



LEADERS IN ONCOLOGIC INTERVENTIONS

# ECIO 2017

## the REVIEW

**European Conference  
on Interventional Oncology**

**April 23-26  
Bilbao, Spain**

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

**CIRSE**

Cardiovascular and Interventional Radiological Society of Europe

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## Impressum

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## Disclaimer

This Review is intended to provide information on the European Conference on Interventional Oncology. While the information in this publication is believed to be accurate, neither CIRSE nor the Editorial Team can accept any legal responsibility for errors or omissions made.

## ECIO – Examining the Key Topics in Interventional Oncology



From April 23-26, ECIO 2017 took place in the Basque city of Bilbao, where all participants were invited to learn about the latest devices and developments in interventional oncology and to exchange information with their peers through engaging presentations and discussions.

This was the eighth occurrence of the ECIO congress and we were proud to welcome over 1,300 participants from 53 countries for over 45 hours of educational content. The strength of the multidisciplinary background of this meeting was seen through the 24% of participants who came from specialties outside of interventional radiology and interventional oncology. This expansive collection of perspectives always helps to make this a unique and revolutionary meeting.

### **A Varied Programme**

The topics of discussion during this year's congress were spread across the gamut of interventional oncology. One important theme was complication management and was addressed in a Clinical Focus Session as well as during the newly introduced Morbidity and Mortality Conference, which covered cases from a range of procedures that had gone awry. Presentations from these sessions tried to address the cause of each complication and point to potential solutions to avoid the same occurrence.

Another fascinating session was the relatively new, *The best IO papers of 2016*, which featured three top research publications from 2016. This session foregrounds significant clinical research in the subspecialty.

### **Perfecting Techniques in IO**

The Hands-on Device Training (HDT) opportunities offered at this year's meeting served to provide physicians with a detailed overview of the available technologies for tumour ablation in separate practical sessions covering radiofrequency ablation, microwave ablation and alternative techniques, including cryoablation and other image-guided technologies. Each HDT featured a round-table discussion with the coordinators, allowing participants the chance to ask questions and receive feedback.

### **2017 Honorary Lecture**

This year's Honorary Lecture entitled "Metastatic colorectal cancer and percutaneous thermal ablation: a happy marriage?" was given by Dr. Jean Palussière. We were proud to welcome his insights on the issue, and this proved to be another highlight of the programme, touching upon one of the core themes of the congress: metastatic colorectal cancer.

### **Science at Your Fingertips!**

If you would like to view any of the presentations from ECIO 2017, they are all available to watch on ESIRonline. Every person who attends a CIRSE-sponsored event has access to ESIRonline for one year – be sure to utilise the opportunity to gather the latest findings on your subjects of interest!

**To get more details on the main topics covered this year, turn to the next pages...**

## ECIO 2017: Our Attendees



There are many elements that make the European Conference of Interventional Oncology such a fantastic meeting: cutting-edge science, innovative learning methods and updates on prominent research. Among the practical elements, lie the outstanding individuals who participate in and attend the meeting. From interventional oncologists to surgeons, medical oncologists and industry partners, the conference is brimming with a diverse range of knowledge and experience in treating cancer patients, making it a brilliant opportunity to collaborate and educate!

ECIO 2017 drew in **1,335 attendees** and **116 Faculty** from all over the globe to the Basque city of Bilbao. CIRSE and the ECIO Scientific Programme Committee are extremely proud to represent such a global gathering in the oncological world!

### A Truly Multidisciplinary Conference

Profession	%
Interventional radiology	76
Medical oncology, surgical oncology, hepatology, gastroenterology, nuclear medicine and radiation oncology	20
Radiography, nursing and other professions	4

### Top 10 Attending Countries

Spain	102
Germany	94
Italy	84
France	83
United States of America	78
United Kingdom	69
Netherlands	67
China	43
Belgium	37
Austria	36

