

A NOTE FROM THE PRESIDENT OF SA HEART®

I am humbled to have served as President of SA Heart® and I have outlined in detail last year's activities in my 2019 report, which is available online at www.saheart.org. I appreciate all the encouragement and assistance from Professor Liesl Zühlke and Ms Erika Dau, as well as our board of directors, the national council, standing committees and regional branches.

We are presently in the process of re-aligning our memorandum of incorporation to make SA Heart® more inclusive. This is a long and arduous process and we are fortunate that we have been ably guided Mr Chandu Kashiram, who is a self-employed business consultant with expertise in risk management, ethics, governance, compliance and financial management. We are grateful that Chandu has volunteered his services to our association. This process has been a sobering education as I personally did not appreciate the actual responsibilities that are required as a board director. We intend to not differentiate between various categories of membership and henceforth, all allied cardiac professionals will be included as ordinary members with voting rights and inclusion on the SA Heart® board. In addition we will have a number of independent directors as well – these will be individuals with added value business and fund-raising skills. The composition of the board and other important aspects are still under discussion and we will hold a special meeting for the membership to accredit this important document.

Other highlights for me personally include a major role in the organisation (together with the Durban Scientific Committee) of our recent successful PASCAR, SA Heart®, Africa PCR, SA-CMR and AHN congress. The coming together of 5 major groups was momentous in that we were able to strengthen collaborations and explore solutions for the epidemic of heart disease in Africa. We also held a well-attended SA Heart® - ESC joint symposium, "Infection, inflammation and the heart" at the recent ESC 2019 congress in Paris. I was honoured to represent SA Heart® at the Affiliated Cardiac Societies Presidents meeting, in addition to a meeting with the ESC leadership. We have now committed to provide our local perspectives for publication together with the future planned ESC Practice Guidelines, that we adopt as own. The ESC would



Dr David Jankelow, SA Heart® President.

like to better cater their recommendations for developing countries.

We are now in the planning phase of for this year's congress, "2020: Back to the Basics". We want to get back to the fundamental basis of cardiovascular disease and cardiac practice. We welcome our long-term partnership with AfricaPCR. We will closely coordinate and integrate both committees. A needs analysis has been sent to the entire membership for suggestions of sessions in line with this theme.

Once again I welcome any constructive input that you may have. Please don't hesitate to contact me.

David Jankelow
President, SA Heart®
djankelow@icon.co.za

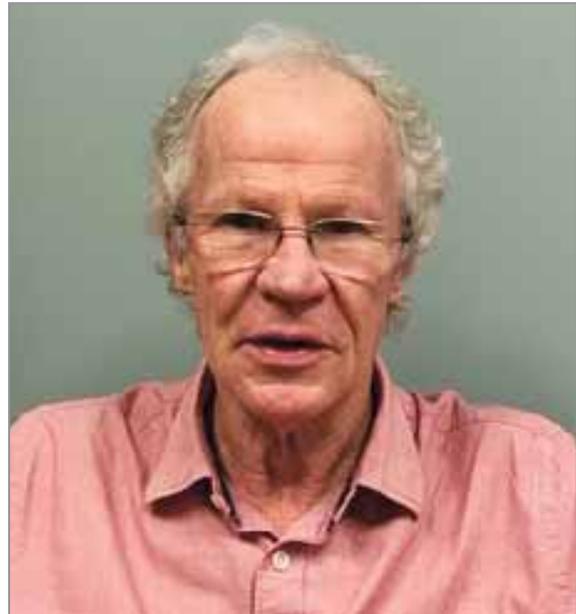
SA HEART® CONGRESS REPORT 2019

The annual SA Heart® congress took place from Thursday 31 October - Sunday 3 November 2019 at the Sandton Conference Centre. The congress theme for last year is “Cardiac Care: Meeting the needs of Africa”. This is a highly pertinent issue in a world where, according to the 2013 Global Burden of Disease Study, cardiovascular disease (CVD) has been identified as the leading cause of death worldwide. It is predicted that CVD will surpass HIV/AIDS as the leading cause of death in sub-Saharan Africa (SSA) within the next decade.

The congress theme and topics were thus selected to facilitate a focus on where? and how? modern cardiac care can be most effectively utilised in an under-resourced environment. When comparing this conference to previous years, regular attendees will have noted a few changes to the form and content. Last year, 5 major cardiac societies have joined forces to highlight problems and explore possible solutions to the challenges inherent to treating heart disease in Africa with SA Heart® partnering with the Pan-African Society of Cardiology (PASCAR), AfricaPCR, the Cardiovascular Magnetic Resonance Congress of South Africa (SA-CMR) and the African Heart Network (AHN). It was wholly appropriate for SA Heart® 2019 to be held in association with AfricaPCR. The case based, interventional programme and joint sessions, as organised by the 2 bodies, was tailored to focus on areas of contention as well as modern trends in cardiology and their importance for, and relevance to, the practice of cardiology in Africa.

PASCAR focused on identifying key issues to help guide the implementation of treatments and programmes to combat CVD on the African continent. SA-CMR brought a unique imaging dimension to the conference with a timely focus on myocardial and pericardial diseases which are all too prevalent in Africa. The AHN focussed on advocacy and policy in an effort to specifically identify and address unmet needs. This is crucially important if we are to meet the stated aim of the World Health Organisation (WHO) to reduce CVD with 25% by 2025.

The preconference workshops took place on Thursday 31 October and included a stimulating paediatric programme,

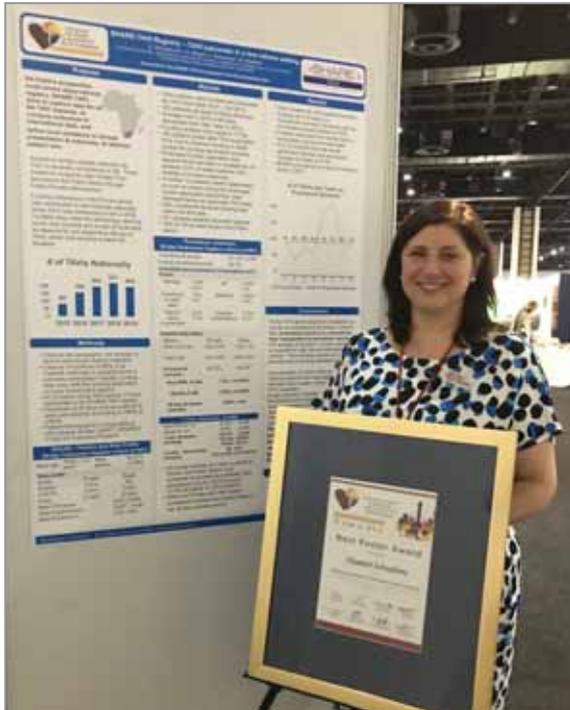


Dr Rob Dyer

a practical echocardiographic session, the ever popular “Cardiology for non-cardiologists” under the aegis of HefSSA as well as workshops presented by SA-CMR and CASSA. Every one of these sessions focused on the acquisition of certain skills which are necessary to improve one’s cardiology practice. These workshops were followed by the opening plenary on Thursday evening. The PASCAR tradition that participants wear traditional dress for this function was upheld.

In light of the conference theme, which can be paraphrased as “How to make a difference”, there could scarcely be a more appropriate keynote speaker than Dr Imtiaz Sooliman of Gift of the Givers.

The first morning saw the conference proper presenting a major plenary, put together by AfricaPCR and SA Heart®, with topics such as appropriate management of STEMI, revascularisation in chronic coronary syndromes and TAVI. On the second morning, the initial major plenary session named the Bongani Mayosi Memorial Lecture, saw many of Bongani’s friends and associates will pay tribute to one of Africa’s greatest medical sons. The focus was on rheumatic



Elizebeth Schaafma and her award for the best poster.

heart disease with 2 talks specifically emphasising mitral valve disease.

We are grateful for the ESC's support and their willingness to contribute to the success of our conference. The second major plenary session on Friday and Saturday included an ESC session focusing on guidelines and modern trends. The format adopted included multimedia and case-based discussions covering atrial fibrillation, chronic coronary syndromes, pulmonary thromboembolic disease, the diabetic cardiac patient, lipid therapy and heart failure. In addition to the substantial contribution from the ESC, we welcomed input from our Mayo Clinic colleagues who have made particular contributions to the imaging sessions and who have also shared their insights and experience on a vast range of topics.

The late Friday afternoon major plenary session included a debate on AF-ablation vs. medical therapy, a presentation on CT angiography, major insights on all forms of manage-



Professor Barbara Cassedei at a career cafe session.

ment of chronic coronary syndromes from 2 of the world's experts (Drs Gersh and Wijns) and a bonus presentation on the future of randomised trials presented by Dr Rory Collins.

‘CVD has been identified as the leading cause of death worldwide.’

The final Sunday morning plenary was markedly interactive and loads of fun. It was divided into 2 sections: "What could go wrong?" and "Where technology made a difference". Other major areas which addressed in the special interest sessions were Athlete's heart, paediatric cardiology (medical and surgical), arrhythmias, hypertension and GUCH.

The tremendous cooperation of all in putting together the programme is hereby gratefully acknowledged.

Dr Rob Dyer

POPULAR CONGRESSES FOR 2020

CONGRESS	DATE	CITY	COUNTRY
EUROPCR https://www.pconline.com/Courses/EuroPCR	18 - 21 May 2020	Paris	France
CCSSA (CRITICAL CARE SOCIETY OF SOUTHERN AFRICA) CONGRESS Email ccssacongress@velocityvision.co.za	26 - 29 August 2020	Johannesburg	South Africa
ESC CONGRESS 2020 https://www.escardio.org/Congresses-&-Events/ESC-Congress	29 August - 02 September 2020	Amsterdam	Netherlands
2020 WORLD HEART AND CARDIOTHORACIC SURGERY CONFERENCE https://heart.episirus.org	08 - 09 September 2020	Bangkok	Thailand
CSI FRANKFURT https://www.csi-congress.org	16 - 19 September 2020	Frankfurt	Germany
LIPIDOLOGY UPDATE MEETING Email elouise@shiftideas.co.za	18 - 21 October 2020	TBC	South Africa
SA HEART® AND AFRICA PCR 2020 CONGRESS http://www.saheart.org/2020	21 - 25 October 2020	Sandton	South Africa

Please also consult the SA Heart® online calendar at www.saheart.org/events/eventcalendar for constant updates as well as a number of ISCAP workshops and SASCI/SA Visiting Professor evening lectures around the country.

