

europaean medical physics news

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Letter from the President

The week of 5th to 11th September 1982 is the most important week of the year in the international Medical Physics calendar. This is the date of the World Congress on Medical Physics and Bio-Medical Engineering which is to be held in Hamburg. This tri-annual conference combines the 13th International Conference on Medical and Biological Engineering and the 6th International Conference on Medical Physics and provides a unique opportunity for medical physicists and bio-engineers throughout the world to get together to present new scientific work and to exchange ideas. As with all conferences, it also provides an opportunity to renew old acquaintances and to make new friends. I hope that all members of EFOMP will make an all out effort to be there.

The conference will also be an important event for EFOMP for the Federation has undertaken to organise a special symposium on 'The Role of the Physicist in Radiation Medicine'. This symposium will take place on Friday 10th September as part of the official ICMF programme. The Federation intends to provide a review paper on the present state of Medical Physics in Europe and position papers on the needs for education and training, and the role, status and responsibility of the physicist in radiation medicine. These papers will form the basis for the discussion at the symposium. Subsequently these papers will be modified in the light of the discussion and unified into a single document as a policy statement from EFOMP. This is the Federation's first positive step along a difficult road of establishing unequivocally the status of the medical physicist. Try and be present to make your contribution to the debate.

The 3rd Council Meeting of the Federation will take place in Hamburg following the ICMF on Saturday 11th September 1982. Again, the Council Meeting provides you with the opportunity to take part in the business affairs of the Federation and to influence its future activities. If you cannot attend Hamburg for the whole week try and be present at least for Friday and Saturday.

The time cycle of any international organisation is necessarily long, frequently measured in months or even years. None

the less by the time we reach Hamburg I hope that the Federation will have made substantial progress toward a number of objectives. One such objective is to have a medical physics association from each country in Europe as a member of the Federation. Elsewhere in this Bulletin you will find a report on my visit to Czechoslovakia. This visit provided me with a unique opportunity to discuss with colleagues from Eastern Europe the aims and objectives of EFOMP and to learn from them first hand of the problems they face. There is no doubt that we all have much to gain by working together both professionally and scientifically and that the Federation has an important role to play. It is also clear that they are keen and anxious to join the Federation and I hope that by the 3rd Council Meeting in Hamburg their national formalities will be completed and we can welcome them to membership of the Federation.

For those of you who must plan your attendance at meetings a long time in advance, let me confirm that the 4th Council Meeting of the Federation will take place in Bordeaux during the week of 5th-10th September 1983, on the occasion of the 5th European Congress of Radiology. Discussions are being held with the Officers of EAR concerning the details of a possible joint scientific programme. The Federation is proposing that there should be a symposium on the theme of 'Quality Assurance in Radiology'. Again an opportunity to define and emphasise the essential role played by the medical physicist in this field.

Now a word of thanks to Dr. Piron and Dr. Garsou of the Société Belge des Physiciens des Hôpitaux who were our hosts for the 2nd Council Meeting of the Federation in Brussels. Those of you who were present know what a highly successful meeting this was, and that the success was in large measure due to the efforts of Drs. Piron and Garsou. A detailed report of the meeting appears elsewhere so that I will not comment further here other than to say that we were honoured to have both the President and the Secretary General of IOMP with us thus emphasising our close links with IOMP and that the spirit

of friendliness and goodwill established in London was further strengthened in Brussels.

Finally, and with great personal sadness I must report to you the death on 13th September 1981 of Professor Roy Ellis. A tribute to Roy is given elsewhere in this Bulletin. As President of the HPA Roy gave every support and encouragement to the formation of EFOMP. With his untimely death the Federation has lost one of its most outstanding physicists.

John Clifton, President

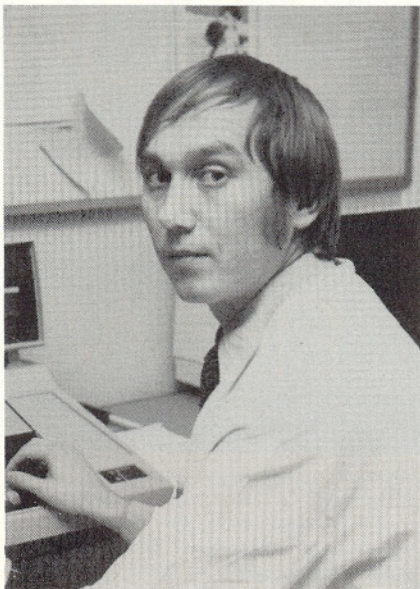
Profile from Finland Dr. Jyrki Kuikka

Geographical background: Finland has a total land area of 130,165 square miles (337,126 sq.km.) of which 70% is forest, 10% cultivated, 9% lakes and 11% wasteland. The population (1975) is 4,665,000; birth rate 12.2 and death rate 9.2 per 1000. Capital is Helsinki (Helsingfors), population 526,896. Other major towns are: Oulu in the north, population 82,366; Jyväskylä, centrally placed, population 57,148. Kuopio in the central eastern sector has a population of 64,398 and Turku, near Helsinki in the south has a population of 153,300. Tampere, population 156,380 and Lahti, population 88,715, are also in the south of the country.

