



# Newsletter

## Marrakech, Berlin, Fukuoka

### Timetable Is Set For Future SIU Congresses

The Shanghai Congress is behind us now but we all owe Professor Sun and his team hearty congratulations on a wonderful meeting that combined scientific success with an interesting, exciting and historic venue that ensured all participants are already planning a return to Shanghai and China. We now must turn our attention to future congresses.

#### 2010: Marrakech, Morocco October 13-16

Marrakech is the site for our topic specific meeting on Lower Urinary Tract Dysfunction. I remind you all that this is our last topical meeting as our full congress becomes an annual event starting in 2011. This meeting is also the forum for two ICUD consensus meetings, namely urethral strictures and vesico-vaginal fistulae. The scientific committee under Paul Abrams, Gerry Jordan, and the late Dick Williams has put together a comprehensive program providing state-of-the-art lectures on overactive bladder, post-prostatectomy incontinence, neuro-urology, stress incontinence, male voiding dysfunction and urologic pelvic pain syndrome. There will also be surgical tips sessions as well as courses on urodynamics and vesico-vaginal fistulae.

Our local hosts under Professor Rabii and Professor Joual have also organized a day conference in conjunction with PAUSA – a perfect opportunity for all to

meet up with our African colleagues and perhaps gain some insight into local urological problems and issues.

Morocco was known as the Kingdom of Marrakech for many years, so do not miss the opportunity to visit this wonderful city and country – its history and sites will definitely fascinate. Many European cities offer direct flights to Marrakech. Alternatively, Casablanca is a short flight away, and is on many airline schedules. Easy access to Marrakech from Casablanca is also possible by train and car. The weather at this time of the year is moderate. Come visit the nearby Atlas Mountains, see the Ben Youssef Madrasa, the Koutoubia Mosque – the list is endless!

Get aboard the Marrakech Express (Crosby, Stills & Nash).

#### 2011: Berlin, Germany October 16-20

Our next full congress, and the first of our annual congress roster is Berlin – a city everyone must visit at least once in their lives. The beauty, history and cultural aspects of the city are legendary.

As this is a major congress the scope of urology will be covered during our time in Berlin. Hot topics can be expected in renal cancer, focal therapy of prostate cancer, and new innovations in bladder dysfunction to name a few. There will also be an ICUD consensus on prostate cancer presented at this meeting. A special his-

### *In this issue...*

**Obituary** Page 2  
Richard D. Williams:  
Friend and Colleague Will  
Be Deeply Missed

**SIU Lecture** Page 3  
Urethral Stricture Disease:  
Ancient Problem in Need  
of Modern Solutions

**New SIU Website** Page 5  
Redesigned Internet Presence:  
New Site Set to Be Appealing,  
Interactive, and Very  
Functional

**SIU World Meeting on LUTD  
Marrakech 2010:** Page 7  
Looking Forward to an  
Exceptional Meeting

**CAU Lecture, Shanghai 2009** Page 8  
Robotic Surgery in Urology:  
Current Experiences and  
Future Prospects

**International Consultation  
on Kidney Cancer 2010** Page 9  
**Localized RCC:**  
Active Surveillance, Minimally  
Invasive Technologies Can Be  
Alternatives to Surgery



Marrakech

continued on page 2

PICTURE: MICHAELA HATSCHEP/PIKELLO

Contributions for publication in future SIU Newsletters can be sent to Dr. Antonio Carlos Pompeo, Chairman of the Publications Committee (pompeuro@uol.com.br), or to Anna Johansen at the SIU Central Office (anna.johansen@siu-urology.org).

continued from page 1

torical session is promised and I am sure it will be a highlight of the meeting. Our Local Organizing Committee, chaired by Professor Margit Fisch, and our President Joachim Thüroff promise a vibrant and unique social program to support our educational and scientific efforts – our German colleagues wish to share a beer with us all.

### 2012: Fukuoka, Japan

This congress will be a special celebration. The Japanese Urological Association celebrates its centenary in 2012, so this meeting already promises extra excitement. We will keep you posted as the program develops. I can promise an experience that will not be forgotten – put it in your diaries now.

I look forward to greeting all my SIU colleagues and friends at our upcoming meetings. It is one the goals of the SIU to provide a forum for true international exchange, and being the only international urological society, no one does it better!

See you there! ■

*Dr. William J. Lynch, Sydney, Australia  
Congress Organizing Committee*



#### Printing

Société Internationale d'Urologie-Central Office  
1155 University Street, Suite 1155  
Montréal (QC) H3B 3A7, Canada  
Phone: (+1) 514 875 5665

Biermann Publishing Group  
Otto-Hahn-Str. 7 · D-50997 Köln, Germany  
Phone: (+49) 2236 376 0  
Internet: [www.biermann.net](http://www.biermann.net)

#### SIU Publications Committee Chairman:

Dr. Antonio Pompeo  
Rua Iguatemi: 192-3º andar  
01451-010, Sao Paulo, Brazil  
Phone: (+ 55) 11 3168 5311  
Fax: (+ 55) 11 3168 5311  
E-Mail: [pompeuro@uol.com.br](mailto:pompeuro@uol.com.br)

#### Editor-in-Chief Biermann:

Simone Kappler-Klinke  
Phone: (+49) 2236 376 450  
Fax: (+49) 2236 376 451  
E-Mail: [kap@biermann.net](mailto:kap@biermann.net)

#### Marketing:

Katrin Groos  
Phone: (+49) 2236 376 504  
Fax: (+49) 2236 376 505  
E-Mail: [kg@biermann.net](mailto:kg@biermann.net)

## Richard D. Williams, M.D., 1944-2010

### Colleague and Friend Will be Deeply Missed

Our respected colleague and friend, Dick Williams, Rubin H. Flocks Professor and former head of the Department of Urology at the University of Iowa, died on May 28th, 2010 following a brave fight against cancer.

