I

A HISTORY OF WFUMB AND ITS PRESIDENTS, 1969 – 2011.

George Kossoff and Barry Goldberg

THE PIONEERS

The potential of ultrasound to provide diagnostic information was described for the first time at the First International Congress on Ultrasound in Medicine held in Erlangen in 1949. The focus of the Congress was therapeutic applications of ultrasound, but at the meeting Dr.K.Dussik an Austrian physician presented results obtained with ultrasound **transmission** imaging which, he claimed, allowed imaging of the ventricles of the brain. Unfortunately the aberrations introduced by transmission through the skull gave rise to artifacts that distorted and degraded the image and the method did not gain clinical acceptance.

The ability of **reflected** pulsed ultrasound to examine soft tissue was described for the first time in 1950. Dr. John Wild, an English physician living in Minneapolis, used high frequency (15 MHz) ultrasound radar training equipment to examine a strip of bowel and noted that different echo patterns were obtained from different sections of the tissue. The change in appearance obtained from tissue invaded by tumor suggested that ultrasound could be used to distinguish benign from malignant processes (1). The following year he joined forces with Jack Reid, a recent graduate in engineering, and in 1952 they described the first real time B-mode scanner which they used on patients to examine the breast (2).

Independently and almost simultaneously two other groups began investigations into the technique. In Tokyo Drs. Kenji Tanaka and Toshio Wagai started to use ultrasonic industrial flaw detection equipment on patients at a lower frequency of 2 MHz and in 1952 reported detection of intracerebral hematoma and brain tumors(3). Wagai at that time also demonstrated the ability of ultrasound to detect gallstones and breast cancer. In 1952 Dr. Douglas Howry in Denver published the results of his studies where he used 2 MHz industrial flaw detection equipment to study abdominal masses (4). Howry joined Dr. Joseph Holmes and together they developed compound scanning and published spectacular cross-sectional images of limbs and of the neck which have not been equaled in detail until recently (5).

At about the same time Dr. Inge Edler, a cardiologist in Malmo, in collaboration with Dr. Hellmuth Hertz, a physicist, began to evaluate the potential of ultrasound to examine the heart. They also used low frequency industrial flaw detection equipment and in 1954 described the M-mode technique to study the movement of the walls of the heart and the mitral valve (6).

In the mid fifties Dr. Ian Donald of Glasgow started to use industrial flaw detection equipment to examine the abdomen and was able to distinguish between ascites, ovarian cysts and fibroids. Shortly thereafter he began collaboration with Tom Brown, an engineer, and they built a mechanical compound scan scanner that provided encouraging images of the abdomen and pregnant uterus thus launching the use of diagnostic ultrasound in obstetrics and gynecology (7).

Other applications were also investigated at that time. In 1953 Dr. Lars Leksell of Malmo demonstrated evidence of intracranial tumor or hemorrhage from shift in the midline echo. This gave rise to the field of echoencephalography (8). In 1956 Drs. Henry Mundt and William Hughes from Chicago showed that echo patterns were received from an ocular tumor (19), while in Sweden Dr. Folke Jansson described the use of ultrasound to measure ocular distances (10).

Also in the mid fifties Dr. William Fry, a physicist, joined the faculty at the University of Illinois where he established a centre of excellence for the use of highly focused ultrasound to create lesions deep within the brain (11). Fry was interested in the broad spectrum of applications of medical ultrasound and proceeded to promote the field scientifically, clinically and politically. He encouraged the dissemination of ultrasound research, and in 1952, 1955 and 1962 staged important conferences that brought leading investigators to present their results.

Thus by the end of the fifties the scene was set for physicians to apply their skills to enlarge the clinical range of applications, for scientists to improve the imaging capabilities of diagnostic ultrasound and for engineers to bring good quality equipment to the market.

SOCIETIES AND CONGRESSES BEFORE WFUMB

In 1951 a group of physical medicine physicians formed a group to examine the validity of ultrasonic energy as a clinical tool. The group met the following year and formed itself into the American Institute of Ultrasound in Medicine (AIUM) which has met annually since. Initially the activities of the Society were sponsored by a manufacturer of therapeutic ultrasound equipment and the emphasis of its annual conferences was on therapeutic applications and bio-effects of ultrasound. In the early sixties, thanks to the efforts of Dr. William Fry, the structure of the Society was reorganized into an independent scientific organization with gradual change in interest towards broader aspects of medical ultrasound and emphasis on diagnostic applications.

In the fifties a number of Japanese pioneers presented papers on medical and biological ultrasound at the biennial meetings of the Acoustical Society of Japan. In 1961 a group of investigators met at a Symposium on the Present State of Applications of Ultrasound in Medicine held in Kyoto and agreed to form the Japan Society of Ultrasonics in Medicine (JSUM). Dr. Toshio Wagai was elected President and the first meeting of the Society was held in Tokyo in 1961. The Society met biannually at first and has continued to meet annually. The proceedings of these meetings have been published regularly in Japanese, and selected papers in English. The growth of the Society has been most impressive. In 1974 it proceeded to establish its journal “Japanese Journal of Medical Ultrasonics” which continues to be published today.

In the late fifties and mid- sixties several meetings were held in England to discuss medical applications of ultrasound. Initially these were held as sessions in Bio-Medical Engineering Congresses and later as dedicated symposia. Dr. Douglas Gordon was an enthusiastic promoter of these meetings, his interest being primarily ehoencephalography (12). Several other similar medical ultrasound meetings were also held throughout Europe during this period. Although all of these meetings attracted reasonable interest no specific societies were formed as follow-up.

In 1964 a group of Eastern European ophthalmologists formed the Societas Internationalis pro Diagnostica Ultrasonica in Ophthalmologia (SIDUO), a society dedicated to ophthalmology. The Society held its first

international symposium in East Berlin that year. The second meeting of the Society was held two years later in Brno, Czechoslovakia. All topics at the meeting were related to ophthalmic applications with the exception of the one presented by Dr. Denis White, a neurologist from Kingston, Canada, who spoke on echoencephalography. White strongly encouraged the Executive of SIDOU to open its membership to every aspect of diagnostic ultrasound. This was agreed to and White was appointed as Head of the International Committee for the next meeting. At the Brno meeting it was agreed that the third meeting of the society would be held in 1969 in Vienna even though, because of the Iron Curtain, this would represent difficulty for physicians from Eastern Europe to attend. Dr. Karl Ossoinig (Fig.1) was appointed Secretary to organize the meeting at which Dr. J. Bock was to be president.

A number of other conferences on various aspects of diagnostic ultrasound were also held in the United States and in Europe in the late sixties. Descriptions of these are outside the scope of this manuscript and the interested reader is referred to an excellent article by Dr. Denis White (13) that gives a detailed insight into the scientific and political issues associated with the staging of these meetings.

VIENNA 1969 CONGRESS

Initially the third meeting of SIDUO was to be entitled

Ultrasound
3rd International Symposium on
Ultrasonic Diagnostics in
OPHTHALMOLGY SIDUO III
and
International Meeting on
Ultrasonic Diagnostics in
MEDICINE

For the first time for a SIDUO sponsored meeting, an International Program Advisory Board of nine clinicians was included to encourage participation by other specialties. Dr. D. White (Fig. 2) was appointed Head of this Board. The other eight members were Drs. H. Gernet, A. Oksala, J. Poujol and J. Vanysek all ophthalmologists, I. Donald an obstetrician, J. Holmes an internal medicine physician, H. Hertz a scientist and M. de Vlieger (Fig.3) a neurologist from Rotterdam, Holland.

