

# ECIO 2012



Third European Conference on Interventional Oncology

## The Review

April 25-28  
Florence | Italy

C|RSE



**ECIO 2012 was held from April 25-28 in Florence, Italy. 1,120 delegates from more than 60 countries took part in over 40 hours of educational sessions, covering a diverse spectrum of oncological considerations.**

#### **Innovation Goes Annual**

This success underpinned the decision to make ECIO an annual event. The reasons for this shift are self-evident: as a fast-growing and dynamic field with rapidly evolving technologies, it is essential to offer specialists a regular forum for scientific exchange.

An annual ECIO will provide this forum, allowing both interventional radiologists and other cancer specialists the opportunity to stay up to date with advances in medical technology and trials, improve their expertise and meet with top specialists from around the world.

#### **Something for everyone**

In addition to the many IRs who attended, there were also a significant number of physicians from other disciplines, many of whom attended under the innovative "Bring Your Referring Physician" programme, which aims to facilitate the attendance of medical collaborators such as surgeons, oncologists, hepatologists, nephrologists and gastro-enterologists.

Interdisciplinary collaboration is universally recognised as being the cornerstone of effective treatment, and this theme ran throughout the entire congress, with speakers from many oncological backgrounds – not to mention our joint sessions with the International Liver Cancer Association (ILCA) and the World Conference on Interventional Oncology (WCIO).



Recognising the importance of the conference, many representatives of medical device companies took the opportunity to attend and deliver a range of satellite symposia and learning centres. Furthermore, the state-of-the-art technical exhibition space allowed industry partners to showcase some of the latest equipment and devices used in interventional oncology.

#### **New advances, new formats**

New session formats were introduced to maximise the sharing of scientific know-how, including a "Meet the Professors" format in which expert practitioners discussed how they select and treat patients for given clinical cases. Cases ranged from transcatheter treatment of liver tumours to hepatic and extrahepatic tumour ablation, and e-voting enabled the audience to actively participate.

An Interactive Session on complication avoidance and management also featured e-voting, engaging the audience in a crucial aspect of the specialty, and new Hands-on Workshops allowed participants to practice ablation techniques under the guidance of experts.

#### **Top themes**

With these and established sessions, such as workshops, clinical and technical focus sessions and guest lectures, ECIO 2012 showcased the excellent technical skills, sound clinical management and well-founded research that characterise interventional oncology.

**[Here, we give an overview of six of the most inspiring sessions...](#)**

# Image-guided tumour ablation: technological advances

**The session on technological advances in ablation gave a comprehensive overview of the different technologies available, and their advantages, limitations and future prospects.**

## Focused Ultrasound (HIFU)

Dr. Franco Orsi (Milan, Italy) discussed the merits of HIFU, examining the advantages of different image-guidance techniques, including MR, US and CEUS.

The main oncological indications for HIFU include liver, pancreas, bone and breast tumours. Breast cancer poses specific challenges, with the main common characteristic among tumours enrolled in HIFU series being “no other reliable option”. A pilot study (Jan 2008-Dec 2010) treating small single breast cancer ( $\leq 15$  mm) concluded that HIFU is an attractive option for local treatment, is virtually non-invasive and appears to have a lower complication rate than RF.

## Chemical Ablation

Percutaneous ethanol injection (PEI) of HCC has been used since the mid-1980s, but has been largely replaced by RFA. Dr. Ming Kuang (Guangzhou, China) argued that technological advances make this therapy an attractive option once more.

PEI is less invasive than thermal ablation, and less costly. New multi-pronged needles overcome the challenges of intratumoural septa, ensuring uniform distribution, and making this an attractive stand-alone or adjuvant therapy. It has few adverse effects, and is comparable to RFA in local tumour control and long-term outcomes for small and intermediate HCC.

Combined with RFA, it allows a significantly larger ablation zone and a markedly favourable 5-yr survival curve and local recurrence rate for HCC.

## Microwave Ablation

Dr. Fred Lee (Wisconsin, USA) presented the latest advances in MWA. Third generation machines hold various advantages over RF – faster, larger ablations are possible, as well as there being no need for grounding pads.

Notably, MW is more effective around vessels, with less “heat-sink”. While Dr. Lee believes MWA is rapidly replacing RF, he cautions that the different properties of the technology should be borne in mind when planning procedures.

