

AFSUMB and WFUMB  
related events and Inauguration (B)

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ABCD.....



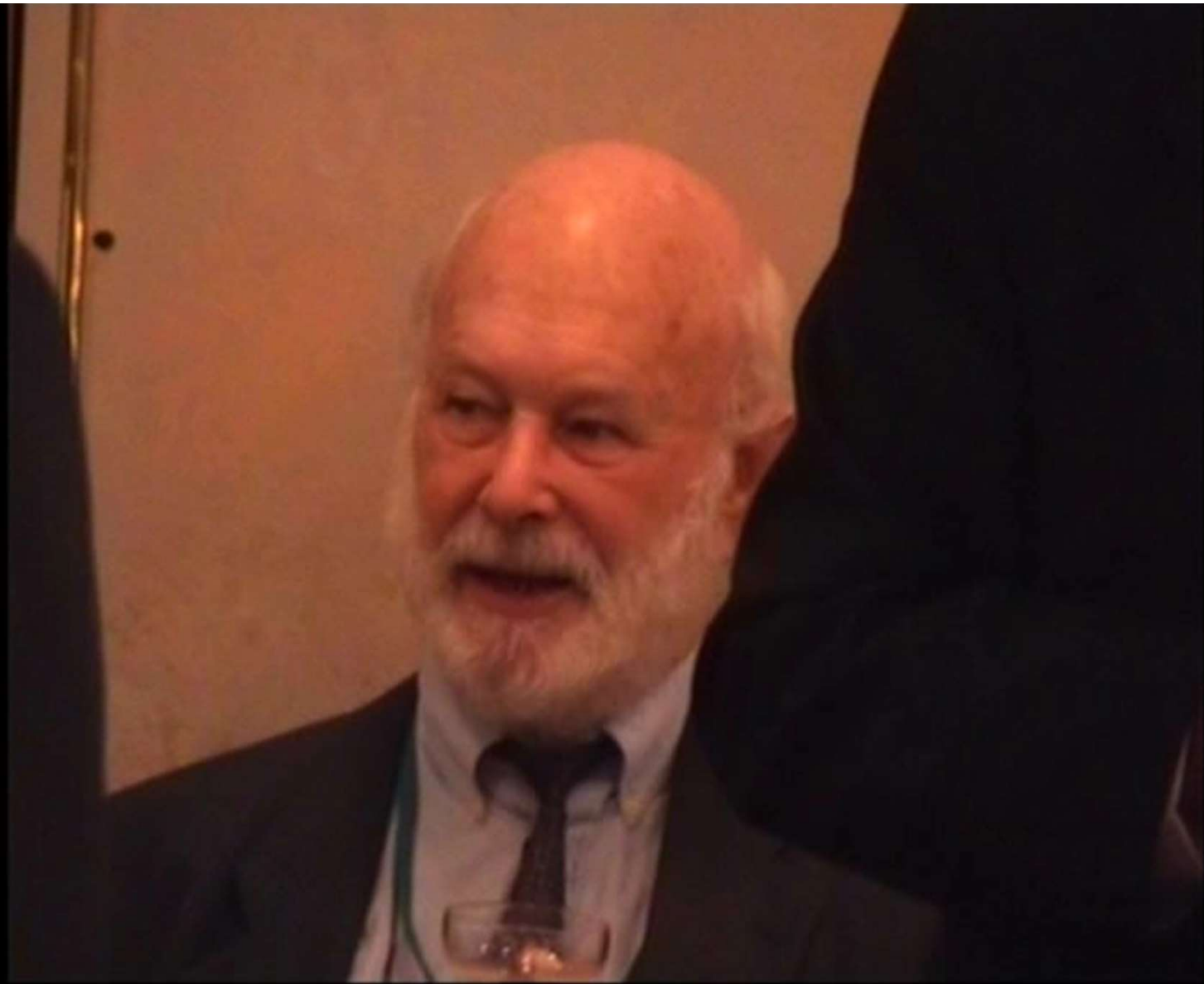






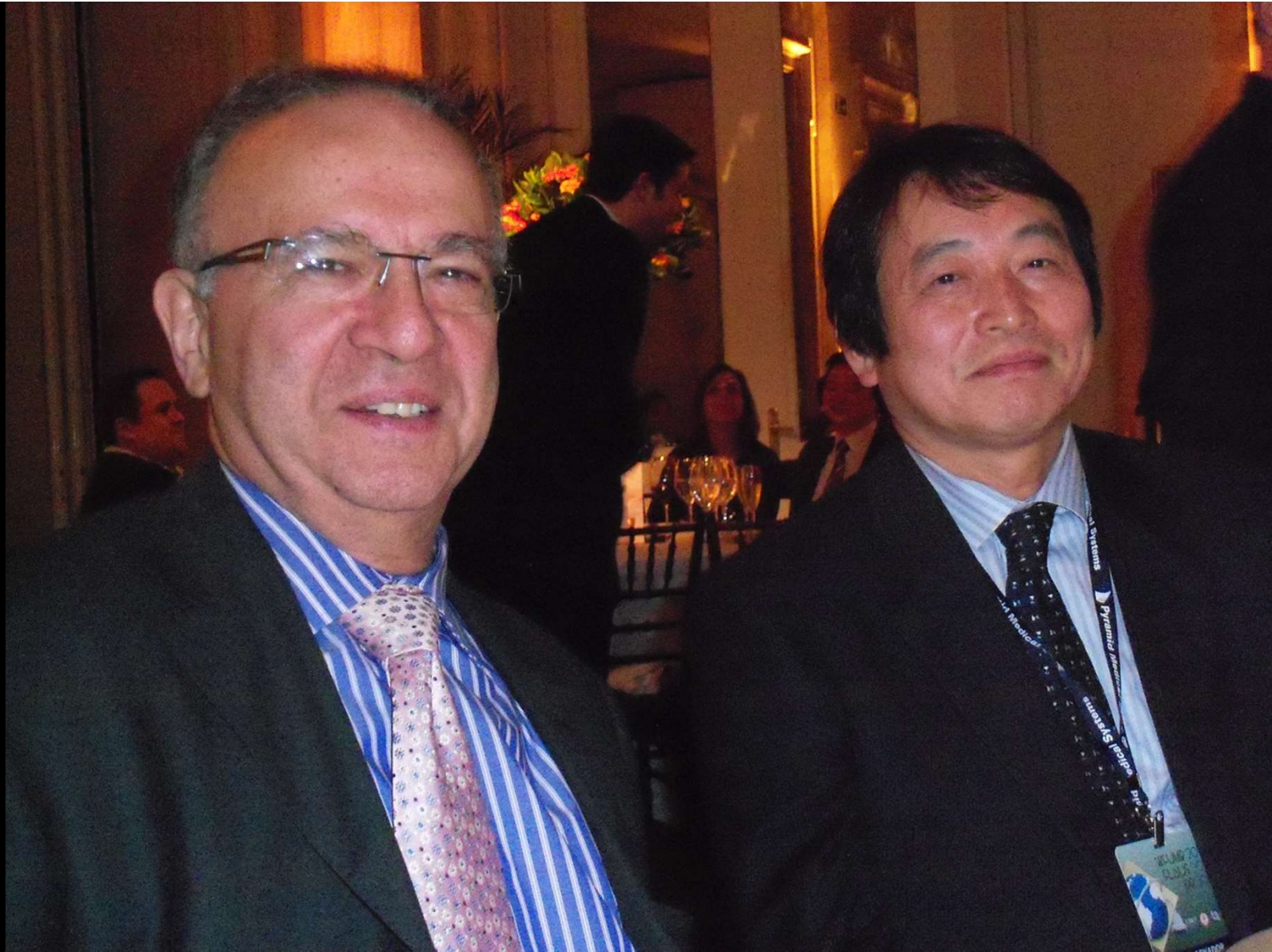




























na e Biologia  
ail

43<sup>rd</sup> Sao Paulo Radiological Meeting  
16<sup>th</sup> Congress of the Latin American Federation of Ultrasound  
14<sup>th</sup> World Congress of Ultrasound in Medicine and Biology

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



Apito

CBR




www.wfumb.org

FOR ULTRASOUND IN MEDICINE AND BIO

# WFUMB General Assem

Dr. Masatoshi Kudo, Preside

May 4, 2013











Apoio

BR

BRASIL

BRASIL

Approved

- Kenya
- Mongol





- WFUMB's Safety Committee and recommendations on relevant safety issues.

