

AFSUMB and WFUMB Publications



ECHOES

WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

A NEWSLETTER PROVIDING REPORTS AND HIGHLIGHTS OF WFUMB'S WORLDWIDE EDUCATIONAL ENDEAVORS

WFUMB IS DEDICATED TO THE ADVANCEMENT OF ULTRASOUND BY ENCOURAGING RESEARCH, PROMOTING INTERNATIONAL COOPERATION, DISSEMINATING SCIENTIFIC INFORMATION, AND IMPROVING COMMUNICATION AND UNDERSTANDING IN THE WORLD COMMUNITY.

The Value of Your Membership: Does US\$1.50 really make a difference?

- Education Projects: Asia, Africa, Latin America 2
- Centers of Excellence - WFUMB Leadership 3
- Making a Difference - Education Committee Brainstorming - WFUMB Committees 4
- Supporting Local Programs - President's Farewell 5
- CEUS Liver Guidelines - New Safety Statements - UMB Impact Factor Rises 6
- Affiliate Updates - WFUMB2011: In Appreciation 7

WFUMB's five centers of excellence, such as its most recent center in Jakarta, Indonesia, provide a key resource in the ultrasound training of local medical practitioners.



WFUMB collects dues from its six affiliates—AUM, AFSUMB, ASUM, EFSUMB, FLAUS, and MASU on the order of US\$1.50 per member. The funds are then applied to the various educational efforts organized by WFUMB volunteers and leadership. At a recent Education Committee meeting, the results of our funding were clearly apparent. WFUMB's various Centers of Excellence (COEs), located in Bangladesh, Uganda, Venezuela, Romania, and Indonesia, combined, have put on 24 annual workshops since 2004 and have 25 years of

cumulative experience in providing ultrasound training.

In addition to the education offered through the COEs, WFUMB sponsors educational projects which target three emerging regions: Africa, Asia, and Latin America. Each regional activity is coordinated through a WFUMB officer or counselor: Hassan Charbi in Africa, Byung Ithn Choi in Asia, and Leandro Fernandez in Latin America.

WFUMB participates in the WHOHINARI project, providing free WFUMB journal subscriptions in electronic format

to needy centers in developing and emerging countries.

The Global Ultrasound Equipment Donation Foundation (GUEDF), organized by Education Committee Chair Barry Goldberg, provides a mechanism for installing ultrasound machines in needy centers in developing countries. See page 4, "Making a Difference!" for a first-hand accounting of the value these machines deliver.

WFUMB's newest initiative, developing a set of e-learning

continued on p2

WFUMB Education Projects

ASIAN EDUCATION PROJECT



The 2011 World Federation for Ultrasound in Medicine and Biology (WFUMB) Medical Ultrasonic Course was held February 16 – 18, 2011, in Thailand.

The course was organized by Wilaiporn Rhothisuwan, who was president of the MUST at that time. The meeting was held in the 50 year Royal Jubilee Building, which belongs to the Thai Medical

Association, and in conjunction with MUST Annual Scientific Meeting.

The program included lectures, live demonstrations, and post tests. Masatoshi Kudo, WFUMB's president-elect, and WFUMB Administrative Councilors Byung Ihn Choi and Seung Hyup Kim lectured on behalf of WFUMB. There were 320 participants including 150 residents from Thailand, Indonesia, Laos, and the USA.

*"We would like to thank
WFUMB for all the support
that was given to us."
Wilaiporn Bhothisuwan*

continued from p1

modules to aid in ultrasound training represents a significant step forward in WFUMB's ability to provide a global product that can be utilized anywhere, at any time. Although development of the product will require a significant investment, once created, the implementation costs will be minimal. Education Committee member Paul Dubbins is spearheading this intensive effort with an initial focus on obstetrical ultrasound. The hope is that a basic ultrasound training module will have a tremendous impact on the maternal-fetal mortality rate in the targeted regions.

The reality is that e-learning will provide an efficient, consistent, measurable, and portable method of training. Global outreach—the ultimate goal, is within our sites.



AFRICAN EDUCATION PROJECT

- Three courses have been held in Lusaka-Zambia (8-12th Feb 2010), Tripoli-Libya (25th to 27th June 2010), and Kigali-Rwanda (12-16th Dec 2010).
- MASU Congress 2012: This will be held in Nairobi Kenya 3 to 7 2012, under Kenya Society of Ultrasound in Medicine and Biology (KESUMB).
- Promotion of MASU activities in the future with a purpose of spearheading activities in Ethiopia, Nigeria, Togo, Senegal, Zanzibar/Pemba program will continue under the auspices of SLUMB and MASU.
- Additional efforts will be planned through WFUMB umbrella. Support to societies through scholarship, donations, visiting professors program. Possible creation of the second African WFUMB COE in Nigeria.
- We are planning for a project for 2011-2012 Lomé in Togo with potential of a French speaking COE.
- We plan for a MASU course in Addis Ababa, Ethiopia, in collaboration with WFUMB and ISR in 2012.
- The activities in Misurata, Libya are still awaiting resumption of peace and calm in Libya.

LATIN AMERICAN EDUCATION PROJECT

The WFUMB Latin American Education Project has been very active, supporting and co-organizing scientific activities in Venezuela and Brazil.

A variety of courses have been organized throughout South and Central America since early 2010.

- The 2nd FLAIS Course, Guatemalan Ultrasound Society, April 15 - 17, 2010, Guatemala
- Centromerican Federation of OB-GYN Societies/ FLAIS Congress, April 19 - 23, 2010, Nicaragua
- FLAIS Bolivian Ultrasound Course, Bolivian Ultrasound Society, April 29 - 30, May 01, 2010, Bolivia
- The 7th Symposium of Actualization in Gynecology & Obstetrics, Colombian Ultrasound Society, April 22 -

23 - 24, 2010, Cartagena, Colombia

- The 7th Symposium of Dominican Ultrasound Society, Breast Ultrasound, May 7 - 8, 2010, Dominican Republic
- Mexican Federation of Ultrasound/FLAIS Congress, July 29 - 31, 2010, Acapulco, Mexico
- The 8th International Ultrasound Symposium Neurosonography course - FLAIS, Costa Rica Ultrasound Society, September 30 - October 1 - 2, 2010, San Jose, Costa Rica
- FLAIS AVUM Ultrasound Congress, Venezuelan Ultrasound Society, October 7 - 9, 2010, Puerto La Cruz, Venezuela
- Brazilian College of Radiology/WFUMB-FLAIS Course, October 9 - 12, 2010, Rio de Janeiro, Brazil

WFUMB Centers of Excellence (COEs)



COE LOCATIONS AND LEADERSHIP

Bangladesh Society of Ultrasonography Dhaka, Bangladesh; Established 2004 Secretary: Karu Baa
Indonesian Society of Ultrasound in Medicine Jakarta, Indonesia; Established 2011 Secretary: Daniel Makes
Romanian Society of Ultrasound in Medicine and Biology Timisoara, Romania; Established 2007 Secretary: Ioan Sporea
Sociedad Venezolana de Ultrasonido en Medicina Caracas, Venezuela; Established 2005 Secretary: Leandro Fernandez
Uganda Association of Sonography Kampala, Uganda; Established 2004 Secretary: Michael Kawooya

COE REQUIREMENTS

Mission: to provide education in medical ultrasound in developing countries, grant recognition to participants after completion of a course, and accumulate ultrasound-related reference materials.

Sponsoring Society: The Society sponsoring the COE must be a legally established organization and partnered with a WFUMB federation. It must be located in a developing country and possess an independent office with sufficient past experience in ultrasound education. Also, it must have the ability to attract trainees, not only from its own country, but also from surrounding countries.

COE Responsibilities: The COE shall be responsible for conducting annual educational programs at least once a year and divided into two tracks: one for ultrasound practitioners and one for ultrasound educators.

WFUMB Leadership 2009-2011

A SPECIAL THANKS TO THE WFUMB LEADERSHIP FOR THEIR 2009-2011 TERM OF SERVICE

Executive Bureau

President:
Michel Claudon (France - EFSUMB)

President-Elect:
Masatoshi Kudo (Japan - AFSUMB)

Vice President 1:
Leandro Fernandez (Venezuela - FLAUS)

Vice President 2:
Ronald Bende (Australia - ASUM)

Secretary:
David Evans (United Kingdom - EFSUMB)

Treasurer:
Beryl Benacerraf (USA - AIUM)

Immediate Past President:
Giovanni Ceri (Brazil - FLAUS)

Administrative Councilors

Joshua Copel (USA - AIUM)
Norbert Gitzmann (Austria - EFSUMB)
Michael Kawooya (Uganda - MASU)
Seung Hyup Kim (Korea - AFSUMB)
Roberto Morcayo (Ecuador - FLAUS)
Fergus Scott (Australia - ASUM)

Co-Opted Councilors

Ryung Choi (Korea - AFSUMB)
Hassen Gharbi (Tunisia - MASU)
Barry Goldberg (USA - AIUM)

Journal Editor (UMB)

Christy HOLLAND

The addition of a Center of Excellence in areas such as Ethiopia, Mongolia, Paraguay, or Fiji would greatly enhance the level of educational expertise in rural areas throughout the world.

WFUMB Welcomes Indonesian Center of Excellence

First Session Held February 12-13, 2011

WFUMB's 5th COE came into existence on February 12, 2011 during the Indonesian Society's Ultrasound Session, February 12-13, 2011.

The signing was held in conjunction with the 6th Annual Meeting of the Indonesian Society of Oncology Imaging (ISO) February 12 - 13, 2011.



Daniel Makes, the COE Secretariat signed the contract with Byung In Choi COE Advisory Council Chair (pictured above).

The first workshop of the COE was entitled "Hepatobiliary and Pancreas Ultrasound." Invited speakers Byung Choi and Masatoshi Kudo represented WFUMB at the meeting, which attracted over 200 participants.

The COE will be holding several courses in the coming year with topics planned for color Doppler and musculoskeletal ultrasound.

		<h2>Making a Difference? Absolutely!</h2>	
		<p>GLOBAL ULTRASOUND EQUIPMENT DONATION FOUNDATION (GUEDF) - A TESTAMENT TO SAVING LIVES</p>	
<p><i>"Committee work is the driving force behind our successes. It is essential to recognize those that continually and tirelessly contribute to the mission of the organization."</i> Michel Claudon</p>		<p>The following is related by Dr. Esther Kawira, Medical Director Shirati Health, Education and Development Foundation (SHED) and 2008 recipient of an ultrasound machine from WFUMB's Global Ultrasound Equipment Donation Foundation (GUEDF).</p>	<p>she be developing some kind of ugly tumor, I wondered? It didn't seem to be connected to either the liver or the spleen. I advised her that we needed to do another ultrasound, to determine the true age of the baby, and to see what that mass was. At the end of clinic hours, I found her waiting,</p>
		<p><i>"When we arrived, we found that the power, after being off all day (rationing), had just come on again."</i></p>	
<h3>WFUMB Committees</h3> <p>WFUMB extends its gratitude to all its 2009-2011 committee participants, and a special thanks to committee chairs:</p> <p>Congress Committee David Evans</p> <p>Constitution Committee Joshua Copel & David Evans</p> <p>Education Committee Barry Goldberg</p> <p>Finance Committee Ronald Benzke</p> <p>Nominating Committee Masatoshi Kudo</p> <p>Safety Committee David Evans</p> <p>Publications Committee Michel Claudon</p> <p>Public Relations Committee Masatoshi Kudo</p>		<p>"25 May 2011—Abdominal Pain "My abdomen hurts." This is a very common initial complaint. I responded by asking my common first question to young women of child bearing age. "Are you pregnant?" "Yes", she responded. She was from Musoma, the district headquarters several hours away, but had come to Roche to attend a funeral at her brother's home. She had taken the opportunity to be examined by me on my one day per week at the Roche Health Center. She had been troubled by abdominal pain for months during this, her third pregnancy. By history she was now about six months along. She had had an ultrasound a few weeks before, she said, at a private clinic in Musoma. She said she had been told that the placenta was high and the baby was low...but nothing that made sense to me. The report, she said, was on her antenatal card that she left at home. I examined her, and found that the swelling of pregnancy in the lower abdomen was not as large as I had expected. I found good fetal heart tones with the dopplere. However, more worrying was a hard mass across the upper abdomen. Could</p>	<p>requesting a lift with our vehicle to Shirati, my home base where I do ultrasound. I agreed that if the power was on when we arrived, I would do the ultrasound then, though I normally do non-urgent scans just in the mornings. When we arrived, we found that the power, after being off all day (rationing), had just come on again. I started the scan in the lower abdomen, and was surprised to see that the uterus was only minimally enlarged, and did not contain a pregnancy, only thickened endometrium. I could already see an ugly looking tumor encroaching into the scanning field in the lower abdomen. Where was the pregnancy? Had I really heard the fetal heart tones earlier, I wondered, or was the patient's own heart rate rapid? I rechecked the patient's pulse, and it was about 80. Perhaps my memory was faulty. I scanned upwards a bit, and the ugly tumor continued into the upper abdomen. I looked again in the uterus. Still no baby, not even a tiny one! With a sigh, I decided to look for familiar structures in the upper abdomen, starting with the spleen and left kidney in the left upper flank. Moving my probe,</p> <p style="text-align: right;"><i>(continued)</i></p>
		<h3>Education Committee Brainstorming Session</h3> <p>The WFUMB Education Committee and officers participated in a brainstorming session on February 24-26, 2011 in San Jose, Costa Rica. Leaders from several WFUMB Centers of Excellence, as well as educators from various parts of the world contributed to the success of the meeting, providing a first-hand accounting of the challenges faced every day in performing ultrasound education with minimal resources. The generous hospitality of the Latin American Federation of Ultrasound in Medicine's (FLAUS) leadership was outstanding. FLAUS joined with WFUMB for a portion of the time to discuss plans for WFUMB 2013.</p>	

Supporting Local Programs to Educate the Educators



Equipment Donation to Nigeria



Training Session in Tanzania



Training Session in Zambia



MASU Course in Tripoli

(continued)

I saw clearly...a fetal head! I was dumbfounded. Yes, it was definitely a fetal head, it couldn't be anything else. It was big, I measured it, giving no visible reaction to the patient. It was 26 week size. I scanned across the upper abdomen and found the body, with a beating heart. This was an advanced ectopic pregnancy, abdominal type, with the baby still alive, and the ugly tumor was the placenta, plastered among the intestines no doubt. I turned off the machine. I was still almost speechless, though I let out a big sigh, intentionally, to start gently during the patient in that perhaps all was not right with her world. "Do you have someone here with you?" I inquired. "Yes, my brothers are outside", she replied. "Sure enough, not one but two brothers had followed us by motorcycle and were waiting for my report. I sat us in a circle and began gently to explain the problem, the potential disaster that was brewing in the abdomen of their sister. They listened intently. "Risk to the baby, risk to the mother, surgery will have to be done, placenta can't be removed"...some of it went over their heads, but they got the basic message. It was urgent to transport their sister to the hands of a specialist surgeon in Mwanza, five hours away. As I write this report, they are en route by bus to Mwanza, with my referral letter. Meanwhile, I have traced the name of an Ob/Gyn doctor there to receive them, consulted with him by phone, and sent his name to them by their cell

phone, so there is no undue delay or confusion when they arrive. According to the Obstetric textbook, this situation of advanced abdominal pregnancy occurs in about 1 in 10,000 pregnancies. The baby, if not already dead when the situation is diagnosed, is often born premature because of danger to the mother of expectant management, and therefore the decision to operate immediately. The mother is at risk of death from hemorrhage during the surgery, as the placenta may separate spontaneously from its anchorage onto other abdominal organs. Even when the placenta is left in place, its resorption over time can be complicated by abscess or fistula formation, sometimes with need for subsequent repeat surgery. I am thankful for my stellar reputation (*), that led this patient to seek me out during a funeral visit to our area. I am thankful that I have a good ultrasound machine. I am thankful that the power was on. I am thankful for cell phones, that have completely penetrated even into rural areas of Africa. And I pray that the doctors at the zonal referral hospital will have the means to save this patient's life, even though the risks are greater here than in the country where the textbook was written and from which the statistics came. Afterward: I got a report from 24 hours after surgery, that the mother and baby (1150 gram female) were doing fine. The placenta was attached to the left tube and ovary, and the surgeon was able to remove it safely."

"I am thankful that I have a good ultrasound machine. I am thankful that the power was on. I am thankful for cell phones, that have completely penetrated even into rural areas of Africa."

President's Farewell

Looking retrospectively at the last two years, it is clear that the primary focus of my term as WFUMB president has been on collaboration. In an age where the global community has so many opportunities to interact, I am confident that WFUMB's educational endeavors are contributing to the development of strong clinical practices of ultrasound worldwide. In 2009, WFUMB expanded relations with the International Society of Radiology (ISR), and together, both have agreed to a joint educational project in Africa, equally funded by both organizations. ISR President N. Gourtsoyannis, along with L. Marti Domati will speak at WFUMB 2011, and WFUMB, who sent speakers to ICR 2010, will participate again in ICR 2012.



The WFUMB and International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) Safety Committees have increased collaborative efforts to produce strong, united safety statements such as the "Statement on the Safe Use of Doppler Ultrasound During 11-14 Week Scans for Earlier in Pregnancy," approved by both organizations earlier this year and subsequently adopted by the American Institute of Ultrasound in Medicine as well. Along with European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) President Christian Hobbes, have worked closely to coordinate and facilitate the revision of EFSUMB's current contrast guidelines into an "International Guidelines and Good Clinical Practice Recommendations for Contrast-Enhanced Ultrasound (CEUS) of the Liver." Experts from all over the world have contributed to the revisions, working both in-person and online. Input from our Asian colleagues was particularly important to ensure the final product represented a global practice of CEUS.

As I come to the end of my presidency, there is a bit of nostalgia associated with holding a WFUMB congress in Vienna - WFUMB's first congress was held here in 1969. WFUMB has grown tremendously in its 42 years and now represents over 54,000 individuals from all over the globe. While we appreciate how far we've come, we know we wouldn't be here today if it weren't for those who started it all. A number of the 1969 congress organizers will present "How Everything Started - Meet the Pioneers" during WFUMB 2011. A fitting closure as I feel it is very important to look to the past while heading into the future.

Michel Claudon
President, WFUMB



"This is a major accomplishment for the world and coming just in time for ultrasound practitioners in the United States."

Barry Goldberg



UMB Impact Factor Rises



The WFUMB's journal, *Ultrasound in Medicine and Biology (UMB)*, continues to flourish under the direction of Editor-in-Chief Christy Holland. The recently-released 2010 impact factor for UMB is 2.490, a 23% increase over the 2009 impact factor of 2.021.

In addition, the journal is number 4 of 29 titles in Acoustics and 62 of 111 titles in Radiology. Total citations grew by 19%, from 5,629 to 6,695.

This is a testament to the quality of the material being published in UMB and to the entire UMB editorial board and staff.

The WFUMB "Statement on the Safe Use of Doppler Ultrasound During 11-14 Week Scans (or Earlier in Pregnancy)" was subsequently adopted by the American Institute of Ultrasound in Medicine, the International Society of Ultrasound in Obstetrics and Gynecology, and is pending adoption by other societies throughout the world.

Contrast-Enhanced Ultrasound Guidelines of the Liver

A JOINT PROJECT ORGANIZED BY THE EFSUMB AND WFUMB

On December 3-4, 2010, the World Federation for Ultrasound in Medicine and Biology (WFUMB) and the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) brought together a panel of 36 European (UK, Germany, Italy, France), North American (USA, Canada) and Asian (China, Japan, Korea, and

Ultrasound in Medicine and Biology (UMB) and the *European Journal of Ultrasound (EJUS)*. The current "Guidelines and Good Clinical Practice Recommendations for Contrast-Enhanced Ultrasound (CEUS) of the Liver," were produced by EFSUMB (Ultrasound 2004 and 2008).

"The need for alternatives to ionizing radiation is



India) experts to facilitate the revision of EFSUMB's current contrast guidelines into an "International Guidelines and Good Clinical Practice Recommendations for Contrast-Enhanced Ultrasound (CEUS) of the Liver."

"One of the primary goals of the meeting was to ensure the contribution of a panel of international experts representative of different practices of CEUS worldwide," said WFUMB president Michel Gaudon, who co-chaired the meeting with EFSUMB president Christian Nölke. The plan is to simultaneously publish the resulting guidelines in both

helping to change the way ultrasound is practiced in the United States. This is a major accomplishment for the world and coming just in time for ultrasound practitioners in the United States," commented Barry Goldberg.

While a significant portion of the work was accomplished at the meeting, which was held in Chicago, USA, the group has continued to meet via conference call and at local meetings, when possible. It is anticipated that the completed guidelines will be finalized during WFUMB 2011 in Vienna.

New WFUMB Safety Committee Statements

WFUMB SAFETY COMMITTEE ANNOUNCES THE RELEASE OF TWO NEW SAFETY STATEMENTS

WFUMB Statement on the Safe Use of Doppler Ultrasound During 11-14 Week Scans (or Earlier in Pregnancy)

1. Pulsed Doppler (spectral, power and color flow imaging) ultrasound should not be used routinely.
2. Pulsed Doppler ultrasound may be used for clinical indications such as to refine risks for trisomies.
3. When performing Doppler ultrasound, the displayed Thermal Index (TI) should be less than or equal to 1.0 and exposure time should be kept as short as possible (usually no longer than 5-10 minutes) and not exceed 60 minutes.
4. When using Doppler ultrasound for research, teaching and training purposes, the displayed TI should be less than or equal to 1.0 and exposure time should be kept as short as possible (usually no longer than 5-10 minutes) and not exceed 60 minutes. Informed consent should be obtained.
5. In educational settings, discussion of first trimester pulsed or color Doppler should be accompanied by

information on safety and bioeffects (e.g. TI, exposure times, and how to reduce the output power).

6. When scanning maternal uterine arteries in the first trimester, there are unlikely to be any fetal safety implications as long as the embryofetus lies outside the Doppler ultrasound beam.

Approved January 27, 2011

WFUMB Policy on Live Scanning at Commercial Exhibitions

While WFUMB does not object to live scanning at WFUMB meetings, the involvement of pregnant women, children, or invasive scanning is not acceptable. In addition, the use of corporate employees to perform scans is acceptable, but such activities should not be considered educational. Scanning by physicians and/or technologists can be considered educational, if handled in an educational setting.

Approved September 4, 2010



WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

AIUM - AFSUMB - ASUM - EFSUMB - FLAUS - MASU

Affiliate Highlights

AIUM—Membership has grown by more than 6.5 % over the past 12 months and is now at over 8,961 members as of June 30, 2011. AIUM's professional networking site, aium.com/aium/aium.cfm home to the 15 AIUM Communities and special interest groups. The number of registered users has grown to over 1600. Over 400 active discussions are currently taking place. Two new special interest groups have been established: Ultrasound in Medical Education and Ultrasound in Global Health. AIUM maintains an active presence on Facebook with over 6,300 fans who receive regular AIUM posts in their newsfeed. Additional social presences are maintained on Twitter, RSNA's BasilBoatists, and YouTube.

AIUM's 2012 Annual Convention: March 29-April 1, 2012, Phoenix, AZ. Abstract submission deadline is September 26, 2011.

In early May, Alfred Abuhamad, Harvey Nisenbaum, and Carmine Valente spoke at the first world congress of the Society of Ultrasound in Medical Education. The congress brought physicians from around the globe with a special interest in ultrasound and its value in medical education...continued at www.wfumb.org.

FLAUS—The Latin American Federation of Ultrasound in Medicine and Biology (FLAUS) has had a very active participation in the last two years, realizing practical and theoretical courses of Ultrasound in all over Latin America. It has been a hard and extensive work with an important number of attendees to these meetings. The WFUMB Latin American Education Project has been very active also, supporting and co-organizing scientific activities in Venezuela and Brazil.

We have organized courses that have been imparted in Bolivia, Paraguay, Panama, Guatemala, Uruguay, Puerto Rico and Costa Rica. We have one new affiliated National Society to FLAUS: The Ultrasound Society of Bolivia.

These courses served as base to promote in all these countries the 13th Congress of the World Federation for Ultrasound in Medicine and Biology (WFUMB) to take place in Vienna and also were the ideal scene for the promotion of the congress of FLAUS 2011 carried out in Asuncion, Paraguay in June 2011. This event had an attractive academic program, successful culmination, and an attendance of around 400 physicians from all over Latin America with 45 international lecturers who discussed during 3 days, important areas of Ultrasound...continued at www.wfumb.org.

