Harnessing enthusiasm and commitment to build on the success of the HFA

Gerasimos Filippatos (University of Athens, Greece) assumed the role of President on the 10th anniversary of the Heart Failure Association (HFA). Membership now stands at 9,500, with representatives from 45 ESC countries and more than 10 affiliates.

Prof. Filippatos does not have a simple explanation for the HFA’s success. “It may be a phase in the evolution of heart failure,” he says, “together with a better understanding that we can actually do something to manage and prevent heart failure and the innovations of recent years make it a very attractive area of cardiology for newcomers.”

The HFA’s aim to reduce the burden of heart failure (HF) called for ambitious and wide-reaching measures. Plans to standardise HF certification for individual professionals was an early aim. This involved a task force coordinated by Theresa McDonagh (Kings College, London), and the creation of a group to work on the curriculum. This will culminate in May 2016, when the first exams will take place. Certification for HF nurses is currently ready to be implemented.

Another major project has been the creation of centres of excellence in HF. The aim is to establish 10 centres per year from 2016 onwards. In tandem is the new HFA Postgraduate Course in Heart Failure, in collaboration with the University of Zurich and the ESC Academy in Brussels, which aims to standardise HF training. The first trainees were certified at the end of November 2015.

The HFA also joined with other societies to look at how best to integrate activities related to education, quality control and certification for physicians, nurses and fellows. Quality indicators are under evaluation and the Heart Failure Registry will be used to evaluate implementation of guidelines. A test phase has been completed and the second pilot will be completed in 2016.

The second strategic aim of Prof. Filippatos’s presidency was the establishment of the Heart failure specialists Of Tomorrow (HOT). Coordinated by Ewa Jankowska (Wroclaw Medical University, Poland), the group has proved a major success with would-be HF specialists. There are now over 500 members of the group, which runs its own sessions, operates under its own logo and contributes to the wider HFA.

The third and possibly most wide-ranging aim was to raise awareness of HF. The ambitious project was already underway when Prof. Filippatos assumed the presidency, but there remains much to be done. The HFA has gained the endorsement of 49 national HF societies and worked for the dissemination of the findings of the HFA’s White Paper. A feasibility study for the next phase of the project has now been completed.

The Association also helps to support and develop the World Heart Failure Awareness Day which falls in May each year. The HFA established regular meetings with national HF societies and working groups and, following a summit in Ljubljana, Slovenia, last year, presidents from 36 national societies signed a call to action on HF.

Prof. Filippatos feels cross-working and collaboration with other groups in the ESC is one of the successes of the HFA. He has enjoyed watching how experts come together to produce positive results, and feels the HFA has benefitted from a generous level of dedication and interest. The level of expertise and commitment of individuals working across the HFA’s groups and committees is key to its success and strength.

A prominent success was Heart Failure 2015, in Seville, Spain. He says: “Everybody knows that the HFA congress in May is the place to be for heart failure, and I am very happy that, in these difficult times, our congress can break records for the number of abstract submissions and participants.” Another success is the European Journal of Heart Failure, under the guidance of Editor in Chief Marco Metra (University of Brescia, Italy), and the newly-established open-access journal ESC Heart Failure, which will open up research findings to a wider audience.

While much has been achieved, the nature of HF means there is still much to do. Prof. Filippatos has been particularly impressed by the enthusiasm that has greeted him over the last two years, and the attitude of young cardiologists. This enthusiasm, together with the talented expertise of the hard-working HFA board members, will, he believes, ensure success for the future.

The full version of this article is published by HeartFailureNews
Stimulating results in the treatment of central sleep apnea

Patients with central sleep apnea may, for the first time, have an effective therapy, after positive results with an implantable device that transvenously stimulates the phrenic nerve were presented yesterday.

Central sleep apnea, which can result in cessation of airflow, is common in patients with heart failure and other cardiovascular diseases, and is associated with poor outcomes. Crucially, current therapies have not yielded positive results.

Research has shown, however, that stimulation of the phrenic nerve can result in contraction of the diaphragm similar to that during a normal breath, without disturbing the patient’s sleep.

Maria Rosa Costanzo (Advocate Heart Institute, Naperville, Illinois, USA) explained that the device has two leads: one that stimulates the phrenic nerve and another that stimulates the phrenic nerve. Moreover, the device is able to detect the patient’s position, and so only works when they are asleep in a reclining position.

To examine its safety and effectiveness, Dr Costanzo and colleagues studied 151 patients with an apnea-hypopnea index (AHI) of ≥20, all of whom received the device and were randomised to having the therapy initiated 1 month after implantation (treatment) or after 7 months (control). The patients were then assessed at 6 months.

Patients in the treatment group were significantly more likely to have a reduction in AHI between baseline and 6 months of ≥50, at 52% versus 11% (p<0.001), which was matched by significant reductions in other apnea-related parameters.

The device was well-tolerated, with 91% of patients free from serious adverse events associated with implantation. There were also no device or implant-related deaths.