The first two SIDUO meetings, although international in participation, attracted less than one hundred registrants. In order to attract a larger number of delegates as well as government support, a decision was made to change the scope of the meeting to an International Congress that would cover all aspects of clinical, biological and technical ultrasound. To satisfy SIDUO requirements, a meeting of SIDUO III was incorporated within the Congress. A meeting of the AIUM was included in the Congress to encourage participation by international delegates.

Thus only months before the meeting, the Congress was renamed

Ultrasound 1969

1st World Congress on
Ultrasonic Diagnostics in Medicine
Vienna, June 2
including meetings of
SIDUO III and AIUM

It was a bold move which turned out to be most successful. The Congress was attended by over 700 international participants who presented over 190 scientific papers.

The proceedings of the Congress, entitled **ULTRASONO GRAPHIA MEDICA,** were published in 1971 by Verlag der Wiener Medizinischen Akademie, with K. Ossoinig and J. Bock as editors. It was a monumental task as these proceedings, published in three volumes, containing all of the presented papers with images and exceeding 900 pages in length. These proceedings are the best and most complete description of the state of art of ultrasound in the sixties and an excellent resource for anyone interested in the history of diagnostic ultrasound. Unfortunately not many libraries have these proceedings in their collections. It is anticipated that the WFUMB Secretariat will also soon acquire a copy in its collection.

The Organizers of the Vienna Congress had anticipated that discussions would be held at the meeting to form a World Society of Ultrasonics Diagnostics in Medicine and formally set up an Organizing Committee to consider this task. The First Meeting of the Organizing Committee of the "World Federation of Ultrasound in Medicine and Biology" was held on the last day of the Congress. The Organizing Committee consisted of twelve members

A. Oksala, J. Vanysek and J. Francois representing SIDUO
Y. Kukuchi, T. Wagai and M. Oka representing Japan
M. de Vleiger, I. Edler and A. Kratochwil representing Europe
D. White and R. Brown representing the AIUM and
G. Kossoff representing Australia.

The Organizing Committee:

1. Elected M. de Vlieger and R. Brown as Chair and Secretary for their meeting,

2. Agreed that the Vienna Congress was an overwhelming success and endorsed staging the next World Congress under the auspices of WFUMB that would be held four years later in Rotterdam (in 1973) with M. de Vlieger as Chairman,

3. Set up a Working Group to formulate the Constitution and the By-laws for the new Federation. The representatives to this Committee were

    M. De Vlieger representing Europe,
    R. Brown representing the AIUM,
    T. Wagai representing Japan,
    A. Oksala representing SIDUO,
    G. Kossoff representing Australia and

D. White as Consultant to the Group.

The Group was charged to prepare a draft of the Constitution and By-laws, distribute these to the Organizing Committee for comment and prepare the final document for approval at the Rotterdam Congress.

4. Commissioned M. de Vlieger and D. White to begin negotiations to publish a WFUMB journal,

5. Elected M. de Vlieger and R. Brown President and Secretary of the Administrative Committee until the 1973 meeting in Rotterdam.

Because 1) the concept for WFUMB was anticipated before the Vienna Congress, 2) the first meeting of the Organizing Committee of WFUMB was held at that Congress, and 3) M. de Vlieger was elected President of that Committee and Chairman of the Rotterdam Congress, some refer to the Vienna Congress as the first WFUMB Congress and consider M. de Vlieger to be the first President of WFUMB. This interpretation is not correct, as WFUMB did not exist as an entity until after it was approved by the General Assembly at the Rotterdam Congress.

THE NEXT FOUR YEARS 1969-1973

The interim period between the Vienna and the Rotterdam Congresses was a busy gestational period for the proposed WFUMB organization and for national interest groups.

The Working Group led by Denis White prepared the draft Constitution to be voted on at the Rotterdam Congress. White was familiar with the Constitution for the International Federation for Engineering in Medicine and Biology. The Working Group felt that the objectives of that Federation and of WFUMB were similar and the WFUMB draft Constitution closely resembled their constitution.

Drs. de Vlieger and White visited a number of publishers regarding the publication of a journal. After an extensive search Marinus de Vlieger and Denis White recommended at the Rotterdam Congress that Pergamon Press be accepted as publisher and that the journal be named “Ultrasound in Medicine and Biology” (UMB).

The forthcoming establishment of WFUMB spurred national interest groups to form national ultrasound societies. The Swiss formed the Swiss Society for Diagnostic Ultrasound at the conclusion of the Vienna Congress. The Australians followed shortly and the Australian Society for Ultrasound in Medicine and Biology was formed in 1970. In 1971 the East Germans formed their national society and the Hungarians their Society in 1972.

WFUMB encouraged the establishment of Federations of societies within a common geographical location and with common shared values. In this way the interest of small societies in those Federations would not be overwhelmed in the voting process of larger societies such as the AIUM and the JSUM. In 1972 a group of physicians consisting of representatives from Hungary, Spain east and West Germany, Sweden, Yugoslavia, Austria, Belgium, France, Finland and Holland elected to form the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB). The group elected Marinus de Vlieger as Foundation President of the Federation. A few year’s later United Kingdom, Denmark, Greece, Italy, Norway and Poland also joined the European Federation. This important achievement spurred the Japanese investigators to form the Asian

Federation of Societies for Ultrasound in Medicine. Those interested in issues associated with the establishment of the European and the Asian Federations are referred to references (14) and (15).

WFUMB is fortunate that it had the foresight to establish early a History/Archives Committee. This committee has held a close watch on historical papers written by individuals associated with the establishment of societies and Federations, as well as on papers dealing with developments of ultrasound in various specialties. At the Montreal 2003 Congress WFUMB released a CD (16) that contains a comprehensive collection of papers published until then, and the interested reader is referred to this CD that is available from the WFUMB Secretariat.

ROTTERDAM 1973 CONGRESS

The Rotterdam Congress held in 1973 was advertised as the Second World Congress on Diagnostic Ultrasound. It did not include the biannual meeting of SIDOU. The ophthalmologists in Vienna felt overwhelmed by the non-ophthalmology presentations at that meeting and held their own meeting in Ghent a few days before the Rotterdam Congress. This allowed interested participants to attend both meetings.

The meeting was a large success scientifically and politically. It was attended by over 750 participants who presented over one hundred lectures. The proceedings of the meeting “Ultrasonics in Medicine”, Ed. M. de Vlieger, D. White and V. Mc Ready were published by Excerpta Medica, Amsterdam, in 1974. The volume contains all the presentations and images and is more than 380 pages in length.

WFUMB was officially formed at the General Assembly by the association of five societies - AIUM, JSUM, EFSUMB, SIDUO and ASUM. Even though SIDUO is a specialty group and not a geographical federation it was included in the association as WFUMB felt it had a historical debt to that Society. The Assembly approved the Constitution and accepted Pergamon Press as publisher for its journal.

WFUMB Constitution

The WFUMB Constitution and By-laws are lengthy documents subject to review on an “as needed” basis. The current versions are available on line or on request to the WFUMB Secretariat.

