



The WSC-Clinic at Hirslanden - Zurich / Switzerland

under the auspices of the

**International Society for Minimal Intervention in  
Spinal Surgery - ISMISS / SICOT ( [www.ismiss.com](http://www.ismiss.com) )**

gladly announces the **PROGRAM** of the

# **International 32<sup>nd</sup> Course for Percutaneous Endoscopic Spinal Surgery and Complementary Minimal Invasive Techniques**

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**SYMPOSIUM WITH INTERNATIONAL GUEST FACULTY  
& technical demonstrations / industrial exhibition**

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*Course Co-Chairmen :*

**Hansjörg Leu , MD - Markus Rühli , MD**

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**January 30/31, 2014, at Hirslanden Hospital**

**CH-8032 Zurich – Switzerland**

Course Secretary's fax: x41-[0]-44-387 37 58 / e-mail: [ismiss.europe@bluewin.ch](mailto:ismiss.europe@bluewin.ch)

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**SSO/SGO – CME-Credits : 16**

10:30 am Registration

**OPENING**

MODERATOR : LEU H.

12:00 s.t. Welcome address from Hirslanden

Liedke D.

**FIRST SESSION**

MODERATOR : LEU H., Radchenko V.

- 12:05 pm History of spinal affection theories & their therapeutical options Panoussopoulos A.  
12:15 pm Lumbar myelography with CT: the classic in dynamic imaging technique Fischer H.  
12:25 pm MR diagnostic in lumbar spine Zanetti M.  
12:35 pm Anatomical considerations on disc pathology and surgical approaches Rauschnig W.  
1:00 pm Neurovascular anatomy of the spine: intervertebral canal and foraminal landmarks Cömert A.  
1:10 pm Anatomically safe dissection of ligamentum flavum hypertrophy in lumbar stenosis Nishijima Y.  
1:20 pm A new infiltrative technique to improve surgical approach to the cervical spine De Carvalho P.  
1:30 pm Aspects of diagnostic specificity of injections for spinal pathologies Aeschbach A.  
1:40 pm Biotechnologic alternatives to corticosteroids in the injection therapy of spinal diseases Moser C.  
1:50 pm Treating chronic low back pain with antibiotics: an alternative to pain medication ? Birkenmaier C.  
2:00 pm Pain therapy - when there are no options for minimal or major interventions Niebergall H.  
**2:10 pm Coffee break in the industrial exhibition area**

**SECOND SESSION**

MODERATOR : KÖNIG D., DARWONO B.

- 2:40 pm Percutaneous lumbar endoscopy: evolution in Zurich since 1982 and outlook Leu Hj.  
2:50 pm Tubular decompression in the lateral position MacMillan M.  
3:00 pm Analysis of approach trauma: endoscopic versus open surgery Hellinger A.  
3:10pm Perioperative value of discography and CT in PELD Lübbers T.  
3:20 pm Lumbar microforaminotomy : the HDJ modification Kilincer C.  
3:30 pm The simplest technique: endoscopic discectomy Rezaian M.  
3:40 pm EG-system-HD-endoscopy versus microscopy: is there a difference? Burkhardt B.  
3:50 pm EG-sytem-2nd Generation - first results with the new system Oertel J.  
4:00 pm Indications of endoscopic lumbar discectomy Gastambide D.  
4:10 pm Endoscopic removal of far lateral lumbar prolapse by the EG-system: technique/results Vulcu S.  
4:20 pm Full endoscopic interlaminar lumbar discectomy: advantages and limitations Natout N.  
4:30 pm Full-endoscopic cervical surgery: indications/limitations in anterior/posterior approach Komp M.  
4:40 pm Endoscopic options with the EG-system in cervical spine - posterior application Philipps M.  
4:50 pm Pitfalls in endoscopic lumbar spine surgery Hoogland T.  
5:00 pm Severe dyspnea by intraperitoneal fluid leakage in percutaneous discectomy: a case report Hilbert T.  
**5:10 pm Discussion / Break**

**MAGISTRAL LECTURE**

MODERATOR : LEU H.

the *ISMISS pioneer-guest lecture 2014* :

5:30 pm ***Advanced minimal invasive spinal surgery in Korea***

*Gun Choi, MD, Seoul / Korea*

6:15 pm Question and answer period

**6:30 pm Transfer by tramway N° 11 downhill until "Bellevue", there change to N° 9 uphill until stop at "ETH/Universitässpital"**

**7:10 pm Guided visit at the Paleontological Museum, Zurich Univ., Karl-Schmid-Str. 4 : introduction in its unique collection of fossile fauna of the Triassic time** Furrer H.  
Kolb C.