Dr. Jyrki Kuikka is responsible for nuclear medicine in the Department of clinical Physiology at the University Central Hospital of Kuopio; the Department head is Esko Länsimies M.D. Jyrki Kuikka graduated at the University of Jyväskylä in 1971 and while acting as physicist at the Mid Finland Central Hospital undertook post-graduate training in medical physics and physiology.* His interests in cardiac physiology led him to a Ph.D. in 1976,

Footnote

*A powerful combination - Editor.



Dr. Jyrki Kuikka, University Central Hospital of Kuopio, Finland.

while training at Jyväskylä and Oulu. Shortly after this he went to the University of Washington, USA, where in the Centre for Bioengineering, under Professor James Bassingthwaite, he studied multiple radio-tracer techniques and physiological modelling. In 1978 he returned to Finland where he took up his present appointment. The Division of Nuclear Medicine is well equipped with two gamma cameras (small and large fields) both connected to a PDP-11/34 using Gamma-11 software. Up to 12 dynamic investigations involving cardiac, cerebral, renal and other studies are performed each day. The Division of Nuclear Medicine has a major commitment to research and development as well as teaching physicians, physicists and nurses at undergraduate and postgraduate levels. Nuclear Medicine provides a diagnostic service to the majority of clinical specialities and performs about 9000 in-vivo studies per year. The staff consists of a part-time physician, who is a specialist in nuclear medicine (Dr. Länsimies), a part time head physicist (Paavo Karjalainen Ph.D.), a full time physicist (Dr. Kuikka) a part time assistant physician, a part time assistant physicist and 6 registered nurses. There is a real need for a full-time day physician.

The research programme and training are well organised and yield about 20 publications per year with some academic dissertations. Dr. Kuikka's research effort is mainly directed toward cardiac physiology, nuclear medicine projects and mathematical modelling. Over 120 research articles have been published including a very broad range of topics: Measurement of synovial fluid volume; tumour blood flow; radiocardiographic evaluation at rest and exercise; the effect of anaesthesia during caesarian section in intervillous blood flow; optimization of time distributed parameters for a coronary circulation model.

In addition to nuclear medicine duties Dr. Kuikka teaches in physiology at the University of Kuopio and in medical physics at the University of Turku. Between this and his memberships of EFOMP, European Nuclear Medicine Society and the Scandinavian Society for Clinical Physics he, and his family, find time for skiing and holidays at his summer cottage on Lake Armisvesi in Central Finland. Dr. Jyrki Kuikka's address is Kuopion Ylipistöllinen, Keskussairaala, Kuopio, Finland (Suomi).

EFOMP Council Meeting

The EFOMP Council convened for its Second Annual Meeting on 28th June 1981 in Brussels. This date and place allowed members to combine the Council Meeting with attendance at the XVth International Congress of Radiology. Our Belgian hosts provided an excellent room in the Congress Centre with plentiful coffee.

Council business covered membership, minutes, officers' reports, sub-committee reports, relations with other organisations, and forward planning. A formal application had been received from the DDR and they were welcomed into membership as from January 1982. Greece and Israel were welcomed from the date of the Council Meeting. Council delegated power to its officers to admit Denmark, Ireland, Czechoslovakia, Bulgaria and Poland if application procedures were completed before the next Council Meeting.

Anna Benini, our Secretary-General, outlined the activities of the past year. The report from the Treasurer, Finn Welde, suggested among other things that the capitation fee should remain unchanged this year, and this was accepted.

Alex Kaul had a number of proposals arising from his report on the present status of medical physics training schemes. These proposals included EFOMP recommendations for curricula and duration based on present practice in national schemes, fostering exchanges of young scientists for participation in training, and fostering co-operation between medical physicists and biomedical engineers. It was further proposed that EFOMP should acknowledge or define the equivalence of schemes, and that a document suggesting a recommended format should be discussed at the meeting in 1982.

Pele Asard provided the outline of a proposed document on 'The Status, Role and Responsibilities of Medical Physicists'. The importance of service was emphasised, together with the role of departments made up of groups of experts in different aspects of medical physics. It was agreed that the scientists under consideration were those applying physics to clinical problems, not those teaching physics to students. The document will be prepared for the 1982 Meeting.