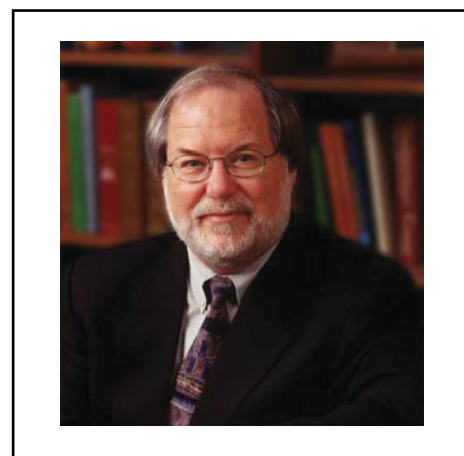
Dr. Williams was born on October 7th, 1944 in Wichita, Kansas, where he met and married the love of his life, Beverly Ferguson. Dr. Williams received his B.S. degree from Abilene Christian University in 1966 and his M.D. from Kansas University School of Medicine in 1970. He completed his Urology Residency at the University of Minnesota in 1976, after which he received research training as a National Kidney Foundation/American Urological Association fellow. Dr. Williams was selected chief of urology at the San Francisco Veterans Affairs Medical Center in 1979, and became assistant professor and chief of urologic oncology at the University of California San Francisco in 1983. Subsequently, he became the Rubin H. Flocks Professor and head of the Department of Urology at the University of Iowa, from 1984 until he stepped down earlier this year due to his declining health. His commitment to research aimed at improving patient care was central to his long and distinguished career.

Dr. Williams was the recipient of many honors and awards and served in a leadership capacity for numerous professional organizations, including the American Urological Association, American College of Surgeons, American Board of Urology, National Institutes of Health, the American Cancer Society, and the Société Internationale d'Urologie, among others.

He recently received the American Urological Associations 2009 Hugh Hampton Young Award for contributions to Urology as an educator, advocate for research and medical volunteer. Dr. Williams authored over 200 articles published in peer-reviewed journals, and served on the editorial board of many journals including *Urology*, *Urology*

*Times*, *Urologic Oncology*, and the *Journal of Cancer Management and Research*. He was most recently honored with the dedication of Operating Room 15 in his name at the University of Iowa Hospitals and Clinics.

Dr. Williams has also provided direct urologic surgical care to patients at the Hôpital Lumière in Haiti for more than 20 years. He coordinated teams of surgeons, anesthetists and other care providers to teach and operate, and arranged for pharmaceutical and device companies to donate supplies or fund



*Dr. Richard D. Williams*

his annual trips. For his work he won the International Volunteers in Urology Humanitarianism Award in 2005 and was recognized by the U.S. Department of Health and Human Services in 2009.

Dr. Williams was well known in the national and international research community for his efforts to develop a vaccine against prostate cancer. He was also widely recognized as an outstanding educator, training more than 70 residents and clinician scientists. Dr. Williams also was known to be a wise and influential mentor to faculty and others, thus seeding the urologic community with many leaders.

Our deepest sympathies to Dr. Williams' spouse Beverly and his family. His warmth, wisdom and kindness will be greatly missed by us all. ■

# Urethral Strictures: Ancient Problem in Need of Modern Solutions

SIU Lecture at the Urological Society of India Congress, Agra, February 3rd-7th, 2010

One of the first descriptions of urethral stricture disease is found in the Sushruta Samhita, a Sanskrit text on all the major concepts of ayurvedic medicine, attributed to Sushruta, a surgeon who flourished in the Indian city of Kashi by the 6th century BC. The text is thought to date to the 3rd or 4th century AD. Chapter 20 discusses, among other things, the treatment



Prof. Chris Heyns

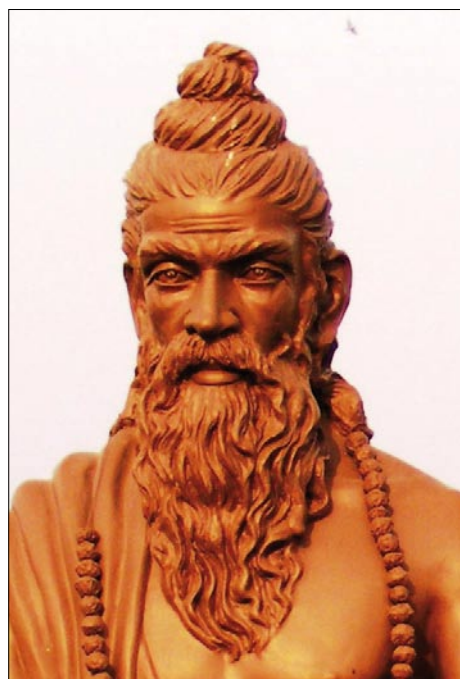
of “retroflexion of the prepuce” and “constriction or stricture of the urethra”.

Dilatation is described as follows: “a tube, open at both ends, made of iron, wood, or shellac should be lubricated with clarified butter and gently introduced into the urethra. The marrow or lard of a boar, or of a porpoise, or the Chakra-taila, mixed with Vayu-subduing drugs should be sprinkled over the affected part. Thicker and thicker tubes should be duly introduced into the urethra every third day. The passage should be made to dilate in the aforesaid manner, and emollient food should be given to the patient.” Open surgery for urethral stricture is also described: “As an alternative, an incision should be made into the lower part of the penis, avoiding the sevani (raphe of the perineum) and it should be treated as an incidental ulcer.”

The history of “minimally invasive” treatment of urethral stricture disease spans many centuries, from Ancient Egypt, where strictures were dilated using reeds, to modern-day China, where a recent paper described the use of stainless steel chopsticks for self-dilatation (Lin YH et al. J Chin Med Assoc 2006).

The past century has witnessed the transformation of urology from a specialty relying on major open surgery, to one increasingly reliant on endoscopic and minimally invasive modalities. This is evidenced by the rapid proliferation of

acronyms, creating a veritable alphabet soup: from earlier procedures such as TURP and TURBT, through ESWL and PCNL, to the more recent RIRS, RALRP and LESS.



Statue representing Sushruta, the “Father of Surgery” in India

However, contrary to this trend, it was recently suggested that urethral stricture should now be regarded as “an open surgical disease”, in view of the failure of minimally invasive modalities (Morey A, J Urol 2009).

For those of us who enjoy doing open surgery, this is good news. One is reminded of the story about the surgeon who was awakened one night by a bright light in his room. Next to his bed was a man dressed in a white robe. “Who are you?” the surgeon asked. “I am the angel Gabriel” came the reply. “Very glad to meet you,” said the surgeon, “I have always wondered what heaven is like, and perhaps you can tell me, will there be operating in heaven? Because, you know, I do so love to operate.” “Yes,” said the angel, “there will be operating every day of the week.” “That is good news indeed,” said the surgeon, “because, you know, I do

so love to operate.” “Well,” said the angel, “then you will be happy to hear that your first list is tomorrow morning.”

The objective of dilatation has always been to stretch the scar tissue without inducing more scarring. The earliest proponents pointed out that forceful dilatation until bleeding occurs implies that the stricture has been torn rather than stretched, which would simply cause more fibrosis. This led to the dictum “The skill of the urologist is measured by his gentleness.”

