



# 6<sup>TH</sup> INTERNATIONAL WORKSHOP on Advanced Laparoscopic and Oncologic Surgery

MASTERING AND SAFELY REPRODUCING  
LAPAROSCOPIC SURGERY

JOINTLY WITH



**SMIT 2004 Conference**

**SMIT** - The Society for Medical  
Innovation and Technology

[www.smit2004.com](http://www.smit2004.com)



16-18 Dicembre 2004  
Roma, Italia

# WORKSHOP DIRECTOR CRISTIANO G.S. HÜSCHER



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A. CUSCHIERI	N. INOKI	D. PIAZZA	

# December 16, 2004

## CORSIA DELLE DONNE

8:30-9:00 OPENING CEREMONY SMIT 2004

9:00-9:30 OPENING LECTURE  
Crossing the Surgical Rubicon  
*A. CUSCHIERI*

9:30-11:00 PLENARY SESSION  
**SMIT OR 2010**  
**THE SURGICAL SUITE:**  
**COMBINING ERGONOMICS WITH HI-TECH**  
Chairmen: *E. FOSSE, R. MARVIK*

- Experimental OT in Norway  
*R. MARVIK*
- Technology and logistics  
*T. LANGO*
- Logistics of OT - German experience  
*A. MELZER*
- OT's in USA  
*D. BIRKETT*
- Karl Storz OR 1: the OR of the future  
*C. ATHANASSIADIS*
- Olympus philosophy on OR integration and hospital processes  
*A. QUISTORF*

11:30-12:00 INVITED LECTURE  
The challenge of new technologies  
*E. FOSSE*

12:00-13:30 PANEL SESSION 1

**ELECTRONIC IMPLANTS**

Chairmen: *H. ABRAHAMSSON, J. WICKHAM*

- Gastric electrical stimulation (GES)  
*H. ABRAHAMSSON*
- Sacral nerve neuromodulation in the treatment of faecal incontinence and obstructed defecation  
*M.E.D. JARRETT*
- Dynamic graciloplasty after total anorectal excision  
*M.M. LIRICI*
- Laparoscopic neuro-navigation (LANN)  
*M. POSSOVER*
- Electrical neurostimulation in the treatment of complex regional pain syndrome  
*G. COLINI BALDESCHI*

13:30-14:30 **LUNCH**

14:30-16:00 SMIT TECTRAN - PANEL SESSION 2

**NEW TECHNOLOGIES AND MODALITIES FOR CME, SURGICAL TRAINING AND SURGICAL TUTORING**

Chairmen: *J. DANKELMAN, A. GALLAGHER*

- Evaluation of the Simendo, a new virtual reality simulator for training of minimally invasive surgical skills  
*E.C.G. VERDAASDONK*
- A comprehensive platform for laparoscopic education  
*V. SORHUS*
- Interdisciplinary training courses in applied biomedical engineering: endoscopic surgical and interventional techniques for engineers, 6 years experience  
*P. BREMER*
- Training models for laparoscopic surgery  
*E. LEANDROS*
- Suggested certification model for endovascular procedures for obstetrician-gynecologists  
*B. MCLUCAS*

- Virtual reality training for the operating room  
*A. GALLAGHER*
- Importance of haptic feed-back in minimally invasive surgical skills training  
*J. DANKELMAN*

16:00-18:00 SATELLITE VIDEO-SYMPOSIUM

**UPDATES IN LAPARO-ENDOSCOPIC  
SURGERY BY MEANS OF US DISSECTION**

Chairman: *P. AMBROSETTI*

- Endoscopic thyroidectomy  
*P. MICCOLI*
- Laparoscopic splenectomy  
*F. CORCIONE*
- Laparoscopic adrenalectomy  
*A. VALERI*
- Laparoscopic liver resections  
*C.G.S. HÜSCHER*
- Laparoscopic gastrectomy  
*R. PUGLIESE*
- Laparoscopic right colectomy  
*G. SPINOGLIO*
- Laparoscopic left colectomy  
*G. PIGNATA*
- Laparoscopic anterior resection  
*A. D'ANNIBALE*
- Laparoscopic rectal excision with pull-trough and pouch-anal anastomosis  
*F. PRETE*