Caferio Franconi reported on publication matters including the successful launch of the EFOMP Bulletin. Individual contacts in each national organisation were required to provide news and material for future issues. Jean Chavaudra was nominated to be the EFOMP representative on the Editorial Board of the journal *Physics in Medicine and Biology*, and Caferio Franconi to EFOMP representative for Clinical Physics and Physiological

Measurement.

Auguste Piron agreed to be Secretary to the Scientific Sub-Committee and in particular would pursue negotiations on the possibilities of a CT image format compatible with the equipment of all the major manufacturers.

It was agreed that there would be a general open meeting for all members of any of the national organisations constituting EFOMP on Friday 10th September 1982. The main topic of the meeting should be the 'Role, Status and Responsibilities of the Radiation Physicist', and there would be pre-circulated discussion papers and the results of an updated survey on medical physics activities in Europe. The EFOMP Council Meeting would follow on the Saturday or Sunday.

John Mallard recounted the uphill struggle he was having to get the IUPESM recognised by the ICSU, and appealed for help and support from national organisations. The European Association of Radiology had welcomed the birth of EFOMP and the invitation to hold a joint meeting with EAR in Bordeaux in September 1983 was accepted.

As relaxation after the business, Council members gathered in the evening in a charming restaurant near the old part of Brussels and enjoyed a memorable meal and social occasion provided by the kindness of our Belgian hosts.

J.S.O.

Notes on some EFOMP Organisations

Switzerland: Schweizerische Gesellschaft für Strahlenbiologie und Strahlenphysik (The Swiss Society for Radiation Biology and Radiation Physics).

The Swiss Society embraces as members physicists, chemists and biologists. Studies involve ionizing radiations, their effects on biological and non-biological materials as well as dosimetry, radiation protection and other applications of interest.

A recent meeting held in Bern, during November 1980, dealt with radiotherapy and scientific reports connected with dosimetry. The proceedings of this meeting appeared in the Society's Journal. Distinguished guest speakers included Professor J.F. Fowler who spoke on Fractionation in Radiation Therapy, and Professor Dr. W. Laskowski who spoke on low dose repair mechanisms. Other papers dealt with the problem of tolerance doses in fractionation, fractionation in inoperable bronchial carcinoma and cerebral metastases, radiation damage and repair mechanisms, radiation induced DNA repair malfunction and differences in sensitivity within the G2 phase, bone marrow dosimetry in diagnostic radiology and general dosimetry considerations for high energy photons and electrons, breast irradiation and surface dose measurement using TLD's.

The President of the Swiss Society is Professor Dr. G. G. Poretti, who is a co-editor of *European Medical Physics News*. The Society may be contacted through Professor Poretti at the following address: Abteilung für Medizinische Strahlenphysik, Inselspital 3010, Bern, Switzerland/Schweiz. The last annual scientific meeting of the society was held in October 1981 at the University Hospital (Kantonsspital), Zurich.

France: La Société des Physiciens des Hospitaux d'Expression Française (SPHEF). (The Society of French Speaking Hospital Physicists).

The French society has 152 members of whom 116 are termed active members. The majority are French but representatives exist in Spain, Belgium, Switzerland, Greece, Portugal, Libya, Italy, Martinique and Great Britain. There are 19 Associate members consisting mainly of French, German and Swiss manufacturers and finally, 17 corresponding members representing a number of European countries. The officers of SPHEF, elected in September 1981, are: President – Dr. J.-C. Rosenwald; Vice-President – Dr. A. Noel; Secretary – Dr. E. Briot; Treasurer – Dr. P. Aletti. There are six other posts on the administrative council.

The SPHEF has its own Bulletin, dealing with recent publications of interest to members, scientific meetings and a job placement service. The SPHEF also arranges large scientific meetings of which the 1980 Reims meeting on radiation physics was typical. The Society's EFOMP contact is Dr. D. Lepinoy, Centre Georges-Francois Leclerc, Rue du Professeur Marion, 21034 Dijon Cedex, France.

Meetings Diary

1982

26-28 April: Geneva

Computers in Radiation Oncology in Europe – III: The use of Computers in Clinical Cancer Records.

W.H.O. Professor R.J. Berry, Department of Oncology, The Middlesex Hospital Medical School, London W1P 7PN, England.

12-15 May: Dresden

Symposium on Education and Training in Radiology

E.A.R. Gesellschaft für Medizinische Radiologie der D.D.R.

Prof. Dr. Sc. Med. R. Barke, Radiologische Klinik, D.D.R.-8019 Dresden, Fetscherstrasse 74.

3-5 June: Bordeaux

Modificateurs de Faisceaux en Radiothérapie Externe Positionnement et Contention du Patient

21st Congress of SPHEF.

Secretariat du XXI^e Congress SPHEF, Hôpital Garderose, Service du Radiothérapie, 33500, Libourne, France.