## Cryoablation

Cryoablation advances were addressed by Dr. Shaun Samuels (Miami, USA). Although clinically proven, the procedure has some limitations, but these are being overcome by new technologies.

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Slowness and bulkiness can be improved by replacing argon with more rapid methods of supercooling, such as "near-critical nitrogen". Nitrogen is easily obtainable, and in a liquid-gas state, circulates well and can create an ice-ball much more rapidly, with much smaller needles. Although not yet clinically available, it could revolutionise cryoablation.

MRI-guidance can improve visualisation, and full MRI compatibility is underway. Other future applications include cryoballoons, flexible cryo-probes and tankless systems, broadening the potential of cryoablation.

### **Irreversible Electroporation**

Prof. Thomas Helmberger (Munich, Germany) examined IRE, a non-thermal ablation system that offers some unique and promising features.

The technology utilises electrical fields to destroy the phospholipid bilayer with permanent cell permeabilisation, loss of homeostasis and apoptotic-like cell death. This process is extremely precise and quick, with low collateral damage and most interestingly, excellent preservation of connective tissue structures and vessels.

Currently, limited data exists, with studies on indications, protocols and long-term efficacy underway.

### **Radiofrequency ablation: still viable?**

Finally, Dr. S. Nahum Goldberg (Jerusalem, Israel) investigated the continuing viability of RFA. While RF has lost some ground to MWA, HIFU and IRE, he argues that RF remains adaptable. All modalities have their advantages and drawbacks – and in each, outcomes are greatly influenced by operator skill, biology, technique, adjuvant treatment and patient selection.

RF can be considerably improved by using state-of-the-art imaging such as CEUS, MR or stereotactic devices. Additionally, further technological improvements are still possible: Dr. Goldberg's group in Boston tested an experimental generator capable of 1000 W of output power, which led to much larger ablation zones.

As with all ablation technologies, combination therapies are showing the greatest promise, with excellent results achieved by RF+Sorafenib, RF+TACE-DEB and RF+Liposomal agents. RF is far from obsolete, and will continue to play a major role in oncology.

*All presentations can be viewed on [www.esir.org](http://www.esir.org)*

*(1) Dr. Fred Lee | (2) Dr. Ming Kuang*

*(3) Dr. S. Nahum Goldberg | (4) Prof. Thomas Helmberger*

# Curative treatments for HCC

**Hepatocellular carcinoma (HCC) is a major focus of interventional oncology. Excellent results have been achieved in palliation and adjuvant treatment – but evidence for a curative role is also emerging.**

## HCC identification

Prof. Valérie Vilgrain (Paris, France) opened the session with a detailed look at the disease itself, and its diagnosis. HCC can occur in both cirrhotic and non-cirrhotic patients, with both having specific presentation characteristics.

The main feature of HCC is an increased arterial supply, with more than 80% of HCC showing hypervascularity. In non-hypervascular HCC, there are additional findings that are highly suggestive of HCC. Unusually, histology is not always required for diagnosis, and imaging modalities play a major role in the non-invasive diagnosis of HCC in the cirrhotic liver. New guidelines recommend a multi-step strategy, and MR imaging is the modality of choice.

## Triage of the early-stage HCC patient

Assessment of the HCC patient was discussed by Prof. Massimo Colombo (Milan, Italy), who summarised the various classification protocols and features of the disease, as well as some trial outcomes.

HCC does not always require histological diagnosis, and radiological diagnosis is of major importance. Interestingly, it is the sole solid cancer treatable by organ transplantation, and Prof. Colombo discussed the indications for this.

The most important tools for selecting treatment are the Barcelona Clinic Liver Cancer (BCLC) Staging Classification for Hepatocellular Carcinoma and the Milan Criteria. These take account of Child-Pugh status, portal hypertension and bilirubin level to assess how treatment should proceed.



*Prof. Vincenzo Mazzaferro*

## Transplantation for resectable or ablutable HCC

Prof. Vincenzo Mazzaferro (Milan, Italy) explored whether transplantation is the first-line treatment for resectable or ablutable HCC, as recommended by the recent EASL-EORTC Clinical Practice Guidelines.



