A warm welcome to Heart Failure 2016

The Scientific Programme Committee welcomes all delegates to this year’s Heart Failure congress in Florence. Widely recognised as the ‘heart’ of Renaissance culture, Florence is the ultimate location for Heart Failure 2016 for delegates to take part in an exciting programme. One of the highlights of this year’s congress will undoubtedly be the release of the new ESC Guidelines on the diagnosis and management of acute and chronic heart failure.

Choosing Italy - and more specifically Florence - to host Heart Failure 2016 comes as no surprise, according to Aldo Maggioni (Research Center of the Italian Association of Hospital Cardiologists, Florence, Italy), one of the three chairs of the Scientific Programme Committee. “Italy has a long standing tradition in the treatment of heart failure. The choice for Florence was the result of a questionnaire we distributed during previous congresses. It emerged that Florence was chosen by many delegates as the most interesting venue for a future Heart Failure congress.” As most hotels are located within walking distance of the congress venue, many delegates will be able to get a good impression of Florence whilst making their way to the congress each day. Prof. Maggioni concludes: “Since we will present state-of-the-art diagnosis and management of heart failure at the congress, it seemed only logical to do this in a city which is state-of-the-art itself.”

Important new pharmacological developments as well as outcomes from clinical trials prompted an update of the ESC Guidelines, according to Giuseppe Rosano (Department of Cardiology, St George’s University, London, United Kingdom), co-chair of the Scientific Programme Committee. “The results of several trials on the use of various new devices needed to be incorporated into clinical practice.”

Another key topic to take centre stage during Heart Failure 2016 is the area of comorbidities. “It is clear that comorbidities play a significant role in the prognosis of heart failure”, Prof. Rosano explains. “Comorbidities cause a sizeable number of hospitalizations. More knowledge and insight into comorbidities is urgently needed. New data on ischemic heart disease and diabetes, COPD and iron deficiency will be presented.” Disease management with a focus on new tools for diagnosis including imaging modalities form a significant part of the scientific programme. Late stage management of the disease as well as the secondary course of heart failure will be addressed thoroughly, too. “It is known that anti-cancer drugs can induce heart failure, which calls for more research in this area”, Prof. Rosano states.

Massimo Piepoli (Heart Failure Unit, Cardiac Department, Guglielmo da Saliceto Hospital, Piacenza, Italy), co-chair of the Scientific Programme Committee, highlights the fact that of the more than 2,010 abstracts and clinical cases submitted this year, Italy has been the largest contributor. More than 280 abstracts were of Italian origin. “This underlines the importance of this congress for Italy”, Prof. Piepoli says. “The Heart Failure Association (HFA) is a leading association on a worldwide level when it comes to heart failure management. Our delegates and their contributions to the congress are not exclusively from Europe. Many come from Asia and North America which makes us a truly international society.” Key player in the local track this year have been the Italian National Societies and Associations involved in the management of patients with heart failure, according to Prof. Piepoli. “As there was such a good collaboration at the previous congresses in Athens and Seville with local federations, we wished to repeat the experience this year”, Prof. Piepoli says. “We have been able to involve Italian general practitioners (GPs). Taking part in the congress has been made part of their curriculum, which underlines the importance of raising awareness about heart failure and the transversal involvement of healthcare professionals from different backgrounds. Activities like this are crucial to enhance Italy’s participation.” HFA is also opening up to new groups which are important for heart failure. This concerns not only regional but also academic institutions, hospitals and cardiac associations. Prof. Piepoli: “Internists are also really involved in this year’s congress.”

A congress such as Heart Failure 2016 is also an occasion to raise public awareness on the condition of heart failure. “A four kilometer fun walk has been organized for congress delegates and the inhabitants of Florence”, Prof. Piepoli says. “It starts at 7 o’clock on Sunday morning, which means delegates can participate too. They can take the healthy walk before making their way to the congress. The walk takes participants through the city centre past the highlights of Florence such as the Ponte Vecchio and the Piazza della Signoria”, he explains. “So, I am sure that Florence will touch the hearts of many of our delegates, both by the excellent scientific content this year as well as being a beautiful and inspiring location.”