28-30 June: London

ESTRO

Dalia Shannie, S.d.R. – Associated, Rue Vilaire XIII 17a, B-1050 Brussels.

29 August-2 September: Paris

3rd World Congress of Nuclear Medicine and Biology.

Mr. C. Raynaud, WFNMB Secretary General, BP 28, F – 91403 Orsay, France.

5-11 September: Hamburg

IOMP and IFMBE

Secretariat, 6th ICMP, Hamburg Messe und Congress GmbH, Congress Organisation, Postfach 30 23 60, D2000 Hamburg 36, Federal Republic of Germany.

26-29 October: Berlin

International Symposium on Medical Imaging and Computer Analysis.

IEEE Computer Society, 1109 Spring Street, Suite 201, Silver Spring, Maryland, MD 20910, USA.

1983

5-10 September: Bordeaux

Fifth European Congress on Radiology (EAR)

P.M.V.-Congrès de Radiologie, B.P. 246 92205, Neuilly-sur-Seine, France.

Medical Physics Education and Training in France

French medical physics, considered in general, is practised by various specialists who have been educated as engineers, physicists, medical doctors or in other disciplines. No formal education or qualifications are defined, except for the field of Radiology. In this case, Hospital Physicists' qualifications and an agreement procedure have been regulated by law since 1977.

Hospital Physicists following this scheme must have a university degree in physics, informatics or techniques as a basis for a specific post-graduate training, both theoretical and practical. This training, dealing with physics, radio-biology, computer techniques and the medical applications of physics, includes nine months in the University Paul Sabatier, Toulouse and eight weeks in the University of Paris-Sud and in the Institut Gustave Roussey. It leads to an M.Sc. in Medical (Radiological) Physics. Students must present a report on clinical research in one of the radiological specialities of Medical Physics or Radiobiology. A written, oral and practical examination is given by a mixed commission of physicists and physicians, leading to an accredited Diploma in Radiological Physics. After this about 90% of the selected students prepare a Ph.D. in Medical Physics before entering the profession. In-service training, the length of which is not specified, follows.

The main features of the training programme are:—

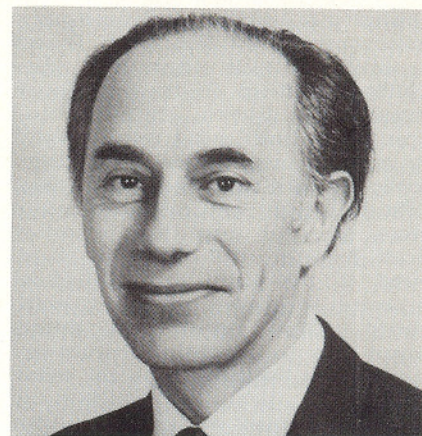
A—Education

- General Dosimetry (50 hrs)
- Radiation sources (30 hrs)
- Penetration of particles into matter (30 hrs)
- Computer techniques and numerical calculations (60 hrs)
- Technology of Radiodiagnosis and Radiotherapy (15 hrs)
- Radiodiagnosis physics (8 hrs)
- Nuclear Medicine principles and physics (21 hrs)
- Radiotherapy clinical dosimetry (40 hrs)
- Basis of Biology, radiological anatomy and Cancerology (24 hrs)
- Biological effects of radiations
- Basis of work legislation and responsibilities of the Hospital Physicist (3 hrs)

B—Introduction to research and hospital activities

- 15 sessions of experiments in the conditions of Hospital Physicist practical work (60 hrs)
- Introduction to research in an accredited laboratory through a personal study, leading to a report presented to an examination board.

Professor R. E. Ellis



Roy Ellis' untimely death came just a year after he had completed his term of office as President of the HPA. Throughout his professional life he supported the Association and at different times was a member of the Executive Committee, the Honorary Secretary and the Chairman of the Education Committee.

During his term of office as President he strongly supported the development of European Medical Physics and gave a great deal of help and guidance to the small group charged with producing working guidelines and a draft constitution for our Federation. In London in June 1981 he chaired the opening session of the meeting at which EFOMP was inaugurated and the draft constitution accepted.

His gifts of understanding, infectious humour, skills as a mediator, and apparent endless capacity for work were well known to his colleagues in the UK. These attributes were soon apparent to the many physicists from Europe present at that inaugural meeting. It was no surprise therefore that he was asked to undertake the difficult task of coordinating the scientific activities of the new Federation. This task he undertook with great enthusiasm. To Roy progress in Medical Physics came through friendship, education, and the exchange of scientific ideas plus a willingness to listen to all points of view. Sadly the illness which was to take his life struck him down just before the Second EFOMP Council Meeting in Brussels. Council was thus deprived of his wisdom and he of the chance to report on his first years' work and to renew those friendships which he valued so highly.

