inc. provides a wide range of laser patient positioning systems for all aspects of radiology, including radiation therapy, chest radiography, special procedures, CT, nuclear medicine, and magnetic resonance imaging. Request "Laser Perfect" brochure and Technical Bulletins.



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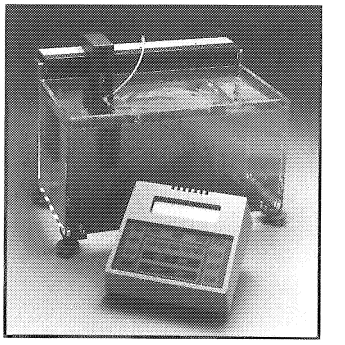

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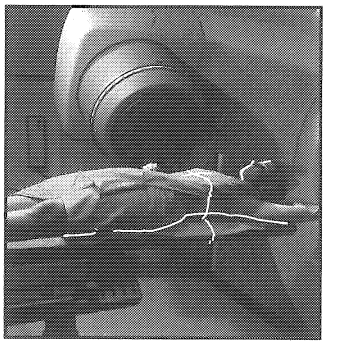

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