

EARCS
European Academy of
Robotic Colorectal Surgery

SAVE THE DATE:
ESSO Course on Colorectal
Robotic Surgery
Hamburg, Germany
24-25 November 2017

Introduction from the Board

Welcome to the first issue of the EARCS newsletter. We would like to share the achievements of EARCS in the first two years and recognise the hard work put in by our Faculty, Scientific Committee and delegate surgeons that have made the Academy such a success.

We currently have 107 registered delegates at various stages of training and with over 350 proctored training sessions being performed, it certainly has been a busy start to the Academy! We are especially proud of the 22 delegates who have worked hard to obtain certification at the end of their training, with more to come in the near future.

We would particularly like to thank our proctors and members of the Scientific Committee who have assisted in the training and assessment of our delegates. They have taken time away from their own hospitals, private practices and personal lives to undertake tasks that are time consuming and often go unrewarded. This is the type of dedication that has made the Academy a success.

Interestingly, the position statement on robotic surgery recently published by the Association of Laparoscopic Surgeons of Great Britain and Ireland (ALSGBI), highlights that training needs to have a standardised structure with assessment of technical competence by video analysis. It further recommends competency based training based on the EARCS model.

Moving forward into this next phase, the Academy will focus on providing the same level of training and support to our delegates, obtaining accreditation for our training pathway from relevant surgical societies and publishing data on our achievements, clinical outcomes and standardised procedure.

We look forward to your continued support as we face the challenges ahead.



Prof. Amjad
Parvaiz
Co-Director

It is my hope that the Academy constitutes the first step in developing a European Society of Robotic Surgery.



Prof. Giuseppe
Spinoglio
Co-Director

Establishing EARCS was a bold step. As far as I know, nowhere in the world is there a training programme in progress with the Gold Standard basis of 'blind' video assessment. The number of consultant colorectal surgeons already recruited, in training and certified represents a unique success milestone. Robotic colorectal surgical training is being conducted under safe and controlled conditions in order to manage the risks to patients when introducing a new surgical technique.



Prof. R. J. (Bill)
Heald
Honorary Chair

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The EARCS Faculty has grown to include 25 leading robotic colorectal surgeons from 20 cities in 10 countries in Europe, as well as an anatomy expert from Turkey.

Faculty

Currently, we have 25 Faculty members from the following countries:

- Denmark
- Finland
- France
- Germany
- Italy
- Netherlands
- Netherlands
- Portugal
- Spain
- Sweden
- Turkey (anatomy expert)
- United Kingdom

Some Faculty members are EARCS proctors, others contribute to educational activities, the Scientific Committee and/or the Surgical Competency Assessment Committee.



Faculty meeting

The first meeting of the EARCS Faculty was held in London on 10 April 2015 where consensus was reached on a number of key issues including the training pathway, standardization of the training technique, clinical outcomes studies and proctoring.

Faculty members are selected based on their experience, having a regular robotic colorectal surgery list, having competent teams with the ability and willingness

to teach the EARCS standardised procedure whilst providing guidance and trouble-shooting.

Since the first meeting, EARCS has accepted the following seven surgeons to the Faculty:

- Mr. Shwan Amin
- Dr. Heiko Aselmann
- Dr. Rogier Crolla
- Dr. Nicola de'Angelis
- Dr. Roger Gerjy
- Dr. Fabio Priora
- Dr. George van der Schelling