Through his work with the UN, WHO, IAEA and various committees of ICRP Roy gained an international reputation in the field of radiological protection dosimetry, within the UK he was regarded with the greatest respect both as a scientist and a teacher. His advice was repeatedly sought and freely given to all who asked whether they were government departments, professional associations or individuals.

With his death European Medical Physics has lost a wise councillor, the HPA one of its most eminent members who gave the Association a lifetime of support, and many of us a dear friend and colleague.

To his wife Eileen and his children Hugh and Hilary, about whom his world revolved, the Federation extends its support and sympathy.

J.S.C.

Roving Report

British Nuclear Medicine Society Meeting, London, 1981.

This meeting was as well organised as ever, providing a wide range of recent European developments in nuclear medicine. Cardiac investigations, renal and radiopharmaceuticals were well represented, however the physics effort was perhaps disappointing. The BNMS venue offers a prime opportunity for physicists in nuclear medicine to hold a specialist meeting in much the same way as the American Association of Physicists in Medicine holds conjoint meetings with the RSNA.

There is always a good technicians section at the BNMS and physicists usually find themselves slotted into this or in the main clinical sections. It is bad policy to interlace physics topics with the clinical sessions as most clinicians would rather spend their time catching up on clinical topics rather than problems in physics. Perhaps the organizers could arrange separate sessions for the physics contingent.

A good idea was an invited lecture on an unrelated topic. This year it concerned nuclear power; well worn arguments were presented which, it was widely felt, did not do the audience justice. Nuclear medicine clinicians and physicists are perhaps valuable allies in a war against ignorance in this particular field and their medical background could play a valuable role in calming the public's fear.

The BNMS is always a worthwhile meeting; scientific, commercial and social aspects are well represented — may it consider the physicists' role a more important one!

D.J. Dowsett

Symposium of Radiological Physicists — Bratislava, Czechoslovakia
October 5th-7th 1981.

For those of us who live in Western Europe travel to the East has always held a fascination. The Orient Express to Constantinople and the Trans-Siberian Railway to Vladivostok conjure up images of eastern mysticism and the excitement of expeditions to far away places. Today the plane has replaced the train and journey times have shortened dramatically but feeling of the excitement and uncertainty remains. Czechoslovakia — a federation of two states, an ancient culture, a difficult language with multiple roots, a different political ideology, — what catastrophe would befall me when I reached Prague? Even the seasoned traveller admits to a few butterflies in his stomach. The smiling face of Martin Davies, fellow physicist from Norwich, in the departure lounge at Heathrow was welcome moral support. I am also grateful to Martin for contributing a substantial section of this report.

The traveller's first encounter with a new country is often by way of its national airline. The service of Czechoslovak Airlines did much to convince us that our trip would be enjoyable. The flight in the Ilyushin 62, Russian built twin of the VC10, was smooth and the cabin service excellent. CSA must be the only airline that serves unlimited free beer! At Prague Martin and I parted company — he to fly on to Bratislava, I to spend a day in Prague, the city of a thousand spires, before completing my journey by train.

The Prague public transport system is based on the tram. To ride one of these iron maidens of the street provided a nostalgic return to my days as a student in Southampton. Buying a ticket was another story! These must be obtained from a restaurant or tobacco kiosk — a common European system — but how do you ask for a tram ticket when you don't speak the language? A session in mime with the receptionist in a restaurant plus a quick Picasso drawing of a tram on a scrap of paper produced not only the ticket but a conducted tour through the street to the tram stop and a further mime act to impress on me that I must catch a number 5 tram and travel five stops to reach my hotel. The Czechoslovak reputation for hospitality and kindness was indeed well founded!

A few hours on Saturday evening and Sunday morning allowed me to do little more than orientate myself in this ancient city and to glance all too quickly at some of the more famous buildings. By Sunday lunch time I was at the railway station to board the 13.35 Hungaria express for Bratislava. The fastest train of the day, it took five and a half hours to cover approximately 250 miles! But where else can you travel first class for this distance for the equivalent of £5?

The Symposium was opened with a recital by a string quartet and welcoming speeches from Professor Klumpar the father of Czechoslovak Medical Physics and representatives of the organisers; the Slovak Medical Society and the Institute of Clinical Oncology. I presented greetings and best wishes for a successful conference from EFOMP and Dr. Manfred Tautz of the DDR presented a brief history of the formation of the Federation.

