

## NEWS FROM THE PRESIDENT OF SA HEART®

The World Heart Federation's first Global Summit on Circulatory Health was held at the 2016 World Congress of Cardiology and Cardiovascular Health in Mexico City, resulting in the Mexico Declaration. The second Global Summit took place in Singapore on 12 and 13 July 2017 in collaboration with the Asian Pacific Society of Cardiology, the Asia-Pacific Heart Network, the Singapore Cardiac Society, the Singapore Heart Foundation and the ASEAN Federation of Cardiology and was supported by grants from Amgen, AstraZeneca, Novartis and MCI. The second summit demonstrated progress and development, bringing together key leadership figures and policy-makers from civil society, business and government in order to develop a CVD action plan. Building on the United Nations' goal of a 25% reduction in premature non-communicable disease mortality by 2025 (Goal 3 of the Sustainable Development Goals [SDGs]), and in anticipation of the forthcoming United Nations High-Level Meeting

on Non-communicable Diseases (UN HLM on NCDs) in September 2018, over 100 leaders from regional, national and global organisations convened to discuss how best to create the case for urgent action in the fight against circulatory diseases.

The current president of the World Heart Federation, David Wood, reminded delegates that "without swift adoption of prevention and intervention strategies, current worldwide trends indicate increased global death and disability from preventable circulatory diseases. The global health community must act now with a greater sense of urgency if we are to contend with the world's number one killer". Through a series of workshops, panel discussions and plenary sessions, moderated by Richard Horton (editor of The Lancet), a consensus was rapidly reached on the need to collectively support the implementation of the "25 by 25 agenda" at both national and global levels through



Leadership forum

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## NEWS FROM THE PRESIDENT OF SA HEART® continued

mobilisation, investment prioritisation for prevention and control, engaging governments to support and promote prevention policies and assisting ministries of health in developing data observatories on CVD mortality and morbidity.

The South African Heart Association was represented by its president, Prof Liesl Zühlke, who urges the local community to be mindful that “cardiovascular disease is the world's number one – and is fast becoming South Africa's number one – killer. We need to work together to raise awareness and insist on the recognition of CVD as a national priority and together fight for funding to protect the hearts and minds of our people”.



Prof Naidoo, Karen Sliwa and Liesl Zühlke

July also saw the gathering of paediatric cardiologists and cardiac surgeons from across the world at the World Congress of Paediatric Cardiology, a poignant moment for those who were involved in the organisation of the previous world congress which was held in Cape Town in 2013. It marked the end of an era, passing on the baton from our local Dr Chris Hugo-Hamman to Dr Certek, the head of the current organising committee. It was a joyful event, not only observing the many excellent South African presentations and faculty involvement, but also meeting old colleagues and making new acquaintances. The meeting also showcased, for the first time, a leadership summit of patient and family advocates, with amongst them four South Africans, Olivia Matshabane, Fareed Matthews and Monique Kemp (the parents of children with CHD) and Zandile Nyama (a RHD patient). The International



Poster presentation – World Congress of Paediatric Cardiology and Cardiac Surgery in Barcelona.

Congenital Leadership Summit was a unique opportunity for patients and families to also participate. Comments shared by members amongst the group at the end of the conference revealed that the individuals who attended the conference left the summit with a renewed sense of hope and determination to continue the fight against RHD and CHD. Rheumatic heart disease once again featured strongly at this congress with excellent talks, exciting debates and many posters (featuring several SA Heart® members). The keynote lectures on RHD were delivered by Prof Kumar and Prof Zühlke. Finally, Christopher Hugo-Hamman organised an outstanding humanitarian track with lectures on activism, advocacy and the global humanitarian response to congenital and rheumatic heart disease. This was an inspiring track which really resonated with all who attended. All in all, a wonderful conference with an excellent scientific programme, although the difficulties of moving from Turkey, after the terrorists attacks, were sadly evident.

**Liesl Zühlke**  
SA Heart® Association President



Key members of the Paediatric Cardiac South Society of South Africa enjoy a night out in Barcelona.



The group of South African paediatric cardiologists and cardiac surgeons.



## POPULAR CONGRESSES FOR 2017/2018

CONGRESS	DATE	CITY	COUNTRY
ANNUAL CONGRESS OF HEART DISEASES 2017 <a href="http://www.heartdiseases.alliedacademies.com">http://www.heartdiseases.alliedacademies.com</a>	18-19 September 2017	Toronto	Canada
THE 2ND CAPE TOWN CARDIAC DISEASE IN PREGNANCY SYMPOSIUM <a href="http://www.hatter.uct.ac.za/event/2nd-cape-town-cardiac-disease-pregnancy-symposium">http://www.hatter.uct.ac.za/event/2nd-cape-town-cardiac-disease-pregnancy-symposium</a>	28 - 29 September 2017	Hatter Institute, Cape Town	South Africa
MRA NEW PERSPECTIVE (29TH INTERNATIONAL CONFERENCE OF THE SOCIETY FOR MAGNETIC RESONANCE ANGIOGRAPHY) <a href="http://www.mraclub.com/southafrica">http://www.mraclub.com/southafrica</a>	4 - 6 October 2017	Stellenbosch	South Africa
PASCAR/SUDAN HEART SOCIETY/PACIFIC JOINT CONGRESS <a href="http://www.sudanheartandsociety.org">http://www.sudanheartandsociety.org</a>	8 - 11 October 2017	Khartoum	Sudan
20TH EUROPEAN CARDIOLOGY CONFERENCE <a href="http://www.cardiology.conferenceseries.com/europe">http://www.cardiology.conferenceseries.com/europe</a>	16 - 18 October 2017	Budapest	Hungary
INTERNATIONAL DEAD SEA SYMPOSIUM (IDSS) OF SPORT AND ARRHYTHMIA <a href="http://www.idss-sport.com">http://www.idss-sport.com</a>	16 - 18 October 2017	Tel Aviv	Israel
8TH ANNUAL EMIRATES CARDIAC SOCIETY CONFERENCE <a href="http://www.ecs-acc.com">http://www.ecs-acc.com</a>	19 - 21 October 2017	Dubai	UAE
CMR CONGRESS OF SOUTH AFRICA <a href="http://www.sacmrcongress.co.za">http://www.sacmrcongress.co.za</a>	26 - 29 October 2017	Cape Town	South Africa
TCT <a href="http://www.crf.org/tct">http://www.crf.org/tct</a>	29 October - 2 November 2017	Denver, Colorado	United States
21ST INTERNATIONAL CONFERENCE ON CLINICAL AND EXPERIMENTAL CARDIOLOGY <a href="http://www.cardiology.conferenceseries.com">http://www.cardiology.conferenceseries.com</a>	6 - 7 November 2017	Las Vegas, Nevada	United States
<b>SA HEART® 18TH ANNUAL CONGRES</b> <a href="http://www.saheart.org">http://www.saheart.org</a>	<b>9 - 12 November 2017</b>	<b>Sandton</b>	<b>South Africa</b>
AHA SCIENTIFIC SESSIONS <a href="http://www.scientificsessions.org">http://www.scientificsessions.org</a>	11 - 15 November 2017	Anaheim, California	United States

## POPULAR CONGRESSES FOR 2017/2018 continued

CONGRESS	DATE	CITY	COUNTRY
CSI AFRICA <a href="http://www.csi-congress.org/csi-africa.php">http://www.csi-congress.org/csi-africa.php</a>	1 - 2 December 2018	Nairobi	Kenya
50TH ANNIVERSARY OF THE FIRST HEART TRANSPLANT <a href="http://www.londocor.co.za/index.php/events/calendar-view/medical-congress/50th-anniversary-of-the-first-heart-transplant">http://www.londocor.co.za/index.php/events/calendar-view/medical-congress/50th-anniversary-of-the-first-heart-transplant</a>	2 - 5 December 2017	Groote Schuur, Cape Town	South Africa
1ST INTERNATIONAL CONGRESS OF HYPERTENSION IN CHILDREN AND ADOLESCENTS (ICHCA) <a href="http://www.htpaediatrics.com">http://www.htpaediatrics.com</a>	9 - 11 February 2018	Valencia	Spain
CASSA SYMPOSIUM JOHANNESBURG <a href="mailto:elouise@shiftideas.co.za">elouise@shiftideas.co.za</a>	17 February 2018	Johannesburg	South Africa
23RD EUROPEAN HEART DISEASE AND HEART FAILURE CONGRESS <a href="http://www.heartdiseases.conferenceseries.com">http://www.heartdiseases.conferenceseries.com</a>	19 - 21 February 2018	Paris	France
JIM (JOINT INTERVENTIONAL MEETING) <a href="http://www.jim-vascular.com">http://www.jim-vascular.com</a>	22 - 24 February 2018	Milano	Italy
CASSA SYMPOSIUM CAPE TOWN <a href="mailto:elouise@shiftideas.co.za">elouise@shiftideas.co.za</a>	24 February 2018	Cape Town	South Africa
AFRICA PCR <a href="http://www.africapcr.com">http://www.africapcr.com</a>	25 - 27 March 2018	Cape Town	South Africa
86TH EAS CONGRESS <a href="http://www.eas2018.com">http://www.eas2018.com</a>	5 - 8 May 2018	Lisbon	Portugal
ESC CONGRESS <a href="http://www.escardio.org">http://www.escardio.org</a>	25 - 29 August 2018	München	Germany
<b>19TH ANNUAL SA HEART® CONGRESS</b> <a href="http://www.saheart.org/congress2018">http://www.saheart.org/congress2018</a>	<b>4 - 7 October 2018</b>	<b>TBC</b>	<b>South Africa</b>

Please also consult the SA Heart® website at [www.saheart.org](http://www.saheart.org) for constant updates to this list as well as local training opportunities offered by SA Heart®, SIGs and other role players.