2013





Australia - ASUM  
Tiang (Taiwan) - AFSUMB  
Kingdom - EFSUMB  
USA - AIUM  
Claudon (France) - EFSUMB



FLAUS 2013 JPR'2013  
Congress of Ultrasound in Medicine and Biology  
of the Latin American Federation of Ultrasound  
and the São Paulo Radiological Meeting

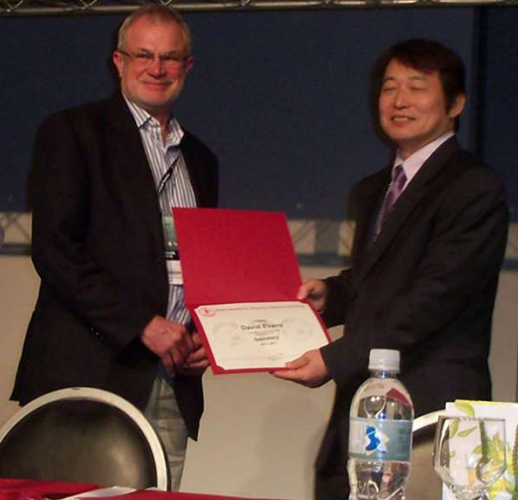
en Gharbi (Tunisia - MASU)  
id Benzie (Australia - ASUM)  
g-Wen Chiang (Taiwan - AFSUMB)  
(United Kingdom - EFSUMB)  
baum (USA - AIUM)  
t. Michel Claudon (France - EFSUMB)



3 FLAUS 2013 JPR'2013  
Congress of Ultrasound in Medicine and Biology  
of the Latin American Federation of Ultrasound  
3<sup>rd</sup> São Paulo Radiological Meeting



Tunesia - MASU  
(Australia - ASUM)  
Tiang (Taiwan - AFSUMB)  
Kingdom - EFSUMB)  
SA - AIUM)  
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ELAUS 2013 JPR'2013

s of Ultrasound in Medicine and Biology  
Latin American Federation of Ultrasound  
Paulo Radiological Meeti

Officers  
2011-2013  
Hassen Gharbi (Tunisia - MASU)  
Ronald Benzie (Australia - ASUM)  
Cheng-Wen Chiang (Taiwan - AFSUMB)  
Gans (United Kingdom - EFSUMB)  
Benbaum (USA - AIUM)  
Gent Michel Claudon (France - EFSUMB)



3 FLAUS 2013 JPR' 2013  
Congress of Ultrasound in Medicine and Biology  
of the Latin American Federation  
3rd Sao Paulo





Partnership Council  
Councilors  
Choi (Korea - AFSUMB)  
Fernandez (Venezuela -  
US)  
Waberg (USA - AIUM)

16º Congresso Latinoamericano  
14º Congresso Mundial de Ultrassonografia em Medicina e Diagnóstico  
2 a 5 de Maio de 2013  
Transamérica Expo Center - São Paulo - Brasil



Transamérica Expo Center - São Paulo - Brasil



LAUS 2013 IPR'2013









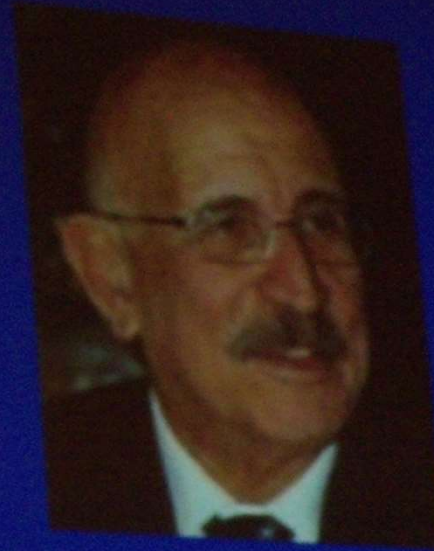


ADMINISTRATIVE COU

- Jacques Abramowicz (USA)
- Fabio Piscaglia (Italy- EFS)
- Mohamed El Fortia (Libya-)
- Yi-Hong Chou (Taiwan - A)
- Ramon Bataglia (Paraguay)
- Adrian Goudie (Australia -)