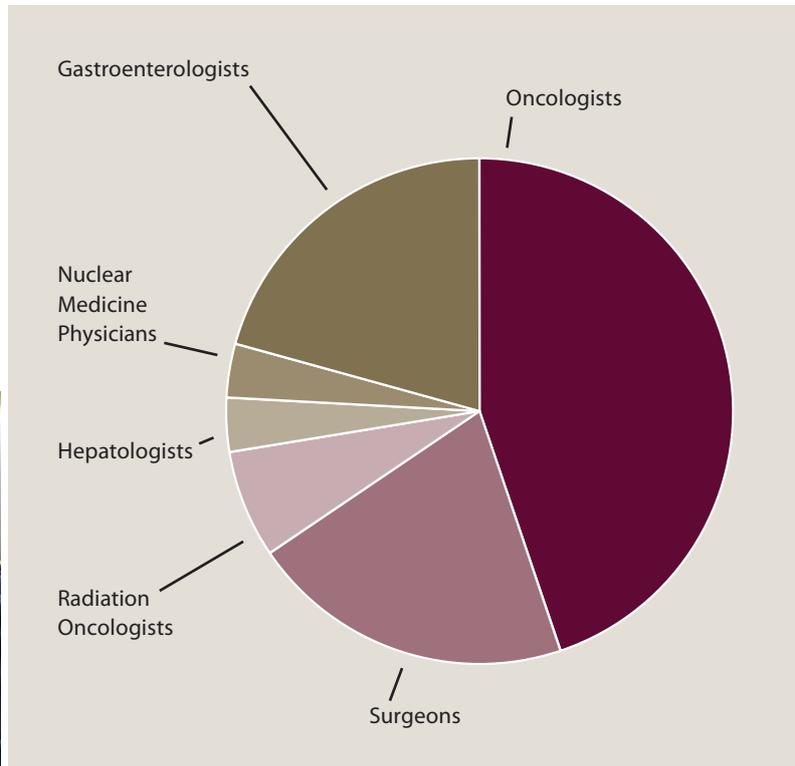




**Beating Cancer Together!**

For the past few years, the multidisciplinary nature of ECIO has been greatly enhanced by the **Collaborating Against Cancer Initiative**. This Initiative encourages attendees to bring a non-radiologist colleague, whether that be an oncologist, gastroenterologist, hepatologist, surgeon or radiation oncologist. The invited non-radiologist colleague is given free registration and a limited travel grant. The conference is the perfect occasion to educate colleagues on the benefits of interventional oncologic practices first-hand, in a collaborative and dynamic environment.

**At ECIO 2017, we welcomed 30 Collaborating Against Cancer Pairs!**



## Advancing in Musculoskeletal Interventions



From more traditional methods, such as surgery and radiotherapy to emerging therapies such as SBRT and biomechanical surgery to very promising ablative therapies, there are many options available to treat wide-ranging musculoskeletal tumours. As such, treating these tumours requires close collaboration between disciplines in order to give the patient the best option possible. Alongside the clear role of imaging know-how, the interventional oncologist also plays an important role in tumour board discussions and the patient's clinical care. Two core sessions at ECIO 2017 concentrated on spinal tumours, non-spinal bone and soft tissue tumours, while there was also a video learning session which featured a case presentation on cementoplasty for painful bone metastases.

### Spinal Tumours: The Big Pain

Spinal metastasis is the most common site of skeletal metastases in patients. 53% of patients with solid tumour bone metastases will suffer spinal skeletal related events and 2.5-10% will develop metastatic epidural spinal cord compression. Around one in four patients will progress to paraplegia. During the *Spinal tumours* Clinical Focus Session, speakers covered a range of treatment options for benign and malignant spinal tumours, including surgery and combining resection with minimally invasive techniques, emerging therapies such as SBRT, combined systemic therapies and embolisation. This session also featured an Invited Scientific Paper which unveiled the exciting developments of a new working group creating an evidence-based algorithm for treating metastatic spine disease.

### Invited Scientific Paper: The Metastatic Spine Disease Multidisciplinary Working Group Algorithms

On behalf of the working group consisting of medical and radiation oncologists, surgeons and interventional radiologists from multiple comprehensive cancer centres, Prof. Jennings (US) spoke about their novel plan of creating an algorithm to treat metastatic spine disease. The goals of this multidisciplinary working group were:

- To understand the multidisciplinary approach to treating metastatic spinal tumours
- To publish an expert consensus and an evidence-based algorithm
- To define the role of thermal ablation
- To identify elements of the algorithm which require further evidence
- To lay out prospective clinical study designs

The group hopes to facilitate interdisciplinary referrals by providing physicians with straightforward recommendations regarding the use of available treatment options, including emerging modalities such as stereotactic body radiation therapy and percutaneous tumour ablation.