**8:00 pm Aperitif & course-dinner at the "Dozentenfoyer", Eidgenössische Technische - Hochschule / ETH // Federal Institute of Technology / FIT, Rämistr. 101, Zurich (Tramway N° 6, same stop at "ETH/Universitässpital")**

**THIRD SESSION**

MODERATOR : WEINZIERL F., SULLIVAN M.

8:00 am	Preservation of Ligamentum Flavum in Lumbar Discectomy	Ozer A.
8:10 am	Tarlov cyst (perineural/sacral/nerve root cyst): diagnosis and management	Sak L.
8:20 am	Percutaneous endoscopic lumbar discectomy monitored by epiduroscopy	Kim H.
8:30 am	Advanced PELD techniques for high-migrated LDH	Ito F.
8:40 am	Laser disc reconstruction: a tissue engineering approach for tt of degenerative disc disease	Borshchenko I.
8:50 am	Laser decompression of discs - new view and prospectives	Orlov S.
9:00 am	<i>Video-live-transmission</i>	<b>Leu Hj., Ruehli M.</b>

**FOURTH SESSION**

MODERATOR : GITTER S., RUEHLI M.

9:10 am	Intraop.endoscopic and neurological monitoring in minimally MISS: its impact in outcome quality	Chiu J.
9:20 am	A new technique to improve the surgical approach to the anterior cervical spine	De Carvalho P.
9:30 am	Percutaneous cervical arthrodesis. Two years results	Menchetti P
9:40 am	Revision of failed back employing only a full perc. approach with the PerX360 fusion system	Morgenstern R.
9:50 am	Minimal invasive spine surgery as an efficient treatment in failed back syndrome	Satana T.
10:00 am	MILSS with tubular retractors in foraminal spinal stenosis	Saftic R.
10:10 am	Minimal invasive treatment of different stages of Z-arthrosis of the lumbar spine	Radchenko V.
10:20 am	Percutaneous lumbar fusion with the Sextant system – technique/pitfalls/outcome	Oertel J.
10:30 am	Minimal invasive spine surgery: pathology stages and patterns, results	Tikhodeev S.
10:40 am	<i>Video-live-transmission</i>	<b>Leu Hj., Ruehli M.</b>
<b>10:50 am</b>	<b>Coffee break in the industrial exhibition area</b>	

**FIFTH SESSION**

MODERATOR : De CARVALHO P., WENDSCHE P.

11:15 am	Segmental instability; anatomical facts and structural treatment approaches	Rauschnig W.
11:30 am	Lumbar spine biomechanics in pregnancy	Sulima G.
11:40 am	To fuse or not to fuse – why ?	Tarik Y.
11:50 am	Minimally invasive arthrodesis in lumbar spine	Bryekhov A.
12:00 pm	Mini-invasive 360° lumbar fusion: x-lif & bilateral perc.pedicular fixation in lateral position	Buric J.
12:10 pm	First results of a new interspinous fusion device for the treatment of low back pain	Militzer P.
12:20 pm	Spondylodesis with facet wedge as an alternative to the classic spondylodesis with screws	Sutter P.
12:30 pm	Mini invasive tt in unstable compression: internal fixator or intravertebral stabilisation?	Fürderer S.
12:40 pm	Interlaminar decomp./fusion by ILIF(Affix System): interlaminar versus interspinous cage	Gitter S.
12:50 pm	Minimal invasive lumbar spine fusion: a longtime study	Wimmer C.
01:00 pm	<b>Luncheon &amp; technical workshop in the industrial exhibition area</b>	

**SIXTH SESSION**

MODERATOR : LEU H., GASTAMBIDE D.