Please double check all dates and events as they might change under these unprecedented circumstances.

SNIPPETS

After nominations and elections in September/October last year, new officer bearers of the current SA Heart® executive were announced at the SA Heart® AGM.

Dr Blanche Cupido – President-Elect | Professor Mpiko Ntsekhe – Vice President | Dr Zongezile Makrexeni – Secretary

Congratulations to these members and best wishes for a successful term.

NEW HORIZONS IN ECHOCARDIOGRAPHY

11TH ANNUAL CONFERENCE, JOHANNESBURG 2019

The aim of this course, as quoted from their website, was to provide physicians and sonographers with the opportunity to improve their knowledge in echocardiography. A second aim was to provide practical training to participants on various echocardiographic techniques. Since its beginning in 2009 this course has grown in popularity and in 2013 was given official endorsement from the European Cardiovascular Imaging Society. The current course is aimed at providing attendees with updates on echocardiographic practice guidelines as well as a comprehensive introduction on three dimensional echocardiography.

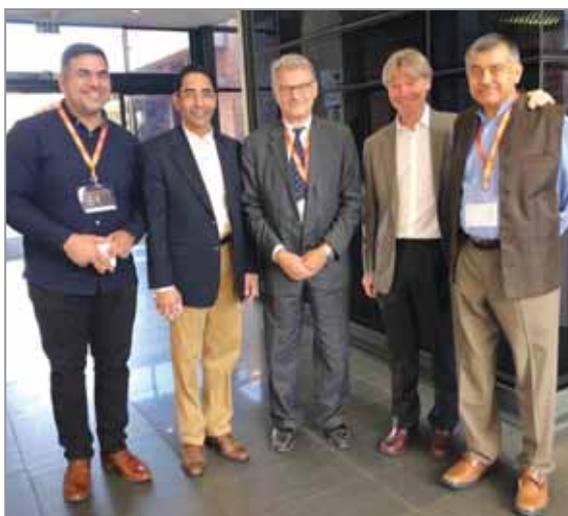
Ensuring a high level of quality in echocardiography and new advances in technology, a comprehensive team of world experts has joined this programme since its inception (B Khandheria, P Nihoyannopoulos, F Mookadam, J Bax, F Peters) to provide state of the art teaching and formulating exciting topics which this year was mostly cased based learning and a few hands-on sessions.

The 4-day programme was of great value to me as a first year senior registrar in cardiology at Groote Schuur hospital, almost all topics discussed had high relevance to my current curriculum and daily clinical practice. These included myocardial disease, the cancer patient, the challenge of endocarditis, aortic valve disease, case studies in mitral valve disease, pericardial disease pearls and ICU challenges.

Recording all the sessions on the livemedia.com web site for easy access and review was an excellent addition to the new horizons programme to enable maximum benefit for all attendees.

I hope the 12th annual conference continues to bring the best and add to the previous success.

Mahmoud Al-Naili



Dr Mahmoud Al Naili, Professor F Mookadam, Professor P Nihoyannopoulos, Professor J Bax and Professor B Khandheria.



Professor Farande Peter and Dr Mahmoud Al Naili.

WOMEN AS ONE EVENT AT SA HEART® CONGRESS

On the 1st November 2019, the Sandton Sun was awash with red! Not only was it declared “Go red for women” day at SA Heart® congress, it also marked the launch of the “Women as One” African Chapter. Women as One was launched by 2 remarkable women cardiology icons: Professor Marie-Claude Morice and Professor Roxana Mehran together representing 2 of the biggest names in Interventional cardiology and CVD clinical trials in the current day.

Women As One aims to broaden and promote the global talent pool in medicine by providing unique professional opportunities to women physicians. Their objectives are to:

- Unify professional organisations in specialties where women are underrepresented, creating a single infrastructure to support change.
- Develop innovative and compelling programmes which serve to advance women in medicine.
- Leverage lessons from other industries, incorporating “what works.”
- Match the right women to the right opportunities!

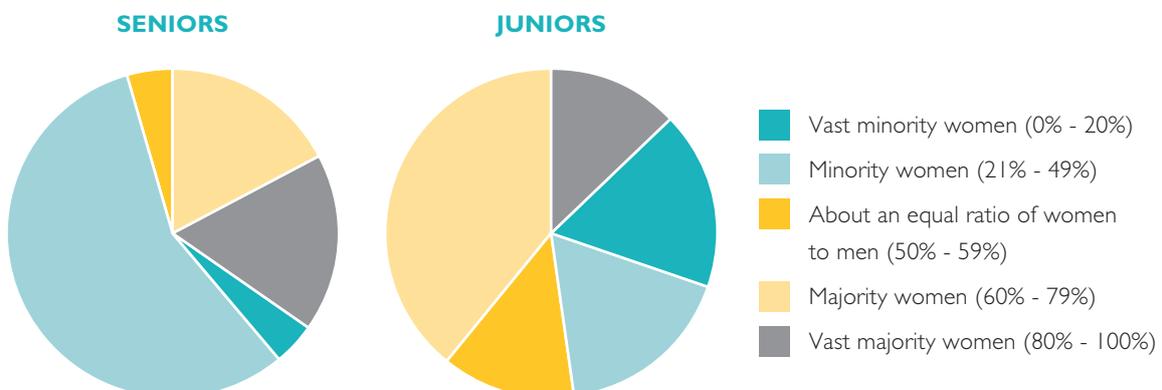
Professor Liesl Zühlke had been invited to their first European Meeting in April 2019 and recognised, as one of



Professor Liesl Zühlke, Dr Blanche Cupido and Professor Karen Sliwa at the Women as One event.

the few women cardiologists in senior positions in South Africa, that there was a clear need for engaging around this issue. Taking advantage of the visit by Professor Marie-Claude Morice for SA Heart® 2019 and AfricaPCR, the

TEAM COMPOSITION: SENIORS AND JUNIORS



BOX 1 CHALLENGES

- Family and work flow, flexible hours
 - Patriarchy
- Funding- both for research and for further qualifications/studies
 - Toxic Institutional culture
 - Poor support
 - Burden of Disease
 - Lack of qualifications available
 - Long hours
 - Equipment and capacity building
 - Lack of senior posts
 - Lack of mentors
 - Non-invasive cardiology viewed differently to Interventional cardiology
 - Age

BOX 2 FACILITATORS

- Strong (female) mentorship, who care
 - Support from family
 - Having a strong vision
- Awareness of NCD and CVD as an issue
 - Collaboration
 - Skill set and experience
- (Having and being) Younger committed trainees
 - My Age

BOX 3 SUGGESTED INTERVENTIONS

- Female networking societies
- More understanding from male colleagues, with regards to one's family responsibilities
- Broad Diversity and inclusivity
- Active and visionary women leaders
- Funding and education about what it entails
 - Female Mentors
- Career awareness, certification, educational opportunities
 - Ringfenced opportunities
- More women in senior positions
 - Focus on the girl child
- Flexible working structures and hours



The Women as one Attendees looking lovely in Red.

decision was made to launch an African Chapter of Women as One, to ensure high visibility by all dressing in red and to present the findings of a short survey over lunch.

We were very happy to have over 50 respondents to our survey and had arranged for a lunchtime meeting room which could seat about 60 people. Imagine the surprise and delight when the sea of wonderfully red dressed women (and men) descended on the room, which was clearly far too small. There was a rapid relocation to a far larger room and in the end over 150 people joined the lunch. The program began with an introduction to the Women as One concept by Liesl Zühlke, followed by wonderful short talks by Professor Karen Sliwa and Professor Barbara Caseidi, the first women to lead global cardiology agencies. Also part of the audience, was Professor Athina Poppas,

the first women president of ACC. Karen discussed The World Heart Federation: Increasing women on the global stage of cardiology while Barbara Casadei talked about Women in the ESC: Challenges and opportunities. The final session consisted of 3 questions answered by both the panel and then the audience. The panel consisted of Professor Amam Mbakwem, Professor Ana-Olga Mocumbi, Dr Blanche Cupido and the topic was Accelerating capacity and talent in cardiovascular sciences and practice in Africa.

The first questions was posed to Dr Ana-Olga Mocumbi and addressed the biggest challenge facing her in her career. Many of those she encountered were shared by both the men and the women who had answered the survey – we are not so different! A clear concern was the lack of female mentors, institutional culture and othering. Professor Amam Mbakwem addressed the issue of facilitators and spoke about vision, drive and determination, and the cooperation and collaboration between colleagues and friends. Finally Dr Blanche Cupido, SA Heart®'s new president elect who will become the third woman President of SA Heart® in the past 4 terms, spoke about potential interventions to accelerate potential amongst woman cardiologists and trainees. She addressed the issue of informal and formal support and mentorship, a focus on new areas of expertise and the importance of

Continued on page 110

WOMEN AS ONE EVENT AT SA HEART® CONGRESS continued

visibility and commitment, even in the face of difficulty and obstacles as a method of ensuring sufficient rungs on the ladder while looking toward to the glass ceiling.

Women as one reflects the new ethos of SA Heart®: potential for all who practice Cardiology in Africa, regardless of origin, discipline and certainly not gender! We now have a diversity policy in all our committees and within the organisation and a focus on respectful engagement. All the large agencies including ESC, WHF and NIH have pledged to no longer have man-only panels, all new committees have been instructed to ensure that all speaker profiles are diverse and include emerging leaders, women and practitioners from diverse areas and backgrounds. SA Heart® applauds these initiatives and will continue to reflect these in our work and congress going forth.