013

Welcome



Hassen Gharbi

WFUMB President

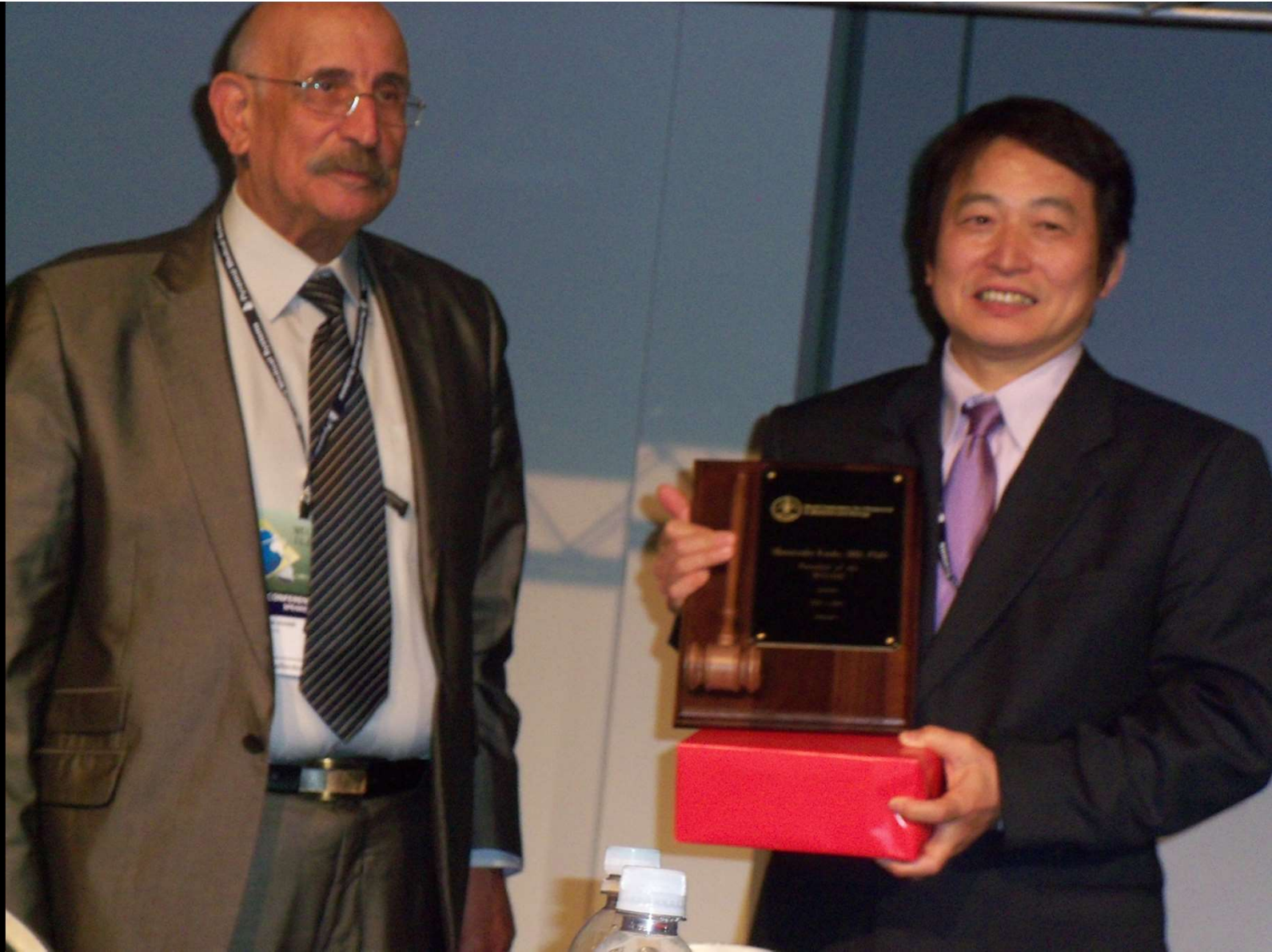
2013-2015





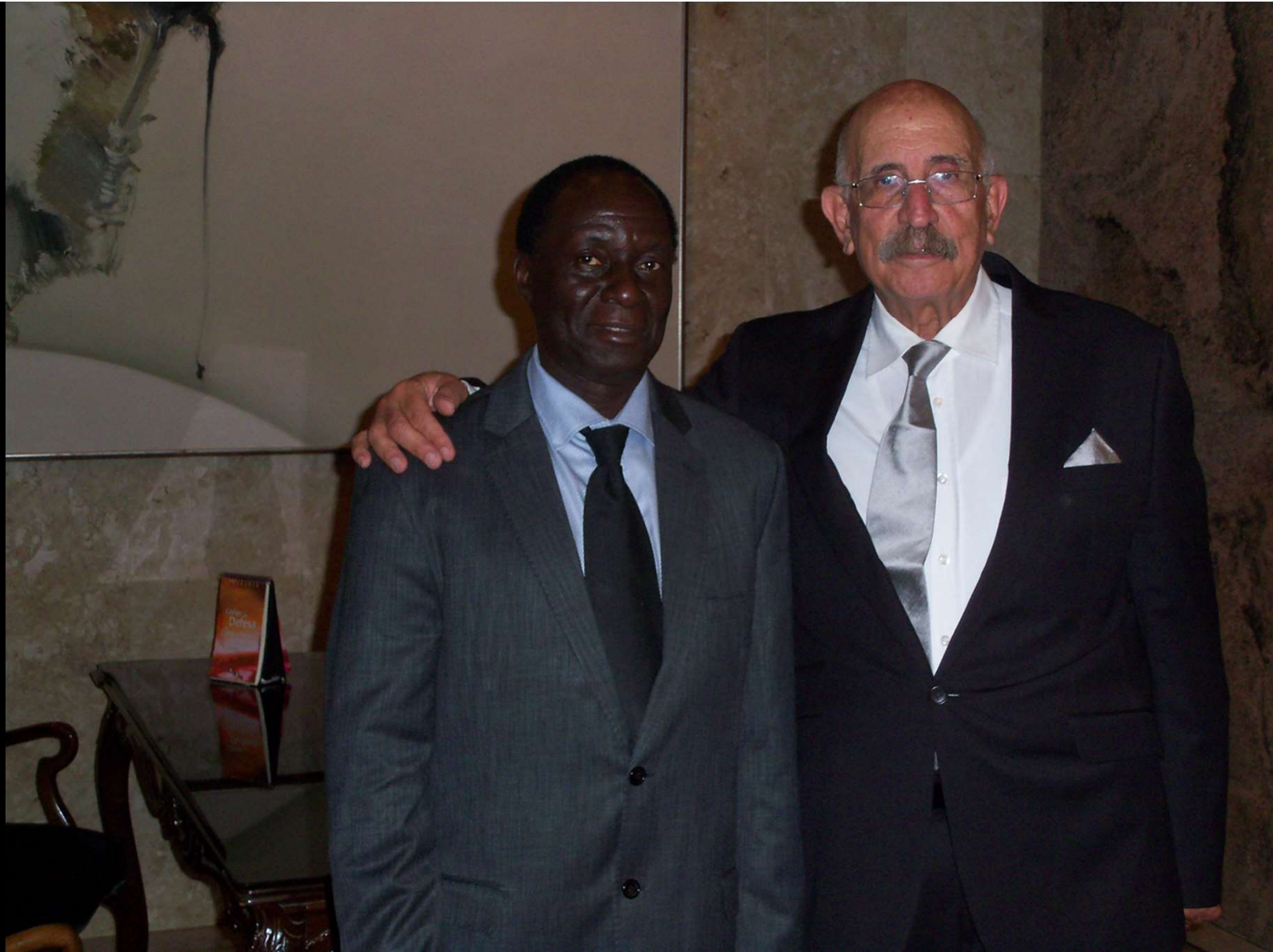
































On the Occasion of  
WFUMB 2013, May 2-5, 2013  
These Happiness Trees are Dedicated to  
Giovanni and Luciana Cerri  
For their Generous Hospitality and  
Countless Hours of Devoted Service and  
Leadership to the Global Ultrasound Community

**WFUMB 2013**  
 14<sup>th</sup> World Congress of Ultrasound in Medicine and Biology - WFUMB 2013  
 16<sup>th</sup> Congress of the Latin American Federation of Ultrasound - FLAUS 2013  
 43<sup>rd</sup> Sao Paulo Radiological Meeting - JPR'2013  
 May 2 - 5, 2013 • Transamerica Expo Center - Sao Paulo - Brazil

**Importante:**  
 Se você ainda não retiraram suas pastas de arquivos, favor retirarem até às 15:30h de hoje nas secretarias de Painéis JPR e WFUMB.

**Announcement:**  
 If you haven't the files for evaluation of the posters, please present yourselves to the JPR and WFUMB poster secretariat until 3:30 pm.

www.wfumb2013.org

**JPR'2013 FLAUS 2013 WFUMB 2013**

43<sup>rd</sup> Jornada Paulista de Radiologia  
 16<sup>th</sup> Congresso Latinoamericano de Ultrassom  
 14<sup>th</sup> Congresso Mundial de Ultrassonografia em Medicina e Biologia

2 a 5 de Maio de 2013  
 Transamerica Expo Center - Sao Paulo - Brazil

43<sup>rd</sup> Sao Paulo Radiological Meeting  
 16<sup>th</sup> Congress of the Latin American Federation of Ultrasound  
 14<sup>th</sup> World Congress of Ultrasound in Medicine and Biology

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



**Aviso Im**  
 Os julgadores de painéis que ainda não retiraram os trabalhos para avaliação dos trabalhos, por favor, retirem os trabalhos hoje nas secretarias.

**Important Ar**  
 The examiners who still have not presented their papers, please present yourselves to the poster secretariat today.