AFSUMB—AFSUMB has 15 member societies of Bangladesh, Cambodia, China, Chinese Taipei, Hong Kong, India, Indonesia, Japan, Korea, Mongolia, Malaysia, Pakistan, Philippine, Singapore, and Thailand, and 16665 members in 2010. The 9th AFSUMB congress was held in New Delhi, India, on November 18-21, 2010 successfully. Excellent 4 day scientific programme was formulated, which were consisted workshops, lectures, symposia, free papers and so on. And the educational activities of 7th AFSUMB workshop was organized in Indonesia on 6-7 November 2009, and 8th AFSUMB workshop was in Ulaanbaatar, Mongolia on 5-7 August 2010 in 163 participants. The 5th workshop will be held in Bali, Indonesia in 2011. The workshop will be held every year to diffuse the ultrasound knowledge and examination techniques in education. The WFUMB Asian education project 2010 was explained in the executive meeting, and under consideration in some countries. The affiliated societies in Asia made meeting in each countries one or more times per year.

The AFSUMB official journal of *Journal of Medical Ultrasound* was quarterly published as in the past. We will be printed volume 18 in 2011. Some AFSUMB member societies made scholarships to other AFSUM members, those are continued in JSUM, KSUM and CTSUM...continued at www.wfumb.org.

EFSUMB—EFSUMB has a membership of almost 20,000 members from 30 different countries making EFSUMB the largest Society in WFUMB. 2011 has been an active year for us and our website www.efsumb.org is a good place to start for anyone unfamiliar with the changes afoot in EFSUMB. The statistics of the website viewing have been increasing dramatically and not just from our member countries but worldwide.

The European Course Book has attracted a lot of this interest. There are currently 17 chapters online which can be accessed and downloaded by anyone. These and other chapters will be published in Autumn 2011 for sales at our annual Congress and large scientific meetings in Europe. The book will be non profit making and available on our website at a reasonable price. This book in its entirety will be found on the EFSUMB Educational Portal which has recently been launched on our website. The intention is to offer educational material to anyone with access to the internet. The successful Case of the Month, Guidelines, Recommendations, teaching videos, EUROSON School presentations, and more, can all be found here...continued at www.wfumb.org.

MASU—The WFUMB COE is an important means through which MASU operates to conduct ultrasound training courses for applicants from Africa, who are either sponsored by WFUMB or have individual private sponsor ship. The COE is supported in its training activities by WFUMB and MASU in addition to other sources of support. The main activities of the COE are short refresher courses (1-3 days) and formal ultrasound course (Degree, Diploma and Certificate). Within the last two years, the COE has held 4 short refresher courses, and continues to conduct formal ultrasound courses at certificate, diploma and degree levels. Currently, there are up to 150 students are enrolled for these formal ultrasound courses.

The COE holds a minimum of 2 refresher courses per year, as per requirement of WFUMB. Between January 2009 and August 2010, 4 courses were held. Participants were from several African countries namely, Uganda, Kenya, Tanzania, Zambia, Sudan, Rwanda.

Challenges—The upheavals in north Africa and middle east was a great handicap during the last 6 months...continued at www.wfumb.org.

Visit www.wfumb.org to view the full report from each affiliate.

*If printing time, a report from ASUM was unavailable updates will be displayed on the WFUMB website.



WFUMB 2011: In Appreciation

WFUMB extends its thanks and appreciation to the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) for its role in organizing WFUMB 2011.

A special thanks to the Austrian Society for Ultrasound in Medicine for their hospitality in organizing WFUMB 2011 in such an excellent location as Vienna, with its welcoming people, supporting a socially enjoyable and memorable Congress.

Univ. Prof. Prim. Dr. Gerhard Montebek, chairman of the Organizing Committee of WFUMB 2011, is to be commended for his outstanding contributions and services in organizing WFUMB 2011 and for generating an exemplary scientific program.

WFUMB's primary mission is to expand the opportunities for ultrasound practitioners throughout the world to participate in ongoing and newly developed educational programs. Through events such as WFUMB 2011, the WFUMB Council, in partnership with our member societies, is able to reach our collective goal of raising the level of patient care by raising the level of ultrasound education worldwide.

Thank you to all those who joined us in Vienna for WFUMB 2011, bringing together the latest aspects of ultrasound education and equipment.

The first "World Congress of Ultrasound" was held in Vienna in 1968. At that time, 700 international participants presented over 190



WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

AIUM - AFSUMB - ASUM - EFSUMB - FLAUS - MASU



Save the Date:

WFUMB 2013
São Paulo, Brazil
May 2-5, 2013

WFUMB 2015
Orlando, USA
March 21-25, 2015

Our Affiliated Organizations

- American Institute of Ultrasound in Medicine (AIUM)
www.aium.org
- Asian Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB)
www.afsumb.org
- Australasian Society for Ultrasound in Medicine (ASUM)
www.asum.com.au
- European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB)
www.efsumb.org
- Latin American Federation for Ultrasound in Medicine (FLAUS)
www.flaus2011.cinintegral.com.py
- Mediterranean and African Society of Ultrasound (MASU)
www.masu-ultrasound.com

DID YOU KNOW?

WFUMB 2011, the 13th World Congress of the WFUMB, was held in conjunction with the 35th Dreiländertreffen-ULTRASCHALL 2011, the 35th joint meeting of the Austrian, German and Swiss Societies for Ultrasound in Medicine and EUROSON 2011, the 23rd Congress of EFSUMB, one of the foremost gatherings of ultrasound experts in the history of ultrasound.

14750 Shetler Lane, Suite 100
Laniet, MD 21087 USA
<http://www.wfumb.org>



WFUMB 2013

14th World Congress of Ultrasound in Medicine and Biology - WFUMB 2013
XVI Congress of the Latin American Federation of Ultrasound - FLAUS 2013
43rd Sao Paulo Radiological Meeting - JPR 2013

May 2 - 5, 2013

Transamerica Expo Center - Sao Paulo - Brazil



www.spr.org.br



Reports from WFUMB Affiliated Organizations

EFSUMB



EUROPEAN FEDERATION OF SOCIETIES FOR ULTRASOUND IN MEDICINE AND BIOLOGY

The office of EFSUMB has moved from Bromley in the periphery of London to the centre of London. We have rented an office from the British Institute of Radiology at a reasonable cost and I want to thank the Past President of EFSUMB, David Evans for his successful negotiations with BIR.

EFSUMB today is in a healthy and stable position. The membership of EFSUMB increases steadily and will soon reach 20,000 members, so EFSUMB is one of the biggest interdisciplinary medical societies. Our financial condition allows us to support further educational activities.

One major aim is to concentrate on the individual benefits of being an EFSUMB member. At the end of May the **Euroson 2008** was held in **Timisoara** in the western part of Romania. With a total number of more than 2000 participants this congress, which was held in conjunction with the meeting of the Romanian Ultrasound Society, was a tremendous success. Prof. Ioan Sporea and his team really organized a remarkable event. As we know ultrasound congresses are going to have a more and more educational background. But also new science was presented especially dealing with contrast agents. In this area ultrasound gets a giant boost. We all were impressed by the tremendous hospitality of the Romanian organizers. Both the Romanian Ultrasound Society and EFSUMB have supported young authors. To encourage young scientists to present innovative papers the congress fee was waived for all accepted first authors below the age of 35 years.

The next **Euroson** meeting will be held in **Edinburgh, December 6-8, 2009** in conjunction with BMUS. Also at this congress the fee

for young first authors below 35 years will be waived.

Another big success is our scientific journal „**European Journal Ultrasound /Ultraschall in der Medizin**“. Due to the efforts of Editors, the Review Board and mainly due to the publishing scientists, the impact factor of the journal continues to rise and is now 2.3. I really hope that we can continue with this success, and EFSUMB will support the journal whenever possible.

The style of the **newsletter** of EFSUMB has changed, and a “case of the month” has been introduced on the EFSUMB **website**, frequently visited by our members. Also the newsletter of UIM has substantially improved.

The **Committee for Education and Standardization** has also been very active. Our website recommendations for Ultrasound education are available in most areas.

There are new recommendations from the safety group concerning souvenir scanning and first trimester screening.

EFSUMB started a new series of **Euroson Schools** regarding contrast enhanced ultrasound. The first successful course was organized in Hannover by H.P.Weskott.

One important goal will be to optimize the communication with our members, so the National Societies are asked to provide email addresses of all their members.

Norbert Gritzmann, EFSUMB President

AFSUMB



ASIAN FEDERATION OF SOCIETIES FOR ULTRASOUND IN MEDICINE AND BIOLOGY

The AFSUMB has completed its 6th Workshop successfully in the city of New Delhi, India on 22 and 23 November 2008.



AFSUMB Council members and other speakers at the Ultrasound Workshop in New Delhi 2008.

The following AFSUMB Speakers attended the program as resource personnel in New Delhi November 2008:

Dr. Cheng Wen Chiang-Taiwan, AFSUMB President

Dr. Byong Inh Choi-Korea, AFSUMB Immediate-Past President

Dr. Masatoshi Kudo-Japan, AFSUMB President Elect

Dr. C. V. Vanjani-India, AFSUMB Vice President

Dr. Seung Hyup Kim-Korea, AFSUMB Secretary

Dr. Yi Hong Chou-Taiwan, AFSUMB Treasurer

Dr. Kana Bala-Bangladesh, AFSUMB Education Committee Chairman

Dr. Wilaipom Bhotisuwan-Thailand, AFSUMB Councilor

Dr. H. Sidharta-Indonesia, AFSUMB Councilor

Dr. Musarrat Hasan-Pakistan, AFSUMB Councilor

Dr. Ki Whang Kim-Korea, AFSUMB Councilor

Dr. Yung-Liang Wan-Taiwan, AFSUMB Councilor

Dr. T. P. Baskaran-Malaysia, AFSUMB Councilor

Dr. Dorita P. Evangelista-Philippine, AFSUMB Councilor

Dr. Shiro Kozuma-Japan, AFSUMB Web-site Editor

Dr. K. Y. Leung-Hong Kong, President-HKSUM



MASU



MEDITERRANEAN AND AFRICAN SOCIETY OF ULTRASOUND

MASU was born in 1986, so 2006 is the 20th Anniversary of MASU.

The MASU 2006 International Congress was a joint meeting with Tunisian Society of Radiology for economic reason.

The topics were: Ultrasound State of the Art, Contrast Agent in Poor Countries, what are the needs.

The Congress included 280 participants, coming from Morocco, Libya, Mauritania, Kenya, Zambia, Uganda, Egypt, Syria, Lebanon, Tunisia, Canada, France, Italy, Germany, Belgium, Switzerland and Spain. 67 lectures, 60 free oral presentations and 164 poster were presented. The congress was a great success.

The MASU 2006 Congress was sponsored by WFUMB, WHO, SFAUMB, SIUMB, the National Office of familial Planning, the National Radiation Protection Center and the Tunisian Ministry of Public health. His Excellency the minister was at Jerba for 2 days during the congress.

The next International MASU Congress will be held in Marrakech, Morocco in June 2008 in conjunction with the International Congress of Radiology. The WFUMB Council will meet during the congress, a good occasion to promote the collaboration with the International Society of Radiology.

H. Charbi, WFUMB Administrative Councilor

WFUMB Center of Excellence (COE)

A Center of Excellence is an institutional center with an expertise necessary to teach and train in medical ultrasound.

The title of a Center of Excellence is given to an ultrasound society and to a particular person or a team of people that can guarantee a continuity in ultrasound teaching.

The number of WFUMB Centers of Excellence shall be no more than one or two in each continent.

The society shall be from a developing country, shall be well organized, have an independent office and have experience on education and international influence.

A COE contract is for a three-year term. At the end of a three-year term the activity of the center shall be checked and revised by the WFUMB Advisory Board for Centers of Excellence. The contract can be renewed, provided the center has continued teaching in a proper way.

The Center of Excellence shall help physicians to start ultrasound practice using a general purpose ultrasound scanners and create a basic ultrasound service to the people of the country and possibly of neighboring countries.

The site for a Center of Excellence is decided also from an epidemiological point of view.

Courses should deal with local and regional needs to develop adequate training programmes.

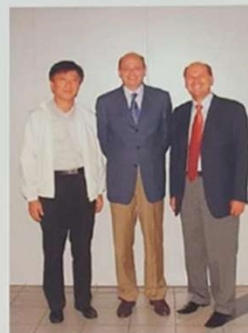
The Advisory Board of the WFUMB Centers of Excellence is:

Dr. Byung Ihn Choi, AFSUMB, Chairman
Dr. Stanley B. Barnett, ASUM
Dr. Michel Claudon, EFSUMB

At the Executive WFUMB Council Meeting in Bologna, September 16th, 2006 the fourth WFUMB COE, the

ROMANIAN SOCIETY OF ULTRASOUND IN MEDICINE AND BIOLOGY, TIMISOARA, ROMANIA

was formally established, and a contract was



After having signed the contract for the new COE in Romania.

Left: Dr. Byung Ihn Choi, Chairman of the Advisory Board of the WFUMB Centers of Excellence, Mid: Dr. G. Cerri, WFUMB President, Right: Dr. Ioan Sporea, President of the Romanian Society of Ultrasound.

signed by the President of the Romanian Society of Ultrasound in Medicine and Biology, Prof. Dr. Ioan Sporea and the President of WFUMB, Dr. Giovanni Cerri.

Inauguration will be held at the time of 1st WFUMB-COE Workshop to be held in conjunction with The National Romanian Conference of Ultrasonography and Euroson School - Guidelines in Gastroenterological Ultrasound, May 31st - June 3rd 2007, Craiova, Romania.

The WFUMB Centers of Excellence is now as follows:

1. AFSUMB
**BANGLADESH SOCIETY OF ULTRASONOGRAPHY
DHAKA, BANGLADESH.**
Dr. Kanu Bala.
Established February 24th, 2004

■ AFSUMB



ASIAN FEDERATION OF SOCIETIES FOR ULTRASOUND IN MEDICINE AND BIOLOGY

AFSUMB Ultrasound Workshop for the year 2005.

The 3rd Ultrasound Workshop of the AFSUMB was conducted in Hwa-San Hospital, Shanghai, China, April 9-11, 2005.

A total of 22 speeches covering gastroenterology, urology, ob/gyn, emergency cardiology, small parts and breast ultrasound were delivered by 1) local leading experts, including Dr. Zhizhang Xu, Dr. Yi Wang, Dr. Weiwei Zhan, Dr. Zhengdong Jin, and Dr. Cai Chang, and 2) speakers from the AFSUMB, Dr. Byung Ihn Choi, Dr. Yi-Yong Chou, Dr. Kanu Bala, Dr. Masatoshi Kudo, Dr. H. Sidharta, Dr. Seung Hyup Kim, Dr. Kittipong Vairojanavong, and Dr. C.V. Vanjani.

This important workshop sponsored by AFSUMB and co-sponsored by the Chinese Society of Ultrasound provided a unique opportunity for the AFSUMB members to share their expertise with the Chinese experts. The discussion focused on the recent advances of medical ultrasound technologies. Many local leading experts attended the meeting and provided valuable input.

The meeting was concluded as a very enjoyable and rewarding meeting. We would like to express our hearty gratitude to the Medison Co. Ltd. especially Dr. Seung Woo Lee, CEO of Medison Co., for the invaluable and strong support to the workshop.

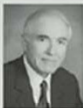
AFSUMB's Ultrasound Workshop for the year 2006.

The 4th Ultrasound Workshop of the AFSUMB will be held in Bangkok, Thailand, Dec. 14-15 this year.

Tentative speakers are Dr. Itoh, Dr. Kim, Dr. Sidharta, Dr. Pompim, Dr. Walailak, Dr. Hassan, Dr. Kittipong, Dr. Apichai Vasuratna, Dr. Chantima, Dr. Kudo, Dr. Wilaipom, Dr. Choi, Dr. Chou, Dr. Bala, Dr. Chiang, Dr. Vanjani, Dr. Senda, Dr. Panruethai

Cheng-Wen Chiang,
WFUMB Administrative Councillor

■ AIUM



AMERICAN INSTITUTE OF ULTRASOUND IN MEDICINE

The American Institute of Ultrasound in Medicine (AIUM) continues to focus

significant attention on several important areas of particular interest to the ultrasound community, such as safety and bio effects, contrast agents, advocating for accreditation and certification, standards and guidelines, and providing unique educational opportunities in ultrasound. In addition to these efforts, the AIUM submitted a proposal for the position of WFUMB Executive Secretary and would like to thank WFUMB for the Opportunity to Tender for the position. The AIUM is a long-standing member of WFUMB and fully supports its efforts to provide outreach to the international ultrasound community.

The Quest for Approval of Ultrasound Contrast Agents in the United States. Last year, the AIUM established a dialog with the US Food and Drug Administration (FDA) to encourage the review and approval of ultrasound contrast agents. Contrast-enhanced ultrasound (CEUS) is used effectively throughout the rest of the world, especially in the diagnosis and characterization of focal liver lesions. The AIUM believes that the lack of availability of CEUS in the United States hinders the delivery of optimal diagnostic imaging to our patients, resulting in an adverse impact on clinical care.

After a March 2006 educational presentation to the FDA on ultrasound contrast agents in the liver, the FDA gave the AIUM an assignment to develop recommendations for consideration for future ultrasound contrast agent clinical trials. In July, the AIUM funded and hosted an Ultrasound Contrast Agent Forum in which 24 individuals representing 7 manufacturing/pharmaceutical companies as well as the AIUM's clinical and scientific community participated. The purpose was to develop recommendations for clinical trials at the FDA for the use of ultrasound contrast agents in the liver. Through input from the forum participants, the AIUM has developed

a set of recommendations for the FDA. The document details appropriate end points for ultrasound contrast efficacy in the liver, examination procedures, equipment variables, safety, and training. The AIUM believes that implementation of these recommendations will decrease variance among clinical sites and increase the likelihood of successful clinical trials. The next step will be to present these recommendations to the FDA. I am very encouraged by the progress we have made in a very short time.

AIUM Responds to Press Coverage on a Study of Fetal Mice Exposed to Ultrasound. A recent study published in the Proceedings of the National Academy of Sciences of the United States of America (PNAS) concluded that fetal mice exposed to ultrasound were found to have small but detectable changes in neuronal migration after ultrasound exposure and called for additional research on larger mammals. Unfortunately, the news media translated the results of the study into headlines that implied that ultrasound may cause brain damage in developing fetuses, eliciting fear in many expecting parents-to-be regarding the safety of ultrasound.

The AIUM swiftly issued a statement to all members, related societies, and the news media, which placed the research into perspective and pointed out that the fetal mice exposed to ultrasound were found to have small but detectable effects only after an extended duration of ultrasound exposure, conditions beyond those commonly used in diagnostic ultrasound imaging. The whole brain exposure in the rapidly developing mouse brain used in this study differs significantly from the short duration of diagnostic ultrasound imaging to selected sites in the human fetus. The AIUM also encouraged patients to make sure that practitioners using ultrasound have received specific training in fetal imaging to ensure the best possible results. The AIUM has always advocated the safe and effective use of ultrasound for fetal diagnosis, as evidenced by our official statements on the prudent use of ultrasound and on the practice of performing keepsake videos when there is no medical benefit.

The AIUM Bioeffects Committee monitors and reviews the literature related to the

That is a key question. I think that every educational activity should be followed by an immediate and long term evaluation of results of the program. In the case of courses we have to look for immediate feedback in evaluation forms filled by trainees. This should be done not only to evaluate customer satisfaction, but really in terms of the impact of the course.

The second important aspect is feedback on the long term results of the daily practice of the trainers, and there should be a periodical evaluation on behalf of the WFUMB Education Committee. WFUMB should design a periodical follow-up of the trainers; it should be clearly defined for the future programs.

So, the feedback mechanism is important. Has it already been established by the Education Committee?

Presently we are in the preliminary phase of the preparation of the feedback mechanism; we have to take into account that we are in the first years of the Education Committee activity. But we absolutely need to have this feedback. Until now it has been performed in a very preliminary way in the Asian and African Education Project courses through an evaluation form filled by the participants. These evaluations showed a good satisfaction and included some useful suggestions for future courses.

All in all, I would like to mention that during the courses listed above the WFUMB Education Committee members have met about 2000 course participants. The participants were colleagues living and working in various conditions, from Sierra Leone just after the end of a civil war, to far more wealthy areas as China.

Independently from conditions of the country, wherever we were, we found a very lively attention and very motivated people, ready to afford many sacrifices to attend the courses such as long travelling, staying 12 hours a day or more in a conference room, and attend the practical sessions as well. We have always met colleagues well aware of the value of these cultural initiatives which in many occasions made them feel less lonely from a scientific point of view.

Center of Excellence (COE) is a new and important initiative of the WFUMB Education Committee. Will you comment on the COE's?

The Characteristics of a Center of Excellence are:

- **Aims:** Education in Medical Ultrasound in Developing Countries with accreditation
- **Establishment:** Agreement between WFUMB and a Society affiliated to WFUMB
- **Term:** Renewal every three years
- **Criteria of the Society:** The Society shall be from a developing Country, shall be well organized, have an independent office, experience on education and international influence
- **Training programs:** At least once every year
- **Budget:** Independent from WFUMB

So, a Center of Excellence is an institutional center in which you can find the expertise necessary to teach and to train in medical ultrasound. The fundamental characteristic of a COE is a geographical position that urges the Center of Excellence to be really important in covering particular areas.

The number of WFUMB Centers of Excellence is intended to be no more than one or two in each continent. A Center of Excellence is given to an ultrasound society and to a particular person or a team of people that can guarantee the continuity of ultrasound teaching over the next years.

It is very important to recall that the COE-appointment is a three-year-term appointment. At the end of this three-year term the activity of the center has to be checked and revised by the WFUMB Advisory Board for Centers of Excellence. The appointment can of course be renewed, provided the center has continued teaching in a proper way.

The site for a Center of Excellence is decided also from an epidemiological point of view. Local teams are encouraged to assess and meet their epidemiological need, meaning, for example, that they know best about specific diseases, and therefore, are better prepared for training people especially for those diseases. Courses should deal with local and regional needs to develop sufficient training programmes.

The objectives of the Center of Excellence courses are to help physicians to start ultrasound practice using a general purpose ultra-

sound scanner and to make available a basic ultrasound service to the people of the country and possibly of neighbouring countries.

WFUMB has established an Advisory Board for Centers of Excellence, and the members of this board are: Dr. H.Watanabe (Chair), Dr. E. Buscarini, Dr. Beryll Benacerraf, Dr. H.Lutz.

Below is a list of the WFUMB Centers of Excellence and the past activities:

BANGLADESH SOCIETY OF ULTRASONOGRAPHY (BSU), DHAKA, BANGLADESH.

Dr. Kanu Bala.
Established February 24th, 2004
1st WFUMB COE Workshop: Dhaka, February 24-26, 2004
2nd WFUMB COE Workshop: Dhaka, February 22-24, 2005



WFUMB Center of Excellence
The Bangladesh Society of Ultrasonography
2nd Workshop in Dhaka, Bangladesh February 2005
Dr. Kanu Bala, President of the Society, is organizing WFUMB teachers: H. Lutz, H. Watanabe, H. Charbi, K. Vairojanavong, in a row for a photograph.



WFUMB Center of Excellence
The Bangladesh Society of Ultrasonography
1st Workshop in Dhaka, Bangladesh February 2004
WFUMB teachers H. Watanabe, L. Fernandez, B.I. Chici

I found that it was very challenging that the trust had been put on me. I was telling myself to demonstrate that that trust in me and the Educational Committee should be worth it. I asked myself and the people in the Educational Committee to prepare plans of activities that were really worthy.

Actually, the first challenge was to nominate members of the Education Committee. The WFUMB President, Marvin Ziskin set me free, so I suggested some colleagues from WFUMB who were really interested and involved in ultrasound education, besides of course with a fair representation from different continents. I was glad to learn that all the colleagues proposed accepted to be member of the committee.

The WFUMB Education Committee thus includes the following members:

Dr. B.J.Choi, Korea; Dr. L. Fernandez, Venezuela; Dr. H. Gharbi, Tunisia; Dr. H. Lutz, Germany; Dr. H. Watanabe, Japan.

What did you see as the initial problems facing world wide ultrasound education?

It was evident there was (and there is) an enormous need for education in ultrasound especially in certain areas of the world. We have simply been working trying to catch suggestions from different continents. From the previous council there existed two educational projects that were already running, the African and Asian projects. The experience I had in the period 2000 – 2003 in Africa was very inspiring for me. So, our wish was to continue this kind of project on a world scale. The idea was to start another project in Latin America (actually started thereafter in 2005) and probably one more in Eastern Europe.

Thereafter, the Education Committee had the intention to prepare a frame for future educational activity of WFUMB, to obviate the very poor uniformity in preparing courses and in accepting proposals from local teams.

We wanted also to understand what is the philosophy behind the WFUMB scholarship in order to choose the most effective way. In fact we had some discussions about the choice of having fellows supported by WFUMB scholarships in western countries from emerging ones, and it appeared a valuable option for "train-the-trainers" programs.

WFUMB is aware that the need for education programmes is different from one nation or society to another. Some have a need for basic education; others have a need for more advanced education. Some nations or societies have a well-defined education strategy; others have a less-defined education strategy. Could you comment on this situation?