The Women as One day ended with lots of photographs and fun together and a real sense of purpose and com-

mitment. The Women as One escalator award was announced and all in the audience were encouraged to apply. We intend to follow this event in 2020 with a CVD Imbizo within the conference dedicated to Empowering and Escalating women with key learning objectives and powerful interactions and networking.

**Please go onto the women as one website
<https://www.womenasone.org>
 to register onto the talent directory,
<https://www.womenasone.org/register>
 browse the amazing resources
<https://www.womenasone.org/videos> and
 view more pictures from this
 wonderful event.**

Liesl Zühlke

JACO JOUBERT AND NORAH MAITISA INTRODUCTION



Jaco Joubert is currently the Country Manager for Edwards Lifesciences. He's been in the cardiac device industry since 2004 and has had the privilege to serve in various roles in the sales and marketing arenas for various international companies.

Jaco qualified as a pharmacist and spent the first 6 years as a retail pharmacist. He completed a Marketing Diploma from the IMM Institute of Marketing in 2005.

His passion is problem solving and he believes that any problem has a solution if you are willing to explore a few options and don't accept failure. He's an eternal optimist and believes that with a positive outlook you can overcome any challenge you may face.



Norah Maitisa is currently a Medical Advisor at MSD South Africa for Lipids, Hypertension, Diabetes and Pain portfolios. She has also previously worked at GSK's Respiratory and HIV portfolios. She has worked in several NGO's contributing towards government's primary

health care nurse management of HIV&TB and has contributed towards the PC101 (TB&HIV) formulation within its working groups. After qualifying from MEDUNSA, she also acquired her Master in Science Infectious Disease Epidemiology (MSc Epidemiology) from Wits university.

Norah Maitisa and Jaco Joubert have been nominated as the new pharma and device industry representatives by SAMED after Rob Millar resigned from his position in industry in 2019.

THE LIPID AND ATHEROSCLEROSIS SOCIETY OF SOUTHERN AFRICA (LASSA)



This newsletter provides a report of the FH Foundation Global Summit meeting to which I was invited. The meeting was in Atlanta, Georgia, USA from Sunday 20 - Tuesday 22 October. It was attended by medical and scientific colleagues as well as patients. The content of the meeting is summarised and some of my reflections are added with the South African perspective. The report is not comprehensive but is hopefully informative. There is much to do to promote the awareness of familial hypercholesterolaemia (FH).

In brief, the FH Foundation, a patient-driven organisation, was founded by an enthusiastic woman who had an heart attack before the age of 40 years due to familial hypercholesterolaemia (FH). There has been an annual meeting since 2012. The FHF invites clinicians and scientists to give input into their activities so that the recognition and treatment of FH can be promoted. Last year it celebrated the 20 years since the special report from the World Health Organisation which I attended as one of the few remaining co-authors on that report. Following the global summit last year I have, on behalf of LASSA, contributed to a document on FH which will be submitted for publication later this year.

The theme of this meeting was Familial Hypercholesterolaemia as a model for Precision Public Health. At the opening of the meeting, the founder and now chief executive officer of the FHF, Ms Katherine Wilemon explained that the theme of precision public health was in response to the coining of the term by Dr M Khoury in 2016 as part of the development of precision medicine. The aim is to provide the right intervention(s) at the right time to the right population or sector thereof. She indicated that, in the USA the number of persons with FH exceeds the number of HIV-infected persons by more than 200 000. Since the introduction of an ICD-10 code specifically for the diagnosis of FH, it has been possible to track this diagnosis better. The ICD 10 code for FH is E78.01.

Dr J Knowles summarised progress since the FHF got involved in highlighting the plight of FH sufferers. Not only has the FHF provided a home for patients to turn to for

information and support, but it also raised funds to support its advocacy for persons with FH. He indicated that much education still needs to be done as the awareness, assessed by a survey in general practitioners, cardiologists, other specialists and paediatricians was not ideal: 15, 61, 45 and 5% from each of the groups felt they knew the condition and answered appropriately. A registry of FH was started and was 6 000 strong; amongst them are 88 homozygous cases of FH. The average age of starting treatment for these subjects is 44 years and of diagnosis is 48 years. The genetic diagnosis was made in 10% of cases and comprises LDL receptor mutations in 85%, apoB mutations in 10% and PCSK9 mutations in 1% with 4% being other mutations that were not declared.

Ms Kate Robinson gave a powerful and erudite account of the difficulties experienced by so many persons with FH, including the delay in diagnosis and the emotional stress. She and her husband had family members with heart disease and were not aware of their own hypercholesterolaemia until a diagnosis was made for her son. He was diagnosed with molluscum contagiosum in the first few years of his life when he developed skin lesions. Finally a biopsy of the lesion revealed it was a xanthoma and he was diagnosed with homozygous FH because his LDL cholesterol was 897mg/dL (22.4mmol/L). He was placed on atorvastatin and ezetimibe treatment. At the age of 5 years he developed chest pain and was found to have a severe stenosis in his right coronary artery. He has undergone apheresis since then and had to receive much counselling and emotional support for this weekly procedure. His sister also has homozygous FH and his brother is heterozygous. His father, working in the insurance industry, had hypercholesterolaemia (10mmol/L) and was on statin treatment from the age of 20 years without a specific diagnosis. He developed muscle cramps and ceased taking statins at the age of 31 years. He had exertional chest pain for a year before the diagnosis of heartburn changed to angina and 2 stents were placed. He was declined for anti-PCSK9 monoclonal antibody treatment but is taking atorvastatin and ezetimibe with a final LDL cholesterol concentration of 2mmol/L. The family has done much for the awareness of FH at school and in the com-

LASSA continued

munity. They chose doctors who were more knowledgeable about dyslipidaemia but did not inform their medical practitioners of the diagnoses in the family. They felt it was very important for a well-informed doctor to spend time with the family to explain the diagnosis, its implications and treatment. They were frustrated at the battles with medical insurance to support the treatment of FH. The family felt that much education was necessary at the medical insurance industry. Interestingly, like so many of the other members of the FHF, the parents referred very specifically to h-e- FH and h-o- FH. They indicated that the fear of statins that they sensed in the media was unfounded and that medication was safe and effective and must be commenced as early as possible.

Dr C Boileau from France gave an overview of her work in FH. She discovered that the FH phenotype was also attributable to mutations in PCSK9 and acknowledged several researchers who had been working on severe hypercholesterolaemia. She discussed variability within FH. Only a few genes of the 22 000 in the genome gave rise to the FH phenotype. The phenotype is, however, modulated by other genes and the environment from the fetus to the adult. The impact of the environment was stressed by indicating the doubling of LDL cholesterol levels in subjects with the identical mutation in the Chinese communities at their original country compared with Canada. The drivers of variability could be useful for risk assessment as well as therapeutic strategies. Like others at the meeting, she did not think that more monogenic causes of FH will be discovered. Of interest for LASSA members, is that the French mutation in PCSK9 was found in a family from a town in the Western Cape.

Dr M Khoury indicated that commonly encountered severe autosomal dominant disorders that deserve attention include breast and ovarian cancer (BRCA mutations), Lynch syndrome and FH. The estimate is that more than 1 million people in the USA have FH. This may be reason for neonatal screening. Dr Rear Admiral B Thompson indicated that, from a public health perspective, lifestyle intervention and additional drug treatment will achieve much benefit and in decreasing order of impact by intervention are hypertension, hypercholesterolaemia, smoking and salt

intake. The message from a genetic counsellor working in public health, Ms D Doyle, was that cascade testing for severe disorders was poorly done from medical practices and was not supported by medical insurance; necessitating cascade testing as a public health responsibility.

Many strategies are being explored to make sure that everyone with FH is identified. Dr D Rader described that machine learning could flag candidates for FH from databases. This process excluded secondary causes and hypertriglyceridaemia in a database of 170 million data points and FH was confirmed in 87% of the flagged individuals when reviewed by experts. Dr PWF Wilson indicated that the Veterans Administration database was also interrogated to ascertain the treatment success of patients with FH. Interestingly, white patients more likely got prescriptions but black patients were much more adherent to prescription. His talk was shared with Dr Y Sun whose interest was in genetics. He mentioned that the USA had documented more than 1 500 pathogenic LDL receptor mutations. There were many variants that influenced LDL concentration, some raised concentrations but less so than the classical FH-causing mutations. The LDL concentration ranged in these cases from 160 - 190mg/dL which is equivalent to 4 - 5 mmol/L. The variants across the population groups were shared but at different prevalences. Principal component analysis could separate African, Asian and European groups. The concluding remark was that the variants with mild effects on the lipid profile were common and had small influences while the uncommon (pathogenic) variants of the LDLR had a powerful influence on the LDL concentration and conferred the FH phenotype with its much higher risk of cardiovascular disease. It is not certain whether the strategies for finding cases of FH could simply be applied across the board in all countries.

Dr A Tybjaerg-Hansen from Denmark discussed the issue of polygenic severe hypercholesterolaemia. Increasingly since 2010, more variants in the genome are linked with vascular disease and/or hypercholesterolaemia. The number has increased from 85 - >118 as the cohorts that are analysed increased in size. Most of the variants had only a small impact on risk but there are distinct cumulative

effects. In general a high polygenic risk score of genes with minor influence raised LDLC by 0.8mmol/L but this does not usually approach the LDLC values seen in FH. Incidentally, these scores aggravated the LDLC concentration in FH subjects and could account for additional risk in FH. She also indicated that in some families in the Danish population, high Lp(a) demonstrated a dominantly inherited hypercholesterolaemia with premature heart disease and on these grounds the diagnosis of FH could be made. In the general population, LDL hypercholesterolaemia was explained by polygenic scores in 23% whereas monogenic hypercholesterolaemia explained <2%. The monogenic disorders generally have much higher LDLC than the polygenic disorder.