Through the Symposium we were treated to papers on many topics. One subject was therapy equipment in which Professor Walstam talked on microtrons, noting that a narrow band width is available on these machines. Professor Karzmark gave an enlightening talk on linear accelerators, outlining the principles of travelling wave, standing wave, side band and multiple pass accelerators. The Mevatron and Neptune accelerators and Therados couch top were described by the manufacturers. The application of computers and microprocessors in radiotherapy was covered by Dr. Prokes and Dr. Stankus who described beam data acquisition systems developed in CSSR, and by Dr. Klemm who outlined a treatment planning system he has developed, the DOPSY — r.

Much of the megavoltage therapy in continental Europe is administered using Betatrons and several papers reflected the importance of these machines. Dr. Bednar outlined his experience of a 3pJ (18 MeV) machine which has been in operation in Cheb, CSSR, for seven years and Dr. Cvetkov described a new beta shield. Dr. Nikodemov considered the problem of scattered neutrons and gamma rays from a 42 MeV batatron. There were three papers on high energy electron beam dosimetry, Dr. Novotny described the calculation of absorbed dose for high energy electron beams from ionization chambers calibrated in terms of exposure, kerma or absorbed dose. Dr. Kovar outlined a method for the calculation of energy spectra for electron beams from depth dose curves and Dr. Tobola, in reverse, described the calculation of dose

distribution from beam spectra for both pure and degraded beams. More practical aspects were covered by two Bulgarian delegates; Dr. Pandova considered the optimum energy range for electron producing machines and concluded that this was 5 to 25 MeV; Dr. Gantchew described methods of shielding the eyes, both from the direct beam and the indirect beam in treatments of the nasal and paranasal cavities. Another Bulgarian participant, Dr. Penchew, described his national system of ensuring the uniformity of dose measurements in which all clinical dosimeters are calibrated at a national centre.

Four papers on CT applications in radiotherapy were given. In particular John Clifton described how he hoped to use CT data to construct lifelike pictures of the patients skin, treatment volume and isodose shells for the presentation of '3D' data to clinicians. The East European countries have mineable radium and it is much used for intracavitary treatments. Various papers considered the use, dosimetry and protection aspects of techniques involving this isotope. Dr. Zackova of Prague, however, considered the dose distribution around caesium tubes.

There were other papers on many aspects of Radiological Physics including TLD dosimetry, radio-diagnosis, radiobiology and isoeffect determination. Between scientific sessions we enjoyed sightseeing in Bratislava and the many restaurants, the highlight of which was the farewell party in the old fashioned Wine Tavern, comprising a traditional meal, evocative gipsy music, local spirits and jugs of wine. Of the seventy-five participants about half were from the CSSR, the others came from all over Europe and the USA, and it was a unique opportunity to exchange ideas with colleagues from so many different situations. Inexperienced speakers were received as sympathetically as the more famous members of our profession. The good organisation and warmth of hospitality of Dr. Laginova and her colleagues was commendable and we look forward to the next symposium. It is to be hoped that this spirit of friendship will continue, and be cemented by the expansion of the EFOMP.

*John Clifton
Martin Davies*

The 19th International Annual Meeting of the Society of Nuclear Medicine (Europe), Bern, Switzerland, Sept. 1981.

This was a well attended meeting taking place over a four day period in perhaps the most picturesque medieval city in Europe. Although the emphasis was on tomographic applications (both single and double photon) all specialities were catered for. Simultaneous translation, never the best way to have a scientific conference, was available and of excellent quality; there was difficulty, however, in translating some Americanisms into German and French! Excellent papers were given on Positron Emission Tomography with Dr. Michael Phelps giving a valuable "overview" paper on the computer analysis of nuclear medicine images, particularly on functional imaging. There was a comprehensive section on radiopharmaceuticals with a round table discussion on Iodine-123. Good, informative sections on Cardiology and Nephrology brought one up-to-date with modern clinical techniques and their evaluation; it seems that Iodine-

123 is at last being recognised as an extremely important isotope in these fields.

On the last day a valuable, but unfortunately stilted, round table discussion tried to bring the "loose ends" together. Distinguished American speakers, Dr. Frank Deland, Dr. Henry Wagner, Drs. Tauxe, Oppenheim, Holmann, Goris and Phelps gave excellent review papers on the recent American scene.

Three days before the main meeting there was a special dissertation at the Inselspital on Digital Diagnostic Radiology (presented by Drs. Capp, Crummy, Meany and Marhoff) and Nuclear Magnetic Resonance Tomography (presented by Drs. Damadian, Loeffler and Holland).

The warm welcome given by the President, Professor Dr. Helmuth Rösler, and his most charming wife ensured the meeting's success; the hard work put into its preparation by Dr. Peter Ell and his illustrious team made this meeting one of the outstanding nuclear medicine meetings this year. Congratulations!

David J. Dowsett

Letter from the President of the International Organization for Medical Physics.