*You can watch the six presentations from the Clinical Focus Session on spinal tumours at [ESIRonline](#).*



### Bone Tumours Beyond the Spine

In the session *MSK tumours beyond the spine*, speakers focused on topics such as biomechanical and surgical consolidation in bone cancer patients, ablation and bone consolidation, management of benign bone tumours and treatment options for primary soft tissue tumours. This session also featured an Invited Scientific Paper on a study for preventative internal fixation using a new polymer device on the market.

**Invited Scientific Paper:** Percutaneous internal fixation to prevent impending pathological hip fractures: a 1-year follow-up study

Bone metastases localised in the femoral neck can result in painful pathological fractures for cancer patients. Using effective visual aids, Dr. Frédéric Deschamps (FR) presented on his clinical experience of a new percutaneous device for pathological hip fractures, recently evaluated for its implantation feasibility in a multi-centre, single arm prospective study.

The new percutaneous polymer Y-STRUT device, which consists of two implants combined with cementoplasty, has been developed to prevent further fractures of the proximal femur. The details of the study were as follows:

- 10 procedures in two hospitals
- Inclusion criteria at tumour board: lytic metastasis located in the proximal femur considered at risk of pathological hip fracture (Mirels' score over 8); informed consent; life expectancy of over three months

- Procedures performed under general anaesthesia in an angiography suite
- Preventative consolidation performed
- Imaging: fluoroscopy and 3D fluoroscopy

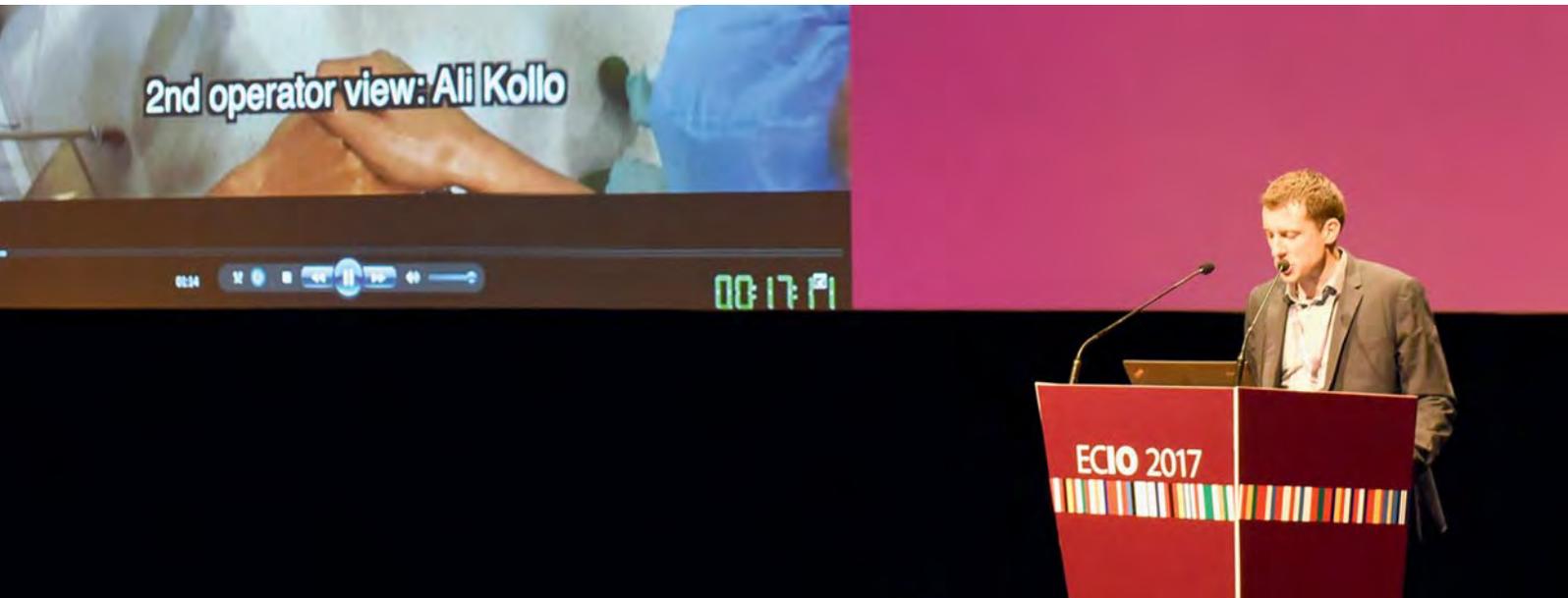
After a 100% success rate, preliminary results demonstrate the feasibility and safety of the device. One-year follow-up of 10 patients was carried out with short-term and mid-term medical consultations and imaging examinations. One patient suffered from femoral neck fracture and underwent orthopaedic surgery. An additional multi-centre retrospective study, HIPPON 100, is planned to affirm these results.