Dr S Kathiresan discussed genes influencing plasma cholesterol concentration and vascular risk. A relatively recent contribution to hypercholesterolaemia is the linking of the ABC transporter G5 and G8 variants to hypercholesterolaemia. Variants in this dimeric transporter, expressed in the enterocyte and hepatocyte, affect sterol uptake and excretion and account for about 0.6 mmol/L in the cholesterol concentration. A distinction was made between polygenic risk scores for hypercholesterolaemia and polygenic risk scores for coronary artery disease. The latter category does include a few lipid genes but the impact of the lipid genes is probably best described by the plasma total or LDL cholesterol concentration while the coronary disease risk factors are not subject to such a simple and inexpensive biochemical test. Dr Kathiresan applied genetic investigations to the UK Biobank project. The odds ratio for coronary disease in people with mutations conferring FH was 6 across the age range, while for polygenic hypercholesterolaemia it ranged from 1 - 20 according to the number of adverse genes. Within FH it was interesting to view the cumulative occurrence of premature heart disease: those with a low score had a 20% event rate and those with an high score had a 80% event rate in the 7 decades of life. Dr Kathiresan quoted the recent publication from a Dutch study that analysed the premature ischaemic heart disease occurrence in the parents who antedated the use of statins and the occurrence in children who were treated with statins and have now reached 40 years of age. Whereas the occurrence of heart attacks by the age of

40 years in the parents was 25%, the occurrence in the treated children was 1%. It must be remembered that the statin treatment was not with the most powerful statins. It must also be borne in mind that about 10% of the first heart attacks are fatal; explaining why several children who were placed on treatment had already lost a parent.

‘The drivers of variability could be useful for risk assessment as well as therapeutic strategies.’

Dr E Sijbrandts gave an overview of developments from clinical diagnosis to the modern “omics”. The clinical practice is driven by the information for the average case with FH even though variability is recognised by every clinician. Refinement of risk prediction is important and genetic investigation may well provide this. He indicated that a recent study found that the much-used Framingham risk calculation was outperformed by a genetic risk prediction score. There has not been much forthcoming from more novel biochemical markers of risk. The approach may need to change: atherosclerosis is a disease and should be modified rather than its being an event at which stage intervention should be considered and may be too late to be of real benefit.

Continued on page 114

LASSA continued

Dr R Santos, president of the International Atherosclerosis Society described the status of FH in the 10 country study that was sponsored by the IAS. The study indicated that FH was diagnosed in <4% of expected cases in the participating countries. The more severe hypercholesterolaemias (LDLC >7mmol/L) had the highest detection rate of mutations in the LDLR, apoB and PCSK9 genes. In poorer countries, treatment is often not available at all and it was suggested that severe disorders such as FH should gain support for treatment from the government as part of more universal healthcare. In LDL hypercholesterolaemia of >4mmol/L as well as in FH, primordial preventive treatment is advocated in youth according to Dr L Hayman. The poor adherence to statin prescription was discussed by Dr F Rodriguez. Patient factors in this problem relate to a distrust in statins as well as a problem with polypharmacy. The medical profession may aggravate the problem of adherence by not monitoring and intensifying treatment. There is also a problem in the healthcare system that discourages adherence, especially when copayments need to be made and when there is a bureaucratic burden to this. Disparities in healthcare were emphasised by Dr L Sperling who compared the various addresses in Atlanta which denote socio-economic differences. There is no doubt that ethnic minorities, women, and lower economic status influence the treatment of patients with FH. One of Dr Sperling's patients came on the stage and gave an account of her original general practitioner who ascribed her recurrent and later persistent Achilles tendonitis to "pump heels". Her severe hypercholesterolaemia, discovered at blood transfusion, had antedated this problem. She developed premature coronary disease and the diagnosis of FH was first mentioned after 18 angiograms when a triple vessel bypass operation was performed. She had intolerance to statins at higher doses but is on a low dose of a statin. After much effort, she is now receiving apheresis and a PCSK9 neutralising agent.

An update on FH was given by Dr R Alonso for South America which continent still has very strong ties to Spain. Dr A Peterson discussed paediatric and primary health care management of FH. One of the problems was that few

paediatricians and medical practitioners are not aware of the reference ranges for dyslipidaemia in children.

Dr N Wenger from Atlanta discussed the integration of science, policy and behaviour. She emphasised the need for pre-pregnancy counselling for couples, as well as the need to discontinue statins at least 4 weeks before the planned conception. Lifestyle changes are to be recommended to pregnant women with FH and only bile acid sequestrants should be used. She was uncertain about breast feeding while taking statins. There was an interesting "heart owner instruction manual" proposed for patients. The heart is described as a fist-sized pump weighing <500g but performing 100 000 beats per day and putting out 7 200 litres per day into about 96 000km of vessels. The warranty is about 81 years for women and 71 years for men but only if serviced with checks (mass, BP, LDL, HDL, TG, Lp(a), CRP) at regular intervals and appropriate intervention is taken in response to problems detected along the service plan. In-between service checks the owner needs to follow evidence-based advice: to walk daily (30 minutes), to consume healthy fuel/food, and not to raise the load (achieve ideal body mass).

The last formal talk was by Dr K Bibbins-Domingo whose interest is public health. She was a participant in the US Preventive Service Task Force. This organisation makes about 12 recommendations per year based on reviewing evidence but admittedly has no authority over care providers. However, the feeling is for category A and B evidence, copayment should not be required. Regarding cholesterol: statin treatment for primary prevention is category B though FH was not specified. Such specification is probably required as Dr Bibbins-Domingo did indicate that the intervention should be in agreement with the degree of risk. The recommendation about testing children for hypercholesterolaemia was a grade I which means inadequate evidence. This might require a special comment for FH as the risk is high and the evidence of benefit from intervention in FH children is available.

The next day presented an opportunity for delegates from various countries to meet. Each delegate described the main activities around FH and how they relate to the call

to action that the FH Foundation is planning to submit to an international medical journal as well as to the WHO. A representative from the WHO attended the session. It is hoped that the official, authoritative approval and recommendations from the WHO will create a minimum standard to which developing countries will adhere. It was worth attending the meeting about FH, a common, severe and treatable condition that should be diagnosed as a specific entity. Unfortunately the advances in insight into the causes of severe hypercholesterolaemia and the improved treatment with successful reduction of vascular events have not been translated well into medical practice. It seems as if there is a world-wide problem to do this serious disorder justice. It is thus necessary for the medical profession as well as the patient lobby to improve matters so that all persons with FH can be identified and treated from an early age.

In the majority of the cases, especially with early intervention, statins and ezetimibe will suffice for heFH and only a minority will require expensive agents. While it is possible that risk prediction will be refined in FH in the future, all severe hypercholesterolaemia cases thought to be FH should be taken seriously and should receive support.

LASSA will strive to improve the awareness and management of FH in South Africa and aims to contribute to the cause for the African continent. The expertise should preferably be honed before PCSK9 neutralisers reach our market. To this end, we aim to run another educational course in May 2020 over a few days in Cape Town. The proposed date is 18 - 20 May and we hope to raise funds so that delegates are only responsible for travel arrangements to attend and a registration fee. We had generous unconditional support from some pharmaceutical companies this year. We also hope that medical schemes will support and participate as their panels will need to make decisions on management of FH.

The LASSA committee is concerned about the lack of support for lipidology and will soon suggest adjustments to our constitution to encourage growth of this discipline; especially if we are supported for reaching out to other medical schools in Africa. We have already gained one member from Uganda and have interested parties in Ghana and Nigeria. We certainly would welcome the connexion as, by a simple calculation, there are more than 2 million persons with FH in sub-saharan Africa.

David Marais

WEBSITE LINKS

SA HEART®	www.saheart.org
CASSA	www.cassa.co.za
HEFSSA	www.hefssa.org
PASCAR	www.pascar.org
PCSSA	www.saheart.org/pcssa
SASCAR (RESEARCH)	www.sascar.org.za
SASCI	www.sasci.co.za
ACC	www.acc.org
ESC	www.escardio.org
WORLD HEART	www.world-heart-federation.org



SHARE REGISTRY UPDATE

SUMMARY OF RECENT SHARE ACTIVITIES MID-AUGUST 2019 - MID-NOVEMBER 2019:

- **Annual leave days taken:** Tuesday 01 October 2019 (1 working day),
- **Annual leave request/planning:** 29 November, 17 December 2019 - 3 January 2020 (12 working days)
- **Sick leave:** 18 - 27 September 2019 (8 working days for cervical fusion and disc replacement)
- **Highlights:** Abstracts presented at ESC 2019 and SA Heart® Congress 2019

TAVI:

- 231 TAVI were captured across South Africa in 2018, and as at mid-November last year that number has been equalled (231 TAVIs captured in 2019), with a high number of applications in recent months (171, up from 145 last quarter), it may be possible to reach 245 for 2019 in total. There are still some outstanding entries for Sunninghill and Union but these are in the process of being captured.
- Currently just under 1 290 patients are entered into the DB, and >930 TAVIs have been entered, an increase of 30 in the last quarter. 164 patients have exited without a TAVI, mostly due to declined funding. The number of patients awaiting decisions for funding (n=171) does include many who have outstanding funding decisions due to lack of follow up at sites on patients who have been declined funding for TAVI. This will be a focus area in coming months, Sunninghill has requested the design of a template to be emailed to referral doctors and patients to assist with the high volume of patients they need to follow up. If this proves successful it will be rolled out to all sites for those who choose to use it.
- Ongoing follow up and QA at all sites. Liaison with Kosta re patient record duplication by users.
- Investigation into date-time errors at Union.
- Liaison with Industry regarding problems with Funders.
- Training for new sites at Milpark, Ethekwini, ZAR, training new person at Dawood practice Vincent Pallotti.

- **SA Heart® and ESC abstract posters:** QA, preparation and analysis of data, poster design, and presentation at those meetings. Best Poster Award for PASCAR/ SA Heart®.