www.wfumb2013.org































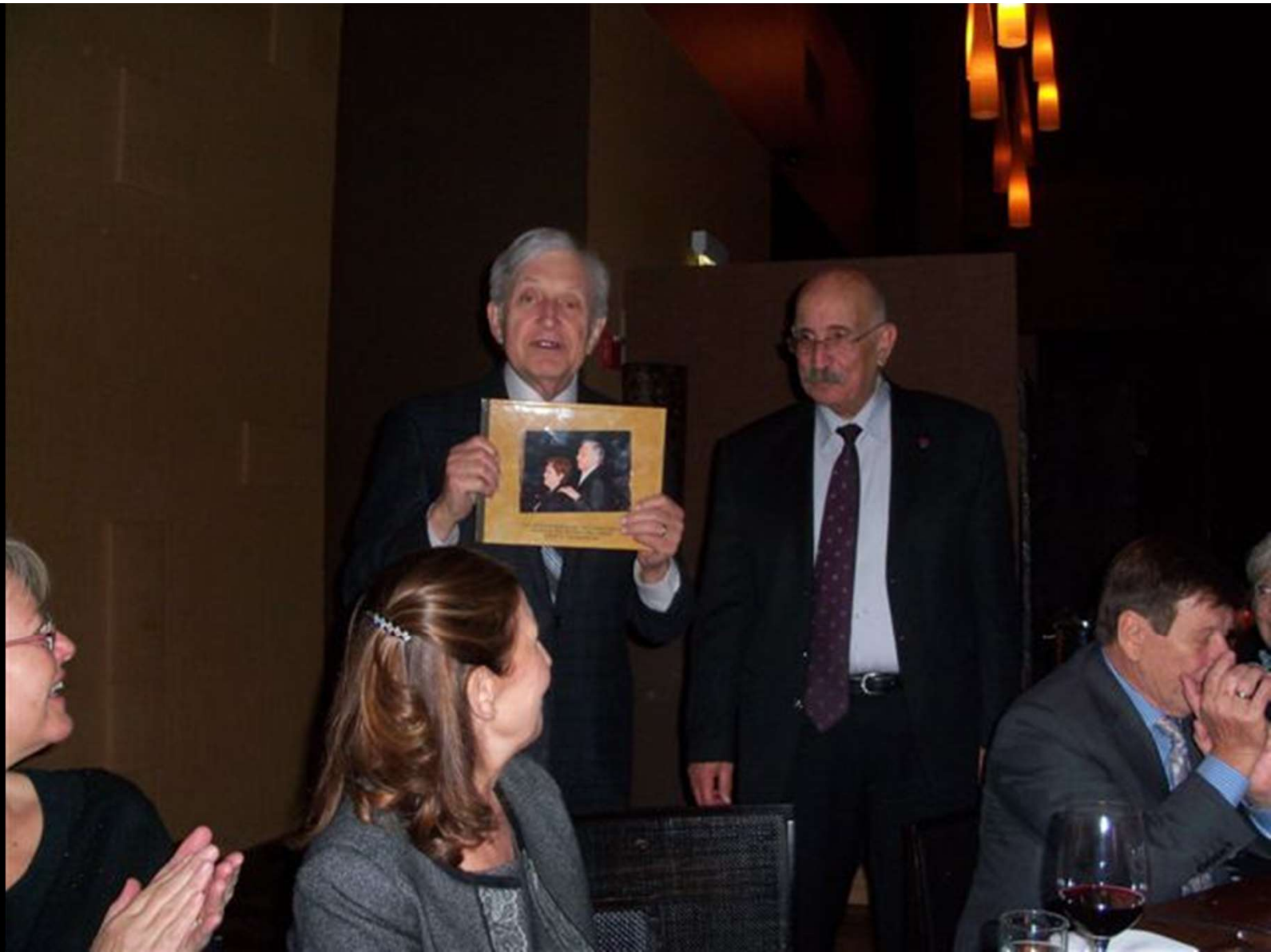


















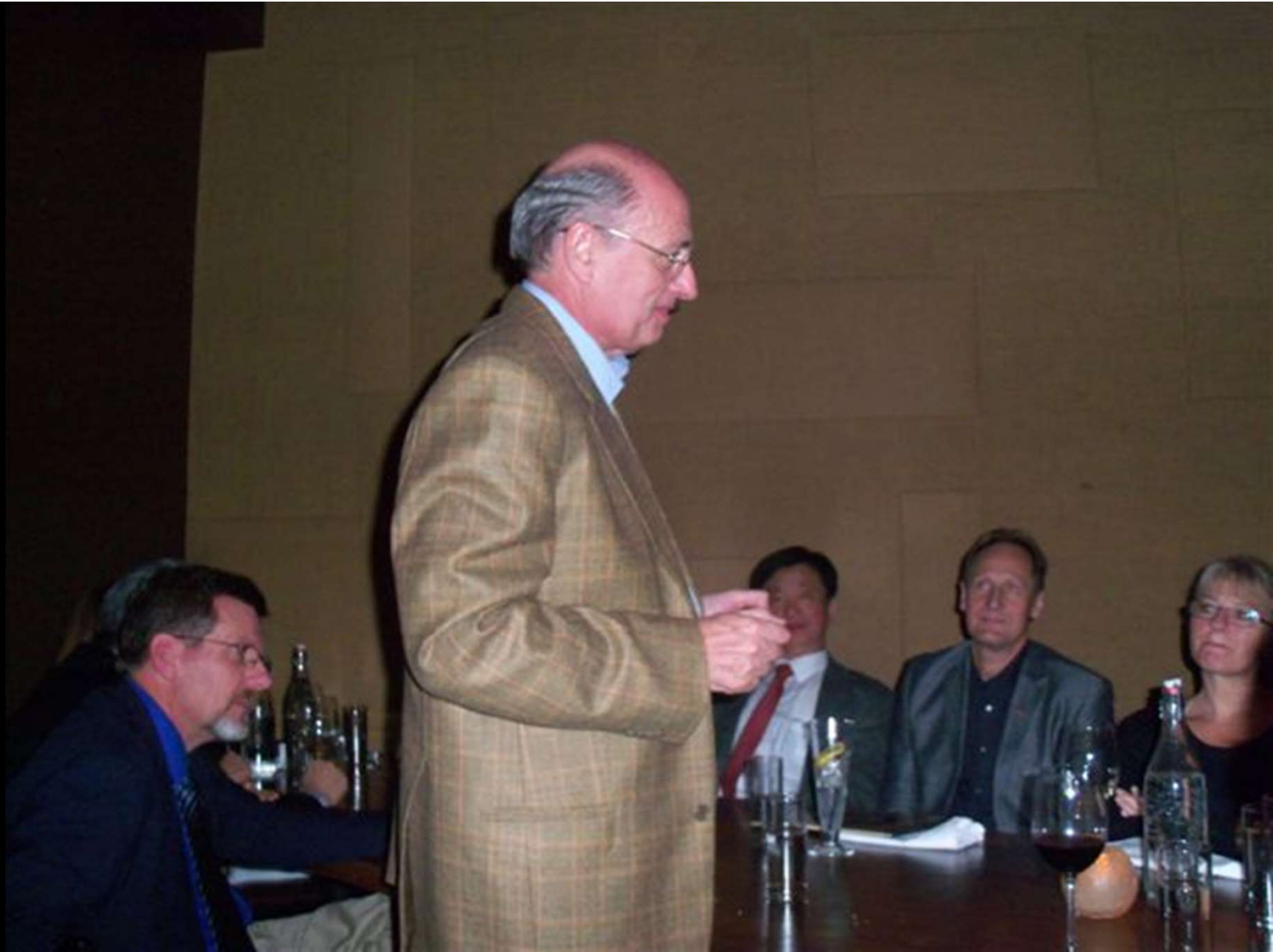
















































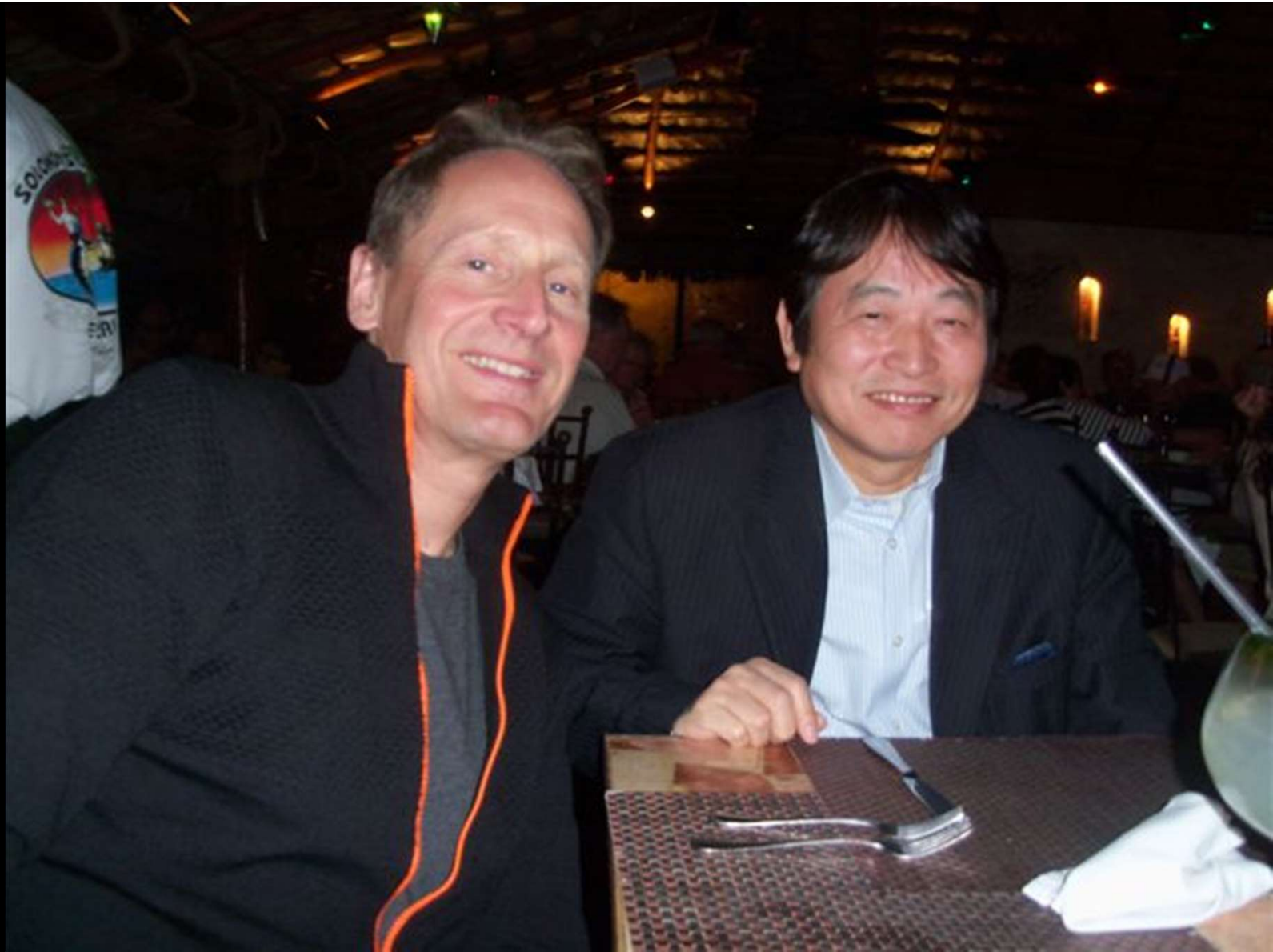












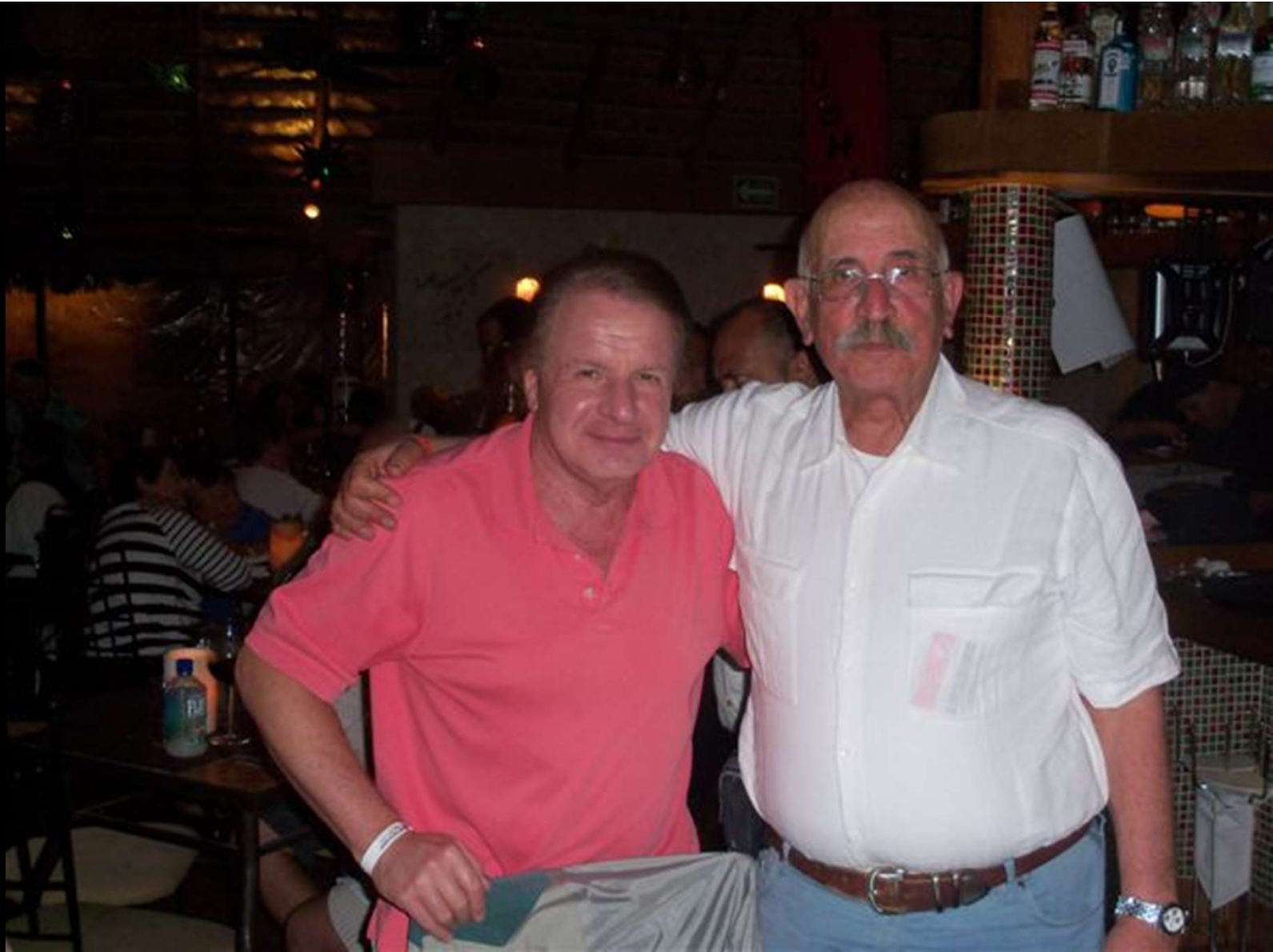


















May 2000

Florence  
WFUMB







# WFUMB 2004 中国北京超声医学学术研讨会



WFUMB  
2006  
SEOUL COEX

To,

The Secretary WFUMB

Subject : Application the WFUMB's Scholarship



Sir,

Respectfully stated that I have come to know that WFUMB is offering its members scholarship for higher education in ultrasound. I am member of BMUS and ASUM. I am currently working as general medical ultrasound practitioner in Faisalabad city of Pakistan. I really want to upgrade my clinical knowledge of ultrasound through your scholarship.

I apply myself for the said scholarship and hope for your favourable and kind recommendation.

Thanks,

A handwritten signature in blue ink, appearing to read 'Abid Hussain'.

Dr. Abid Hussain 07/07/04

Pakistan



## Reasons for application

I Dr. Abid Hussain (Member of ASUM and member of BMUS) from Pakistan hereby apply for the W.F.U.M.B'S educational scholarship for the following reasons:

1. Ultrasound being the growing non-hazardous non-invasive diagnostic tool is rapidly getting popularity in developed and developing countries.
2. Unfortunately postgraduate training institutes in Pakistan are not offering diploma/ degree courses in ultrasonography. So Pakistani doctors have to go abroad for higher training in ultrasound.
3. Postgraduate ultrasound training in developed countries is simply not affordable due to very high cost of expenditure.
4. The number of ultrasound practioners is far more less than the required need of our present population, which are 140 million people.
5. At present, older and preliminary techniques of ultrasound are being practiced all over the country except few major cities where latest methods aere being practiced which are very costly whereas ultra modern equipments and techniques have come in the field for so long time in rest of the world.
6. Newer standards and methods are not reaching the medical professionals regularly and timely in our country. It is hoped that this particular training would bridge the existing gap between the developed and under developed countries regarding ultrasound.
7. If higher training in ultrasound is achieved through WFUMB scholarship it would help better diagnose the present medical problems and thereby finding their solutions. We expect to set newer standards of ultrasound imaging and the poor community would be benefited from it in general and the doctors in particular.