At the Vienna Congress the Organizing Committee laid down three fundamental principles of purpose, objectives and association of WFUMB which remain unchanged today. These were incorporated in the preamble to the original constitution which stated:

Purpose: Because of the increasing application of ultrasonic techniques in biological and medical research and practice, groups have been organized in various countries to promote cooperative efforts in these areas. In order to integrate further this effort and expand the cooperative effort on an international basis, a world federation of affiliated organizations was indicated.

Objectives: The objectives of WFUMB are to promote scientific, literary, and educational endeavors. Its aims shall be to encourage research in the field; to promote international cooperation in the field; and to disseminate scientific information.

Association: The Federation shall comprise primarily of affiliate organizations already existing or which may be formed which have a major interest in the field of medical and biological ultrasonics and whose professional stature is in keeping with the aims of the Federation.

These principles remain unchanged today.

At the meeting of the delegates of the associated societies, the following were elected to the first Administrative Council of WFUMB:

Executive	
President:	G. Baum (ophthalmologist)
Vice President:	G. Kossoff (scientist)
President-Elect:	Y. Kikuchi (engineer)
Secretary-Treasurer:	J. Coleman (ophthalmologist)
Members of Council:	
Past President:	M. de Vlieger (neurologist)
Editor:	D. White (ex officio, no voting privileges)
Elected members:	W. Garnet (President of SIDUO)
	T. Wagai (Vice President JSUM)
	H. Mueller (Secretary EFSUMB)

The Council proposed that future meetings of WFUMB would be held on a three-year basis and that San Francisco would be the site for the next Congress.

Marinus de Vlieger and Denis White deserve special recognition for their efforts that led to the establishment of WFUMB. They held many discussions with the organizers of SIDOU Congresses encouraging them to enlarge their Congress to encompass all applications of diagnostic ultrasound. They were the main team that drafted the initial constitution for WFUMB which was accepted by the General Assembly at the Rotterdam Congress. They were also the main contacts with the publishers in the selection process for the publisher for the WFUMB journal and, as trustees, signed the publishing agreement on behalf of WFUMB.

Marinus de Vlieger was a neurologist from Rotterdam. He started using ultrasound in 1957 to study first the midline echo pattern in patients through the intact skull and then through the surgically opened skull. In 1963 he constructed a B-mode water path scanner to examine patients in a supine position (17). He recognized that distortion of the ultrasonic beam by the adult skull compromised the acquisition of good data and finished using the technique only in infants and young children. Denis White was also a neurologist. He started using ultrasound in 1959 and later collaborated with David Makow, an engineer, to build a compound B-mode water path scanner (18). His final research was on the acoustic properties of the skull to determine the structures that caused distortion of the ultrasonic beam. White remained editor of the journal until sickness forced his retirement in 1992.

1973 TO THE SAN FRANCISCO 1976 CONGRESS

Dr. Gilbert Baum (Fig. 4), an ophthalmologist from New York, USA, was WFUMB's first President. His interest in ultrasound began in the mid fifties in the use of therapeutic ultrasound to treat vitreous hemorrhage. He then turned his attention to diagnostic applications. After initial evaluation of the A-mode technique he began collaboration with Ivan Greenwood, a scientist. Together they designed and built a high frequency (10-15 MHz) compound B-mode scanner using a water tank for coupling the transducer to the eye. By 1961 they were able to acquire beautiful images of the eye and of the retrobulbar space. They also developed a method to produce three-dimensional images of the eye by employing sequential images taken at 1 mm intervals levels. Baum at that time also served as the AIUM's president from 1972 to 1974.

Baum inherited the presidency of WFUMB in its infancy. During the period between the Rotterdam and San Francisco Congresses WFUMB was mainly concerned with matters to ensure its survival. First and foremost was the issue to obtain funds to allow function of the organization. The San Francisco Congress was to be a joint meeting of WFUMB and the AIUM, the latter being responsible for staging the Congress. Baum successfully negotiated agreement with the AIUM regarding the distribution of profits from the meeting. Next was the issue of dues from the associated societies. Again successful agreement was ultimately reached at the level of US $1.50 for each voting member of the society. These dues remain unchanged today. After discussion it was agreed that the Federation and the Treasury would be incorporated in the USA. Mechanisms for representative voting by the associated societies were established. The Council also established a Nominating and a Credentials Committee.

Considerable discussion was undertaken before the meeting as to the name of the Congress. The choices considered were the Third World Congress of Diagnostic Ultrasound or the First World Congress of WFUMB. In the end it was decided to use both names i.e. 1st Meeting of WFUMB and 3rd World Congress of Diagnostic Ultrasound in Medicine and Biology, an awkward compromise.

Growing international interest in the Federation was demonstrated by the application by the Israeli Ultrasound in Medicine Society to join the Federation. The application was accepted by the Administrative Council. Discussions were held concerning the venue and timing of future Congresses. Because of rapid developments in ultrasound, it was agreed that future Congresses would be held on a tri-annual basis, with the next Congress in Japan in 1979, then Europe in 1982 and Australia in 1985.

At the Congress the membership of the associated societies was listed as: AIUM - 1963, JSUM - 1100, EFUSMB - 1026, SIDUO - 200 and ASUM - 120, a WFUMB total of 4409.

Dr. Y. Kukuchi was elected President-Elect of WFUMB at the Rotterdam Congress. Unfortunately he subsequently suffered a stroke and could not accept the position of President. The Administrative Council unanimously elected Dr. T. Wagai (Fig. 5) as President of WFUMB for the next three years.

1976 TO THE MYAZAKI 1979 CONGRESS

Dr. Toshio Wagai is the only pioneer to have served as President of WFUMB. He is an oncological surgeon who started his clinical and research career in 1950 in the department of surgery at the Juntendo University, Tokyo. He

was promoted Professor at the University in 1979 and Director of Medical Ultrasonic Research Centre in 1975, a position he held until his retirement in 1990. His interests were in all areas of clinical application of diagnostic ultrasound, with emphasis on the upper abdomen and the breast. He published widely and is the author and co-editor on a number of books. Throughout his career he promoted the professional development of ultrasound. At the Miazaki Congress he attempted to establish an Asian Federation, and after ten years of effort to overcome various difficult political and economic problems, succeeded in 1987 to establish the Asian Federation of Societies in Ultrasound in Medicine and Biology (AFSUMB) and served as its Foundation President. D. Wagai is the recipient of many honors. In particular he was honored by the Emperor at the Imperial Palace with the awards of the Medal with Purple Ribbon in 1986 and with the Order of the Sacred Treasure, Gold and Silver in 1995. He also holds the Japan Academy Prize awarded in 2006 and in 2008 he was made Honorary Citizen of Isninomaki, the town where he was born.

The Miazaki Congress was advertised as both the Second Meeting of WFUMB and the Fourth World Congress. The name for Future Congresses was again discussed by Council and it was agreed that future Congresses be simply named as a WFUMB Congress followed by the year the Congress was held. Because of work load considerations, the Council separated the offices of Secretary and Treasurer. Separate Committees on the Constitution, Education, Safety and Standardization were formed and terms of reference for these Committees set. The policy to ban the use of live models to demonstrate the imaging performance of equipment was introduced for the first time. After considering issues on Interdisciplinary Collaboration in Investigative Ultrasound, the Council resolved that the practice of diagnostic ultrasound is open to a variety of specialties none of whom have any exclusive rights to work in a specific area. The primary criteria for consideration were the well-being of the patient and cost effectiveness. WFUMB also resolved that it was the organization whose recommendations were authoritative on matters of safety.