TAVI Challenges:

- **Chris Barnard MH:** Lindy in Dr Horak's rooms has been assisting with capture of this with the help of Christine in Dr Koen's office. This remains a problem site but has low volumes so low impact.
- **Union:** Recently the tech at Dr Zambakides practice has started to capture some of the outstanding cases,

TAVI REGISTRY STATUS	NUMBER OF ENTRIES
Completed/Aborted	933
Evaluation	171
Exited	164
Non-TAVI	21
Grand Total	1 289

SITE TOTAL CAPTURE	NUMBER OF ENTRIES
Blaauwberg	4
Bloemfontein	52
Chris Barnard MH	8
Chris Barnard MH - Edwards	3
Ethekwini	2
Flora Clinic	25
Gateway	14
Groote Schuur	69
Milpark	7
Panorama Mediclinic	251
Pietermaritzburg	6
St Augustine's	89
Sunninghill	256
Tygerberg	73
Union Netcare	67
Unitas Netcare	84
Vergelegen	133
Vincent Pallotti - Team 2	12
Vincent Pallotti Life	133
Zuid Afrikaans	1
Grand Total	1 289

10 captured and 33 still outstanding, this improvement is welcome and will be encouraged further.

- Follow up data is long outstanding at most sites. A follow up template is being developed to assist with this.
- Practices (especially referral practices) don't always have access to patients for follow up data as patients return to their referral practices. Follow up can be done telephonically when necessary and site staff have been advised to do this when needed.

SITE TAVIS CAPTURED	NUMBER OF ENTRIES
Bloemfontein	34
Chris Barnard MH	8
Chris Barnard MH - Edwards	2
Flora Clinic	19
Gateway	3
Groote Schuur	63
Milpark	1
Panorama Mediclinic	171
St Augustine's	62
Sunninghill	203
Tygerberg	56
Union Netcare	40
Unitas Netcare	59
Vergelegen	104
Vincent Pallotti - Team 2	11
Vincent Pallotti Life	97
Grand Total	933

SHARE – SAFFR – AFIB/FLUTTER REGISTRY:

- Database development now completed and tested by EMS. PIs added as users to the Test DB, PIs tested the system with anonymized data for dataset completeness, and suggested modifications have been completed.
- Ethics approval given in for Dr Mpe site. All other sites need to complete GCP and site validation to qualify for inclusion and to be added to the Pharma-Ethics approval.
- Groote Schuur approval in process.

- Dr Mpe has started capturing cases into the registry for Pretoria Heart site.
- Potential sites have been approached regarding participation, and potential Investigators are renewing their GCP certification where needed, and gathering documents for Ethics submissions for the additional sites.
- Due to RWC screening times were affected for all sessions and only Dr Mpe, Jane Moses, and a representative from Professor Nqoba's office were able to attend Investigator's meeting scheduled for SA Heart® Congress. Positive feedback from Professor Nqoba's representative, request for CRFs to be used in their setting, Jane Moses requests references for her Ethics application.

CDM REGISTRY

Registry has been closed for enrolment, no further patient enrolment planned. Ferial Azibani from Hatter Institute was tasked with producing a manuscript on the existing data, but as she has now taken extended leave, Elizabeth has obtained permission from Professor Sliwa to start with a basic manuscript preparation.

SITE TAVIS CAPTURED	NUMBER OF ENTRIES
1. Enrolment	
Number of participants enrolled – further enrolment closed	136
Number of participants enrolled since last Progress report	0
2. Cumulative summary of participants	
Number of participants currently active on the study	27
Number of participants completed study	56
Number of participants with overdue information	27
Number of participants lost to follow-up	53
Site name	
Groote Schuur	112
IALCH Inkosi Albert Luthuli Central Hospital	4
Steve Biko Academic	20
Grand Total	136

SHARE REGISTRY UPDATE continued

NEW REGISTRY OPPORTUNITIES:

- **Rapid deployment valve:** Edwards device still requires approval. To follow up in 2020 – no movement currently.
- **HF/CRT device registry:** No movement. Elizabeth approached Jane Moses again, met in CT to discuss responsibilities and workload, she has not yet responded.
- **PCSK9i registry:** There is willingness to do registry, now awaiting drug registration process to be completed, expected early this year.
- **Mitral Clip registry:** Device still needs to complete registration in SA.

SA HEART® GENERAL:

- Assisted with setup and presence at ESC.
- Evaluation and research for new technical equipment for Erika.
- Assistance with evaluation of new membership systems.
- Met with SASA to discuss collaboration and synergy.
- Attendance of Associations Executives conference, evaluation of strategies, membership and marketing for SA Heart®.
- Assistance with preparation and attendance at SA Heart® Board and NAC meetings.

Elizabeth Schaafsma and Professor Mpiko Ntsekhe, Chairperson, SHARE Committee

» FIRST ANNOUNCEMENT «

SA Heart® & Africa PCR CONGRESS 2020



22 – 25 October 2020
Sandton Convention Centre
BACK TO BASICS



Featuring scientific sessions from



www.saheart.org/congress2020

For more information, contact Claire Jettke +27 (0)72 530 4298
 Telephone: +27 (0)11 325 0020 | Email: claire@eoafrika.co.za | www.eoafrika.co.za

A TRIBUTE TO PROFESSOR EMERITUS LIONEL OPIE (1933 - 2020)

We are deeply saddened to announce the passing of Professor Lionel Opie, co-Founder of the Hatter Institute, University of Cape Town.

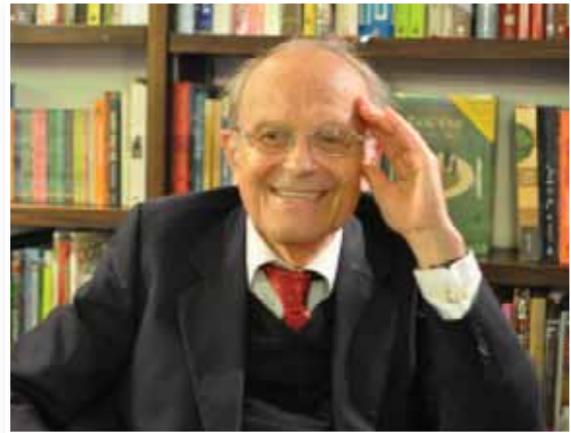
Lionel Opie, internationally recognised as one of the world's foremost scholars of cardiovascular disease, was born in Hanover, a small Karoo town, in 1933. After qualifying in medicine at the University of Cape Town in 1955, he realised his ambition and went to Oxford as a Rhodes scholar in 1957, where he earned a DPhil and trained with 2 Nobel prize winners, Professor Sir Hans Krebs at Oxford, and Professor Sir Ernst Chain at Imperial College, London.

He returned to Cape Town in 1971, his research being supported by Professor Chris Barnard, before being awarded a Medical Research Council Unit for Ischaemic Heart Disease (1976 - 1998).

In 1999, together with Professor Derek Yellon (University College London), he established the Hatter Institute at the University of Cape Town as a sister to the Hatter Institute at University College London. He remained the Director until his retirement in 2010.

In recognition of his prolific publication record, he was honoured by the University of Cape Town in 2012. His major books are *Drugs for the Heart* (eds Opie and Gersh), and *Heart Physiology from Cell to Circulation* that won a UCT book award. This book is often referred to as the "Bible in Cardiology". His books have been used worldwide for teaching and research purposes.

In 2006 he was given the highest award by the President of South Africa, the Order of Mapungubwe, silver, for "Excellent contributions to the knowledge of and achieve-



ment in the field of cardiology". In 2008 he was elected a grade A1 scientist by the National Research Foundation (NRF) of South Africa and received an NRF Lifetime Achievement Award in 2014.

Professor Opie was highly regarded and well respected by his peers, colleagues and students for his work ethic, humility, integrity and passion for research. He was a great mentor and distinguished teacher as is evidenced by the very successful career paths of his former students, many of whom now hold key positions around the world.

He will be greatly missed by all, particularly the staff and students (both past and present) of the Hatter Institute for Cardiovascular Research in Africa, who feel privileged to have worked with him and are forever grateful for the wonderful legacy he has left behind.

He is survived by his wife Carol, daughters Jessica and Amelia, and their families.



EXCELLENT RESEARCH EXPERIENCE AT THE HATTER INSTITUTE FOR CARDIOVASCULAR RESEARCH IN AFRICA (HICRA)

In 2017 I had the opportunity to take part in the prestigious Biomedical Sciences Exchange Programme (BMEP) funded by the German Academic Exchange Service (DAAD), which enabled me to pursue a research fellowship at the Hatter Institute for Cardiovascular Research in Africa (HICRA), under supervision of Professor Karen Sliwa. For this academic year, I paused my medical studies at Hannover Medical School (MHH) in Germany and joined the Cardiac Disease in Maternity (CDM) research group in Cape Town.

I was involved in a clinical research project on women with peripartum cardiomyopathy (PPCM). PPCM is an idiopathic form of dilated cardiomyopathy, which occurs in previously healthy women towards the end of pregnancy or within five months following delivery.⁽¹⁾

As part of my clinical research fellowship, I regularly attended the dedicated Cardiomyopathy Clinic as well as the Cardiovascular Disease in Pregnancy Clinic led by Professor Sliwa at Groote Schuur Hospital's Cardiac Clinic. For my research project, I studied the 12-lead electrocardiogram (ECG) of women with peripartum cardiomyopathy. Though previous research has shown that the ECG is frequently abnormal in PPCM, the aim of my project was to identify whether any electrocardiographic features would be prognostic and/or be useful in the risk-stratification of women with this condition. With the tremendous help of Dr Charle Viljoen, a Cardiology fellow at Groote Schuur Hospital, we analysed hundreds of ECGs of patients with PPCM and set up an electronic database for the large Cape Town PPCM registry. Subsequently, we performed the statistical analysis and could show that, in this cohort, sinus tachycardia and prolonged QTc predicted poor outcome, whereas sinus arrhythmia was associated with event free survival. In May 2018, we were fortunate to present our research at the European Society of Cardiology (ESC) Heart Failure Congress in Vienna and shortly after we published our results in the International Journal of Cardiology (IJC).⁽²⁾

The Hatter Institute for Cardiovascular Research in Africa (HICRA), within the Department of Medicine at the University of Cape Town (UCT), is a vibrant research hub



Presentation of our research at the European Society of Cardiology (ESC) Heart Failure Congress in Vienna, May 2018. From left to right: Julian Hövelmann, Karen Sliwa and Charle Viljoen.