## Future Plans

As mentioned earlier that postgraduate training in ultrasound in Pakistan is not available so far. I am really wishful to get diploma in ultrasound from Imperial college of London or to have M.Sc. In ultrasound from university of Sydney Australia.

I believe that after being trained from such a renowned institutions, I would be in a much better position to serve poor and needy community with my latest knowledge.

In future I have a plan to establish a community based community health care and diagnostic center in my home city.

Faisalabad. Faisalabad is the third largest city of Pakistan having a population of 2.6 million people but lacking all the latest and modern facilities of ultrasound.

My advanced ultrasound training would provide all the best diagnostic facilities to my Community at a grassroots level.

Moreover I am really thankful to WFUMB for enabling and supporting my participation In last WFUMB's conference held in Montreal, which I already have attended.

Currently I am in contact with following universities:

City University London  
Jennifer Edie , Lecturer  
Department of Radiography  
City university  
Rutland Place, Charter House, Square  
London  
EC 1 M 6 P A  
Tel:020-75055678  
Fax:020-75055691

The University of Sydney  
Faculty of Health Sciences  
NSW 2006, Australia  
Ph: +61 2 9351 2222

















**XX CONGRESO VENEZOLANO Y I CONGRESO CARIBEÑO  
DE ULTRASONIDO EN MEDICINA  
III SIMPOSIO INTERNACIONAL FLAUS  
II WFUMB CENTER OF EXCELLENCE  
MARACAIBO 2006    MEDIVIDEOSNCP@CANTV.NET**











## XXII Congreso Venezolano de Ultrasonido en Medicina



6 al 8 de Julio 2008 - isla Margarita -Porlamar -Nueva esparta [medivideosncp@yahoo.com](mailto:medivideosncp@yahoo.com)

**IF**  
Producciones







### CEUS of the pancreas

- ductal adenocarcinomas are most frequently hypoenhancing as compared to the surrounding tissue;
- pseudocysts and complicated cysts are anovascular;
- focal pancreatitis has similar enhancement to the normal parenchyma;
- it is recommended to correlate the US findings to the clinical and biological ones.



## Criteria for FLL Characterization

- Tumor related contrast kinetics
  - Transit Times
  - Arrival time tumor - liver parenchyma and wash out
    - Early - simultaneously - late
- Vessel architecture
  - Recognizable (tree like, spoke & wheel, basket sign,....)
  - chaotic
- Direction of enhancement
  - Centripetal - centrifugal
- Strength and duration of enhancement
  - Overall enhancement in comparison to liver parenchyma (hyper-, iso-, hypo E)
- Enhancement distribution pattern





Euroson School "Contrast Enhanced Ultrasound"  
Romania, Bucharest, 15 May 2009 **BCR** 

A 12-a Conferinta Nationala a Societatii Romane de Ultrasonografie in Medicina si Biologie  
Bucuresti, 16-17 Mai 2009

**STARBUCK** RESTAURANT

**DOMUS**  
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CITY

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WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY  
CENTER OF EXCELLENCE TIMIȘOARA ROMANIA

## **WFUMB CENTER OF EXCELLENCE WORKSHOP**

### ***INTERVENTIONAL ULTRASOUND***

**BUCHAREST, SATURDAY 16 MAY 2009**

*Chairman: Lucas Greiner, Byung Ihn Choi*

- 14.30 - 14.35** - Introduction of WFUMB and WFUMB COE - Byung Ihn Choi (South Korea)
- 14.35 - 14.50** - To puncture or not to puncture - this is the question - Lucas Greiner (Germany)
- 14.50 - 15.10** - 10 ways to make a complication using a needle - Michael Bachmann (Denmark)
- 15.10 - 15.25** - Percutaneous echo assisted liver biopsy for diffuse hepatothopaties - Alina Popescu (Romania)
- 15.25 - 15.40** - Percutaneous biopsy of liver tumors - Petre Mircea (Romania)
- 15.40 - 15.55** - Percutaneous echoguided biliary interventions - Zeno Spîrchez (Romania)
- 15.55 - 16.20** - Monitoring of Treatment of Liver Cancer with Contrast-enhanced (CE) US - Byung Ihn Choi (South Korea)

**16.20 - 16.45** - Break

*Chairman: Byung Ihn Choi, Ioan Sporea*

- 16.45 - 17.05** - Percutaneous ethanol injection therapy for liver tumors - Mirela Dănilă (Romania)
- 17.05 - 17.25** - Interventional ultrasound in pulmonary diseases - Nicolae Rednic (Romania)
- 17.25 - 17.45** - Percutaneous aspiration puncture and drainages - Ioan Sporea (Romania)
- 17.45 - 18.00** - Discussions



WORLD FEDERATION FOR ULTRASOUND IN MEDICINE AND BIOLOGY  
CENTER OF EXCELLENCE TIMIȘOARA ROMANIA

### WFUMB CENTER OF EXCELLENCE WORKSHOP

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15.10 - 15.25 - Percutaneous echo assisted treatment of liver and hepatothopates - Alina Popescu (Romania)  
15.25 - 15.40 - Percutaneous biopsy of liver lesions - Mircea Dinilă (Romania)  
15.40 - 15.55 - Percutaneous echoguided biopsy of the pancreas - Zeno Spirchez (Romania)  
Monitoring of Treatment of Liver Tumors with Contrast-enhanced (CE) US - Byung Iho Choi (South Korea)

Break

*Byung Iho Choi, Ioan Sporea*  
Percutaneous ethanol injection therapy for liver tumors - Mircea Dinilă (Romania)  
Interventional ultrasound in pulmonary diseases - Nicolae Rednic (Romania)  
Percutaneous aspiration puncture and drainages - Ioan Sporea (Romania)  
Discussions





WFUMB CENTER OF EXCELLENCE  
TIMISOARA  
ROMANIA

Content Layouts

Text and Content Layouts















Potential cooperation with smaller groups

- "Imaging the World" (Drs. Brian Garra and Kristen DeStigter)
  - Developing protocols to allow personnel to image certain parts of the body and transmit the images via the internet to a larger hospital for interpretation and to provide a brief report
  - Completed a pilot based on this model in Belize and are initiating another in Uganda

Hydrant & Hose Reel



**WFUMB 2009**

*Sydney*  
Australia

12<sup>th</sup> Congress of the  
World Federation  
for Ultrasound in  
Medicine and Biology

August 30 – September 3, 2009



**TOSHIBA**



see it all  
**MEDISON**

**PHILIPS**



[www.wfumb2009.com](http://www.wfumb2009.com)

















WFUMB 2009  
World Congress in Medical Ultrasound  
Sydney  
Australia

Major Sponsors

**TOSHIBA**



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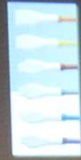