*You can watch this presentation, along with the others in the session on ESIRonline.*

### Treating Primary Soft Tissue Tumours

Dr. Xavier Buy (FR) focused on treatment options for primary soft tissue tumours. Soft tissue tumours are a heterogeneous group of tumours; they can be benign or malignant and have a host of different genetic features, clinical presentations and outcomes. Surgery remains the standard treatment for soft tissue sarcomas and growing benign mesenchymal tumours. Deep lesions and desmoid tumours are, however, poor candidates for surgery. Benign or malignant tumours can benefit from ablative therapies; cryoablation, in particular, can be a good option for targeting large tumours, resulting in minimal pain, improved healing and better protection of skin and nerves.

*You can watch this presentation on treatment options for primary soft tissue tumours at ESIRonline.*



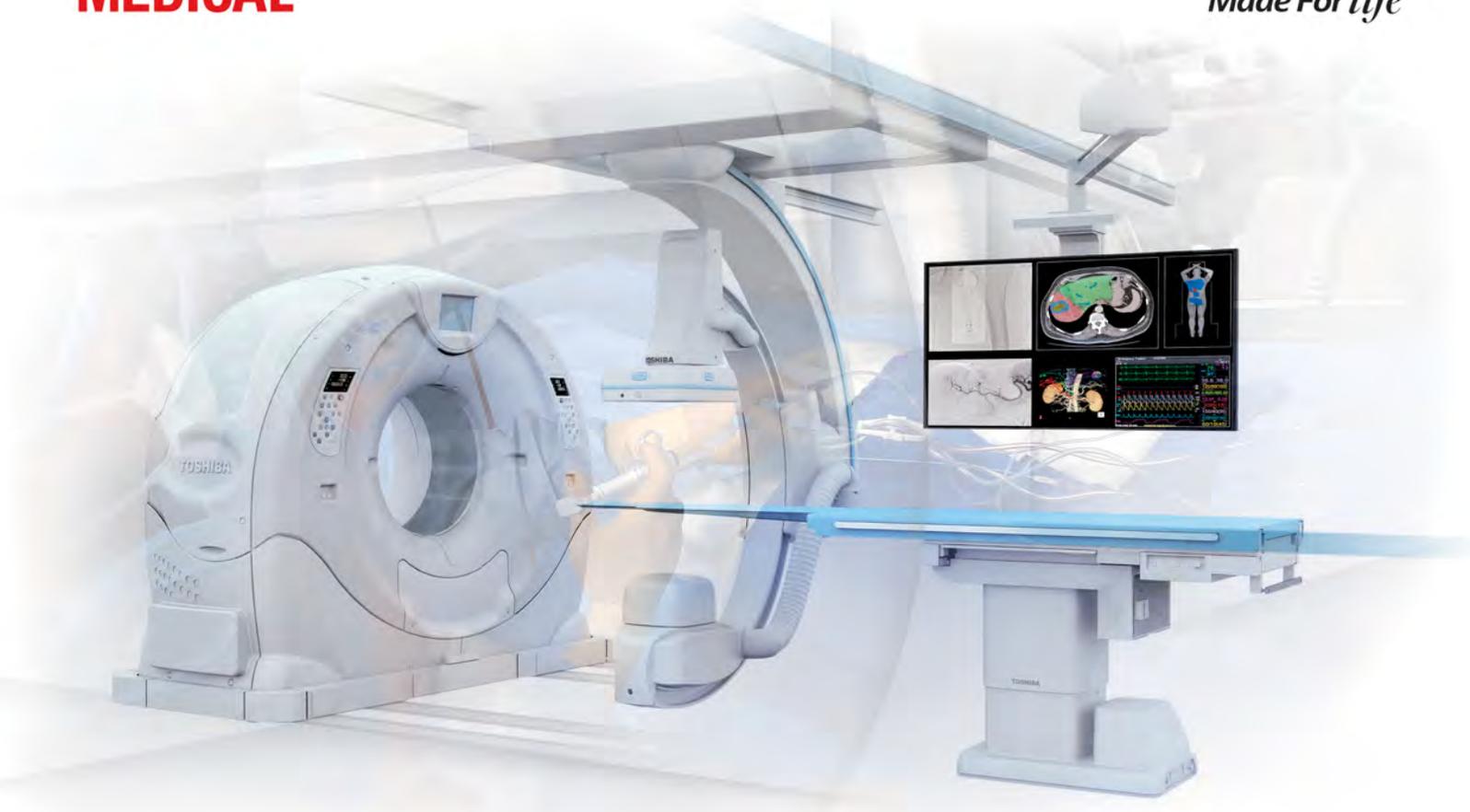
**Interactive Video Learning: Cementoplasty for Bone Consolidation**