The Congress was attended by over 800 registrants and the proceedings were published as a book entitled Ultrasound in Medicine and Biology, edited by T. Wagai and R. Omoto and published by Excerpta Medica, Amsterdam, 1980. The text is 280 pages in length and includes many detailed images.

The membership of the associated societies at the Congress was specified at: AIUM – 3000, EFUMB – 1863, JSUM – 1620, ASUM – 311 and SIDUO – 216, a WFUMB total of 7010 - a remarkable growth in a three year period.

Dr. H-R. Muller (Fig. 6) was elected President for the next three years at the final session of the Congress.

1979 TO THE BRIGHTON WFUMB 82 CONGRESS

Dr. Hans-Ruedi Mueller was a neurologist from Basel, Switzerland. His interest in echoencephalography started in the early sixties and he maintained research ultrasound investigations throughout his career. Mueller was also interested in advancing the professional status of ultrasound. In 1969 he convened an International Symposium on Ultrasonic Tomography and, at the Vienna Congress, he helped form the Swiss Society on Diagnostic Ultrasound. Together with de Vlieger he promoted the establishment of the European Federation and was appointed Secretary at the inaugural meeting of the Federation. He was also a member of the first Administrative Council of WFUMB held in Rotterdam.

Under Mueller's chairmanship and the Secretary skills of Dr. Kit Hill, accurate minutes of the Administrative Council meetings were placed on record. During the ensuing three years applications for membership were received and approved from the Brazilian, South African and Malaysian societies. Publications, Standardization, Safety and Guidelines for Planning Congresses were added to the list of Committees advising the Council. The Council also elected a cardiologist to the Administrative Council to encourage participation by cardiologists in the Federation. The Journal UMB began to flourish. It started to be published bi-monthly and the profits began to add reasonable funds to the treasury. The Publication Committee recommended that the journal award an annual prize for the best papers on Clinical and on Technical issues and this practice was implemented at the Congress. The Council also approved Washington as the venue for the WFUMB 88 Congress.

With increased funds in treasury, the Federation began activities to promote international cooperation and to disseminate information on diagnostic ultrasound. With these as aims it sponsored a symposium held during the Congress on "Ultrasound in Developing Countries". At the Symposium speakers from Kenya, India, Egypt, and Korea discussed their experiences and came forward with recommendations to help them in the production of simplified equipment, advice on equipment service and purchase, and in the training of personnel.

The Congress was attended by over 1200 participants. The proceedings of the Congress were published as a book – Ultrasound '82, ed. R. Lerski and P. Morley. Pergamon Press, Oxford 1983. It is 640 pages in length and contains many detailed images.

The membership of the associated societies at the Congress was: AIUM – 3400, EFUMB – 3862, JSUM – 5015, ASUM – 358, SIDUO – 286, SUSEM (Brazil) 425, SAMUS(South Africa) 190 and Malaysian 28, a WFUMB total of 13564 - remarkable continuing growth.

At the conclusion of the Congress Dr. G. Kossoff (Fig. 7) was elected President.

1982 TO THE SYDNEY WFUMB 85 CONGRESS

Dr. George Kossoff from Sydney, Australia, is the only scientist to have served as President of WFUMB. Upon graduation in 1959, he was invited to set up and direct the Ultrasonic Research Section of the Commonwealth Acoustic Laboratories (CAL). Using the method employed by CAL in its acoustic research, he was appointed director of the research of the Section while clinical collaborators were appointed as consultants to the programs. In 1957 he was appointed Director of the independent Ultrasonic Laboratory, a position he held until his retirement in 1997. His research interests covered all aspects of technical, clinical and biological medical ultrasound. In 1979 he introduced grey scale signal processing imaging in diagnostic ultrasound, a technique in universal use today. In his research on safety of ultrasound, he designed equipment to measure the acoustic output of diagnostic equipment and participated in the evaluation of effects of the ultrasonic irradiation on tissue and animals.

Kossoff actively promoted the academic and professional development of medical ultrasound. While on a two year sabbatical leave in the United States, he served as President of the AIUM in 1968. In 1969 he helped establish ASUM and served as its Foundation President from 1970 to 1972. In 1988 the Australian Government honored him by the award " Officer, Order of Australia".

During his three years in office the Administrative Council approved a) the establishment of the History/Archives Committee, b) set the term of office of the Editor as three years, c) initiated discussions with World Health Organization (WHO) to coordinate activities to encourage and promote the use of diagnostic ultrasound in developing countries, d) accepted membership within WFUMB of the Egyptian, Indian, Indonesian, Taiwanese and Mexican societies and e) received application for membership from the Latin American Federation.

The Council received and endorsed a report from the Education Committee that the provision of ultrasound diagnostic services can be carried at two levels of expertise, at basic level 1 by clinicians on their own patients after a shorter training period and at expert level 2 by clinicians seeing patients on a referral basis who require full training. Discussions were also held on the relationship of WFUMB to sonographers. It was agreed that WFUMB should support the professional development of sonographers and undertook action to encourage the staging of the **First World Congress of Sonographers** to be held immediately prior to the Sydney WFUMB 85 Congress.

The Brighton WFUMB 1982 Congress generated a good profit for the Federation. This increase in funds allowed the Council to sponsor the First WFUMB Seminar on Safety and Standardization of Ultrasound in Obstetrics that was held for three days immediately after the Congress. Fifty of the world experts on the subject were invited to attend. The outcome was a report that described the current knowledge and recommended specific action to obtain international agreement on methods to specify indices relating to the safety of the ultrasonic irradiation. The proceedings of this seminar were published in 1986 as special issues of UMB.

The Sydney Congress was attended by over 1100 registrants including about 300 sonographers from 40 countries. The proceedings were published as a book "WFUMB '85 Ed. R. Gill and M. Dadd. Pergamon Press, Sydney 1985. Each paper was published as a one page abstract with images. The Sonographers Congress also attracted large attendance. Unfortunately no proceedings of these Congresses were ever published.

The record of membership of the affiliated societies in 1985 shows AIUM 5261, ASUM 358, SAMUS 407, SUSEM 580, JSUM 5830, MALASIA 22, SIDUO 300, Indonesia 92, EFSUMB 4157 a WFUMB total of 17007, an increase of 3700 in membership.

At the conclusion of the Congress Dr. H. Thompson (Fig. 8) was elected President.

1985 TO THE WASHINGTON 88 WFUMB CONGRESS

Dr. Horace (Tommy) Thompson from Denver, USA, the fifth president, was the only obstetrician to be President of WFUMB. His mentor was the pioneer Dr. Joe Holmes who was on the staff of the hospital where Tommy was head of the department of OBGYN. Under Dr. Thompson's leadership his group published the first article in the United States on the use of ultrasound in obstetric and followed this by many other publications. From 1978 to 1980 Dr. Thompson was President of the AIUM and received two of its main awards (J. Fry Memorial Lecture and J. Holmes Pioneer Awards).

Dr. Thompson maintained contact with key members of the affiliated societies and international organizations. WHO was at that time planning the publication of "WHO Manual on Diagnostic Ultrasound" and, through his contacts there, he ensured that members of WFUMB wrote the key chapters in this Manual.