Publications

- Ahmed J, Cao H, Panteleimonitis S, Khan J, **Parvaiz A**. Robotic versus laparoscopic rectal surgery in high-risk patients. *Colorectal Disease*. 2017 Jun 23. doi: 10.1111/codi.13783.
- Ahmed J, Siddiqi N, Khan L, **Kuzu A, Parvaiz A**. Standardized technique for single-docking robotic rectal surgery. *Colorectal Dis*. 2016 Oct;18(10):O380-O384. doi: 10.1111/codi.13466.
- Bertrand MM, Colombo P-E, Mourregot A, Traore D, Carrere S, Quenet F, **Rouanet P**. Standardized single docking, four arms and fully robotic proctectomy for rectal cancer: the key points are the ports and arms placement. *Journal of Robotic Surgery*. 2016 June;10(2): 171-174. doi: 10.1007/s11701-015-0551-y.
- Odermatt M, Ahmed J, Panteleimonitis S, Khan J, **Parvaiz A**. Prior experience in laparoscopic rectal surgery can minimise the learning curve for robotic rectal resections: a cumulative sum analysis. *Surg Endosc*. 2017 Mar 7. doi: 10.1007/s00464-017-5453-9.
- Panteleimonitis S, Ahmed J, Ramachandra M, Farooq M, Harper M, **Parvaiz A**. Urogenital function in robotic vs laparoscopic rectal cancer surgery: a comparative study. *Int J Colorectal Dis*. 2017 Feb;32(2):241-248. doi: 10.1007/s00384-016-2682-7. Epub 2016 Oct 21.
- Petz W, **Spinoglio G**, Choi GS, **Parvaiz A**, Santiago C, Marecik S, Giulianotti PC, **Bianchi PP**. Structured training and competence assessment in colorectal robotic surgery. Results of a consensus experts round table. *Int J Med Robot*. 2016 Dec;12(4):634-641. doi: 10.1002/rcs.1731.
- **Tou S**, Bergamaschi R, **Heald RJ, Parvaiz A**. Structured training in robotic colorectal surgery. *Colorectal Dis*. 2015 Mar;17(3):185. doi: 10.1111/codi.12898.

We apologise if we have missed some publications. To include your publication in the next issue of the Newsletter, please contact the EARCS Coordinating Centre at earcs@fundacaochampalimaud.pt



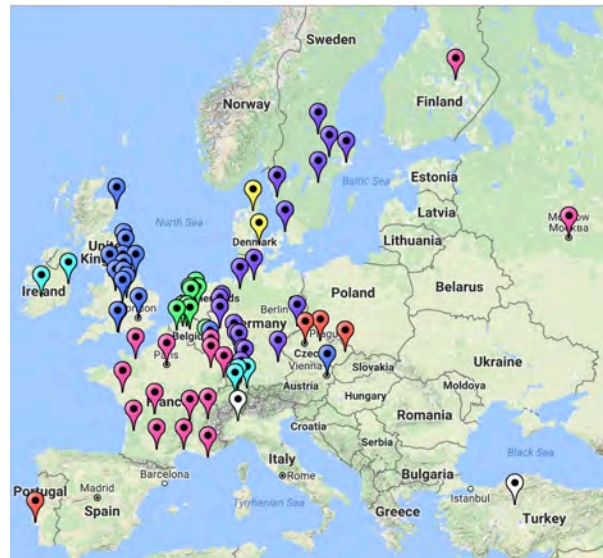
Attending EARCS Faculty Members (from left): Prof. David Jayne, Dr. Fabrizio Luca, Prof. Giuseppe Spinoglio, Dr. Paulo Pietro Bianchi, Prof. Jan Egberts, Dr. Marcos Gomez Ruiz, Dr. Ayhan Kuzu, Dr. Niels Thomassen, Prof. R. J. (Bill) Heald, Prof. Amjad Parvaiz, Dr. Henrik Loft Jakobsen, Dr. Benno Mann and Prof. Sergio Alfieri.

Launched in February 2015, EARCS has improved the entire surgeon learning pathway for robotic colorectal surgery by providing training and mentor relationships to 91 consultant surgeons in Europe and beyond.