## SOUTH AFRICAN SOCIETY FOR CARDIOVASCULAR RESEARCH

### STATISTICAL PRINCIPLES AND STATISTICA SOFTWARE TRAINING WORKSHOP FOR POSTGRADUATE STUDENTS

On 30 June SASCAR held a workshop at the Chris Barnard building, Health Faculty campus of the University of Cape Town. The workshop was hosted by Dr Wayne Smith from the Hypertension in Africa Research Team, North-West University, and covered basic statistical principles and Statistica software training. The purpose of the workshop was to strengthen statistical training at postgraduate level and was prompted by the increasing concern in the scientific community of poor statistical practices which are likely contributing to the irreproducibility crisis in biomedical sciences. Topics covered included basic statistical concepts, statistical error, different types of data, sample size and statistical power, data exploration and basic non-parametric and parametric tests, providing instruction in Statistica as required. Basic statistical challenges faced in both experimental research and basic epidemiology were also addressed. The event was well attended and well received by students from University of Cape Town, Stellenbosch

University (Main campus and Tygerberg campus) and the University of the Western Cape.

### JOINT ISHR/SASCAR SESSION AT THE 34TH ANNUAL MEETING OF THE EUROPEAN SECTION OF ISHR (HAMBURG)

SASCAR members attended the annual meeting of the International Society for Heart Research (ISHR) of the European section.

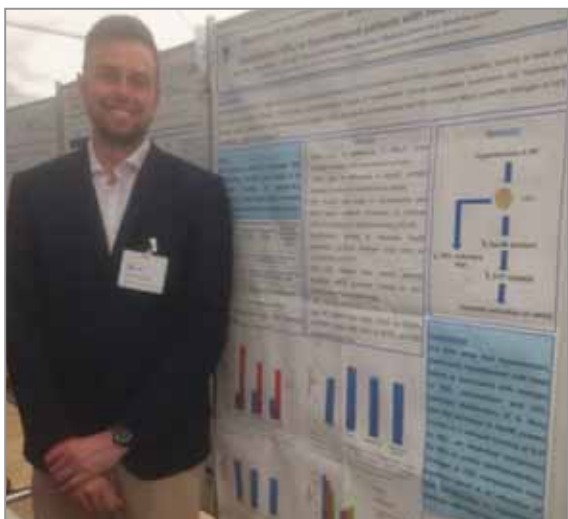
At the annual meeting of the ISHR European section held in Hamburg, 24 - 27 July 2017, South African students and researchers were well represented. For the second year in a row, a joint SASCAR-ISHR session was held at the meeting. In this well attended session entitled "signaling in cardiometabolic diseases", Prof Barbara Huisamen from the University of Stellenbosch presented her latest and novel data on the role of the protein ATM in insulin resistance associated with obesity. Mr Nicholas Woudberg, a PhD student at the Hatter Institute, University of Cape Town, presented data from a joint research project between



Associate Prof Neil Davies (standing at the screen) introducing Dr Wayne Smith (at the lectern).



From left to right: Dr Feriel Azibani, Prof Sandrine Lecour, Mr Patrick Diaba-Nuhoho and Mr Nicholas Woudberg.



Nicholas Woudberg (University of Cape Town) with his poster presentation.

the Hatter Institute and the Non-Communicable Disease Research Unit, South African Medical Research Council, showing how an exercise intervention conducted in obese women can alter HDL subclass distribution and function.

This year, 4 postgraduate students/fellows from South African institutions attended the meeting, most of them receiving a travel grant from the ISHR and/or the International Centre for Genetic Engineering and Biotechnology

(ICGEB). Amongst the postgraduate students/fellows, the following 3 SASCAR members presented their research in a poster session:

- Dr Feriel Azibani, postdoctoral Fellow at the Hatter Institute, University of Cape Town: presentation entitled "Fibrosis biomarkers in peripartum cardiomyopathy".
- Mr Patrick Diaba-Nuhoho, Division of Clinical Pathology, University of Cape Town: presentation entitled "Beneficial effect of reduced-alcohol red wine in a rat model of pulmonary arterial hypertension: A pilot study".
- Mr Nicholas Woudberg, Hatter Institute, University of Cape Town: presentation entitled: "Alteration in the composition and function of high-density lipoproteins in hypertensive patients with heart failure".

The next ISHR meeting of the European section will take place in Amsterdam in July 2018. We encourage our members to attend this meeting and to take note that specific travel grants from the ICGEB are likely to be made available to South African students. The travel grants are accessible to ISHR members only. For additional information, please check their website on <http://www.ishr-europe.org>.

### SAVE THE DATE

SASCAR is proud to be chairing 2 sessions on basic cardiac science.

The **18th Annual South African Heart Association Congress** will take place in Johannesburg from the **9 - 12 November 2017**. We are very pleased to have a session focusing on hypertension with talks by Prof Alta Schutte (North-West University), Dr Frederic Michel (University of Witwatersrand) and Mr Nicholas Woudberg (University of Cape Town). Additional information can be viewed at <http://saheartcongress2017.co.za>.

### Executive Committee members:

**Prof Neil Davies (Chair), Dr Derick van Vuuren (Secretary), Dr Bali Sishi, Prof Sandrine Lecour, Dr Wayne Smith, Prof Karen Sliwa, Prof Faadiel Essop**

## SOUTH AFRICAN SOCIETY OF CARDIOVASCULAR INTERVENTION

It is my honour to continue at the helm of our society which has such an important role to play in the current changing healthcare environment.

I would like to thank SASCI members for attending the AGM during the AfricaPCR course and for contributing to the election of a new executive committee. A society is only as strong as its membership and is highly reliant on individuals willing to get involved and provide guidance to the cardiology environment that we operate in.

The current exco members are: D. Kettles (president), F. Hellig (ex-officio president), Helmuth Weich (vice-president), C. Badenhorst (treasurer), G. Cassel (secretary), S. Khan, Gavin Angel, M. Ntsekhe, M. Makotoko, A. Vachiat, C. Zambakides, J. Vorster, G. Angel, S. Pandie and JP Theron. Thank you to the SASCI executive committee, your contributions make us what we are.

The SASCI industry liaison remains Andrew Sartor until the next AGM in 2018.

The following SASCI educational initiatives took place:

### SASCI, PASCAR AND SCAI “MASTER THE COMPLEX” MEETING

Boston Educare, in collaboration with the Society for Cardiac Angiography and Interventions (SCAI, USA), the

South African Society of Cardiovascular Intervention (SASCI) and the Pan-African Society of Cardiology (PASCAR) Interventional Group offered a “Master the Complex” course in Johannesburg that was held on 27 and 28 January 2017. The course conveners were Dave Kettles (SASCI, RSA) and Harun Otieno (PASCAR, Kenya). Key international faculty members were James Blankenship (president of SCAI, USA), Arun Kalyanasundaram (USA) and Simon Walsh (UK, live case). Several leading regional practitioners participated as session chairpersons and case presenters. The course catered to both the experienced and budding interventionalist and included a balanced mix of interesting clinical case presentations and topic discussions. About 50 delegates, both local and from sub-Saharan Africa, attended the course.

### VISITING PROFESSOR PROGRAMME AND NATIONAL EVENING LECTURE SERIES

The Visiting Professor Programme for 2017 was a huge success. Dr Jacques Koolen, from the Catharina Hospital in the Netherlands, visited South Africa from 24 July - 16 August. His passion for teaching and the quality of his lectures accentuated the standard that has become core to this programme. Not only did he give of his valuable time, knowledge and expertise, he also gave a part of himself to the patients, staff and doctors at the various hospitals where he was positioned. **Please see Dr Koolen's open letter on page 197.**



Harun Otieno, co-convenor.



Dr Koolen with cath lab staff.





Dr Koolen in the cath lab with the Tygerberg team.

The combined SA Heart® Association branch meetings and SASCI evening lecture series were held in Johannesburg, Pretoria, Bloemfontein, Durban and Cape Town. Dr Koolen's lecture was titled "Selecting an Optimal Revascularisation Strategy for patients with Left Mainstem Stenosis in 2017: Making sense of the Evidence" with the aim of interactively sharing knowledge and experience whilst maintaining focus on the clinical situation, local experience and constraints. The idea was to reach consensus with South African colleagues through a method of reasoning that would help develop answers to the fundamental questions that impact their daily practice. The lecture series was definitely a huge success according to the feedback received from the 198 delegates who attended the countrywide meetings. Thank you to Medtronic and Pharma Dynamics for their continued unconditional support of this initiative.

#### **BOSTON SCIENTIFIC RC FRASER INTERNATIONAL FELLOWSHIP**

Pieter Aucamp (cardiology consultant at Universitas Hospital), who was the recipient of the fellowship, spent time at Prof Simon Redwood's (Professor of Interventional Cardiology and honorary consultant cardiologist at King's College/St Thomas' Hospital, London) unit in March 2016. The feedback regarding his experience and participation were very positive. Dr Bradley Griffiths from the University of Stellenbosch is the recipient of the award for 2017 and will visit Prof Redwood's unit in November 2017.

#### **SCAI FALL FELLOWS' COURSE**

Four of our South African interventional cardiology fellows will once again attend the Annual SCAI Interventional

‘His passion for teaching and the quality of his lectures accentuated the standard that has become core to this programme.’

Cardiology Fellows Course in Las Vegas, USA. The SCAI programme is a highly rated course designed for interventional cardiology fellows sitting the US exams. It forms a crucial extension to our local training experience and is

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## SASCI continued

offered to 4 applicants each year. The successful candidates in 2016 were Rohan Lutchman, Anil Kurian, Mohammed Alteer and Khulile Moeketsi from South Africa and Tangeni Auala from Namibia. Feedback received from Dr Auala on her experience was very positive "It was absolutely fantastic - practical, innovative and inspiring!" It is an intense course conducted over 5 days by a world-class faculty and featured a mix of didactic lectures, case-based presentations, small group sessions and demonstrations but also allowed for individual interaction between faculty members and attendees. This programme is sponsored by SCAI, SASCI and Boston Scientific. The call for 2017 nominations were made in August.

### SASCI FELLOWS WORKSHOP 2017

Since 2005, the SASCI Coronary and Vascular Workshop for fellows and junior consultants, has proven to be a resounding success. This is an integral part of SASCI's public-private partnership and allows for exposure of "cardiologists in training" to operators from the private sector as well as from other public-sector institutions within South Africa and beyond.

This year the event was held at Kloofzicht Lodge in Muldersdrift. It was well attended by 80% of the fellows-in-training in South Africa and included a few recently qualified local cardiologists, 1 colleague from Mauritius and 4 from the Muhimbili University of Health and Allied Sciences in Tanzania. Altogether, 44 doctors and 13 industry members attended.