While Prof. Mazzaferro broadly agrees, he is keen to emphasise the varied nature of HCC. Individual components such as patient weight and tumour location, as well as the effect of portal hypertension and jaundice, can affect the disease pathways. Selection of candidates involves an adequate assessment of the liver functional reserve and tumour extension.

While transplant is the best therapy for HCC and remains the treatment of choice, certain subgroups of patients may benefit from other alternatives. Those sub-categories are yet to be identified with a high grade of precision.

### Bridging and Downstaging HCC to Liver Transplantation

IR can play a role in facilitating liver transplantation, explained Dr. David Lu (Los Angeles, USA). Loco-regional therapies can help with bridging (preventing tumour progression in suitable candidates awaiting liver transplant), or downstaging HCC tumours.

Dr. Lu compared the outcomes of several series investigating whether loco-regional therapies such as TACE or RFA can assist bridging. Outcomes show that for patients with UNOS T2 HCC (Milan criteria) with a likely waiting time of > 6 months, loco-regional therapy may be beneficial.

For downstaging, both TACE and Y-90 radioembolisation have shown good results, with radioembolisation achieving better downstaging to T2 and better overall survival than TACE. These data indicate a definite role for loco-regional therapies in bridging and downstaging HCC to liver transplantation.

### Update on Clinical Trials

The latest evidence for using image-guided ablation techniques in treating HCC were presented by Prof. Riccardo Lencioni (Pisa, Italy).

The latest EASL-EORTC Clinical Practice Guidelines explicitly recommend the use of RFA (or PEI where RFA is technically not feasible) for BCLC 0-A tumours not suitable for surgery. TACE is recommended for intermediate stage tumours.

However, therapies such as MWA and cryotherapy are still under investigation. Early clinical evidence suggests that for small perivascular HCCs, MWA or IRE is optimal; and for high-risk small HCCs, a first-line treatment of PEI or IRE should be followed with DEB-TACE.

Prof. Lencioni also showed promising early evidence on the feasibility of using IR therapies in treating medium and large HCCs.

*All presentations can be viewed on [www.esir.org](http://www.esir.org)*

## Honorary Lecture: Treating cancer in the transparent patient



Prof. Adam receives his award from congress chairmen Dr. Thierry de Baère (l) and Prof. Riccardo Lencioni (r)

### Politics and partnership

This year's honorary lecture, *Treating cancer in the transparent patient*, was delivered by Prof. Andreas Adam. The lecture examined interventional oncology's role as the fourth branch of cancer therapy, and the clinical and political considerations this role engenders.

### Multimodal cancer treatment

The complementary role of these four branches (surgery, oncology, radiation oncology and interventional oncology) was discussed, comparing and contrasting current practices with the latest evidence.

While surgery has an important and permanent role in oncology (especially for large tumours that may be more resistant to chemotherapy and radiotherapy), other therapies are emerging to treat small and, particularly, multiple tumour burdens.

The advantages of local ablation are that it is less invasive and traumatic than surgery, and its highly precise nature allows for targeting multiple tumours with minimal parenchymal destruction. The involvement of interventional oncology in a multimodal treatment protocol is thus essential – the specific challenges this raises for IRs include gaining an understanding of tumour biology, as well as the limitations and strengths of alternative and adjuvant therapies, such as chemotherapy and radiotherapy.

### Potentially curative role

IR's palliative role in cancer care has long been established, but data is now emerging showing that procedures such as ablation, radioembolisation and chemoembolisation may have an active curative role to play.

This expanded role requires the creation of new patient pathways and clinical control. It also invites comparisons of cost and efficacy with other treatment options – with some early data showing favourable performance for the IR therapies.



## Efficacy of renal ablation

Renal tumours pose interesting challenges – being largely resistant to radiation therapy and chemotherapy, they are an obvious area for interventional alternatives. Many ablation methods have obtained good results, and Prof. Adam gave the example of the cryoablation results of David Breen et al, whose team treated 139 renal tumours in 118 patients, obtaining a mere 2.2% subtotal ablation rate and a single late local recurrence at 12 months.

As early as 2007, the Annals of Surgical Oncology featured a paper by Mulier et al, "Radiofrequency Ablation versus Resection for Resectable Colorectal Liver Metastases: Time for a Randomized Trial?", which stated "for tumours < 3 cm, local control after RFA is equivalent to resection."