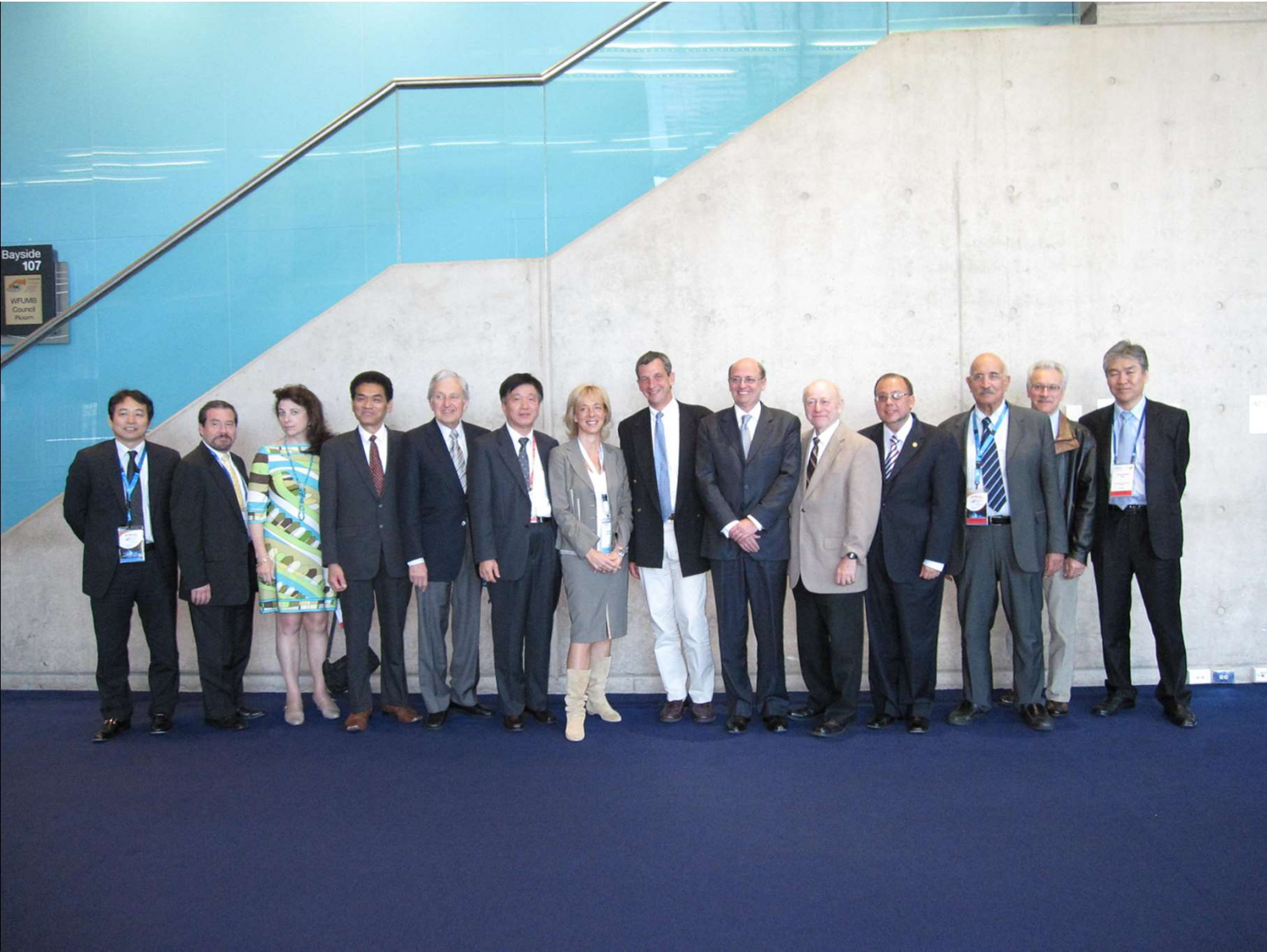
# High Frequency Imaging



20-50MHz Arrays

Foster et al., University of Toronto / Woodhams























**WFUMB 2009**  
World Congress in Medical Ultrasound  
*Sydney*  
Australia

17<sup>th</sup> World Congress  
of the World Federation  
for Ultrasound in  
Medicine and  
Biology

Sunday, 30 August to  
Thursday, 3 September 2009

Co-located:  
Asia Pacific Academic Conference  
Monday, 31 August to Tuesday, 1 September 2009  
ASUM 2009 Meeting  
Wednesday, 2 September  
ASUM 2009 Meeting  
Thursday, 3 September 2009  
WFUMB 2009 Meeting  
Friday, 4 September 2009

**TOSHIBA**  
**GE**  
**MEDISON**  
**PHILIPS**

The WFUMB 2009  
Congress is hosted  
by ASUM







**WFUMB 2009**  
World Congress in Medical Ultrasound  
*Sydney*  
Australia

12<sup>th</sup> World Congress  
of the World Federation  
for Ultrasound in  
Medicine and  
Biology

Sunday, 30 August to  
Thursday, 3 September 2009

**Sponsoring:**  
The WFUMB 2009 Congress is pleased to announce the following sponsors:  
All of 2009 Multimedica  
International Healthcare Group 2 September 2009  
Biosonix 30 September 2009  
WFUMB - Australia 28 September  
Thursday, 3 September 2009

Water  
Speakers


**TOSHIBA**  
GE Healthcare  
**MEDISON**  
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The WFUMB 2009 Congress is pleased to announce the following sponsors:  
All of 2009 Multimedica  
International Healthcare Group 2 September 2009  
Biosonix 30 September 2009  
WFUMB - Australia 28 September  
Thursday, 3 September 2009





**WFUMB 2009**  
 World Congress in Medical Ultrasound *Sydney*  
 Australia



12<sup>th</sup> World Congress  
 of the World Federation  
 for Ultrasound in  
 Medicine and  
 Biology

Sunday, 30 August to  
 Thursday, 3 September 2009

Incorporating  
 20th ASUM Annual Congress  
 Sunday, 30 August to Thursday, 2 September 2009  
 ASUM 2009 Manufacturing  
 Ultrasound Workshop  
 Sunday, 30 August to Wednesday, 2 September 2009  
 WFUMB - gynecologic Ultrasound Workshop  
 Thursday, 3 September 2009

**Major Sponsors**

**TOSHIBA**

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The WFUMB 2009  
 Congress is hosted  
 by ASUM

Australian  
 Society for  
 Ultrasound in  
 Medicine and  
 Biology

Partnership Excellence in Ultrasound

Australian Government  
 Department of Health and Ageing
















# Events



Exhibition  
Centre →

Convention Centre  
Parkside →

Convention Centre  
Bayside →



Registration  
Exhibition  
Grounds  
Open  
Sun  
9.30  
Tue



Registration  
Exhibition  
Hall 6, Grounds  
Workshops  
Parkside G



Registration  
Exhibition  
Halls 6, 7, 8  
Workshops  
Parkside G





 **Sydney Tower**  
OBSERVATION DECK • OZTREK • SKYWALK

Access  
upstairs



PE

Toilets

EXIT

**NO ENTRY TO THIS AREA**  
AUTHORIZED PERSONNEL ONLY

 EYE PROTECTION MUST BE WORN IN THIS AREA

 SAFETY FOOTWEAR MUST BE WORN ON THIS SITE











Darling Harbour

















**XXIII  
Congreso Nacional de la Sociedad  
Venezolana de Ultrasonido en Medicina  
Caracas 4 al 6 de Junio 2008**





**XXIII  
Congreso Nacional de la Sociedad  
Venezolana de Ultrasonido en Medicina  
Caracas 4 al 8 de Junio 2009**













**Euroson School „Musculoskeletal Ultrasonography”  
Romania, Sibiu, May 21<sup>st</sup> 2010**

**A 13-a Conferință Națională a Societății Române  
de Ultrasonografie în Medicină și Biologie  
Sibiu, 22-23 Mai 2010**











640 x 480, 95 Hz  
640 x 480, 100 Hz  
800 x 600, 60 Hz  
800 x 600, 72 Hz  
800 x 600, 75 Hz  
800 x 600, 85 Hz

Show displays in menu bar

Lather Windows

Detect Displays

MEDICAL  
**ULTRASONOGRAPHY**

**DIPLOMA**

**DIPLOMA**



















  
**2011**  
**WFUMB**  
**EUROSON**  
**ULTRASCHALL**

  
 Connecting the world of ultrasonics  
**August 26 - 29, 2011**  
 Vienna, Austria