Delegate surgeons

Currently, there are 107 consultant colorectal surgeons registered as EARCS delegates from 73 cities in 18 countries in Europe and beyond:

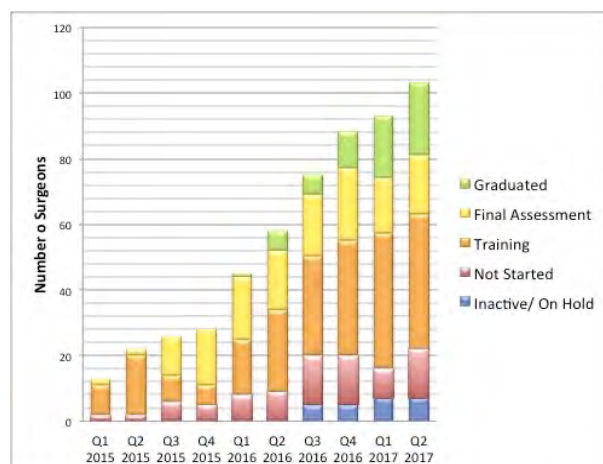
- Austria
- Belgium
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Italy
- Luxembourg
- Netherlands
- Portugal
- Qatar (not shown)
- Republic of Ireland
- Russia
- Sweden
- Switzerland
- Turkey
- United Kingdom



Delegate training status

The number of registered delegates has consistently increased over time. The current status of the 107 registered delegates is:

- 22 graduated
- 20 trained and going through final assessment
- 43 training
- 16 not yet started
- 6 started but on hold



Graduates

We are extremely proud that 22 registered delegates have met the criteria for competence in performing robotic colon and rectal surgery based on the assessment process set out by the Academy.

The final assessment stage required delegates to submit non-edited videos of self-performed robotic resections (sigmoid colon and rectal) for blind assessment by the faculty.

We extend warm congratulations to the graduates who worked hard to achieve their certification, the Proctors who assisted in their training, and the Surgical Competency Assessment Committee who conducted the video assessments.

- Mr. Shwan Amin – Sheffield, UK
- Mr. Per Vanguard Andersen – Odense, DK
- Prof. Thomas Bachleiter-Hofmann – Vienna, AT
- Dr. Paolo Bellora – Novara, IT
- Prof. Michael Bergmann – Vienna, AT
- Dr. Nicola de'Angelis – Paris, FR
- Prof. Nuno Figueiredo – Lisbon, PT
- Dr. Roger Gerjy – Stockholm, SE
- Dr. Frank Svendsen Jensen – Aalborg, DK
- Mr. Ronnie Matthew – Leicester, UK
- Dr. Serge Montage – Nancy, FR
- Prof. Beat Müller – Heidelberg, DE
- Dr. Anders Uth Ovessen – Aalborg, DK
- Dr. Pieman Poornorozy – Odense, DK
- Mr. Tas Qureshi – Poole, UK
- Dr. Andreas Scheiwiller – Luzern, CH
- Prof. Bruno Schmied – St. Gallen, CH
- Dr. Matej Škrovina – Nový Jičín, CZ
- Prof. Paris Tekkis – London, UK
- Mr. Samson Tou – Derby, UK
- Prof. Alexis Ulrich – Heidelberg, DE
- Dr. Ellen Van Eetvelde – Brussels, BE

EARCS Proctors have conducted over 350 proctored (training) cases for our registered delegates in 64 cities in 17 countries.

Proctored (training) cases

EARCS Proctors have conducted over 350 proctored cases for our registered delegates in 64 cities in 17 countries. We thank our proctors for their dedication and commitment:

- Mr. Shwan Amin – Sheffield, UK
- Dr. Heiko Aselmann – Kiel, DE
- Dr. Rogier Crolla – Breda, NL
- Dr. Roger Gerjy – Stockholm, SE
- Dr. Marcos Gómez Ruiz – Santander, ES
- Dr. Fabrizio Luca – Milan, IT
- Prof. Amjad Parvaiz – Poole, UK & Lisbon, PT
- Dr. Tero Rautio – Oulu, FI
- Prof. Giuseppe Spinoglio – Milan, IT
- Dr. Niels Thomassen – Aarhus, DK
- Dr. George Van Der Schelling – Breda, NL