This is a very important question we have to face. The level and the need are really different. So what really makes the best final result of our activity is a good interaction between the Education Committee and the local teams proposing different activities. And that is the reason why we firstly have to be aware of the different levels, and secondly have to receive detailed proposals from local teams. This was e.g. the case in some Sub-Saharan African countries, where we mainly did basic courses, while in the northern African countries we did more advanced courses, as it was in Asia, where most of the courses were training of trainer's.

How do you think WFUMB can stimulate the world wide education in ultrasound?

WFUMB can stimulate educational activities by:

- organising courses
- creating Centers of Excellence (COE) teaching ultrasound
- creating local education programs
- sponsoring of fellowships
- producing teaching materials
- interact with other organisations, e.g. WHO

Every one of these activities is of course very costly, and we have to take that into consideration. I think that the main interest for WFUMB is to stimulate local growth (a sort of "enzymatic" action, able to initiate and to promote education process). One scenario would be that WFUMB receives a proposal from a local team, for running a course and then tries to interact with the team in a way so that the local team can exploit its own power and its own resources, and succeed in the best way possible. The final result should be the growth of a local team that has matured thanks to this collaboration.

So, the process of a course preparation should

start with a proposal from a local team which has to be evaluated and weighed (and not only from a point of view of feasibility; I am thinking for example about the aspects of safety that we had to face in the last few years with terrorism).

The first matters to be solved for a local team is to evaluate the level of courses needed, educational facilities available and medical professionals being able to collaborate and teach. The education level is of course depending on local reality. The course format should be prepared in collaboration with the WFUMB Education Committee members.

The results of the latest year's courses in places such as Uganda and China have been that the local teams have grown through their activities in the preparation of the WFUMB courses, both in terms of a better collaboration between locals and WFUMB members and between the members of other teams of their country, or neighbouring countries.

What are presently the most important WFUMB education activities?

The present WFUMB activities on education are:

- Continental education programs
- Center of Excellence (COE) programs
- WFUMB Scholarships
- WHO interaction
- Guidelines on education
- Documents on education e.g. publications



WFUMB Asian Education Project
Beijing, China November 2004
The WFUMB teachers are from left: M. Kudo,
E. Buscarini, B.J. Choi, K. Vaingonavong

WFUMB Centers of Excellence (COEs)



COE LOCATIONS AND LEADERSHIP

- Bangladesh Society of Ultrasonography**
Dhaka, Bangladesh; Established 2004
Secretary: Karim Baki
- Indonesian Society of Ultrasound in Medicine**
Jakarta, Indonesia; Established 2011
Secretary: Daniel Makos
- Romanian Society of Ultrasound in Medicine and Biology**
Timisoara, Romania; Established 2007
Secretary: Ioan Soarea
- Sociedad Venezolana de Ultrasonido en Medicina**
Caracas, Venezuela; Established 2005
Secretary: Leandro Fernandez
- Uganda Association of Sonography**
Kampala, Uganda; Established 2004
Secretary: Michael Kawooya

COE REQUIREMENTS

Mission: to provide education in medical ultrasound in developing countries, grant recognition to participants after completion of a course, and accumulate ultrasound-related reference materials.

Sponsoring Society: The Society sponsoring the COE must be a legally established organization and partnered with a WFUMB federation. It must be located in a developing country and possess an independent office with sufficient past experience in ultrasound education. Also it must have the ability to attract trainees, not only from its own country, but also from surrounding countries.

COE Responsibilities: The COE shall be responsible for conducting annual educational programs at least once a year and divided into two tracks: one for ultrasound practitioners and one for ultrasound educators.

WFUMB Welcomes Indonesian Center of Excellence

First Session Held February 12-13, 2011

WFUMB's 5th COE came into existence on February 12, 2011 during the Indonesian Society's Ultrasound Session, February 12-13, 2011.

The signing was held in conjunction with the 6th Annual Meeting of the Indonesian Society of Oncology Imaging (ISOI) February 12-13, 2011.



Daniel Makos, the COE Secretariat signed the contract with Byung Ihn Choi COE Advisory Council Chair (pictured above).

The first workshop of the COE was entitled "Hepatobiliary and Pancreas Ultrasound." Invited speakers Byung Choi and Masatoshi Kudo represented WFUMB at the meeting, which attracted over 200 participants.

The COE will be holding several courses in the coming year with topics planned for color Doppler and musculoskeletal ultrasound.

WFUMB Leadership 2009-2011

A SPECIAL THANKS TO THE WFUMB LEADERSHIP FOR THEIR 2009-2011 TERM OF SERVICE

Executive Bureau

- President:**
Michel Claudon (France - EFSUMB)
- President-Elect:**
Masatoshi Kudo (Japan - AFSUMB)
- Vice President 1:**
Leandro Fernandez (Venezuela - FLAUS)
- Vice President 2:**
Ronald Benzke (Australia - ASUM)
- Secretary:**
David Evans (United Kingdom - EFSUMB)
- Treasurer:**
Beryl Bonacerraf (USA - AIUM)
- Immediate Past President:**
Giovanni Corri (Brazil - FLAUS)

Administrative Councilors

- Joshua Copel (USA - AIUM)
- Norbert Grizmann (Austria - EFSUMB)
- Michael Kawooya (Uganda - MASU)
- Saung Hyup Kim (Korea - AFSUMB)
- Roberto Montoya (Ecuador - FLAUS)
- Fergus Scott (Australia - ASUM)

Co-Opted Councilors

- Byung Choi (Korea - AFSUMB)
- Hussein Ghaebi (Tunisia - MASU)
- Barry Goldberg (USA - AIUM)

Journal Editor (UMB)

- Christy Holland

The addition of a Center of Excellence in areas such as Ethiopia, Mongolia, Paraguay, or Fiji would greatly enhance the level of educational expertise in rural areas throughout the world.



ECHOES

WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

A NEWSLETTER PROVIDING REPORTS AND HIGHLIGHTS OF WFUMB'S WORLDWIDE EDUCATIONAL ENDEAVORS

WFUMB IS DEDICATED TO THE ADVANCEMENT OF ULTRASOUND BY ENCOURAGING RESEARCH, PROMOTING INTERNATIONAL COOPERATION, DISSEMINATING SCIENTIFIC INFORMATION, AND IMPROVING COMMUNICATION AND UNDERSTANDING IN THE WORLD COMMUNITY.

The Value of Your Membership: Does US\$1.50 really make a difference?

- Education Projects: Asia, Africa, Latin America 2
- Centers of Excellence - WFUMB Leadership 3
- Making a Difference: Education Committee Brainstorming - WFUMB Committees 4
- Supporting Local Programs - President's Farewell 5
- CEUS Liver Guidelines - New Safety Statements - UMB Impact Factor Issues 6
- Affiliate Updates - WFUMB2011: In Appreciation 7

WFUMB's five centers of excellence, such as its most recent center in Jakarta, Indonesia, provide a key resource in the ultrasound training of local medical practitioners.



WFUMB collects dues from its six affiliates—AIUM, AFSUMB, ASUM, EFSUMB, FLAUS, and MASU on the order of US\$1.50 per member. The funds are then applied to the various educational efforts organized by WFUMB volunteers and leadership. At a recent Education Committee meeting, the results of our funding were clearly apparent: WFUMB's various Centers of Excellence (COEs), located in Bangladesh, Uganda, Venezuela, Romania, and Indonesia, combined, have put on 24 annual workshops since 2004 and have 25 years of cumulative

experience in providing ultrasound training.

In addition to the education offered through the COEs, WFUMB sponsors educational projects which target three emerging regions: Africa, Asia, and Latin America. Each regional activity is coordinated through a WFUMB officer or counselor: Hasseen Charbi in Africa, Byung Ihn Choi in Asia, and Leandro Fernandez in Latin America.

WFUMB participates in the WHO-INARI project, providing free WFUMB journal subscriptions in electronic format to

needy centers in developing and emerging countries.

The Global Ultrasound Equipment Donation Foundation (GUEDF), organized by Education Committee Chair Barry Goldberg, provides a mechanism for installing ultrasound machines in needy centers in developing countries. See page 4, "Making a Difference?" for a first-hand accounting of the value these machines deliver.

WFUMB's newest initiative, developing a set of e-learning modules to aid in ultrasound

continued on p2



■ Message from the Secretary

At the last WFUMB Administrative Council Meeting, it was decided to continue the production of a WFUMB newsletter. We hope that the new name, *ECHOES*, the content, and the new layout of the newsletter will attract the approximately 50,000 individual WFUMB members as well as the many international institutions. The aim of *ECHOES* is to provide information about recent activities of the WFUMB. This first issue of *ECHOES* will, for economic reasons, be modest in size. But we hope to be able to expand the number of pages in future issues in order not only to inform, but also to initiate worldwide activities in the field of medical ultrasound, for example through scientific discussions.

On behalf of the WFUMB Newsletter Committee, I strongly urge all members of WFUMB who are interested in international communication on medical ultrasound to contact me to discuss professional communications that may be relevant for publication in *ECHOES*. And please do not hesitate to contact me whenever you believe that you have information that may be of interest for *ECHOES*. We hope that you will benefit from the present issue of the newsletter, and that you will work for and collaborate with us on the editing of the coming issues.

ECHOES will initially be published twice a year. Hopefully, this will be expanded to three times a year in the near future.

S. Hancke, WFUMB Secretary



WFUMB President
Hiroki Watanabe, Japan

■ Message from the President

Proposal for the establishment of WFUMB Centers of Excellence

WFUMB was established in 1973. The first decade was dedicated mainly to organizational activities, forming a network throughout the world. Now WFUMB has developed remarkably, with approximately 50,000 members from 50 countries. I am not aware of any organization other than WFUMB with a design plan on such a grand scale that the whole world is covered by six area federations, each consisting of many national bodies.

In the second decade of WFUMB's history, two important projects were started. One was on safety in ultrasound and the other on the history of ultrasound in medicine and biology. The first stage of the safety project has been completed with the presentation of WFUMB safety reports, based upon discussions in many seminars and symposia. Recently, it has proceeded to the next stage, which deals with the safety of contrast media.

The history project is coming into its last stage, assembling papers on the history of each specialty, which have already been published in the *UMB* journal, in addition to a review by a historian. All WFUMB members will reap the fruit of this labor in the form of a CD-ROM that will be distributed at the WFUMB 2003 Congress in Montreal.

An important third project of WFUMB is education. During the beginning stages of WFUMB, this was not taken very seriously, because the federation members consisted only of societies in well developed countries.

With the expansion of WFUMB, however, education has become an urgent and important matter, because many societies in developing countries are now affiliated.

Responding to this need, WFUMB organized the African Cooperation Group on Education in 2000, giving courses in Nairobi (Kenya), Kampala (Uganda) and Moshi (Tanzania). Also the Training for the Trainers program was held by the Asian Cooperation Group in Dhaka (Bangladesh) in 2002. These activities were very successful, but are just a beginning. Our efforts for education should be steady and on-going. For that purpose, we need some permanent bases located in developing areas. This idea is the WFUMB Centers of Excellence, which we propose here.

According to our present plan, centers will initially be established in Africa and Asia, because we already have some experience in these areas through the courses held in the past. In the future, probably South America and Eastern Europe will be the possible candidates. WFUMB may appoint as centers appropriate national bodies affiliated with WFUMB in developing countries, and may support them financially and by providing teachers. Each center may periodically organize the necessary courses or seminars for trainers in the surrounding countries, using the name WFUMB Center of Excellence.

I hope that each member of WFUMB will consider this proposal and give us suggestions or comments, so that we can make this the best possible program.

H. Watanabe, WFUMB President

■ Message from the Treasurer

I am pleased to report that the World Federation of Ultrasound in Medicine and Biology remains in sound financial condition in spite of the current financial problems throughout the world.

Newsletter AFSUMB

No.4

Presidential Report

Ladies & Gentlemen, Dear colleagues of The Asian Affiliation of Societies of Ultrasound in Medicine and Biology:

Amidst the serious economic crisis we passed the year of 1997. Every society might be struck it effect but fortunately all safely entered the new year.

Last year we welcome the reaffiliation of the India Society after its temporal termination. We hope he will contribute much more for our affiliation.

The secretary general Dr. Chiba have received the application form of affiliation from the Phillipino Society of Ultrasound. It will be offered to the next council meeting at Taipei.

The last council meeting was held at Buenos Aires during the convention of WFUMB from August 29 to September 5.

Since the long distance of Argentina from Far East and the economic crisis, many of our councillors were not able to attend this meeting. The participants were Dr. Hiroki Watanabe, Dr. Yoshihide chiba, Dr. Byung-Ihn Choi, Dr. Masatoshi Makuuchi, Dr. Dr. Kouichi Ito and Dr. Hsi-Yao Chen.

The congress of WFUMB was very successful with many South Americans members and the language was by the Spanish, with instantaneous translation. We

were very much impressed that the participants in each session were jammed.

From Chinese Taipei Society, they had about 20 persons to participate this meeting.

In this meeting Dr. Watanabe had a celebration meeting of his 30 year contribution for the Urological ultrasound.

From Japan, Dr Ito, editor in Chief of the Journal of Japan Society of Ultrasound in Medicine, joined the AFSUMB council meeting as an absberber.

At the council meeting the publication of the official journal of AFSUMB came up as an Agenda. JMU (published now from Chinese Taipei Society) had been considered as one of the candidate since 2 years ago at Beijing. But Journal of JSUM also has been recommended and expected as a powerful candidate.

Dr. Choi emphasized the condition for the official journal should be that the language used must be in English. Dr. Hsieh emphasized that if JMU is appointed as official journal, for the publishment principally AFSUMB needs not burden for the financial charge for the publication. But subscriber will be charged about US \$ 60.

Dr. Ito promised to respond Japanese attitude after the coming meeting of Journal of Japan Society of Ultrasound in medicine.



WFUMB NEWS

WORLD FEDERATION FOR ULTRASOUND
IN MEDICINE AND BIOLOGY

Volume 4, No. 2

July, 1997

Presidential Message -

Barry B. Goldberg, MD

Since my election as President of the World Federation of Ultrasound in Medicine and Biology in 1994, I have seen a significant increase in the utilization of ultrasound throughout the world. It is now estimated that more than one out of every four imaging studies in the world is an ultrasound examination. The dissemination of ultrasound information on a worldwide basis has led to significant growth of

nar and 3-D imaging, endoluminal ultrasound, and contrast agents. With this rapidly increasing pace of development has come a recognized need for improving worldwide education. The world meeting is but one example of this concept of disseminating information. Our organization has been active in working with all the national and regional ultrasound societies in encouraging the dissemination of information with emphasis on raising the level of ultrasound knowledge, skill and educational capabilities throughout the world. We, as an organization, have developed a close working relationship



Barry B. Goldberg, WFUMB President, will complete his term of office at the conclusion of the VIII World Congress of Ultrasound in September.

"It is now estimated that more than one out of every four imaging studies in the world is an ultrasound examination. This dissemination of ultrasound information on a worldwide basis has led to significant growth of our organization..."

our organization, which represents regional societies throughout the world, with a membership now in excess of 60,000. Our VIII World Congress provides an opportunity for physicians, scientists, and sonographers, as well as manufacturers and others interested in this modality, to come together, present, and learn about the latest scientific advances in our field.

Many new developments have occurred since my election, including advances in color imaging, multi-pla-

with the World Health Organization. This has led, during my tenure, to the World Federation of Ultrasound in Medicine and Biology being admitted into official relations with WHO in

Continued on page 2

Profile - Harald Th. Lutz, MD World Federation President-Elect

Dr. Harald Th. Lutz, current WFUMB President-Elect, will assume the Presidency of the World Federation in September 1997 at the conclusion of the VIII International Congress of Ultrasound in Medicine and Biology in Buenos Aires. Dr. Lutz received his medical degree in

Continued on page 4

Highlights

- Presidential Message
- Profile - Harald Th. Lutz, MD
- Secretary's Report
- Ultrasound Safety Statement
- WFUMB Officers and Council
- Request for News

Page 1
Page 1
Page 2
Page 2
Page 4
Page 4

WFUMB Officers and Councillors

PRESIDENT Barry Goldberg (AIUM, USA)
PAST PRESIDENT Morimichi Fukuda (AFSUMB, Japan)
PRESIDENT-ELECT Harald Lutz (EFSUMB, Germany)
VICE-PRESIDENT I Hiroki Watanabe (AFSUMB, Japan)
VICE-PRESIDENT II David Robinson (ASUM, Australia)
SECRETARY Soren Hancke (EFSUMB, Denmark)
TREASURER Marvin Ziskin (AIUM, USA)

ADMINISTRATIVE COUNCILLORS
Alberto Belinski (FLAUS, Argentina)
Giovanni Cerri (FLAUS, Brazil)
Hsi-Yao Chen (AFSUMB, Taiwan)
Sturia Eik-Nes (EFSUMB, Norway)
Christopher Merritt (AIUM, USA)

CO-OPTED COUNCILLORS
Carlos A. Bruguera (FLAUS, Brazil)
Assen H. Gharbi (MASU, Tunisia)
Masatoshi Makuuchi (AFSUMB, Japan)

ULTRASOUND IN MEDICINE AND BIOLOGY
EDITOR-IN-CHIEF Peter N.T. Wells (EFSUMB, UK)
NEWSLETTER EDITOR Christopher R. B. Merritt



WFUMB News: We want your news too!

The WFUMB Newsletter is provided as a service to the members of the WFUMB affiliates. The purpose of the Newsletter is to inform you of events occurring in the WFUMB and its affiliated societies. We hope to bring you news of interest from all parts of the ultrasound world. If you have news that would be of interest to your international colleagues which you wish to submit to the WFUMB News, please send it to:

C.R.B. Merritt, M.D.,
Editor WFUMB Newsletter
7722 Hampson Street
New Orleans, LA 70118, USA
FAX (1) 504-866-4247
E-mail: merritt@ochsner.org

probability of cavitation. A physician should take this into account when considering the benefit/risk ratio of an examination.

Pulmonary Capillary Bleeding: In considering the significance of ultrasound induced pulmonary red blood cell extravasation and capillary bleeding, one must realize that these effects can also occur as a result of coughing, and can occur spontaneously in neonates. For the most part, unless there is extensive hemorrhage, the clinical significance is negligible, and its occurrence would be difficult to detect. Nevertheless, it is prudent to reduce ultrasound exposure to the postnatal lungs to the minimum necessary to obtain the required diagnostic information.

B-Mode Imaging: When tissue/gas interfaces or contrast agents are not present, the use of B-Mode imaging need not be withheld because of concern for ultrasound safety. This statement also applies to endoscopic, transvaginal, and transcutaneous applications. When tissue/gas interfaces or

contrast agents are present, ultrasound exposure levels and durations should be reduced to the minimum necessary to obtain the required diagnostic information.

Doppler: When tissue/gas interfaces or contrast agents are not present, and where there is no risk of significant temperature elevation, the use of diagnostic Doppler equipment need not be withheld because of concern for ultrasound safety. When any of the above conditions might be present, ultrasound exposure levels and durations should be reduced to the minimum necessary to obtain the required diagnostic information.

Information about clinically relevant quantities describing, for example, the anticipated temperature elevation or the potential for cavitation should be made available to health care professionals. Methods for making this information available include, for example, the continuously updated display of a thermal index and mechanical index, and the classification of ultrasound fields.

Education: Diagnostic ultrasound has potential for both false positive and false negative results. Misdiagnosis is far more dangerous than any effect that might result from the ultrasound exposure. Therefore, diagnostic ultrasound should be performed only by persons with sufficient training and education.

Dr. Lutz *continued from page 1*

1965 and has been involved with ultrasound since 1970. Dr. Lutz has served as Chairman of the Ultrasonic Laboratory at the University of Erlangen-Nuremberg and Chairman of the Medical Department at the Academic Hospital of the University of Erlangen-Nuremberg. Dr. Lutz is past President of DEGUM and the European Federation of Societies for Ultrasound in Medicine and Biology. He is also an honorary member of the Brazilian, Italian and Polish Society for Ultrasound in Medicine and Biology. Since 1972, Dr. Lutz has authored numerous publications on ultrasound.



WFUMB NEWS

WORLD FEDERATION FOR ULTRASOUND
IN MEDICINE AND BIOLOGY

Volume 6, No. 1

Summer, 1999

President's Report

Harald Lutz, M.D.

Meetings of the WFUMB Administrative and Executive Councils were held in conjunction with the ASFUMB Congress in Taipei on October 27-28, 1998. The WFUMB Executive Council also met during the AIUM in San Antonio, Texas, USA, on March 17th 1999. I would like to offer some highlights of these important meetings.

On behalf of WFUMB, I would like to again express my gratitude and appreciation to Dr. Belinski and his colleagues for their efforts for WFUMB '97 resulting in an outstanding World Congress in Buenos Aires. I would also like to thank Dr. H. Y. Chen, Taipei, and the members of ASFUMB for their hospitality during AFSUMB '98. Finally, I would like to acknowledge Drs. Goldberg and Ziskin for their successful negotiations with AIUM in selecting Montréal as the venue for WFUMB in 2003.

During our recent meetings, the Administrative and Executive Councils reviewed plans for WFUMB 2000 in Florence. The Council also approved participation of WFUMB in a WHO Conference on Education and Training in Di-

agnostic Imaging from May 31 to June 3, 1999, in Geneva.

In my remarks to the Council, I stressed that WFUMB should be more visible, and that increased information from the representatives of affiliated societies is needed. Another topic receiving much emphasis in council discussion was the importance of education and training in ultrasound. Methods to utilize WFUMB resources to improve the availability and quality of training, particularly in developing countries, were discussed at length.

Interest continues in the promotion of ultrasonography in Africa. WFUMB has affirmed its willingness to support serious initiatives from colleagues who have an interest in the formation of courses and training activities. It was agreed that the basis of a successful outcome of the promotion of ultrasonography in Africa is the recognition of key persons from the African continent coupled with plans for the organization of societies and collaboration of local medical professionals and gov-



H. Lutz, M.D., WFUMB
President

ernments. An educational course involving African organizations including WAMUS, UGASON, and MASU has been proposed. In addition, a session on education and training in developing countries in Africa is being planned to take place during the World Congress in Florence next year. Through its

Continued on page 2

Highlights

President's Report	page 1
WHO Meeting	page 2
WFUMB 2000	page 3
Call for papers and abstract information	pages 4-5
Registration information	pages 6-8
ASFUMB '98	page 9
WFUMB / AIUM - Montréal 2003	page 10



PERGAMON

Visit WFUMB on the World Wide Web -
www.wfumb.org.au

ASFUMB '98 meets in Taipei

The 5th Congress of the Asian Federation for Societies for Ultrasound in Medicine and Biology, ASFUMB '98, was held in Taipei from October 23-27, 1998. The Congress organizer, the Chinese Taipei Society of Ultrasound in Medicine (CTSUM) heralded the Congress as very successful despite the Asian economic crisis. Having a membership of 6000, CTSUM is the second largest society of its kind in Asia.

Nearly 1,500 delegates from 26 countries, including over 100 overseas speakers, attended the Congress. The number of Taiwanese participants was significant, reflecting the continuing need among local physicians for advanced and updated knowledge on ultrasound. Their substantial participation played an important role in the success of the Congress. A total of 60 symposia were held during the 4-day Congress. These included workshops covering topics such as three-dimensional ultrasound in OB/GYN, Down syndrome screening, echoenhancing contrast agents, and bioengineering. In addition, prior to the start of the Congress, the International Breast Ultrasound Seminar was held by the International Breast Ultrasound School under the auspices of the Congress. Much positive and encouraging feedback was received from these workshops.

Besides the approximately 200 lectures given by internationally renowned scholars, over 200 free papers and posters were presented at the Congress. Representatives of CTSUM, ASUMB, and WFUMB gave addresses at the opening and closing ceremonies, including Professor Hsi-Yao Chen (Past President of ASFUMB), Dr. Yi-Hong Chou



ASFUMB and WFUMB Council members are shown during the 5th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology. The meeting, held in Taipei, October, 1998, was attended by over 1,500 delegates from throughout Asia.

(Past President of CTSUM and Secretary General of ASUMB '98), Professor Fon-Jou Hsieh (Chairman of the Organizing Committee, ASFUMB '98), Professor Hiroko Watanabe (President of ASFUMB), Professor Harald Lutz (President of WFUMB), and Professor Barry Goldberg (Past President of WFUMB). Professor Raman Subramania, host of ASFUMB 2001 in Malaysia, also addressed the Congress. Twelve members of the WFUMB council participated in the scientific program of the Congress, presenting lectures on a variety of clinical topics.

Both ASFUMB and WFUMB councils met during the Congress. The representatives and members of the executive committees of both organizations expressed their appreciation of the impressive organization and hospitality of the Congress organizers. A new executive committee for ASFUMB was elected during the General Assembly. Professor Hiroki Watanabe was selected to succeed Professor Hsi-Yao Chen as President.

Congress participants were treated not only to days filled with excellent lectures, workshops, and demonstrations, but also enjoyed outstanding social evenings. A reception and gala dinner featuring the superb Chinese and Western cuisine of Taiwan were greatly enjoyed by attendees. Additional evening functions were hosted by Aloka, Hewlett Packard, and WFUMB, adding to the friendly and cheerful atmosphere among Congress participants.