Internal urethrotomy has been practiced for more than 150 years, since the description by Maisonneuve in 1855. However, blind insertion of a urethrotome was always risky, and the instrument can not be used for extremely narrow strictures. An important advance occurred when Sachse in the 1970’s described direct vision internal urethrotomy (DVIU) for precise and controlled incision of even narrow strictures.

In view of the increasing demand for “evidence-based medicine”, it remains surprising that there are so few clinical trials comparing the results of dilatation and DVIU. Stormont et al. reported a retrospective, non-randomized study of men with short, single bulbar strictures, where the success rate at 3 years was 65% for dilatation and 68% for DVIU (Stormont et al. J Urol 1993). Steenkamp et al. reported a prospective, randomized clinical trial comparing dilatation with DVIU, in which the recurrence rate at 48 months was not significantly different (Steenkamp et al. J Urol 1997).

For a disease as ancient as urethral stricture, it is surprising how little research on its etiology and pathogenesis has been published, especially compared to the vast amount of literature on the acquired immunodeficiency syndrome (AIDS) which was first described in 1981, and the human immunodeficiency virus (HIV), which was only identified in 1986. The life-cycle of this virus has been dissected in great detail at the molecular level. Information on the biochemistry of viral replication has been used to de-

continued from page 3

velop a variety of anti-retroviral drugs – currently more than 20 are available. Antiretroviral therapy (ART) has transformed HIV infection from an almost invariably fatal disease to a chronic condition with a possibly normal life expectancy.

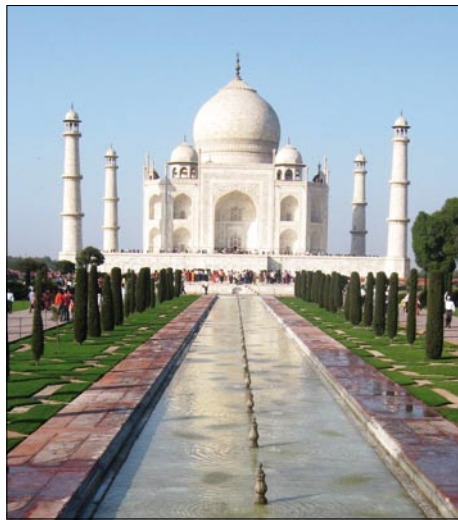
In contrast to the vast amount of detailed information available on the HIV life cycle and the pathogenesis of AIDS, there are very few comparable studies on urethral stricture disease. Histological studies in the 1970s showed abundant smooth muscle and elastic tissue in post-inflammatory strictures, and mostly dense collagen in post-traumatic strictures (Singh M, Scott TM, Br J Urol 1975). There are very few ultrastructural investigations of urethral stricture tissue in the literature (Singh M, Blandy JP, J Urol 1976; Scott TM, Foote J, Urol Int 1980).

Biochemical studies on the molecular components of urethral stricture tissue are equally rare (Baskin LS et al. J Urol 1993). One study indicated that total collagen content is not increased, whereas type I collagen is increased, with a corresponding decrease in type III collagen. It was suggested that this alteration in the ratio of collagen type III:I may explain the noncompliant nature of urethral stricture tissue.

An immunohistochemical and molecular assessment suggested that mesenchymal changes caused by tissue de-epithelialization may lead to abnormal fibroblastic activation with formation of over-abundant, hyperdense collagen scar tissue (Morgia G et al. Urol Res 2000).

A histological study of extracellular matrix changes showed that total glycosaminoglycans (GAG) concentration in strictures was significantly lower than in controls. Hyaluronic acid decreased and dermatan sulfate increased, but there were no significant changes in heparan sulfate or chondroitin sulfate in strictured urethras (Da-Silva EA et al. J Urol 2002). Another study reported high levels of tissue inhibitor of metalloproteinase-1 expression and low collagenase activity in urethral scar tissue, indicating that inhibition of collagen degradation may be an important cause of scar tissue hyperplasia (Huang X et al. 2003).

A study of neuronal (n) and inducible (i) nitric oxide synthase (NOS) activity in the strictured urethra showed that nNOS immunoreactivity was decreased, and the severity of spongiofibrosis corresponded to the loss of nNOS. iNOS activity was found in strictured urethral epithelium but not in normal controls, indicating that abnormal collagen synthesis may be stimulated by inappropriate iNOS activity (Cavalcanti AG, J Urol 2004).



Taj Mahal

Another study of the extracellular matrix features of urethral strictures showed complete loss of the relationship between smooth muscle, extracellular matrix and sinusoids in the peri-luminal area, with collagen replacement. There was a lower vascular density in traumatic compared with non-traumatic strictures, and fewer elastic fibres in strictures compared with normal urethra (Cavalcanti AG et al. BJU Int 2007).

The main problem with dilatation or DVIU is stricture recurrence. The use of intralesional injection of hydrocortisone or triamcinolone after DVIU to prevent recurrence dates back to the mid-1960s (Göthlin G, Akerlund E, Acta Chir Scand 1965). Other methods include triamcinolone instilled intraurethrally, or clean intermittent catheterization with triamcinolone ointment for lubrication of the catheter.

Hydraulic self-dilatation is performed by the patient compressing the urethra intermittently during micturition, in the hope that it will prevent recurrence (Mar-

shall S, J Urol 1971). Intermittent “low-friction” self-catheterisation may reduce the incidence of recurrence, but must be continued for at least a year to achieve adequate urethral stabilization (Lawrence WT, J R Soc Med 1988). Complications may occur in up to 50% of cases.

A more radical approach is TUR of all scar tissue after DVIU (Guillemin’s technique). A randomized study of patients with single, short bulbar strictures showed that it reduced recurrence from 75% to 30% (Giannakopoulos X, Urology 1997). Endo-urethroplasty involves tying a skin graft to a Foley catheter positioned with the graft over the raw area where DVIU has been performed. However, movement between the graft and its bed compromises graft take, and the results have not been very good (Pettersson BA, Br J Urol 1978).

The use of a urethral endoprosthesis (stent) to prevent recurrence following DVIU has achieved limited success, with relatively high complication rates. Various materials have been tried, varying from expandable nitinol stents to bio-absorbable poly-L-lactic acid and biodegradable stents seeded with autologous urethral epithelial cells (El-Abd SA, J Urol 1995).