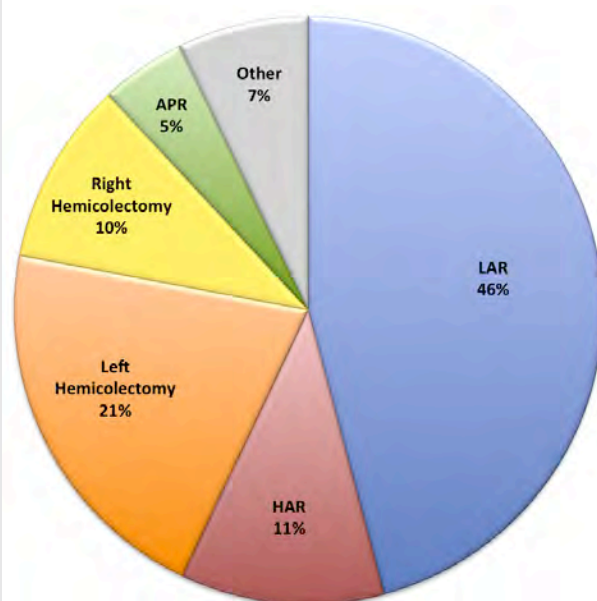
Types of cases

A decision was taken at the first Faculty meeting that the Academy should start with a focus on teaching robotic rectal resection (rectal and sigmoid colon) before expanding to other types of surgery.

In keeping with the original decision, the majority of the proctored (training) cases performed were:

- Low Anterior Resection (LAR)
- High Anterior Resection (HAR)
- Left Hemicolectomy
- Right Hemicolectomy.

Other types of proctored cases included: APR, ELAPE, Extended Hemicolectomy, Gall Bladder, Hartmann's Procedure, Hernia Repair, Ileostomy, Nerve Decompression, Proctectomy, Subtotal Colectomy and Total Colectomy.



Final assessment of delegate surgeons

After completing the required number of proctored cases, delegates are required to submit two videos of self-performed (non-proctored) robotic LAR for assessment in order to receive credentialing. We wish to thank our Surgical Competency Assessment Committee (who are all members of the Faculty and/or Scientific Committee) for their tireless dedication to this time consuming task:

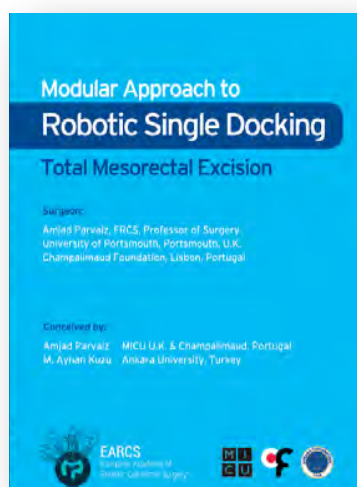
- | | |
|---|--|
| • Dr. Roger Gerjy – Stockholm, SE | • Dr. Danilo Miskovic – London, UK |
| • Dr. Marcos Gómez Ruiz – Santander, ES | • Prof. Amjad Parvaiz – Poole, UK & Lisbon, PT |
| • Dr. Fabrizio Luca – California, US (previously Milan, IT) | • Prof. Giuseppe Spinoglio – Milan, IT |

Training DVD

The DVD titled 'Modular Approach to Robotic Single Docking Total Mesorectal Excision (TME)' was developed as a training tool to assist surgeons along the EARCS training pathway. It was created in conjunction with the Minimally Invasive Colorectal Unit (MICU) at Queen Alexandra Hospital in Portsmouth (UK), Ankara University in Ankara (Turkey) and the Champalimaud Foundation in Lisbon (Portugal).

The DVD was created and presented by EARCS faculty members Prof. Amjad Parvaiz, Prof. Bill Heald and Prof. Ayhan Kuzu. It includes surgery videos (robotic TME with the *da Vinci Si* Surgical System) and commentary covering: Positioning and Port Placement, Vascular Ligation, Lateral Mobilisation, Proctectomy, Transection and Anastomosis.

The DVD was made with the support of Intuitive Surgical.



EARCS Training DVD



Scientific Committee

The Scientific Committee is comprised of Faculty Members Prof. Amjad Parvaiz, Prof. Giuseppe Spinoglio, Dr. Fabrizio Luca, Dr. Marcos Gómez Ruiz, Prof. David Jayne, Prof. Bill Heald, together with Dr. Danilo Miskovic. Its mandate is to develop tools for assessment of delegates and oversee research, data collection and analysis leading to peer review publications.