Weekly research meetings of the Cardiac Disease in Maternity Research Group at the Hatter Institute. From left to right: Karen Sliwa, Julian Hövelmann, Vitaris Kodogo, Johann Baard, Olivia Briton.

with a strong focus on translational research. It comprises five research groups, namely the Cardiac Disease and Maternity Group, Cardiovascular Genetics Group, Cardio-protection Group, Lipid Research Group and Heart of Africa Projects. All groups consist of internationally renowned senior researchers as well as (post-graduate) students from South Africa and many other African countries. I was truly impressed by the weekly journal club, where the students gave paper presentations on various topics in cardiology and present data updates of their research. The discussions afterwards always stimulated new research ideas and collaborations. And I will always fondly remember the friendly and familial atmosphere at the Hatter Institute.



The Hatter Institute's 2017 End of Year function at Thula Thula Private Game Reserve.



SHAWCO: A student run initiative of the University of Cape Town (UCT).

Over and above my academic and research commitments, the scholarship also enabled me to truly get to know the city of Cape Town, the different cultures living in South Africa and to understand the socioeconomic challenges, which they are faced with every day. I really enjoyed the amazing hiking trails and trail running routes around Table Mountain and the abundant coastlines, with endless opportunities for swimming and water sports. On the weekends, I also had time to explore the true beauty South Africa and the Western Cape in particular.

A very memorable aspect from my time in Cape Town was my participation in the SHAWCO outreach clinic. In this student run initiative from the University of Cape Town, medical students reach out to the poor communities in and around Cape Town to deliver free medical treatment and consults under supervision of a doctor. The visits in the township clinics gave me insight into poverty related disease conditions, which I had never seen before during my studies in Germany. The personal interactions I made there, certainly left me very humbled and thoughtful and will leave impressions that I will not forget in my future practice as a medical doctor.

I am truly grateful for the very warm welcome, I received at the Hatter Institute, the University of Cape Town, and the UCT Cardiac Clinic. During this time, I had the opportunity to meet so many excellent and passionate researchers and medical doctors and made excellent friendships, which will always maintain me a special personal connection to Cape Town and South Africa. I hope that this report will

‘I was involved in a clinical research project on women.’

encourage others to apply for similar scholarships and that it will promote further research exchange between Germany and South Africa. There is so much that we can learn from each other.

REFERENCES:

1. Bauersachs J, König T, van der Meer P, et al. Pathophysiology, diagnosis and management of peripartum cardiomyopathy: A position statement from the Heart Failure Association of the European Society of Cardiology Study Group on peripartum cardiomyopathy. *Eur J Heart Fail.* 2019;21(7):827-43.
2. Hoevelmann J, Viljoen CA, Manning K, et al. The prognostic significance of the 12-lead ECG in peripartum cardiomyopathy. *Int J Cardiol.* 2019;276:177-84.

Julian Hoevelmann (German Elective Student)

ESC REPORT - TRAVEL SCHOLARSHIP

I would like to thank the SA Heart® Association for the generous contribution in the form of a travel scholarship, which allowed me to attend the European Society of Cardiology's Congress in Paris from 31 August - 4 September 2019. Last year's ESC Congress was held together with the World Congress of Cardiology, at the Porte de Versailles Exhibition Centre on the outskirts of the City of Light. This annual congress is the largest of its kind in the world and attracted 33 000 clinicians, scientists and delegates from industry last year. The theme of the congress was "Global Cardiovascular Health". I would like to reflect on this very memorable occasion.

There was an important South African presence at last year's congress. Professor Karen Sliwa, who is the Director of the Hatter Institute and the current president of the World Heart Federation, introduced the Bongani Mayosi Memorial Lecture. Dr George Mensah, who was a colleague and friend of the late Professor Mayosi, delivered an inspirational lecture entitled "Cardiovascular health research, training and capacity building in low- and middle-income countries". He encouraged the audience to work together to endeavour the eradication of rheumatic fever and rheumatic heart disease.

As part of our research activities at the University of Cape Town and the Hatter Institute for Cardiovascular Research in Africa, I had the privilege of attending the Peripartum Cardiomyopathy working group meeting on the Saturday afternoon. On the Sunday afternoon, I had the opportunity to present our poster entitled "Prospective randomised study on implanted cardiac rhythm recorders in pregnant women with symptomatic arrhythmia and/or structural heart disease". It was at the same time inspiring and fulfilling to attend friends and colleagues' poster and oral presentations of various research projects that were conducted in South Africa and further afield.

There were several exciting late breaking trial sessions at last year's ESC congress. To name but a few:

- COMPLETE showed that revascularisation of non-culprit lesions in patients with STEMI led to a significant reduction in cardiovascular death or recurrent myocardial infarction.⁽¹⁾

- DAPA-HF found that dapagliflozin, a sodium-glucose co-transporter-2 (SGLT-2) inhibitor, led to a substantial reduction in the risk of worsening of heart failure or cardiovascular death in patients with Heart Failure with reduced Ejection Fraction (HFrEF), even in patients without diabetes mellitus.⁽²⁾

- Though PARAGON-HF narrowly missed its primary endpoint (i.e. reduction of cardiovascular death or HF hospitalisation) for patients with Heart Failure with preserved Ejection Fraction (HFpEF) who received sacubitril/valsartan, there were subgroups of patients in which the ARNI did show benefit (i.e. in women and those with ejection fraction of 57% or lower).⁽³⁾

I was looking forward to learning the outcome of PARAGON-HF, as we screened and enrolled patients at Groote Schuur Hospital to participate in this trial. Though the first results are disappointing for the quest of finding an effective treatment for HFpEF, further post hoc analyses are awaited, which might further delineate which patients with HFpEF might benefit from an ARNI.

The ESC's EURObservational Research Programme (EORP) hosted a symposium during which the results of several registries were presented. The endocarditis (EURO-endo) registry found that endocarditis remains a disease with high mortality and morbidity, especially in patients that required valvular surgery, but were not operated.⁽⁴⁾ Similarly, the peripartum cardiomyopathy (PPCM) registry reported that adverse outcomes remained very prevalent at 6-month follow up, despite most patients receiving optimal medical therapy.⁽⁵⁾ According to the Registry Of Pregnancy and Cardiac Disease (ROPAC), patients with uncorrected congenital heart disease had worse maternal and foetal outcomes than their counterparts who had previously undergone corrective cardiac surgery.⁽⁶⁾

Several sessions were dedicated to the release of the 2019 Clinical Practice Guidelines. In the absence of contraindications, non-vitamin K antagonist oral anticoagulants (NOACs) are now recommended as the first choice anticoagulant for Pulmonary Embolism (PE).⁽⁷⁾ Similarly, in patients with diabetes, NOACs are now preferred over warfarin in the management of atrial fibrillation. Catheter

‘There was an important South African presence at last year’s congress.’

ablation plays a much more important role in the contemporary management of Supraventricular Tachycardia (SVT), than in the 2003 ESC guidelines.⁽⁸⁾ These recommendations would currently be difficult to implement in the South African public sector, where NOACs are not yet freely available and centres doing catheter ablations are very limited. The term “chronic coronary syndromes” will be replacing the term “stable coronary artery disease”. In that regard, coronary CT angiogram is now preferred to the exercise ECG to diagnose coronary artery disease in symptomatic patients in whom obstructive CAD cannot be excluded by clinical assessment alone.⁽⁹⁾

This was the first time that I attended the ESC congress. I was impressed by the great variety of topics that were discussed and presented, as well as the superb quality of the sessions. Over and above gaining new knowledge, the congress also allowed for networking and exchanging research ideas with colleagues from all over the world. I wish to thank Erika Dau for being such an outstanding ambassador at the SA Heart® booth.

REFERENCES:

1. Mehta SR, Wood DA, Storey RF, et al. Complete Revascularisation with Multivessel PCI for Myocardial Infarction. *N Engl J Med.* 2019.

2. McMurray JJV, Solomon SD, Inzucchi SE, et al. Dapagliflozin in Patients with Heart Failure and Reduced Ejection Fraction. *N Engl J Med.* 2019.
3. Solomon SD, McMurray JJV, Anand IS, et al. Angiotensin-Nepriylsin Inhibition in Heart Failure with Preserved Ejection Fraction. *N Engl J Med.* 2019.
4. Habib G, Erba PA, lung B, et al. Clinical presentation, aetiology and outcome of infective endocarditis. Results of the ESC-EORP EURO-ENDO (European infective endo-carditis) registry: A prospective cohort study. *Eur Heart J.* 2019;40(39):3222-32.
5. Sliwa K, Petrie MC, Hilfiker-Kleiner D, et al. Long-term prognosis, subsequent pregnancy, contraception and overall management of peripartum cardiomyopathy: Practical guidance paper from the Heart Failure Association of the European Society of Cardiology Study Group on Peripartum Cardiomyopathy. *Eur J Heart Fail.* 2018;20(6):951-62.
6. Roos-Hesselink J, Baris L, Johnson M, et al. Pregnancy outcomes in women with cardiovascular disease: Evolving trends over 10 years in the ESC Registry Of Pregnancy And Cardiac disease (ROPAC). *Eur Heart J.* 2019.
7. Konstantinides SV, Meyer G, Becattini C, et al. 2019 ESC Guidelines for the diagnosis and management of acute pulmonary embolism developed in collaboration with the European Respiratory Society (ERS) The Task Force for the diagnosis and management of acute pulmonary embolism of the European Society of Cardiology (ESC). *European Heart Journal.* 2019.
8. Brugada J, Katritsis DG, Arbelo E, et al. 2019 ESC Guidelines for the management of patients with supraventricular tachycardia The Task Force for the management of patients with supraventricular tachycardia of the European Society of Cardiology (ESC). *Eur Heart J.* 2019.
9. Knuuti J, Wijns W, Saraste A, et al. 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes. The Task Force for the diagnosis and management of chronic coronary syndromes of the European Society of Cardiology (ESC). *European Heart Journal.* 2019.