Drugs used to prevent stricture recurrence include beta-aminopropionitrile, which inhibits the synthesis of connective tissue. However, studies in humans were discontinued because of toxicity (Peacock EE, Am J Surg 1978). Lanreotide, a somatostatin analogue, had no measurable effect on the development of surgically induced strictures in rabbits (Andersen HL, Urol Res 2003). Halofuginone, a potent inhibitor of collagen gene expression, limited stricture recurrence in experiments conducted in rats and rabbits (Nagler A, J Urol 2000; Jaidane M, J Urol 2003). A recent study indicated that installation of 0.5% captopril gel intraurethrally after DVIU may decrease the recurrence rate (Shirazi M, Int J Urol 2007).

Catheter-based intraurethral brachytherapy with iridium192 or rhenium188 has been reported as a safe and effective treatment for recurrent urethral strictures (Sun YU, J Endourol 2001; Shin JH, J Vasc Interv Radiol 2006). Mitomycin

C, which inhibits fibroblast proliferation, has been used for urethral irrigation or as submucosal injection after DVIU (Ayyildiz A, Int J Urol 2004; Mazdak H, Eur Urol 2007). Local delivery of paclitaxel via covered stents to reduce tissue hyperplasia has been studied in a canine model (Shin IH, Radiology 2005).

Tissue engineering and gene therapy techniques have been studied in a rabbit model, with viral transfer of a nucleus-targeted beta-galactosidase reporter gene (Meria P, BJU Int 2000). Since adequate blood supply is a key factor for successful urethral tissue reconstruction, vascular endothelial growth factor (VEGF) gene therapy may be a suitable approach in tissue engineering for treatment of urethral damage (Guan Y, Artif Organs 2008). Traditional medicines that have been tried in small studies are Chinese tablet



Patrick C. Walsh

Fu Kang and Japanese Sairei-to, but the results are inconclusive (Mo J, Zhong Yao Cai 2004; Tozawa K, Hinyokika Kyo 1998). Currently, there are several urological conditions where surgery has been replaced by medical therapy, e.g. BPH (prostatectomy vs. alpha-blockers and 5-alpha reductase inhibitors), ED (penile prosthesis vs. phosphodiesterase-5-inhibitors and prostaglandins), prostate cancer (bilateral orchidectomy vs LHRH-agonists). Therefore, it is contradictory that urethral stricture should remain a condition in which open surgery is considered the only solution.

In the early 1980s, before effective medical treatment for BPH was available, a great deal of research was conducted on the etiology and pathogenesis of BPH. One of the investigators who first identified 5-alpha-reductase and described its

role in BPH, was Patrick C. Walsh from Johns Hopkins Hospital. During a visit to Johns Hopkins in 1984 to observe Walsh perform his newly described nerve-sparing radical prostatectomy, I heard him make the statement: "Whoever discovers a pill for BPH may win the Nobel prize, but he will never become president of the AUA".

For most of us, as urologists who enjoy performing open surgery, it may be rather bad news if effective medical treatment becomes available that will prevent stricture recurrence after dilatation or DVIU. It is probable that a great deal of research will be required before this becomes a reality. However, there is little doubt that it will be very good news for many patients if a truly effective modern solution becomes available for the ancient problem of urethral stricture disease. ■

*Prof. Chris Heyns, Stellenbosch University and Tygerberg Hospital, South Africa*

# MARRAKECH 2010



## SIU World Meeting Lower Urinary Tract Dysfunction

October 13-16, 2010



featuring the  
ICUD Consultation on Urethral Strictures  
and the

International Consultation on Vesico-Vaginal Fistulae  
Marrakech, Morocco ~ Mansour Eddahbi Palais des Congrès



**Future  
Congresses**

**2011 Berlin**

**2012 Fukuoka**

**2013 Vancouver**

[www.siucongress.org](http://www.siucongress.org)

## New SIU Website to Launch in September

### SIU Members Invited to Submit Ideas to Improve and Enrich Online Interaction

#### The Project

The project of redesigning the SIU “corporate” website stemmed from three related observations:

1. It was recommended as a tool to meet several of the objectives outlined for the Society by the strategic plan devised in May 2008, including:

- To enhance SIU visibility in the world of urologic associations, notably but not restricted to a focus on the Training Institutes and Fellowship Programmes
- To show the image of a dynamic society that evolves with its environment
- To give back added value to members
- To intensify recruitment of new members



*Prof. Reynaldo Gómez*

2. The need to improve communication between members of the Board of Chairmen, the various SIU Committees, and the National Delegates

3. The need to house a “members-only” portal that would provide online educational materials and other Society services.

The process of redesigning the website entailed rethinking the structure and the navigation. We found we had far too many menu items, and far too much text, which is why we undertook to rationalize the key elements and edit the content down to the essentials. Our focus is to make the website the “hardcover” of our Society, therefore we:

- Focus on a graphically vibrant site, plenty of photos and visuals illustrating the wide diversity of our global urological community, of which we – the SIU – are the only genuine representatives
- “Brand” the SIU by putting faces to names, and circulate the names of world experts who are SIU members and contributors

Our focus for this website is to keep it:

- Current
- Informative
- Relevant

In a recent survey on the Society’s journal, a substantial number of responders requested an online video resource. Moreover, we feature video sessions in all our meetings. Videos thus constitute very valuable material of which we really need to take proper advantage. For this reason, the SIU is filing a partnership with a video-portal named iClinics.

iClinics is a private and non-profit initiative now online hosting more than 250 high quality videos. This website is the world’s first high-definition surgical video site. It uses “cloudspace” technology which spreads the computing all around and speeds throughput, so it is very fast. This video site is designed so that anyone can see the videos, but it is necessary to register and log in to upload them. Very importantly, the authors do not lose their copyright to the videos uploaded on the site, and retain full credit for their work. iClinics will become the official SIU online video resource and will be available to SIU members through the new website. We are sure that this new feature will provide valuable and easily accessible educational materials for urologists around the globe.

#### The Structure

The “look” of the website was totally changed. The new homepage is appealing and attractive, as well as very functional providing easy access to all areas of the site. In terms of structure, the site will have four domains or zones, each with its specific tools and resources for their respective users:

##### GENERAL (NON-MEMBER) ZONE

- Calendar of urological and related meetings around the world
- Position profile of the members of the Board of Chairmen, his/her role and responsibilities, members of his/her committee, etc.