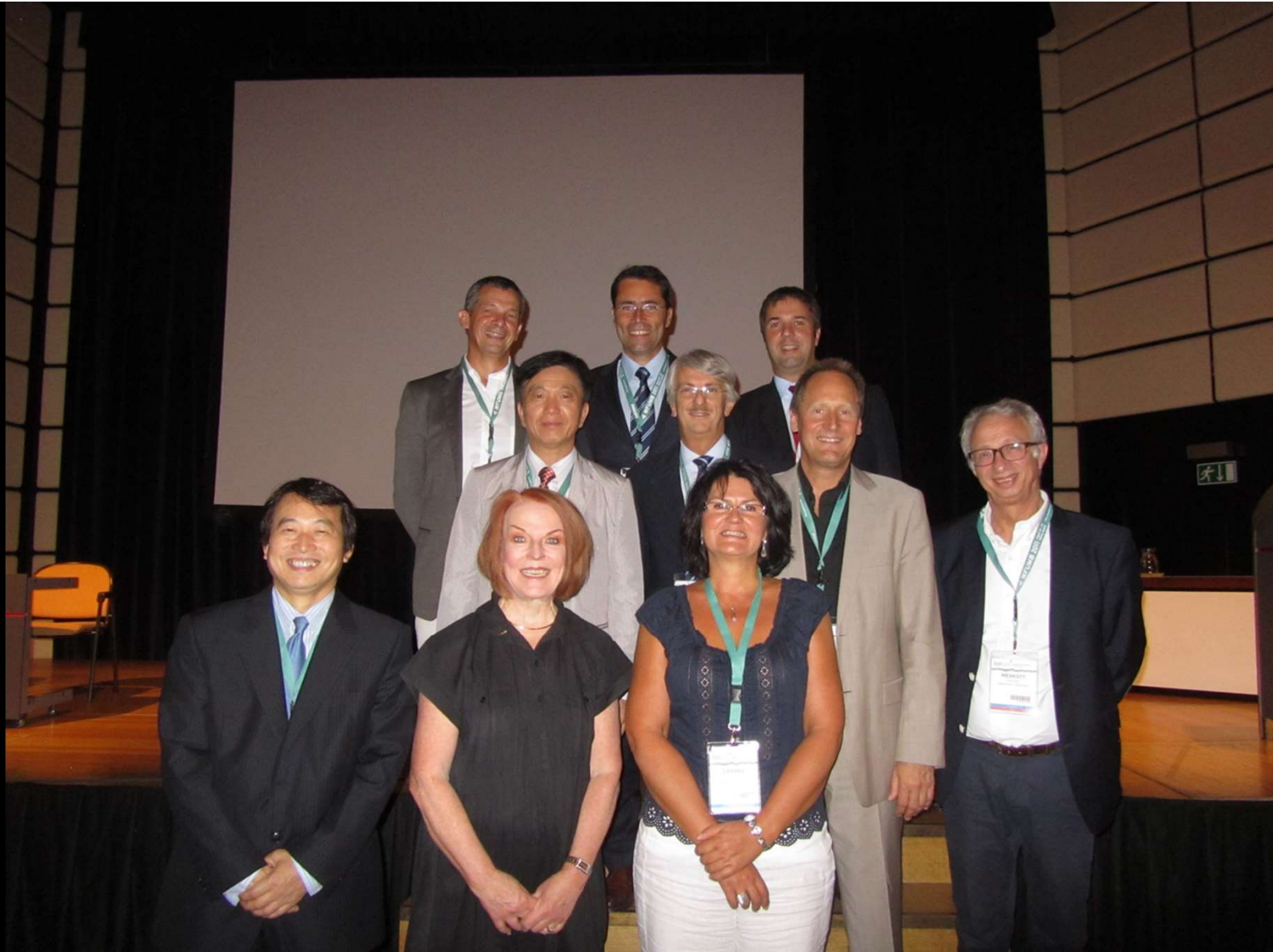
World's first & largest meeting of  
 ultrasonics professionals in  
 Europe and the world

Organized by the Austrian  
 Society of Ultrasonics  
 (ÖGUS) in cooperation with  
 the Austrian Society of  
 Medical Ultrasonics (ÖGUM)

Sponsors:  
 ÖGUS, ÖGUM, AUSTRIAN  
 SOCIETY OF MEDICAL  
 ULTRASONICS (ÖGUM)

www.wfumb.org







Michel Claudon  
WFUMB President  
2009-2011







# WFUMB 2013 - BRAZIL



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 International Meeting - JPR 2013  
Transamerica Hotel - Sao Paulo - Brazil

Brasilien erwartet Dich  
Erlebe ein neues Lebensgefühl

ICR 2012

EUROSON 2012









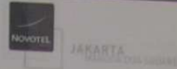








must Barito Room, 6<sup>th</sup> floor via 5<sup>th</sup> floor



**February 12<sup>th</sup>, 2011**  
*Welcome to All Participants*

**“Soho - Ethica Meeting 11 - 12 February 2011”**

08.00 - 12.00 wib  
Multifunction Room, 5<sup>th</sup> floor

**“Workshop Baca Kilat”**

08.00 - 17.00 wib  
Deli Belawan Room, 8<sup>th</sup> floor via 5<sup>th</sup> floor

**WFUMB - COE Workshop**  
**Perhimpunan Ultrasonik Kedokteran Indonesia**

08.00 - 18.00 wib  
Bengawan Solo Ballroom ABC, 5<sup>th</sup> floor

**Mastering Your Business and Destiny**  
**by**  
**iCOACH**

08.00 - 22.00 wib  
Asahan Kapuas Room, 6<sup>th</sup> floor via 5<sup>th</sup> floor







Jakarta World Federation for Ultrasound  
In Medicine and Biology Center of Excellence  
Jakarta WFUMB-COE  
INAUGURATION & WORKSHOP  
February 12-13, 2011  
Hotel Novotel - Jakarta





**6<sup>th</sup> Annual Meeting of The Indonesian Society of Oncology  
Novotel Mangrove Dua Sateles, February 12-15, 2015**

### CONTRAST-ENHANCED ULTRASONOGRAPHY (CEUS) OF THE LIVER

By Heng, H. (Chairman)  
\*Assistant in Radiology Department, \*\*Maha University Indonesia  
\*\*Lecturer Radiology Department, \*\*Maha University Indonesia

#### Background

Ultrasound is the most frequently performed imaging technique which is a low cost, safe and accessible imaging modality. Contrast enhanced ultrasound of the liver, using microbubble (CEUS). Characterization of focal liver lesions, is a new technique in sonographic field that improving accuracy of diagnosis.

#### Contrast agents for US

Perfluoropropane bubbles with a protein shell seen here against a background of red blood cells.

Lipid-coated microbubbles of perfluoropropane gas density. Lantheus Medical Imaging, Billerica, Mass. Most seen with a dark field microscope.

#### Principle of contrast agent targeting.

Previously, specific probes (antibodies, etc.) are specifically attached to US contrast agent microbubbles. The attachment of the antibody to the microbubble specific markers allow us to target to the tumor.

The microbubbles, when with the tumor, can be used to target to the target (tumor) by using specific antibodies, and allow us to see an enhanced tumor.

Schematic shows a general and theoretical approach for the diagnosis of contrast-enhanced focal liver lesions.

#### Hepatocellular carcinoma

#### Liver metastases

#### Conclusion

CEUS has recently been introduced and is recommended in daily routine under many circumstances, mainly in the detection and characterization of focal liver lesions and discriminate between benign liver-specific tissue and non-liver-specific tissue.

**References**

1. Kimura M, Kohno T. New approach to effective characterization contrast. The British Journal of Radiology 2004; 77: 1006-1014.  
2. Kimura M, Kohno T. Contrast-enhanced ultrasound in the diagnosis of liver metastases. The British Journal of Radiology 2004; 77: 1006-1014.  
3. Kimura M, Kohno T. Contrast-enhanced ultrasound in the diagnosis of liver metastases. The British Journal of Radiology 2004; 77: 1006-1014.

**6<sup>th</sup> Annual Meeting of The Indonesian Society of Oncology  
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Previously, specific probes (antibodies, etc.) are specifically attached to US contrast agent microbubbles. The attachment of the antibody to the microbubble specific markers allow us to target to the tumor.

The microbubbles, when with the tumor, can be used to target to the target (tumor) by using specific antibodies, and allow us to see an enhanced tumor.

Schematic shows a general and theoretical approach for the diagnosis of contrast-enhanced focal liver lesions.

#### Hepatocellular carcinoma

#### Liver metastases

#### Conclusion

CEUS has recently been introduced and is recommended in daily routine under many circumstances, mainly in the detection and characterization of focal liver lesions and discriminate between benign liver-specific tissue and non-liver-specific tissue.

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