2:00 pm	Degenerative scoliosis and Dynamic pedicular stabilization	Dubois G.
2:10 pm	Percutaneous interspinous spacers: hight and motion-retention	Frank E.
2:20 pm	Interlaminar dynamic stabilizator "IntraSpine" in tt of lumbar degenerative spine problems	Darwono B.
2:30 pm	5 years results after tt with/out interlaminar disc assistance implant "INTRASpine"	Guizzard G.
2:40 pm	Clinical and morphological results with the interspinous implant In.Space™: up-dated results	Wendsche P.
2:50 pm	AB needle for vertebroplasty	Bhave A.
3:00 pm	Modification of mechanical properties in high-viscosity vertebroplasty for reduced stiffness	Birkenmaier C.
3:10 pm	Optimization of vertebroplasty at lumbar diseases and damages	Moguchaya O.
3:20 pm	Role of strontium (Sr) as a bio-active cement in the new bone formation in tt of VCFs	Darwono B.
3:30 pm	Ten years experience in percutaneous vertebral augmentation and actual policy	Ruehli M.
3:40 pm	Dexmedetomidine for minimally invasive spine surgery in a prone position	Kim K.
3:50 pm	Important (prospective) aspects of opioid therapy	Jaquenod M.
4:00 pm	The cost of spinal surgery: is MISS cheaper than conventional spinal surgery?	Choi P.
4:10 pm	DRG: bundling payments for spine care - a flawed model ?	Speck G..
4:20 pm	Medico-legal aspects in MISS - an analysis of legal cases in NW-Germany	König D.
4:30 pm	Is spinal pain a medical or socio-economic problem?	Sullivan M.
<b>4:40 pm</b>	<b>round up / questions / discussion / symposium closure</b>	

## Course Faculty

[up-date Nov 23, 2013]

Aeschbach A., Switzerland; Birkenmaier C., Germany; Borshchenko I., Russia; Buric J., Italy; Bryekhov A., Ukraine; Burkhardt B., Germany; Chiu J., U.S.A.; Choi G., Korea; Choi P., Brasil; Cömert A., Turkey; Darwono B., Indonesia; De Carvalho P., Brazil; Dubois G., France; Fischer H., Switzerland; Frank E., U.S.A.; Furrer H., Switzerland; Fürderer S., Germany; Gastambide D., France; Gitter S., Germany; Guizzardi G., Italy; Hellinger S., Germany; Hilbert T., Germany; Hoogland T., Germany; Ito F., Japan; Jaquenod M., Switzerland; Kim H., Korea; Kim K., Korea; Kilincer C., Turkey; Kolb C., Switzerland; Komp M., Germany; König D., Germany; Leu H., Switzerland; Liedke D., Switzerland; Lübbers T., Germany; Mac Millan M., USA; Menchetti P., Italy; Militzer P., Germany; Moguchaya O., Russia; Morgenstern R., Spain; Moser C., Germany; Natout N., Libanon; Niebergall H., Switzerland; Nishijima Y., Japan; Oertel J., Germany; Orlov S., Russia; Ozer A., Turkey; Panoussopoulos A., Switzerland; Philipps M., Germany; Radchenko V., Ukraine; Rauschnig W., Sweden; Rezaian M., USA; Ruehli M., Switzerland; Rezaian M., USA; Saftic R., Croatia; Sak L., Russia; Satana T., Turkey; Speck G., Australia; Sullima A., Ukraine; Sullivan M., England; Sutter P., Switzerland; Tarik Y., Turkey; Tikhodeev S., Russia; Vulcu S., Germany; Weinzierl F., Germany; Wendsche P., Czech Republik; Wimmer C., Germany; Zanetti M., Switzerland

## Industrial Contributors

[up-date Dec 17, 2013]

ASAP endoscopic products GmbH, D-79224 Umkirch	<a href="http://www.asap.-gmbh.de">www.asap.-gmbh.de</a>	Fax: +49-7665 94 773 11
DePuy Synthes Spine, J&J AG, CH-6300 Zug	<a href="http://www.depuysynthes.com">www.depuysynthes.com</a>	Fax: +41-58 231 50 51
ICOTEC AG, CH-9450 Altstätten	<a href="http://www.icotec.ch">www.icotec.ch</a>	Fax: +41-71 757 00 01
KARL STORZ GmbH, D-78532 Tuttlingen	<a href="http://www.karlstorz.com">www.karlstorz.com</a>	Fax: +41-61 426 91 16
PARIMED GmbH, CH-6362 Stansstad	<a href="http://www.parimed.com">www.parimed.com</a>	Fax: +41-41 312 11 13
RICHARD WOLF GmbH, D-75438 Knittlingen	<a href="http://www.richard-wolf.com">www.richard-wolf.com</a>	Fax: +49-7043 35 12 23
SIGNUS Med.-tech. GmbH, D-63755 Alzenau	<a href="http://www.signus-med.de">www.signus-med.de</a>	Fax: +49-602 39 16 61 71
SPINEART SA, CH-1215 Geneva	<a href="http://www.spineart.ch">www.spineart.ch</a>	Fax: +41-22 799 41 86
SPINESAVE AG, CH-8424 Embrach	<a href="http://www.spinesave.com">www.spinesave.com</a>	Fax: +41-31 302 73 72
STÖCKLI MEDICAL, CH-6214 Schenkon	<a href="http://www.stoecklimedical.ch">www.stoecklimedical.ch</a>	Fax: +41-41 588 01 99
TEVA Pharma AG, CH-4010 Basel	<a href="http://www.tevapharma.ch">www.tevapharma.ch</a>	Fax: +41-61 756 97 55
ZIMMER GmbH, CH-8400 Winterthur	<a href="http://www.zimmer.com">www.zimmer.com</a>	Fax: +41-52 262 01 39