- Features on scholarships and training centres
- Polls to generate interest
- “Subscribe To” feature, allowing non-members to receive the Newsletter or request a copy of a Congress brochure (print or electronic); this could be broadened to include other items or services
- Suggestion box
- Access to Congress webcasts for 12 months
- In 2011, a “request for bid submission” form will be posted in the (non-restricted) “National Delegates” section of the website; this form is a valuable tool that will allow us to quantitatively and qualitatively compare cities interested in hosting an SIU Congress
- **MEMBER ZONE**
- Access to personal data and ability to modify profile
- Online dues payment
- Access to *Gold Journal*
- Access to member directory
- Access to streaming video and slide-shows from SIU library
- Access to our video library (iClinics)
- Ability to conduct and respond to polls restricted to members
- Suggestion box
- **BOARD OF CHAIRMEN ZONE**
- Position profile: putting a face to a name and providing a space in which each Chair can highlight his/her role and responsibilities, present his/her committee members, etc.
- Online, real-time communication (similar to MSN Messenger)
- Skype teleconferencing
- WebEx (tools for on-demand meeting or webconferencing)
- Online posting feature (classified ads)
- Suggestion box
- Powerpoint slide libraries of SIU and Congress logos, SIU facts and figures, training centre locations, etc. for use at meetings
- **NATIONAL DELEGATE ZONE**
- Simple communication tools for National Delegates to contact the members in their SIU national sec-

tion and with the Board of Chairmen members

- Online posting feature (classified ads)
- Suggestion box
- Powerpoint slide libraries of SIU and Congress logos, SIU facts and figures, training centre locations, etc. for use at meetings

### On the Horizon

The design team is constantly watching trends and will continue to improve the website based on the comments we receive and any new features we feel would be useful to our visitors. We would like to make this website a clearinghouse of information, in such a manner that anyone looking for answers will think of consulting the

SIU website first.

I am counting on all of you to give me feedback on improvements that you feel ought to be made. All members of the Board of Chairmen are committed to this task. It is also imperative for us to incorporate the very active collaboration of our National Delegates. The National Delegates are the backbone of our institution, and we expect they will



assist us in building a network of national urological societies around the world. In this effort, our website will play a key role. We invite all SIU members to visit our website frequently and submit you ideas to improve the website and enrich our online interaction. ■

*Prof. Reynaldo G. Gómez, Hospital del Trabajador, Santiago, Chile*  
 Chairman, Internet & Telecommunications Committee; [internet@siu-urology.org](mailto:internet@siu-urology.org)

## Marrakech 2010: SIU World Meeting on LUTD

### Final Preparations Underway

While many of us are enjoying our summer holidays, the SIU Central Office in Montreal is stepping up its activities to launch final preparations for the upcoming SIU World Meeting on Lower Urinary Tract Dysfunction, an international gathering of experts that will take place October 13-16, 2010, in beautiful Marrakech, Morocco. In close collaboration with our Local Organizing Chairs, Professors Redouane Rabii and Abdennabi Joual, along with our local partners Activ'Travel, the SIU Central Office will deliver to its members and guests a scientific and social programme that will be remembered many years hence.

An impressive faculty from many regions has been assembled by Professor Paul Abrams and the late Richard D. Williams, scientific co-chairs of the Meeting. All the invited speakers are world experts on their respective topics, be it post-prostatectomy incontinence, overactive bladder, benign prostate obstruction, chronic pelvic pain syndromes, stress urinary incontinence, neuro-urology, and vesicovaginal fistulae.

On Wednesday, October 13th, PAUSA, the Pan-African Urological Surgeons' Association, will host a one-day symposium

featuring representatives from many African nations giving us their diverse perspectives on the urological issues facing their colleagues. We have also included courses on both VVF and Urodynamics, as these were designated as being of particular interest to attendees in this region.

Close to 500 abstracts were submitted and reviewed, a fantastic number for a topical meeting of this scope. Regrettably, it was not possible to include everything on the program, so only the most relevant abstracts will be presented at the Meeting. We thank all submitting authors for their interest in taking part in an SIU scientific meeting.

What's more, the Meeting has applied for continuing medical education accreditation and, pending approval, will be able to offer Category 1 credits to attendees.

This brief update report would not be complete without a few words on our magnificent host city, Marrakech. If you have not yet booked your accommodation, we urge you to do so quickly, as Marrakech is a vibrant city of festivals and world-calibre events that attract visitors year-round. For our traditional SIU Night (Thursday, Oct. 14th), our hosts have chosen as a venue Dar Soukkar, which as its

name implies, is a converted sugar refinery now hosting prestigious events of all types. The evening will be nothing short of breath-taking and something all registered delegates and accompanying persons can enjoy. Friday's ticketed evening is the SIU Moroccan Night, a thousand-and-one-nights theme with a huge palm grove as a backdrop. Under authentic Berber tents, guests will be treated to a genuine Moroccan feast beneath the stars. Here as well, the entertainment and beautiful décor will conspire to create a truly unforgettable experience.

For those of us with a little time to spare, we strongly recommend booking a Moroccan adventure with our knowledgeable partners at Activ'Travel, who will tailor excursions to suit all travelers, both around Marrakech and beyond, among the stunning landscapes and awe-inspiring vistas that this vast and friendly country has to offer.

For more information on the SIU World Meeting on LUTD, visit our website on [www.siucongress.org](http://www.siucongress.org)

We hope to see you there in large numbers for this last topical Meeting of the SIU. Let us make it an event to remember. ■

# What is the Present and Future of Robotic Surgery?\*

## More Than 70,000 Robotic Radical Prostatectomies Performed To Date

### Robotic surgery today

It is interesting to point out that the robots that are currently utilized clinically are, in fact, not technically considered robots according to the FDA. This is because a true robot is an automatic machine, whereas the robots used in clinical practice are actually master/slave units, as the operating unit is merely transmitting what the surgeon is doing on the console.



Prof. René Sotelo

There is no question that the 3D visualization as well as the degrees of freedom of the instruments simplify advanced laparoscopic procedures and allow novice laparoscopic surgeons to perform complicated surgery.

Da Vinci surgical systems have been installed all around the world. In the USA there are more than 900 systems, and they are utilized in numerous specialties, not only urology. To illustrate what can be done in general surgery, Woong Youn Chung from Yonsei University, South Korea, has performed more than 600 robotic thyroidectomies through a small incision in the axilla, Woo Jin Hyng performed more than 100 robotic gastrectomies, and Prof. Giulianotti has reported eight robotic pancreatectomies.

In urology, there is a long list of procedures performed, and basically everything that has been done laparoscopically has been duplicated with the robot. More than 70,000 robotic radical prostatectomies have been performed. The adaptation over the last five years has demonstrated that this procedure will stay and likely replace the open approach, just as laparoscopic cholecystectomy replaced the open approach. This is due to many reasons: it is minimally invasive, easier to learn than laparoscopic surgery, and there are strong marketing forces. To date, there is no evidence that it is better, but the patients prefer it. The robotic results at centers

of excellence appear equivalent to the results of the open approach in expert hands, but with the advantages of the minimally invasive approach.