## Cost effectiveness

Other studies have examined the cost effectiveness of renal interventions. "The treatment of small ( $\leq 4$  cm) unilateral RCC with NSS versus RF ablation" showed that nephron-sparing surgery had an incremental cost-effectiveness ratio of \$1,152,529 per QALY compared with ablation, and that RFA remained cost effective up to a 48% recurrence.

## Structural issues

Prof. Adam argued that in order to deliver robust and effective treatment safely, interventional oncology (and interventional radiology generally) must remain anchored within the radiology department, as well as developing their natural partnership with radiation oncologists further. Only through a continued grounding in radiology can IRs keep abreast of advances in equipment, image-guidance and novel therapies, ensuring competent delivery of these therapies.

Obtaining clinical recognition within this set-up is however essential, but should be easily achievable: already in 2000, the Academy of Medical Royal Colleges, London recognised the importance of interventional radiologists undertaking primary clinical responsibility for their patients.

## Training

In order to equip interventional radiologists with both the requisite radiological training and sufficient oncological knowledge, Prof. Adam advocates the establishment of a special module within the IR curriculum.

Prof. Adam's speech placed interventional oncology firmly within the radiology department, but did not advocate isolation. Rather, it was a call for closer collaboration between all four pillars of oncology, and an appeal for more rigorous data, upon which clear and effective treatment protocols can be established.

# Image-guided therapies: new clinical applications

**The session on new clinical applications looked at a range of innovative applications for established and up-and-coming IR therapies such as IRE, chemoembolisation and radioembolisation.**

## Pancreatic cancer

Dr. Raj Narayanan (Miami, USA) addressed the use of percutaneous irreversible electroporation (IRE) in treating locally advanced pancreatic adenocarcinoma (LAPC).

This condition has a high case-fatality, with a 5-year survival rate of 6%. Only 10-20% of patients are eligible for surgical resection, as there is a high incidence of encasement of major vascular structures. Surgery is associated with significant morbidity, and RF and microwave ablation have achieved limited success with a high complication rate.

As IRE typically spares the collagenous skeleton, adventitia and laminae, Dr. Narayanan's team investigated its use in a small sample of 8 patients between November 2010 and September 2011, and demonstrated safety and efficacy. Patient selection is crucial, with patients with localised disease faring better. Based on the outcomes, a prospective Phase II trial in LAPC incorporating IRE is planned.

## Cholangiocarcinoma

Dr. Michael Soulen (Philadelphia, USA) gave an informative overview of the various interventional treatment options for intrahepatic cholangiocarcinoma (ICC) that are currently being investigated.

Cholangiocarcinoma accounts for 10% of primary liver cancers, and its incidence appears to be increasing worldwide. It is usually diagnosed in advanced stages, with early lymphatic spread compared with HCC. Bone metastases are also common. Currently, 10-15% of cases are surgically resectable, with a 46% recurrence rate, and there is no current evidence for adjuvant therapy.

In light of this data, a wide range of interventional therapies have been investigated for ICC, such as percutaneous ablation, chemoembolisation, drug-eluting beads and radioembolisation. Dr. Soulen compared the results, which indicate that patient selection must be decided by tumour subtype, e.g. whether the tumour is histologically invasive or not. Combining liver-directed therapy with systemic therapy may also yield good results, and prospective trials will further investigate the efficacy of drug-eluting beads and yttrium-90 radioembolisation.

## Adrenal ablation

Dr. Alice Gillams (London, UK) discussed the role of ablation in treating adrenal tumours, and the phenomenon of thermal ablation-induced



hypertension, which has an incidence of 0-15.4%. Comparison of adrenal and renal ablation shows significantly higher systolic pressures during adrenal ablation, so intra-arterial monitoring is mandatory.

Clinical evidence shows that hypertension occurs secondary to epinephrine and norepinephrine release from normal adrenal tissue.

For RFA and MW ablation, adequate control can be achieved by either prompt treatment of hypertension or blockade. Interruption of treatment will allow the blood pressure to settle after a delay. For cryoablation, hypertension mostly occurs during active thawing, when no such interruption is possible, thus pre-treatment with alpha blockers is recommended.