Formative Assessment Tool

The Global Assessment Score (GAS) form was developed as a formative assessment tool for surgical performance during training. The GAS form was developed by breaking down the EARCS standardised procedure for Robotic TME in a clinically and educationally useful way to present the major steps.

Delegates and proctors score delegates performance on each step using a scale of 1-5 after each proctored case. GAS forms will be used to conduct surgeon learning curve studies.

Summative Assessment Tool

A Robotic Colorectal Assessment Tool (RCAT) was developed as a summative assessment tool for credentialing delegates at the end of training. The EARCS standardised procedure and GAS form were used to determine each of the major steps of Robotic TME for assessment.

After completing the required number of proctored cases, delegate surgeons are required to submit two anonymised videos of self-performed LAR for blind assessment by the faculty in order to graduate. Delegates are assessed on their ability to conduct safe robotic LAR using the RCAT.

Having been in use for two years, the Scientific Committee will now focus on validating the GAS form and RCAT.

GAS form

RCAT

Standardised procedure for robotic single docking Total Mesorectal Excision (TME) surgery

EARCS conducted an expert consensus study amongst faculty. The aim was to establish a detailed description of the technical steps for Robotic Single Docking Total Mesorectal Excision (TME) surgery as recommended by a representative group of established European expert surgeons.

Standardisation of surgical procedures has many benefits, improving predictability of clinical outcomes and providing a baseline for clinical research and training. For both EARCS and other training programmes the educational benefits of a standardised procedure provide a common framework for proctor and trainee for operation planning, teaching and performance assessment. Despite the potential wide-ranging impact, no consensus on technical standards for robotic TME surgery yet exists. EARCS is attempting to address this.

The standardised procedure is being finalised for publication.

Prospective study in progress

EARCS is conducting a multi-centre, multi-country, observational study in Europe. The study is surgeon-led and non-profit. EARCS collects surgical case data from patients of registered surgeons and faculty, who are eligible for robotic colorectal surgery, via a secure on-line database.

The purpose of data collection is to document that implementing such a comprehensive training programme minimises risks to patients by observing patient outcomes.

With the assistance of our faculty and registered surgeons, we have ethics and data protection approval to conduct the study in 34 sites across 11 European countries. We thank all surgeons who assisted in the approval process and who are participating in the study. We also urge all approved sites to participate.

At the moment, we do not have funding to include more sites and we are currently seeking funding to continue the study. However, there are other opportunities to be involved in clinical outcomes studies (see below).



Upcoming studies

EARCS is establishing a study on the clinical outcomes of robotic colorectal surgeries performed by EARCS delegates, graduates and faculty. Surgeons that have been collecting homogeneous prospective data individually are eligible to participate.

EARCS is also establishing a separate prospective study without the use of a centralised database. Participating sites will be responsible for obtaining approval from their own Ethics Committees and/or Data Protection agencies. A Study Protocol will be distributed later in the year for EARCS delegates, graduates and faculty.

To register interest in the studies, please contact the EARCS Coordinating Centre on earcs@fundacaochampalimaud.pt

Accreditation of training pathway

Now that the standardised procedure has been defined, EARCS will focus on obtaining accreditation for our training pathway from relevant surgical societies, including: Association of Laparoscopic Surgeons of Great Britain and Ireland (ALSGBI); Spanish Society of Coloproctology; European Society of Coloproctology (ESCP), European Society for Endoscopic Surgery (EAES); American Society of Colon and Rectal Surgeons (ASCRS); and Society of American Gastrointestinal and Endoscopic Surgeons (SAGES).

We invite all Faculty and delegates to provide opportunities for accreditation from their respective countries. For further information, please contact the EARCS Coordinating Centre on earcs@fundacaochampalimaud.pt

Symposium on Minimally Invasive Approach to Rectal Cancer

15-16 May 2017, Champalimaud Foundation, Lisbon, Portugal

The Symposium on Minimally Invasive Approach to Rectal Cancer was held on 15-16 May 2017 at the amazing conference hall of the Centre for the Unknown at the Champalimaud Foundation in Lisbon, Portugal. With the support of world-renowned experts on colorectal cancer (see photo of the Symposium faculty below), the Symposium was a phenomenal success.