## Course Direction

Leu HJ., PD Dr.med., Orthop.Chirurgie FMH, WS-Clinic at Hirslanden, CH-8032 Zurich / Switzerland

## Course Venue

Klinik Hirslanden, Auditorium, 4<sup>th</sup> floor, Witellikerstrasse 32, CH-8032 Zurich, Phone: x41-44-387 21 11

## Course Informations

Secretary PESS-32, c/o WS-Clinic at Hirslanden Hospital, Witellikerstrasse 40, CH-8032 Zurich

Phone: x41-44-387 37 57 / Fax : x41-44-387 37 58 / e-mail: leu@wirbelschmerz.ch / [www.ismiss.com](http://www.ismiss.com)

Web: [www.wirbelschmerz.ch](http://www.wirbelschmerz.ch) / [www.spine-private-leu-zurich.ch](http://www.spine-private-leu-zurich.ch) / Hotel booking: see list below / [www.zuerichtourism.ch](http://www.zuerichtourism.ch)

## The ISMISS board's welcome address

More than four decades after first clinical application of classic laminectomy for surgical treatment of lumbar disc herniations in 1934, in the later seventies of the past century, as a minimal invasive alternative to conventional surgical procedures and various intradiscal treatments in contained lumbar disc herniation, the concept of percutaneous disc decompression with nucleotomy made its way from Japan to Europe in 1979. Since 1982 the complementary endoscopic control added visualization for selective tissue removal. A main advantage of minimally invasive procedures brought the sparing approach with minimal musculoligamentary irritation in its access way. Beside the impact of endoscopy for precise removal of disc fragments, direct visualization and specific instruments allowed also controlled elaboration of the vertebral endplates for interbody fusion, introduced in 1987. Since 1992 laparoscopic ventral interbody fusion and minimal open lateral techniques arose as a complementary technique for interbody fusion, e.g. at the the lumbosacral transition, sometimes hardly accessible for classic posterolateral endoscopic techniques. Since 2001, low profile expandable interbody spacers came up allowing with today's generation primary stability also for percutaneous interbody fusion technique. At the same time, percutaneous instrumentation for posterior internal fixation brought a new way for posterior stabilization in combination to interbody spacers and osteoinductive components.

Since 1994 dynamic posterior implants became available as a first step to a new generation of posterior restabilization without fusion. The question to fuse or not to fuse remains controversial. In the last decade also minimal non-fusion stabilization with interspinous implants further challenge the field of posterior dynamic stabilization.

As a new field of extradiscal endoscopic surgery, percutaneous foraminoscopic decompression became standardized since 1991 for the different forms of foraminal up to mediolateral disc herniations. As very important step, since 1999 the interlaminar full endoscopic exploration of the lumbar spinal canal was developed for the removal of mediolateral to medioforaminal herniations. So the full-endoscopic decompression challenges today the classic microscopic and tubular videoscopic techniques.

Beside technical operative aspects also clinical analysis of optimal indications, learning-curves and follow-up criteria for evaluative databases deserve our interest in worldwide economically restricted conditions and an evident need for outcome-quality controls.

So in the 34th year of local practice, the upcoming annual Course shall reflect once more the evolution and state of the art as well as actual innovative developments in this year by year evolving branch of spinal surgery. Again international pioneers and experts sharing the course faculty promise to contribute to the vivid and collegial atmosphere of this traditional Course in its 32nd edition.