The learning curve for the robot is shorter than for laparoscopy, but it exists. In laparoscopy, the coordination is between the optics and the hand. Robotics requires hand, optic, and foot coordination. Many surgeons have recognized that more than 300 cases are needed to reach the optimal results of the trifecta. With increasing experience it appears the results consistently improve. The fact that outcomes seem to improve with experience explains why some of the collective robotic data from many surgeons at different levels on the learning curve found higher rates of positive margins, and need for adjuvant radiotherapy. The complications of open radical prostatectomy – for example rectourethral fistula in reports of Medicare are 1% – are much higher than that seen at centers of excellence. Reports of positive margins and blood transfusion are significantly higher in non-referral centers.

The robot provides magnification and precision, but the final results depend on how the surgeon operates the machine. The same frequency of complications are reported for laparoscopic and robotic surgery.

### What is the future?

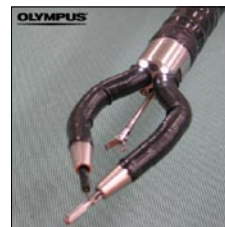
There are some plans to create minirobots. For example, the University of Nebraska AB1 robot has stereoscopic view, with one grasper and electrocautery on the other hand. They have performed small bowel surgery with this robot. There are also some mobile robots that climb various organs and walk over the small bowel, of course not yet for clinical use, but it is the beginning.

Cadeddu et al. have developed a camera with a magnet anchoring it to the abdominal wall internally, controlled with a magnet outside the abdomen. Currently this camera needs cables and a light source, in the future it will be wireless. They have also worked on a retractor and an electro-

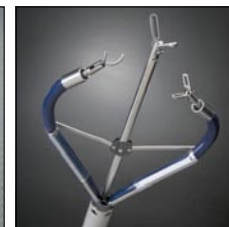
cautery dissector controlled from outside the abdomen.

Robotic hybrid NOTES and single port surgery is very difficult with the current Da Vinci system, as this robot was not designed for this application. The arms clash and the ports are not designed for these approaches. There are other platforms for endoluminal surgery, such as the Endosamurai from Olympus, or Anubiscope from Storz, that perhaps in the future will be used for LESS or NOTES. There have been many attempts to create laparoscopic instruments that articulate distally, to facilitate suturing, trying to simulate the freedom of movement of the Da Vinci robotic system, initially introduced by Endocambridge. More recently the Spider was introduced, a very interesting platform for LESS and standard laparoscopy. Intuitive Surgical is developing the prototype of a system for single port surgery.

Another area of interest is the development of 3D scopes. The prototype is the endoeye, that has one chip in the tip. The concept is a scope with 2 chips in the tip,



Endosamurai



Spider robot

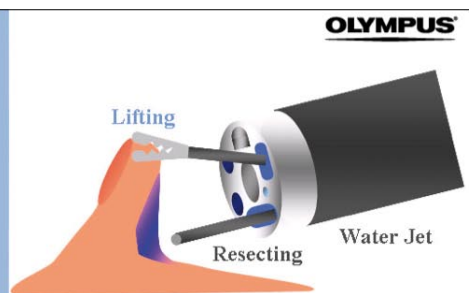
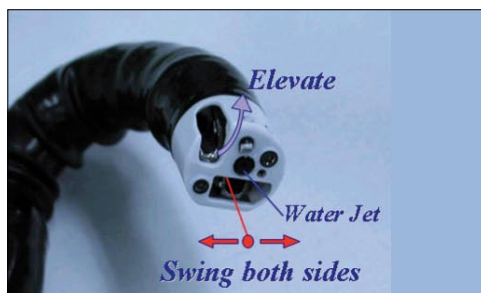
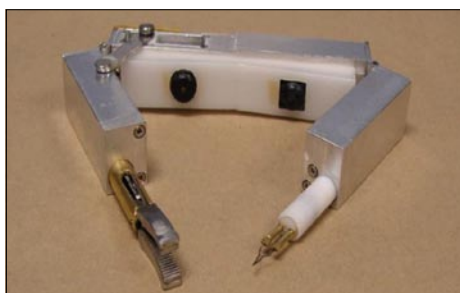


Intuitive Surgical single-port robot



and with 3D monitors and special glasses providing 3D view in standard laparoscopy, delivering the advantage that has been demonstrated by the Da Vinci system.

Flexible robots: there is one platform that has been created for cardiovascular purposes. Desai et al. has adapted and used this for ureteroscopes and did clinical



cases of laser uretero-lithotripsy. The scope is controlled by a robotic flexible sheet that places it in the appropriate position.

The German Space Center is working on new robotic arms that are smaller, with 7 joints. They are comparable to the human arm, weighing 10 kg and possess a maximal arm length of 1.1 m. In the future, additional reduction in the size, and improvements in the shape and flexibility of the robots are needed. There is a need to create tactile feedback. To argue that the view and degrees of freedom are so perfect that you do not need tactile feedback, is like arguing that the laparoscopist does not need 3D visualization. I believe that any sense that you add to the system duplicating the open environment, where you use all your senses, will decrease the learning curve and

increase the precision, as the actual system did in comparison to standard laparoscopy with addition of 3D vision and movement of the tip. Another limitation of open as well as robotic surgery is that what we see is limited to the surface of the organs. In the future there will be a need to see under the surface and integrate the images in real time. In the future we will have integration inside the OR so that we can see both images in real time. Tilepro is what we have now, where we can see at the same time on the screen, but only as two separate images that are not integrated.

Gill et al. have used real-time transrectal ultrasound during laparoscopic radical prostatectomy, augmented reality with trackers in ultrasound and in the scope and instruments. The camera in the room

integrates the images and superimposes the neurovascular bundles onto the video screen during surgery. Another group from Hitachi University are integrating the previous MRI transrectal images, superimposed into real time transrectal ultrasound. This helps to perform precise biopsy guided with ultrasound in the exact area that was suspicious on the MRI. Optical coherence tomography and laparoscopic microscope probes will help to identify tissue. The future will likely be with percutaneous ablation, or with surveillance of the cancer, recognizing that the patient may die with the cancer, not because of the cancer. ■

\* CAU Lecture - SIU MEETING, Shanghai, 2009

*Prof. René Sotelo, Instituto Médico La Floresta, Caracas, Venezuela*

## Treatment of Localized Renal Cell Carcinoma

### PN, Cryoablation, RFA and AS Are Viable Approaches to the Management of Small Renal Masses

This report gives a summary of the conference given on the ICUD-EAU International Consultation on Kidney Cancer at the 25<sup>th</sup> Annual EAU Congress in April 2010 in Barcelona. Currently, more kidney tumors are detected incidentally because of the widespread use of improved abdominal imaging techniques. This has resulted in an increased incidence of renal cell carcinomas (RCC) over the last three decades. There is controversy on the mortality rates of RCC. Current treatment should be reassessed. Today, the standard of care for clinically localized RCC is nephron-sparing surgery (NSS) because of the durable oncologic outcome and overall survival. Active surveillance (AS) and minimally invasive ablative technologies have emerged as potential alternatives to surgery in selected patients. In this report, we de-

scribe the current treatment options for localized RCC.