With a very strong focus on education and training - recognised by the scientific support of the Portuguese Society of Surgery (SPCIR), the Portuguese Society of Coloproctology (SPC), and the European Academy of Robotic Colorectal Surgery (EARCS) – the 'Symposium on Minimally Invasive Approach to Rectal Cancer' was a unique opportunity to bring together leading experts in the treatment of colorectal cancer around the discussion of minimally invasive therapy.

From diagnosis, patient preparation, multidisciplinary therapy involving imaging, radiation therapy and minimally invasive surgery, to the option of non-operative management (Watch & Wait), all aspects were shared and discussed among the 300+ attendees.

It was a great pleasure to recognise four surgeons attending the symposium who had recently completed their EARCS training (from left): Mr. Tas Qureshi from Poole Hospital (UK), Prof. Nuno Figueiredo from the Champalimaud Foundation (Portugal), Mr. Samson Tou from Derby Hospital (UK) and Prof. Michael Bergmann from Medizinische Universität Wien (Austria). The graduates were presented with their EARCS 'Certification of Competency in Performing Robotic Colon and Rectal Surgery' by Prof. Bill Heald, Prof. Amjad Parvaiz and Prof. Eduardo Barroso of the Champalimaud Foundation.

Together with lectures, discussions, live surgery and some breaks for informal discussions, were two intense days of work, rich in moments of learning and sharing and that left us looking forward to the next meeting.

Live Interactive Broadcast of Simultaneous Surgeries

A technological edge was brought to the event through the live broadcast of 3 highly-complex surgical procedures. A "window" to the Champalimaud Clinical Centre's surgical theatres was opened to allow three cases to be followed, in order to demonstrate the alternatives that exist in the field of minimally invasive surgery. Live, and with the chance to interact with surgical teams in action, participants watched a Laparoscopic TME and a Transanal TME (on the first day) and Robotic TME (on the second day). The Laparoscopic and Transanal cases were performed by two surgical teams simultaneously - the first team responsible for the laparoscopic approach performing part of the surgery that is easier via the abdomen, and a second team that accessed transanally, with completion of the surgery achieved as both teams met.



International Symposium of Minimal Invasive Surgery for Rectal Cancer

13-14 June 2016

Poole, UK

The Symposium attracted participants from all over the world and began with an open-air concert by the Bournemouth Symphony Orchestra at Upton House with fireworks display finale.

The first day included engaging lectures given by world renowned experts. The keynote lecture titled 'What is the best platform for rectal cancer surgery? Laparoscope vs robot' was delivered by Prof. Soen-Hahn Kim of Korea University, Seoul. Some other lectures were:

- 'Rectal cancer surgery – old vs new' by Prof. Bill Heald.
- 'Developing consensus for robotic TME surgery – EARCS' by Prof. Amjad Parvaiz.
- 'Developing European consensus for robotic TME Surgery' by Dr. Danilo Miskovic.
- 'Surgical anatomy of the pelvis' by Prof. Ayhan Kuzu.
- 'Laparoscopic approaches for locally advanced rectal cancer' by Dr. Nicola de'Angelis.
- 'The role of radiology in the management of rectal cancer – MRI' by Prof. Gina Brown.
- 'The role of radiology in the management of rectal cancer – endo-anal USS' by Dr. Tony Higginson.

The lecture series was followed by a full day of live robotic surgery with real time video feeds to the 100+ attendees at the conference venue. It was also live-streamed directly via satellite to a worldwide audience via multimedia platforms with audio and Twitter feedback, believed to be the first time this was done for a robotic procedure.