# AULA MAGNA

12:00-13:30 PARALLEL SESSION 1

## **ADVANCED IMAGING FOR TUMOR RECOGNITION AND NAVIGATION SYSTEMS**

Chairmen: *G. SIMONETTI, L. TIPALDI*

- New techniques and software in oncologic imaging  
*L. TIPALDI*
- Clinical relevance of CT virtual colonoscopy for colon surgery  
*G. USSIA*
- Evaluation of optical sensors to track laparoscopic instruments  
*M.K. CHMARRA*
- A stereoscopic approach to localization of fiducial markers  
for image-guided surgery  
*M. EL ANSAR*
- Contrasted ultrasonography  
*C. BRANCALEONE*

13:30-14:30 **LUNCH**

14:30-16:00 PARALLEL SESSION 2

## **INTERVENTIONAL RADIOLOGY AND IMAGE PROCESSING TECHNIQUE**

Chairmen: *K. GRIMBERGEN, A. MELZER*

- Rotational X-ray applications  
*K. GRIMBERGEN*
- CT bone masking method  
*K. GRIMBERGEN*
- Robotic assisted biopsy: evaluation and first in vitro results  
*G. KRONREIF*
- Ultrasound in patient with total gastrectomy  
*C. TIU*
- Intra Vascular Ultra Sonography (IVUS): early experience in  
the preoperative assessment of pancreatic cancer stage  
*P. RIU*

16:00-18:00 PARALLEL SESSION 3

**INTERVENTIONAL RADIOLOGY**

Chairmen: *C. AMBROGI, R. DI SEGNI*

- New investigation methods in interventional radiology  
*L. BROGLIA*
- Interventional radiology and treatment of benign biliary diseases  
*M. BEZZI*
- Interventional radiology and treatment of malignant biliary strictures  
*R. GANDINI*
- Interventional radiology in the transplanted liver  
*C. FERRO*
- Treatment of CBD stones  
*A. DORIGUZZI*

**December 17, 2004**

**CORSIA DELLE DONNE**

**6<sup>TH</sup> INTERNATIONAL WORKSHOP  
ON ADVANCED LAPAROSCOPIC AND ONCOLOGY SURGERY  
MASTERING AND SAFELY REPRODUCING  
LAPAROSCOPIC SURGERY**

8:30-9:00 OPENING CEREMONY

9:00 **LIVE SURGERY**

Laparoscopic Treatment of Esophageal Cancer

Laparoscopic Treatment of Hiatal Hernia

Laparoscopic Splenectomy

Chairman: *M. BAILEY, R. MOTSON*

Discussants: *P. AMBROSETTI, N. D'OVIDIO,*

*P. MARCHESA, C. MODINI,*

*A. PEZZOLLA, F. PRETE*

10:30-10:45 INVITED LECTURE

Chairman: *D. PIAZZA*

**NEW PERSPECTIVES IN THE SURGICAL TREATMENT  
OF GASTRIC CANCER**

*N. TANIGAWA*

11:45-12:00 INVITED LECTURE

Chairman: *P. GIULIANOTTI*

**LAPAROSCOPY, NEW TECHNOLOGIES  
AND ADVANCED PANCREATIC SURGERY**

*R.C. RUSSELL*

12:45-13:00 INVITED LECTURE

Chairman: *P. BERLOCO*

**TRUTH AND LIES ABOUT LAPAROSCOPIC SURGERY**

*C.G.S. HÜSCHER*



13:30-14:30 **LUNCH**

14:30-15:30 **LIVE SURGERY**

Laparoscopic Colorectal Surgery

Laparoscopic Adrenalectomy

Laparoscopic Treatment of CBD Stones

Chairmen: *D. BIRKETT, A. MONTORI*

Discussants: *F. BADESSI, A. D'ANNIBALE,*

*G. CUTINI, C. SARTORI,*

*G. PIGNATA, G. SPINOGLIO, M. ROSSI*

15:40-16:00 JOHN WICKHAM LECTURE

(JOINT TECHNOLOGY LECTURE)