Also actively participating in the Congress were leading ultrasound companies. Convenient and attractive technical exhibits were busy throughout the Congress, demonstrating the latest advances in instrumentation. Among the companies exhibiting were Acuson, Advanced Technology Laboratories, Aloka, B-K Medical, CSIST (3rd Ultrasound Project), General Electric Mediland Medical Systems, Hewlett Packard, Medison, Olympus, Schering, Siemens, Toshiba Medical Systems, and Winmage.



WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

AJUM - AFSUMB - ASUM - EFSUMB - FLAUS - MASU

Affiliate Highlights

AJUM—Membership has grown by more than 6.5% over the past 12 months and is now at over 8,961 members as of June 30, 2011. AJUM's professional networking site, ajumcommunities.org is home to the 15 AJUM Communities and special interest groups. The number of registered users has grown to over 1600. Over 400 active discussions are currently taking place. Two new special interest groups have been established. Ultrasound in Medical Education and Ultrasound in Global Health. AJUM maintains an active presence on Facebook with over 6,300 fans who receive regular AJUM posts in their newsfeed. Additional social presences are maintained on Twitter, RSNA's RadiologyInsights, and YouTube.

AJUM's 2012 Annual Convention: March 20-April 1, 2012, Phoenix, AZ. Abstract submission deadline is September 28, 2011.

In early May, Alfred Abuhamad, Norvey Nilsenbaum, and Carmine Valente spoke at the first world congress of the Society of Ultrasound in Medical Education. The congress brought physicians from around the globe with a special interest in ultrasound and its value in medical education. .continued at www.wfumb.org.

FLAUS—The Latin American Federation of Ultrasound in Medicine and Biology (FLAUS) has had a very active participation in the last two years, realizing practical and theoretical courses of Ultrasound in all over Latin America. It has been a hard and extensive work with an important number of attendees to these meetings. The WFUMB Latin American Education Project has been very active also, supporting and co-organizing scientific activities in Venezuela and Brazil.

We have organized courses that have been imparted in Bolivia, Paraguay, Panamá, Guatemala, Uruguay, Puerto Rico and Costa Rica. We have one new affiliated National Society to FLAUS: The Ultrasound Society of Bolivia.

These courses served as base to promote in all these countries the 13th Congress of the World Federation for Ultrasound in Medicine and Biology (WFUMB) to take place in Vienna and also were the ideal scene for the promotion of the congress of FLAUS 2011 carried out in Asunción, Paraguay in June 2011. This event had an attractive academic program, successful nomination, and an attendance of around 400 physicians from all over Latin America with 45 international lecturers who discussed during 3 days, important areas of Ultrasound. .continued at www.wfumb.org.

AFSUMB—AFSUMB has 15 member societies of Bangladesh, Cambodia, China, Chinese Taipei, Hong Kong, India, Indonesia, Japan, Korea, Mongolia, Malaysia, Pakistan, Philippines, Singapore, and Thailand, and 16666 members in 2010. The 9th AFSUMB congress was held in New Delhi, India, on November 18-21, 2010 successfully. Excellent 4 day scientific programme was formulated, which were consisted workshops, lectures, symposia, free papers and so on. And the educational activities of 7th AFSUMB workshop was organized in Indonesia on 5-7 November 2009, and 8th AFSUMB workshop was in Ulaanbaator, Mongolia on 5-7 August 2010 in 183 participants. The 9th workshop will be held in Bali, Indonesia in 2011. The workshop will be held every year to diffuse the ultrasound knowledge and information techniques in education. The WFUMB Asian education project 2010 was explained in the councilor meeting and under consideration in some countries. The affiliated societies in Asia made meeting in each countries one or more times per year.

The AFSUMB official journal of *Journal of Medical Ultrasound* was quarterly published as in the past. We will be printed volume 16 in 2011. Some AFSUMB member societies made scholarships to other AFSUMB members, those are continued in JSUM, KSUM and GTSUM. .continued at www.wfumb.org.

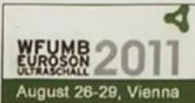
EFSUMB—EFSUMB has a membership of almost 20,000 members from 30 different countries making EFSUMB the largest Society in WFUMB. 2011 has been an active year for us and our website www.efsumb.org is a good place to start for anyone unfamiliar with the changes about in EFSUMB. The statistics of the website viewing have been increasing dramatically and not just from our member countries but worldwide.

The European Course Book has attracted a lot of this interest. There are currently 17 chapters online which can be accessed and downloaded by anyone. These and other chapters will be published in Autumn 2011 for sales at our annual Congress and large scientific meetings in Europe. The book will be non profit making and available on our website at a reasonable price. This book in its entirety will be found on the EFSUMB Educational Portal which has recently been launched on our website. The intention is to offer educational material to anyone with access to the Internet. The successful Cases of the Month, Guidelines, Recommendations, teaching videos, EUROSON School presentations, and more, can all be found here. .continued at www.wfumb.org.

MASU—The WFUMB COE is an important means through which MASU operates to conduct ultrasound training courses for applicants from Africa, who are either sponsored by WFUMB or have individual private sponsorship. The COE is supported in its training activities by WFUMB and MASU in addition to other sources of support. The main activities of the COE are short refresher courses (1-3 days) and formal ultrasound course (Degree, Diploma and Certificate). Within the last two years, the COE has held 4 short refresher courses, and continues to conduct formal ultrasound courses at certificate, diploma and degree levels. Currently, there are up to 150 students are enrolled for these formal ultrasound courses.

The COE holds a minimum of 2 refresher courses per year, as per requirement of WFUMB. Between January 2009 and August 2010, 4 courses were held. Participants were from several African countries namely, Uganda, Kenya, Tanzania, Zambia, Sudan, Rwanda.

Challenges—The upheavals in north Africa and middle east was a great handicap during the last 8 months. .continued at www.wfumb.org.



WFUMB 2011: In Appreciation

WFUMB extends its thanks and appreciation to the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) for its role in organizing WFUMB 2011.

A special thanks to the Austrian Society for Ultrasound in Medicine for their hospitality in organizing WFUMB 2011 in such an excellent location as Vienna, with its welcoming people, supporting a socially enjoyable and memorable Congress.

Univ. Prof. Prim. Dr. Gerhard Mostbeck, chairman of the Organizing Committee of WFUMB 2011, is to be commended for his outstanding contributions and service in organizing WFUMB 2011, and for generating an exemplary scientific program.

WFUMB's primary mission is to expand the opportunities for ultrasound practitioners throughout the world to participate in ongoing and newly developed educational programs. Through events such as WFUMB 2011, the WFUMB Council, in partnership with our member societies, is able to reach our collective goal of raising the level of patient care by raising the level of ultrasound education worldwide.

Thank you to all those who joined us in Vienna for WFUMB 2011, bringing together the latest aspects of ultrasound education and equipment.

The first "World Congress of Ultrasound" was held in Vienna in 1969. At that time, 700 international participants presented over 190 scientific papers.

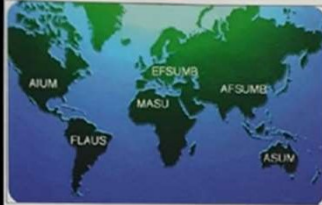
Visit www.wfumb.org to view the full report from each affiliate.

*If printing time, a report from AJUM was unavailable. Updates will be displayed on the WFUMB website.



WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

AIUM - AFSUMB - ASUM - EFSUMB - FLAUS - MASU



Save the Date:

WFUMB 2013
São Paulo, Brazil
May 2-5, 2013

WFUMB 2015
Orlando, USA
March 21-25, 2015

Our Affiliated Organizations

- American Institute of Ultrasound in Medicine (AIUM)
www.aium.org
- As an Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB)
www.afsumb.org
- Australasian Society for Ultrasound in Medicine (ASUM)
www.asum.com.au
- European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB)
www.efsumb.org
- Latin American Federation for Ultrasound in Medicine (FLAUS)
ww.flaus2011.integral.com.py
- Mediterranean and African Society of Ultrasound (MASU)
www.masu-ultrasound.com

DID YOU KNOW?

WFUMB 2011, the 13th World Congress of the WFUMB, was held in conjunction with the 35th Drollandertreffen-ULTRASCHALL 2011, the 35th joint meeting of the Austrian, German and Swiss Societies for Ultrasound in Medicine and EU-ROSON 2011, the 23rd Congress of EFSUMB, one of the foremost gatherings of ultrasound experts in the history of ultrasound.

14750 Sweetzer Lane, Suite 100
Laurel, MD 20707 USA
<http://www.wfumb.org>



WFUMB 2013

14th World Congress of Ultrasound in Medicine and Biology - WFUMB 2013
XVI Congress of the Latin American Federation of Ultrasound - FLAUS 2013
43rd São Paulo Radiological Meeting - JPR 2013

May 2 - 5, 2013
Transamerica Expo Center - São Paulo - Brazil



www.spr.org.br

WFUMB Vision Statement

Through communication, collaboration and education, bring sustainable ultrasound programs to underserved areas in the world



WFUMB Facts

Message from the President



It is with great sadness that we acknowledge the passing of 2 true giants in the field of ultrasound- Professor Peter N.T. Wells and Professor David Cogrove. Please see "In Memoriam" in this issue of ECHOES.
 On a happier note I look forward to seeing many of you at WFUMB 2017 Taipei (the 16th WFUMB Congress) to be held at the Taipei International Convention Center, Taipei, Taiwan, from October 13 to 17, 2017 in conjunction with the 9th Asian Conference on Ultrasound Contrast Imaging and the Chinese Taipei Society of Ultrasound in Medicine Annual Convention (www.wfumb2017.org). The meeting will highlight the latest cutting-edge knowledge and innovative skills in medical ultrasound, such as ultrasound-assisted techniques for interventional procedures, real-time 3-dimensional ultrasound, contrast ultrasound, elastography, speckle tracking etc. On Monday, October 16th WFUMB will have an exciting Education Program entitled "ultrasound in Medical School Education" (www.wfumb2017.org/about_the_program.php). In addition to the meeting, hope you will take the time to enjoy all the wonderful sites and activities of Taipei and if you are fortunate enough to have the time, explore the island of Taiwan.
 Hope you enjoy and take pride in all the WFUMB and each of the member Federation activities and WFUMB Centers of Education (COEs) programs described in this issue of ECHOES.

WFUMB Leadership (2015-2017)

Executive Bureau
 President: Harvey Nisenbaum (USA)
 President-Elect: Christian Nolsoe (Denmark)
 Vice President 1: Dieter Nürnberg (Germany)
 Vice President 2: Adrian Goudie (Australia)
 Secretary: Seung Hyup Kim (Korea)
 Treasurer: Jacques Abramowicz (USA)
 Immediate Past President: Hassen Gharbi (Tunisia)

Administrative Councilors
 Michael Biaivas (USA)
 M. Cristina Chammas (Brazil)
 Yi-Hong Chou (Taiwan)
 Christoph Dietrich (Germany)
 Sudhir Vinayak (Kenya)
 Susan C. Westerway (Australia)

Co-Opted Councilors
 Byung Choi (Korea)
 Leandro Fernandez (Venezuela)
 Harald Lutz (Germany)

UMB Journal Editor
 Christy Holland, PhD (USA - AIUM)

WFUMB Committees

Archives Committee
 Seung Hyup Kim, Chair
 Hassen Gharbi
 Harald Lutz
 Christian Nolsoe
 Harvey Nisenbaum, Ex Officio
 Archives Advisors
 Michael Claudon
 Barry Goldberg
 Søren Hønicke
 George Kossov
 Hiroki Vatanabe

Congress Committee
 Adrian Goudie, Chair
 Seung Hyup Kim
 Fabio Piscachia
 Cristina Chammas
 Harvey Nisenbaum
 Yi-Hong Chou

Constitution Committee
 Dieter Nürnberg, Chair
 Hassen Gharbi
 Seung Hyup Kim
 Harvey Nisenbaum
 Christian Nolsoe

Collaboration Committee
 Christian Nolsoe, Chair
 Michael Biaivas
 Cristina Chammas
 Byung Choi
 Hassen Gharbi
 Oki Holge Gijka
 Harvey Nisenbaum
 Sao Westerway
 Collaboration Advisors
 Ron Benito
 Giovanni Cerri
 Michel Claudon
 Barry Goldberg
 Masatoshi Kudo

Nominating Committee
 Christian Nolsoe, Chair
 Jacques Abramowicz
 Cristina Chammas
 Hassen Gharbi
 Adrian Goudie
 Seung Hyup Kim
 Dieter Nürnberg
 Harvey Nisenbaum, Ex Officio

Safety Committee
 Jacques Abramowicz, Chair
 David Evans
 J. Brian Fowlkes
 Gill Ter Haar
 Karel Maral

Education Committee
 Byung Choi, Co-Chair
 Harald Lutz, Co-Chair
 Michael Biaivas
 Bryan Bronkley
 Cristina Chammas
 Yi-Hong Chou
 Barry Goldberg
 Christian Nolsoe
 Dieter Nürnberg
 Sudhir Vinayak
 Sue Westerway
 COE Directors
 Kaito Bala
 Leandro Fernandez
 Michael Kwock
 Daniel Muller
 Scott Solor
 Lantana Sorbaje
 Koto Soyebi
 Joan Sporea
 Sudhir Vinayak
 E-Learning Advisors
 Paul Dubbins
 Michael Kwock
 Sudhir Vinayak

Finance Committee
 Dieter Nürnberg, Chair
 Cristina Chammas
 Adrian Goudie
 Seung Hyup Kim
 Harvey Nisenbaum
 Christian Nolsoe
 Sudhir Vinayak
 Jacques Abramowicz, Ex Officio

Publications Committee
 Christoph Dietrich, Chair
 Michael Biaivas
 Byung Choi
 Leandro Fernandez
 Sudhir Vinayak
 Sue Westerway
 Christy Holland, Ex Officio

Communication Committee
 Seung Hyup Kim, Chair
 Yi-Hong Chou (AFSUMB)
 Michael Biaivas (AIUM)
 Sue Westerway (ASUM)
 Christoph Dietrich (BFSUMB)
 Cristina Chammas (PLAUS)
 Sudhir Vinayak (MAGU)

Past President Advisory Group
 Masatoshi Kudo, Japan (2011-2013)
 Michel Claudon, France (2009-2011)
 Giovanni Cerri, Brazil (2006-2009)
 Hiroki Vatanabe, Japan (2000-2003)
 Harald Lutz, Germany (1997-2000)
 Barry Goldberg, USA (1994-1997)
 George Kossov, Australia (1992-1995)

WFUMB Statistics (as of May 2017)

6 Member organizations

93 Countries

52,925 Individual Members



	Countries	Individual members
AFSUMB	16	19,272
AIUM	2	5,399
ASUM	2	2,064
EFSUMB	28	20,274
FLAUS	13	4,196
MASU	32	1,720
Total	93	52,925

WFUMB Activities

ARCHIVES COMMITTEE: The Archives Committee developed WFUMB Digital Archives. It is a collection of historic documents, articles, publications, and photos in digital form and currently it is about 10GB in size. Now it is kept in webhard system (www.webhard.net) and is open to WFUMB Administrative Council and Committees members. The Archives Committee is planning a separate website for WFUMB Digital Archives and will be open to the public by a link to WFUMB main website.

COMMUNICATION COMMITTEE: The role of the Communication Committee is to facilitate communication of WFUMB and WFUMB-affiliated organizations, to maintain the WFUMB website up-to-date, and to publish the WFUMB Newsletter "ECHOES" regularly in intervals as WFUMB Administrative Council decides. WFUMB website (www.wfumb.org) was renewed in November 2016 in a visitor-friendly and mobile-responsive platform. WFUMB newsletter ECHOES, which was not published regularly for a while, was also revived in November 2016 as ECHOES #16 and will be published regularly twice a year.



CONGRESS COMMITTEE: The Congress Committee has been pleased to watch the excellent work being done for the preparation of WFUMB 2017 Taipei, and will use this as the basis for future congresses. The report of WFUMB 2017 Taipei is included on a separate page (page 16). WFUMB 2019 in Melbourne will be held on 5-9 September, 2019 at the Melbourne Convention Center. Preliminary planning has commenced and ASUM and WFUMB look forward to many international delegates to learn and share their expertise. Expressions of interest for WFUMB 2021 have been received and the winning venue will be announced shortly.

NOMINATING COMMITTEE: The Nominating Committee has it as its purpose to select nominations for the officers of WFUMB and present these to the Administrative Council in the year prior to the WFUMB congress. The Nominating Committee selects these nominations from candidates submitted by the Affiliate members. The Committee convened via conference call on 18 April 2017 to discuss the nominations for WFUMB's Elections this year. A list of candidates was unanimously decided and will be presented to the Administrative Council in due time.

WFUMB Activities_continued

PUBLICATION COMMITTEE:

Recent activities of publication committee include the writing of a WFUMB drafting concept which has been accepted and used, e.g., for guideline preparation [for further details see the WFUMB-website].

The following WFUMB-guidelines and good clinical practice recommendations for contrast enhanced ultrasound (CEUS), elastography and safety issues (initiatives in cooperation with representatives of AFSUMB, AIUM, ASUM, EFSUMB, FLAUS and MASU) have been published in recent years. WFUMB has also recently published two position papers on point of care ultrasound and how to learn gastrointestinal ultrasound. Current activities include a position paper on medical student education. The WFUMB Publication Committee members warmly welcome ideas for future projects including state of the art papers.



COLLABORATION COMMITTEE:

The WFUMB Collaboration Committee is a newcomer at the WFUMB homepage and in this issue of ECHOES. It is, however mostly the name that is new. At our latest Administrative Counsel meeting in Kenya it was decided to change the name of the previous Co-Sponsorship Committee to Collaboration Committee and at the same time update bylaw 7.5 that describes the duties of this committee. In short WFUMB Collaboration Committee has it as its overall mission to stimulate and initiate collaboration with commercial and non-commercial organizations on mutual ultrasound educational projects to promote the use of ultrasound worldwide. In keeping with this purpose the Collaboration Committee reaches out to professional organizations as well as ultrasound manufacturers at congresses and suitable ultrasound events on a global scale.

For the third year in a row a committee delegation met with other professional medical organizations and vendors at the worlds largest annual medical congress, RSNA in Chicago. Through a busy 3-days-program a total of 12 personal meetings enabled WFUMB to make dedicated contact and stimulate collaboration with RAD-AID, Imaging the World, World federation for Pediatric Imaging, Philips, GE, Bracco, Siemens, Mindray, Neusoft, Toshiba, Hitachi and Samsung. Some contacts quickly develop into fruitful collaboration while others may take some time to mature.

In the first category WFUMB has throughout the last year experienced successful joint ventures around the world. In Brazil Bracco has worked in close collaboration with FLAUS Counselor Cristina Chammas to develop CEUS courses enabling hugely important education in the use of the newly Brazil-registered Sonovue ultrasound contrast. In Kenya Philips has collaborated through the WFUMB COE in Nairobi where COE Secretary and MASU President Sudhir Vinayak has lead a most successful midwife-Vistiq-ultrasound project. The results prove this to be a great way to utilize tablet-based ultrasound equipment in rural areas and in addition the project produced in a scientific report. In Nigeria GE and WFUMB COE in Lagos under the strong leadership of Kofo Soyebi is at the bring of start-up of a similar midwife scanning project, only at a much larger scale aiming with time to cover rural areas all over Nigeria. This project utilizes the tablet sized V-Scan Access which was partly developed for this purpose. At the time being intensive training-of-the-trainers sessions are rolled out. In Ethiopia RAD-AID is collaborating with WFUMB to extend our long-running education activities at Black Lion Hospital in Addis Ababa to run a fist-time-ever full-week ultrasound course in Gondar, the largest city of Northern Ethiopia. WFUMB education activities in Ethiopia is carried out in close collaboration with University of Bergen and NCUG leader, EFSUMB President, Odd Helge Gilja and the Gondar course will run as a joint venture with all three organizations contributing to a hopefully successful event come October 2017.

The WFUMB Collaboration Committee will continue to pursue our goal and we are eager to collaborate with ultrasound education projects all over the world. Kindly contact us through our website <http://www.wfumb.org> or WFUMB Administrative Manager, Ailie Garza egarza@wfumb.org.



WFUMB-vendor meeting at RSNA



Hands-on session in Ethiopia

WFUMB COEs

Originally "COE" meant "Center of Excellence" and was changed to mean "Center of Education" in January 2015. Currently WFUMB is sponsoring 13 COEs.



- Dhaka, Bangladesh, established in 2004
- Kampala, Uganda, established in 2004
- Caracas, Venezuela, established in 2005
- Timisoara, Romania, established in 2007
- Jakarta, Indonesia, established in 2011
- Nairobi, Kenya, established in 2013
- Ulaanbaatar, Mongolia, established in 2013
- Lagos, Nigeria, established in 2013
- Lome, Togo, established in 2013
- Addis Ababa, Ethiopia, 2014 in progress
- Caaguazu, Paraguay, established in 2015
- Chisinau, Moldova, 2017 in progress
- Khartoum, Sudan, 2017 in progress

WFUMB COEs History -This is an article viewed by Hiroki Watanabe and Masatoshi Kudo

In WHO, Harald Østensen, former medical officer, founded "Global Steering Group for Education and Training in Diagnostic Imaging" and discussed to establish education centers in developing countries in the late nineties, especially in Africa as "African project", led by Harald Lutz and Søren Hancke. Independently from this, Hiroki Watanabe, WFUMB President at the time, moved his specific plan for the establishment of "WFUMB COE", based upon a principle that "WFUMB only gives the name and local societies organize each education center for ultrasound by their own effort" to WFUMB Education Committee Meeting (Chair: Harald Lutz) held in Dhaka on June 6, 2002.

The plan was moved to WFUMB Administrative Council Meeting, held in Montreal on May 31, 2003. The motion was carried and the first COE was established in Dhaka, Bangladesh, on February 24, 2004. This was followed by COE in Kampala, Uganda (June 8, 2004), which met well with the idea of "African project". Marvin Ziskin, the next President, appointed Hiroki Watanabe as the Chair, Advisory Board for COE Committee in 2004, and he established COE in Caracas, Venezuela (February 6, 2005).

Since 2006, three Presidents including Giovanni Cerri, Michel Claudon, and Masatoshi Kudo appointed Byung Ihn Choi as the Chair to evolve the system. He established COE in Timisoara, Romania (June 1, 2007), COE in Jakarta, Indonesia (February 12, 2011), COE in Lome, Togo (February 13, 2013), and COE in Lagos, Nigeria (February 13, 2013). Since 2013, President Hassen Gharbi and Harvey Nisenbaum appointed Byung Ihn Choi and Harald Lutz as Co-chairs of education committee to supervise, monitor and stabilize the system of COEs. They established COE in Ulaanbaatar, Mongolia (July 26, 2013). With the support of Christian Nolsøe, Dieter Nürnberg, and Odd Helge Gilja additional COEs in Africa were established: COE in Nairobi, Kenya (January 17, 2014) and COE in Addis Ababa, Ethiopia (March 17, 2014). Since then additional COE Candidates have been approved: COE Candidate in Asuncion, Paraguay (March 22, 2015); COE Candidate in Khartoum, Sudan (January 19, 2017); and COE Candidate in Chisinau, Moldova (January 19, 2017) [Minor editing was done by Byung Ihn Choi and Harvey Nisenbaum]

Comments to this article

Michel Claudon: Thank you for having prepared this summary of the history of the COEs. This document is mainly a factual history document and easy to read to members, and could be fruitfully published in Echoes #17.
Hassen Gharbi: I personally had the chance to be member of this community since 1992, and working with the great names of US pioneers. I was one of the founders of the MASU and since the beginning in 1986 we promoted education in developing countries in Africa, we called it MASU Courses under the auspices at the beginning of WHO then since 1992 under the auspices of WFUMB/WHO. WFUMB has to be proud for this great achievement, the COEs, in developing world. All of us are proud to be involved more or less in this project.

WFUMB COEs

WFUMB COE, Current Status and Future Plans -By Choi Bi and Lutz H, Co-chairs of Education Committee

At the administrative council meeting in Kenya in 2017, two new candidates of WFUMB COE in Khartoum, Sudan, and Chisinau, Moldova, were approved. Therefore, the total number of WFUMB COE is 13. Current 13 WFUMB COEs are listed and shown on the world map on page 4. The responsibility of COE is developing training programs, financial administration, and reporting activity every year to WFUMB. The responsibility of WFUMB is approval of the name, recommendation of curriculum, recognition of budget, recommendation of teachers, examination and accreditation of the trainers, and advice for management of COEs. The responsibility of the sponsoring society is location in developing country, solid society, and independent office, and experience on education in the past and ability to attract trainees from own and surrounding countries. Annual COE workshops in 2016 and 2017 are summarized in Table 1 and 2 below.