The Video Learning Sessions at ECIO provide a great opportunity for interactive education. Alongside the video, speakers guide viewers through specific cases and interventions, offering their advice and personal experiences. During the *How I do it – lung, kidney, bone* Video Learning Session, Dr. Julien Garnon (FR) presented a case of painful lytic metastases in the acetabulum of an 89-year-old patient and took the audience through a cementoplasty procedure

step-by-step. Dr. Garnon covered points such as diagnosis, patient care, anaesthesia, the importance of sterility, the needle positioning and follow-up. In case of cement leakage, Dr. Garnon suggested either moving the joint to allow the cement to spread more evenly, or an intra-articular injection. In the worst case, hip surgery would be the next option. It is, therefore, important to carefully manage the flow of cement and use fluoroscopic guidance throughout.

*Watch this exciting case presentation video at [ESIRonline](#).*

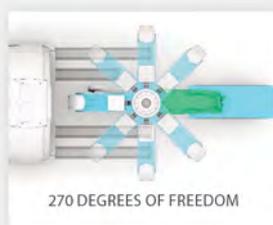




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## Managing the Clinical Side



### Getting IO Into Practice

One of the core themes at this year's congress was clinical management. As minimally invasive medicine continues to advance technically, it is also vital to follow suit regarding the organisational aspect. Additionally, as patient-focused care is increasingly being recognised as a necessity, the importance of clinical knowledge and entrepreneurial thinking is essential.

In the Clinical Focus Session *Getting IO into practice* experts discussed a range of important topics surrounding the motive to push interventional oncology further into mainstream medicine through clinical management strategies. Themes aimed to prioritise patients and included: IO curriculum, increasing patient referral, interacting with other disciplines, promoting IO services to administration, and the patient pathway in IO.

### TAKE-HOME POINTS

- **Develop an IO curriculum for reference in mainstream treatment**
- **Organise infrastructure and harmonise training**
- **Improve global competence**
- **Make personal contact with referring physicians – call at first instead of emailing!**
- **Know what all the disciplines can offer so that you can ethically recommend the best option**
- **Have a positive attitude but don't provide hopeful illusions**

*Log in to ESIRonline to view this session and many more!*





### Strengthening IO Evidence

Another topic addressed was the importance of increasing IO evidence. After last year's successful incorporation of the new Invited Scientific Papers feature, this was again continued with many sessions containing a scientific paper presentation relevant to the session's theme. This feature, alongside *The best IO papers of 2016*, highlighted the significance of clinical research.

One Clinical Focus Session brought to the foreground the significance of registries through the theme *Promoting IO evidence*. Here speakers provided a glance into the registries currently being run by CIRSE, the Registry for SIR-Spheres Therapy (CIRT) and the Registry for LifePearl Microspheres (CIREL), as well as discussing the value of registries versus randomised trials and how to bring a product to market.

### CIRT OBJECTIVES

- Collect data on patients treated with SIR-Spheres microspheres for primary or secondary liver tumours
- Gather knowledge on real-life application
- Attain Quality of Life data from treated patients

### CIREL OBJECTIVES

- Capture a broad range of data on the delivery of TACE using LifePearl Microspheres loaded with irinotecan for colorectal adenocarcinoma with liver-only or liver-dominant metastases
- Create an evidence base to improve patient care and optimise treatment protocols and therapy outcomes





### Creating a Continuum of Care

General patient management and more clinically focused practices are of growing importance in IO. Because of this, it is necessary to have a thorough understanding of the wide range of therapeutic possibilities that now exist and a growing knowledge of which patients will benefit most from specific therapy options. Taking on the clinical responsibility of patients, including initial assessment, procedure planning, complication management and follow-up are all essential parts of developing a care regime for interventional patients. Being able to handle all facets of the patient's treatment and consolidating a clinical mindset in IO are current strategies which need immediate attention.