The conveners of the 2017 workshop were Jean Vorster, Graham Cassel and Gavin Angel with faculty members including Dave Kettles, Adie Horak, Mark Abelson, Pravin Manga, Agneta Geldenhuys and Shaheen Pandie. The programme was well received by all delegates and feedback was exceptionally positive from delegates, faculty members and industry alike.

**Seven excellent presentations were made by the following fellows:**

- Chishala Chishala (Groote Schuur Hospital)
- Brian Kiggundu (Tygerberg Hospital)
- Zimasa Jama (Groote Schuur Hospital)
- Menachem Levin (Charlotte Maxeke Hospital)

■ Lorrita Kabwe (Tygerberg Hospital)

■ HW Snyman (Tygerberg Hospital)

■ Brad Griffiths (Tygerberg Hospital)

The 2 fellows with the best case presentations were awarded free registration to the upcoming SA Heart® Association Congress 2017 by SASCI. Congratulations to the recipients, Drs HW Snyman and Menachem Levin.

The meeting concluded on a high note with Dave Kettles expressing his vision for interventional cardiology over the next 10 years. The talk was highly motivational and most enlightening.

**It was announced that the 2018 Fellows Workshop will be held at Crystal Towers, Century City, Cape Town on the weekend of 23 and 24 March, preceding the AfricaPCR Course.**

SASCI wishes to acknowledge the following industry partners who have been committed to the society, supporting cardiology education in South Africa: Ascendis, Amazeza Abantu, Angio Quip, Aspen Pharma, Baroque Medical, B Braun, Biotronik, Boston Scientific, Condor Medical, Edwards, Medtronic, Obsidian, Siemens, Paragmed, Pharma Dynamics, Sanofi, Disa Vascular, Terumo, Torque Medical and Volcano. We are looking forward to continued collaboration with them. We thank them for their generosity and acknowledge their immense contributions in keeping the society functional and successful.

"I wish to assure our members that the SASCI exco will continue to work tirelessly to represent your interests and to continue with world-class educational endeavours to keep you at the cutting edge of interventional cardiology. We deeply value and need your support. Please feel free to contribute and become involved in SASCI activities at any time. Also let us know if, and where, we can be of further assistance to you as you continue to provide the best possible services to your patients".

**Dave Kettles**  
**SASCI President**



**SASCI**  
**South African**  
**Society of**  
**Cardiovascular**  
**Intervention**

## OPEN LETTER 21 AUGUST 2017

### SASCI VISITING PROFESSOR PROGRAMME 2017, SOUTH AFRICA

Dear Friends and Colleagues in Interventional Cardiology in South Africa,

When asked about one and a half years ago, to come to South Africa as visiting professor, I was extremely honoured but had no idea what to expect. Having visited many countries all over the world for lecturing, proctoring and working in the catheterisation laboratory (cath lab) for a few days I had no idea what was in store for me in South Africa!

The start was delayed due to an aeroplane accident in Nairobi, but otherwise, it was a very warm and friendly welcome everywhere. What a pleasure to meet such an enthusiastic lot of people, with a willingness to do cases with me and always in a friendly open atmosphere. During the evening lectures, there was a pleasant atmosphere, and almost always excellent questions and remarks turning these evenings into a great success from my perspective. I wish to thank Medtronic and Pharma Dynamics for their support of these educational initiatives.

During the M & M weekend meeting in Magaliesberg, the SASCI president Dave Kettles welcomed me in a very friendly way, and I was impressed by the attendance and high level of the presentations and discussions. Mount Grace is a perfect venue!

Being asked about my impressions and experience regarding Cardiology in South Africa, I offer the following observations.

I must say that being familiar with the cases beforehand is the best way to success for all involved, the patient, the fellows, and for myself. Whenever possible, looking at the cases before the procedure is most effective and efficient. This included discussing the history, risk factors, tests that have been performed, and the strategy to be followed during the procedure along with the alternatives. Most cases were prepared well, and we had the opportunity to prepare ourselves in the right way, some angios were even sent to my home before I left Amsterdam! Thank you to all Medtronic personnel that played a crucial role in coordinating these activities.

My first day in South Africa was at Prof Mashubu Nethononda's Chris Hani Baragwanath Academic Hospital. After a friendly and interesting discussion, we started with complex cases in the cath lab that took the full day and was concluded successfully. Next at Charlotte Maxeke Johannesburg Academic Hospital, with Dr Ahmed Vachiat, we treated chronic total occlusions (CTOs) that were all quite successful. The work, although challenging, was rewarding with very enthusiastic fellows. These cases were well-prepared!

I spent almost a week at the Steve Biko Academic Hospital with Prof Andrew Sarkin. We did rounds, seeing a great diversity of cardiac diseases, and worked in the lab with two dedicated fellows for a week which was a pleasure. The next stop was a short stay in Bloemfontein with Prof Makoali Makotoko and colleagues at Universitas Hospital. They had well-prepared cases, good discussions and fine teamwork. In Durban, we had an enjoyable evening before starting. At Inkosi Albert Luthuli Central Hospital we did many cases, and all worked hard and were satisfied with the outcome.

Finally, in Cape Town, I visited two excellent interventional centres at Groote Schuur Hospital and Tygerberg Hospital, and my reunion with Mpiko Ntsekhe and later Anton Doubell was great. There is a good academic climate, good coaching and a lot of (extremely) difficult cases!

I wish to thank all Professors, Fellows, Cath Lab Teams and George and Elsabe from SASCI for all their efforts.

Some general comment - The differences, which exist between our countries, mainly involve the availability of equipment. In Europe, fractional flow reserve (FFR) is standard, and intravascular ultrasound (IVUS) and optical coherence tomography (OCT) are frequently available. However, this is not always the case at the hospitals I visited in South Africa but I must say that enthusiasm is not lacking in your environment. On the other hand, in South Africa, with a population of 55 million, 180 cardiologists seem to me an almost impossible task to be fulfilled: in The Netherlands, with a population of 18 million, there are almost 900 cardiologists! Also, in diagnosing and treating cardiac diseases, I have hardly ever seen rheumatic heart disease, TB and HIV in my patients.

Knowing that for this moment it seems to me impossible to introduce primary angioplasty, although this would be one of the priorities. Many lives can be saved and prolonged! The number of heart failure patients will decrease. I realise there is a long way to be travelled and many hurdles to overcome, i.e. public awareness, etc. must be gained etc. but the reward will be worthwhile.

Thank you for the opportunity!

**Jacques Koolen**

## INTERVENTIONAL SOCIETY FOR CATH LAB ALLIED PROFESSIONALS

I am very excited about the election of 3 vice chairpersons, Isabel Bender, Sabira Khatieb and Human Nieuwenhuis, representing each of our constituent groups - nurses, radiographers and clinical technologists.

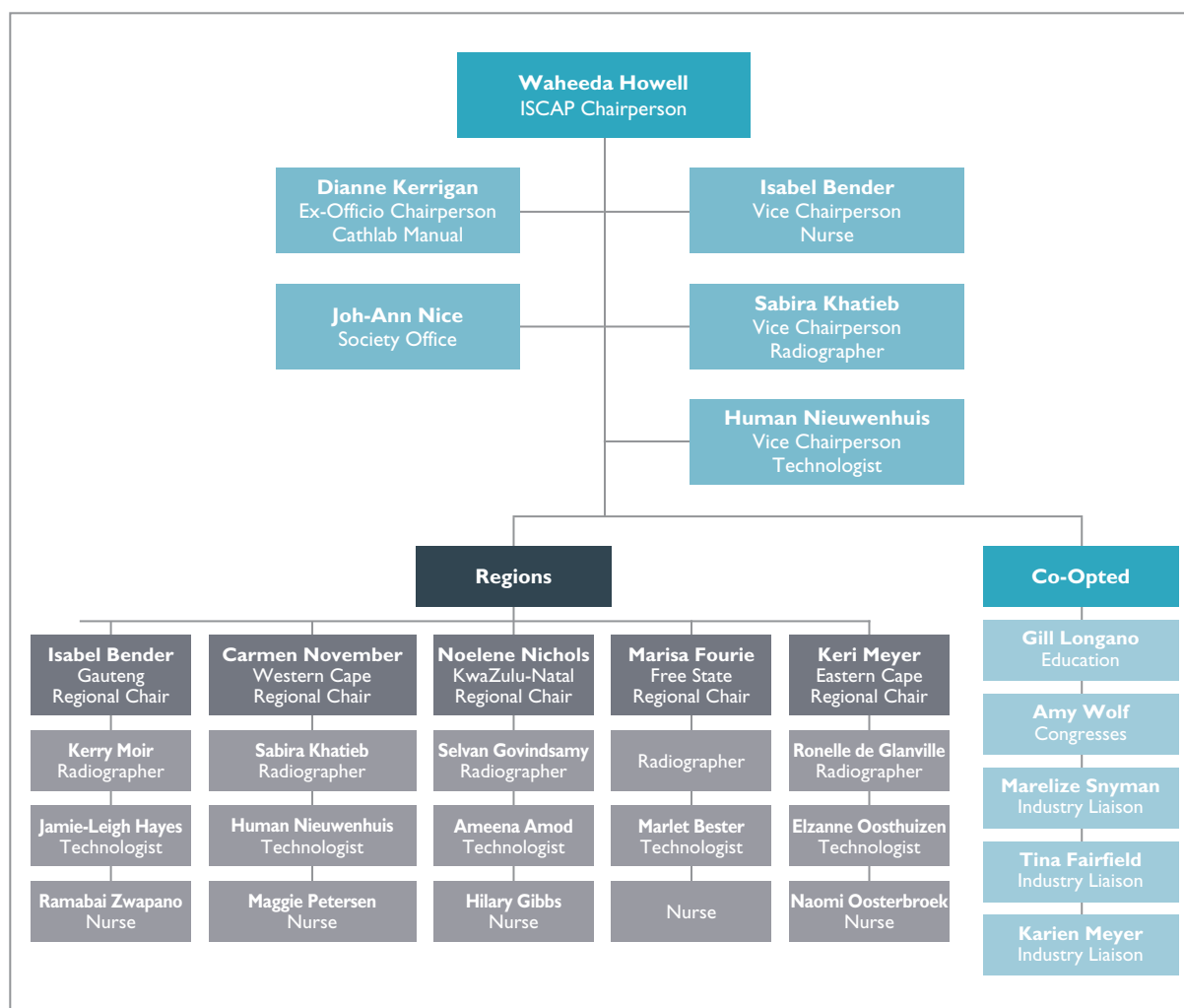
The organogram below reflects the ISCAP structure. Through this structure we hope to effectively attend to the specific needs of allied members of ISCAP-SASCI. Each region has a regional chairperson and representation from radiographers, nurses and technologists. Each of these regional committees, with the help of the national ISCAP team and the SASCI office, will focus on developing quality educational programmes for allied professionals from across South Africa.