In general, most of WFUMB COEs do their work well. But, the Ethiopian COE is not yet under the umbrella of MASU. MASU has helped to synergize a working relationship between the Ethiopian US society (in the process of registration) and WFUMB. Hopefully the society will soon be operational with the support of WFUMB, MASU and University of Bergen, Norway. Togo COE has been revitalized through the hard work of Philippe Arbellet and Director, Lantam Sonhaye (see Togo COE report page 8). Khartoum COE in Sudan was approved in last January and hopefully will be set up in the near future by Dieter Nürnberg and local supporters. Chisinau COE in Moldova was also approved in last January and hopefully will be established in the future supported by Harald Lutz, Dieter Nürnberg and Romanian COE.

There are three WFUMB COE meetings on the basis of region, including Latin America, Africa & Eastern Europe and Asia, because WFUMB can save expenses of airfare and accommodation of participants for the meeting, and can discuss COE activities in depth and detail. Two WFUMB COE meetings were held in 2016. Asian meeting was held in Kyoto, Japan on May 27-29, 2016, in conjunction with AFSUMB meeting (Figs.1,2). Africa & Eastern Europe meeting

Table 1. COE Workshop 2016

Country	Date	City
Bangladesh	March 4	Dhaka
Uganda	November 4-5	Kampala
Venezuela	October 9-7	Caracas
Romania	June 22-25	Cluj-Napoca
Indonesia	10th USM	Medan
Togo	September 14-16	Lomé
Norway	September 15-17	Oslo/Bæstad
Kenya	November 17-18	Nairobi
Ethiopia	Unkown	Addis Ababa
Nigeria	April 30	Lagos

Table 2. COE Workshop 2017

Country	Date	City
Bangladesh	March 3	Dhaka
Spain	May, October	Barcelona
Venezuela	End of September	Caracas
Romania	June	Cluj-Napoca
Indonesia	100 USM	Medan
Togo	March	Lomé
Norway	July 24-25	Oslo/Bæstad
Kenya	May 25-27, October 24-25	Nairobi
Ethiopia	Unkown	Addis Ababa
Nigeria	April 30	Lagos
Paraguay	March 23	Asunción

Fig. 1



Fig. 2



Fig. 3



Fig. 4

WFUMB COEs

WFUMB COEs Update

COE, Dhaka, Bangladesh (director, Dr. Kanu Bala)

The 19th WFUMB COE Workshop was held on 3 March 2017, Friday at the Auditorium of the National Institute of Nuclear Medicine and Allied Science (NINMAS), Bangabandhu Sheikh Mujib Medical University Campus, Dhaka, Bangladesh. 152 participants attended the workshop. The participants were very attentive and enthusiastic. All through the whole auditorium was packed up with participants and there was pin-drop silence. At the Inauguration Ceremony Prof. Kanu Bala, Director of the WFUMB COE Bangladesh explained the history and present status of the COE. The topic of the workshop was "Controversies in Pregnancy Ultrasound". Nine lectures covered some of the areas of fetal anomalies in depth and in breadth. All the world-class lecturers were from Bangladesh Society of Ultrasonography. Some of the topics were very much new and untouched. At the last part of the workshop there was a patient and probe session.

Prof. Byung In Choi (Korea) is the Chairperson of the Advisory Board of the WFUMB COEs and Prof. Kanu Bala (Bangladesh) is the Director of the WFUMB COE Bangladesh. Prof. Choi played a key role for the organizing of the workshop properly. He maintained the quality of workshop as per requirements of the WFUMB. He has to place a full report of the workshop at the WFUMB Council. Bangladesh Society of Ultrasonography is the host organization.



COE, Timisoara, Romania (director, Dr. Ioan Sporea)

The WFUMB COE Timisoara Romania will organize, this year, the Annual Workshop with the topic Gastrointestinal Ultrasound (GIUS), on the 2nd of June 2017, in conjunction with the XXth National Conference of the Romanian Society of Ultrasound in Medicine and Biology (<http://medevents.ro/srumb2017/>). Prof. Odd Helge Gjijs (Norway), Prof. Dieter Nurnberg (Germany) and Mrs. Lynne Rudd (United Kingdom) will be guests at this meeting.

Also in 10-11 November 2017 the center will organize in Timisoara a Euroson School Course with the topic Elastography. R.J. de Kragt (The Netherlands), Matteo Rosselli (United Kingdom), Simona Bota (Austria), Bogdan Procopet (Romania) will be among the invited speakers along with the members of the center: Ioan Sporea, Alina Popescu, Roxana Sirli, Mirela Daniela. More information will be available on the center's website (www.ulctimisoara.ro). All those that are interested are welcomed. Also the center is open for everybody that wants to learn ultrasound or looks to improve their experience.



WFUMB COEs Update_continued

COE, Nairobi, Kenya (director, Dr. Sudhir Vinayak)

COE, Kenya (director, Dr. Sudhir Vinayak) We had our annual COE conference on 17th/18th November, 2016 which was very successful. The registration had to be closed at 110 participants as the venue was filled to capacity. Ode Helge was the WFUMB speaker and all sessions were well attended. The registrants included: Radiologists, Sonographers, Physicians, and Physicists. A wide range of subjects were covered; hence the excellent response from members of the ultrasound society.

CMEs: In collaboration with Kenya Society of Ultrasound (KESUMB), regular CME lectures on ultrasound updates take place at the COE with good attendance. Since the last echoes bulletin, we have given another 4 lectures. Since the COE was established, educational activities and "hands-on experience" have improved skills for practicing Sonographers especially when performing difficult/challenging ultrasound procedures. The CME lectures are popular and feedback from Sonographers is very positive. Accreditation: As a COE, we have written a curriculum to provide accreditation for qualified Sonographers. We are still awaiting approval from authorities to start the accreditation process.

Research: The Visio research project was completed in 2016. The results are very encouraging and this pilot scheme will certainly form the template on which larger projects can be structured. The manuscript entitled, "Training Midwives to Perform Basic Obstetric Point of Care Ultrasound in Rural Areas Using a Tablet Platform and Mobile Phone Transmission Technology - A WFUMB COE Project" has been accepted for publication in UMB.



COE, Ulaanbaatar, Mongolia (director, Dr. Sodov Sonin)

During WFUMB Congress held in Sao Paulo, in 2013, decision to establish WFUMB COE in Mongolia was made in accordance with the request of Mongolian Society of Diagnostic Ultrasound (MSDU). Then, WFUMB COE in Mongolia was established in July 2013 in Ulaanbaatar and now it is running activities successfully. With establishment of the WFUMB COE, there is good opportunity to invite world-wide famous US leaders, speakers, lecturers to give valuable information, educate Mongolian doctors and share experiences, to present modern diagnostic methods and advanced technology to our doctors.

As mission of WFUMB, our mission is to disseminate scientific information, improve healthcare through collaboration, communication, and education. Since started, WFUMB COE in Mongolia organized 4 workshops in Abdominal US, Cardiology, Obstetrics and Gynecology, Musculo-skeletal and Pediatric ultrasound and totally around 800 medical doctors were enrolled. This year, in July 27-29, 2017, we are preparing to organize the 5th workshop of WFUMB COE Mongolia.

Also, as part of continuing education programs, 3 month familiarization to ultrasound and 3 month refresher courses are conducted on regular basis and approximately 300 medical doctors from family and rural health centers were involved in these trainings, which gave benefits to Mongolian remote rural primary health care units to improve their diagnostic capacity and quality.



WFUMB COEs Update_continued

COE, Lagos, Nigeria (director, Dr. Kofo Soyebi)

National Sickle Cell Centre (NSCC) retained four of the best performing 10 Graduates capacity built through C.U.R.E. In Transcranial Doppler scanning, to conduct screening TCD on a daily basis, Monday to Friday, 8 am to 5 pm on children with Sickle Cell Disease (SCD), screening aimed at early detection of stroke-risk.

The Observation: Remarkable Increase in number of children screened by my Team of three Radiologists over 9 months, scanning once a week, 4-hours per visit from 91 to 856 children in the same period. Children from every part of the country and neighboring countries started visiting this solitary TCD Centre for screening signifying a great need.

My intervention: 2016 and 2017 Grants were obtained from magnanimous IGNA Research and Education Foundation to increase the number of TCD centers from one to seven in Nigeria and train TCD Sonographers for them.

The Project is ongoing. Heartfelt gratitude is expressed by ALL Beneficiaries.



COE, Lome, Togo (director, Dr. Lantam Sonhaye)

COE Workshop Lome was held on March 16-17th, 2017 with Pr Ph Arbellie, Pr Ph Derred (AASU WFUMB contributors and observer).

Scientific program was composed of 13 main lectures of 25min each on various topics including (4 of them from the WFUMB representatives) overview of the common echographic practice on abdominal, cardiac, vascular, musculoskeletal, fetal echography, pediatric abdominal, practice in emergency, future application of ultrasound in the assessment of cardiovascular aging effect, and tele-echocardiography principle and current application. There were 36 oral presentations (15min) on the same topics and others.

There were four demonstration and training sessions (2 of them by the WFUMB representatives) on suprarenal vessels, lower limb vessels, fetal echography, and tele-echography. Demonstration were performed by an expert on a volunteer, and later on the participant (20 to 30) practiced on the same subject with the assistance of the expert. For these sessions a portable Echograph Sonosimmer Orchestre (Paris, Fr) was used with a high frequency linear probe (7MHz), a curved array probe (3,5 - 7 MHz), for the conventional echographies. Echograph from CNES "French space agency" provided, carried, and managed by Ph Arbellie. During each demo or training session the Echograph was connected to the video projector so the audience could follow the echography performed on the main screen. For the Tele-echography the same device was used but in a "Teleoperated mode" that allow to control from away all the setting and function of the Echograph and also the transducer orientation inside the Motorized probe (3,5 - 7MHz). For the demonstration and training the Expert site was installed at one extremity of the podium (Dummy probe USB connected to a portable PC) while the patient site (patient on a bed with the tele-operated Echograph and motorized probe) at the opposite extremity of the podium (10m away). The 2 sites were linked thanks to a RJ45 wire. The expert started to set up 2 sft in order to check he can control the probe movement and the Echograph setting function. Then a non-sonographer person held the motorized probe on the patient at the place indicated (vocally) by the expert away and maintained it motionless while the expert changed the orientation of the transducer by manipulating the dummy probe. Several attendees successfully manipulated the dummy probe and were capable to visualize the abdominal aorta, inferior vena cava, portal vein...

This "installation" was a copy of what has been installed onboard the space station and the COE attendees who tried the system in Lome today did exactly what will be done in 2-3 weeks with the space station the expert center being in Toulouse (France).

The COE workshop was organized by STUM (Togolese Society for Ultrasound in Medicine) under the responsibility of Pr Sonhaye, Pr Adjono, and Pr Ndakona from the University Hospital Campus in Lome. The meeting took place at the Palace Hotel at the periphery of Lome. A 200 sit room with air conditioned and video projector was available for the main lecture and training session, and another room similarly equipped served for the free (short) communication. The technicians in charge of the equipment in these room were particularly efficient.

The power point of each communication was collected for being printed on a CD to be sent to the attendees.

Around 100 medical doctors participated to the workshop over the 2 days. The participants originated from 6 different countries of West-Africa (Ivory coast, Burkina Faso, Niger, Benin, Guinea, Togo). Several foreign participant gave main lecture during the meeting. The



The Palace hotel where the COE workshop took place (built designed for meetings but ... several electricity interruption during the sessions)



P Arbellie, Pr N'Dakona, Pr Derred, Pr Agbere (Niger), Pr Adjono



Tele echography dome : Expert on left, distal patient on right. (sites linked by RJ 45 wire)

WFUMB COEs Update_continued

COE, Caaguazu, Paraguay (director, Dr. Ramon Bataglia)

We had traditional course in 2015 and 2016 with the National University of Caaguazu the professors and authorities of Paraguayan Society of Ultrasonography and our WFUMB COE. We had in both seminars 90 and 120 participants of rural areas all over the country. During 2 days in a theoretical and hands-on sessions of Internal and obstetrics and gynecology items.



COE, Chisinau, Moldova (director, Dr. Sergiu Puiu)

On 4-5 November 2016 the First Workshop of Chisinau Ultrasound Learning Center in cooperation with WFUMB was held in Chisinau, Republic of Moldova. The event was held in conjunction with the WFUMB COE Timisoara, Romania, Moldovan Society of Ultrasound in Medicine and Biology (SUMB) and State University of Medicine and Pharmacy (SUMP) "Nicolae Testemitanu". WFUMB Speakers attended the program were Prof. Dr. Dieter Nürnberg (Germany), Prof. Dr. Ioan Sporea (Romania), Dr. Mișela Dan Ilia (Romania), and Dr. Roxana Sirli (Romania). The Program covered important aspects of ultrasound, particularly focused on following topics: ultrasound in diffuse liver diseases and liver elastography, contrast enhanced ultrasound in focal liver lesions, ultrasound in pancreas pathology, ultrasound for acute abdominal pain, abdominal free fluid and gas, kidney and adrenal glands ultrasound. The workshop was attended by 221 participants from all over Moldova. Both the speakers and participants appreciated the workshop very much. The WFUMB delegation also had a meeting with Prof. Dr. Ion Ababii, the Rector of SUMP "Nicolae Testemitanu". During a warm and friendly atmosphere the Chisinau COE's foundation and future plans have been discussed. The SUMB was established in November 2006 and has actually 429 members. The society joined EFSUMB in June 2008. On 27 February 2017 WFUMB has designated The Society of Ultrasound in Medicine and Biology of the Republic of Moldova as a WFUMB COE candidate. The following persons are staff of the center:
 Director: Dr. Sergiu Puiu, MD, PhD
 Executive director: Prof. Andrei Testemitanu, MD, PhD; Secretary: Anatol Cretu, MD, Members: Prof. Vasile Turcanu, MD, PhD; Liliana Fuior-Bulbac, MD, PhD; Ecaterina Puskina, MD

More training courses in close collaboration with WFUMB are planned for the future.



(Left) WFUMB lecturers and SUM's President, November 2016, Chisinau. Left to right: Prof. Ioan Sporea, Prof. Vasile Turcanu, Prof. Dieter Nürnberg, Dr. Roxana Sirli, Dr. Mișela



(Right) Participants of the WFUMB First Workshop of Chisinau COE's, November 2016, Chisinau.

WFUMB COEs Update_continued

COE, Khartoum, Sudan (director, Dr. Suzan Ethakim)

The Pisaeb 2000, an international event of Gastroenterology & Hepatology meeting, held in Khartoum has witnessed the first workshop in clinical & interventional abdominal ultrasonography of the Centre of Gastroenterology & Hepatology in Ibn Sina Hospital. Prof Lucas Gröner, honorary secretary of EFSUMB and well known course director of DEGUM (German US society), was the chair and lecturer of this course. The event has opened new strategies for the education in abdominal and interventional ultrasonography in Sudan which included missions for training of clinicians in ultrasonography & in interventional techniques.

This promising start in US education with the international support was later rewarded by a spectacular visit of WFUMB representatives in 2005. The WFUMB event was attended by the pioneers of the WFUMB, Prof Harald Lutz (Germany), Prof Hussein Ghazir (Tunisia) and Prof Elizabeth Buscafini (Italy and representative of MASU). It was a great success creating awareness and motivation to learn. Moreover the event was credited by the collaboration of radiologists, gastroenterologists & clinicians in general with prospects of practicing ultrasonography. Moreover, before they leave, the WFUMB honorable guests initiative was to create an interdisciplinary Sudanese Society of Ultrasonography. A preparatory meeting was successfully held & chaired by them. A mobile ultrasound machine gift was a finger print of an additional support from the WFUMB to start with better US education. The need & support of a referral & link to international societies grew stronger.

The workshop activity held as part of the Gastroenterology conferences continued to be supported by the WFUMB delegates & certification up to date in most of the event. Since its establishment in 1998 the dedicated US unit of the National Centre of Gastroenterology & Hepatology in the Sina Hospital offers continuous orientation, training and related interventions to clinicians of all specialties. Ultrasound now is integrated in the education program of several specialties of doctors and it is also open to neighboring African candidates. In the years that followed Dr. Suzan Al-Hakeem organized annual workshops in basic, advanced & clinical ultrasonography in combination with the annual conference of the Sudanese Society of Gastroenterology (SSG) with the help of the gastroenterology and radiology colleagues. In 2010 Prof. Dieter Nürnberg, representative of EFSUMB and DEGUM honored the Conference and chaired together with Dr. Suzan Al-Hakeem a very successful US workshop.

The shortage of resources in a third world territory has credited ultrasonography superiority, necessitating quality improvement, hopefully achieved through links to international US societies to combat with the advances in the subject. The workshop activity continued to be supported by WFUMB delegate, namely Prof. Dieter Nürnberg (vice president of WFUMB) in 2014, 2016 & 2017. The course in 2014 was certified by the EFSUMB, the program of 2016 and 2017 was supported by the WFUMB. Prof. Nürnberg gave a WFUMB lecture about "US education - the options in Sudan" at the International SSG conference. Of special importance in a tropical country is tropical ultrasonography. With the help of the Hydatid group (CESSAHO), engagement in tropical ultrasonography training & surveillance was planned & supported. Such efforts were later crowned by a successful workshop in conjunction with the CESSAHO International conference held in Khartoum in 2013. US in tropical disease is a special topic of US education program.

In 2014 and 2015 four doctors from Ibn Sina Hospital visited, the EFSUMB US Learning Center in Germany, (Kunzopph/Prof. Nürnberg) to improve their knowledge in abdominal and interventional US and to teach in the US education department in Khartoum. The 10th of January 2015 was the specified date of opening of the VICO COE (Virid Gastroenterology Organization centre of education) in Khartoum at the National centre of Gastroenterology & Hepatology in Ibn Sina Hospital. In the near future the centre will also be the premises of the (WFUMB COE) for an effective collaborative work with the help of international lecturers and trainers. A meeting with the President of MASU Prof. Sudri Yisarak, WFUMB representatives & the Sudanese US representatives was held in Alexandria during the event of the last MASU conference in Alexandria. The agenda of the meeting was to prepare for the Accreditation of Khartoum as an COE and to integrate the SSUS in the MASU.

In March 2017 Ibn Sina Hospital Khartoum got the accreditation of the WFUMB and MASU to work as an accepted WFUMB COE. The COE is chaired by Dr. Erayah M. Mustafa, radiologist and president of the Sudanese Society of Ultrasound (SSUS) and Dr. Suzan Ethakim, the head of the US department of Ibn Sina Hospital as co-director. The Sudanese Society of US (SSUS) under the leadership of Dr. Mustafa will organize an interdisciplinary spectrum of ultrasound education in the future. The society will be an active member of MASU in the next years. Dr. Suzan Ethakim will organize the practical training in US and the workshops in the future.

The WFUMB COE Khartoum will work as a COE type 2: basic ultrasound interdisciplinary and advanced in gastroenterology.
Next activities in education are planned in January 2018: Interdisciplinary US Workshop basic and advanced and an EUS workshop.

The contact persons of the WFUMB COE in Khartoum are:
Dr. Erayah M. Mustafa, COE director
Dr. Suzan Ethakim, COE Co-director
The COE is working with the special sponsorship of Prof. Dieter Nürnberg, WFUMB



WFUMB Affiliated Organizations

AFSUMB  www.afsumb.org

AFSUMB represents 19,272 physicians, scientists, engineers and sonographers in Asia. AFSUMB consists of 16 affiliated societies, namely, BSU: Bangladesh Society of Ultrasonography, CSUM: Cambodian Society of Ultrasound in Medicine, CTSUM: Chinese Taipei Society of Ultrasound in Medicine, HKSUM: Hong Kong Society of Ultrasound in Medicine, IFUMB: Indian Federation of Ultrasound in Medicine and Biology, ISUM: Indonesian Society of Ultrasound in Medicine, JSUM: Japan Society of Ultrasonics in Medicine, KSUM: Korean Society of Ultrasound in Medicine, MSRU: Mongolian Society of Diagnostic Ultrasound, MSUM: Malaysian Society of Ultrasound in Medicine, MUIS: Medical Ultrasound Society of Singapore, MUST: Medical Ultrasonic Society of Thailand, PSUCAM: Philippine Society of Ultrasound in Clinical Medicine Inc, SSM/CMA: Society of Ultrasound in Medicine of Chinese Medical Association, USP: Ultrasound Society of Pakistan, USN: Ultrasound Society of Nepal.

The AFSUMB's Asian Symposium on Advanced Ultrasound Technology (ASAUT) 2015 was successfully held in Taipei, chaired by the President of Chinese Taipei Society of Ultrasound in Medicine (CTSUM), Professor San-Kan Lee, and Yi-Hong Chou. With the strong support from the AC members and the CTSUM Board members, the ASAUT attracted more than 400 attendees. The 13th AFSUMB Workshop was held at Golden Jubilee Building, Thai Medical Society, New Petchaburi Road, Bangkok on 7-9 November 2016. The workshop was hosted by Medical Ultrasound Society of Thailand (MUST) and organized by Dr. Vithaporn Bhothisuwan. AFSUMB 2016 was held in on 27-29 May in Kyoto, Japan, and AFSUMB 2018 will be held on 23-26 May 2018 in Seoul Korea.



AFSUMB 2016, Kyoto Japan, Congress Banquet



13th AFSUMB Workshop, Bangkok: 7-9 November, 2016



AFSUMB 2018, Seoul Korea

AIUM  www.aium.org

The AIUM has had a very busy year culminating with a successful annual convention held at the end of March in Orlando Florida. The meeting attracted physicians, scientists, sonographers and students from around the country and the world. A successful series of pre-convention courses was highlighted by "Sonoslam" an event focusing on ultrasound in medical education. More than 200 medical students from around the United States competed on challenging cases and live scanning (Figure 1). The AIUM has focused heavily on medical student education over the past several years and is now a leading voice for ultrasound introduction into medical schools in partnership with the Society for Ultrasound in Medical Education (SUME).

As part of AIUM's ongoing mission to reach out to a broad base of ultrasound users, the point of care community of practice held a hands-on seminar for internal medicine physicians at AIUM (Figure 2). The internal medicine community in the United States is experiencing tremendous growth in ultrasound interest/use and the AIUM has partnered with the American College of Physicians for a third year to help organize and run their new ultrasound pre-conference course which was held this year in San Diego, overlapping with the AIUM annual convention.

The AIUM continues to pursue partnerships with other societies to improve communication and ultrasound practice. Highlights on safety and quality of practice continue to be a focus at special sessions and webinars.




Figure 1. "Sonoslam" at AIUM 2017.





Figure 2. Hands-on session for internal medicine physicians at AIUM 2017

WFUMB Affiliated Organizations

ASUM  Australian Society for Ultrasound in Medicine www.asum.com.au

ASUM has continued its strong performance in providing educational opportunities for its multidisciplinary members.

In October 2016, over 650 delegates attended the ASUM's 46th Annual Scientific Meeting in Brisbane with five renowned international speakers, including Professor Seung Kim as the WFUMB speaker. In addition to this meeting another 30 events have been held throughout Australia and New Zealand, covering O&G, cardiology, vascular, rheumatology, MSK and trainee assessment and supervision.




The 2017 Annual Scientific Meeting will be held in Melbourne Victoria from 6-8th October with international keynote speakers including Professor Christoph Dietrich as the WFUMB speaker.


The ASUM's formal education has also continued to grow, with the addition of the Graduate Diploma in Medical Ultrasound (GDMU) for sonographers in general, cardiac, vascular and O&G streams. These courses join a long list of ultrasound qualifications and credentialing for both medical and allied health workers.

In February 2017 ASUM became one of the first ultrasound societies in the world to work with a national infection control group to formulate guidelines for infection prevention in ultrasound practice. The Australian College of Infection Prevention & Control (ACIPC) will continue to work with ASUM to ensure patient safety, with workshops planned around Australia and New Zealand over the coming year. Associate Professor Sue Westerway, WFUMB councillor, and the ASUM editorial assistant Dr Jocelyne Basseal are now working on the results of the WFUMB infection control survey and producing stream-lined recommendations for ultrasound users worldwide. Visit the ASUM website (www.asum.com.au/standards-of-practice) to view the updated article.

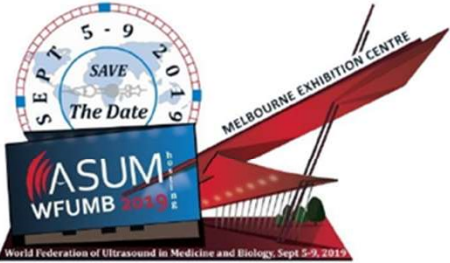
Preparations for WFUMB 2019 in Melbourne 5-9th September are well under way. The Melbourne convention centre is an ideal location for a meeting being in the heart of the city and walking distance to good hotels and restaurants. There will be topics to cover all aspects of ultrasound practice including abdominal, breast, cardiac, head and neck, O&G, vascular, emergency and critical care, education, MSK and many more.