Heart Failure 2016 Scientific Chairpersons
(Pictured above from left to right)
Prof. Aldo P Maggioni (Florence, IT)
Prof. Massimo F Piepoli (Piacenza, IT)
Prof. Giuseppe M C Rosano (Roma, IT)

Join us today for the Inaugural Session at 17:45 in room London, followed by a Networking Event in the exhibition

IN TODAY’S PROGRAMME

New ESC Guidelines
- Overview session:
  11:00 – room London
- Focus on acute heart failure:
  16:30 – room London

Late Breaking Trials I:
Focus on acute heart failure:
14:15 – room London

Mobile App Voting:
Acute heart failure:
when the going gets tough:
08:30 – room Berlin

Local Language Sessions in Italian
all day – room Athens

Basic Science Track:
3 sessions today – room Barcelona

Abstract sessions in the Agera
- Clinical Case Competition
  at 11:00
- Rapid Fire 1:
  acute heart failure at 14:15
- Rapid Fire 2:
  imaging and chronic heart failure at 16:00

Inaugural session
17:45 – room London

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Clinical trials key in Heart Failure

This year’s HFA Eugene Braunwald Lecture on “Treatment of heart failure: the success of neurohormonal and heart rate control” will be delivered by Karl Swedberg (Department of Molecular and Clinical Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden).

Prof. Swedberg holds an impressive track record in heart failure, his career spanning more than four decades. He was the first to report on survival benefits of beta blockers back in 1979. Subsequently, more positive news was to follow on different drugs and their role in heart failure. The role of angiotensin-convert- ing enzyme (ACE) inhibitors was next in 1987, followed by the angiotensin receptor blockers (ARB) in 2003. Recently, Prof. Swedberg was closely involved with research into angiotensin receptor antagonists and a nephrilysin inhibitor in 2014 in chronic heart failure. He also has numerous publications to his name, adding up to over 600 publications in peer-reviewed journals, 340 original research papers and >48,000 citations. Furthermore, Prof. Swedberg was chairman of the Task Force on the Diagnosis and Treatment of Heart Failure that produced the new ESC Guidelines 2005.

“I was fortunate to come into cardiology in 1974”, Prof. Swedberg remembers, “in those days, I collaborated with Professor Hjalmarson and Dr. Waagstein who were conducting interesting research with beta blockers in acute ischemia. Eventually, I explored the observations by Dr. Waagstein on beneficial effects by beta blockade in patients with dilated cardiomyopathy. The observations were studied further according to a protocol which led to the discovery that beta blockers prolong survival in these patients. At the time, this was a huge discovery. One must remember that until then, we did not have any effective treatment for heart failure.” Later, Prof. Swedberg went to San Francisco where he worked on studies with ACE-inhibitors which resulted in the conclusion that they might offer prolonged survival in heart failure. “After my return to Sweden, we were able to discuss a trial with the producer of enalapril. The trial, CONSENSUS, turned out to be very successful and it was extremely well received.” Not surprisingly, Prof. Swedberg was awarded the European Society of Cardiology Gold Medal in 2007 for his outstanding contributions to the cardiovascular field.

During the HFA Eugene Braunwald Lecture, Prof. Swedberg will offer delegates a comprehensive review of the clinical trials over the last forty years. Some of the topics he will touch upon are trial design and the controversy surrounding beta blockers in the early days. “Although the trials which were done at the end of the nineties proved that beta blockers are the most effective treatment, it took us more than twenty years to get there,” he explains. Prof. Swedberg emphasizes the importance of clinical trials and documenting treatment effects. “Evaluating heart failure is so complicated”, he adds. “Designing and conducting the right trials remains a key issue in understanding heart failure.”

The HFA Eugene Braunwald Lecture was launched in 2015 to recognize the contributions to the management of heart failure of key opinion leaders in the field. Prof. Swedberg feels very honoured to be the second speaker delivering this particular lecture. Even more so, as he is the first speaker straight after the laureated name give himself. “Braunwald is the ‘superstar’ of cardiology”, says Prof. Swedberg. “I read his memoirs, which make fascinating reading material. They give you a good idea of how much he achieved. Braunwald has conducted an amazing number of studies over the years. His career is particularly interesting because he was a researcher in mainly basic science until the early eighties of the 20th century. Then he switched to clinical trials. This lecture is a way of recognizing what he means to heart failure in a broad sense.”

Latest HF Guidelines to tackle “epidemic of the 21st century”

The key issues facing heart failure clinicians today, and all the latest developments in the condition’s diagnosis and management, will be reflected in the latest version of the new ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure, published today.

Piotr Ponikowski (Centre for Heart Disease, Medical University Wroclaw, Poland), who chaired the Guidelines Task Force with Adriaan Voors (University Medical Center Groningen, the Netherlands), said that heart failure is a “key problem”. Describing it as “the epidemic of the 21st century”, he told Heart Failure Congress News that, considering all the clinical trial data that has been published since the previous ESC Heart Failure Guidelines in 2012, a new version was necessary.

Prof. Ponikowski explained that the Heart Failure Association (HFA) worked closely with the ESC Committee for Practice Guidelines (EPG) to develop the recommendations, following closely the ESC’s rules and regulations, which are designed to avoid biases and potential conflicts of interest.