During his term in office the Administrative Council proposed the publication of a Newsletter to complement the material published by UMB. As Editor, Denis White wanted UMB to be essentially only a scientific and clinical journal. The Council felt that there was a need for a Newsletter to provide information on the functions, purposes and goals of WFUMB as well as on general activities of WFUMB and the international community. It was suggested that the Newsletter be published twice yearly and Dr. Thompson was appointed Editor of the Newsletter. The first two issues of the Newsletter were published in May and September 1988. The first issue described the purpose, objectives and structure of WFUMB while the second discussed factors affecting the use of ultrasound in developing countries and provided information on forthcoming international meetings.

A major achievement in 1985 was the establishment of the Asian Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB) and in 1986 of the Latin-American Federation of Societies for Ultrasound in Medicine and Biology (LAFSUMB). The founding societies for AFSUMB were Japan, China, India, Indonesia Malaysia and South Korea, while for LAFSUMB they were Argentina, Brazil, Mexico, Paraguay and Uruguay. In 1986 the affiliated societies of WFUMB consisted of the AIUM, ASUM, EFUSMB, ISMU (India), ISUMB (Indonesia), JSUM, MALSUM (Malaysia), MAUM (Mexico), SUSEM (Brazil), SIDOU and SAMUS (South Africa). In 1988 the Asian and the Latin Federations joined WFUMB and this reduced to six the number of federations and societies within WFUMB.

From its inception WFUMB had strong interest in the safety of ultrasound and maintained this expertise by sponsoring symposia on the Safety of Diagnostic Ultrasound. These encouraged international exchange of views and in turn the development of international consensus. This permitted WFUMB to publish position statements on safety that were based on internationally accepted scientific data. These proved useful in refuting alarmist statements on routine scanning in obstetrics, not based upon scientific evidence, made by officials of several international organizations.

The Washington WFUMB 1988 Congress was co-sponsored by the AIUM and was attended by a large number of participants who presented over two thousand papers. In keeping with AIUM policy, the proceedings of the Congress published only abstracts of the presented papers. Unfortunately this has since remained WFUMB's publication policy and the rich material of the previous Congresses is no longer in the public domain. The Second World Congress of Sonographers was also held in association with the WFUMB Congress. At the conclusion of the Congress Dr. F. Weill (Fig. 9) was elected President of WFUMB.

The History and Archives Committee took advantage of the large number of experts attending the Washington Congress. It staged a two day Historical Symposium on Diagnostic Ultrasound to which they invited over two hundred experts who presented their experiences in developing new technologies and introducing them clinically in the field. Kodak Health Sciences published the proceedings of this meeting entitled "Medical Diagnostic Ultrasound: A Retrospective on its 40th Anniversary". The proceedings give a thorough, well-illustrated history of diagnostic ultrasound and are highly recommended to those interested in the subject.

In keeping with its policy to support development of international consensus on safety, WFUMB, through its Safety and Standardization Committee, sponsored its Second Seminar on Safety and Standardization in Medical Ultrasound at a conference venue close to Washington. The proceedings of the Seminar were published in 1989 in a special issue of UMB.

1988 TO THE COPENHAGEN 91 WFUMB CONGRESS

Dr. Francis Weill from Besancon, France, was the first of several radiologists to be elected President of WFUMB. He became involved in clinical ultrasound in 1969 and promoted real time ultrasound from its very beginning. He organized the First Congress of Ultrasound in France in 1971, and served as President of the French Society from 1978 to 1981 and of the European Federation from 1984 to 1987. He was consultant to WHO with whom he has worked to promote ultrasound in developing countries, particularly medical institutions in Africa. He has published extensively and his book "Ultrasound in Digestive Diseases" is considered a classic and has been published in English, French and German. In 1986, in recognition of his efforts to promote the use of ultrasound in France and abroad, the French Government made Dr. Weill Chevalier de la Legion d'Honneur.

Up till then, the selection of the President-Elect was influenced to some extent by the location of the Congress when that person was to be President. In a change in policy the Council decided not to elect the President-Elect on the basis of the location of future WFUMB Congresses.

The Council also agreed that members of WFUMB would represent the Federation on the AIUM Output Display Committee and on the IEC Committee on Ultrasound. Mechanisms for WFUMB funding to train doctors and sonographers in developing countries was another major item for discussion. The Patan Hospital in Kathmandu, Nepal expressed interest in participating in a pilot study that was undertaken during the term of the next President.

WFUMB sponsored two seminars on Safety and Standardization in Medical Ultrasound. The first, held in Geneva in 1990, was limited to twenty participants who prepared WFUMB Statements on Thermal Effects in Clinical Applications in B-Mode Imaging and Doppler. These stated that B-mode was not contraindicated for any application, but Doppler held the potential to produce a significant temperature rise. The next seminar was held in Denmark immediately prior to the Copenhagen 91 WFUMB Congress. The Seminar was attended by fifty delegates who, prior to the meeting, submitted proposals for modifications of the Geneva statements and at the meeting voted on the final recommendations. The proceedings of the two Symposia were published by UMB in 1992 and form the basis of the Thermal and Mechanical Indices used as Output Display on current equipment.

The Copenhagen Congress was attended by over 1500 participants from 60 countries and the abstracts of the presented papers were published in five booklets on the topics of General Ultrasound, Cardiology, Technical, Obstetrics and Other Fields. The opening address was an honorary lecture by Dr. John Wild in recognition of his pioneering work and the award of the Japan Prize. The Third World Congress of Sonographers was also held in association with the WFUMB congress. The total membership of WFUMB at the General Assembly in 1991 was 23,189, an increase of 6182 members over the last three years.

At the conclusion of the Congress Dr. M. Fukuda (Fig. 10) was elected President.

1991 TO THE SAPPPORO 94 WFUMB CONGRESS

Dr. Morimichi Fukuda, from Sapporo, Japan, is an internal medicine physician. He started his research into ultrasound in 1966 using the first Japanese prototype contact compound scanner and for the next ten years conducted clinical research on imaging of tumors, primarily of the liver. He co-authored the book "The Primer of Ultrasound in the Diagnosis of Liver, Biliary Tract and Pancreas", the first publication on medical ultrasound in Japan. In 1979 he commenced development of endoscopic ultrasound to study the stomach, pancreas, gallbladder and the retroperitoneum and presented results on this at the 1985 Sydney WFUMB Congress. He served as President of JSUM in1987-1988 and was Secretary of AFSUMB from 1985 to 1988.

A major initiative during his term in office was emphasis on provision of education particularly in developing countries. Two educational workshops were held at which provision of guidelines for ultrasound examinations was identified as a fundamental need and means to construct and disseminate these were discussed. Two members of the Administrative Council (a radiologist and an obstetrician) visited Patan Hospital in Kathmandu and presented a report on the visit. Ultrasound was introduced in that hospital four years previously by a well-trained sonographer who proceeded to train physicians and sonographers on ways to undertake ultrasound examinations. The majority of diseases in the population are amenable to ultrasound diagnosis and the technique was in widespread use in the hospital. The two Council members assessed the level of proficiency by the staff and found that it matched that in their own hospitals. The results obtained at Patan hospital were considered to fit the objectives of WFUMB and the methodology used there was considered a good way to start WFUMB based training.