Chairman: *C.G.S. HÜSCHER*

**THE FUTURE OF ROBOTICS:**

**THE REALITY BEYOND FICTION**

*J. MARESCAUX*

16:30-16:50 INVITED LECTURE

Chairman: *J. MARKS*

**METANALYSIS OF PERSPECTIVE RANDOMISED**

**TRIALS ON LAPAROSCOPIC SURGERY**

**FOR COLON AND RECTAL CANCER**

*A. FINGERHUT*

17:10-17:30 INVITED LECTURE

Chairman: *J. MARKS*

**SKELETONS IN THE CUPBOARD**

*R.J. HEALD*

18:45 Get together party

20:45 Concert for 6<sup>th</sup> International Workshop

and SMIT 2004 Conference

Basilica dei SS Quattro Coronati,

Via dei SS Quattro Coronati 20

## AULA MAGNA

9:00

PARALLEL SESSION 4

### **MICROSYSTEM TECHNOLOGIES FOR PREVENTION AND MONITORING OF DISEASES**

Chairmen: *M. SCHURR, M. DE FAZIO*

- Microtechnology for monitoring and disease prevention - an introduction  
*M. SCHURR*
- Telemetric microsystems and all about technologies and markets  
*T. BECKS*
- GI microsystems applications - self locomoted micro-endoscopes  
*A. MENCIASSI*
- Ocular microsystems application - a pressure sensing contact lens for glaucoma  
*M. LEONARDI*
- Detection of regional cardiac ischemia using a 3-axis accelerometer sensor  
*O.J. ELLE*
- Urologic microsystems applications - telemetric sensors for bladder measurement in paraplegic people  
*H. FISCHER*
- Managing the pathway of innovation in microsystem technology - from the lab to the market  
*D. KALANOVIC*

10:30

### **SMIT TECHNOLOGY HANDS ON SEMINAR PROPERTIES OF NITINOL FOR USE IN SURGERY AND INTERVENTIONAL RADIOLOGY**

Chairmen: *H. FISCHER, A. MELZER*

- Properties of Nitinol  
*H. FISCHER*
- Production of Nitinol devices  
*B. VOGEL*
- Medical devices using Nitinol in interventional radiology  
*A. MELZER*

- Medical devices in surgery  
*M.O. SCHURR*

13:30-14:30 **LUNCH**

## **SALA FOLCHI**

14:30-15:30 POSTER SESSION

Chairmen: *G. BUESS, N. DI LORENZO,*  
*K. GRIMBERGEN, M.M. LIRICI*

- Role of force feedback in training minimally invasive surgical techniques  
*T. VAN HALTEREN*
- Real-time interaction with a reconstructed artery  
*G. ALOISIO*
- Evaluation of optical sensors to track laparoscopic instruments  
*M.K. CHMARRA*
- Comparison of different control modes for laparoscopic tools  
*O. TONET*
- Surgical Glues and hernia repair  
*I.A. GACEK*
- Application Aids for the Over-the-Scope (OTSC) Clip System  
*A. KIRSCHNIAK*
- Dynamic graciloplasty vs implant of artificial sphincter following laparoscopic abdominoperineal excision  
*M. DI PAOLA*
- Laparoscopic splenectomy and spleen preservation after blunt splenic injuries  
*A. MINGOLI*
- Three cases of GIST arising on Meckel's diverticulum: diagnostic and therapeutic approach  
*F.P. PRETE*
- New haemostatic dissecting forceps with a metal membrane heating element  
*E. KANEHIRA*
- Endoscopic suturing with manual manipulator  
Radius Surgical System  
*M. WASEDA*