He said that, first of all, a Task Force of leading experts in each area of heart failure, and representing each European region, was brought together to discuss all the existing evidence on the diagnosis and management of this crucial disease, over several meetings. A US expert was also invited, and joined the Task Force.

Once the first draft of the guidelines had been completed, the recommendations were put out for review, under the coordination of Gerasimos Filippatos (Attikon University Hospital, Greece) and John McMurray (University of Glasgow, UK), which resulted in more than 200 pages of comments. Each comment was considered in turn, and following four rounds of revision, the final version of the guidelines was approved for publication.

The next question was how best to present them. “Typically, guidelines are published and presented at the ESC Congress,” said Prof. Ponikowski, “but as these guidelines are developed with the special contribution of the HFA, they will be presented and published online at Heart Failure 2016.”

The committee decided that the best way to present the guidelines would be to have an initial inaugural session on the first morning of the Congress, which would offer a summary of the most important recommendations. At the same time, the guidelines will be published in parallel in the European Heart Journal and the European Journal of Heart Failure.

The scientific committee of the Congress then agreed on which sections of the guidelines should be presented in more detail. As Prof. Ponikowski noted: “You can’t really present the details in one 1.5-hour session.”

He continued: “The guidelines are an extensive document, with a lot of details, so this is why we decided to focus on detailed aspects, and present these in separate sessions.”

To those ends, there will be symposia focusing on acute heart failure, comorbidities, arrhythmias and devices, and chronic heart failure, spread across each day of Heart Failure 2016.

Prof. Ponikowski said: “The idea is to give people, first, an overview, a kind of snapshot, followed by a detailed presentation of the key aspects…and then everybody can follow what he or she is interested in.”

To find out more about the 2016 Heart Failure Guidelines, see tomorrow’s issue of the Heart Failure Congress News for a review of this afternoon’s session on the recommendations for acute heart failure, as well as a preview of tomorrow’s symposium on the impact and management of comorbidities in heart failure.

The new ESC Guidelines @ Heart Failure 2016

• Overview: Sat 21 May at 11:00 – London
• Focus on acute heart failure: Sat 21 May at 16:30 – London
• Focus on comorbidities: Sun 22 May at 11:00 – London
• Focus on arrhythmias and devices: Mon 23 May at 11:00 – London
• Focus on chronic heart failure: Tue 24 May at 08:30 – Paris
Learning a lesson from mother nature to improve HF outcomes

The results of a randomised trial presented today will put the safety and tolerability of repeated use of a novel drug intended to reduce in-hospital worsening heart failure and mortality in heart failure patients under the spotlight.

The high heart failure rehospitalisation rates, up to 30%-40% over 6 months, mean that patients may need to receive the same medications repeated. Consequently, “the issue of recurrent administration of acute heart failure therapies in heart failure is very important,” noted John R. Teerlink (Veterans Affairs Medical Center, University of California San Francisco, USA), who will present this afternoon.

The study is a phase IIb multi-centre, double-blind, placebo-controlled trial of the recombinant relaxin hormone serelaxin, in which patients with compensated heart failure treated with standard of care were randomised to 3-sequential 48-hour intravenous infusions of 30 µg/kg/day or placebo in a 2:1 ratio at baseline and weeks 4 and 8.

The inspiration for serelaxin came, Dr. Teerlink observed, by “learning a lesson from mother nature”. Relaxin is ubiquitous in mammals and, while it has different effects in different animals, it is predominantly associated with preparing for pregnancy.

“In humans, relaxin levels go up almost immediately after implantation and remain elevated … and seem to be related to preparing the mother’s haemodynamics and cardiovascular and renal system for the extra demands of pregnancy,” said Dr. Teerlink.

He added: “Interestingly, when you say you need to open up the blood vessels and make them more able to deal with higher volumes of blood, when you need to make the kidneys work better and to deal with this extra congestion, that’s exactly what you want to have happen in acute heart failure.”

Serelaxin has been examined in the dose-finding Pre-RELAX-AHF study, and the phase III RELAX-AHF, which showed that it was associated with dyspnoea relief and improvements in worsening heart failure, and suggested improved survival in patients with acute heart failure.

The primary outcome of the current study is to determine the number of patients who develop anti-serelaxin antibodies at any time up the final follow-up at week 16, while secondary objectives included other measures of possible serelaxin immunogenicity and the safety and tolerability of infusions. As Dr. Teerlink noted, if repeat doses of serelaxin are shown to be safe and well-tolerated, the next, intriguing question is: “If we give this drug frequently as an outpatient, can we prevent rehospitalisations?”

The results of a trial presented this afternoon will answer the question of whether a novel biased angiotensin receptor ligand improve outcomes in acute heart failure patients via modulation of the renin-angiotensin-aldosterone-system (RAAS).