Please contact Joh-Ann Nice ([joh-ann.nice@medsoc.co.za](mailto:joh-ann.nice@medsoc.co.za)) or your regional chairperson to get more involved!

We have truly had amazing educational meetings in 2017 and the remainder of the year is jam-packed with opportunities to upskill yourself in your own home town. Through unconditional educational grants, ISCAP is also able to support allied professionals from outlying cath labs located in areas such as Mossel Bay, East London, Nelspruit and even as far afield as Windhoek, to attend our meetings.

### ISCAP RADIOGRAPHERS' MEETINGS IN 2017

ISCAP is focussed on ongoing training for all Cath Lab Allied professionals. ISCAP was very privileged to have





their first ISCAP radiographers' workshops, on 6 and 13 May, in Johannesburg and Cape Town, respectively. We identified that radiographers in general had a need for specific training, and the topics for the first workshop included:

- POPI Act
- Role of the Radiographer in Interventional Procedures
- Infection Control: Sterile versus semi-sterile.  
Superbugs - CRE MRSA
- Radiation Protection Services

These workshops were not confined to cath lab personnel only and attendees included theatre staff, paediatric and general radiographers.

We are looking forward to exciting possibilities for 2018.

Thank you to the sponsors, Boston Scientific and Siemens, for their unconditional educational grants which has made the leap forward possible.

### ISCAP NATIONAL LECTURE SERIES 2017 (SUPPORTED BY MEDTRONIC)

On 10 June 2017, 40 allied professionals attended our workshop in Gauteng which was supported by Medtronic. The following topics were discussed:

- **Tips and tricks for Radial Approach** – Dr Pieter van Wyk
- **Does the use of diabetic devices reduce the risk of heart attacks, stroke, kidney and vascular disease?** – Hestie Dreyers
- **Patients' and practitioners' rights and obligations in the cathlab** – Esme Prins van den Berg

During this workshop, we had the privilege of hosting 2 of our close collaborators from the Namibian Interventional Society for Cath Lab Allied Professionals (NISCAP), Lorraine Gaweses and Regina Mafwile.

On 22 July 2017, we hosted the second workshop of this Medtronic-supported series at Crystal Towers Hotel in Cape Town. A massive number of 74 allied professionals attended this workshop! We had the privilege to listen to Dr Shaheen Pandie, Melissa King and Michael Bagraim.

This workshop will also be offered in the following regions:

- |                      |   |
|----------------------|---|
| <b>26 August:</b>    | Eastern Cape – Port Elizabeth, Ibyani Guest House       |
| <b>16 September:</b> | KwaZulu-Natal – Durban, Endless Horizons                |
| <b>7 October:</b>    | Free State – Bloemfontein, Leopard and Lace Guest House |

ISCAP thanks Medtronic for their continued and long-standing support of the lecture series and programmes.

ISCAP National Lecture Series 2017 (supported by Boston Scientific and Siemens)

“Radiographers  
in general  
had a need  
for specific  
training.”

On 5 August 2017, ISCAP hosted the first workshop for 2017 in Bloemfontein. We had a very good turn-out of 30 allied professionals. The following topics were discussed:

- **Diagnostic Tools, IVUS/FFR - What information do you get out of these technologies** – Dr Nico van der Merwe
- **IVUS image interpretation** – Dr Nico van der Merwe
- **Emergency equipment every cath lab needs** – Marisa Fourie

Continued on page 200

## ISCAP continued

On 12 August 2017, we hosted the second workshop of the Boston/Siemens series at Crystal Towers Hotel in Cape Town. Seventy-five allied professionals attended this workshop. We had the privilege to listen to Dr Charles Kyriakakis and Shanaaz Omer.

**2 September:** Gauteng – Boston Educare Training Facility, Bryanston

**14 October:** KwaZulu-Natal – Durban, Endless Horizons

**4 November:** Eastern Cape – Port Elizabeth, Ibyani Guest House

Thank you to Boston Scientific and Siemens for their unconditional grants in making this lecture series possible.

ISCAP National Lecture Series 2017 (supported by Paragmed, Volcano and Torque)

Please Save the Date for the following workshops, made possible by educational grants from Paragmed, Torque and Volcano:

**2 September:** Cape Town, Crystal Hotel Towers

**9 September:** Bloemfontein, Leopard and Lace Guest House

**30 September:** Port Elizabeth, Ibyani Guest House

**21 October:** Midrand, Protea Hotel

**4 November:** Durban, Endless Horizons Boutique Hotel

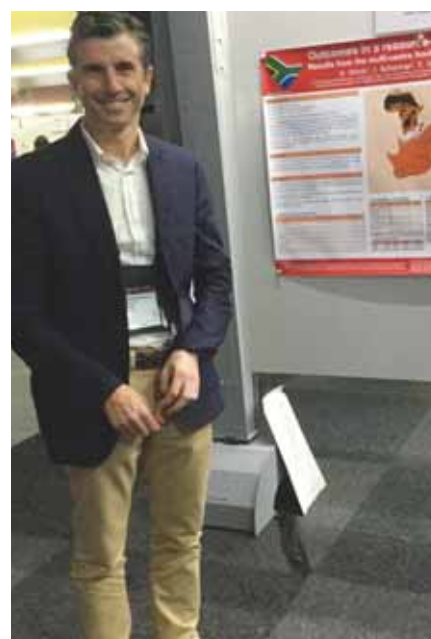
**If you require more information regarding topics, etc. for the above workshops, kindly contact the ISCAP Office at [joh-ann.nice@medsoc.co.za](mailto:joh-ann.nice@medsoc.co.za).**

## DR HELLMUTH WEICH PRESENTS SHARE TAVI REGISTRY OUTCOMES AT THE ESC CONGRESS IN BARCELONA

From September 2014 - February 2017, a total of 453 patients were entered in the SHARE-TAVI Registry and 318 of these received implants.

### OUR CONCLUSIONS WERE:

- The outcomes for South African centres are comparable to international figures at 1 year; and health care delivery and outcomes in the resource constrained State sector are comparable to the private sector.
- With an average waiting period of >90 days from TAVI evaluation to implant date, and only 38% of procedures fully funded by medical insurance, access to the procedure is inequitable and unaffordable for all but the most elite privately funded patients. Funding thus remains a major challenge for the appropriate use of TAVI in this resource-constrained economy.
- Although the volume of implants done in South Africa is predominantly low compared to that seen internationally, outcomes at both the higher (>20 implants/year) and lower volume (<20 implants/year) centres were comparable to international figures at 1 year.



## CARDIAC ARRHYTHMIA SOCIETY OF SOUTHERN AFRICA

From the CASSA perspective we would just like to mention that our annual symposium will be held in February 2018. We will once again be hosting 2 international speakers and it promises to be another successful meeting which is not to be missed.

We will be having the Johannesburg meeting on Saturday 17 February 2018 at the Maslow Hotel, Sandton and the Cape Town meeting on Saturday 24 February 2018 at the Vineyard Hotel.



Formal notification will be sent out shortly, but anyone requiring more information in the interim can contact Eloise Cloete from Shift Ideas at 072 245 9231.

**Glenda Marcer**  
**Executive Secretary, CASSA**



# Save the Date



## Annual CASSA Symposium

### Clinical Updates in Arrhythmias

**17 February 2018**

The Maslow Hotel - Johannesburg

**24 February 2018**

The Vineyard Hotel - Cape Town

#### General Information

Please contact Eloise Cloete  
elouise@shiftideas.co.za  
Tel: +27 (0) 11 465 4764

#### Please note:

Registration fees will apply



## ST ELEVATION MYOCARDIAL INFARCTION SOUTH AFRICA

ST elevation Myocardial Infarction South Africa (STEMI SA) is alive and vibrant and finally, growing exponentially after many years. We are active with lots happening, while increasing enthusiasm, participation and involvement can be sensed – what about you?

You all know how to treat a patient with STEMI – the information is available – guidelines and discussions at every meeting. However, too many patients are not diagnosed timeously at first medical contact (FMC), and we need ongoing education. Our main challenge remains the system of care where patients either do not get to FMC, or do not get a fast diagnosis and immediate intervention with appropriate medication and then referred to a cardiac catheterisation laboratory (cath lab) as soon as possible, or at least after thrombolysis within 24 hours. This is not only true for public hospitals but most certainly also at numerous private institutions.

Thus, our system is failing to give our patients a fair chance of saving heart muscle and reducing morbidity – apart from immediately saving lives – after the acute event referral to an appropriate centre for cath lab intervention must take place (pharmaco-invasive strategy will serve most patients best).

We are excited about the first involvement of a public healthcare facility at a tertiary institution, the Charlotte Maxeke Johannesburg Academic Hospital, where Dr Ahmed Vachiat is establishing an improved system of care for this region. He runs educational workshops with referral hospitals and has developed a referral letter for these centres which captures essential information. He has also developed a 2-page tick sheet to capture the STEMI data relevant to their registry. This was done with the support of Prof Pravin Manga from the same Department. Word has it that other public centres like Baragwanath (Prof Netonanda) and Bloemfontein (Prof Mokoali Makotoko) will follow, while we continue to look forward to Pretoria (Prof Andrew Sarkin), Cape Town (Shaheen Pandie) and Stellenbosch (Alfonso Pecoraro) to participate and share their experience for all to learn from one another.