# December 18, 2004

## CORSIA DELLE DONNE

9:00-10:30 SMIT ENDOLUMINAL - PANEL SESSION 3

Chairmen: *E. KANEHIRA, G. BUESS*

- Key note lecture  
*G. BUESS*
- New endoluminal surgical system  
*D. BIRKETT*
- Endo-uterine surgery (fetoscopic operations)  
*J. DEPREST*
- Self-propelling devices for gastrointestinal endoscopy  
*M. SCHURR*
- Intra-gastric surgery  
*N. INOKI*
- Guest lecture - New perspectives in endoluminal surgery of the upper GI tract  
*G. COSTAMAGNA*

11:00-12:45 SMIT IMAGE - PANEL SESSION 4

Chairmen: *A. MELZER, P. PAVONE*

- Preventive MR imaging  
*D. BAUMGART*
- Advances in CT imaging:  
coronary artery evaluation with MSCT  
*P. PAVONE*
- Robotics and Assistsystems for image guided procedures  
*A. MELZER*
- State of the art in intraoperative imaging  
*J. KETTENBACH*
- First integrated MR imaging neurosurgical OR - BrainSUITE  
*R. KRÖLL*
- Current status on intraoperative MRI in neurosurgery  
*L. FERRANTE*
- Active and passive systems for interventional and intraoperative MRI  
*M. FRIEBE*

12:45-13:45 **LUNCH**

13:45-15:00 PANEL SESSION 5

**MULTIFUNCTIONAL INSTRUMENTS  
AND OTHER DEVELOPMENTS FOR  
ENDOSCOPIC SURGERY**

Chairmen: *M.A. VAN VEELLEN, M.M. LIRICI*

- Experience in suturing with a manual manipulator (Radius system)  
*G. BUESS*
- Ergonomic features in the operating room  
*M.A. VAN VEELLEN*
- Mechanical manipulator for control of endoscopic instruments with seven degrees of freedom  
*J.E.N. JASPERS*
- Devices to eliminate the physiological surgeon's hand tremor: preliminary study  
*D. CARNEVALE*
- Application aids for the over-the-scope (OTSC) clip system  
*A. KIRSCHNIAK*

15:00-16:30 SMITROB - PANEL SESSION 6

Chairmen: *M. SCHURR, D. BIRKETT*

**Overview**

- Latest developments in the field of surgical robotics  
*H. FISCHER*

**Focus topic 1: Enhanced degrees of freedom  
in surgical instrumentation**

*Robotic solutions*

- Robotic surgery: overall clinical experience benefits and drawbacks  
*M. ANGELINI*
- Pancreatic robotic surgery  
*A. CORATTI*

*Manual solutions*

- Evaluation of mechanical manipulators for endoscopic surgery  
*N. INOKI*

## **Focus topic 2: Conversion of robotics and advanced imaging technology**

- 3D endoscopy and steerable instrumentation  
*D. BIRKETT*
- MRI controlled robotic interventions  
*A. MELZER*

## **AULA MAGNA**

9:00-10:30 PARALLEL SESSION 5

### **TECHNIQUES AND TECHNOLOGIES FOR TREATMENT OF LIVER, PANCREATIC AND ESOPHAGO-GASTRIC DISEASES**

Chairmen: *C. RUSSELL, E. LEANDROS*

- Endoscopic administration of embryonic stem cells: perspectives of treatment of liver cirrhosis  
*O.I. SMIKODUB*
- Experimental liver resection using bipolar liver coagulative necrosis  
*P. ROSSI*
- Endoscopic drainage of pancreatic duct - indications and short term results  
*K. KRUM*
- Endoscopic drainage in the treatment of pancreatic pseudocyst - indications and results  
*T. DIMITAR*
- Minimally invasive retroperitoneal pancreatic necrosectomy  
*N. ALEXAKIS*
- Use of ultrasonic shears for laparoscopic tubulization of the stomach, gastric pull-up and transhiatal oesophageal dissection in total pharyngolaryngoesophagectomy  
*G. SGARZINI*
- Laparoscopic total or subtotal gastrectomy with D2 lymphadenectomy for advanced gastric cancer  
*A. SANSONETTI*