### **Prostate cancer**

Percutaneous MR-guided cryoablation of prostate cancer was discussed by Prof. Afshin Gangi (Strasbourg, France). This procedure is normally carried out under US-guidance, but due to poor visualisation of the ablated zone, Prof. Gangi's team investigated the technical feasibility of transperineal prostate cryoablation under MR-guidance. 11 patients were treated, with technical success achieved in 10. Total procedure time ranged from 2 to 4.5 hours, with mean PSA levels of 0.48 ng/mL at 1 month, and 0.55 ng/mL at 9 months.

(1) Dr. Raj Narayanan

MR-guidance rendered excellent image quality, and allowed real-time visualisation of the complete circumference of the ice-ball and real-time temperature mapping. However, it requires a long learning curve, and non-ferromagnetic equipment. It is more difficult to access patients and large patients may not be eligible.



Dr. Alice Gillams



Prof. Afshin Gangi

### **Breast cancer**

The latest applications for breast cancer were examined by Dr. Christiane Kuhl (Aachen, Germany), who unusually for an IR, is also a practicing breast radiologist. Dr. Kuhl discussed a range of IR technologies in treating breast cancer, such as radiofrequency ablation (RFA) and high-intensity focused ultrasound (HIFU), examining the existing evidence and likely prospects of the technologies.

All presentations can be viewed on [www.esir.org](http://www.esir.org)

# Drug delivery in interventional oncology

This session gave a fascinating update on the challenges and opportunities that new modes of drug delivery pose in the field of interventional oncology.

## Drug-eluting platforms

Prof. Jeff Geschwind (Baltimore, USA), outlined the specific tumour cell characteristics that can be exploited for targeted drug delivery, and gave a summary of existing and future drug-eluting technologies.

Drug-eluting technologies maximise drug delivery at the site of the tumour, lower systemic side-effects, and allow for long-lasting drug release over time. A number of possible platforms exist, including hydrogel polymers, liposomes, dendrimers and nanoparticles.

As they are delivered under image-guidance, IRs will be hugely involved in these therapies. Thanks to the use of radiotracers, radiology may also be employed to gain feedback on the distribution of administered drugs.

## Percutaneous isolated organ perfusion

Dr. Charles Nutting (Colorado, USA) explained how isolated organ perfusion can overcome the limitations of many liver cancer drugs, such as tolerability and long induction periods. Using a special catheter system, the liver is percutaneously isolated from the systemic circulation and



*Dr. Charles Nutting*



*Prof. Jeff Geschwind*

high-dose chemotherapy is directly infused via the hepatic artery to saturate the liver, and the hepatic venous blood is extracorporeally filtered. This avoids systemic administration and allows for higher dose exposure.

Chemosaturation by percutaneous hepatic perfusion with melphalan is now an EU-approved treatment option for unresectable metastatic melanoma in the liver, supported by Phase III trial results.

## Thermally sensitive liposomes

Prof. Ronnie Poon (Hong Kong, China) outlined how using thermosensitive liposomes in combination with thermal ablation may reduce local recurrence of HCC. These liposomes can be delivered via straightforward IV injection prior to ablation.



This novel technology involves a liposomal encapsulation of a cytotoxic agent, which is locally released only upon application of sufficient heat – such as that applied by RFA or HIFU. Not only is the tumour ablated, but the zone of treatment is widened and the efficacy of the cytotoxic agent is enhanced. An update on the Phase III HEAT study on treating HCC was given, as well as an indication that studies in other cancers show potential for the future.

### **Ultrasound-mediated drug delivery**

Dr. Bradford Wood (Bethesda, USA) described the potential applications of high-intensity focused ultrasound in drug-delivery. Currently being investigated at preclinical and early clinical stage are:

- Triggering drug release from temperature-sensitive nanoparticle carriers
- Pressure sensitive microbubbles, where ultrasound-induced microbubble rupture leads to local drug release
- Ultrasound-induced tissue permeability, where cavitation degrades membrane barriers
- Photochemical internalisation, involving the release of endocytosed macromolecules into the cytosol via photochemical vesicle rupture

There is a potentially wide range of indications for this technology among the unmet needs of clinical oncology.

(1) Dr. Bradford Wood | (2) Prof. Ronnie Poon

(3) Prof. Steven Rose | (4) Dr. Laura Crocetti

### **Oncolytic viruses**

Prof. Steven Rose (San Diego, USA) explained that modified virus particles can selectively infect and kill tumours if they are able to overcome host immune clearance. Non-cancerous tissues are protected through use of clinically innocuous viruses and appropriate genetic modification.