We need the data to understand what we are dealing with. We need to follow up to evaluate the outcome of our intervention towards improving the system of care. These

objectives are encapsulated in the STEMI SA research project where data is captured, either by means of a paper-based questionnaire, or an app. We need your enthusiasm and participation to make this a reality. Why are we doing this? To save a few lives – YES; to improve morbidity and productivity and reduce downstream costs – certainly; also to develop better collaboration between public and private cardiology care as well as with Departments of Health.

We now have Mr Raveen Naidoo, National Director of EMS and Disaster Management of the Department of Health (DOH), involved with the STEMI SA Project. He is experienced and has done research on the topic, and we are looking forward to close collaboration with the DOH for the sake of all South African cardiology patients.

We are looking forward to hosting Dr Thomas Alexander from India STEMI at SA Heart® Congress 2017 and in Gauteng. He is a pioneer in developing systems of care for STEMI management in low- and middle-income countries. STEMI SA will be prominent at the SA Heart® Congress, with Dr David Jankelow and his team putting together an excellent and very appropriate programme for all – see you there!

We welcome the President of SASCI, Dave Kettels's hands-on involvement with the project in a clinical, advisory and industry-liaison capacity, with George Nel's team continuing to manage logistics. The addition of Mpiko Ntsekhe, Shaheen Pandie and Ahmed Vachiat from the SASCI Executive to STEMI SA national committee has further bolstered our resources and impact! Thank you for your contribution.

Rhena Delport is working with enthusiasm as project manager for STEMI SA and as co-ordinator of a number of research projects across academic institutions. She also serves as member of the global project manager working group of the 'Stent Save a Life' initiative, and as advisor to the Contract4Life (a secondary prevention project) board.

I, as the Champion – rather the chairman – am giving guidance and motivation to change the deficiencies in SA for managing STEMI. I would like to thank Jean, Martin and Michael for their contribution to our Registry and I am



looking forward to the next 7 centres which are in the process of starting to contribute. Rhena is working energetically to ensure that everything is in place, and visiting participating centres as, and when, necessary. Len Steingo, Adie Horak and Sajidah Khan are also thanked for their motivation. Please note that I am looking forward to your contribution to the data collection.

Without committed support from Medtronic, Boehringer-Ingelheim and Biotronik, this programme would not be possible. A great thank you to you all! Allow me to invite other members of industry to join this prestigious group and programme more actively.

South Africa is one of 3 member African countries, the others being Tunisia and Egypt, of Stent for Life (SFL) that has now transformed to SSL (Stent Save a Life) where the focus is on developing a system of care for STEMI management. The focus is on early reperfusion, whether it be

primary percutaneous coronary intervention or the default pharmaco-invasive strategy. Kenia and Sudan are poised to join SSL, while other countries such as Namibia, Swaziland and Botswana may start working with South Africa. Harun Otieno and I serve as board members of the SSL African Region and the steering committee of SSL until the end of 2018, by which time someone else will take us to the next level.

The new European Society of Cardiology (ESC) Guidelines on STEMI management will be presented at the ESC 2017 and discussed at the SA Heart® Congress. Dr Alexander will give guidance on practical issues in implementing a system of care for STEMI management in low- and middle-income countries – like us.

**Adriaan Snyders**  
**STEMI SA**

## FIRST ANNOUNCEMENT



### 19<sup>TH</sup> ANNUAL SA HEART CONGRESS 2018

4 - 7 OCTOBER 2018 | SOUTH AFRICA

*What does the future hold?*



[www.saheart.org/congress2018](http://www.saheart.org/congress2018)



Europa Organisation Africa | Tel +27(0)11 325 0020/2/3 | [info@eoafrika.co.za](mailto:info@eoafrika.co.za) | [www.eoafrika.co.za](http://www.eoafrika.co.za)

## SA HEART® CONGRESS 2017

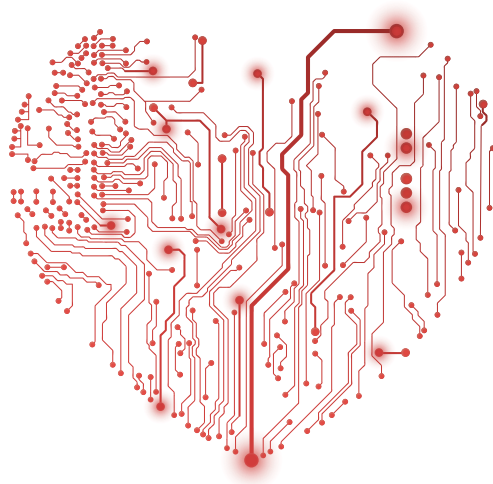
On behalf of the Scientific Organising Committee, it is my great pleasure to invite you to SA Heart® 2017 (Sandton Convention Centre, 9 - 12 November 2017).

This will be an extremely engaging meeting. The date is drawing near and we are really excited! Our theme is "Fundamentals to Innovation" which will showcase innovations in cardiovascular medicine. Developments from Africa and South Africa will be highlighted. We aim to challenge the horizons of cardiovascular disease and stimulate a creative exchange of ideas. Our exciting programme and illustrious faculty will explore developments that will shape the future and beyond.

Our faculty includes many eminent international and local opinion leaders.

### An outline of our programme includes:

- Pre-congress African Cardiovascular Summit with the press, media, funders, deans of faculties, hospital groups and health departments - to discuss the challenges of treating heart disease in Africa and South Africa.
- Pre-congress echocardiography symposium – CISSA and Mayo Clinic.
- Pre-congress symposium, Cardiology for non-Cardiologists.
- Pre-congress and parallel cardiac surgical programme.
- Opening plenary session to celebrate the 50th anniversary of the first heart transplant. Professor John McMurray will present on "Innovations in the management of heart failure". Author, Donald McRae, will offer an international perspective on the transplant race. Kelly Perkins, who underwent a heart transplant in 1995 and is a mountain climber and motivational



speaker, will speak on "My Story, My Mountain, My transplant".

- Full parallel paediatric cardiology programme.
- Allied professional parallel programme.
- SASCAR parallel programme.
- Innovations for the prevention of heart disease.
- Digital health.
- Innovation in cardiovascular Imaging.
- Coronary revascularisation, structural Intervention and arrhythmias.
- SASCI parallel – STEMI focus.
- CASSA parallel programme.
- Sunday Sandton Ideas: Soapbox; How do you do it?

Please join us for 4 days of innovative education, ground-breaking science, interactive debates and discussions.

I look forward to welcoming you to SA Heart® 2017. It is going to be a congress to remember!

As our website says – "Keep Calm and Scrub In".

**David Jankelow**  
Chairman, SA Heart® Congress 2017



## TRAVEL SCHOLARSHIPS OF THE SOUTH AFRICAN HEART ASSOCIATION

Applications for the SA Heart® Travel Scholarship for the third term in 2017 are invited to reach the SA Heart Office by 30 September 2017.

The scholarship is for the value of up to R20 000.00 for international meetings and R7 500.00 for local meetings.

This scholarship is available to all members and associate 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/associate 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 the receipt of the acceptance of 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 R20 000.00 for international meetings and R7 500.00 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, that the reviewers deem the workshop attendance to be of high impact and 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 the 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

- Completed applications may be emailed to [erika@saheart.org](mailto:erika@saheart.org) on or before the deadline date.
- Please request a fillable MS Word version of the application form from [erika@saheart.org](mailto:erika@saheart.org)

## HEART FAILURE SOCIETY OF SOUTH AFRICA (HeFSSA)

**T**he Heart Failure Society of South Africa (HeFSSA) has several programmes in place to ensure that we achieve our goals for 2017.

The HeFSSA Executive is the driving force behind these programmes:

<b>Martin Mpe</b>	President
<b>Eric Klug</b>	Ex-Officio President
<b>Jens Hitzeroth</b>	Vice-President
<b>Darryl Smith</b>	Treasurer
<b>Nash Ranjith</b>	Secretary

**Karen Sliwa, Len Steingo, Tony Lachman, Makoali Makotoko, Nqoba Tsabedze and Ntobeko Ntusi with George Nel (Executive Officer).**

### HEFSSA MEDICAL PRACTITIONERS PROGRAMME

The HeFSSA Medical Practitioners Programme, primarily targeting GPs, continues to be of great value to the medical community. It is the main vehicle used to drive our Heart Failure educational goals. The programme, which is conducted both in metropolitan and rural areas, was initiated in 2010 and had approximately 500 GPs in attendance in 2016. The programme continues to be generously supported by pharmaceutical companies such as Servier, Pharma Dynamics and Novartis and device companies such as Medtronic and Boston Scientific.

The theme for 2017 has been **“The Patient Journey: Feel Good and Live Long”** and the topics being addressed are:

- Heart failure with preserved ejection fraction
- Heart failure with mid-range ejection fraction
- Treatment options
- Decompensated chronic heart failure
- Kidney dysfunction and heart failure.

The case-based slide compendium has been compiled by Martin Mpe, Nash Ranjith, Ntobeko Ntusi and Nqoba Tsabedze. The faculty members are distinguished South African cardiologists with an interest in Heart Failure:

Martin Mpe, Len Steingo, Simon Beshir, Jens Hitzeroth, Darryl Smith, Eamon Maree, Adriaan Snyders, Cobus Badenhorst, Alan Koopowitz, Dave Kettles, Makoali Makotoko, Jean Vorster, Nico van der Merwe, Adrian Horak, Innocent Segamwenge, Khulile Moeketsi, DP Naidoo, James Potts, Sizwe Mthiyane, Nqoba Tsabedze, André Lochner and Ntobeko Ntusi. This year's meetings are being hosted in Johannesburg, Windhoek, Nelspruit, East-London, Vanderbijlpark, Potchefstroom, Rustenburg, Bloemfontein, Polokwane, Port Elizabeth, Cape Town, Durban, George and Pretoria. If you are interested in becoming involved in this programme, please contact the HeFSSA office.