The past president is Associate Professor Susan Campbell




Professor George Condous currently presides as the President of ASUM and will continue in this position until 2018.



World Federation of Ultrasound in Medicine and Biology, Sept 5-9, 2019
WFUMB 2019, Melbourne

WFUMB Affiliated Organizations_continued

EFSUMB  www.efsumb.org

EFSUMB promotes the exchange of scientific knowledge and development in the medical and biological professions as applied to ultrasound and is the biggest ultrasound federation in the WFUMB family. Recent activities include the EFSUMB guidelines on interventional ultrasound, gastrointestinal ultrasound and the updated guidelines on elastography of the liver, which can be freely downloaded from the EFSUMB website. We also refer to the EFSUMB position papers on the pediatric use of CEUS and medical student education. To promote student education in ultrasound is a major task for EFSUMB and recently a student committee was established, also to increase the student program at our Euroson congresses. Furthermore, EFSUMB is hosting approximately 10 Euroson Schools and 15 endorsed courses yearly to ensure high quality education and hands-on training for our members. A few endorsed courses are also held outside Europe, the last in Mansoura, Egypt in February 2017 (Figure 1).




Figure 1. The foto shows participants of the EFSUMB endorsed course in Mansoura, Egypt (February 2017).

Cases of the month (one of EFSUMB's most visited sites) has been translated into 14 different languages. Current EFSUMB activities are also presented at our website, hosting eBooks and the EFSUMB Course Book on Ultrasound (ECB), for details see. Please consider to visit the EFSUMB-website to sign up for the EFSUMB newsletter for updated information. One of the biggest highlights in 2017 will be the Euroson Congress in Ljubljana, Slovenia, hosted by the Turkish Ultrasound Society. Figure 2 shows a working meeting in Ljubljana with a combined meeting with EFSUMB ExB and the Turkish local Congress Committee. Welcome to Ljubljana in September! [Registration now OPEN](#)




Figure 2. The foto shows a combined working meeting in Ljubljana with EFSUMB ExB and the Turkish Local Congress Committee.

Voting at the Consensus Meeting on the CEUS non-liver Guidelines Update 2016, London



WFUMB 2017 TAIPEI
The 16th World Federation for Ultrasound in Medicine and Biology Congress
Date: October 13-17, 2017
Venue: Taipei International Convention Center (TICC), Taipei, Taiwan



SAVE THE DATE
ASUM hosting **WFUMB 2019**
World Federation of Ultrasound in Medicine and Biology
Melbourne Exhibition Centre, South Wharf, VIC, Australia

WFUMB Affiliated Organizations_continued



(www.flaus-us.org)

An In the last week of February 2017, Dr. Fernando Chavarria Estrada, President of FLAUS (2015-2017), met in Washington on behalf of FLAUS with the Committee Director of the Alliance for Physician Certification and Advancement (APCA) in order to plan the activities to be developed in 2017. An important announcement is the achievement of a new system created to take the Certification Exam in the area of Abdomen Ultrasound (AB-LA) as well as Obstetrics and Gynecology (OB-LA), through the company Pearson VUE, a world-class institution, highly specialized in these activities, which has examining centers throughout Latin America. The exams are computerized and delivered in Spanish. Pearson VUE is based in at least 15 Latin American countries, so certification exams can be carried out simultaneously during a full month, from July 13, 2017 to August 14, including one in the city of Sao Paulo, Brazil, where FLAUS will have their meeting. With this grand opening, virtually all applicants for certification will have the opportunity to apply on any day, during this month, in their own country, prior registration.



President and Secretary of FLAUS

In 2016 FLAUS developed 2 courses in order to spread applications in CEUS, sponsored by BRACCO. The first one was held in Belo Horizonte, Minas Gerais, October 28, hosted by SBAD (Gastroenterology Meeting - there were about 80-90 people and 50% were gastroenterologist. Stephanie Wilson was fabulous and has enchanted the public! Another international speaker, Dean Huang, was great as well! (Conducted the Pre-congress Image Course during SBAD - Brazilian Week of the Digestive System, in Belo Horizonte, in partnership with SRMG - Society of Radiology of Minas Gerais and Ibisus and educational support of Bracco. Participation of Dr. Stephanie Wilson from Canada and Dr. Dean Huang from England).



COURSE BRACCO SBAD 2016

In December 13 (8h - 12h), FLAUS conducts the Microbubble Contrast Ultrasound Symposium in partnership with InRad, WFUMB and educational support from Bracco, with the participation of the international speaker, Dr. Massimo Mischì, from Eindhoven University, Holland, which was held in São Paulo (University of São Paulo), about urological, pediatric, cardiac, oncological and breast topics, including perspectives for the future.

During these first months of the year 2017, FLAUS cooperated with the Continuing Ultrasound Education Congresses being held in Bolivia, the Dominican Republic, Ecuador and Guatemala. Currently two successful events have been held, the joint event 47th São Paulo Radiological Congress / II French-Brazilian-Latin American Radiology Congress (JPR'2017) / FLAUS and the II Congress of Medical Ultrasound SPUMB 2017. Next we have the IX Dominican Congress of Sonography dedicated to the FLAUS will be held from May 19 to 21, 2017.



COURSE Sao Paulo. Dr. Carlos Ventura -
Massimo Mischì- Cristina Chammas-Wilson
Mathias Jr - Marcelo Straus



SPUMB and FLAUS speakers

WFUMB Affiliated Organizations_continued

MASU



(www.masu-ultrasound.com)

COE activities. The COE in Nairobi at Aga Khan University Hospital has completed the Visiq project and the COE director is Sudhir Vinayak.

MASU Congress. The 16th MASU congress took place in Alexandria, Egypt from 5th - 7th October 2016. The congress was a huge success with 838 attendees, 165 faculty, 63 exhibitors and 44 Oral presentations. Subspecialties covered were: Abdominal, Women's Imaging, Cardio-thoracic, Vascular, Head & Neck, Pediatrics, Intervention, Genitourinary and Musculoskeletal. Feedback from participants was excellent. The next MASU meeting will be in Italy, 2018.

Philips Visiq project at the COE in Nairobi.

The COE in Nairobi has completed the "Visiq" project in collaboration with WFUMB. This is a novel project that will train midwives to perform a simple ultrasound examination on expectant mothers with a view to screen high risk pregnancies in rural Kenya. The manuscript is ready and findings will soon be published.

Report on CURE projects (Nigeria).

Centre for Ultrasound Research and Education (C.U.R.E) is based in Nigeria and is the 56th Affiliate Centre of the Jefferson Ultrasound Research and Education Institute, Philadelphia, PA, USA. The COE in Nigeria has just embarked on a new project involving Sonographer training in obstetric imaging. COE director is Kofo Seyabi.

Ethiopia COE initiative

The Ethiopian COE is not yet under the umbrella of MASU. However, MASU has helped to synthesize a working relationship between the Ethiopian Ultrasound Society (in the process of formation) and WFUMB. We are hopeful that the society will be operational soon.



History of Ultrasound and WFUMB (1939-1949)

Year	Facts	Person	Country
1939-1945	World War II		
1941	Pulse-echo US instrument with a second non-generating transducer to detect returning echoes	Donald Sproule and others working for Henry Hughes and Son	England
1941	Reflectoscope with a single transducer as both generator and receiver	Floyd Firestone	USA
1943	There emerged non-destructive ultrasonic flaw detection techniques from marine sonar		
1946	Use of high-intensity US as a noninvasive surgical technique to treat brain-related disorders	William Fry	USA
1947	Hyperphonograms of cerebral ventricles produced	Karl Dussik, Friedrich Dussick	Austria
1947	Experiments on detection of gallstones and foreign bodies using A-mode presentation of reflected echoes	George Ludwig	USA
1949	Measured the thickness of excised bowel tissue using a Navy radar trainer operating at 15 MHz	John Wild	USA
1949	First International Congress on Ultrasound in Medicine in Erlangen and Dussik presented his hyperphonograms	Karl Dussick	USA
1949	Japan's first A-mode US equipment at the research laboratories of Nihon Musen (Japan Radio) Company (now Aloka)	Reisuro Uchida	Japan
1949	"Ultrasonics" published	Benson Carlin	USA
1949	"Der Ultraschall in der Medizin" in Erlangen, Germany.		Germany



Ultrasound flaw detector (1941)



Dussick's initial ultrasonic generator (1942)



William Fry who tried to use high intensity ultrasound to treat brain-related disorders



George Ludwig and his A-mode apparatus in his gall stone experiment



Title page of congress proceedings, Ultraschall in der Medizin (1949)



Title page of Ultrasonics (1949)

History (1761-1939) was published in ECHOES#16, November, 2016

In Memoriam

Professor Peter Wells (1936-2017)



Professor Peter Wells was one of the highly regarded pioneers in the world of medical ultrasound and did outstanding contribution to World Federation for Ultrasound in Medicine and Biology (WFUMB).

After Peter got PhD from the University of Bristol, he served as a medical physicist at United Bristol Hospitals (1960-1971) and Welsh National School of Medicine (1972-1974). Peter was a chief physicist at United Bristol Hospitals until 2000. After retirement from Bristol (2011), Peter became a Distinguished Research Professor at Cardiff University where he continued his pioneering work of ultrasound. Peter was awarded the Royal Medal from the Royal Society (2013) and the Sir Frank Whittle Medal by the Royal Academy of Engineering (2014). Peter served as the Editor in Chief of 'Ultrasound in Medicine and Biology', official journal of WFUMB, for 15 years (1992-2006). He also served as the Vice President (1988-1991) and as the chair or member of various committees including Chair of Publication Committee (1982-1985), Member of Committee on Standards and Information Technology (1997-2000), Chair of History and Archives Committee (2000-2006), and Member of Nominating Committee (2003-2006). In 2003, as the Chair of History and Archives Committee of WFUMB, he produced 'An Archive of Historical Articles of Ultrasound Development'. Peter will be missed and always remembered for the great contributions he made to enhance the use of ultrasound. Hassen Gharbi and David Evans represented WFUMB at Peter's Memorial Service in Clifton College Chapel on 30 June, 2017.



Wells' articulating arm scanner in 1964



Professor David Cosgrove (1938-2017)

Dr. David Cosgrove, a leading researcher and teacher from London, died on Tuesday, 16 May, at the age of 78. David was a pioneer in the clinical application of ultrasound and a passionate advocate of ultrasound technologies including contrast enhanced ultrasound and elastography. David was an esteemed educator and prominent leader, and devoted himself to research for innovation of Ultrasound. David contributed a lot to WFUMB and WFUMB-affiliated organization by innumerable innovative lectures. He was a great mentor, advisor, collaborator, colleague and friend of our group. He will be dearly missed, by us and many people around the world.



So what will matter?
How will the value of our days be measured?
What will matter is not our competence, but our character.
What will matter is not how many people we knew,
but the depth of the lasting love felt when we are gone.
What will matter are not our memories,
but the memories that live in those who loved us.
Living a life that matters doesn't happen by accident.
It's not a matter of circumstance, but of choice.

David chose to live a life that mattered.

From his memorial service brochure

WFUMB Congresses

WFUMB2017 Taipei, October 13-17



The WFUMB 2017 TAIPEI (the 16th Congress of the World Federation for Ultrasound in Medicine & Biology) will be held at the Taipei International Convention Center, Taipei, Taiwan, from October 13 to 17, 2017. The venue is located within 5-minute walking distance to the landmark of Taipei, Taipei 101, and a range of excellent hotels, and restaurants.

The WFUMB 2017 TAIPEI will provide an international platform for physicians, researchers and clinical professionals to exchange ideas, share experiences and interact with world renowned experts. The program will highlight the latest cutting-edge knowledge via workshop/hands-on sessions in the Pre-Congress on October 13, and 22 parallel Tracks in the Main Congress, October 14-17. Most of the world renowned ultrasound experts are invited, please visit the website (www.wfumb2017.org) for the tentative program as well as other important information.

Free papers are also one of the most important parts of the WFUMB 2017 TAIPEI and great channel for ongoing collaborative/ individual efforts to present and exchange experiences. There will be competitions for the Young Investigator Award (YIA) for delegates under 40 years old, and Best Oral Presentation Award and Best Poster Award for all delegates to encourage continuing scientific researches.

Taipei, the lovely and friendly capital of Taiwan, is not merely the political and economic center of Taiwan but best known as an international metropolis abundant with a vibrant contrast of the old and the modern cultures. With such a diverse range of attractions, convenient mass transportation and a grand selection of dining and accommodation options, Taipei is a perfectly ideal destination for you. In addition to the scientific programs, four different half-day city tour lines, fair priced and quality guaranteed are arranged to our value participants to discover the essence of Taipei!

Cheng-Wen Chiang, MD., FAPSC, FACC
Co-President, WFUMB 2017 TAIPEI

Cheng-Wen Chiang



National Dr. Sun Yat-sen Memorial Hall



National Palace Museum



National Chiang Kai-Shek Memorial Hall

Social Media
Stay up-to-date
Search / Join and
Follow WFUMB on
Facebook, Twitter
and LinkedIn



The 17th World Federation for Ultrasound
in Medicine and Biology Congress
hosted by the Australasian Society for Ultrasound in Medicine
ASUM 2019 1 - 4 September 2019
Melbourne Convention & Exhibition Centre, Melbourne, Australia



ECHOES
ECHOES
WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY

WFUMB Vision Statement:
Through communication, collaboration
and education, bring sustainable
ultrasound programs to underserved
areas in the world.

ISSUE 18 / DECEMBER 2017 EDITION



Presidents speech at opening of WFUMB Taipei meeting

Christian Nolspe
Good Morning ladies and gentlemen, Mr
Chen Vice President of Taiwan, Congress
Presidents Prof Chiang, Prof Nisenbaum
and Prof Chou, dear friends.
I have a dream that one day ultrasound will
be readily available to healthcare providers
everywhere on our planet. Therefore, it is
an exquisite pleasure to welcome so many
ultrasound professionals of different

expertise from all over the globe to our
world-congress here in the bustling city of
Azeleas, also known as Taipei. I am tremen-
dously proud to be standing here today and

addressing such a prestigious group as you.
I am proud to be one of you, an attendee of
WFUMB 2017, proud to be a member of
this worldwide community of highly ...

»» CONT. PAGE TWO

“ I have a dream that one day ultrasound will
be readily available to healthcare providers
everywhere on our planet. ”

Presidents speech at opening of WFUMB Taipei 2017 meeting

[continued from Page 1]

...dedicated professional experts that has found it in themselves to travel across the world and gather here in Taipei and for 5 days dedicate our full focus on nothing else but one thing: **MEDICAL ULTRASOUND.**

Congress co-presidents Prof Chiang & Prof Nisenbaum and the entire team of organizers have done a fabulous job and we, the attendees, highly appreciate your tireless efforts and hard work. We thank you deeply and you should all be very proud of yourselves. The congress secretariat led by Miss Novia Lin have provided an extraordinary smooth, efficient and friendly service. You have a huge share in the success of this congress and we thank you all.

In WFUMB we have a motto that goes: **"WFUMB - Bringing ultrasound to the world"**

Here in the city of Azelea we come together nearly 2,400 attendees from 46 countries to improve and perfect our knowledge in the science of medical ultrasound. I believe we can twist our motto slightly for this occasion and say: **"WFUMB 2017 - bringing the whole world to ultrasound"**.

Ultrasound is a truly amazing and unsurpassed tool. We can change the world with ultrasound. We can improve global healthcare. We can remove developing world inequity. We can better maternal healthcare and help take away oppression of women. We can do all this by bringing ultrasound to the world.

Yes, we can! Let us do it,

Thank you for attending WFUMB 2017, thank you for your attention



Outgoing President's message Harvey L. Nisenbaum, M.D., FACR, FAUM, FSRU

It has been a great honor and privilege to have been the WFUMB President from 2015-2017. Working with a wonderful and very competent Executive Bureau and Administrative Council, we have made some significant achievements during this time following our vision and mission of bringing sustainable ultrasound programs to underserved areas of the world to help improve global healthcare through collaboration, communication, and education.

One thing I know very well is that WFUMB going forward will become an even better organization under the leadership of President Christian Nolsøe and President-Elect Seung Kim. Let's improve global healthcare through ultrasound.

Through collaboration and communication, we want the name WFUMB with its 6 member Federations to be identified with the global use of ultrasound. Since 2015 we have added 3 Centers of Education (changed the name Center of Excellence to Center of Education): Paraguay, Moldova, and Sudan. Over the last few years WFUMB leaders have been meeting with vendors and other organizations at the annual RSNA in Chicago to discuss opportunities for collaboration. This past November we met with 8 vendors and 3 organizations. The vendors are very interested in supporting our COEs and we are in the process to make that happen. We are discussing opportunities to collaborate in 2018 with the World Federation of Pediatric Imaging (WFPI) and Imaging the World (ITW). We are supporting a WFUMB Lecturer at the annual meeting of each of our 6 Federations and also offer to support at least one WFUMB Lecturer at each of the COE annual meetings. WFUMB with its 6 member Federations is more than an organization. It is a family of individuals who volunteer their time to help bring ultrasound to the almost 2/3 of the world population who live in remote areas of underserved areas where the only imaging that can be supported is ultrasound, not CT or MRI. It will take a long time. WFUMB will be there.

THANK YOU LETTER SENT TO SPEAKERS AFTER WFUMB TAIPEI

Greetings from WFUMB 2017 TAIPEI!

With your support, participation, and contribution, WFUMB 2017 TAIPEI is concluded as another successful WFUMB Congress! We are pleased that there are more than 900 abstracts submitted and over 2,500 participants from 46 countries in WFUMB 2017 TAIPEI. Specifically, your active participation is instrumental and critical in enriching the medical content of WFUMB by extending the frontier of ultrasound. On behalf of the WFUMB 2017 TAIPEI Committees, we would like to express our most sincere appreciation for your contribution.

In addition to the medical research presented in the Congress, we also hope new friendship and enlightening vision is formed, which would promise more collaboration in addressing the pertinent and cutting edge issues in the coming future.

As a memoir of your participation, the Congress photos can be accessed through our Congress website: www.wfumb2017.org/congress_photo.php



Incoming WFUMB President's address Christian Nolsøe

“ Dear members of WFUMB and all other friends of ultrasound anywhere on the globe. In my capacity, as newly elected WFUMB President, it is an utmost pleasure to welcome you all to take part in the next two years ultrasound journey to bring us nearer to our ultimate goal: Ultrasound for All.



WFUMB's new officers are ready to work hard towards achieving this goal. The key persons, however, to be successful, are not us but YOU, the individual ultrasound person out there utilizing our fantastic tool as a health care provider of any expertise and on any level. You are the most important persons in this equation and I write you in the hope to inspire all of us to tune in on the same wavelength so we can work in unison and hopefully all draw both at the same time and in the same direction to bring ultrasound to the world.

The forthcoming term 2017-2019 also sees a change in WFUMB administration.

To diminish the issues with global time differences and enhance communication and effectiveness we have decided to move our physical administrative office to London and it is my utmost pleasure to announce that effective November 1st 2017, Ms. Lynne Rudd is our

new WFUMB Administrative Manager. Lynne will work closely with our new web manager Suzanne Cain of Kosmos Design and all of you who are familiar with EFSUMB and their website and the online educational material freely accessible there will appreciate the excellence of service we anticipate from our new administrative team and for our future WFUMB website. This also means a goodbye to AIUM administration who has taken care of our business throughout the last decade. We thank the staff at AIUM for all the good years and look forward to continuing and develop our good relationship in the future world of global ultrasound.

WFUMB administration and ExB are eager to continue our quest in fulfilling the purpose we set out to be our mission: WFUMB – bringing ultrasound to the world!

We will do this by continuing the hard work and dedicated efforts exerted by the previous Executive Bureau and Administrative Council under the superb leadership of our Past President Harvey Nisenbaum. In this connection, I want to direct a heartfelt thank you to all members of committees and council. You deserve our deepest credit and acknowledgement for your voluntary work and true dedication to our mission. WFUMB new leadership will follow the motto you and President Nisenbaum implemented: Bring sustainable ultrasound programs to underserved areas in the world through communication, collaboration and education.

”
US4ALL



FEDERATION REPORTS: ASUM Update

The Australasian Society for Ultrasound in Medicine (ASUM) continues to deliver to the membership for all aspects of ultrasound education.

The ASUM team and volunteers are busy working on examinations, conferences and CPD events to ensure exceptional educational offerings for physicians, sonographers and allied health professionals.

We would also like to acknowledge and thank all our sponsors who continue to support ASUM events in line with our mission to advance the clinical practice of diagnostic medical ultrasound for the highest standards of patient care.

In July the New Zealand branch of ASUM delivered a fantastic winter meeting in Christchurch,

a beautiful South Island city, which has been the scene of a number of devastating earthquakes over the past 5 years. The ultrasound community rallied with a record number of attendees due to the high quality program, which included a dedicated two-day cardiac stream.

The ASUM 2017 scientific conference was held at the beginning of October in Melbourne, which will be the venue of WFUMB 2019. The line-up of quality speakers willing to share their knowledge and expertise enticed a record number to attend and learn. The diascard were our international faculty, which included Prof Christophe Dietrich as the WFUMB speaker, Prof Peter Burns, A/Prof Nick Raine-Fenning, Dr Jader Cruz and Dr Jacob Jaremko.

The medical education stream went to a whole new level challenging the traditional "teaching" methods. Two days of cardiac ultrasound again proved popular, as well as six alternate streams

to choose from, including O&G, vascular, paediatrics, general, MSK and PoCUS. The Gala dinner highlighted the social events, which kicked off with the Toshiba drummers and sake ceremony, and continued to be a celebrated evening.

The Annual General Meeting was held in accordance with the constitution. This finalised the changes to ASUM Council for 2017-18 as follows: A/Prof George Condous (President), A/Prof Fred Joshua (President Elect), Susan Pascoe (Secretary), Dr Philip Hung (Treasurer), Sue Davies, Rex de Ryke, Jo McCann, Dr Karen Miza, Jody Fassina and Scott Graham.

ASUM is looking forward to hosting the 17th WFUMB Conference in Melbourne, 5-8th September 2019.

Lyndal Macpherson CEO



ECHOES
ECHOES

New Presidents Vision

WFUMB COEs - Ultrasound for All - US4All

During my term as WFUMB President I plan to continue our previous efforts of strengthening the focus on education and publications. We hope to bring our education activities to a position that will play a pivotal role in the countries and regions we enter. To this end we strongly rely on our existing 13 Centers of Education (COE), spread out over the world, and we plan to expand this number with new COEs over the coming years.

Our intention is to adjust the infrastructure of WFUMB leadership to enhance the function and guidance of these important efforts. Under the umbrella of Education Committee and with Odd Helge Gilja as chairman, we have created 3 new entities:

- 1) **WFUMB COE Task Force (Dieter Nüßberg, task force Director)**
- 2) **WFUMB E-learning Task Force (Adrian Goudie, task force Director)**
- 3) **WFUMB Student Education Task Force (Harvey Nisenbaum, task force Director)**

The WFUMB COE Task Force replaces the former COE Advisory Board but the COEs remain our most important measure of bringing ultrasound to the world with the local COE Directors being our highly treasured co-workers to achieve this goal.

In addition, the COE Task Force will include a regional Director from each federation, except for MASU where there will be two directors, one for English-speaking Africa and one for Francophone Africa.

Two federations, ARUM and ASUM, do not presently have any COE and it may not seem natural to set one up within their geographical area. If this is the case one idea could be to establish COEs in countries or areas culturally or geographically closely related to these federations. In the case of ASUM we are aware of such connections and activities involving ultrasound education e. g. at the Fiji Islands.

Sue Westerway, Past President, has accepted the position as the ASUM COE Task Force Director and will focus on this location.

The role of the WFUMB COE regional Directors will be of utmost importance. As well as supporting the existing COEs and their Directors in the endeavor to promote ultrasound in their country, they will also stimulate the creation of new COEs to reach out into new countries. The regional Director is responsible for continuous contact with each COE in the geographical area that his or her Federation covers. One specific task will be to build a personal relationship with each local COE director, including regular email correspondence about the COE activities.

The conduct of courses, report of activities and creation of new COEs is the responsibility of the Regional Director and supported by our WFUMB secretariat. In addition to the responsibility of overseeing COE activity, the regional COE Director will also be an ordinary member of Education Committee and will participate in EC meetings and communicate and report to the EC Chairman.

The regional COE Director is there to support you so if you have any ideas or ambition to establish a new COE in an underserved area somewhere on our planet, please contact them. There are a few prerequisites for establishing a COE, one of them being the existence of a multidisciplinary national ultrasound society in the country you wish to build a COE.

Please see exact information at <http://www.wfumb.org/centers-of-education/>

We aim at having the regional COE directors play a strong role in this important leadership infrastructure and are happy to have the acceptance for each federation of a dedicated leader with genuine local support and in-depth knowledge as follows:

Director of the AFSUMB COE Task Force:
Byung Choi, Korea.

Director of the FLAUS COE Task Force:
Leandro Fernandez, Venezuela.