Prof. Rose cautioned that the encouraging results seen so far in terms of tumour response are still early, that there are still limitations that need to be overcome and that larger trials are needed. IR involvement is crucial, as the treatment depends on accurate intra-arterial or interstitial delivery.

### **Light-activated drug therapy**

For this novel therapeutic approach, a thin microwire with a light-emitting tip is used to activate a systemically administered drug in a biopsy-like procedure. Dr. Laura Crocetti (Pisa, Italy) explained that the advantages of this technique include an absence of heat-sink effect, and that multiple catheters can be used to treat large tumours in a single treatment session.

This therapy may be suitable for treatment of HCC, metastatic colorectal cancer (MCRC), glioma and BPH. Dr. Crocetti pointed out that new photosensitisers and carriers are under investigation and that results of ongoing and completed clinical trials are strongly needed.

All presentations can be viewed on [www.esir.org](http://www.esir.org)

# Training in interventional oncology: beyond technology

**A demand for specialised training is growing within interventional oncology due to the increasing scope and complexity of the field, and the issue was approached by four engaging advocates.**

## The spectrum of interventional oncology

Prof. Riccardo Lencioni (Pisa, Italy) gave a comprehensive overview of the scope of interventional oncology, which encompasses more than 20 procedures – with each being further customised and optimised to treat different diseases.

These applications are rapidly growing, especially in “off-limit” organs for which there are limited treatment options, e.g. the pancreas. Interventional oncology's clinical goals are becoming increasingly ambitious, with curative treatments now being offered.

It also utilises a broad spectrum of agents and mechanisms (biologics, chemical, immune, etc.), creating a complex scenario requiring broad medical knowledge. This complexity requires close exchange with other disciplines – not just medical oncology, radiation oncology and surgery, but also branches such as genomics, computational science and pharmacology.

While oncological knowledge is an important requirement, more important still is that the practitioner has an excellent base of IR skills upon which to build.

## Interventional oncology: the pieces of the jigsaw

Dr. Tony Nicholson (Leeds, UK) examined the development of IR, and the lessons this history teaches us. Given the increasing complexity of the field, the current practice of many interventionists crossing over directly from diagnostic radiology is not sustainable: procedures such as RFA can no longer be considered a basic core skill of all radiologists.

A crucial task for the interventional oncology community is to develop proper training programmes: a syllabus (outlining the breadth of learning that should be covered) and a curriculum (which imparts the depth of knowledge and skills required), a task which CIRSE has already begun.

While interventional and diagnostic radiology will always be intertwined, it is prudent to recognise that IR is moving more notably into the field of minimally invasive therapy.

He also advocated strong involvement in research and data collation, and collaboration with other disciplines.

## Radiotherapy and chemotherapy: what and why the interventional oncologist needs to know

Dr. Lizbeth Kenny (Brisbane, Australia) started with an overview of what radiation oncologists and other specialists offer the cancer patient.

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To be a true oncologist involves prolonged patient care, an in-depth understanding of cancers, and an understanding of the need for integration of treatments in a planned sequence. Multidisciplinary teams (MDT) ensure the best decisions are reached, which is of benefit to the patient, but also relieves individual physicians of the personal burden of making difficult decisions. MDTs allow for accurate staging and decision-making, integrated treatment, and facilitate good working relationships – an important factor in ensuring quality care.



*All presentations can be viewed on [www.esir.org](http://www.esir.org)*

Dr. Kenny advocated reducing costs, and believes that IR as part of a MDT can help this. However, good data is needed to show that IR procedures are equivalent to other treatments, and IRs must work to ensure their credibility as oncology physicians.

### **Interventional oncology training at MSKCC**

The Memorial Sloan-Kettering Cancer Center interventional oncology training programme was presented by Dr. Stephen Solomon (New York, USA). MSKCC currently offers 3 types of IR fellowships – a traditional 1-year programme; a 2-year programme that includes 18 months of clinical work and 6 months of research; and an interventional oncology research lab fellowship lasting 1 year.

Four clinical fellows are taken at a time, and each is teamed with an attending physician, and given weekly clinical assignments and research time. Logs taken of procedures attended and levels of involvement show that by the end of the year, fellows are capable of being primary operators.