### HEFSSA HF GUIDELINE AND TREATMENT ALGORITHM

During the first half of 2017, Jens Hitzeroth put in a great deal of time and effort in updating the HeFSSA HF Guideline and Treatment Algorithm in order to reflect current best practice which is based on the ESC 2016 guidelines, recent landmark publications and the South African clinical experience. We thank Jens, as well as the various executive committee members who supported him, for this tremendous contribution. We plan to publish the updated Guidelines and Treatment Algorithm in the SA Heart® Journal and the SA Medical Journal, with the official launch taking place at the upcoming SA Heart® Congress 2017.

### HEART FAILURE DEVICE THERAPY MODULE

Eric Klug, with support from the HeFSSA Exco and CASSA members, developed a “Heart Failure Device Therapy Module” which will be operational on the SHARE Registry platform. We hope that ultimately, this clinical dataset will be supported and reimbursed by Medical Aid schemes and, at the very least, make funding approval less cumbersome by replacing motivation forms which are currently required by funders.

### SA HEART® CONGRESS 2017

HeFSSA will, as usual, be actively involved at the SA Heart® Congress 2017. All HeFSSA members are requested to attend the HeFSSA sessions, and importantly, the AGM.





HeFSSA's educational endeavours at SA Heart® include the annual Cardio Update for Non-Cardiologists. The update will take place on Thursday, 9 November from 12h00 - 17h00 with Len Steingo and Nqoba Tsabedze as the programme convenors. We expect more or less 100 medical practitioners to attend the update with faculty members including local Johannesburg cardiologists, some younger colleagues and HeFSSA exco members.

### **CARDIOLOGISTS AND OUR CLINICAL REFERRAL NETWORK**

Nqoba Tsabedze has prepared a 2-day specialist workshop programme focused on Cardiologists and our Clinical Referral Network. The objectives are to keep practitioners up to date with current knowledge and practices, focussing on specialist heart failure treatment and device therapy. This course hopes to standardise practice in complicated heart failure management. The target audience includes heart failure nurses, clinical technologists, GPs, physicians and cardiologists managing heart failure patients and needing referral for advanced management. The 2-track workshop will likely take place in the first quarter of 2018.

In addition, we hope to impact on medicines supply at clinic level in the public sector ("down referral"), working with private managed care organisations to ensure adequate training of frontline staff, nurses and pharmacists. Please do approach Martin Mpe and Eric Klug if you wish to get involved.

### **HF CLINICAL SNAPSHOT SURVEY**

HeFSSA's HF Clinical Snapshot Survey is planned for later in 2017. Makoali Makotoko is spearheading this initiative which will launch nationally and hopefully become an annual audit of HF in South Africa. This survey could ultimately inform resource alignment and investment in HF networks.

HeFSSA is supported by loyal corporate members, committed to improving heart failure management, through unconditional educational grants. Our sincere appreciation goes to Boston Scientific, Medtronic, Pharma Dynamics, Servier, Amazea, Biotronik, Meda Pharma and Novartis for their continued support. The HeFSSA website is continually being updated to remain relevant. Please visit

‘The objectives are to keep practitioners up to date with current knowledge and practices, focussing on specialist heart failure treatment and device therapy.’

the website at [www.hefssa.org](http://www.hefssa.org) and contact the HeFSSA office if you would like to contribute in ensuring that the items are regularly updated and remain relevant.

HeFSSA encourages all parties who want to be involved in heart failure to contact George Nel, HeFSSA Executive Officer at [info@hefssa.org](mailto:info@hefssa.org) to facilitate the process.

**Eric Klug**  
**HeFSSA President**

## THE LIPID AND ATHEROSCLEROSIS SOCIETY OF SOUTHERN AFRICA (LASSA)

**T**his newsletter serves to update our members with information that was made public at the European Society for Cardiology (ESC) meeting in Barcelona, Spain, from 26 - 30 August 2017. There were many parallel sessions and my selection is according to my interests.

The meeting was attended by more than 30 000 delegates who were accommodated in the enormous conference complex. This complex comprised several large buildings inter-connected with outside spaces. There was a central walkway connecting the "villages" where sessions were held, as well as a "flyover" walkway, to avoid the busy throngs changing venues between sessions. There were 2 large exhibition areas, between which was the "hub" where several circular arrangements of seating around a central platform provided for interactive presentations. These areas were "curtained-off" to dampen the noise effect. Ventilation was important in this hot city but the noise did at times interfere with hearing the presentations. Train transport to the meeting was convenient and affordable. Though there had been violent attacks in the city in the week preceeding the congress, there appeared to be only minor incidents during the week of the congress. The security was good and unobtrusive.

It was difficult to evaluate all matters of interest despite the efficiency and convenience conferred by having the proceedings on an app on one's mobile phone. The sessions began at 07h30 and continued until 18h30 and on some occasions there were evening meetings with presentations ongoing till 21h30 or even 22h00. Meals were not provided at all of the presentations.

There was support for several South African delegates to attend this wonderful educational event, courtesy of a pharmaceutical company, Sanofi, which has developed a monoclonal antibody to proprotein convertase subtilisin/kexin type 9 (PCSK9) which is already marketed overseas. Another pharmaceutical company, Amgen, has marketed a similar product and supported Prof Derick Raal to present data on their agent in homozygous familial hypercholesterolaemia (hoFH). These agents are available in many countries under the tradenames of Praluent and Repatha.

The newsletter will hopefully inform members taking care of patients with severe dyslipidaemias or severe com-

plications of atherosclerosis, for whom more intensive treatment is required. There are also some other items of interest and information.

### PREAMBLE

The Lipid and Atherosclerosis Society of Southern Africa (LASSA) brings together interested parties in clinical medicine, catering especially to adults but also including children, with cardiovascular disease. Not only is there an interest in nutrition and other lifestyle factors that confer cardiovascular health, but also dyslipidaemia treatment along with other cardiovascular risk-reduction strategies. Effective treatment of severe LDL hypercholesterolaemia is improving and importantly, impacting on the approximately 200 000 very high risk persons in South Africa. There are also other metabolic disorders related to lipid metabolism that are of interest but the European Society of Cardiologists meeting deals chiefly with ischaemic heart disease, though it covers a wide spectrum of topics.

The meeting included recognition of individuals who made groundbreaking contributions to cardiovascular medicine. Dr Andreas Grüntzig performed the first angioplasty with a polyvinyl balloon catheter 40 years ago, in the beginning shaping devices on his kitchen table! On 16 September 1977 he performed the 1st percutaneous balloon angioplasty in a human left anterior descending coronary artery. Four cases were presented at the American Heart Association meeting that year. He died very tragically in an aeroplane crash at the age of 46 years.

The first cardiac transplant performed on 2 December 1967 was also remembered in a small stall at the meeting. There will be a meeting in Cape Town this year to commemorate this contribution by Prof Christiaan Barnard.

This ESC meeting announced interesting pharmaceutical information for clinical practice. The focus has remained on lowering of low density lipoproteins (LDL) after the initial hopes were dashed by agents that raised high density cholesterol (HDL) through inhibition of cholesterol ester transfer protein (CETP). The REVEAL study utilising anacetrapib to raise HDL indicated some cardiovascular risk reduction. Bempedoic acid is another agent that shows promise of providing significant lowering of apoB-containing lipoproteins.



Monoclonal antibody technology is providing a mechanism to intercept disease processes at many target proteins. There is now much discussion about the application of this treatment in severe LDL hypercholesterolaemia with Praluent or Repatha which enhance recycling of LDL receptors. Significant contributions to the use of these 2 drugs came from multinational studies in which Professors Derick Raal and Dirk Blom took part and provided state-of-the-art treatment for persons with familial hypercholesterolaemia (FH). South Africa is recognised as a country in which FH is particularly prominent. There are founder effects in several population subsets. Though expensive, this treatment could provide significant benefit for very high risk patients. The translation of this development into South African healthcare practice will no doubt be difficult owing to constrained resources, but LASSA will provide its expertise so that carefully selected cases may benefit and experience can be gained in South Africa in the management of FH.

This meeting will be remembered for its announcement of the outcome of the Canakinumab Anti-inflammatory Thrombosis Study (CANTOS) which evaluated Canakinumab compared with placebo among patients with a history of myocardial infarction (MI) and elevated high-sensitivity C-reactive protein (hsCRP) concentration of  $>2\text{mg/L}$ . Canakinumab is a monoclonal antibody targeting interleukin- $1\beta$  (IL  $1\beta$ ).

### PCSK9 NEUTRALISING MONOCLONAL ANTIBODIES

It is now common knowledge that functioning LDL receptors are the mechanism by which most drugs work to increase the clearance of plasma LDL resulting in lower LDL concentrations. Statins limit the intracellular contribution while the LDL receptor (LDLR) recycling is modulated by PCSK9. The loss-of-function (LOF) mutations confer low LDL concentrations with a dramatic impact on atherosclerosis over a lifetime. The gain-of-function (GOF) mutations in PCSK9 confer the FH phenotype.

Though plasma PCSK9 is chiefly from the liver, Prof Cariou indicated that other tissues such as the gut, lung, kidney, pancreas, smooth muscle cells and the arterial wall, also express this gene. The mutations in PCSK9 have variable effects on the biology of the protein. One of the GOF

mutations (S127R) conferring FH, which is also prevalent in South Africans, is not found in the circulation suggesting that there may be intracellular effects in addition to the classical binding of the LDLR at the cell surface.

PCSK9 may play a role in the gut as well as in hepatic deletion of PCSK9, which in mice leads to a 27% lowering of LDL. Whole body knock-out animals have reductions of 42%. It would appear that PCSK9 may also modulate postprandial lipaemia with over-expression increasing chylomicron concentration and under-expression decreasing it.

The classical immunology teaching that the immune system can identify foreign proteins and set up a directed antibody response to epitopes on this protein is clearly illustrated by the experience with bococizumab, a monoclonal antibody prepared to PCSK9 but with some animal sequence in the immunoglobulin. During studies with this agent, there was a significant loss of efficacy that was proven to be due to neutralising antibodies.

It has been established, in principle, that LDL is involved in atherosclerosis and that lowering its concentration by several therapeutic interventions including the monoclonal antibodies to PCSK9, will reduce adverse cardiovascular outcomes. The PCSK9 inhibitors now have safety data down to LDLC concentrations of  $<0.5\text{mmol/L}$ . It is evident that these agents could be useful in severe monogenic disorders, as well as in persons with atherosclerosis or at high risk for atherosclerosis. Since these agents require high technology for their manufacture, they are expensive. The costs will limit their affordability and thus careful consideration needs to be given to their use within the constraints of healthcare budgets. However, the treatment of disease complications as well as the loss of productivity of employed individuals, need to be considered in offsetting these costs.