In the session *Recipes for general patient management*, these topics were covered by invited speakers with presentations on assessing the patient's general condition, peri-interventional pain management and post-embolisation management, to name a few.

By examining the broader context of clinical care, ECIO shows a dedication to the progress of interventional oncology beyond procedures alone.

### TAKE-HOME POINTS

- Individualise therapy to maximise benefit and minimise risk
- Incorporate geriatric assessment strategies to determine performance status and assist in management decisions
- Establish preventive analgesia protocols





### A Personalised Approach

Personalised therapy is on the rise with new data coming into play in fields such as immunotherapy, radiomics and genomics. Immunotherapy was addressed in the Clinical Focus Session *Understanding tumour biology*, where talks took place on the combination of locoregional and systemic immunotherapy, the good and bad side of post-ablation inflammation and immune reactions and the potential of IO procedures inducing tumour spread. This topic was again brought up in the Technical Focus Session *Cutting-edge developments*, where presentations covered intratumoural immunotherapy and viral therapy as well as immunotherapy plus ablation or DEB-TACE.

Radiomics and genomics were further looked into during the session *Genomics in cancer*, where a general overview of the concepts were provided before turning to such topics as genomics and percutaneous biopsy, radiomics in MRI and PET-CT and what these mean for the future of cancer care.

As interventionalists continue to push forward on efforts to advance personalised patient care and clinical management, these important issues become more and more pertinent.

*To hear more about what was discussed in these sessions, log in to ESIRonline and view the expert presentations.*



## A New Era of Treating Metastatic Colorectal Cancer



Of the 1.4 million people diagnosed with colorectal cancer annually, around 50% will die from liver metastases. As the treatment of colorectal liver metastases (mCRC) remains a subject full of complexities, innovative treatment, strong research and consistent follow-up are vital in managing this disease.

In the past few years, game-changing studies in the treatment of metastatic colorectal cancer using minimally invasive treatment options have allowed interventionalists to establish themselves as an essential part of the multidisciplinary team. Embracing this collaborative approach, ECIO 2017 again featured a multitude of sessions comprehensively discussing this major disease with the input of all disciplines.

### The Essential Evidence

The session *Colorectal cancer and IO: where is the evidence?* discussed notable trials, in order to place the evidence into the larger context of guidelines and daily clinical practice. The session, which also delved into best research practices, featured lively discussions between the audience, the panel and the speakers.

Prof. Otto van Delden (NL) took us through the CLOCC trial in detail. Running between 2002 and 2007, this trial was the first-ever prospective randomised phase II study to evaluate patients with unresectable mCRC using a combination of systemic therapy and local RFA. After a median follow-up of 9.2 years, overall survival was favoured in the RFA arm with 35.9% compared with 8.9% in the chemotherapy-only arm. This trial is important because it provides level one clinical data showing improved overall survival with the addition of ablation.

Radiation oncologist Prof. Ricky Sharma (UK) spoke about SIRFLOX, the largest randomised trial ever conducted that combined an interventional radiology procedure with chemotherapy in oncology which was published in 2016. SIRFLOX was the first of a group of three studies assessing the results of adding SIR-Spheres Y-90 resin microspheres to first-line chemotherapy in the treatment of mCRC.

The results of the three studies (SIRFLOX, FOXFIRE and FOXFIRE Global), which together enrolled more than 1,100 mCRC patients, were combined in a pre-planned assessment of the overall survival benefit of adding SIR-Spheres Y-90 resin microspheres to first-line chemotherapy for mCRC. These results, released in June 2017, concluded that despite higher response rates and improved liver-specific progression-free survival (PFS), the addition of SIRT to first-line chemotherapy for patients with liver-only and liver-dominant mCRC did not improve overall survival or PFS.