#### Partial and radical nephrectomy

Historically, radical nephrectomy (RN) was the standard treatment for localized RCC. During the last decade the status of RN has been called into question because of higher risk of chronic kidney disease (CKD) and possible overtreatment of small renal masses (SRMs) with a significant proportion of benign tumors (up to 20%).

In recent years, partial nephrectomy (PN) has become the standard surgical treatment for T1a tumors (< 4 cm) and an emerging standard treatment for T1b tumors (4 to 7 cm)

provided that the operation is technically feasible (Grade B). PN for clinical T1 tumors provides equivalent local tumor control as RN, while minimizing development of new-onset CKD or worsening of existing CKD (Grade B). Any tumor-free surgical margin following PN appears sufficient to prevent local recurrence and disease progression from RCC (Grade B). The rationale for wider use of NSS is based on data that demonstrate equivalent cancer control with RN and superiority of PN in preserving renal function. At present, PN is still an underutilized approach and widespread training is necessary. In centres with minimally invasive expertise, laparoscopic PN (LPN) is now a routine procedure which can provide faster



*Prof. Hein van Poppel*

continued from page 9

convalescence. While initial LPN reports were associated with somewhat longer ischemia times and increased risk of post-operative hemorrhage compared to open PN (OPN), ischemia time, complications, and renal function have improved significantly in contemporary practice. The overall complication rate decreased from 29.6% to 16.9% in a recent study that compared LPNs performed between 1999 to 2002 and 2003 to 2006 and appears now comparable to that of contemporary OPN series. Saving nephrons remains the most important goal. Warm ischemia time should be kept within 20 min and cold ischemia with ice slush ideally within 35 min. A recently suggested "early unclamping" LPN technique where only the initial suturing is carried out under ischemia, with the remainder of bolstered renorrhaphy carried out in the revascularized kidney, significantly reduced ischemia time by 50% (13.9 vs. 31 min,  $P < 0.0001$ ). OPN remains the first NSS treatment option in many centres with a lower caseload and without advanced laparoscopic expertise. Preliminary results with robotic PN are comparable to results obtained with LPN.

RN remains a viable option in cases when PN is not technically feasible. When RN is required, laparoscopic RN (LRN) should be considered. It is associated with low morbidity and faster return to normal activities, given adequate surgeon expertise. Therefore, LRN should be the standard of care for T1 and T2 tumors, provided that it is performed in an advanced laparoscopic centre by an experienced surgeon and NSS is not applicable (Grade B).

### Thermal ablation

Established ablative techniques include cryoablation and radiofrequency ablation (RFA), both of which can be performed open, laparoscopically, or percutaneously. Cryoablation causes tumor destruction by rapid freeze and thaw cycles. RFA causes tumor coagulation by converting the radiofrequency waves to heat, resulting in thermal tissue damage.

At this time there is insufficient long-term data available to make ade-

quate comparisons between ablative techniques. Therefore ablative therapies should be reserved for carefully selected high surgical risk patients with SRMs  $< 4$  cm (Grade C). Percutaneous tumor core biopsy with or without fine needle aspiration should always be perfor-



Figure 1: Multifocal papillary RCC



Figure 2: After partial nephrectomy and ablation of multiple small satellite tumors

med prior to ablation to define histology. Posttreatment biopsies may be necessary when recurrence or incomplete ablation is suspected. Patients should be informed about the slightly increased risk of local recurrence and the potential need for retreatment when compared to surgical excision. Counselling should further include the absence of established radiographic measures of post-ablative success, the long-term radiographic surveillance after ablation, the potential for difficult surgical salvage therapy due to perinephric fibrosis if tumor progression develops, and the substantial limitations of the existing literature on thermal ablation. Larger tumors ( $> 3$  or  $4$  cm) and those with irregular form or infiltrative growth pattern may be associated with increased risk of recurrence when treated with ablative techniques.

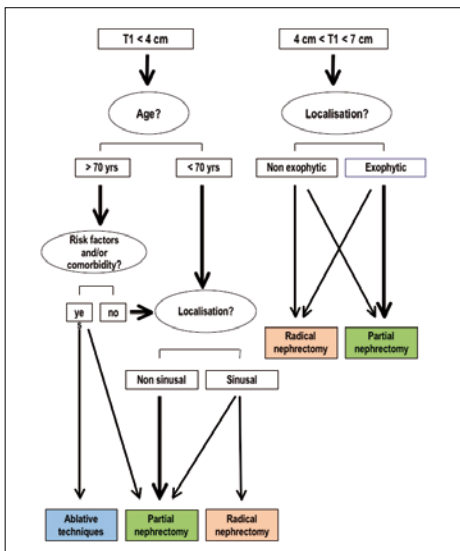
Several groups have shown 3-year and 5-year CSS after laparoscopic cryoablation to be 98 to 100% which is equivalent to the 5-year CSS (100%) in

a recent LPN report. CSS rates of cryoablation and RFA are relatively similar. A meta-analysis of retrospective studies compared the outcome of RFA (94% percutaneously) and cryoablation (65% laparoscopically). Patients treated with RFA required re-ablation more frequently than those treated with cryoablation (8.5% vs. 1.3%). Incomplete treatment and re-ablation after percutaneous RFA is more commonly acceptable since re-treatment is easier to perform. Compared with RFA, cryoablation was associated with a lower tumor progression rate (5.2% vs. 12.9%) and less metastases (1.0% vs. 2.5%). In another meta-analysis cryoablation was associated with lower rates of local recurrence and metastatic progression (4.6% vs. 11.7% and 1.2% vs. 2.3%) compared with RFA. A multi-institutional review revealed that complication rates for cryoablation and RFA were 13.7% (minor 12.2%, major 1.4%) and 8.3% (minor 6%, major 2.2%), respectively. Several studies have demonstrated that cryoablation or RFA have minimal impact on renal function.