An evening meeting was held under the leadership of Prof K. Ray on translating the innovation of the PCSK9 monoclonal antibodies to practice. Ms Jules Payne related that the NICE guidelines in the UK initially decided against making alirocumab and evolocumab available. Lobbyists managed to overturn this decision. The new guidelines set strict criteria and an approval process was set up with specific

*Continued on page 210*

## LASSA continued

documentation to be completed. An economics professor from Ghent talked about health economics and the acceptable costs of quality-of-life years gained and how this may influence decisions about provision of the new treatment for LDL cholesterolaemia. There was much discussion amongst the audience of cardiologists and lipidologists, who were from varying backgrounds and different countries. Though this was not the forum for setting guidelines, it was agreed that the highest risk patients with proven lack of efficacious treatment or suffering adverse effects, would be considered for treatment in addition to other strategies such as lifestyle modification, statins at optimal doses and ezetimibe. Other strategies for lowering LDL could include Bempedoic acid (under development) and inhibition of translation of mRNA with nucleotide chemistry (Inclisiran) that will likely be less expensive than monoclonal antibodies and be administered at 6 monthly intervals. If a vaccine is developed, a single treatment could result in a life-long effect.

The highest risk is in homozygous FH, followed by heterozygous FH, even in primary prevention. Patients with ischaemic heart disease and LDLC not at ideal levels (now viewed as even lower than 1.8mmol/l), or those with myalgia on statins and thus above target, are potential candidates. LASSA hopes to assist in this decision-making process in South Africa.

### BEMPEDOIC ACID

Dr Steve Nicholls from Australia reviewed the drug formerly known as ETC1002 and now named bempedoic acid, according to experience gained in the multinational studies. This agent inhibits a very early part of the sterol synthetic pathway, the ATP citrate lyase. As a response to decreasing intracellular cholesterol biosynthesis in the liver where a particular isozyme activates the agent, LDL receptors are upregulated with more uptake of LDL from the circulation (Pinkowsky, Nature Comm 2016). The agent was found to alter plaque characteristics as evidenced by less serum amyloid A in apoE knockout mice which are very prone to atherosclerosis. A SNP in the human gene affects LDLC concentration (Ference). The reduction in LDLC is about 20 - 30% compared to about 40% with ezetimibe. Together with atorvastatin, the triple combination can lower LDL by about 60% and studies showed an accompanying reduction in hsCRP of about 48%.

### CANTOS TRIAL

Atherosclerosis has, since its original histologic description, been characterised by the collection of gruel containing oil (cholesterol ester), calcification and leucocytes. The latter defines inflammation in the tissue and evidence for this comes from elevated levels of C-reactive protein in the circulation, albeit in such mild elevations that high sensitivity assays need to be used to detect this. This parameter is of use in patients with more ordinary ranges of lipoproteins but is not a good guide to risk in severe monogenic disorders. Modulation of inflammatory activity may be very non-specific and could introduce other risks, but in patients with a high risk of atherosclerosis, anti-inflammatory agents may offer a mechanism of risk reduction. This meeting will be remembered for its announcement of the outcome of the Canakinumab Anti-inflammatory Thrombosis Outcomes Study. The goal of the CANTOS trial was to evaluate canakinumab compared with placebo among patients with a history of myocardial infarction (MI) and elevated high-sensitivity C-reactive protein (hsCRP) concentration of >2mg/L. Canakinumab is a monoclonal antibody targeting interleukin-1 $\beta$  (IL 1 $\beta$ ). Patients (in total 10 061) with MI and elevated hsCRP were randomised to 3 doses of canakinumab; 50mg (n=2,170), 150mg (n=2,284) or 300mg (n=2,263) and placebo (n=3,344). The study drug was administered subcutaneously once every 3 months and the median duration of intervention was 3.7 years in persons who had a median LDLC of 82mg/dL (2.1mmol/L). The average age was 61 years. Important subgroups were women (26%) and diabetics (40%). Exclusion criteria were subjects with chronic or recurrent infection, those at increased risk for tuberculosis or HIV infection or immunocompromised states, as well as patients on cancer and systemic anti-inflammatory treatment. The primary outcome was the incidence of cardiovascular death, MI, or stroke. These primary outcomes occurred in 4.11/100 person-years of the 50mg group, 3.86/100 person-years of the 150mg group, 3.90/100 person-years of the 300mg group and 4.50/100 person-years of the placebo group. There was a statistically significant difference between the placebo and 150mg groups (p=0.02). The secondary outcomes and many other analyses are of interest. The hsCRP reductions from baseline vs. placebo were 26% greater in the 50mg group, 37% greater in the 150mg group, and 41% greater in the 300mg group (p<0.001 for all comparisons with placebo). Death from infection was



statistically significantly more in the canakinumab-treated subjects than in the placebo group, 0.31/100 person-years compared with 0.18/100 person-years ( $p=0.02$ ). Thus, in this setting of secondary prevention of atherosclerosis, treatment with canakinumab over a period of approximately 4 years, lowered hsCRP and adverse cardiovascular outcomes. The reduction was approximately 15% but at the cost of increasing deaths from infection, probably as a result of limited inflammatory response. Interestingly, new onset cancer appeared to be less common in those who received canakinumab. This is noteworthy for persons with lung cancer as this is prominent in older persons and those with a history of smoking. In the 300mg dose group, cancer mortality was decreased by 51%.

### NUCLEOTIDE MODULATORS

The insight into coding and expression of the information in DNA and RNA has enabled treatment strategies that dramatically influence LDL concentration. If apoB synthesis is disrupted through anti-sense oligonucleotides (ASO) to the mRNA, then VLDL and its product LDL, cannot be synthesised. Alternatively, limiting biosynthesis of PCSK9 will result in less disruption of LDLR recycling. As there have been many recent publications on the subject, Dr Cho reviewed RNA-based treatment strategies that can lower LDL concentrations. Natural mutations lowering LDL concentration have proved beneficial with lifelong reductions (Ference JACC 2015). Safety and efficacy of newer strategies have been demonstrated in studies such as that by Sabbatine, et al. (NEJM 2017). The studies include modulation of PCSK9 in GAUSS III, FOURIER and GLAGOV. ASO strategies have been used a while ago: mipomersen limits apoB synthesis and volanesorsen limits PCSK9 synthesis. Mipomersen, administered subcutaneously at a dose of 200mg weekly, lowers LDLC by about 2.6mmol/L. There is also a product under development by Ikcea, to apo(a). These oligonucleotides are synthetically modified in various generations so that they are not rapidly broken down. Their complexes are broken down by RNAses or there may be exon skipping to disrupt the protein synthesis. When injected, they chiefly enter the liver and kidney. The first generation products affected platelet counts severely, however, this effect is less with the second generation agents. There can be considerable injection site reactions, often with anamnestic responses, as well as constitutional symptoms (fever, malaise, raised CRP), fatty liver

(can approach 40% but mostly settles down to about 25%), and nephritis.

Small inhibitory RNA is used by the company Orion to disrupt PCSK9 synthesis. Double stranded RNA forms and a process driven by Dicer, results in a mRNA that becomes a target for the RISC complex that destroys the RNA. MicroRNA (miRNA) can also be used and here some species have been identified as potentially of interest, including mir148a.

‘If a vaccine is developed, a single treatment could result in a life-long effect.’

### THE REVEAL STUDY

Although HDLC concentration is known as a fair risk factor in epidemiologic studies, which have demonstrated an inverse relationship that makes for low risk at higher concentrations, the genetic disorders that raise HDLC concentration do not all confer lower risk. Cholesterol ester transfer protein (CETP) inhibitors cause retention of cholesterol in HDL and raise its concentration powerfully. Disappointingly, torcetrapib was found to increase cardiovascular events and as a result development of other CETP inhibitors ceased, except for anacetrapib. The results of the REVEAL study, which investigated use of anacetrapib, were announced at this meeting. Anacetrapib is a potent CETP inhibitor which doubles the HDLC concentration and also lowers LDLC by about 40%. In this study of about 30 000 persons, placebo or drug was given on top of atorvastatin, dosed between 20 and 80mg. Anacetrapib was taken at a dose of 100mg/day by persons with an average age of

*Continued on page 212*

## LASSA continued

67 years. LDL levels measured by direct assay compared to ultracentrifugation (betaquant), differed by -40 and -17% change respectively. It was said that small species of LDL may increase. There was a reduction in major cardiovascular events by a relative change of 9%. This agrees perfectly with the predicted benefit from the LDLC change and thus it is not thought that the HDL was protective. New-onset diabetes might have been slightly lower and creatinine clearance may have slightly decreased as well. The blood pressure increased by 1mmHg, which is much less than with torcetrapib. Further sub-studies will no doubt continue.

### MISCELLANEOUS

This section collates information gleaned from presentations, posters, displays and discussions.

#### Familial hypercholesterolaemia

Owing to the high risk of coronary artery disease in FH, it is important to make this diagnosis phenotypically and/or genotypically. While the latter method is strongly supported in most European countries, it is not easily available elsewhere. It would be important to introduce the genotyping in South Africa as there are founder effects that could make for a very cost-effective analysis strategy. One poster (Dr Mues, poster 5305) indicated that it was very difficult to identify persons with FH from large databases in the USA. The ICD10 coding specifies hypercholesterolaemia as E78.0 but the relevant information on LDLC (untreated) and presence of xanthomata are often not recorded. A new ICD10 code has been introduced, E78.01. However, without carefully formulated and followed criteria, this code may not be useful for specific analyses of control of dyslipidaemia in FH, nor of coronary disease outcomes. In a carefully directed study in Poland (Dr Banach, poster 5304), the prevalence of FH was found to be 1/165 which is close to the numbers now quoted in the Netherlands and Denmark (about 1/200).