CA Viljoen

ESC REPORT BACK: HEFFSA TRAVEL GRANT

I would like to extend my sincerest gratitude to the HeFFSA executive committee for awarding me the HeFFSA travel grant to facilitate my travel to the ESC congress in Paris last year. The time spend was tremendously rewarding and fruitful. I'd like to summarise my experience.

Last year saw the ESC Congress join forces with the World Heart Federation for a combined congress which kicked off on 31 August. The theme of last year's congress: "Global Cardiovascular Health" came as a breath of fresh air together with the promise from World Heart Federation president, Professor Karen Sliwa to herald an era of joint commitment by these 2 organisations to global health. The venue was spacious, comfortable and very easy to reach by Paris metro.

My personal Scientific programme highlights were:

2019 ESC CLINICAL PRACTICE GUIDELINES

Five new Clinical practice guidelines were launched: Supraventricular tachycardia, Chronic coronary syndromes (previously called Stable coronary disease), Diabetes, Dyslipidemia, Acute Pulmonary Embolus.

The Chronic coronary syndrome guidelines have markedly revised the pre-test probability of disease to try and give a more realistic assessment of the likelihood of CAD. The model in the previous version of the guidelines tended to overestimate disease. The new guidelines suggest that it is safe to defer investigation in patients with a pretest probability of <15%, though it can still be considered if the symptoms are limiting.

Furthermore, the new guidelines gave more prominence to the role of Coronary CT angiography to confirm the diagnosis as an initial test, while the role of exercise testing without imaging has been downgraded from a class I to a IIb indication – to be used IF no functional imaging testing is available.

THE RESULTS OF THE DAPA-HF TRIAL

Prior trials, including EMPAREG showed that SGLT2 (sodium-glucose co-transporter 2) inhibitors in addition to



Charle Viljoen, Blanche Cupido and Erika Dau at the SA Heart® Booth.

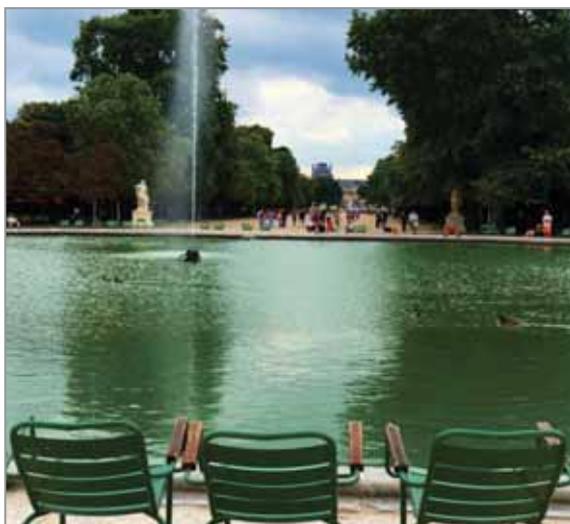
effectively treating diabetes, also reduced the risk of patients developing heart failure. These benefits are seen rapidly, even within weeks.

DAPA-HF aimed to assess if these drugs can be used to treat patients with established heart failure including those without diabetes? A total of 4 744 patients from 20 countries with heart failure with reduced EF (HFrEF) were randomised to 10mg dapagliflozin vs placebo in addition to standard care. The primary end-point was a composite of worsening heart failure or death from cardiovascular causes, analysed as a time-to-first-event. About 50% of the patients did not have diabetes.

Dapagliflozin showed a statistically significant reduction in the risk of the composite endpoint by 26%. ($p < 0.00001$). On individual analysis, the risk of worsening heart failure was reduced by 30% and the risk of CV death reduced by 18%.

OTHER USEFUL TALKS

A number of useful tracts for younger clinicians and budding researchers dealt with issues such as: How to fund your project, How to get your article published in a high-end journal – discussions with the editors... These and many more related topics were of particular practical use.



A lovely sunny Parisian day at the Jardin Tuileries,

I attended a number of talks relating to Cardio-oncology – a growing field gaining increasing recognition and the importance of adequate screening and what that screening would entail, was covered in a number of talks.

MY CONGRESS INVOLVEMENT WAS TWO-FOLD:

- I have recently been nominated to serve on the ESC Global Affairs Committee as the Deputy Ambassador for Africa, a branch of the ESC currently led by Professor Rick Grobee from the Netherlands. At the ESC congress, we had a number of useful meetings



ESC Logo at the Opening Ceremony.

with a few of the cardiac societies in Africa. These meetings served as a needs assessment for the ESC to ascertain how to best serve the cardiology community in Africa. A number of very useful ideas emerged which will be implemented over the next 2 years. Furthermore, the collaboration between SA Heart® and the ESC not only continues but will strengthen due to a few collaborative efforts in the near future.

- I moderated a poster session on heart failure together with Professor John Cleland. I also presented a plenary talk entitled: "Which is the bigger villain: Fats or carbohydrates?" This is always a rather emotive topic, but good conversation and feedback was received.

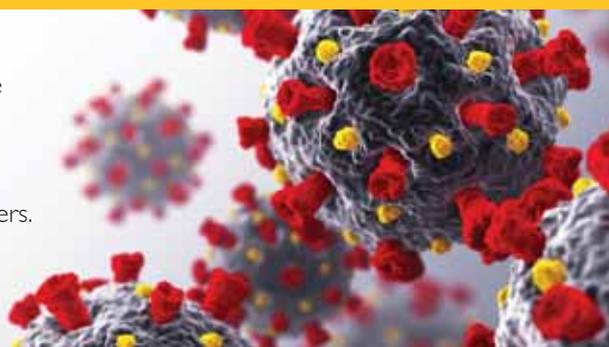
These are just a few of my personal highlights. Thank you once again for the opportunity for this funding.

Dr Blanche Cupido

COVID-19 NEWS

Please consult the SA Heart® webpage regularly where we are posting COVID-19, mostly locally relevant, updates. Please also contribute should you have information of importance to other members and CVD health care workers.

You can email info@saheart.org with your contribution.



THE CARDIO ONCOLOGY SOCIETY OF SOUTHERN AFRICA

INTRODUCING COSOSA - THE CARDIO ONCOLOGY SOCIETY OF SOUTHERN AFRICA

Cancer and cardiovascular disease (CVD) are the 2 most common causes of death and disease worldwide! The incidence of both cancer and cardiovascular disease increases with age. With increased life expectancy, the burden of both diseases will increase substantially over the next decade. Physicians and ancillary staff frequently provide care for patients with cancer and cardiovascular disease.

Some cardiac diseases predate the diagnosis of cancer, whereas other conditions like chemotherapy-induced cardiomyopathy and radiation-related heart disease are directly related to the cardiotoxic side effects of cancer therapy. Cardio-oncology has developed as a new discipline within cardiovascular medicine as a result of the cardiac and vascular adverse sequelae of cancer therapy advancement. Clinically, these challenges are best addressed by a multi-disciplinary approach in which cardiovascular medicine specialists work closely with oncologists in the care of patients with cancer as well as cancer survivors.

Consequently, to cater for the need of a local multi-disciplinary constituent body, this led to the formation of the Cardio Oncology Society of Southern Africa (COSOSA) under the leadership of Dr YT Singh (Cardiologist), Dr Ria David (Medical Oncologist) and Dr Ines Buccimazza (Specialist Surgeon – Breast and Endocrine). The purpose and vision of the society is to advance the development of Cardio-Oncology in all its aspects in Southern Africa to make sure that the cancer patients are not only cured of their cancer but do not develop cardiovascular disease. The COSOSA Executive gained invaluable insight from colleagues in Cardiology and Oncology at peer-group meetings in Johannesburg and Cape Town and we look forward to expanding our leadership to involve various specialities across Southern Africa.

The Objectives of COSOSA is creating awareness through training and education programs aimed at Healthcare Professionals caring for patients with cancer to make sure that such patients not only receive optimal care for their cancer but are timeously diagnosed and treated for cardiovascular complications arising either form cancer therapy or comorbidities that exist concurrently with the patient's cancer. Advising governmental and non-govern-



COSOSA Directors: Dr YT Singh (Cardiologist), Dr Ines Buccimazza (Specialist Surgeon – Breast and Endocrine) and Dr Ria David (Medical Oncologist).



Dr Eric Harrison (ICOS President), Dr YT Singh (COSOSA Chairperson) and Dr Stephen Caselli (ICOS Executive Director) at the 3rd Global Cardio-Oncology Summit, 3 - 4 October 2019, Brazil.



Professor Bonnie Ky (Editor-in-chief, JACC: CardioOncology) with Dr YT Singh and Professor Daniel Lenihan (ICOS President).

mental organisations on cardio-oncology matters and policies. Liaising with other organisations in the field on a global level. Advancing the interests of its members.

COSOSA, an affiliate of the International Cardio-Oncology Society (ICOS), is the first Cardio-Oncology Society in Africa and will be hosting Africa's first Cardio-Oncology Conference in Durban on 7 March 2020. We anticipate approximately 200 delegates from cardiology, haematology, oncology, surgery, internal medicine and general practice to attend. The conference will also be open to allied health care professionals with an interest in the effects of cancer treatment on the heart. The meeting will provide excellent opportunities for interdisciplinary learning, interaction and networking.