G. Michael Felker (Duke University School of Medicine, Durham, North Carolina, USA) explained that, although RAAS modulation in acute heart failure has previously not been effective, there is renewed interest as it is a “fundamental building block of successful therapy” in chronic heart failure.

The current agent, TRV027, is a β-arrestin biased ligand of the angiotensin-2 type 1 receptor (AT1R). Dr Felker told Heart Failure Congress News that, unlike traditional angiotensin receptor blockers (ARBs), it does not simply turn on or off the receptor but blocks some adverse pathways while activating favourable pathways.

He said: “Basically, it blocks vasoconstriction and sodium retention, which are what we think of as adverse effects of angiotensin signalling, but at the same time it promotes improvements in contractility, which are blocked by traditional ARBs.”

Dr Felker and colleagues conducted an international, multi-centre, placebo-controlled, parallel dose-finding trial, in which AHF patients are randomised to one of three parallel TRV027 doses or matching placebo. As Dr. Teerlink noted, if repeat doses of serelaxin are shown to be safe and well-tolerated, the next, intriguing question is: “If we give this drug frequently as an outpatient, can we prevent rehospitalisations?”

The statistical framework is then used to combined and weight the five components to create a single value.

“One of the challenges of early phase trials in heart failure generally, and in acute heart failure in particular, is that we don’t have good surrogate endpoints for efficacy, so that we can do a small trial and say we believe, based on this surrogate endpoint, that we’re going to have effects on clinical outcomes in a bigger study,” Dr Felker said.

“What often happens is we look at a bunch of things and we try to make a decision about whether the overall picture looks favourable or not, but often we arbitrarily pick one endpoint and say: ‘This was the primary endpoint of the study.’”

Another innovative aspect of the study was the use of an adaptive design. Once the first 300 patients were randomised, the doses were re-weighted so that more patients were given the most favourable-looking dose and the sample size increased accordingly.

Late Breaking Trials I: Focus on acute heart failure Sat 21 May 14:15 – room London
1st HFA Career Cafe takes off

A new event at Heart Failure 2016 is the HFA (Heart Failure Association) Career Cafe, where - in a relaxed atmosphere - young heart failure enthusiasts are given the opportunity to meet internationally renowned experts in the field.

The idea stems from the experience that it can be quite difficult to get in touch with such senior experts, as Mitja Lainscak (Department of Cardiology, General Hospital, Celje, Slovenia), HFA Board Member, explains. “During the congress, these well-known and highly regarded seniors are overbooked. Usually, opportunities for quality time and in-depth discussions on career developments are rare.”

Through this project, HFA and Dr. Lainscak wished to offer the young heart failure community a possibility to get into contact with people who are established in the field. The idea for the HFA Career Cafe emerged about a year ago. For this pilot edition, HFA decided to keep the event modest with 15 ‘mentors’; senior cardiologists whom the participants will be speaking to. Enthusiasm was rife, resulting in 17 mentors who will each be available for 3 interviews of 12 minutes each. Dr. Lainscak was pleasantly surprised by this feedback: “It clearly shows that these mentors are willing to help young doctors to build their careers. I think that a shared compassion for heart failure is why there was so much interest from their side to participate. Mentors have been enrolled on a strictly voluntary basis. Although it is still ‘work’ to them, it is a very enjoyable type of work. I am sure that is the main reason why so many of them wanted to participate.” Special attention has been paid to cover all fields and to involve as many female mentors as possible to overcome the under representation of women in this field: “We are quite proud to have several ladies amongst the mentors”, Dr. Lainscak adds. Furthermore, the team of mentors represents a good balance between those active in basic and/or clinical science, pharmacotherapy and devices. Moreover, some nurses have been invited as well to talk to young aspiring cardiologists.

The participants are young HFA members aged 40 years and younger who have applied in March. After having applied online, they will be assigned to three interviews according to their profile, preferences, and motivations. Popular topics likely to be discussed in these 12 minutes are tips & tricks on how to present at major congresses and how to get published in the top journals, the possibilities for collaboration, either on a clinical or scientific level, and advice for writing grants or job interviews. “Many participants also like to elaborate on how they should compose a good application letter which ensures they have a fair chance of getting the desired position”, Dr. Lainscak says.

The HFA Career Cafe is a long term project, as Dr. Lainscak emphasizes. “We will evaluate this first event by sending out a survey to all participants asking them what they thought of it, what was good and what might be improved. Moreover, they should tell us how taking part has helped their career in any way. Next year, we plan to have the three most interesting stories to be presented during the congress.” But even more is to come beyond 2017, as the plan is to follow the careers of these first participants up to five years on a yearly basis, assessing what the impact on their career has been.