- Isolate splenic metastasis from pulmonary squamous carcinoma: laparoscopic treatment

*F.P. PRETE*

11:00-12:45 **PARALLEL SESSION 6**

**TECHNIQUES AND TECHNOLOGIES FOR  
TREATMENT OF COLORECTAL AND ANAL DISEASES**

Chairmen:*D. BIRKETT, R. PUGLIESE*

- Laparoscopic colectomy for terminal ileal Crohn's disease with abscess formation and recurrent Crohn's disease in Taiwan

*CHOU-CHEN CHEN*

- Current treatment of acute diverticulitis

*P. AMBROSETTI*

- New developments for laparoscopic assisted sigmoid resection in diverticulitis

*G. BUESS*

- Laparoscopic vs open colon resection for the treatment of colorectal diseases

*I. PLAMEN*

- Laparoscopic treatment of rectal cancer: technique of sphincter preservation

*J. MARKS*

- Hall procedure for complicated haemorrhoids

*S. TABIRI*

12:45-13:45 **LUNCH**

13:45-15:00 PARALLEL SESSION 7

**THERMAL ENERGY AND OTHER TREATMENTS IN ONCOLOGY**

Chairmen: *B. DESCOTTES, N. DI LORENZO*

- Hyper thermic intra-peritoneal chemotherapy  
*B. DESCOTTES*
- Hyperthermia induction in the treatment of peritoneal carcinomatosis: some technical consideration  
*A. ANASTASI*
- Radio Frequency in the treatment of primary and metastatic liver tumors  
*C. AMBROGI*
- Skin sparing mastectomy and immediate implant breast reconstruction: a new and oncologically safe surgical option  
*A. LORETI*
- Interstitial tumor treatment  
*R. LENCIONI*

15:00-16:30 PARALLEL SESSION 8

**UPDATES IN TISSUE DISSECTION AND HAEMOSTASIS**

Chairmen: *F. CRAFA, E. KANEHIRA*

- New haemostatic dissecting forceps with a metal membrane heating element  
*E. KANEHIRA*
- Methods for hepatic section. Criticism and advantages  
*B. DESCOTTES*
- Dissection technologies in laparoscopic hepatic resections  
*C. PONZANO*
- Tissue sealants in open and endoscopic surgery  
*N. DI LORENZO*
- Sealants and glues in hepato-biliary and pancreatic surgery  
*F. CRAFA*



## **CORSIA DELLE DONNE**

16:30-17:00 **POSTER AWARD SESSION**

17:00-17:30 **ANNOUNCEMENT SMIT 2005**

**ANNOUNCEMENT POSTER AND BEST TECHNOLOGY  
PAPER AWARD WINNERS**

END OF THE SCIENTIFIC SESSIONS

## **SMIT ADMINISTRATIVE AND EDITORIAL BOARD MEETINGS**

**December 17, 2004**

### **SALA MEETING I CHIRURGIA**

7:30-8:30 **SMIT STEERING COMMITTEE MEETING**

12:00-13:00 **SICTECA BOARD MEETING**

### **AULA MAGNA**

13:30-14:30 **SMIT GENERAL ASSEMBLY**

**December 18, 2004**

### **SALA MEETING I CHIRURGIA**

7:30-8:45 **MITAT EDITORIAL BOARD MEETING**

## CONFERENCE VENUE

Corsia delle Donne  
Azienda Ospedaliera San Giovanni - Addolorata  
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