The organising committee has secured Professor Daniel Lenihan as a keynote speaker for the conference. Professor Lenihan is a Professor of Medicine and Director of the Cardio-Oncology Center of Excellence, in the Division of Cardiovascular Medicine, at the Washington University in St. Louis, USA. He is also the president of ICOS. Professor Eric Harrison, Head of Cardiology and Cardio-Oncology, University of South Florida, USA is also confirmed as faculty amongst the excellent South African faculty.

The Journal of the American College of Cardiology (JACC) published the first issue of JACC: CardioOncology in September 2019, with Professor Bonnie Ky (University of Pennsylvania) as Editor-in-chief. This is an open-access journal publishing articles on Multidisciplinary care of cancer patients and survivors at risk for cardiovascular disease.

Register online to attend the inaugural COSOSA Conference on 7 March 2020 in Durban. The Conference programme and International Faculty Biographies can be viewed on the Registration Page.

More information on further COSOSA Educational initiatives will be shared in the near future.

For more information on COSOSA or to get involved in the activities and leadership, please contact Wihan Scholtz at the Society Office on email info@cososa.org or call +27 (0)84 569 8244.

Dr YT Singh

TRAVEL SCHOLARSHIPS OF THE SOUTH AFRICAN HEART ASSOCIATION

Applications for the SA Heart® Travel Scholarship for the second term in 2020 are invited to reach the SA Heart® Office by 30 June 2020.

The scholarship is for the value of up to R25 000.00 for international meetings and R10 000.00 for local meetings.

This scholarship is available to all members residing in South Africa. It is primarily intended to assist junior colleagues to ensure continued participation in local or international scientific meetings or workshops.

REQUIREMENTS

- Applicants must be fully paid-up members for at least 1 year.

RECOMMENDATIONS

- Early and mid-career applicants (<5 years post-qualification as specialist and/or <5 years post-PhD qualification).
- Acceptance of an abstract/poster presentation at the scientific meeting to be attended.

CONDITIONS

- Awards will not be made for conferences or workshops retrospective to the application submission deadline. If the conference is taking place within six (6) weeks following the submission deadline, please indicate this in the appropriate place on the application form.
- It is not a requirement for the abstract to be accepted by the conference travel application closing date. Should the acceptance of the paper, including proof of registration not be available at the time of submission of the application, then a provisional award may be made pending receipt of the acceptance of the paper.
- Please ensure that applications are made as well in advance as possible (**preferably at least 6 months prior to the conference date**).
- Applicants may only submit 1 application every second year. The scholarship is for the value of up to R25 000.00 for international meetings and R10 000.00 for local meetings.
- Awards are only made in the event that a paper or a poster is being presented or in the event of a workshop attendance, if the reviewers deem the workshop attendance to be of high impact and consequently of benefit to the SA Heart® community.
- The applicant must ensure that the application is fully completed including the requirements as detailed in the checklist section. Applicants are asked to be concise and to only include applicable and relevant information.
- Awards are granted for 1 specific conference. Should that specific conference be cancelled or the full amount allocated not utilised for any reason, then the funds must revert to SA Heart®; and
- A written report on the relevant congress attended will need to be submitted by the successful applicant within 6 weeks of attending the congress. The congress report will be published in the South African Heart Association Newsletter.

SUBMISSION REQUIREMENTS

- For more information and application forms, please visit <https://www.saheart.org/cms-home/category/39>.

LOUIS VOGELPOEL TRAVELLING SCHOLARSHIP

Applications are invited for the annual Louis Vogelpoel Travelling Scholarship for 2020. An amount of up to R20 000 towards the travel and accommodation costs of a local or international congress will be offered annually by the Western Cape branch of the South African Heart Association in memory of one of South Africa's outstanding cardiologists, Dr Louis Vogelpoel.

Louis Vogelpoel was a pioneer of cardiology in South Africa who died in April 2005. He was one of the founding members of the Cardiac Clinic at Groote Schuur Hospital and the University of Cape Town. He had an exceptional career of more than 5 decades as a distinguished general physician, cardiologist and horticultural scientist. Dr Vogelpoel's commitment to patient-care, teaching and personal education is remembered by his many students, colleagues and patients. Medical students, house officers, registrars and consultants benefited from exposure to his unique blend of clinical expertise, extensive knowledge, enthusiasm and gracious style.

A gifted and enthusiastic teacher, he was instrumental in the training of generations of undergraduates by regular bedside tutorials. He served as an outstanding role model for postgraduates and many who have achieved prominence nationally and internationally acknowledged his contribution to the development of their careers.

All applications for the scholarship will be reviewed by the executive committee of the Western Cape branch of the South African Heart Association. Preference will be given to practitioners or researchers in the field of cardiovascular medicine who are members of the South African Heart Association and are resident in the Western Cape.

Applications should include: (1) A brief synopsis of the work the applicant wishes to present at the congress; and (2) A brief letter of what the applicant hopes to gain by attending the relevant congress. The applicant should submit an abstract for presentation at the relevant national or international meeting. Should such an abstract not be

accepted by the relevant congress organising committee, the applicant will forfeit his or her sponsorship towards the congress. (Application can however be made well in advance of the relevant congress but will only be awarded on acceptance of the abstract.) A written report on the relevant congress attended will need to be submitted by the successful applicant within 6 weeks of attending the congress. The congress report will be published in the South African Heart Association Newsletter.

‘A gifted and enthusiastic teacher, he was instrumental in the training of generations of undergraduates.’

Applications should be sent to Dr Alfonso Pecoraro, President of the Western Cape branch of the South African Heart Association, Division of Cardiology, Tygerberg Hospital, Francie van Zijl Drive, Tygerberg 7505; or alternatively email: pecoraro@sun.ac.za.

Previous recipients of this prestigious award include Sandrine Lecour, Roisin Kelle, Liesl Zühlke and Prof Hans Strijdom.

Applications close on 31 January 2021.

HEFSSA TRAVEL SCHOLARSHIP

“ENHANCING HEART FAILURE MANAGEMENT IN SOUTH AFRICA”

INTRODUCTION

The Executive Committee of the Heart Failure Society of South Africa (HeFSSA) has established the HeFSSA Travel Scholarship. As part of its contribution towards optimising patient care and to enhance and promote local heart failure expertise, HeFSSA supports such an award in South Africa. We hope that the information gained during this event and the possibility of sharing your experience and opening a dialogue with other specialists, will broaden your knowledge regarding new products and therapies in your field of expertise. We also hope that this experience will help you to develop educational programmes at your medical institution and to share the acquired knowledge with your colleagues actively.

VALUE

Two travel grants are available annually. Each grant is valued at a maximum of R35 000 which may be used towards economy airfare, registration and accommodation.

ELIGIBILITY

Candidates may be a medical practitioner in the public or private sector (i.e. a cardiologist, physician, internal medicine practitioner, Cardiology Fellow or similar) or researcher (basic scientist in heart failure). Applicants must be paid-up members of the SA Heart® Association and HeFSSA. The programme/course/conference needs to be internationally or locally accredited and focussed on promoting your knowledge of heart failure.

APPLICATION

Applications can be submitted to HeFSSA at info@hefssa.org. Please include your contact details and hospital affiliation, qualification, private and or public practice, and if you are an RSA citizen (or permanent resident). Provide a motivation as to why the specific programme or course has been selected and include the programme of the conference (or URL). The HeFSSA office will confirm receipt by return email. Application for this award does not guarantee that the applicant will receive the award. No correspondence will be entertained after a decision is made. The applicant will be notified of the outcome of the applications within 4 weeks of receipt.

PROCESS AND TERMS

The grant recipient needs to book, pay and then claim back (with proof documentation) from HeFSSA. Refund will be actioned within 24 hours. Twenty percent of the grant amount will be retained by HeFSSA (R7 000) and will be paid to the recipient as soon as CPD certificate and a meeting report is received.

Within one month of returning from the conference, the recipient must submit a substantial evaluation/review of the course content. This should reflect on key lectures and late-breaking trials as well as other sessions attended, which will impact on the practice going forward. Include some photographs. The purpose of this report is to share knowledge gained that could impact on colleagues' practices. The report should be included in the SA Heart® newsletter and/or the HeFSSA newsletter.

HeFSSA strongly recommends that the recipient create the opportunity to give feedback through a lecture delivered at appropriate educational forums (please confirm with HeFSSA when these take place).

Should the recipient not attend the conference, HeFSSA reserves the right to request repayment of any monies paid.



THE SOUTH AFRICAN HEART ASSOCIATION RESEARCH SCHOLARSHIP

This scholarship is available to full and associate members of the SA Heart® Association living in South Africa. It is primarily intended to assist colleagues involved in much-needed research to enhance their research programmes.

REQUIREMENTS

- Applicants need to be fully paid up members/associate members in good standing for at least one year.
- Applications must include:
 - The applicant's abbreviated CV
 - A breakdown of the anticipated expenses
 - Ethics approval
 - Full details of the research
 - The completed application form - please request a fillable MS Word document from erika@saheart.org
 - Contact details of Head of Department or supervisor/mentor

RECOMMENDATIONS

- Preference will be given to early and mid-career applicants (<5 years post-qualification as specialist and/or <5 years post-PhD qualification).

CONDITIONS

- Applicants may only submit 1 application every second year. Preference is given to those who have not had previous scholarships awarded.
- Awards are granted for one specific research project. Should that specific project be cancelled or the full amount allocated not be utilised for any reason, then the funds must revert to SA Heart®.

APPLICATIONS MUST BE EMAILED TO:

erika@saheart.org

THE SELECTION PANEL WILL REVIEW APPLICATIONS ANNUALLY AND THE CLOSING DATE IS 30 SEPTEMBER 2020.

One scholarship to a maximum amount of R65 000 will be awarded annually.

SA Heart® commits to inclusive excellence by advancing equity and diversity.

We particularly encourage applications from members of historically under represented racial/ethnic groups, women and individuals with disabilities.