To view the conference surgical videos click here: [UoP and Poole Hospital Robotic Surgical Videos](#)



Prof. Bill Heald



Dr. Danilo Miskovic



Prof. Ayhan Kuzu



Prof. Gina Brown



Dr. Tony Higginson

Master Classes in Robotic Colorectal Surgery – The Art of Surgical Precision

10-11 April 2017

5-6 June 2017

Poole Hospital, UK

This year Poole Hospital hosted a series of two-day master classes in robotic colorectal surgery. The master classes were conducted by Prof. Amjad Parvaiz, Co-Director of EARCS, one of the foremost trainers in robotic colorectal surgery:



Prof. Amjad Parvaiz
Professor of Surgery at Poole General Hospital, UK
Head of Robotic & Laparoscopic Programme at Champalimaud Foundation, Portugal
Co-Director of EARCS



The master classes were very 'hands on' with a case presentation before each of the live robotic surgeries: one High Anterior Resection (HAR) and one Total Mesorectal Excision (TME). Post-case discussions centred on port placement and docking, modular surgical technique, robotic stapling and the use of Indocyanine Green (ICG) enhanced fluorescence.

Keep an eye out for new master class dates in the future!

Pelvic Happiness for Pelvic Cancer Patients - Function Preservation by Treatment Precision

13-14 February 2015
Lisbon, Portugal

The Symposium hosted by the Champalimaud Foundation in Lisbon, Portugal was attended by a multidisciplinary panel of world-renowned experts, who met to discuss how best to preserve "pelvic happiness" in patients suffering from pelvic tumours.

The launch of the EARCS was announced by the Champalimaud Foundation (from left): Mr. João Silveira Botelho, Prof. Amjad Parvaiz, Prof. Bill Heald, Prof. Nuno Figueiredo, Dr. José Filipe Cunha, Ms. Rachelle Bissett-Amess and Dr. Carlos Carvalho.



Training Course of Robotic Assisted Colorectal Surgery

19-20 March 2015
Bochum, Germany

The course was hosted by the Augusta Kliniken in conjunction with the German Society for General and Visceral Surgery (DGAV).



Dr. Benno Mann

The course focused on the EARCS modular training programme demonstrated in live operations, as well as new technologies and the future development of robotic colorectal surgery.

To view the videos click here:
[Augusta Kliniken Bochum](#)



augusta
MEDIZIN PFLEGE BILDUNG

Advanced Course of Robotic Surgery - HPB and Colorectal

6-10 July 2015
Grosseto, Italy

The course was hosted by the International School of Robotic Surgery in conjunction with the Clinical Robotic Surgery Association (CRSA).



Dr. Paolo Bianchi

The course was a theoretical and practical introduction to robotic HPB and colorectal surgery with a hands-on course for surgeons to improve their robotic skills.

To view the videos click here:
[International School of Robotic Surgery](#)



**International School
of Robotic Surgery**

SAVE THE DATE:

ESSO Course on Colorectal Robotic Surgery

Hamburg, Germany

24-25 November 2017

Aim of the course

This course will be a practical introduction to robotic colorectal cancer surgery. Participants will have the opportunity to train with da Vinci simulators and then put this into practice by performing robotic sigmoid colon resection, low anterior resection (LAR) and right colectomy on cadavers.

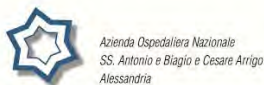
Educational methods

- The latest generation of the da Vinci robotic system will be used by participants for practice on cadavers:
 - Hands on sessions of robotic low anterior resection, sigmoidectomy and right colectomy on cadavers.
 - Simulation sessions with da Vinci simulators under guidance of an experienced surgeon.
- Live demonstration of surgical procedures: tips and tricks.
- Video-based discussion sessions: LAR, sigmoidectomy, right colectomies.
- Lectures with interactive discussions between participants and faculty members.

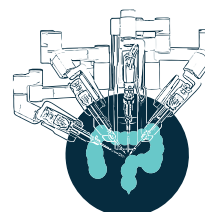
Candidates profile

Colorectal and general surgeons planning to start a robotic programme or with limited experience in robotics.

For more information and to register click here: [ESSO Course on Colorectal Robotic Surgery](#)



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