### The Challenges

The Clinical Focus Session *Colorectal cancer patients – the challenge* featured talks from the perspectives of various specialties on disease prevalence, an Invited Scientific Paper, current ESMO guidelines and treatment options such as ablation, intra-arterial therapies and surgery.

**Invited Scientific Paper:** SIRFLOX study: a novel approach to define the depth of response (DpR) within a volumetric model in patients with metastatic colorectal cancer (mCRC)



Prof. Thomas Helmberger (DE) presented a paper about using a novel volumetric model, which was applied to the independent blinded reader RECIST data from the SIRFLOX trial.

**Methods**

Spherical tumour volume was estimated from the longest unidimensional length for  $\leq 5$  target hepatic lesions (RECIST 1.0) in the SIRFLOX ITT population and finite mixture modelling was used to assess baseline tumour distribution and identify the optimal cut-point for subpopulations within which any potential predictors of DpR could be described.

**Results**

The study found that in SIRFLOX, the addition of SIRT to standard chemotherapy significantly increased hepatic DpR.

The impact of SIRT on progression-free survival was greatest in patients with a baseline tumour burden  $>12\%$ , whereas the impact on complete response rate was greater where tumour burden was  $<12\%$ .

**Follow-Up: Quality and Efficacy**

Following up patients is an essential part of the procedure for interventional radiologists. As 50% will experience recurrences, thorough follow-ups and early detection are paramount. During the session *Follow the colorectal cancer patients: quality and efficacy* various aspects of patient follow-up were debated. Current ESMO, ASCRS, ASCO and NCCN guidelines were also discussed alongside the clinical evidence supporting imaging methodology as well as patient reporting outcomes. The session was then rounded off by discussing outcome measures in the context of changing healthcare systems.





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# ECIO 2018 – Exploring the Depths of Interventional Oncology



Each year, interventional oncology continues to stack up more evidence and pave new roads for the treatment of cancer patients. As this field of medicine flourishes, the European Conference on Interventional Oncology seeks to offer a space for innovative developments to take centre stage and for interventionalists to hear the latest updates in the field.

## **A Comprehensive Programme**

Next year's congress will focus on a wide range of clinical topics, from genomics and immunotherapy to HCC and musculoskeletal cancer. The Scientific Programme Committee will be chaired by Afshin Gangi and Alban Denys, who are already hard at work creating a high-quality programme with a variety of sessions.

Clinical and Technical Focus sessions will highlight the latest advances in popular and novel therapies with themes such as *Colorectal Cancer in 2018* and *Follow-up imaging after intervention: towards consensus*, while video learning sessions will feature first-hand insight into how experienced practitioners are performing specific procedures, such as multipolar liver ablation, chemosaturation, pancreatic electroporation and bone biopsy. With a special session scheduled on avoiding complications and Multidisciplinary Tumour Boards planned on kidney cancer, and primary lung cancer and metastases, there is bound to be a subject of interest for everyone working in the oncologic field.

## **Teamwork is Key**

As in past years, ECIO will continue to increase its multidisciplinary influence by inviting interventionalists to bring along a colleague from a different field at no extra cost through the Collaborating Against Cancer Initiative. With up to 30% of participants from other specialties attending each year, the European Conference on Interventional Oncology is the best place to genuinely learn with and from other disciplines.

## **Looking Ahead**

In 2018, the conference will take place from April 22-25 in Vienna, Austria, and it's one you won't want to miss! For the first time, abstract submissions will be accepted in order to encourage a variety of speakers to participate, including young IRs. So get those abstracts ready and keep your eyes open for the announcement of the submission deadline in August!

The Honorary Lecture at ECIO 2018 will be given by Matthew Callstrom from Rochester, MN, US, who will talk about building up IO departments for the future. As we step into a new era for IO, it is vital to be up to date on the best ways to build a strong interventional oncology department. Come join us for three and a half days of exhilarating education and exciting exchanges.

**We look forward to seeing you in Vienna!**



# ECIO 2018

European Conference  
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April 22-25  
Vienna, Austria

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



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## ECIO 2017 Sponsors

A sincere thank you goes out to all of the companies who participated in this year's Technical Exhibition and for those who sponsored Hands-on Device Training sessions and Satellite Symposia.

Their active participation in this educational event makes for a well-rounded atmosphere, where physicians can learn about new tools and equipment from corporate partners alongside recent updates and innovative ideas through the scientific presentations and discussions with their peers.

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