As a result of illness, Dr. Denis White had to resign in 1992 and Dr. Peter Wells (Fig 11) from Bristol, United Kingdom, assumed the position of Editor-in-Chief.

The Sapporo 94 WFUMB Congress was held in conjunction with the 4th Congress of World Federation of Sonographers. More than 1500 delegates from 45 countries attended the Congress. In 1994 the Federation had eight affiliated organizations with a total of 43,325 members, a large increase over the last three years. At the end of the Congress Dr. B. Goldberg (Fig. 12) was elected next President.

1994 TO THE BUENOS AIRES WFUMB 97 CONGRESS

Dr. Barry Goldberg, from Philadelphia, USA, was the second radiologist to be President of WFUMB. Dr. Goldberg began research in ultrasound in 1964 while still in his residency using the first commercially available ultrasound equipment in the United States. He joined Thomas Jefferson University Hospital and Medical College in 1977 where he is now Director of the Division of Ultrasound and Professor of Radiology. His major interests are advanced Doppler techniques, ultrasound contrast agents, and education programs for physicians and technologists. His education program at Thomas Jefferson is one of the largest in the world. He has published widely and has received numerous grants. He was President of AIUM in 1980-1982. His scientific and educational output has been recognized by the awards of Gold Medals by the Radiological Society of North America (RSNA) and by the American College of Radiology.

The Administrative Council held in Beijing in 1995 began on a sad note with the death in that city of one of the Councilors who came to attend the meeting.

The Council considered applications for association with WFUMB from the Egyptian, Turkish, Russian, and Ukraine societies. At the meeting the President informed the Council that SIDUO no longer wished to remain member of WFUMB.

A significant change to the Council was the establishment of two Vice-President positions that were filled at the conclusion of the Sapporo Congress.

Through its close collaboration with WHO, WFUMB was being invited to various WHO organizational meetings. In return WHO was invited to specially arranged education and safety meetings. This close contact insured good collaboration between these two organizations on matters of interest to both, such as safety and education. At a WHO sponsored meeting held in Philadelphia in 1996, a joint Scientific Group prepared a report on Training in Diagnostic Ultrasonography – Essentials, Principles and Standards. The report was submitted for formal WHO approval later that year. The Council considered new developments such as color imaging, multi-planar and 3-D imaging, endoluminal ultrasound and contrast agents and the changes to education that would have to be made to accommodate that these advances. Establishment of a permanent WFUMB Website was considered and a budget was allocated to the Secretary to provide a report on this matter. The Council also decided that the format for naming future Congresses be changed for example, FLORENCE WFUMB 2000 CONGRESS.

The Federation sponsored two Seminars on Safety of Ultrasound in Medicine held in Utsunomiya, Japan and Kloster-Banz in Germany. The proceedings of the Seminars resulted in recommendations that were published in one issue of UMB in 1998. Recommendations on thermal effects were that a 1.5 degrees Celsius rise was safe but a temperature rise above 41 degrees for five minutes was potentially hazardous. Recommendations on nonthermal effects were more general and specified cautious use. The recommendations also stated that ultrasound could be considered safe if the acoustic amplitude did not exceed 1 MPa.

The Federation sponsored a two-day conference on ultrasound in Hammamet, Tunisia. Over 200 participants from eight African countries attended. A round table meeting was held on education and the representatives from the various countries discussed forming an African Federation. Two members of WFUMB Council represented WFUMB at the Conference. The Council also considered a request for the next conference to be held in Turkey.

A new federation of ultrasound societies entitled Mediterranean and African Society for Ultrasound (MASU) joined WFUMB that year. MASU had at that time a delegation of over 400 members.

Over the years, the Newsletter had an uneven publication record and the last issue was published in July 1997.

As with previous Congresses the proceedings consisted of abstracts of the 450 papers presented at the meeting. A Syllabus of the 27 presentations (text and echograms) submitted by the invited speakers was also provided. At the conclusion of the Congress the Dr. H. Lutz (Fig.13) was elected President.

1997 TO THE FLORENCE WFUMB 2000 CONGRESS

Dr. Harald Lutz, from Bayreuth, Germany, was the second internal medicine physician to be President of WFUMB. He started using ultrasound in 1970 applying real time scanning to examine the abdomen. His first publication on ultrasound of the upper abdomen appeared in 1972 and on ultrasound guided fine-needle puncture in 1973. In 1989 he was appointed Medical Director Klinikum Bayreuth. He was President of the German Ultrasound Society (DEGUM) from 1983-1986, and President of EFSUMB from 1997-2000.

During his tenure, the Council felt that education, particularly in developing countries, should be a major activity for WFUMB. With this aim Dr. Lutz initiated the African project of WFUMB. In cooperation with MASU planning began to establish a WFUMB African Partnership in which WFUMB would support sending teachers to ultrasound courses, establish scholarships for young persons and prepare suitable education material.

WHO was at that time planning the establishment of centers of excellence in radiology in the third world. The previously established contacts, reinforced by extensive discussions, swayed WHO to accept WFUMB as the organization to be responsible for this task in diagnostic ultrasound. The first center of excellence (COA) was established in Kampala (Uganda) in 2004. This center has been a very active institution for ultrasound education for the whole region. WFUMB also proceeded to sponsor diagnostic ultrasound courses that were held in Gambia and Uganda. Representatives of WFUMB attended WHO meetings on Training and Education in Diagnostic Ultrasound and agreement was reached that WFUMB would be responsible for editing the next edition of WHO's "Manual of Diagnostic Ultrasound".

The WFUMB website went online during this period. The current address is www.wfumb.org.

By 1998, the growth in membership had stabilized and six federations of societies were affiliated with WFUMB. The federations and their membership were: AFSUMB (17,365), EFSUMB (12,522), AIUM (7,005), FLAUS (4,840), ASUM 91,232) and MASU (511), a total of 43,475 members.

The Florence Congress was the last Congress to be co-shared with the Congress of Sonographers. Over 1500 delegates presented more than 400 papers at the Congress. At the conclusion of the Congress Dr. H. Watanabe (Fig 14) was elected President.

2000 TO THE MONTREAL WFUMB 2003 CONGRESS

Dr. Hiroki Watanabe from Kyoto, Japan, the tenth President, is an urologist and was the third Japanese clinician to be elected President of WFUMB. He spent most of his career at the Kyoto Prefectural University Medical College where he was Professor of Urology and Meiji University of Integrative Medicine. John Wild was the first to describe ultrasonic transrectal scanning in the mid fifties and showed that the technique could image the rectal wall and some of the local pathological changes. Unfortunately the prototype equipment used by Dr. Wild was cumbersome and the technique did not attract clinical or technical interest. Dr. Watanabe was the first to develop equipment that could be used in a clinical setting and in 1976 published images of the prostate that could be obtained with the method. His technique for endoluminal scanning of the prostate has been expanded and is now a major tool for the diagnosis and treatment of diseases that can be imaged using the endoluminal

approach. In 1994-1995 Dr. Watanabe was President of the Japan Society of Ultrasound in Medicine and in 1998-2001 President of AFSUMB.

A major challenge facing WFUMB during this period was the structure of AFSUMB. This federation, initially organized by Dr. Wagai, was facing two issues. The first concerned application for affiliation from two societies in India. The rules of WFUMB stipulate that only one society from one country, whose focus is clinical and medical ultrasound and which admits all specialties, can be affiliated with WFUMB. This rule solved the issue (15). The other was the matter of "One China" with application from Mainland China and Taiwan. Dr. Watanabe's political acumen allowed successful resolution of this potential conflict.