This effective programme is made possible by the IR faculty's visibility, extensive resources and clinical control. Fellows are also trained in history, physical exams and patient communication. The educational curriculum enables fellows to evolve into competent and independent practitioners.

*(1) Prof. Riccardo Lencioni | (2) Dr. Tony Nicholson | (3) Dr. Stephen Solomon*

## ECIO 2012 Sponsors

**Corporate partners from the medical device industry once again acknowledged the significance of Europe's premier interventional oncology meeting.**

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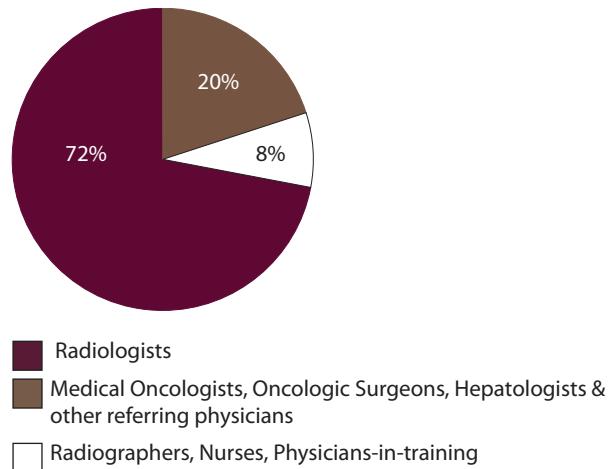
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## Delegate Statistics

**ECIO 2012 was proud to welcome 1,120 delegates – a new record!**

### Breakdown of professional medical attendance



## Bring Your Referring Physician Programme

**There are many factors contributing to the advances in oncological care that have taken place in the last decade, but a prime driver is the collaborative approach of oncology physicians, who work tirelessly with other disciplines to ensure that the patient receives the best possible treatment plan.**

In an effort to support this impressive co-operation, ECIO continued the inspired "Bring Your Referring Physician" programme at the 2012 meeting.



**Prof. Philippe Pereira (EBIR), Interventional Radiologist**  
Heilbronn, Germany

*"I think we should invite many more disciplines to interventional oncological meetings, because this interdisciplinary exchange is the solution to patients getting better treatment and this kind of meeting is fantastic for that."*

This programme offers free registration to non-interventionists who wish to accompany their IR colleagues to the conference, and aims to strengthen interdisciplinary ties, as well as allowing other disciplines to learn more about IR therapies.

This year saw a fantastic uptake, with partner physicians from many fields attending, such as oncologists, hepatologists, nephrologists, gastroenterologists and radiation oncologists. The programme also saw a diverse range of nationalities represented, with physicians from across Europe, America and even as far afield as Australia availing of the opportunity to attend.



**Prof. Uwe Martens, Medical Oncologist**  
Heilbronn, Germany

*"The crucial point is how to combine all these things to provide the best treatment procedure for our patients, and so teamwork is essential for the best outcome."*

## ECIO Goes Annual

**ECIO 2012 was the third time the conference was held, but it also represented a new start: from now on, the congress will be held annually, with the next one taking place in Budapest next June. ECIO 2012 congress chairmen, Riccardo Lencioni and Thierry de Baère explain why this important move is being made.**

**Riccardo Lencioni:** "The field of interventional oncology is moving so quickly and growing so rapidly that an annual meeting is unavoidable – there are so many new innovations, ideas and results to share and discuss that a biennial congress is not sufficient.

"This year, for the first time ever, we had results from large randomised controlled trials comparing IO solutions with standard medical surgical options. The cumulative data we've built over the years is now strong enough to convince anyone, and an annual ECIO will allow us to pursue these results further."



**Dr. Thierry de Baère (l), Prof. Riccardo Lencioni (r), ECIO 2012 Co-Chairmen**

**Thierry de Baère:** "Next year, we will be holding the conference in Budapest, and this new annual set-up will help meet the increasing demand for interventional oncology teaching across Europe. There are continually more and more new treatments, new discoveries, and an annual ECIO can help ensure that this new knowledge is passed on and reflected in improved patient care."

### Impressum

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Graphics: LOOP ENTERPRISES media, [www.loop-enterprises.com](http://www.loop-enterprises.com)

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# ECIO 2013

European Conference on Interventional Oncology

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