Director of the EFSUMB COE Task Force:
Ioan Sporea, Romania.

Director of the MASU Francophone COE Task Force: Hassen Gharbi, Tunisia.

Director of the English-speaking MASU COE Task Force: Sudhir Vinayak, Kenya.

Director of ASUM COE Task Force:
Sue Westerway

My 2017-2019 goal for the WFUMB COE program is to establish one new WFUMB COE in each of our 6 member Federations.

If possible, these new COEs should be economical neutral by working together with the WFUMB Collaboration Committee to set up sponsorship through collaboration with charity foundations, NGOs or industrial partners. This is not a prerequisite, merely an intention.

Aside from this new infrastructure of Education Committee, the overall WFUMB structure will continue with the same number of committees and I am happy to have the acceptance of a highly qualified WFUMB officer for each committee as it appears from the WFUMB 2017-2019 Chairman Diagram on the WFUMB website.



For the first time a post graduate ultrasound course was held in Gondar Ethiopia from November 13th-17th

ULTRASOUND ~ the Gondar experience

Caroline Ewertsen, MD, PhD



The course was established in collaboration between WFUMB, RAD-AID, the Norwegian National Centre for Ultrasound in Gastroenterology (NCUG)(Bergen) and the Ethiopian Society for Internal Medicine. Previously, 3 courses in ultrasound have been arranged in Ethiopia in collaboration with WFUMB and others.

Forty-five medical doctors from several specialties (OB/GYN, gastroenterology, radiology etc.) coming from the University Hospital in Gondar and Black Lion Hospital, Addis Ababa attended the course. Few had previous experience with transabdominal and gynecological ultrasound. The faculty consisted of Dr. Christian Nolsæe (WFUMB), Odd Helge Gilja (NCUG), Dr. Zenahebezu Absy (Gondar), Dr. Amir Sultan (Ethiopian Society for Internal Medicine), Dr. Torben Larsen (gynecology), sonographer Joan Swan (RAD-AID), and Dr. Caroline Ewertsen (radiology). The first four days the participants had different theoretical lectures in the morning and early afternoon followed by 2 hours of hands-on scanning in 5 groups each day.

The local faculty arranged with patients, who were then scanned by the attendants supervised by a faculty member. Two conventional ultrasound systems were available on site and RAD-AID and WFUMB had brought 4 hand held devices with them, all kindly provided by Philips. This showed up to be very convenient during the power breakdowns, where no electricity was available in the examination rooms.

Also WFUMB president Nolsæe was very creative holding some of his lectures without any slides, others with his laptop in his hand due to the power breakdown.

Sonographer Joan Swan from RAD-AID assisted with hands-on and stayed two weeks after the course providing hands-on training. All attendants were eager to learn more and participated in the discussion after the lectures as well as during the hands-on training.

NCUG has participated in educating gastroenterologists in endoscopy and ultrasound at the Black Lion Hospital, Addis Ababa for the last 6 years and two of the doctors from this hospital already had very good skills. Ethiopia is a beautiful country with beautiful and kind people and well-educated medical doctors. Taking unstable power supply into account ultrasound has a strong potential as imaging modality, especially with hand-held devices that does need continuous power supply. After this first ultrasound course a solid fundament for future education in ultrasound is laid, and hopefully further courses will follow. I kindly wish to thank all the participants as well as the local and international course organizers.

FEDERATION REPORTS: MASU Update

During the last 6 months MASU Board has been working on finalizing the MASU biennial meeting scheduled to be held in Naples, Italy in conjunction with the Italian Society of US, SIUMB.



Several Italian Experts are involved in the MASU activities since the beginning in 1966. We are still in discussion with the SIUMB Board.

Some of our Society members organized their annual Congresses such as The Tunisian Society of Ultrasound, STED, held its Congress on 28th of October 2017, attached is the poster, and KESUMB, Kenyan society of US held a meeting in June 2017.



We are working to promote the WFUMB flag, through the Nairobi COE midwives project and Lagos COE GE project. We are also part of Afrosale project through the African Society of radiology, and European Society of Radiology auspices.

Hassan A. Gharbi
MASU Administrative Council
WFUMB Board 2017-2019



FEDERATION REPORTS: EFSUMB Update

EFSUMB is working hard to fulfil our mission to build a European Ultrasound Community. Education is the most significant aspect of all EFSUMB activities and members and leaders of EFSUMB are engaged in providing new material and improve teaching and training all over Europe, and even to places far outside Europe.

The Euroson Congress

The Euroson congress is the absolute EFSUMB highlight of the year with an up-to-date program for science and education and it constitutes a vibrant, interdisciplinary meeting place for all stakeholders of ultrasound. The EUROSON congress in September 2017 took place in Ljubljana, Slovenia. The 29th Euroson Congress had an exciting program with approx. 600 participants. This congress was arranged by EFSUMB and the Turkish Ultrasound Society (TUDS) under the leadership of Adnan Kabakloğlu. The 30th Euroson Congress is taking place next year 6-9 September in Poznan, Poland. See image 1.



Image 1: The new EFSUMB President Paul Sidhu (left) has just received the President medal from Past-President Odd Helge Gilje (right) at the hand-over ceremony at the Euroson Congress in Slovenia.

EFSUMB Webinars

The series of webinars is a flexible and popular way to run seminars on various ultrasound themes. So far, EFSUMB has organised 8 webinars, the first in 2015, and the last one in September 2017 was on elastography of the liver. Please, stay tuned on our web site <http://www.efsUMB.org> to be informed about upcoming webinars.

European Journal of Ultrasound / Ultrasound International Open

EFSUMB is proud of our journal, which is sound and vivid with lots of highly cited papers. EJU is the most widely read interdisciplinary ultrasound journal in Europe. Its current Impact Factor (3.9) is higher than any other ultrasound journal worldwide.

Ultrasound International Open is a fairly new open access journal and receives many articles rejected by the EJU and is now registered in PubMed Central with over 150 articles that can be downloaded for free in PDF format.

Odd Helge Gilje

EFSUMB Past-President 2015-2017

EFSUMB guidelines and clinical recommendations

The world's first guidelines on gastrointestinal ultrasound (GIUS) was recently released by EFSUMB. An EFSUMB Task Force Group (TFG) with experts from all over Europe is constantly working to make more GIUS guidelines and the next topic will be ultrasound in IBD, which has been submitted and soon will be published in EJU. Other GIUS guidelines planned are: Inflammatory conditions, transrectal/perineal US, miscellaneous, and functional US. Furthermore, previous EFSUMB guidelines are continuously being updated. The EFSUMB guidelines on liver elastography has just been published. The update on non-liver CEUS guidelines is finalized and soon to be published. The work on the second part of elastography guidelines (non-liver) has started and a consensus conference is planned for February 2018 in Frankfurt.

EFSUMB Student Committee

EFSUMB has now included students more closely under the EFSUMB umbrella by establishing a student committee. The new EFSUMB Student Committee (ESC) was elected at last Euroson Congress and is working to stimulate integration of ultrasound teaching and training in medical education of students and to plan student activities and teaching sessions at the EUROSON congresses.

Ultrasound Learning Centres

EFSUMB Ultrasound Learning Centres (ULC) is established in 7 renowned ultrasound locations around Europe: Timisoara, Hounuppin, Cluj-Napoca, Bergen, Madrid, Pavia and Zurich. At these excellent teaching sites, participants can spend a period of time to learn and improve their competence in many applications of ultrasound.

Euroson Schools and Endorsed Courses

EFSUMB has now organised over 130 Euroson Schools across Europe, thus giving a large contribution to the dissemination of ultrasound education and hands-on training. Last year EFSUMB approved 12 Euroson Schools and 15 endorsed courses covering aspects like MSK, vascular, rheumatology, CEUS applications, paediatrics, chest and hepatology. The first Euroson School ever in Russia was arranged in Moscow in May 2017 on the subject of CEUS and it was very well attended. The local organizer Prof. Milkov did a great job covering very well all aspects of this post-graduate course. See image 2.



Image 2: The international faculty of the successful Euroson School in Russia is gathered outside Kremlin, Moscow.





WFUMB 2017 TAIPEI



The 16th WFUMB Congress (WFUMB 2017 TAIPEI) had been successfully conducted from Oct 13 to Oct 17, 2017, at the Taipei International Conference Center, Taipei, Taiwan.

There were 2425 participants from 46 countries attending the congress. The scientific program consisted of 541 invited speeches, 261 oral presentations and 223 posters. The presentations were classified into 21 Tracks according to different specialties. The organizing committee offered 3 kinds of awards to the winners of the oral and poster presentations.

At the congress, Prof Nisenbaum and Prof Nolsae organized a WFUMB Education Program, addressing the issues of global status of ultrasound in medical school education, lessons learned in training in develop countries as well as challenges and solutions to provide ultrasound equipment to medical schools and medical students.

The attendants enjoyed the scientific program very much and appreciated the warm hospitality of the hosting society, the Chinese Taipei Society of Ultrasound in Medicine.

Cheng-Wen Chiang, MD., FAPSC, FACC
Co-President, WFUMB 2017 TAIPEI
Chairman, Organizing Committee,
WFUMB 2017 TAIPEI

Yi-Hong Chou, MD., Chairman of International
Liaison Committee, WFUMB 2017 TAIPEI

The Best Oral Awards went to :

Hiroko Yaegashi (Japan), Eiko Tohno (Japan), Yao-Wen Kuo (Taiwan), Andrew McNeill (United Kingdom), Chun-Li Wang (Taiwan), San-Kan Lee (Taiwan), Hong Ding (Chinese Mainland), Yuen-Ping Liu (Taiwan), Koji Takebe (Japan), Xianfeng Guo (Chinese Mainland), Heng-Ken Au, Chia-Hung Wu (Taiwan), Jeng-Wen Chen (Taiwan), King Hsi Stanley Lam (Hong Kong), Meng-Yen Hsiao (Taiwan), Flaviu Bob (Romania), Ying-Qi Xing (Chinese Mainland), Elena Fecklistova (Russia), Ren Koda (Japan), and Kin Hung Liu (Hong Kong). The Best Poster Awards to Hye Won Kim (South Korea), Shy Yun Goh (Singapore), Ji Soo Choi (South Korea), Yi-Ching Liu (Taiwan), Yuji Eso (Japan), Qian Yang (Chinese Mainland), Eun Joo Yun (South Korea), Cheng-jen Chan (Taiwan), Dar-In Tai (Taiwan), Wan-Chang Lien (Taiwan), Satoru Fukumoto (Japan), Eliza Morada (Singapore), Sung Bin Park (South Korea), Hyo Won Eun (South Korea), Satomi Omotehara (Japan), Li-Jen Liao (Taiwan), Wu-Huei Hou (Taiwan), Sun Young Lee (South Korea), Mao-Huang Huang (Taiwan), Wen-Shuan Shih (Taiwan), Min Hwan Moon (South Korea), Yi-Mei Wang (Taiwan), Hyun Hae Cho (South Korea), Ting-Chuan Li (Taiwan), and Ki Seok Choo (South Korea), and the Young Investigator Awards to Jin Bum Kang (South Korea), Shanling Yang (Chinese Mainland), Yang Sun (Chinese Mainland), Vian-Fu Hsu (Taiwan), Kaziah Surly (United States), Yuko Kariyama (Japan), Chia-Ching Chen (Taiwan), Yi-Jih Tsai (Taiwan), Xihua Lian (Chinese Mainland), Surachate Siripongsakun (Thailand), Chun-Han Chen (Taiwan), Ming-Jen Ke (Taiwan), Christian Fischer (Germany), Masafumi Kaweko (Japan), Shin-Joe Yeh (Taiwan), Xiepu Li (Chinese Mainland), Dong Hwee Kim (South Korea), and Xi Chen (Chinese Mainland).





FEDERATION REPORTS: AIUM Update (November 2017)

The American Institute of Ultrasound in Medicine (AIUM) has had an active several months since he annual convention this past April in Orlando.

There has been a continued effort to update and expand its website to provide more services to members. The website now has an almost inexhaustible amount of educational materials and ultrasound resources for the many different disciplines that make up the AIUM member community. Additionally, the website is an ever increasing utility for those outside of AIUM seeking information regarding ultrasound use, policy, standards and research in North America.

One of AIUM's significant services to the ultrasound community at large and to our patients is the continued development and promulgation of clinical guidelines. New guidelines approved by AIUM in the past 6 months include: Training Guidelines for Physicians Who Evaluate and Interpret Diagnostic Obstetric Ultrasound Examinations, Training Guidelines for Physicians Who Evaluate and Interpret Diagnostic Abdominal/General Ultrasound Examinations, Training Guidelines for Physicians Who Evaluate and Interpret Diagnostic Breast Ultrasound Examinations, Training Guidelines for Physicians Who Evaluate and Interpret Diagnostic Thyroid/Parathyroid Ultrasound Examinations, Training Guidelines for Physicians and Chiropractors Who Perform Ultrasound-Guided Musculoskeletal Interventional Procedures and Training Guidelines for Physicians Who Perform Ultrasound-Guided Regional Anesthesia among others.

The AIUM has also continuing to create and present webinars including focused echocardiography and point of care ultrasound in the office setting. These have been a great way to not only provide important services and education to AIUM membership but also to reach out to a new community of users in point of care ultrasound and increase their involvement in the AIUM.

The second annual course on Point of Care Ultrasound was held at the Oregon Health Sciences University in July and was a resounding success. The course reached out to an emerging community of ultrasound users, internal medicine providers. Similarly, the AIUM is continuing to help organize and direct an annual ultrasound preconvention course for the American College of Physicians – the largest single specialty physician association in the United States, representing internal medicine. AIUM's journal, the Journal of Ultrasound in Medicine (JUM) has a massive number of articles now available as open access. Once articles are 12 months post publication they are available without cost. JUM's rejection rate continues to climb, a reflection of the increasing quality of published articles as well as increasing submission rates from around the world.

Registration is now open for the 2018 AIUM annual convention to be held in New York City from March 24-28, 2018. The AIUM convention always sees a large turnout when it is held in the "Big Apple" and expectations are also high for 2018. The 2018 annual convention is bigger and more diverse than ever with educational, research and other offerings for dozens of different specialties and fields of interest in ultrasound. The Plenary speaker will be John Lawrence, MD who is the president of the board of directors of Doctors Without Borders and he will be discussing his work for the organization, its mission and being a "Humanitarian Health Care Provider".

The annual 41st Annual Advanced OB-GYN Ultrasound seminar registration is now open for registration as well and will be held February 14-17, 2018 in Orlando Florida. This has grown to be one of the largest recurring courses of its kind in existence and continues to grow and offer up to date education to a variety of ultrasound specialists.

More information on these and multiple other projects and topics AIUM is currently undertaking please visit the website.

Michael Blaivas, MD, MBA, FACEP, FAUM



FEDERATION REPORTS: FLAUS Update

FLAUS CONGRESS July 13 - 15 2017 was held in INRAD - São Paulo, Brazil

During the congress, the FLAUS Assembly was held and the new Board of Directors was elected.

- Jorge Rabot - President - Venezuela
- Edda Chaves - Secretary - Venezuela
- Fernando Huerta - Treasurer - Peru
- Luis Fernando Chavarria Estrada - Past President - Costa Rica
- Antonio Carlos Maittoni de Athayde - President Elect - Brazil



ECHOES
ECHOES

 **Social Media**
Stay up-to-date
Search / Join and
Follow WFUMB on
Facebook, Twitter
and LinkedIn



**ASUM 2018
AUCKLAND**
10 - 12 AUGUST 2018
SANDYBAY AUCKLAND
CONVENTION CENTRE
AUCKLAND, NEW ZEALAND
asumconference.com.au



WFUMB Vision Statement:
Through communication, collaboration
and education, bring sustainable
ultrasound programs to underserved
areas in the world.

ISSUE 19

JUNE 2018 EDITION



Susan Westerway, Christian Nolsoe (President), Seung Hyup Kim (President Elect) and other Executive Bureau members at the WFUMB-AFSUMB Education Forum which took place during AFSUMB2018.

Welcome to ECHOES – the newsletter of the World Federation for Ultrasound in Medicine

As the number of users of medical ultrasound expands further around the world it highlights the significance of the WFUMB slogan "Ultrasound 4 All".

In this edition of ECHOES we report on some of the teaching activities that WFUMB has instigated. This work would not be possible without the continued support of our many volunteers and education & trade partners who freely give their time to bring ultrasound education to all regions of the world.

We would also like to introduce to our readers a new segment on interviews with the ultrasound luminaries who have helped forge our profession into what it is today.

The first interview is with the Australian scientist and former WFUMB president George Kossoff.

US4ALL

As well as the reports from the member federations there is a listing of upcoming conferences and education offerings.

I encourage you all to regularly visit the new look WFUMB website to read about the past, the present and the future of your federation.

*Susan Westerway PhD
Chair WFUMB Communications*



AFSUMB 2018

Beyond Asia, to the world with US
May 23 (Wed.) – 26 (Sat.), 2018 | Coex, Seoul, Korea

AFSUMB 2018, Beyond Asia, to the world with ultrasound

Seung Hyrup KIM, WFUMB President Elect

AFSUMB 2018 was held on 23-26 May 2018 in Seoul with a slogan "Beyond Asia, to the world with ultrasound".

AFSUMB 2018 Congress was held in conjunction with ACUCI 2018 and KSUM 2018.

The scientific program was of high quality with 238 invited guests (speakers, chairs, and instructors) and 430 abstracts for scientific presentations. WFUMB President, Christian Nolsee, was the WFUMB Lecturer for the congress.

There were two WFUMB-related sessions: WFUMB-AFSUMB Ultrasound History Forum and WFUMB-AFSUMB Education Forum. Christian Nolsee, Seung Kim, Byung Choi, Yi-Hong Chou, Dieter Nürnberg, and Sue Westerway participated to those sessions as speakers or chairs. WFUMB COE business meeting was also held.

The congress was well attended with a total of 1,795 participants from 44 countries.



For more AFSUMB 2018 photos, please visit the WFUMB Website at www.wfumb.org

The First Course in Ultrasound in the Ivory Coast

Supported by MASU and WFUMB, including the formation of the Ivorian Society of Ultrasound

Prof. Hassen Gharbi and Dr. Caroline Ewertsen



The first post-graduate course in ultrasound in the Ivory Coast was held in Abidjan from February 22-24, 2018 and included the inauguration of the Ivorian Society of Ultrasound (SIVUS). The course was established in collaboration between WFUMB, MASU and SIVUS.

Preparations had been going on for about a year especially between professor Gharbi (WFUMB and MASU) and president of the Ivorian Society of Ultrasound, N'goran Kouamé. The program included initially four speakers from WFUMB, but due to unforeseen circumstances only two were able to attend, professor Gharbi and Dr. Ewertsen. The program covered a wide variety of ultrasound applications – MSK, abdominal, pediatric, obstetrics, cardiology and breast – and lectures were given by local, regional and the WFUMB lecturers. The Regional speakers included Dr. Sokhna Bah (Senegal), Dr. Sonhaya Latam (Togo) and Dr. Nikiema Zakara (Burkina Faso). All lectures were given in French.



"There seems to be a great potential for ultrasound in the region and a great interest from the doctors and other medical personnel."

In total 128 participants were registered (80 radiologists, 3 midwives, 20 gynecologists, 7 cardiologists and 18 technicians and engineers), mainly from the Ivory Coast.

All were very eager to learn and every session was followed by a discussion between speakers and participants. The level was generally high, and it was great to see the enthusiasm from the participants.



The course was held in Hotel la Rose Blanche, which also hosted the technical exhibition with GE, Samsung, Chison and Toshiba systems. These companies also helped with equipment for the hands-on sessions in the afternoons, where participants scanned healthy volunteers.



We kindly wish to thank the companies sponsoring the course – without their help the course would probably not have been realized.

During the course, the Ivorian Society of Ultrasound was established with participation from people from the local university (Université Félix Houphouët Boigny), and from the organization CIFRA, responsible for the education of radiologists in the French speaking part of Africa (Centre International de Formation des Radiologistes de l'Afrique Francophone). During the inauguration lecture professor Gharbi offered the books "Manual of Diagnostic in Ultrasound, vol. 1 and 2" on behalf of WFUMB to the new society represented by Dr. N'goran Kouamé.

Hopefully, future courses will follow in the region, for instance in Burkina Faso or Senegal. A CoE is already established in Lomé (Togo), and Dr. Sonhaya Latam was invited as lecturer and represented this society. There seems to be a great potential for ultrasound in the region and a great interest from the doctors and other medical personnel.

We kindly wish to thank all the participants, the local and international course organizers and the sponsors.

The new www.wfumb.org

A Progressive Website & App taking our Federation into a new digital era

Suzanne Cain, WFUMB Web Administrator



The updated WFUMB website /App (PWA) is now live on the www.wfumb.org domain name. The Site/App was launched last week and is currently going through tests to be released for download on Apple iStore and GooglePlay shortly. But you don't have to wait as the App can be already be loaded by visiting www.wfumb.org on your mobile device and clicking on the 'Add to Home Screen' on your phone menu. This will add the WFUMB App to your own mobile device with an App icon for instant access on the move. The new site is an excellent starting point for greater developments over the coming months.

With plans for cases and more ultrasound images, up-to-date ultrasound news, COE Courses, interviews and content from right across the world.

WFUMB site is only as great as its contributions and its important that it stays current in its coding and development but more importantly in its content.

We need to make sure the site is showing all the information we as a group need, but most importantly, information people will be looking for when searching for WFUMB.



TUNISIAN SOCIETY OF ULTRASOUND CONGRESS
5 – 6 October 2018
TUNIS

Visit: <http://www.sted-tn.com/>

We plan to publish more tech-friendly content as well as the usual images, photographs, text and reports including:

- ~ Videos hosted on our own WFUMB Channel
- ~ Podcasts
- ~ E-books and publications
- ~ Live Broadcasts from key events
- ~ Webinar broadcasts with key speakers

In addition to all of the above we are starting a worldwide Ultrasound Calendar of events— a one stop information rich calendar so you can plan your entire year.

Help make the WFUMB site great!

Do you have interesting cases, publications or reports? Are you taking part in an upcoming ultrasound event? Are you interested in contributing to our site on a regular basis? or maybe, you have an idea for other types of content you think the WFUMB site needs ...

Get in touch ... WFUMB@kosmos-design.co.uk

13 SEPTEMBER 2018 15.00 CEST	Live broadcast Joint WFUMB-EFSUMB WEBINAR	GIUS Ultrasound <small>REGISTRATION COMING SOON</small>
---	--	---

The first joint WFUMB-EFSUMB Webinar is now planned for 13th September 2018 at 15.00 CEST and is on the topic of

GIUS Ultrasound

Chaired by Prof. *Odil Helge Gjo* with Presenters: *Kim Nyland (Bergen), Stephanie Wilson (Calgary), Giovanni Maccari (Milan) & Carlo Serra (Bologna)*
REGISTRATION LINK TO FOLLOW on the WFUMB (www.wfumb.org) and EFSUMB (www.efsumb.org) websites



FEDERATION REPORTS: EFSUMB Update

Prof Paul Sidhu's first year as EFSUMB President has seen the Publication of the CEUS non-liver Guidelines Update 2017 and Parts 1 and 2 of the Gastrointestinal Ultrasound (GIUS) Guidelines with Parts 3-7 to follow shortly. The Elastography non-liver guidelines have been completed and will be submitted to the EFSUMB journal, UM/LIU for publication in early 2018. We are using a guidelines voting platform to assist these publications.

EFSUMB webinars are now a feature in the calendar covering not just CEUS. It is hoped to cover more topics, including GIUS, Elastography and Endoscopic Ultrasound. The webinar archive is proving popular although the Case of the Month remains the most visited area of the EFSUMB website. We invite submissions from other federations of interesting cases with images.

The next EFSUMB Congress will take place in Poznan, Poland 6-9 September – please visit the website to view the programme:

www.euroson2018poznan.pl/en/

In 2019, the Euroson congress will take place in Grenada, Spain 29th of May to 1st of June. In 2020 the Euroson congress will be arranged 11-13 June in Bergen, Norway. You are most welcome to attend the Euroson congresses even if you belong to other federations.

The role of education is important in EFSUMB with Euroson Schools, CEUS Schools and Endorsed Courses and Ultrasound Learning Centres available throughout the year.

The EFSUMB Course Book (ECB) is now available on the new EFSUMB ultrasound app and each 2nd Edition chapter can be downloaded



EFSUMB is working closely with other European organisations – ESR, EASL and UEG – to bring ultrasound sessions and learning areas to these large meetings. Please visit the EFSUMB website for the latest in ultrasound news www.efsumb.org

Bergen, May 2018,

Odd Helge Gilja

EFSUMB Past-President 2017-2019, Chairman WFUMB Education Committee

WFUMB Administrative Councilor

UPCOMING EUROSON SCHOOLS



Musculoskeletal Sonography Course for Rheumatologists

EUROSON SCHOOL
Innsbruck, Austria 5 - 7 September 2018



Chest Ultrasound

EUROSON SCHOOL
Kosice, Slovakia 20-22 September 2018



Musculoskeletal Sonography Course in Rheumatology

EUROSON SCHOOL
Graz, Austria 7 - 9 November 2018



Liver Elastography

EUROSON SCHOOL
Timisoara, Romania 23 - 24 November 2018



ECHOES
ECHOES



FEDERATION REPORTS: FLAUS Update

As social networks become global and ease of travel to far-flung destinations grows easier, the world seems to grow ever smaller.