The President and the Council continued their support for the establishment of Centers of Excellence (COE). During this three-year period four COE's were established: in Kampala (Uganda), Nairobi (Kenya), Moshi (Tanzania) and, with Asian Cooperation Group, Dhaka (Bangladesh).

The project "History of WFUMB" was completed. Initially proposed as a book by Council three years previously, it was decided instead that the history be published on a CD and be given to participants at the Montreal Congress.

After a dormant period of five years, the Newsletter started to be published again in 2002. The name of the newsletter was changed to "**Echoes**" and Dr. Sorens Hanke from Copenhagen, Denmark, was appointed as Editor. He remained in that position until the editorship was passed to the WFUMB office in 2009. Dr. Hanke was also responsible for restructuring and running the WFUMB Web-site until that date.

The membership of WFUMB continued its modest growth and in 2003, the six affiliated societies had a total membership of 51,500 participants.

As with previous meetings the proceedings of the Montreal Congress consist of over 275 abstracts of the submitted papers. The format of the Congress was enlarged to include Meet-the-Professor sessions as well as debate sessions, where experts took a "pro" and "con" position on controversial topics. Other educational sessions included "just images", daily case-of-the-day and film panel discussions. At the conclusion of the Congress Dr. M. Zizkin (Fig 15) was elected next President.

2003 TO THE SEOUL WFUMB 2006 CONGRESS

Dr. Marvin Ziskin, from Philadelphia, USA, holds a degree in Radiology as well as Biomedical Engineering. He started research in diagnostic ultrasound in 1965 doing clinical A and B-scans and Doppler studies. His research on safety began in 1972 and this has continued to be his major career interest. He is currently Professor in Radiology and Medical Physics and Director of Center for Biomedical Physics at Temple University. His research interests include bio-effects and safety of ultrasound and electro-magnetic radiation. He has authored 7 books and over 200 scientific publications. He was President of the AIUM from 1982–1984, and has been awarded the J. Fry and J. Holmes awards by the AIUM.

In a major change in policy Council agreed to decrease the term of office of the Council from three years to two. Correspondingly the interim period between the Congresses was decreased to two years. The Council also

decided to create a Secretariat Office to assist the professional management of WFUMB. The Secretary, Dr. Stan Barnett, was asked to undertake the massive task of transferring all existing documents from paper to electronic form. He managed to achieve that task in 120 hours and the electronic version of these documents is now kept by the Secretariat.

A scholarship program that provided financial support to young investigators for three to six months training was initiated, and scholarships were awarded to applicants from Tunisia, China, Bangladesh, Romania and Venezuela. Short training courses were continued and WFUMB Councilors together with local physicians held training courses in Manilla (Philippines) and Freetown (Sierra Leona). At WFUMB request, our past president Dr. Lutz and Dr. Gharbi published a book on "Ultrasound in Tropical Diseases". The authors wrote this book specifically to be used for teaching in developing countries. Two new CEOs were set up, one in Timisoara, Romania, the other in Caracas, Venezuela.

A WFUMB Symposium, Safety of Ultrasound in Medicine: Conclusions and Recommendations on Biological Effects and Safety of Ultrasound Contrast Agents, was held in Vancouver, Canada in 2005. The proceedings were published in UMB in 2007.

After serving as Editor for 14 years Dr. Peter Wells resigned in 2006. Dr. Christie Holland (Fig 16), a well-regarded scientist from the Department of Biomedical Engineering and Radiology, University of Cincinnati, USA was appointed Editor of UMB that year.

More than 2500 participants presented over 400 papers at the Congress. Other educational sessions similar to those held at the Montreal Congress proved popular with the participants. At the conclusion of the Congress Dr. G. Cerri (Fig 17) was elected President.

2006 TO THE WFUMB 2009 SYDNEY CONGRESS

Dr. Giovanni Cerri, from Sao Paulo, Brazil, was the fourth radiologist to be elected President of WFUMB. Apart from two fellowships, one in the United Kingdom the other in France, he has been with the Faculty of Medicine, University of Sao Paulo, where he is currently Head of the Department of Radiology. He has published extensively, more than 200 scientific publications and 22 books. He has been a member of WFUMB Council since 1991 and over the years has served on several of its Committees.

The Council continued its emphasis on the provision of continuing education in Africa, Asia and Latin America. Apart from sponsoring training courses it continued its support of existing Centers of Excellence, and the provision of scholarships to applicants from Bangladesh, Ecuador and Venezuela. A new initiative was the donation of four ultrasound units, two to Nigeria and one each to Bangladesh and Moldavia. WFUMB also sponsored the publication of a second book that was an update of the first volume "Ultrasound in Tropical Diseases" by Lutz and Garbi. The second book included new applications such as musculoskeletal ultrasound.

A new major initiative was to improve relationship with its affiliated societies and initiate contacts with other organizations with interest in diagnostic ultrasound. With this as aim, members of the Council met in 2007 with representatives of the AIUM at their annual meeting in New York and ASUMB in Bangkok. A meeting was also

held that year in Florence with the Council of the International Society for Ultrasound in Obstetrics and Gynecology (ISUOG). A meeting of representatives from the two bodies convened a mini-symposium on the Safety of Non-Medical Ultrasound such as to provide 3-D video clips to expectant parents. The proceedings of this Symposium were published by UMB in 2010.

Meetings were also held with members of the International Society of Radiologists (ISR) to explore ways to establish closer co-operation. The first meeting was held in 2008 in Marrakesh, Morocco, during the ISR Congress held there. It was agreed there that three WFUMB speakers would participate at the next ISR meeting to be held in Shanghai, China, in 2010. Contact was also made with the Society of Radiologists in Ultrasound (SRU) to identify areas of mutual interest.

At the meeting with the AIUM held in 2007 in New York it was agreed that, commencing in 2009, the AIUM office would be responsible for the provision of secretarial services to WFUMB and that the office would be co-located with the AIUM in Washington, DC.

The Council explored ways to streamline the selection process of cities to host future WFUMB meetings and a committee charged with providing recommendations was formed.

The Sydney Congress continued in the tradition of successful WFUMB meetings. More than 2400 participants from 70 countries attended the Congress, no mean achievement in the difficult economic climate of that time. Abstracts of the presented papers were published as proceedings. In keeping with WFUMB interest in education a special mini-symposium was held on ways to “train health care practitioners in developing countries”. The symposium drew a large audience showing interest in the subject by the participants. At the Conclusion of the Congress Dr. M. Claudon (Fig 18) was elected next President.

2009 TO THE WFUMB 2011 VIENNA CONGRESS

Dr. Michel Claudon, from Nancy, France, was the fifth radiologist to be elected President of WFUMB. Apart from one fellowship in the United States he has worked at the University of Nancy where he is currently Professor of Radiologie at the Hopital d’ Enfant in that city. He was President of the French Society for Ultrasound in Medicine and Biology from 1997 to 1999 and President of EFSUMB from 1999 to 2002. His research interests include Doppler techniques, 3-D rendering, ultrasound contrast agents, uroradiology and pediatrics. He has published extensively and is on the editorial board of several journals.