I was delighted to have the gracious invitation from the President of EFOMP, my friend, John Clifton, to contribute to this important international news bulletin. IOMP has been delighted to see the rapid growth of the European Federation: there is so much in common amongst the European countries that it should be possible to estab-

lish a concord of expertise, training methods and professional organization, which seems common – or, if not to establish it, at least to aim to do so. EFOMP is now well started on this road. It has been the policy of IOMP for several years now to encourage and foster regional groupings: EFOMP has been the first one to spring forth and no doubt others will follow. In 1984, an Inter-American meeting of Medical Physics is being planned, bringing together our colleagues in the countries of North and South America: this will undoubtedly be the second grouping. Also, Rune Walstam, our stalwart Secretary-General of IOMP has travelled frequently in the Far East and reported on activity there, followed by John Cameron, a former long-serving Secretary-General, who has brought news of activity in China. Perhaps in the fullness of time, an Asian grouping will emerge. We hope that the strength of IOMP will help all these endeavours and know that, in turn, IOMP will draw further strength from them. Already some countries not affiliated at present to IOMP, but which have joined EFOMP, are planning to join IOMP, too.

Also, it has been the policy of IOMP to launch out, from the big Congress once every three years, covering all branches of our specialty, to sponsor, as well, more specialized international symposia on chosen topics. The tremendous success of the Symposium held in the German Democratic Republic last year on Ultrasound in Medicine and Biology was the first such meeting sponsored by IOMP: a very important subject dealt with at just the right time, showing those who criticize our scientific endeavours as being far behind the frontiers

of science, that this is just not so. Indeed, does it not answer Dr. D.J. Dowsett's question on page 6 of the last issue of this News, when he asks whether Medical Physics can take up the challenge of redressing the balance between diagnosis and therapy. I am sure it can, and I hope that my 1981 Silvanus Thompson Memorial Lecture (Brit.J.Radiol., Vol. 54, pgs. 831-849) helps to show this, by considering a new physical possibility for therapy, as well as new physical diagnostic techniques.

Finally, whilst much endeavour is being put into persuading the powers-that-be in the National Academies of Science in many countries to support the application of our new Union to join ICSU – (the International Council of Scientific Unions) – and please may I say a sincere thank you, and please keep trying, to everyone who is doing this – it is a pleasure to report that IOMP has been welcomed into the Organisation Mondiale pour la Co-operation Diplomatique (OMCD). This organization, based in Barcelona, has the goal of promoting the optimal contribution to world knowledge from medical science, and IOMP was represented at its First Plenary Session by Professor M.C. Paredes of Madrid.

May I conclude by asking all of you who read this, to make sure that your medical physics society or organization, has tried to present our case for membership of ICSU to your National Academy. If it has not yet done so, please try hard to make it happen!

I look forward to seeing you all at the Hamburg Congress next September.

John Mallard
President, IOMP



THIRD MEETING OF THE WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

FIFTH WORLD CONGRESS OF ULTRASOUND
IN MEDICINE AND BIOLOGY

Brighton, England
26–30th July 1982

Latest Scientific Developments
Papers and Poster Sessions
Large Commercial Exhibition

To obtain registration details or submit a paper contact-

WFUMB-82 Conference Office

4 L Portman Mansions, Chiltern Street, London W1M 1LF
Telephone (01) 486 6582 Cables Duocon London
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Commercial Involvement—Dream or Nightmare

This year in Ireland the Engineering Industry Association and the Irish Goods Council organised an AIDS competition where £2000 was offered for the best idea or design for the disabled. The International Year of the Disabled has been supported by many European countries, the general public has been made aware of the great difficulties facing physically handicapped people in a high speed, high technology world. People from all walks of life contributed to this competition; professional engineers, housewives, parents of handicapped children and students. Designs ranged from the impractical and not very useful to the brilliantly simple and widely beneficial.

One impression was uppermost; what an incredibly wide fund of talent the general public has! Unfortunately it is seldom used and few hospital or university organisations exist to commercially exploit these ideas (or even their own) for the benefit of the community. Commercial involvement has always been somewhat distasteful in academic and hospital physics. There are of course drawbacks; manufacturers are reluctant to get involved with a non-commercial group, whether from hospital or university; Government support, if available, usually hinders group efficiency rather than speed progress. Once agreements have been drawn up a cloak of secrecy descends; this is unfortunately necessary as the commercial company has by this time invested money in the project and is most concerned that its competitors remain ignorant of developments. The disadvantages that this entails includes restrictions on presentations and publications which could be unacceptable to some members of the team.