Zurich, October 2013

Sang-Ho Lee, M.D., Seoul/Korea  
President ISMISS 2011/14

Hansjoerg Leu, M.D., Zurich/Switzerland  
Past President ISMISS / Course Chairman

Markus Ruehli, M.D., Zurich/Switzerland  
National Representative ISMISS Switzerland

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**APPLICATION FOR ENROLMENT ( return by mail or fax back to : x41-[0]-44-387 37 57 )**

( ENROLMENT NUMBER RESTRICTED - EARLY REGISTRATION RECOMMENDED ! )

I enrol for the **International 32<sup>nd</sup> Course for Percutaneous Endoscopic Spinal Surgery and Complementary Minimal Invasive Techniques, Jan 30/31, 2014, Klinik Hirslanden**

Witellikerstrasse 41, Conference-hall 4<sup>th</sup> floor, CH-8032-Zurich, Switzerland

Simultaneously to this enrolment, I transfer the fee of CHF 600.- / EUR 500.- / US\$ 700.- for the whole course incl. symposium and technical demonstrations precisely by bank draft to the account : - IBAN CH79 0070 0113 7000 1151 8 - at Banque Cantonale de Zurich, SWIFT: ZKBKCHZZ80A, BLZ: 700, CH-8001 Zurich; Beneficiary: Hj. Leu. With the purpose remark: "PESS-32", without charges (SEPA accepted), or by equivalent transferable bank cheque.

No cancellation/refund after Jan 15, 2014 accordable.

Please use printed letters :

Name : .....

Address : .....

Degree/Specialty : .....

Phone : ..... Fax : .....

e-mail : .....

Date : ..... Signature : .....

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## Hotels – some recommendable accommodations for registrees :

Room reservation is recommended as soon as possible at : Zurich Tourist Service, P.O. Box, CH-8023 Zurich, Phone: x41-44-215 40 40 / Fax: x41-44-215 40 44 - Web: [www.zurichtourism.ch/hotel](http://www.zurichtourism.ch/hotel)

### **Hotel Ambassador \*\*\*\*\***

rather comfortable, located lakeside backing the Zurich Opera, to Hirslanden from Bahnhof Stadelhofen with Forchbahn/Red-line uphill in direction Esslingen until stop "Balgrist"

Location: Falkenstrasse 6, CH-8008 Zürich

Tel x41-44-361 16 85, Fax x41-44-361 16 17, Web: [www.ambassadorhotel.ch/](http://www.ambassadorhotel.ch/)

### **Hotel Bristol \*\***

reasonable comfort, 4' footwalk to "Central", from there to Hirslanden take the tramway 4 along the Limmat river until Bellevue, then you change to line 11 uphill in direction Rehalp until stop "Balgrist"

Location: Stampfenbachstr. 34, 8001 Zürich

Tel +41-44-258 44 44, Fax x41-44-258 44 00, Web: [www.hotelbristol.ch](http://www.hotelbristol.ch)

### **Hotel Florhof \*\*\***

elegant, romantic set-up in a traditional palais, to Hirslanden take the tramway 5 from "Kunsthau/Heimplatz" downhill to Bellevue, there changes to line 11 in direction Rehalp until stop "Balgrist"

Location: Florhofgasse 4, CH-8001 Zürich, Tel x41-44-250 26 26, Fax x41-44-250 26 27, Web:

[www.florhof.ch](http://www.florhof.ch)

### **Hotel Glockenhof \*\*\*\*\***

rather comfortable, centrally located left side city, to Hirslanden from Bahnhofstrasse nearby with Tramway 11 in direction Rehalp until stop "Balgrist"

Location: Sihlstrasse 31, CH-8001 Zürich

Tel x41-44- 225 91 91, Fax x41-44-225 92 92, Web: [www.glockenhof.ch](http://www.glockenhof.ch)

### **Hotel Opera \*\*\*\*\***

rather comfortable, located lakeside backing the Zurich Opera, to Hirslanden from Bahnhof Stadelhofen with Forchbahn/Red-line uphill in direction Esslingen until stop "Balgrist"

Location: Dufourstrasse 5, CH-8008 Zürich

Tel x41-44-258 99 99, Fax x41-44-258 99 00, Web: [www.operahotel.ch](http://www.operahotel.ch)

### **Hotel Seefeld \*\*\***

rather comfortable, located hillside, to Hirslanden take tramline number 2 to Stadelhofen, there change to Forchbahn/Red-line uphill in direction Esslingen until stop "Balgrist"

Location: Seefeldstrasse 63, CH-8008 Zürich

Tel x41-44-387 41 51, Fax x41-44-387 41 51, Web: [www.hotelseefeld.ch](http://www.hotelseefeld.ch)

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*end of the message*