In his farewell remarks published in Echoes, Dr. Claudon stated that the primary focus of his shorter (two years) presidency was on collaboration. He continued “ In an age where global community has so many opportunities to interact, I am confident that WFUMB’s educational endeavors are continuing to the development of strong clinical practices of ultrasound worldwide”. As example WFUMB expanded its collaboration with ISR and both agreed to send their respective representatives to speak at each other’s meetings starting in 2010. The two organizations also agreed to expand their joint education programs in Africa. Another example is the joint release by WFUMB and ISUOG “Statement on Safe Use of Doppler Ultrasound During 11-14 Week Scans”. This statement has been endorsed by the AIUM. In cooperation with EFSUMB and AFSUMB, WFUMB revised the existing

guidelines for “International Guidelines and Good Clinical Practice Recommendations for Contrast Enhanced Ultrasound (CEUS) of the Liver”.

Educational support was high on the agenda. The Council approved funding for visiting professorships in three developing countries, for five scholarships from applicants from Africa and Asia and the supply of three equipment to Mombasa, Kenya, Cambia, Sierra Leone and Omnogabi Province, Mongolia. It also supported the setting up of a new COE in Indonesia, and funding for three representatives to inaugurate the center. Evidence of local interest was seen in the joint WFUMB/MASU meeting held in Lusaka, Zambia in 2010. Over 130 participants from Zambia, Congo and Uganda attended the Congress. Future meetings were planned in Kigali, Zambia in 2010, and in Bangkok, Thailand in 2011.

The membership of WFUMB during this period was six affiliated societies with a total membership of 54,000 participants from 80 countries, a truly international representation.

The WFUMB Vienna 2011 Congress recognized that the proposal to set up WFUMB arose at the Vienna Congress in 1969. It highlighted this by holding a special morning session entitled “How Everything Started - Meet the Pioneers”. Ten of the early users of ultrasound (five Past Presidents and a Past Editor) described their experiences in starting to use ultrasound in an initial environment of skepticism and distrust that slowly changed to acceptance on achievements of diagnostic successes and with technical improvements. The slides shown at that session are available by request to the WFUMB Secretariat Office. Over 1500 participants attended the Congress presenting more than 300 papers. At the Conclusion of the Congress Dr. Masatoshi Kudo (Fig 19) was elected President for 2011 to 2013.

UMB - THE WFUMB JOURNAL

Discussions to publish a WFUMB journal commenced immediately after the first Vienna Congress. Between 1969 and 1973 Drs. de Vlieger and White visited a number of publishers to discuss the proposal. These discussions were complicated by the fact that WFUMB at that time did not exist and had no funds. It was therefore essential that the publication not incur any financial loss. Pergamon Press was the only publisher willing to concede ownership of the journal and the list of subscribers to WFUMB, to meet all potential losses, and to share profits with the Federation. Marinus de Vlieger and Denis White recommended that Pergamon Press be accepted as publisher of the journal and that it be named Ultrasound in Medicine and Biology (UMB). This was agreed to at the Rotterdam Congress in 1973.

It was obvious to the Council that Denis White should be appointed as the first editor-in-chief of the journal. The first issue was published late in 1973: it consisted of 108 pages and included articles on echocardiography, power measurement and bio-effects, as well as the proceedings of meetings in Belgium, France, The Netherlands and the USA, and the Constitution of the Federation.

In those early days, it was sometimes difficult for the editor to assemble sufficient numbers of papers to justify the regular publication of the journal. The survival of the journal was never in doubt, however, and it grew in scientific stature and commercial success. In 1981 to enhance the stature of the journal the Council agreed to set up two prizes for the best clinical and technical manuscript submitted to the journal that calendar year. The award of these prizes was maintained until 1998.

In 1992 Denis White suffered a stroke. Before then, however, he had persuaded the Council to appoint Dr. Peter Wells, a well-known physicist from Bristol, United Kingdom, as editor-elect and the transition was accomplished

without any disruption in the publication. In 2008 the United Kingdom Government honored Peter Wells by the award of CBE (Order of Commander of the British Empire).

Peter Wells served as editor-in-chief until the end of 2006. The relationship between the Federation and the publisher – whose name had changed from Pergamon to Elsevier in 1996 – was one of longstanding mutual trust. UMB had more than doubled in size from 1992 to 2006 and had gained an impact factor of 2.221 – then the highest of any journal devoted to the whole field of ultrasound in medicine and biology. As the official WFUMB journal, UMB had become not only a very visible token of the scientific excellence of the Federation, but also one of its principal sources of revenue.

In January 2007 Dr. Christy Holland, an eminent bio-medical engineer at the University of Cincinnati, USA, succeeded Peter Wells as editor-in-chief. She spearheaded the modernisation of the journal in the new era of electronic publication – and, most importantly and with a 2010 impact factor increase to 2.493, an ever increasing number of annual submissions (550 in 2011), 472 submissions on a rapidly-rising trajectory, a rejection rate of 59 per cent and a fourth-place ranking amongst all the journals devoted to acoustics. She has more than sustained UMB's pre-eminence in leading and recording the international development of ultrasound in medicine and biology

CONCLUSION

WFUMB remains a strong, vigorous society that is the pre-eminent international organization on all aspects of diagnostic ultrasound. It has achieved this position by attracting the best international clinicians and scientists to its Council and this has ensured that position papers issued by the organization are based on the latest clinical and scientific knowledge. Their expertise has also guided the focus of WFUMB activities into areas of greatest need ensuring that the Federation continues to remain relevant over the years. The safety of the technique, the availability of high performance, portable, low cost equipment and explosive growth in applications and utilization in developing countries should ensure that this strong growth continues well into the future.

Acknowledgements

We would like to thank Glynis Harvey from the WFUMB Secretariat Office, and Stan Barnett for providing us with the electronic records of the Administrative Council meetings, Newsletter and Echoes. We have used personal records of early Administrative Council meetings (1969 to 1985) in preparing this manuscript. We would also like to thank many of the Past Presidents and in particular Harald Lutz for their contributions to the earlier version of this document. Peter Wells and Christie Holland kindly provided the Section on UMB.

Figures

Figure 1. Karl Ossoinig, Secretary of the 1969 Vienna Congress
Figure 2. Marinus de Vlieger, Chairman of Organizing Committee to establish WFUMB
Figure 3. Denis White, First Editor of UMB.
Figure 4. Gilbert Baum, 1stPresident of WFUMB.
Figure 5. Toshio Wagai, 2nd President of WFUMB.
Figure 6. Hans-Rudi Mueller, 3rd President of WFUMB.
Figure 7. George Kossoff, 4th President of WFUMB.
Figure 8. Horace Thompson, 5thPresident of WFUMB.
Figure 9. Francis Weil, 6th President of WFUMB.
Figure 10. Morimichi Fukuda, 7th President of WFUMB.
Figure 11. Peter Wells, Second Editor of UMB.
Figure 12. Barry Goldberg, 8th President of WFUMB.
Figure 13. Harald Lutz, 9th President of WFUMB.
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Figure 15. Marvin Ziskin, 11th President of WFUMB.
Figure 16. Christie Holland, Third Editor of UMB.
Figure 17. Giovanni Cerri, 12th President of WFUMB.
Figure 18. Michel Claudon, 13thPresident of WFUMB.
Figure 19. Masatoshi Kudo, 14th President of WFUMB.

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