Importantly, patients in the treatment group had significant improvements in quality of life measures, with 60% showing moderate or marked improvements on the patient global assessment versus 6% of control patients (p<0.001). Treatment patients also showed significant improvements on the Epworth sleepiness scale (p<0.001).

For Dr Costanzo, the quality of life assessments, which were pre-specified and statistically powered to show a difference, underline the positive nature of the results.

She told Heart Failure Congress News: “If we had improvement just in the sleep parameters but without improvement in how the patient feels, then, while physiologically good, it may not be clinically relevant.”

While further studies will be needed to confirm and build on these findings, Dr Costanzo believes that they could herald a step forward in the treatment of patients with central sleep apnea.

She said: “We feel that the results of this pivotal trial, in itself, are very encouraging and that, based on these results alone, the therapy can potentially be applied in the clinical arena to treat this disorder.”

Late Breaking Trials II: Focus on chronic heart failure
Watch the webcast online (members only) or at the e-Library

Large interest in ESC Heart Failure open access journal

ESC Heart Failure was initiated two years ago. In those early days, the journal “had to find its way” as Dr. von Haehling says. At first, the editors had to request authors for submissions, which were originally submitted to the European Journal of Heart Failure, ESC Heart Failure, as we have seen since the very day the journal was initiated. We will continue to offer a large range of manuscripts, really. As a daughter journal of the European Journal of Heart Failure open access Journal are the largest contributors – in descending order – to the ESC Heart Failure open access Journal are Germany, the United States, Japan and the United Kingdom, closely followed by Italy.

With regard to the future of this relatively young journal, Dr. von Haehling is optimistic. “The main obstacle for any new journal is the impact factor. As we are such a young journal, we could not yet apply for it yet. However, in due time we will request it.” Prof. Anker concludes: “There is a clear need for ESC Heart Failure, as we have seen since the very day the journal was initiated. We will continue to offer a good and balanced selection of heart failure topics for all heart failure enthusiasts in the field.”
From the trial to the clinic: The latest evidence on device-led management

The use of devices in heart failure management has come of age in recent years, with the publication of a number of trials that have solidified and further defined their role, a leading expert will say this morning.

Frank Ruschitzka (University Heart Center, University Hospital Zurich, Switzerland), incoming president of the Heart Failure Association, will co-chair a session on the arrhythmias and devices section of the new European Society of Cardiology (ESC) Heart Failure Guidelines with Mariell Jessup (University of Pennsylvania, Philadelphia, USA). He told Heart Failure Congress News that the latest update was made necessary by the large number of clinical trials published since the previous version in 2012. Prof. Ruschitzka said that there are now eight life-saving therapies in heart failure, “and four of them are devices”. This includes implantable cardioverter defibrillators (ICDs), cardiac resynchronization therapy (CRT), and left ventricular assist devices (LVADs), alongside heart transplantation. “So heart failure is not only about drug therapy anymore as it blends drug, device therapy and multi-disciplinary interventions. This is what makes heart failure so particularly innovative and novel,” he said. The arrhythmias and devices section takes into account both positive and negative results. One of the most important trials was led by Prof. Ruschitzka. This showed that CRT does not improve outcomes in patients with systolic heart failure and a QRS duration of less than 130 ms, a finding supported by a subgroup analysis. For Prof. Ruschitzka, these studies underline that, although CRT is a life-saving therapy, “apparently there’s no such thing as unmitigated good”. In contrast, the CHAMPION trial, which looked at the CardioMEMS device (St Jude Medical Inc, Atlanta, Georgia, USA), and the IN-TIME study, presented at the ESC Congress 2013, showed that home and remote hemodynamic monitoring translate into clinically meaningful benefits. Also addressed are novel multidisciplinary interventions, particularly percutaneous valvular interventions, alongside the latest development on LVADs and transplantation. For a preview of tomorrow’s session on the chronic heart failure section of the new guidelines, see the next issue of Heart Failure Congress News.

The new ESC Guidelines: Focus on arrhythmias and devices
Mon 23 May 11:00 – room London

LEARN MORE about the HFA’s educational offer: visit the stand before you leave!

www.escardio.org/HFA

Latest nitroxyl prodrug boosts cardiac performance in advanced HF

Advanced heart failure patients treated with the second-generation nitroso-nitroxyl (HNO) prodrug experience improvements in key parameters of cardiac function without increased heart rates or other adverse effects, the results of a randomised trial suggest.