#### Lp(a)

This lipoprotein is currently receiving much attention after a lull period spanning the mid-1990s to mid-2000s. In 2009, genome-wide association studies found Lp(a) to be a predictor of cardiovascular disease outcomes (Clark, *New Engl J Med* 2009; Ergou *JAMA* 2009; Kamstrup *JAMA* 2009). The European Guidelines indicated that values above

500mg/L indicate adequate risk to prompt risk reduction treatment, which should include attention to all risk factors and especially LDLC since there is no effective pharmacotherapy to lower Lp(a). An analysis of the impact of Lp(a) on atherosclerosis outcomes indicated that this risk factor is more powerful in younger individuals (poster 641) indicating that such persons ought to be considered for treatment. Prof Erik Stroes stressed the finding that Lp(a) operates as a risk factor at all concentrations of LDL but clearly that persons with high LDL concentrations would have the highest risk. There are some reports that Lp(a) is associated with higher risk in FH but there are also reports that contest this. Lp(a) is almost entirely made in the liver and clears slowly from the circulation, probably not by the LDL receptor. Already in the 1990s it was found that Lp(a) had highly oxidised phospholipid species. This has drawn interest again as these species are pro-inflammatory and pro-coagulant. It would appear that the apo(a) protein itself can also bind (oxidised) phospholipids. Niacin in large doses does lower Lp(a) especially in persons with high concentrations but it is not easy to take, owing to flushing and some other adverse effects. Apheresis of Lp(a) was published to be safe and effective (Leebmann, *Circulation* 2013) but is available in only a very few centres. Treatment with an antisense oligonucleotide, with the liver as a target for specific uptake, was impressive in that it could lower Lp(a) concentration by 90% (Viney, *Lancet* 2016). Monoclonals to PCSK9 and mipomersen also lower Lp(a).

#### Vascular studies

Carotid intima-media thickness is a non-invasive way of assessing atherogenic burden and is correlated with risk prediction. Although not as strongly indicative as coronary calcium scores, it is more affordable and available for more general use. Dr Fritze, et al. (poster 3452) held discussions regarding the best risk parameter. Their study indicated that the carotid lumen diameter could also be informative of risk. A query that I have entertained for a long time and which could not be answered – does variable wall thickness aid in risk prediction? This concept is based on flow and vascular modelling dating to intrauterine development. The physical stress on the vascular wall could initiate and perpetuate erosion and thrombosis and could influence the risk of atherothrombotic and embolic strokes. It was also suggested that one should relate carotid intima-media thickness to lean body mass for better appreciation of risk. There are various ways of assessing vascular age

(poster 3445) but this may not be so useful in severe conditions such as FH. Interestingly, near-infrared fluorescence in arterial walls is recognised in vulnerable plaques in mouse and human studies. This was nicely demonstrated in a poster by Chen YC and co-authors. The causation is probably lipid peroxidation. It would appear that cholesterol crystals may have a simple physical role in atherosclerosis. In the laboratory setting, inhibition of cholesterol esterification results in large crystal formation in macrophages which are punctured by these crystals. Cholesterol clefts are typically seen on histology of atherosclerosis. The cholesterol is washed out by the organic solvents in the preparation for microscopy. Poster 639 showed graphic illustrations of linear high signal intensity zones attributable to cholesterol crystals. The crystals were more prominent in hypertriglyceridaemia and were associated with infiltration of macrophages and thrombosis.

### Management

Poster 629 demonstrated that women are still undertreated for atherosclerosis. This has been highlighted in internal medicine since the 1980s.

### Fabry disease

Deficiency of alpha-galactosidase A results in progressive lysosomal accumulation of globotriaosylceramide (GL-3) in cells throughout the body. The disorder is X-linked recessive and affects males but heterozygous females may have milder and delayed manifestations. It has been of interest in cardiology because it can present with cardiomyopathy or conduction disturbances. Otherwise, it also presents in teenagers with skin lesions (angiokeratomas) and anhidrosis, neuropathic pain and strokes. There is now recombinant enzyme treatment.

### Uric acid

There is renewed interest in uric acid which appears to be an independent risk factor for atherosclerosis aside from its association with the metabolic syndrome. Hyperuricaemia is associated with endothelial dysfunction and an increase in inflammatory markers such as CRP and TNF- $\alpha$ . In refractory angina, high doses of allopurinol may provide relief. It is evident that many genes influence uric acid metabolism and 36 have thus far been reported (Borghesi C, et al., J Hypertension, 2015). The pathogenesis of gout is that at levels around 400  $\mu$ mol/L, its solution is supersaturated and crystals form fairly ubiquitously; these crystals are not

confined only to joints and bursae. Hominids, in contrast to other animals, have lost the ability to convert uric acid to allantoin by the enzyme uricase. Uric acid can be synthesised from non-purine compounds (phosphoribosylpyrophosphate synthetase) and through purin salvage (hypoxanthine-xanthine phosphoribosyl transferase). Thus, both dietary and endogenous nucleotide supplies can influence uric acid concentration. Elevations of plasma uric acid are noted with commonly used drugs such as diuretics, beta blockers and aspirin whereas Ca channel blockers, losartan, statins and fibrates lower plasma uric acid levels. Febuxostat, a drug that I was previously unfamiliar with, inhibits xanthine oxidase like allopurinol and is thought to lessen free radical production in contrast to uricosuric agents.

### CONCLUSION

I was privileged to have received permission for special leave, as well as support, to attend the meeting. I hope that the exciting insights and therapeutic developments will be appropriately applied in our setting where medical practice is highly constrained in the public and private healthcare sectors. It is especially important for us to recognise that the person with familial hypercholesterolaemia, for which we are renowned, benefits from the progress. It would appear that a register is necessary with clinical, biochemical and genetic information and that we ensure that this serious but treatable disorder receives due attention. In most cases, standard treatment that is commenced early, will suffice to drastically lower atherosclerosis complications associated with this disorder. In uncommon, severe settings, it is important that exact diagnoses are made by experienced lipidologists with appropriate laboratory support. The diagnosis in modern medicine forms the basis of management decisions and, in severe disorders, is of prime importance. There is an international meeting, the World Congress of Internal Medicine, taking place in Cape Town in October 2018. It involves the Faculty of Consulting Physicians of South Africa and I think the International Society of Internal Medicine as well. No doubt, one of the topics discussed will be management of severe hypercholesterolaemia with newer agents. Their website is [www.wcim2018.com](http://www.wcim2018.com).

**Prof David Marais**

**Chemical Pathology, Clinical Laboratory Sciences  
University of Cape Town**

## FEEDBACK FROM THE SA HEART® TRAVEL SCHOLARSHIP RECIPIENT FOR 2017

I was privileged to be able to use the SA Heart® Travel Scholarship to attend the EuroPCR Congress in Paris from 16 - 19 May 2017. EuroPCR is currently recognised as the world-leading course in cardiovascular interventional medicine, and is attended by more than 11 000 participants.

In addition to attending the fascinating academic programme, I presented 3 cases on behalf of the Tygerberg Hospital Division of Cardiology. The cases were entitled "IVUS in the assessment of non-flow-limiting plaque rupture in STEMI", "Catheter dissection on first injection of the right coronary artery during rescue PCI for inferior STEMI" and "RV wall branch bifurcation intervention with TAP technique after RCA PCI for NSTEMI". These cases were well received and it was an excellent experience to present at a congress of this calibre.

I must express my thanks to SA Heart® for allowing me this opportunity, as well as Biotronik SA for assisting with uncovered expenses.



Bradley Griffiths, SA Heart® Travel Scholarship recipient for 2017

### Case 1: Catheter dissection on first injection of the right coronary artery during rescue PCI for STEMI

This iatrogenic complication of PCI resulted in a spiral dissection of the RCA with abrupt vessel closure, which was resolved with careful rewiring and stenting of the proximal- to mid-vessel, with restoration of distal flow. The main learning point was to be aware of guide catheter tip position at all times and, if any doubt, to reposition before injecting.

### Case 2: IVUS in the assessment of non-flow-limiting plaque rupture in STEMI

IVUS helped to identify a large ulcerated plaque with an intimal flap in the proximal RCA lumen which was not well visualised on angiography in this case of STEMI treated with the pharmaco-invasive strategy. Direct visualisation with IVUS led to stenting in order to address the risk of re-occlusion, despite the absence of a flow-limiting lesion on standard angiography. This approach was discussed by the panel and audience members with general agreement that it was a reasonable management decision.

### Case 3: RV wall branch bifurcation with TAP technique

This patient required PCI to the RCA for NSTEMI, but also had chronic total occlusions of the LAD and LCx coronary arteries. PCI was performed which led to compromise of an RV wall branch that supplied collaterals to the occluded LAD. After resuscitation from VF arrest, bail-out 2-stent TAP technique on this RV wall branch was performed which successfully restored collateral flow to the LAD and stabilised the situation. This case stimulated a lively debate about whether an emergency CTO procedure on the LAD would have been feasible, or whether this vessel would be a target for future intervention.

**Bradley Griffiths**

**Senior Registrar: Cardiology**

**Tygerberg Hospital and Stellenbosch University**

## 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 the [erika@saheart.org](mailto: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 utilised for any reason, then the funds must revert to the SA Heart®.

### APPLICATIONS MUST BE EMAILED TO:

[erika@saheart.org](mailto:erika@saheart.org)

**THE SELECTION PANEL WILL REVIEW APPLICATIONS ANNUALLY AND THE CLOSING DATE IS 30 SEPTEMBER 2017.**

One scholarship to a maximum amount of R50 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.**





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## LOUIS VOGELPOEL TRAVELLING SCHOLARSHIP

**A**pplications are invited for the annual Louis Vogelpoel Travelling Scholarship for 2018. An amount of up to R15 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, who died in April 2005, was a pioneer of cardiology in South Africa. He was one of the founding members of the Cardiac Clinic at Groote Schuur Hospital and University of Cape Town. He had an exceptional career spanning 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 Prof Johan Brink, President of the Western Cape branch of the South African Heart Association, Chris Barnard Division of Cardiothoracic Surgery, Cape Heart Centre, Faculty of Health Sciences, University of Cape Town, Anzio Road, Observatory 7925 or alternatively email: [johan.brink@uct.ac.za](mailto:johan.brink@uct.ac.za).

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

**Applications close on 31 January 2018.**



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