How should ideas be exploited commercially? What have other physicists discovered who have trodden this dangerous pathway? If the ideas originate from an open competition then the various rough designs and impractical suggestions should undergo selection by a hospital physicist or bioengineer so that only those having the widest benefit are "redesigned" (with the inventor's collaboration, of course) and a prototype planned. If mechanical workshops are not available then the local college of technology could well be brought in at this stage. Advice from typical users should also be sought, this group could also give feedback during prototype trials. A legally binding agreement should now be drawn up so that all parties involved know their responsibilities; patents should also be drawn up at this stage.

Before embarking on the production of a working prototype a suitable commercial manufacturer should be approached. Sometimes government organisations can help here, but these can be nationalistic and there is a possibility that the "politically" chosen company is not necessarily the best. However if government help is accepted financial support is usually given for initial production which would, of course, make life a little simpler for the

manufacturer. If the idea reaches production and also sells, then the Technical College and the hospital or university department benefit from an additional source of income; they also start performing an important extra-mural role in society. The influence of commercialism in the academic environment affects scientists and engineers in a positive way. Project development in the hospital is no longer uncontrolled; prototypes are carefully planned and documented, time of development is carefully watched and, perhaps the most important point, a completion date is agreed beyond which decisions are made to continue or stop the project. I remember Professor W.V. Mayneord saying once '... it takes a brilliant mind to initiate a research project but it takes a genius to stop one!'. How many hospital physics departments have cupboards or storage areas where disastrous past prototypes are resting gathering dust because these basic rules were not rigidly applied! Yes, we all have!

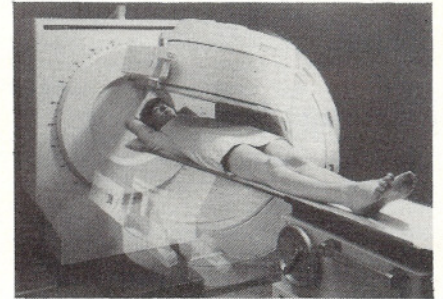
So why isn't commercial involvement more common in our hospital departments? Clinicians frequently collaborate with drug companies to mutual advantage - couldn't this example serve to stimulate us? The usual reasons for non-involvement are lack of organization and lack of communication to set up these organizations. People with ideas outside the hospital environment have no contact with physicists or engineers inside, physicists and engineers have no time for considering these ideas, and outside contact with commercial organizations is disliked by the hospital authorities as it is not seen as part of the hospital scientists' "job". The American scene, as one would imagine, is so very different. Lawyers and agents exist specifically to get inventor, developer and financier around the table to discuss feasibility, application and development. "Risk-capital" money is available to finance promising ideas and rapid prototype development is initiated by giving the inventor all the production help he needs. Clinical trials of the prototype are organised. Money of course changes hands amongst these individuals but work is also generated for all concerned. Should this organisation exist in European countries? Should hospital physics and engineering departments become involved in commercial development? Would commercial involvement destroy the open communication that exists between physical scientists in hospitals, to the detriment of scientific meetings, symposia and journals? Would hospital physics departments be transformed into secretive workshops with security checks? In reality only a few ideas would be worth developing and this development work need not encroach on other clinical research that would be openly pursued. I think the organisation necessary should be set up that would encourage exploitation of ideas from the hospital or general public either by advertised competitions, such as the AIDS competition in Ireland, or by individual contact. Expertise

should be made available and finance arranged for manufacture. Our various Societies and Associations in Medical Physics should consider setting guidelines for this purpose so that members who find themselves commercially involved with a hospital project can depend on advice and experience gained from other physicists. All concerned would benefit in the end.

D.J. Dowsett

Commercial News

At the 19th Annual International Meeting of the Society of Nuclear Medicine, in Berne, in September 1981, Philips Medical Systems demonstrated a new gamma camera system, the Gamma Diagnost Tomo. The system features a large field of view (40 cm) gamma camera and a new computer system. The equipment is capable of transverse single photon emission tomography. The patient couch and the gantry are shown on the accompanying photograph.



New members of EFOMP

Greece: Greek Association of Medical Physicists.

Dr. A.G. Perris, General Secretary,
Radiation Physics Department,
Areteion Hospital, Athens, Greece.

G.D.R.: Gesellschaft für Medizinische Radiologie der D.D.R. - Sektion 'Klinische Strahlenphysik'.

Dr. Ing. M. Kirche,
Medizinische Akademie, Radiologische Klinik,
Nordhäuser Strasse 74, D.D.R.-5060, Erfurt.

Israel: Israeli Medical Physics Society.

Dr. Erza Loewinger, Physicist,
Hadassah University Hospital, Kiryat Hadassah,
1-91120 Jerusalem, Israel.

Next Issue

Please send material for the June issue of E.M.P. News to Mr. D.J. Dowsett (Honorary Secretary of EFOMP Publications Committee), Radiological Department, Mater Misericordiae Hospital, Dublin 7, Ireland, by 1st April 1982.

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