HNO prodrugs are a new class of therapies being developed for acute heart failure syndromes. Data in pre-clinical models support inotropic and lusitropic effects on the myocardium and peripheral vasodilation, without increases in heart rate or myocardium oxygen demand. The second-generation nitroxyl prodrugs are a step forward over the previous generation due to their better safety and tolerability profile, primarily because the first-generation drugs caused local irritation of the venous system. Veselin Mitrovic (Kerckhoff Clinic, Bad Nauheim, Germany) and colleagues examined the safety and haemodynamic efficacy of CXL-1427 in 46 patients with advanced heart failure, randomising them in a 3:1 ratio to a 6-hour continuous infusion of CXL-1427 (at doses of 3, 5, 7 or 12 µg/kg/min) or placebo. The patients had an average age of 60 years, a mean systolic blood pressure of 107–115 mmHg, a mean pulmonary capillary wedge pressure (PCWP) of 24–28 mmHg and an average cardiac index of 1.77–2.20 L/min/m2, comparable with previous studies in advanced heart failure. Doses of CXL-1427 of 5 µg/kg/min or greater resulted in significant –5 mmHg reductions in time-averaged PCWP. CXL-1427 reduced PCWPs by a maximum of 4.8–6.9 mmHg across the treatment groups, versus 2.0 mmHg in the placebo group. There were also consistent reductions in pulmonary artery and right atrial pressure with the study drug. Cardiac index also increased by 18%–62% across the four CXL-1427 dose groups, compared with just 2% with placebo. The study drug also increased stroke volume, at a significant maximum increase of 84% with the 12 µg/kg/min dose versus 4% in the placebo group. The calculated mean arterial pressure was reduced in the CXL-1427 groups by 4.8 mmHg to 7.2 mmHg, compared with a reduction of 1.1 mmHg with placebo. Transient, sporadic and asymptomatic reductions in systolic blood pressure ≥20 mmHg were seen in 21% and 18% of CXL-1427 and placebo patients, respectively. These resolved without the need for intervention.

There were no increases in heart rate with CXL-1427 versus placebo, and there were no cases of arrhythmia during infusion. No changes in circulating B-type natriuretic peptide levels or renal function markers were observed, and there were no CXL-1427-related toxicities, aside from potentially occasional headaches during infusion. Discussing the findings, Prof. Mitrovic told Heart Failure Congress News that this new drug has an interesting profile with potential inotropic, lusitropic and vasodilator effects. In this phase 2a trial, there appeared to be a dose-response relationship with the study drug for stroke volume and cardiac index.

It remains to be seen whether future trials of CXL-1427 would focus on the higher doses or continue with all four. While Prof. Mitrovic feels that is “an important question”, for him the next step will be to examine the drug’s effect over a longer time period, more than 24 hours, “because here we have experience only in patients with advanced heart failure for a 6-hour infusion period.”

Late Breaking Trials I: Focus on acute heart failure
Watch the webcast online (members only) or at the e-Library

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Scientific excellence rewarded at Heart failure 2016

Congratulations to all of the finalists of this year’s Young Investigator Awards and Nursing Investigator Awards sessions!

NEW this year: a selection of Clinical Cases competed for the Best Clinical Case Award during Saturday’s Clinical Case Competition.

The winners are announced on www.escardio.org/HF2016

Young Investigator Award: Clinical

- Dr. Jozine Ter Maaten (Groningen, NL)
- Dr. Massimo Mapelli (Canonica D’adda, IT)
- Dr. Deborah Cosmi (Pietra Ligure, IT)
- Dr. Rajinikanth Gogiraju (Goettingen, DE)
- Dr. Andreu Climent (Madrid, SP)
- Dr. Ana Isabel Azevedo (Matosinhos, PT)
- Dr. Ercole Vellone (Maastricht, NL)
- Dr. Stefan Koudstaal (Utrecht, NL)
- Dr. Francesco Montillo (Bari, IT)
- Dr. Rajinikanth Gogiraju (Goettingen, DE)
- Dr. Andreu Climent (Madrid, SP)
- Dr. Daniela Miranda-Silva (Porto, PT)

Young Investigator Award: Basic and Translational Science

- Dr. Mark Hazebroek (Maastricht, NL)
- Dr. Stefan Koudstaal (Utrecht, NL)
- Dr. Francesco Montillo (Bari, IT)
- Dr. Rajinikanth Gogiraju (Goettingen, DE)
- Dr. Andreu Climent (Madrid, SP)
- Dr. Daniela Miranda-Silva (Porto, PT)
- Dr. Mark Hazebroek (Maastricht, NL)
- Dr. Stefan Koudstaal (Utrecht, NL)
- Dr. Francesco Montillo (Bari, IT)
- Dr. Rajinikanth Gogiraju (Goettingen, DE)
- Dr. Andreu Climent (Madrid, SP)
- Dr. Daniela Miranda-Silva (Porto, PT)

Nursing Investigator Award

- Dr. Enrico Vellone (Rome, IT)
- Dr. Marco Paturzo (Rome, IT)
- Dr. Kentaro Kamiya (Sagamihara, JP)
- Dr. Ana Isabel Azevedo (Matosinhos, PT)
- Dr. Sunki Lee (Seoul, KR)
- Dr. Natalie Emanuele (Adelaide, AU)
- Dr. Yuya Matsue (Groningen, NL)
- Dr. Alessia Zanni (Piacenza, IT)

Clinical Case Competition

- Dr. Hoong Sern Lim (Worcestershire, UK)
- Dr. Fabien Praz (Bern, CH)