The Latin American Federation of Societies for Ultrasound in Medicine and Biology, as an ultrasonography reference in Latin America and as an integrator of the countries members, is pleased to announce that in 2018 we are offering the following events in the members societies and affiliated entities:



48th São Paulo Radiological Meeting (JPR 2018)

May 3-6, 2018
Transamerica Expo Center - São Paulo, Brazil.
<http://www.jpr2018.org.br>

Actualización de US en tejidos blandos y ECO-FAST

June 2-4, 2018
Ecceribe Centro Médico - Barranquilla, Colombia.
<http://teorja.ecomeaf.org>

X Simposio de la Sociedad Dominicana de Sonografía y 1er Simposio de Ecografía pediátrica

June 16-17, 2018
Hotel Catalina - Santo Domingo, República Dominicana.
<http://www.flau-sd.org>

I Congreso Internacional de Ultrasonido

June 26 - 30, 2018
Monte's Hotel - Huehuetenango, Guatemala.
<https://www.facebook.com/SOCU-Asociacion-Guatemalaica-de-Ultrasonido>

Congreso Internacional de Ultrasonido en Medicina

July 18-19, 2018
Hotel Crown Plaza El Salvador - El Salvador.
<http://www.flau-us.org>

Congreso Nacional e Internacional de US y Congreso EuroAmericano de Medicina Fetal

July 25-28, 2018
Hotel Real de Minas - Querétaro, México.
<http://fmscu.com>

I Congreso Internacional de US MSK y lesiones deportivas

August 3-5, 2018
Hilton Miraflores - Lima, Perú.
<http://www.usmb.pe>

XLVII Congreso Brasileiro de Radiologia - CBR18

October 11-13, 2018
Windsor Convention & Expo Center - Rio
<http://congressocbr.com.br>

Congreso de la Asociación Boliviana de Ultrasonido

November 1-3, 2018

It seems all signs point to now being the perfect time to plan a trip to the region. See you!

Ana Chavama, MD.



FEDERATION REPORTS: AIUM 2018 Meeting in New York

On Tuesday 3/27/18 morning we had multiple activities related to US in Global Health:

Advances in Ultrasound in Global Health Session 8:30-10:00 am (3 presentations) - click on the links to view ...

• Michael Schick: Ultrasound Education and Its Implications for Global Healthcare Delivery - [View presentation](#) @UltrasoundStuff SonoStuff.com



ECHOES
ECHOES



The 17th World Federation for Ultrasound
in Medicine and Biology Congress

hosted by the Australasian Society for Ultrasound in Medicine

ASUM2019

6 - 9 September 2019
Melbourne Convention & Exhibition Centre Melbourne, Australia



WFUMB2019 hosted by ASUM in Melbourne

The Australasian Society for Ultrasound in Medicine (ASUM) is a multidisciplinary society whose mission is to advance the clinical practice of diagnostic medical ultrasound for the highest standards of patient care. We have the honour of bringing this mission to the global community as we host WFUMB2019 in Melbourne.

The amazing scientific committee, made up of medical and sonographer specialists, are hard at work putting together a fantastic program to stimulate, inspire and challenge your learning and current practice in many areas of ultrasound including:

- Cardiac
- Critical care
- Emergency medicine
- General Practitioner
- Gynaecology
- Hepatology
- Midwifery
- MSK
- Neonatology
- Nursing
- Obstetrics
- Physics
- Physiotherapy
- Radiology
- Respiratory
- Rheumatology
- Scientific
- Sonography
- Sports medicine
- Surgical
- Therapeutic
- Urology
- Vascular



The trade exhibition offers delegates the opportunity to engage with key industry suppliers and gain the latest information about their offerings, be it education, employment, systems and technology. We encourage you to visit our sponsors and thank them for their support. For all our sponsors and exhibitors, if you haven't received your prospectus for WFUMB2019, please contact us on asum@asum.com.au



All work and no play? Never! A little fun is actively encouraged as ASUM hosts a number of fantastic social events as part of the program.

This is a great chance to network, meet with old friends, make new connections and enjoy a little downtime. You can be part of this too!

Abstracts open 3 September 2018

Registrations open 3 December 2018

See you there!



Report on the visit to INCAN 6th February 2018

Sue Westerway



In February the WFUMB councillors visited the el Instituto de Cancerología Hospital in Guatemala City. Guatemala has a population of over 15 million and the INCAN is the only public operated cancer hospital in the country. As such, it sees over 25,000 patients per year and is the only public hospital equipped to provide oncology treatment.

INCAN was founded in the 1950's and built with the support of Liga Nacional Contra el Cancer and Rotary. The most prevalent cancer seen at the hospital is stomach and gastrointestinal, whilst in women there is a very high incidence of cervical cancer.

A planned ultrasound course to coincide with our council meeting was unexpectedly cancelled a few weeks before our visit and so only a tour of the hospital took place. WFUMB Councillors were welcomed by a delegation of hospital officials and visiting fellows before being taken to see the imaging facilities. The ultrasound department consisted of two machines that were over 15 years old but both still gave reasonable images. The very capable nursing and radiography staff have been trained to assist with scanning the heavy workload.

Later that day the INCAN directors and members of the Guatemalan Ultrasound Society joined the WFUMB delegation to discuss future collaborations for courses that could assist with ultrasound education in the country.



INCAN has one old US unit, a Philips Envisor. They are in great need of a new US unit. RAD-AID's mission is to improve INCAN's Radiology department and WFUMB's mission is to help bring a sustainable ultrasound program. Working together, WFUMB and RAD-AID hope to achieve both missions.

[Read a full report on this from Harvey Nixenbaum >>](#)



WFUMB COE Progress and Future Plans

WFUMB CoE meetings	Date	Topics	Organiser	Venue
2018				
Khartoum, Sudan	8 - 12 January	US in Gastroenterology and Surgery, Endoscopic US	Dr. Suzan Ethakim	Corinth-Hotel Khartoum
Dhaka, Bangladesh	3-3 March	20th Workshop	Prof Kanu Bala	
Jakarta, Indonesia	23-24 March	EUS	Dr Daniel Makes	Harris Hotel Jakarta
Nairobi, Kenya	March		Prof Sudhir Vinayak	
Brasov, Romania	17-18 May	Postgraduate Course of WFUMB COE Timisoara - What's new	Prof Ioan Sporea	Brasov
Nairobi, Kenya	June		Prof Sudhir Vinayak	
Chisinau, Moldova	15-16 June	US Summer School	Dr. Sergiu Pulus	Chisinau
Timisoara, Romania	29-30 June	Ultrasound Course for Fellows in Gastroenterology	Prof Ioan Sporea, Prof	Timisoara, Romania
Ulaanbaatar, Mongolia	25-26 July	6th WFUMB CoE Workshop	Prof Sonin Sodov	Ulaanbaatar, Mongolia
Ulaanbaatar, Mongolia	25-26 July	"Mongolian Medray Ultrasound Forum" 27 -28 July 2018	Dr. Enkhbayar Dondog	Ulaanbaatar, Mongolia
Caracas, Venezuela	September	Internal medicine	I. Fernandez	
Nairobi, Kenya	October	Annual conference - Breast	Prof Sudhir Vinayak	
Chisinau, Moldova	26-27 October	COE Meeting GIUS	Dr. Sergiu Pulus	Chisinau
Arba Minch, Ethiopia	12-16 November	COE Course	Amir Sultan	
Timisoara, Romania	22-Nov	EFUMB Endorsed Course- Contrast Enhanced Ultrasound	Prof Ioan Sporea	Timisoara, Romania
Timisoara, Romania	23-24 Nov	EUROSON SCHOOL Course -Liver Elastography	Prof Ioan Sporea	Timisoara, Romania
Timisoara, Romania	Nov	ABC in Ultrasound - course for students	Alina Popescu	Timisoara, Romania
Nairobi, Kenya	December		Prof Sudhir Vinayak	
2019				
Khartoum, Sudan	January	US & EUS Workshops in conjunction with GE Conference	Dr. Suzan Ethakim	Corinth-Hotel Khartoum
Dhaka, Bangladesh	1-2 March	21st Workshop	Prof Kanu Bala	
Timisoara, Romania	April	ABC in Ultrasound - course for students	Roxana Sirt	Timisoara, Romania
Timisoara, Romania	24-25 May	WFUMB COE Timisoara Annual Workshop - US in Emergencies, in conjunction with SRUMB National Conference	Prof Ioan Sporea	Tg. Mures, Romania
Timisoara, Romania	June	Ultrasound Course for Fellows in Gastroenterology	Prof Ioan Sporea, Prof. Chiu Nagoca, Romania	
Ulaanbaatar, Mongolia	25-26 July	10. Anniversary WFUMB CoE	Dr. Enkhbayar Dondog	
Kampala, Uganda	October	Kampala WFUMB COE event	Prof Michael Kawooya	
Timisoara, Romania	14-15 Nov	Euroson School - CEUS non liver applications	Prof Ioan Sporea	Timisoara, Romania
Timisoara, Romania	15-16 Nov	EUROSON SCHOOL Course -Liver Elastography	Prof Ioan Sporea	Timisoara, Romania
Timisoara, Romania	Nov	ABC in Ultrasound - course for students	Alina Popescu	Timisoara, Romania
Timisoara, Romania		Workshop in cooperation with WFUMB COE Chisinau	Prof Ioan Sporea	Chisinau, Moldova
no plan 2018				
Kampala, Uganda		postponed !		
Lome, Togo		awaited		
Lagos, Nigeria		awaited		
Caaguazay, Paraguay		awaited		
additional WFUMB supported Meetings				
Abidjan, Ivory Coast	22-24 February	Abdomen, Paediatric, Obstetrics, Cardio-vascular, Interver	Pr KOUAME N'GORAN	
Fiji	27-29 September	WFUMB supported Course Abdominal US	A/Prof. Sue Westerway	
Tirana, Albania	14-16 December	WFUMB supported Course Abdominal US	Prof. Durim Celim	
Regional COE Director Meeting				
Seoul, South Korea	23-25 May	AFSUMB COE Meeting	Prof. Byung Choi	
Poznan, Poland	07-08 Sept	EFUMB COE Meeting: Euroson 2018 in Poznan	Prof Ioan Sporea	
Neapel, Italy	17-18 Nov	MASU COE Meeting	Prof Sudhir Vinayak	

30th Euroson Congress of the EFSUMB
14th Scientific Congress of Polish Ultrasound Society for Ultrasound in Medicine
6-9th September 2018, Poznań, Poland
Poznań Congress Center



WFUMB Interviews with ultrasound luminaries:

George Kossoff

ASUM President 1970-1972, WFUMB President 1982-1985

How and when did you become involved in ultrasound?

I graduated from the University of Sydney in March 1959 with a Bachelor degree in Science in Physics and Mathematics and a First Class Honors degree in Electrical Engineering. At that time I considered applying for a position as research scientist in nuclear physics at the Atomic Energy Commission.

The day after the results were announced, Norman Murray, the Director of the Commonwealth Acoustic Laboratories, approached me and invited me to set up and head the to be formed Ultrasonics Research Section at the Laboratories. Murray had been keeping an eye on the emerging publications on medical ultrasound. He had attended a meeting of the NHMRC where concern was expressed regarding the use of X-rays in pregnancy and was aware of the first publication by Donald on the use of ultrasound to investigate abdominal masses. He felt that Australia should also begin to undertake research into this emerging field of medical ultrasound and that the Acoustic Laboratories were an appropriate venue for this research.

Norm Murray persuaded me to accept his invitation on the basis of his description of medical ultrasound as a field in the early stages development where it would be easier to make meaningful contributions. As there was no one in Australia with experience in ultrasound I was to report directly to him as a Section Head. In recognition of this responsibility my appointment would be at a grade higher than that normally offered to a raw graduate. In other words he made me an offer which I just could not refuse and I commenced duties at the Laboratories on 10th of March 1959.

At that time seven groups were undertaking research into medical ultrasound. In the United States, Wild and Reid in Minneapolis were

investigating imaging the breast, Howry and Holmes in Denver the abdomen, Baum in New York the eye, while Fry and his team in Champaign-Urbana were using high intensity ultrasound to create trackless lesions in the brain. In Europe, Donald in Glasgow was applying ultrasound to examine the pregnant uterus while Edler and Hertz in Malmö were studying the applications of M mode to image the heart. Finally in Japan, Wagar in Tokyo was the second investigator to begin to image the breast. Our research into obstetrical applications commenced in September 1959 with the appointment of Bill Gerrett as clinical consultant to the Section. We were thus the second group internationally to begin research into imaging in obstetrics.

Were there any particular people that influenced your work?

I was very fortunate to have had capable colleagues who wanted to join our Section and to collaborate with all as an interdisciplinary team. There were no walls between researchers working on different projects nor from our medical consultants in different professions. Ideas were exchanged freely in weekly review meetings where our successes, obstacles or failures were presented and discussed. In this way we all contributed towards our common objective of advancing our knowledge and contributions to medical ultrasound.

I would however like however to single out several individuals who made major contributions that influenced my work.

Internationally - I was very much impressed by the work of Doug Howry and Joe Holmes who, using the water coupling technique, published detailed images of the human neck and lower limb. This was the main reason as to why our Section, later to become the independent Ultrasonics Institute, chose this approach to examine the pregnant abdomen and the breast.

I also closely followed the research conducted by Bill Fry and his team who put together a team of scientists, engineers and medical doctors to produce trackless lesions in the human brain and used this method to study the interconnections between nuclei in the brain of the cat.

Australia - I was introduced to various aspects of clinical practice by Bill Gerrett in obstetrics and by Tom Reeve in the breast. They were both excellent teachers and with time we developed a team approach to identify the structures in the human body that had not been previously imaged by ultrasound. The imaging of artifacts posed challenges but with time we learned how to identify those and even obtain useful clinical data from their portrayal. It was not uncommon for us to publish technical or clinically oriented papers depending on who was the senior person making the original observation and putting it into practice.

Dave Robinson joined the Section eighteen months after my appointment. We had mutual respect for each other abilities and developed a close working relationship. Dave was a practical man and was the person in charge of designing the electronic signal processing and mechanical requirements of our scanners. My contributions lay in the philosophical approaches as to how to handle the complex data acquired by the scanners and in the design and construction of the transducers used in our research.

In 1975 we developed the UI Octoson. In this scanner the patient lay essentially on a water bed and was examined from below by eight annular array transducers. Single and compound scans were obtained quickly and all the features of the scanner were controlled by a computer. Many radiologists and obstetricians expressed interest in acquiring this equipment.



The Australian Government went to tender to select the company to manufacture this scanner and the Nucleus Group was selected to do so. The Chairman of the Group was Paul Trainor, an Australian entrepreneur, who had set up several medical companies including Teletronics and Cochlear. Ausonics Pty Ltd was established to build the UI Octoson and I was asked to help Paul introduce the scanner to the market. This included many meetings with individuals and companies interested in the venture. Paul, a true gentleman, was an excellent negotiator and I learned a lot from him how markets work. The UI Octoson was manufactured in Sydney and over five years nearly two hundred of these scanners were sold world wide.

What were your career highlights?

Here is a chronological list of my career highlights:

1959 Joined the Commonwealth Acoustic Laboratories and began research into medical ultrasound.

1962 Obtained our first black and white obstetrical scans. The outline of the fetal head and trunk were clearly displayed as well as some internal fetal organs such as the spine, the heart and the bladder. This allowed us to make accurate assessment of fetal wellbeing from size measurements, diagnosis of asymmetrical growth retardation and of anomalies that cause bladder obstruction.

1963 Developed techniques to measure the acoustic output of therapeutic and diagnostic transducers. This allowed us to measure the output of different transducer designs and to select those that minimized patient exposure.

1965 With Bill Garrett as senior author published the first detailed paper on our ability to visualize the fetus and the clinical relevance of this information.

1967-1969 Two year sabbatical with Bill Fry. Bill was putting together a scanner which had lesion making as well as imaging capabilities. Bill at that time was President of the AIUM and he appointed me Vice President to help stage the AIUM 1968 Congress. AIUM Congresses had been focused mainly on physiotherapy applications and biological effects. I was interested in incorporating diagnostic imaging as a major component of the 1968 Congress. Unfortunately Bill died suddenly in 1966 and, as stipulated in the AIUM by-laws, I became President for the next year and a half. This Congress marked the transition of the AIUM from a physiotherapy

focused organization to one whose major interests are diagnostic applications.

1969 Establishment of ASUM. Shortly before my return to Australia, I attended the First Congress of WFUMB held in Vienna. On my return I presented a summary of that Congress at an ad hoc meeting of the staff, our medical consultants and other individuals who had an interest in diagnostic ultrasound. At that meeting it was unanimously agreed that a society representing Australian interest should be formed and be named the Australian Society of Ultrasound in Medicine. I had the privilege of being elected Foundation President of the Society and served in that capacity for the next two years. The Society flourished and undertook action not only to promote scientific and clinical applications but also to concentrate on issues of education. One of my greatest satisfactions is to see ASUM flourish to the extent that it has achieved to date, and to see the use of ultrasound in Australia second to none.

1969 Development of Grey Scale Imaging. During the last month of my stay in Illinois, I noted that when medium levels of power output were used to image the liver of the cat, the soft tissues reflected echoes of similar size irrespective of the direction of the scanning beam. I realized that the texture of soft tissue reflected the ultrasound energy in a diffuse manner. This was in stark contrast to the specular echoes obtained from large interfaces with which we were familiar. This led us to redesign transducers and signal processing to display, for the first time, the diffusely reflected echoes - in effect, the first grey scale images.

Jack Jellins and I implemented grey scale imaging late that year on our breast scanner. This scanner was installed at Royal North Shore Hospital, where Tom Reeve was our senior medical consultant on the project. The change in image quality was dramatic. Grey scale imaging allowed us to demonstrate, contrary to the generally held opinion at that time, that most malignancies were hypo rather than hyper echic as described by Wild and Wagai.

Davo Robinson and I implemented grey scale on our obstetrical scanner early the following year, with Bill Garrett as our medical consultant. For the first time we could visualize the chambers of the fetal heart, identify the total umbilical vein in the fetal liver and, as an immediate pay off, visualize with near 100 percent accuracy the placenta. Bill Garrett and I mounted a display of our images at the

next WFUMB Congress held in Rotterdam in 1972. The interest in these was dramatic as no one had seen such images previously.

1973 Establishment of ultrasound of the neonatal brain.

That year a fetus with ventriculomegaly was observed leading us to determine if we could achieve similar results in the neonate. In consultation with radiologists from Prince of Wales Hospital, ten neonates undergoing air ventriculography were also examined by ultrasound. Ventricular sizes measured by both methods were in agreement and all further neonatal patients from that hospital were examined by ultrasound only.

1975 Research conducted by the Section differed significantly from that undertaken by the Commonwealth Acoustic Laboratories. Encouraged by our clinical successes and interest in the equipment by clinicians and industry, the Section was formed as an independent Ultrasonics Institute in the Department of Health.

1982 I was elected President of WFUMB for the following three years. The Sydney WFUMB Congress was held in 1985 and attended by over one thousand delegates. The staff of the Institute played a major role in staging this Congress.

1989 The Ultrasonics Institute was transferred to the CSIRO (Commonwealth Industrial and Scientific Organisation) and renamed the Ultrasonic Laboratory.

1992 The Ultrasonic Laboratory was closed signaling the end to uniform ultrasound research in Australia.

1999 I was awarded the AO, an Officer of the Order of Australia.

What are your impressions of the ultrasound technology available today?

This is a hard question for me to answer, as I have been retired for 15 years. My impression is that ultrasound technology has matured. The equipment is using modern computer technology, the frequency range has been significantly enlarged and a variety of functions have been incorporated in the equipment to facilitate its use in a variety of applications. Ultrasound has been accepted by a range of specialties, and some of the challenges of today relate to the provision of education and training in the correct use of the equipment in professions where the technique forms a small component of the practice.

Challenges and opportunities still abound. I do not know the status of ultrasound contrast agent and this could will be a major application. I am surprised that modern equipment still does not provide quantitative measurement of blood flow. The use of two dimensional transducers appears to have stalled. The problem of overlying tissue aberration has not been solved. So opportunities exist but how well they will be addressed depends on funding in a climate where interest has shifted to MRI and molecular imaging.

Are you still involved with the ultrasound world?

I try to follow the ultrasound literature as I am in a fortunate position to receive major journals that feature ultrasound. Until recently I have been involved with the WFUMB Council as member of its Committees on History and on Archives. At the request of Michael Claudon, Barry Goldberg and I put together a paper "History of Ultrasound and its Presidents". This paper is published on the WFUMB website in the section on History. Today I am not involved with any ultrasound activity.



George Kosoff, Tom Reeve Jack Jellins (1977)

WFUMB CENTER OF EDUCATION CHIȘINĂU, REPUBLIC OF MOLDOVA

In 2016 a new WFUMB Center of Education was opened in Chișinău, Republic of Moldova. The center is coordinated by the Ultrasonography Training Center of the "Nicolae Testemițanu" University of Medicine Chișinău.

The first workshop of the center was organized in 4-5 November 2016 in cooperation with the EFSUMB Ultrasound Learning Center of the "Victor Babeș" University of Medicine and Pharmacy in Timișoara, and benefited from the participation of Prof. Dieter Nürnberg, WFUMB Vice President on Education together with Prof. Ioan Sporea, director of the EFSUMB Ultrasound Learning Center Timișoara; Assoc. Prof. Roxana Șiril, Lecturer Mirela Dănilă from the same center.

The workshop covered topics related to abdominal ultrasound and hepatic elastography, and was attended by approximately 200 participants.



The interest of the ultrasound community from Republic of Moldova for these workshops is proved by the large number of participants and their involvement in the sessions.

This year the center will organize again a workshop on an abdominal ultrasound topic – Gastro-intestinal Ultrasound. The workshop is scheduled for 26-27 October 2018, and will have Prof. Harald Lutz, Prof. Dieter Nürnberg, Prof. Odd Helge Gjøvi and Prof. Ioan Sporea as invited speakers.

Alina Popescu



The second workshop of WFUMB Center of Education Chișinău was held 24-25 November 2017 in Chișinău. The main topics of the course were the ultrasound diagnosis of thyroid and breast diseases, covered by the invited lecturers, Prof. Ioan Sporea ("Victor Babeș" University of Medicine and Pharmacy, Timișoara), Assoc. Prof. Dana Steian ("Victor Babeș" University of Medicine and Pharmacy, Timișoara) and Assoc. Prof. Aristida Georgescu (Craiova University of Medicine and Pharmacy). Besides the theoretical presentations, a live demonstration session was also organized. The course was attended by 179 physicians from all over the Republic of Moldova and took place in a friendly atmosphere, participants being actively involved in discussions with lecturers.



Congress History

The first recorded **World Congress on Ultrasound in Medicine and Biology**, the WFUMB 1976 took place in San Francisco.

Event	Location
WFUMB 1976 WFUMB President: G. Baum, USA, Ophthalmologist (1973-76)	San Francisco, USA
WFUMB 1979 WFUMB President: Wagai, Japan, Gastroenterologist (1976-79)	Miyazaki, Japan
WFUMB 1982 WFUMB President: H. Mueller, Switzerland, Neurologist (1979-82)	Brighton, UK
WFUMB 1985 WFUMB President: G. Kossoff, Australia, Physicist (1982-85)	Sydney, Australia
WFUMB 1988 WFUMB President: H. E. Thompson, USA, Obst/Gyn (1985-88)	Washington, USA
WFUMB 1991 WFUMB President: F. Weill, France, Radiologist (1988-91)	Copenhagen, Denmark
WFUMB 1994 WFUMB President: M. Fukuda, Japan, Gastroenterologist (1991-94)	Sapporo, Japan
WFUMB 1997 WFUMB President: B. Goldberg, USA, Radiologist (1994-97)	Buenos Aires, Argentina
WFUMB 2000 WFUMB President: H. Lutz, Germany, Internist (1997-2000)	Firenze, Italy
WFUMB 2003 WFUMB President: H. Watanabe, Japan, Urologist (2000-03)	Montreal, Canada

WFUMB 2006 WFUMB President: M. Ziskin, USA, Physician/physicist (2003-06)	Seoul, Korea
WFUMB 2009 WFUMB President: G. Cerri, Brazil, Radiologist (2006-09)	Sydney, Australia
WFUMB 2011 WFUMB President: M. Claudon, France, Radiologist (2009-11) View the Opening Ceremony	Vienna, Austria