### Active surveillance

SRMs are not uncommonly detected in elderly patients or those with significant comorbidities. These patients have a higher risk of perioperative mortality and morbidity after treatment and a limited life expectancy that often appears to exceed the risk of cancer progression. Moreover, a significant number of SRMs ( $< 4$  cm) are benign (20%) when biopsied or removed. Even when those SRMs are confirmed to be RCC, data of AS series show that most have slow growth rates and have little tendency to metastasize, at least in the initial years. These issues are important arguments to support an initial surveillance period for selected patients and reserve treatment for progression. Several studies have shown increased aggressive potential of renal masses with a diameter  $> 3$  cm.

Active surveillance should be a first treatment option for SRMs  $< 4$  cm in unfit patients or those with limited life expectancy (Grade C). Delayed intervention should be restricted to tumors that show fast growth during AS (Grade C). Patients should be informed about the small but



non-negligible risk of tumor progression during the observation period, possible loss of the opportunity for NSS, lack of curative salvage therapies if metastatic disease develops, limitations of renal mass biopsy, lack of long-term data on surveillance, close follow-up imaging and required compliance. Larger tumors beyond a diameter of 3 or 4 cm, with ag-

gressive behavior and rapid growth are at risk of progression to metastatic disease and should be treated proactively. The long-term results of prospective AS studies are eagerly awaited to more precisely identify the role of AS in the treatment of localized renal RCC. Further research will be required to define the utility and limitations of this approach to improve the selection of patients for AS. Molecular studies of prognostic factors for progression are in progress. At this time, insufficient data is available to recommend or disregard biopsy for SRMs and further research on the role of biopsy is needed. AS requires rigorous follow-up with contrast enhanced CT or MRI. AS is an acceptable option for the treatment of SRMs and is now increasingly performed in carefully selected patients with an emerging experience to support this treatment option.

### Conclusions

PN, cryoablation, RFA and AS are viable approaches to the management of SRMs. RN remains a possible option in cases

when PN is not applicable. While long-term oncological outcomes have been demonstrated for PN, extended oncological efficacy remains to be established for thermal ablation and AS. Compared with PN, current data show a significantly higher incidence of local tumor recurrence following thermal ablation with cryoablation predominantly performed laparoscopically resulting in less local tumor progression than RFA generally performed percutaneously. A recent meta-analysis did not show statistical differences in progression to metastatic disease regardless of treatment option (PN, cryoablation or RFA) or absence of treatment (AS). No randomized comparisons have been performed between the outcome of ablative techniques and PN. Currently, no hard recommendations can be made against a given treatment modality for localized RCC because of the retrospective nature of the current studies and the potential biases. ■

*Prof. Hein Van Poppel, University Hospital, K.U.L. Leuven, Belgium*

# SIU2011 berlin

## 31st Congress of the Société Internationale d'Urologie

**October 16-20, 2011**  
Berlin, Germany  
ICC Berlin

Featuring the  
**ICUD Consultation on Prostate Cancer**



## Future Congresses and Meetings

**2010 Marrakech**

**2011 Berlin**

**2012 Fukuoka**

**2013 Vancouver**

[www.siucongress.org](http://www.siucongress.org)

## SIU Berlin 2011

### The Door to a Future of Annual SIU Congresses

The 31st Congress of the Société Internationale d'Urologie will be the second SIU World Congress held in Berlin, following the 1914 Congress with James Israel as Congress President. The 2011 Congress will reflect this history and also the particular German history, specifically of urology during the Third Reich.

The Local Organizing Committee, chaired by Professor Margit Fisch, is excited to bring world urology back to Berlin for the SIU 2011 Congress, October 16-20. As a divided city, Berlin was formerly the symbol of the East-West conflict during the Cold War and is now a cosmopolitan European center, linking East to West (Fig. 1). In many ways, Berlin represents the highs and lows of German history.

The German National Section of the SIU, together with our European colleagues, will welcome our fellow urologists from all over the world for a memorable Congress with a global perspective unique to the SIU.



Prof. Joachim Thüroff

transmitted from the Berlin Charité, surgical tips sessions, instructional courses and sponsored symposia will provide different aspects of educational activities. In addition, there will be a whole-day

meeting for the 5th Conference of the World Urological Oncology Federation (WUOF) on Saturday, October 15, and an International Consultation on Urologic Diseases (ICUD) on Prostate Cancer chaired by Manfred Wirth and Gerry Andriole, with the presentation of the latest recommendations as "take home messages" in the plenary on Thursday, October 20, 2011.



Figure 2: "German Oktoberfest" at Berlin Station, Monday, October 17

The Social Program of the SIU has always been a colorful reflection of its representation of 116 nations. The meeting of fellow specialists from all continents to facilitate scientific exchange, establish networks and – last but not least – friendships, has always made the SIU congresses unique. The SIU Night on Monday, October 17 celebrates the theme of "German Oktoberfest" as a meeting place of global communication (Fig. 2). The Gala Dinner on Wednesday, October 19 at the German Historic Museum will be elegant and truly unique (Fig. 3).

With the 2011 Congress in Berlin, the SIU's biennial schedule becomes an annual one, and the next SIU Congress in



Figure 3: Gala Dinner at the Schlüterhof at the German Historic Museum, October 19

2012 will be hosted by Fukuoka, Japan. We are excited about this change, which reflects the necessity of intensifying international contacts in urology in a world of globalization. ■

Prof. Joachim W. Thüroff, Mainz, Germany  
SIU President



Dear SIU Members:

Please be sure to notify the Central Office ([central.office@siu-urology.org](mailto:central.office@siu-urology.org)) of any change in your mailing or e-mail address.

Accurate contact information is vital to ensuring that the Central Office is able to correspond with you efficiently.

If you have any queries regarding *Urology: The Gold Journal*, please address these directly to the Central Office ([central.office@siu-urology.org](mailto:central.office@siu-urology.org)).

To reach us by mail:

SIU Central Office  
1155 University Street, Suite 1155  
Montreal, QC H3B 3A7  
Canada

E-mail: [central.office@siu-urology.org](mailto:central.office@siu-urology.org)  
Fax: +1 514 875 0205



Figure 1: Berlin Brandenburg Gate – former East-West border

The Scientific Program in the Berlin International Congress Center (ICC) will reflect all aspects of global urology in plenary and sub-plenary sessions with presentations, debates and roundtables by world-renowned specialists. There will also be ample room for presenting original scientific papers in podium, poster and video sessions. A day of live surgery